



KARACHI WATER AND SEWERAGE CORPORATION GOVERNMENT OF SINDH

DESIGN, FINANCE, BUILD, OPERATE, MAINTAIN AND TRANSFER OF THE WEST KARACHI RECYCLED WATER PROJECT 1 UNDER PUBLIC-PRIVATE PARTNERSHIP MODE

THIS DOCUMENT INCLUDES:

VOLUME I	BIDDING PROCEDURE
VOLUME II	PART 1 - CONCESSION AGREEMENT AND APPENDICES
VOLUME II	PART 2 – PROJECT LAND AGREEMENT
	SUPPORTING DOCUMENTS

FOR BID PREPARATION/ SUBMISSION



[CLICK HERE TO DOWNLOAD
BIDDING FORM F2 – FINANCIAL FORMS
\(MICROSOFT EXCEL FILE\)](#)

MARCH 15, 2024

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KARACHI WATER AND SEWERAGE CORPORATION
REQUEST FOR PROPOSALS FOR
AWARD OF CONCESSION
IN RESPECT OF
THE WEST KARACHI RECYCLED WATER PROJECT 1

RFP REF. No. PD/WKRWP1/KWSC/2023-24

MARCH 15, 2024

LETTER OF INVITATION

KWSC intends to engage a private party, on a PPP model, to design, finance, build, operate, maintain and transfer the Project. For details on Project background, scope of work and specifications, please refer to schedule 1 of the Concession Agreement.

Capitalized terms used herein and not otherwise defined shall have the meaning given to them in Volume I of the RFP.

For the purposes of the Project, KWSC invited Prequalification Applications from interested developers pursuant to the Prequalification Document to determine and evaluate their capabilities, competence and resources to execute the Project.

Following the conclusion of the RFQ Stage, KWSC hereby invites the Prequalified Bidders to participate in the Bidding Process and to submit their Bids for the Project in accordance with the requirements of the Applicable Evaluation Documents.

The Prequalified Bidders are required to submit only one (1) Bid, comprising of one (1) original Technical Proposal and one (1) original Financial Proposal, and four (4) hard copies of each, with two (2) soft copies of each the Technical Proposal and the Financial Proposal (on CDs / DVDs / USBs) and other supporting documents (as applicable), as identified in the RFP, no later than 15:00 hours (PST) by the Bid Submission Date at the submission address, as indicated in the Data Sheet.

The Technical Proposals will be opened on the Bid Submission Date at 15:30 hours (PST) in the presence of the representatives of the Prequalified Bidders who may wish to attend. After completion of evaluation of the Technical Proposals, the Prequalified Bidders who have submitted responsive Technical Proposals in terms of the Applicable Evaluation Documents shall be invited to attend the opening of the Financial Proposals. The date, time, and location of the opening of Financial Proposals shall be advised in writing to all technically qualified Prequalified Bidders by KWSC.

All Prequalified Bidders are required to furnish, as part of their Technical Proposals (in a separately sealed envelope) a Bid Security in favor of KWSC as beneficiary, by a Security Issuer in accordance with the requirements set out in the Instructions to Bidders. The Bid Security shall be in the form attached as Bidding Form T7 of PART 2 of Volume I of the RFP, issued in accordance with the requirements set out in the Instructions to Bidders.

It is mandatory for the Bids to be prepared using the standard formats for Technical Proposals and Financial Proposals, as provided in the RFP. The Bids that are not prepared in the prescribed formats may be rejected by TFEC. If any information required in the prescribed forms is found missing, or written elsewhere, no credit will be given during evaluation and may lead to rejection of the Bid.

KWSC may amend the RFP by issuing an addendum or a corrigendum (as the case may be) as per the requirements specified in the RFP, at any time prior to the Bid Submission Date.

Subject to the provisions of the Applicable Evaluation Documents, KWSC reserves the right to cancel the Bidding Process at any time.

The RFP shall be: (a) uploaded on the VDR and websites of KWSC, SPPRA and PPP Unit (provided below); (b) issued to the Prequalified Bidders via email, on the email addresses provided by the Prequalified Bidder in their Prequalification Applications; and (c) issued to the Prequalified Bidders via registered post on the addresses provided by the Prequalified Bidders.

Designation: Project Director
West Karachi Recycled Water Project 1
Karachi Water & Sewerage Corporation

Address: Room No. 7, Block-C, 9th Mile Karsaz, Shahrah-e-Faisal, Karachi – Sindh, Pakistan

Phone No.: +92 21 99245133

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Email: info.p3proc@gmail.com

Websites: **KWSC** – <https://www.kwsb.gos.pk>

VDR - <https://rb.gy/862n5>

SPPRA – <https://ppms.pprasindh.gov.pk/PPMS/>

PPP Unit – <https://www.pppunitsindh.gov.pk/>

Sincerely,

PROJECT DIRECTOR,
WEST KARACHI RECYCLED WATER PROJECT 1,
KARACHI WATER AND SEWERAGE CORPORATION

IMPORTANT NOTICE

The RFP, together with all volumes, attachments, forms, annexures and appendices, attached thereto, is issued by KWSC and is provided to the recipients solely for use in preparing and submitting the Bids.

The Bids submitted in response to the RFP by the Prequalified Bidders shall be upon full understanding and agreement of all terms of the RFP and such submission shall be deemed as an acceptance to all the terms and conditions stated in the RFP.

No GoS Party makes any representations (express or implied) or warranties as to the accuracy or completeness of the information contained in the RFP, or in any other document or information made available to a person in connection with the Project (including the Bidding Process) and the same shall have no liability for the RFP or for any other written or oral communication transmitted to the recipient in the course of the recipient's evaluation of the Project. No GoS Party shall be liable to reimburse or compensate any recipient for any costs, fees, damages or expenses incurred by the recipient in evaluating or acting upon the RFP or otherwise in connection with the Project.

The RFP shall neither constitute a solicitation to invest, or otherwise participate, in the Project (including the Bidding Process), nor shall it constitute a guarantee or commitment of any manner on the part of any GoS Party that the Project will be awarded or otherwise proceed. KWSC reserves the right, in its full discretion, to modify the RFP and / or the Project requirements at any time to the fullest extent permitted by Applicable Laws and shall not be liable to reimburse or compensate the recipient for any costs, taxes, expenses or damages incurred by the recipient in such an event.

KWSC may amend the RFP by issuing an addendum or a corrigendum (as the case may be) as per the requirements specified in the RFP, at any time prior to the Bid Submission Date.

Subject to the provisions of the Applicable Evaluation Documents, KWSC reserves the right to cancel the Bidding Process at any time prior to the acceptance of a bid.

Capitalized terms used herein and not otherwise defined shall have the meaning given to them in Volume I of the RFP.

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VOLUME I: BIDDING PROCEDURE

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PART 1

INSTRUCTIONS TO

BIDDERS

GLOSSARY

Unless otherwise specified / defined, all capitalized terms used herein shall bear the meanings set out below. References to any law, rule or regulation shall include any amendments, modifications or any re-enactment thereof.

The headings in the Instructions to Bidders, including the table of contents, are for convenience of reference only and not for purposes of construction or interpretation of the Instructions to Bidders.

TERM	DEFINITION
Acceptance of Notification of Award	Has the meaning given to it in Sub-Section 7.3.3 of the Instructions to Bidders.
ADB	Means the Asian Development Bank.
ADB Advisory Fee	Has the meaning given to it in the Concession Agreement.
Affiliate	Means in relation to (i) a Prequalified Bidder; (ii) a Consortium Member; or (iii) Lead Member, a person who Controls or is Controlled by, or under the common Control with, such Prequalified Bidder, Consortium Member or Lead Member.
Applicable Evaluation Documents	Means collectively: (a) the Sindh PPP Act; (b) the SPPRA Act; (c) the SPPRA Rules; (d) the SPPRA Guidelines; (e) any applicable order, instruction, guideline, regulations or instrument issued under the Sindh PPP Act, the SPPRA Act and / or the SPPRA Rules; and (f) the RFP.
Applicable Laws	Has the meaning given to it in the Concession Agreement.
Best Evaluated Bid	Means a Bid which is determined to be the ‘best evaluated bid’ for the award of Concession in terms of the requirements of the Applicable Evaluation Documents.
Bid	Means the proposal (constituting the Technical Proposal and Financial Proposal) submitted by a Prequalified Bidder in response to the RFP, which is prepared and submitted in accordance with this RFP.
Bidding Forms	Means the forms provided in PART 2 of Volume I of the RFP, that are required to be submitted with the Technical Proposals and the Financial Proposals.
Bidding Process	Means the international competitive bidding process being conducted pursuant to the Applicable Evaluation Documents, for the selection of the Successful Bidder for the award of the Concession for the Project.
Bid Exchange Rate	Means the TT selling rate for USD expressed in Rupees, prevailing seven (7) Business Days prior to opening of the Bids, as notified by National Bank of Pakistan. The rate can be accessed on https://www.nbp.com.pk/ratesheet/index.aspx
Bid Financial Model	Means the proforma financial model in Microsoft Excel spreadsheet form, (collectively the Bidding Form F2-1 till F2-11 under PART 2 of Volume I of the RFP), setting out all the amounts as required therein, and includes all the information required, consistent with the Technical Proposal, completed, and submitted by a Prequalified Bidder in line

	with the requirements of the RFP.
Bid Water Tariff for Contract Year 1	Means the water tariff expressed in terms of Pakistani Rupees per imperial gallon, inclusive of Electricity Costs (Agency), derived from the Bid Financial Model, computed by a Prequalified Bidder in accordance with Section C (<i>Methodology for calculation of Bid Water Tariff for Contract Year 1</i>) of Annexure B of Part 4 of Volume I of the RFP.
Bid Security	Has the meaning given to it in Sub-Section 4.7.1 of the Instructions to Bidders.
Bid Submission Date	Means the last date for submission of Bids as specified in the Data Sheet, as may be extended by KWSC in accordance with the requirements of the Applicable Evaluation Documents.
Bid Validity Period	Means the period of one hundred twenty (120) calendar days starting from the Bid Submission Date, as may be extended in accordance with the requirements of the Applicable Evaluation Documents.
Board of Directors	Means the board of directors of an entity.
Business Day	Means any day that is not declared a public holiday in Karachi, Pakistan, during which banks are generally open for business in Karachi, Pakistan.
COD	Has the meaning given to it in the Concession Agreement.
Combined Score	Means the aggregate of the Financial Score and the Technical Score of each Prequalified Bidder determined in accordance with Paragraph (C) of Annexure B of Part 4 of Volume I of this Agreement.
Company	Means the special purpose vehicle to be established and incorporated under the Applicable Laws by the Successful Bidder, for the purposes of undertaking the Project.
Company Conditions Precedent	Has the meaning given to it in the Concession Agreement.
Contract Year	Has the meaning given to it in the Concession Agreement.
Concession	Means the rights, powers and concessions granted by the KWSC in favor of the Company in accordance with section 2.1.1 the Concession Agreement.
Concession Agreement	Means the agreement entitled “Concession Agreement” attached in Volume II – Part 1 of the RFP, including all appendices thereto.
Concession Documents	Means collectively: (a) the Concession Agreement; (b) Project Land Agreement; and (c) such other instrument executed in relation to the Project, which has been designated by KWSC as a Concession Document.
Concession Period	Has the meaning given to it in the Concession Agreement.
Conflict of Interest	Has the meaning given to it in Sub-Section 2.1.8 of the Instructions to Bidders.

Connected Person	Means any Affiliate of a Prequalified Bidder or Consortium Member or Parent Company, any director, senior executive or manager (or positions of similar rank and authority) of such Prequalified Bidder, Consortium Member or Parent Company or an Affiliate of any of the foregoing, or any person having an ultimate beneficial interest of at least five percent (5%) of the share capital or ownership interest in a Prequalified Bidder, Consortium Member, or Parent Company or Affiliate of a Prequalified Bidder, a Consortium Member, or Parent Company.
Construction Security	Means the irrevocable, unconditional and on-demand standby letter of credit, in favor of KWSC, in an amount equivalent to ten percent (10%) of the Project Cost issued by the Security Issuer as per the requirements of the RFP and in the form set out in schedule 7 of the Concession Agreement.
Construction Security Expiry Date	Means the date that is twenty-four (24) months after the COD or a later date that is determined in accordance with the Concession Agreement.
Consortium	Means a Prequalified Bidder comprised from two (2) to five (5) Consortium Members, formed to submit the Bid, in accordance with the requirements of the Applicable Evaluation Documents.
Consortium Authorized Representative	Means the Lead Member, appointed as the authorized representative of a Consortium in terms of the requirements of the Prequalification Document and the RFP.
Consortium Members	Means each member of a Consortium, including the Lead Member.
Consortium Undertaking	Has the meaning given to it in Sub-Section 2.1.2 of the Instructions to Bidders.
Control	Means having the right to appoint, approve or remove a majority of the Board of Directors of an entity by virtue of directly or indirectly holding a majority of the voting securities of such entity, or the ability or right, including a contractual right, (direct or indirect) to direct or cause the direction of the votes attaching to the majority of the issued shares or interests carrying voting rights of an entity. “Controls” “Controlling” or “Controlled” shall be construed accordingly.
Corrupt and Fraudulent Practice	Has the meaning given to it in Section 8.2.2 of the Instructions to Bidders.
Data Sheet	Means the data sheet provided in Section 9 of the Instructions to Bidders.
Effective Date	Has the meaning given to it in the Concession Agreement.
Electricity Costs (Agency)	Has the meaning given to it in the Concession Agreement.
Equity Funding and Utilisation Agreement	Has the meaning given to it in the Concession Agreement.
Equity Funding Amount	Has the meaning given to it in the Concession Agreement.

(GOS)	
Facilities	Has the meaning given to it in the Concession Agreement.
Final Expiry Date	Has the meaning given to it in the Concession Agreement.
Financial Proposal	Means the financial proposal (including all forms, documents and information required in terms of the RFP and submitted therewith), submitted by a Prequalified Bidder as part of its Bid pursuant to the RFP.
Financial Score	Means the financial score of each Prequalified Bidder determined in accordance with Paragraph (B) of Annexure B of Part 4 of Volume I of this Agreement.
Foreign Bank	Means a scheduled bank or financial institution incorporated or organized outside Pakistan having a credit rating of at least A3 or higher by Moody's or equivalent rating by Fitch or Standard & Poor's.
GoS	Means the Government of Sindh, including all ministries, department, attached department, autonomous body of Government of Sindh, local government or any organization or corporation owned or controlled by the Government of Sindh.
GoS Party(ies)	Means collectively, the KWSC, the GoS and the TFEC, including their consultants, advisors, employees, personnel or agents and in the case of the GoS, also includes GoS, all ministries, departments, attached departments, autonomous bodies of GoS, local government or any organization(s) or corporation(s) owned or controlled by the GoS.
IDA	Means the International Development Association, the World Bank Group.
Independent Experts	Has the meaning given to it in the Concession Agreement.
Independent Financial Advisor	Means an accountant firm operating listed on State Bank of Pakistan's list Category A as amended from time to time. ¹
Individual Authorized Representative(s)	Means a person appointed by a Prequalified Bidder or, where a Prequalified Bidder is a Consortium, each Consortium Member pursuant to either the Power of Attorney (Individual) and/or Power of Attorney (Individual Revised)
Instructions to Bidders	Means the Instructions to Bidders set out in PART 1 of Volume I of the RFP.
Integrity Pact	Has the meaning given to it in Sub-Section 8.3 of the Instructions to Bidders.
KWSC	Means the Karachi Water and Sewerage Corporation, established under the KWSC Act as of July 06, 2023 (known formerly as Karachi Water & Sewerage Board, as established under the Karachi Water & Sewerage Board Act, 1993).
KWSB Act	Means the Karachi Water and Sewerage Board Act, 1996.

¹ <https://www.sbp.org.pk/bprd/2022/CL12-Annex.pdf>

KWSC Act	Means the Karachi Water and Sewerage Corporation Act, 2023.
Lead Member	Means: (a) the Lead Member, fulfilling the relevant requirements applicable to a Lead Member, set out in the Prequalification Document, and as identified in the Prequalification Application; and/or (b) such other party as is designated as the Lead Member in accordance with this RFP.
Letter of Invitation	Means the letter of invitation issued by KWSC and dated March 15, 2024 to the Prequalified Bidder.
m3	Means Cubic meters.
MIG	Means million imperial gallons.
MIGA	Means the Multilateral Investment Guarantee Agency, the World Bank Group.
New Sponsoring Entity	Means companies, firms, corporate bodies or other legal entities as defined and registered under applicable laws of the respective country that: (a) replaces a Consortium Member of a Prequalified Bidder and/or; (b) forms a Consortium with a Prequalified Bidder, in each case, in accordance with Sub-Section 2.1.5 and/or 2.1.6 of the Instructions to Bidders.
Notification of Award	Means the notification of award to be issued by KWSC to the Successful Bidder as per Sub-Section 7.3.1 of the Instructions to Bidders.
Original Proponent	Means the original proponent that has submitted an Unsolicited Proposal with the KWSB (as it was then) in respect of the Project and which Original Proponent (which term shall include any Consortium in which the Original Proponent is a Consortium Member) is automatically, by the operation of Applicable Laws, a Prequalified Bidder in respect of the Project.
Parent Company	Means a corporate entity that exercises Parent Company Control over a Prequalified Bidder, or if the Prequalified Bidder is a Consortium, the Lead Member.
Parent Company Control	Means: (a) the right to appoint, approve or remove a majority of the Board of Directors of the Prequalified Bidder, or if the Prequalified Bidder is a Consortium, the Lead Member; or (b) holding at least fifty-one percent (51%) of the voting securities of the Prequalified Bidder or if the Prequalified Bidder is a Consortium, the Lead Member.
Project Land Agreement	Means the agreement entitled “Project Land Agreement” attached in Volume II – Part 2 of the RFP, including all appendices thereto.
PKR	Means Pakistani Rupees, the lawful currency of the Islamic Republic of Pakistan.

Power of Attorney	Means, as applicable, the Power of Attorney (Consortium Authorized Representative) and/or Power of Attorney (Individual).
Power of Attorney (Consortium Authorized Representative)	Means the power of attorney issued collectively by each Consortium Member of a Prequalified Bidder for the authorization of the Consortium Authorized Representative in the form attached as Part B of the Bidding Form T3 of PART 2 of Volume I of this RFP.
Power of Attorney (Consortium Authorized Representative Revised)	Means the power of attorney attached with Response Document No. II as exhibit II – Power of Attorney.
Power of Attorney (Individual)	Means the power of attorney issued individually by each Consortium Member to authorize a person to sign the documents, in the form attached as Part A of the Bidding Form T3 of PART 2 of Volume I of this RFP.
Power of Attorney (Individual Revised)	Means the power of attorney attached with Response Document No. II as exhibit I – Power of Attorney To Authorize A Person To Sign The Documents.
PPP	Means Public Private Partnership.
PPP Unit	Means the PPP Unit established under section 6 (<i>Public-Private Partnership Unit</i>) of the Sindh PPP Act.
Pre-Bid Meeting	Means the meeting / conference relating to the queries raised and clarifications sought by the Prequalified Bidders held on the date specified in the Data Sheet.
Prequalification Application	Means the prequalification application, including all documents and information, submitted by an applicant in response to the Prequalification Document (including all documents and information submitted by the applicant in response to the clarifications sought by KWSC during evaluation of Prequalification Process).
Prequalification Document	Means the prequalification document issued by KWSC on April 17, 2023 for the prequalification of developers for the Project, and includes any amendments and / or modifications thereto.
Prequalification Process	Means the prequalification process conducted by KWSC for the purposes of the Project, in terms of the Prequalification Document.
Prequalified Bidder	Means: (i) an applicant who has been prequalified by KWSC during the Prequalification Process, as per the requirements of the Prequalification Document; and (ii) the Original Proponent.
Project	Has the meaning given to it in the Concession Agreement.
Project Cost	Has the meaning given to it in the Concession Agreement.
Project Land (Entire)	Has the meaning given to it in the Concession Agreement.
Proposed Contractors	Means the Proposed EPC Contractors and / or the Proposed O&M Contractor.
Proposed EPC	Means the contractors proposed by a Prequalified Bidder (not

Contractors	exceeding three (3)) in terms of Sub-Section 2.1.12 of the Instructions to Bidders, which will be evaluated by TFEC under this RFP and may include a Prequalified Bidder itself in case the Prequalified Bidder intends to undertake the construction works for the Project.
Proposed O&M Contractor	Means the contractor proposed by a Prequalified Bidder (not exceeding one (1)) in terms of Sub-Section 2.1.12 of the Instructions to Bidders, which will be evaluated by TFEC under this RFP; and may include a Prequalified Bidder itself in case the Prequalified Bidder intends to undertake the operations works for the Project.
PST	Means Pakistan Standard Time.
Qualified Contractor	Means the Qualified EPC Contractors and/or the Qualified O&M Contractor.
Qualified EPC Contractors	Means the Proposed EPC Contractors qualified and approved in terms of Sub-Section 6.5 of the Instructions to Bidders to undertake defined portions of works with respect to design, engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities.
Qualified O&M Contractor	Means the Proposed O&M Contractor qualified and approved in terms of Sub-Section 6.5 of the Instructions to Bidders to undertake the operation and maintenance of the Facilities.
Recycled Water	Has the meaning given to it in the Concession Agreement.
Response Document No. II	Means the Response Document No. II issued by Karachi Water & Sewerage Board (as it was then) dated May 22, 2022 in relation to the Project.
RFP	Means this Request for Proposal document issued by KWSC in relation to the Project, containing the documents specified in Sub-Section 3.1.1 of the Instructions to Bidders, and includes any amendments and / or modifications thereto.
RFP Stage	Means the stage of the bidding process for the Project where the Prequalified Bidders submit their proposals in response to the RFP.
RFQ Stage	Means the stage of the bidding process for the Project where the Prospective Bidders (as defined in the Prequalification Document) submitted their Prequalification Application in response to the Prequalification Document.
Security Issuer	Has the meaning given to it in the Concession Agreement; provided that, the approval of the GoS Parties shall not be required with respect to the Security Issuer by the Prequalified Bidders for the submission of Bid Security.
Signature Date	Means the date of signing of the Concession Agreement.
Sindh PPP Act	Means the Sindh Public Private Partnership Act, 2010 (as amended from time to time).
SOE	Has the meaning given to it in Sub-Section 2.1.8.

Sovereign	Has the meaning given to it in Sub-Section 2.1.8.
SPPRA	Means the Sindh Public Procurement Regulatory Authority, established under the SPPRA Act.
SPPRA Act	Means the Sindh Public Procurement Act, 2009 (as amended from time to time).
SPPRA Guidelines	Means the Procurement Regulations (Works) issued by the Sindh Public Procurement Regulatory Authority.
SPPRA Rules	Means the Sindh Public Procurement Rules, 2010 (as amended from time to time).
Subsidiary Company	Means a company that is under the Control of the Prequalified Bidder, Lead Member or Consortium Member, as relevant.
Successful Bidder	Means the Prequalified Bidder whose Bid has been determined to be the Best Evaluated Bid.
Technical Proposal	Means the technical proposal (including all forms, documents and information required in terms of the RFP and submitted therewith), submitted by a Prequalified Bidder as part of its Bid pursuant to the RFP.
Technical Score	Means the technical score of each Prequalified Bidder determined in accordance with Paragraph (A) of Annexure B of Part 4 of Volume I of the RFP.
Termination Date	Has the meaning given to it in the Concession Agreement.
TFEC	Means the technical and financial evaluation committee formed in accordance with the Applicable Laws for the purposes of the Project.
Unsolicited Proposal	Means the unsolicited proposal received by the KWSB (as it was then) in respect of the Project from the Original Proponent (as amended from time to time).
Virtual Data Room	Means the online virtual data room located at the web link ² and providing certain information and documents relevant to the Project, the RFQ Stage and the RFP Stage.
Water Tariff	Means the Water Tariff means in respect of each Contract Year the tariff for the supply and sale of Recycled Water as determined in accordance with and as adjusted pursuant to the terms of the Concession Agreement.
Water Tariff for Contract Year 1	Means the water tariff expressed in terms of Pakistani Rupees per imperial gallon, excluding the Electricity Cost (Agency), derived from the Bid Financial Model, computed by a Prequalified Bidder in accordance with Section D (<i>Methodology for calculation of Water Tariff for Contract Year 1</i>) of Annexure B of Part 4 of Volume I of the RFP.

² <https://rb.gy/862n5>

1. GENERAL

1.1 INTRODUCTION

For details in relation to scope of work of the Project, please refer to schedule 1 of the Concession Agreement.

The Concession Agreement establishes the rights and obligations of KWSC and the Company (as the concessionaire) and will be executed among KWSC and the Company in accordance with the requirements of the RFP. The Company will be required to satisfy the Company Conditions Precedent to achieve the commencement of the Concession Period. The Concession Period shall commence on the Effective Date and expire on the Final Expiry Date, unless terminated earlier, in accordance with the Concession Agreement.

The Successful Bidder / Company shall be responsible for developing and implementing the financing structure for the Project, including the financing and commercial arrangements in accordance with the requirements of this RFP. The support available to the Successful Bidder / Company from the GoS and the KWSC for the Project have been specified in the Concession Documents.

The Equity Funding Amount (GOS) shall not exceed USD 26,670,000 (United States Dollars twenty-six million six hundred and seventy thousand) and shall be funded and/or made available, in each case, by the GoS in accordance with the Concession Agreement and the Equity Funding and Utilisation Agreement.

The Successful Bidder / Company shall be required to comply with the shareholding requirements, including share transfer restrictions, as set out in the Concession Documents. The Water Tariff to be paid to the Company shall be adjusted in accordance with the Concession Agreement.

The Company will be responsible for handing over: (i) the Facilities to KWSC in a good working condition; and (ii) the Project Land (Entire), as determined by the Independent Experts, at the Termination Date, as specified in the Concession Agreement, without any further compensation, to the KWSC at the time of such transfer. The transfer of the Facilities and the Project Land (Entire) shall be subject to an inspection and correction process in order to ensure such assets are handed over in accordance with the terms and conditions set out in the Concession Agreement.

All risks and obligations of KWSC, the GoS and the Successful Bidder / Company shall be in accordance with the RFP (including the Concession Documents) and the Prequalified Bidders shall be deemed to have full and complete understanding of the risks relating to the Project and their allocation, as set out in the RFP (including the Concession Documents).

By submitting the Bid, the Prequalified Bidder acknowledges the acceptance of all tax-related obligations. The Bid Water Tariff for Contract Year 1, Water Tariff for Contract Year 1 and Water Tariff for subsequent Contract Years is inclusive of all taxes. For the sake of clarity, the Company shall, except termination payments, be required to pay all the taxes, duties, levies, stamp duties, rents, and other charges payable to any local government, provincial or federal government (as applicable) without any grossing-up obligation or liability on part of the GoS / KWSC.

Before submitting the Bids, the Prequalified Bidders should carefully examine all the information provided in the RFP (including the Concession Documents).

1.2 OVERVIEW OF THE BIDDING PROCESS

1.2.1 The Bidding Process in relation to the Project is being conducted pursuant to the Applicable Evaluation Documents and comprises the following:

- **Stage 1 – Prequalification**

For the purposes of the Project, KWSC invited Prequalification Applications from interested developers pursuant to the Prequalification Document to determine and evaluate their capabilities, competence and resources to develop and implement the Project.

- **Stage 2 – Competitive Bidding**

After the completion of the Prequalification Process, KWSC issued the RFP for conducting the Bidding Process for the selection of a Successful Bidder for the award of the Concession, in accordance with the requirements of the Applicable Evaluation Documents.

In terms of the Applicable Evaluation Documents, the “single stage two envelope” bidding procedure has been adopted. A Prequalified Bidder whose Bid is determined to be the Best Evaluated Bid in terms of highest Combined Score, shall be awarded the Concession.

The Successful Bidder shall be required to incorporate the Company which shall be the concessionaire for the purposes of the Project.

Note that ADB’s advisory team has been engaged by KWSC for the purposes of the structuring and tendering of the Project, including the Prequalification Process and the Bidding Process in relation to the Project.

In consideration of the fact that the Project is being procured in response to an Unsolicited Proposal, the Original Proponent shall benefit from rights set out in the SPPRA Rules and other Applicable Laws, including rule 15(A) of the SPPRA Rules. Therefore, in consideration of rule 15(A) of the SPPRA Rules, the following benefits are contemplated to be granted to the Original Proponent in accordance with the Applicable Evaluation Documents and this RFP:

- (a) the right of the Original Proponent to automatically qualify as a Prequalified Bidder;
- (b) the Original Proponent shall be given additional five percent (5%) weightage over the combined score attained in respect of the technical and financial evaluation of their proposal; and
- (c) if the Original Proponent’s Bid is not evaluated to be the Best Evaluated Bid in terms of highest Combined Score, the right of first refusal to match the lowest Bid Water Tariff for Contract Year 1.

1.3 **INDICATIVE SCHEDULE**

The indicative timelines in relation to the Bidding Process for the Project (as may be amended by KWSC in its discretion) are as follows:

Activity	Date
Issuance of RFP	March 15, 2024
Pre-Bid Meeting	April 08, 2024
Bid Submission Date & Opening of Technical Proposals	May 14, 2024

Opening of Financial Proposals	July 2, 2024
Announcement of Bid Evaluation Results	July 16, 2024
Issuance of Notification of Award to Successful Bidder	August 16, 2024
Signing of the Concession Agreement	September 17, 2024

* In the event of any public holiday occurring on the above-mentioned dates, the immediately succeeding Business Day will be considered as the calendar day on which the respective milestone shall take place.

2. ELIGIBLE BIDDERS

2.1 GENERAL REQUIREMENTS

- 2.1.1 Prequalified Bidders (excluding the Original Proponent) who were conditionally prequalified during the Prequalification Process shall only be eligible to submit their Bids in response to the RFP once they have complied with the requirements specified in the conditional prequalification acceptance letters issued by KWSC, to the satisfaction of KWSC.
- 2.1.2 In case a Prequalified Bidder is a Consortium, such Prequalified Bidder shall submit an undertaking as part of its Technical Proposal, in the form and substance attached as Bidding Form T5 of PART 2 of Volume I of the RFP (the **Consortium Undertaking**) to be executed by each Consortium Member through each of its Individual Authorized Representatives.
- 2.1.3 In the event a Prequalified Bidder (or where the Prequalified Bidder is a Consortium, each Consortium Member of that Consortium) has not submitted the Power of Attorney (Individual Revised) with their Prequalification Application, such Prequalified Bidder shall submit the Power of Attorney (Individual) for the appointment of Individual Authorized Representative(s) with their Bid; provided that, the Individual Authorized Representative shall be the same person appointed to represent the Prequalified Bidder during the Prequalification Process.
- 2.1.4 In the event a Prequalified Bidder has not submitted the Power of Attorney (Consortium Authorized Representative Revised) with their Prequalification Application, such Prequalified Bidder shall submit the Power of Attorney (Consortium Authorized Representative) which shall be collectively issued by the Individual Authorized Representatives of each Consortium Member of such Prequalified Bidder to authorize the Consortium Authorized Representative (appointed during the Prequalification Process, as per the requirements of the Prequalification Document) to represent and irrevocably bind the Consortium Members in all matters in connection with the Bidding Process, and in case the Consortium is awarded the Project, finalize the Concession Documents; provided that, such authority shall be in the form of a power of attorney in favor of the Consortium Authorized Representative in the form attached as Part B of the Bidding Form T3 of PART 2 of Volume I of the RFP; provided further that, the Consortium Authorized Representative shall be the same entity (i.e., the Lead Member) appointed to represent the Consortium during the Prequalification Process; provided further that, subject to the approval of KWSC / TFEC, a different Consortium Authorized Representative and/or the Individual Authorized Representative (i.e., different from the representative appointed during the Prequalification Process) may be appointed at the RFP Stage pursuant to the Power of Attorney(s); provided further that, in case the Prequalified Bidder is a Consortium, the Consortium Authorized Representative of such Prequalified Bidder is the Lead Member; and the approval for such change is sought one (1) month prior to the Bid Submission Date.
- 2.1.4A For the avoidance of doubt, in the event a Prequalified Bidder (or where the Prequalified Bidder is a Consortium, each Consortium Member of that Consortium) has submitted the Power of Attorney (Individual Revised) with their Prequalification Application, such Prequalified Bidder shall not be required to submit the Power of Attorney (Individual) for the appointment of Individual Authorized Representative(s) with their Bid. Furthermore, in the event a Prequalified Bidder has submitted the Power of Attorney (Consortium Authorized Representative Revised) with their Prequalification Application, such Prequalified Bidder shall not be required to submit the Power of Attorney (Consortium Authorized Representative) with their Bid.
- 2.1.5 In case a Prequalified Bidder is a Consortium, such Prequalified Bidder shall notify KWSC of all changes in the proposed shareholding of the Consortium Members in the Company, including the addition of a New Sponsoring Entity, no later than fifteen (15) calendar days prior to the Bid Submission Date; provided that, such notification by a Prequalified Bidder to KWSC shall be accompanied by the submission of all relevant documentation evidencing the changes in the proposed shareholding of the Consortium Members in the Company and / or the addition of new shareholders as the case may be; provided further that, such changes shall be approved by KWSC

/ TFEC in its sole discretion if:

- (i) the same are carried out in conformity with the requirements of the Applicable Evaluation Documents;
- (ii) the Prequalified Bidder continues to fulfil the requirements (including the evaluation and qualification criteria) set out in the Prequalification Document; and
- (iii) the New Sponsoring Entity complies with the requirements of the Prequalification Document and submits the relevant information / documentation as required in terms thereof, within the time period as may be specified by KWSC / TFEC.

KWSC / TFEC may require such Prequalified Bidder (including the approved New Sponsoring Entity) to submit such further documents / information as may be specified by KWSC / TFEC. Subject to the terms of this RFP, a Prequalified Bidder shall not be permitted to change the Lead Member and their respective shareholdings shall not fall below the minimum shareholdings of the Lead Member in the Company as provided in the Prequalification Document.

2.1.6 In case a Prequalified Bidder is a single entity, such Prequalified Bidder may be allowed to form a consortium with new entities and submit its Bid as a consortium; provided that the Prequalified Bidder has notified KWSC of its intention to form a consortium with a new entity, no later than fifteen (15) calendar days prior to the Bid Submission Date; provided that, such notification by a Prequalified Bidder to KWSC shall be accompanied by the submission of all relevant documentation evidencing the formation of a consortium with a new entity or the intention to do so; provided further, that, such addition shall be approved by KWSC / TFEC in its sole discretion if:

- (i) the same is carried out in conformity with the requirements of the Applicable Evaluation Documents;
- (ii) the Prequalified Bidder (after it has formed a consortium with a New Sponsoring Entity) continues to fulfil the requirements (including the evaluation and qualification criteria) set out in the Prequalification Document; and
- (iii) the New Sponsoring Entity complies with the requirements of the Prequalification Document in respect of being a Consortium Member or the Lead Member (as the case may be) and, in each case, submits the relevant information / documentation as required in terms thereof, within the time period as may be specified by KWSC / TFEC.

KWSC / TFEC may require such Prequalified Bidder (including the approved shareholder) to submit such further documents / information as may be specified by KWSC / TFEC. The Prequalified Bidder shall ensure that, as a result of formation of a consortium with a new entity, it continues to maintain the minimum shareholding as a Consortium Member in the Company, as provided in the Prequalification Document; provided that, KWSC / TFEC shall only grant approval to a New Sponsoring Entity with a Consortium Member that complies with the relevant requirements stipulated in the Prequalification Document.

2.1.7 In case the Successful Bidder is a Consortium, such Successful Bidder shall be required to comply with the requirements regarding shareholding matters including share transfer restrictions set out in the Concession Documents.

2.1.8 A Prequalified Bidder (including a Consortium Member) shall not have a conflict of interest as per the requirements of the Prequalification Document. For the purposes of this RFP, "Conflict of Interest" means, in respect of any Prequalified Bidder (or where the Prequalified Bidder is a Consortium, a Consortium Member of that Consortium):

- (a) such Prequalified Bidder (or where the Prequalified Bidder is a Consortium, a Consortium Member of that Consortium) has, either directly or indirectly, the right to

direct any other Prequalified Bidder's or Consortium Member's management and policies by operation of law or legal agreement;

- (b) such Prequalified Bidder (or where the Prequalified Bidder is a Consortium, a Consortium Member of that Consortium) and any other Prequalified Bidder (or where the Prequalified Bidder is a Consortium, a Consortium Member of that Consortium) have common controlling shareholders or other ownership interest; provided that this qualification shall not apply in cases where the direct or indirect shareholding in a Prequalified Bidder (or where the Prequalified Bidder is a Consortium, a Consortium Member of that Consortium) is less than five percent (5%) of its paid up and subscribed capital;
- (c) such Prequalified Bidder (or where the Prequalified Bidder is a Consortium, a Consortium Member of that Consortium) receives or has received any direct or indirect subsidy, grant, loan from any other Prequalified Bidder (or a Consortium Member from another Consortium) or has provided any such direct or indirect subsidy, grant, loan to any other Prequalified Bidder (or Consortium Member of another Consortium);
- (d) such Prequalified Bidder (or where the Prequalified Bidder is a Consortium, a Consortium Member of that Consortium) has a relationship with another Prequalified Bidder (or Consortium Member from another Consortium), either directly or through common third parties, that puts them in a position to have access to each other's information or influence the Prequalification Application of the other Prequalified Bidder (or Consortium Member of another Consortium);
- (e) such Prequalified Bidder (or where the Prequalified Bidder is a Consortium, a Consortium Member of that Consortium) has participated as:
 - (i) a consultant(s); and / or
 - (ii) adviser(s); or
 - (iii) has directly assisted the GoS or KWSC,

in each case, in the preparation of any documents, design or technical specifications of the Project, except that for the avoidance of doubt, this requirement in Section 2.1.8(e) above shall not apply to the Original Proponent;

- (f) such Prequalified Bidder (or where the Prequalified Bidder is a Consortium, a Consortium Member of that Consortium) employs or has employed or engaged as contractor an officer or employee of GoS or KWSC for matters related to or incidental to the Project, the RFQ Stage, the RFP Stage or the Prequalification Document;
- (g) such Prequalified Bidder (or where the Prequalified Bidder is a Consortium, a Consortium Member of that Consortium) appoints any legal, financial or technical adviser engaged by the GoS or KWSC in relation to the Project for matters related to or incidental to the Project at the RFP Stage or the RFQ Stage;
- (h) such Prequalified Bidder (or where the Prequalified Bidder is a Consortium, a Consortium Member of that Consortium) has established a partnership or alliance with another Prequalified Bidder or a Consortium Member of another Consortium in respect of the Project;
- (i) such Prequalified Bidder (or where the Prequalified Bidder is a Consortium, a Consortium Member of that Consortium) has a representative on the Board of Directors of another Prequalified Bidder or a Consortium Member of another Consortium; or
- (j) such Prequalified Bidder (or where the Prequalified Bidder is a Consortium, a

Consortium Member of that Consortium) has a representative on the Board of Directors of a company that Controls another Prequalified Bidder or a Consortium Member of another Consortium.

All Prequalified Bidders (including any Consortium Members) found to have a conflict of interest shall be disqualified and if a Bid is submitted, then such a Bid shall be rejected.

A Prequalified Bidder (including a Consortium Member) shall not be considered to be in a conflict of interest with another Prequalified Bidder, if such Prequalified Bidders (including Consortium Members) is / are the Subsidiary Company(ies) of a common Parent Company or one Prequalified Bidder (including a Consortium Member) is the Parent Company of the other Prequalified Bidder (including a Consortium Member), provided that the following conditions are satisfied:

- (i) such Parent Company is a sovereign state (**Sovereign**) or a sovereign state-owned enterprise (**SOE**);
- (ii) the Sovereign, SOE and the relevant Subsidiary Company(ies) of the Sovereign and / or SOE participating in the Bidding Process conduct their business operations on an independent basis, are independent legal persons, have independent management and boards and are free from each other's financial obligations including independent auditing and accounting; and
- (iii) such Prequalified Bidder (including a Consortium Member) has provided a legal opinion duly issued by a reputable, qualified legal counsel in its jurisdiction of incorporation confirming (i) and (ii) above.

The circumstances provided above which may constitute a Conflict of Interest are not exhaustive, and the KWSC / TFEC shall be the sole determinant of when a Conflict of Interest shall arise.

2.1.9 A Prequalified Bidder shall not be eligible to submit a Bid where that Prequalified Bidder, or where the Prequalified Bidder is a Consortium, a Consortium Member of that Consortium, where such Prequalified Bidder:

- (a) has been: (A) barred by any central, state, provincial or local government or government instrumentality in Pakistan, or in any other jurisdiction to which the Prequalified Bidder or a Consortium Member belongs or in which the Prequalified Bidder or a Consortium Member conducts its business, or (B) debarred by any multilateral financial institution (including World Bank or Asian Development Bank), from participating in any project on a private participation basis and the bar subsists as on the Bid Submission Deadline;
- (b) is from or is incorporated in a country with which, as a matter of law or official regulations, commercial relations are prohibited by the federal government;
- (c) is a person or a Connected Person, owned or controlled by, or acting on behalf of, that is subject to:
 - (i) being debarred or cross-debarred by multilateral development banks under the agreement for mutual recognition of debarment decisions (including African Development Bank, Asian Development Bank, European Bank For Reconstruction And Development, Inter-American Development Bank or World Bank Group) on the grounds of any breach of obligations substantially similar to the engagement or indulgence in Corrupt and Fraudulent Practices; or
 - (ii) an adverse order in any judgment, award, decree by any court, tribunal or judicial forum, or enforcement proceedings (as the case may be) by any government authority with regard to any breach of any obligations

substantially similar to the engagement or indulgence in Corrupt and Fraudulent Practices; or

- (iii) are included on any sanctions lists promulgated by the UN Security Council or its Committees, or any other recognised international sanctions list; or
 - (d) is subject to an adverse order in any judgment, award, decree by any court, tribunal or judicial forum, or enforcement proceedings (as the case may be) for any act of fraud, corruption, collusion or money laundering or a criminal act involving dishonesty, physical violence or harm to human life.
 - (e) has, in the five (5) years preceding the Bid Submission Date:
 - (i) entered into a contract with the GoS, KWSC, federal or local or provincial government of Pakistan and the contract was terminated due to an event of default on the part of the Prequalified Bidder;
 - (ii) been required to pay a penalty, compensation or damages by an arbitral or judicial authority or under a judicial pronouncement or decision, or arbitration award in connection with any contract it has entered with the Government, the KWSC, federal government or local or provincial government of Pakistan;
 - (iii) been convicted (or any of its Connected Persons have been convicted) of fraud, corruption, collusion or money laundering or from a criminal act involving dishonesty, physical violence or harm to human life.
- 2.1.10 In order to demonstrate their continued compliance with the requirements set out in the Prequalification Document and for participation in the Bidding Process, all Prequalified Bidders (including each Consortium Member) shall submit an undertaking in the form and substance attached as Bidding Form T4 of PART 2 of Volume I of the RFP.
- 2.1.11 Each Prequalified Bidder (including a Consortium Member) shall indemnify the GoS Parties fully in respect of any damage, cost, penalty or expense of any kind incurred by such person arising from a Prequalified Bidder's or its representative's (including a Consortium Member's or its representative's) breach of its obligations under the RFP.
- 2.1.12 A Prequalified Bidder may undertake the works and / or services for the Project as contemplated in the RFP (including the Concession Documents), either itself or may sub-contract the same in accordance with the requirements set out in the RFP (including the Concession Documents). For any part of the scope of works and / or services for the Project, which the Prequalified Bidder intends to sub-contract, the Prequalified Bidder shall give details of the name and nationality of the Proposed Contractors, including the entities which are part of the Proposed Contractors. The Proposed Contractors can be single entities or may comprise a consortium comprising of Proposed EPC Contractors and Proposed O&M Contractor. In addition, the Prequalified Bidder shall include in its Bid, information establishing compliance of the Proposed Contractors (in case of a consortium, the consortium members) with the requirements specified in Annexure A of Part 4 of Volume I of the RFP. The Prequalified Bidders are allowed to list at least one (1) and up to three (3) Proposed EPC Contractors and one (1) Proposed O&M Contractor for each item of the works and / or services to whom the relevant obligations are proposed to be sub-contracted; provided that, the EPC prices / O&M prices shall be locked on the Bid Submission Date and any increase in such prices shall be funded by the Prequalified Bidder; provided further that, a Proposed EPC Contractor / Proposed O&M Contractor cannot be part of more than one Bid.
- 2.1.13 The Prequalified Bidder shall be responsible for ensuring that any Proposed Contractor (including its representative(s)) complies with the requirements of the RFP (including the applicable Concession Documents) and the Applicable Laws. The engagement of Qualified Contractors for the Project shall not absolve a Prequalified Bidder (including the Company) from its obligations under the RFP (including the applicable Concession Documents) and the Applicable Laws.

- 2.1.14 In case the Proposed Contractors have formed a consortium, the relevant Prequalified Bidder shall be required to identify the lead member of such consortium, and the Prequalified Bidder shall ensure that the lead member of the Consortium formed by the Proposed Contractors shall be liable to the Prequalified Bidder with respect to its / their obligations in respect of the activities proposed to be undertaken by the Proposed Contractors in respect of the Project; provided that, in case a Prequalified Bidder proposes multiple Proposed EPC Contractors, each of the Proposed EPC Contractors shall, without relying on the technical experience / credentials and/or financial strength of their parent companies for the purposes of meeting the evaluation criteria in this RFP, be required to fulfill the relevant criteria stipulated in Bidding Form T8; provided further that, in case the Proposed EPC Contractor is a consortium, the technical evaluation criteria specified in Bidding Form T8 is to be met jointly by such consortium members.
- 2.1.15 A Prequalified Bidder may submit different Proposed EPC Contractors / Proposed O&M Contractor belonging to the same group of companies, subject to the requirement that such Proposed EPC Contractors / Proposed O&M Contractor are: (a) independent legal entities that are independent in their decision-making; and (b) do not rely on the technical experience / credentials and financial strength of their parent companies for the purposes of meeting the evaluation criteria in this RFP.
- 2.1.16 The Prequalified Bidder (and where the Prequalified Bidder is a Consortium, each Consortium Member) undertakes that:
- (a) the Lead Member shall continue to Control the Consortium and / or the Company until the sixth (6th) anniversary of the COD of the Project and, following expiry of such period, the Lead Member may undertake a change in Control of the Consortium and / or the Company with the consent of the KWSC;
 - (b) the Prequalified Bidder (in case of the same not being a Consortium) shall continue to Control the Company until the sixth (6th) anniversary of the COD of the Project and, following expiry of such period, the Prequalified Bidder (in case of the same not being a Consortium) may undertake a change in Control of the Company with the consent of the KWSC;
 - (c) there shall be no change of Control of the Lead Member (where the Prequalified Bidder is a Consortium) until the sixth (6th) anniversary of the COD of the Project and, following expiry of such period, there may be a change of Control of the Lead Member (where the Prequalified Bidder is a Consortium) with the consent of the KWSC;
 - (d) there shall be no change of Control of a Consortium Member (where the Prequalified Bidder is a Consortium and where such Consortium Member is not the Lead Member) until the second (2nd) anniversary of the COD of the Project and, following expiry of such period, there may be a change of Control of a Consortium Member (where the Prequalified Bidder is a Consortium and where such Consortium Member is not the Lead Member) with the consent of the KWSC;
 - (e) without prejudice to other provisions of this Section 2.1.16, there shall be no change of a Consortium Member of a Consortium until the second (2nd) anniversary of the COD of the Project and, following expiry of such period, there may be a change of a Consortium Member of a Consortium with the consent of the KWSC; provided that, subject to the terms of this RFP, the withdrawing Consortium Member shall be replaced with a person having equivalent or better qualifications than the withdrawing Consortium Member;
 - (f) there shall be no change of Control of the Prequalified Bidder (in case of the same not being a Consortium) until the sixth (6th) anniversary of the COD of the Project and, following expiry of such period, there may a change of Control of the Prequalified Bidder or Prequalified Bidder (in case of the same not being a Consortium) with the consent of the KWSC, on the basis of such terms and conditions (if any) as are specified

during the RFP Stage;

- (g) where a Subsidiary Company is evaluated as part of the evaluation criteria , there shall be no change of Control of that Subsidiary Company until the second (2nd) anniversary of the COD of the Project and, following expiry of such period, there may be a change of Control of such Subsidiary Company with the consent of the KWSC, on the basis of such terms and conditions (if any) as are specified during the RFP Stage; and
- (h) where a Parent Company was evaluated as part of the evaluation criteria, the Parent Company shall retain the Parent Company Control until the sixth (6th) anniversary of the COD of the Project and, following expiry of such period, there may be a change of Parent Company Control with the consent of the KWSC, on the basis of such terms and conditions (if any) as are specified during the RFP Stage,

provided that if the KWSC consents to a change in Sub-clause (a), (b), (c), (d), (e), (f), (g), (h) or (i) above, then following such KWSC consent the Prequalified Bidder (and where the Prequalified Bidder is Consortium each Consortium Member), Subsidiary Company and / or the Parent Company shall, in each case, comply with the eligibility and other requirements set out in this RFP.

2.1.17 **VIRTUAL DATA ROOM**

- (a) Subject to the terms of the NDA (as defined in the Prequalification Document), KWSC has set up a Virtual Data Room for the Project to share documents and communicate with the Prequalified Bidders during the RFP Stage. The KWSC shall publicize the mandatory information relating to the bidding process in a manner prescribed under the applicable laws of Pakistan. The Virtual Data Room shall contain the Prequalification Document, this RFP, any addenda or corrigenda, and any other relevant information for the RFP Stage.
- (b) Any addendum issued by KWSC shall: (i) be uploaded on the Virtual Data Room – <https://rb.gy/862n5>, websites of KWSC – <https://www.kwsb.gos.pk/>, PPP Unit – <https://www.pppunitsindh.gov.pk/>, Sindh Public Procurement Regulatory Authority’s – <https://ppms.pprasindh.gov.pk/PPMS/>; and (ii) be communicated to the Prequalified Bidders by KWSC via email. Any such addendum shall be explicitly identified as an addendum to this RFP. Any such amendments and modifications shall be binding on each Prequalified Bidder or, in case of a Consortium, each Consortium Member.

3. RFP DOCUMENT

3.1 CONTENTS OF THE RFP

3.1.1 The RFP comprises the documents stated below and should be read in conjunction with any addendum and / or corrigendum issued in accordance with Sub-Section 3.4 of the Instructions to Bidders.

(A) **VOLUME I – BIDDING PROCEDURE**

- (a) PART 1 – Instructions to Bidders.
- (b) PART 2 – Bidding Forms.
- (c) Part 3 – Bidding Documentary Legal Requirements.
- (d) Part 4 – Annexures
 - (i) Eligibility Criteria for Proposed Contractors (Annexure A).
 - (ii) Evaluation Criteria (Annexure B).

(B) **VOLUME II – PART 1 – CONCESSION AGREEMENT AND APPENDICES**

(C) **VOLUME II – PART 2 – PROJECT LAND AGREEMENT**

3.1.2 The Bidding Forms comprise the forms stated below and should be read in conjunction with any addendum (or corrigendum) to the RFP issued in accordance with Sub-Section 3.4 of the Instructions to Bidders:

(A) For the Technical Proposal:

- (a) Bidding Form T1 – Letter of Technical Proposal;
- (b) Bidding Form T2 – Form of Integrity Pact;
- (c) Bidding Form T3 – Power of Attorney;
- (d) Bidding Form T4 – Form of Undertaking;
- (e) Bidding Form T5 – Form of Consortium Undertaking;
- (f) Bidding Form T6 – Format of Affidavit by Proposed Contractors;
- (g) Bidding Form T7 – Form of Bid Security;
- (h) Bidding Form T8 – Technical Submittals; and
- (i) Bidding Form T9 – Project Reference Forms.

(B) For the Financial Proposal

- (a) Bidding Form F1 – Letter of Finance Proposal; and
- (b) Bidding Form F2 – Financial Forms.

3.2 COMPLETENESS OF THE RFP

- 3.2.1 No GoS Party shall be responsible for the completeness of the documents comprising the RFP and its addenda / corrigenda, if a Prequalified Bidder has not obtained the same directly from the source(s) stated by KWSC in the Letter of Invitation.
- 3.2.2 The Prequalified Bidders are expected to carefully examine all instructions, forms and terms in the RFP and to furnish all information or documentation required pursuant to the RFP. Failure to comply with the requirements of Bid submission set out in the RFP will be at the Prequalified Bidders' own risk and may result in the rejection of the Bid. Pursuant to Sub-Section 6.4 of the Instructions to Bidders, Bids which are not responsive to the requirements of the RFP shall be rejected.

3.3 CLARIFICATIONS OF THE RFP

- 3.3.1 A Prequalified Bidder requiring any clarification pertaining to the RFP shall contact KWSC in writing, at address or through email provided in the Data Sheet or raise its enquiries during the Pre-Bid Meeting. KWSC will respond in writing to any request for clarification provided that such a request is received no later than five (5) calendar days prior to the Bid Submission Date. The response shall be uploaded on the websites of KWSC, PPP Unit including a description of the inquiry but without identifying its source. Should KWSC deem it necessary to amend the RFP as a result of a request for clarification, it shall do so following the procedure under Sub-Section 3.4 of the Instructions to Bidders. No markup of the RFP (including the Concession Documents and / or other documents / instruments attached to the RFP) shall be accepted. The Prequalified Bidders may submit comments or seek clarifications on the RFP, which may be considered by KWSC / TFEC.
- 3.3.2 The Prequalified Bidder's designated representative(s) shall be invited to attend the Pre-Bid Meeting at the date, time and venue indicated in Data Sheet. The Pre-Bid Meeting may be conducted virtually via the web link provided by KWSC to all Prequalified Bidders. The purpose of the Pre-Bid Meeting will be to clarify issues and to answer questions of the Prequalified Bidders on any matter relating to the RFP. Any queries to be discussed during the Pre-Bid Meeting should be submitted seven (7) calendar days prior to the date of Pre-Bid Meeting. In addition to the queries discussed during the Pre-Bid meeting, Prequalified Bidders may submit additional queries to KWSC within the time period as specified in Sub-Section 3.3.1 of the Instructions to Bidders and KWSC shall respond to such queries in writing as specified in Sub-Section 3.3.1 of the Instructions to Bidders. Non-attendance at the Pre-Bid Meeting will not be a cause for disqualification of a Prequalified Bidder. In addition to the Pre-Bid Meeting, on a written request of any Prequalified Bidder, provided that the same are submitted seven (7) calendar days prior to the Bid Submission Date, KWSC may hold discussions on the RFP separately with such Prequalified Bidder on such questions and clarifications submitted in writing to KWSC. Any proposed changes or responses to such clarifications and questions shall be provided to all Prequalified Bidders.
- 3.3.3 No later than ten (10) calendar days prior to the Bid Submission Date, Prequalified Bidders may visit and examine the Project Land (Entire), where the works and services in relation to the Project are to be performed and undertaken, and its surroundings, and obtain for themselves at their own expense and responsibility all information that may be necessary for preparing the Bid and entering into the Concession Documents and other relevant instruments as per the RFP. The costs and permission(s) (if any) for the purposes of visiting such Project Land (Entire) shall be at the Prequalified Bidder's own expense and liability. The Prequalified Bidders shall be required to seek prior written permission of KWSC for visiting such site(s), provided that such permission is sought five (5) days from the planned visit date.

In addition to the Project Land (Entire) visits by the respective Prequalified Bidders, KWSC shall invite all Prequalified Bidders for a site visit to be conducted by KWSC at a date and time as may be communicated to all Prequalified Bidders.

The visit(s) to the Project Land (Entire) shall be conducted only upon the express condition that the Prequalified Bidder, its personnel and agents will release and indemnify the GoS Parties (including KWSC) from and against all liabilities in respect thereof, and will be responsible for injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of such visit.

- 3.3.4 A Prequalified Bidder or any of its representatives, personnel or agent(s) may enter the Project Land (Entire) where the works and services in relation to the Project are to be performed and undertaken, only upon the express condition that the Prequalified Bidder, its representatives, personnel and agents, will release and indemnify KWSC and its representatives, personnel and agents from and against all liability in respect thereof, and the Prequalified Bidder will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.

3.4 AMENDMENT OF THE RFP

- 3.4.1 At any time prior to the Bid Submission Date, KWSC may amend the RFP by issuing an addendum / corrigendum and, in such case, the Bid Submission Date may be extended in accordance with and to the extent required by Applicable Laws.
- 3.4.2 Any addendum / corrigendum issued shall be considered part of the RFP. Such an addendum / corrigendum shall be communicated to the Prequalified Bidders and shall be published on the respective websites of KWSC, PPP Unit, and the SPPRA.
- 3.4.3 KWSC may, at its discretion, extend the Bid Submission Date in accordance with Sub-Section 5.2.4 of the Instructions to Bidders, if it considers that as a result of issuance of any addendum / corrigendum, additional time will be required by the Prequalified Bidders for preparation of their Bids.

4. PREPARATION OF BIDS

4.1 COSTS FOR BIDS

The Prequalified Bidders shall bear all costs associated with the preparation and submission of their Bids, including, without limitation, all costs and expenses relating to preparation of responses to any clarifications sought by KWSC in accordance with Sub-Section 6.1.1 of the Instructions to Bidders. KWSC shall in no case be responsible or liable for such costs, regardless of the conduct or outcome of the Bidding Process.

4.2 LANGUAGE OF THE BIDS

The Bid, and all correspondence and documents related to the Bid and the Bidding Process between the Prequalified Bidder and KWSC shall be written in the English language. In case any document / information furnished by the Prequalified Bidder is in a language other than English, it will need to be accompanied by an English translation (duly notarized by Notary Public and, to the extent required under the Apostille Convention, 1961, attested by Pakistan Embassy / Consulate and Ministry of Foreign Affairs, Pakistan) of its pertinent passages for the purposes of interpretation of the Bid. In case of any discrepancy, the English translation shall prevail.

4.3 DOCUMENTS COMPRISING THE BID

4.3.1 The Prequalified Bidder / Lead Member (including its Subsidiary Companies / Parent Company) must fulfil the qualification criteria set out in Sub-Section 4.4 of the Instructions to Bidders.

4.3.2 A Prequalified Bidder shall clearly indicate in its proposal which entity, being the Lead Member, the Prequalified Bidder, the Consortium Member, the Subsidiary Company or the Parent Company is to be evaluated for each the evaluation criteria stipulated in this RFP.

4.3.3 The Bid shall comprise a Technical Proposal, containing the documents listed in Sub-Section 4.4 of the Instructions to Bidders, and a Financial Proposal, containing the documents listed in Sub-Section 4.5 of the Instructions to Bidders, each submitted simultaneously in separately sealed envelopes clearly marked “TECHNICAL PROPOSAL” and “FINANCIAL PROPOSAL” respectively, in accordance with manner provided herein.

4.3.4 The Prequalified Bidders are expected to carefully examine the RFP when preparing their Bids and use only the Bidding Forms specified in Sub-Section 3.1.2 of the Instructions to Bidders. Bidding Forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested. Any material deviations / omissions / reservations from the formats provided in the RFP shall not be accepted and may form basis for the rejection of the Bid. Material deficiencies, in the sole opinion of TFEC, in providing the information requested may result in rejection of a Bid.

4.3.5 In case a document required to be submitted as part of the Technical Proposal, is submitted with the Financial Proposal; or a document required to be submitted with the Financial Proposal, is submitted with the Technical Proposal, it shall not be considered for evaluation and such document shall be considered as not submitted by the Prequalified Bidder and may also form the basis of rejection of a Bid.

4.4 TECHNICAL PROPOSAL

4.4.1 The Technical Proposal shall demonstrate the Prequalified Bidder’s unconditional acceptance of the complete scope of works and services under the RFP. Any non-compliance by a Prequalified Bidder of the Technical Proposal either by way of material omission, inadequacy of response, reservation, deviation or condition attached in the Technical Proposal may cause the Bid to be rejected by TFEC as non-responsive. Under no circumstances will KWSC / TFEC consider /

accept a conditional Technical Proposal.

4.4.2 The Technical Proposal submitted by the Prequalified Bidder shall include the following information:

- (a) signed and filled out letter of Technical Proposal, as set out in Bidding Form T1 of PART 2 of Volume I of the RFP;
- (b) Integrity Pact, as set out in Bidding Form T2 of PART 2 of Volume I of the RFP, in accordance with Sub-Section 8.3 of the Instructions to Bidders;
- (c) subject to Sub-Section 2.1.3 of this RFP, authorization in the form of Power Of Attorney (Individual) on behalf of the Prequalified Bidder, and in case of a Consortium, each Consortium Member, authorizing its representative to sign the relevant documents as per the requirements of the RFP, on its behalf, in the format attached as Part A of Bidding Form T3 of PART 2 of Volume I of the RFP;
- (d) subject to Sub-Section 2.1.4 of this RFP, in case the Prequalified Bidder is a Consortium, the Power Of Attorney (Consortium Authorized Representative), to be executed by each of the Individual Authorized Representatives of the Consortium Members, in favor of the Consortium Authorized Representative, to authorize it to represent and bind all Consortium Members, as set out in the form attached as Part B of Bidding Form T3 of PART 2 of Volume I of the RFP; provided that, the Consortium Authorized Representative shall be the same Consortium Member (as the Lead Member) who was authorized to the represent and bind the Consortium Members during the Prequalification Process. Subject to the prior approval of KWSC / TFEC, a different Consortium Authorized Representative (*i.e.*, different from the representative appointed during the Prequalification Process) may be appointed pursuant to the Power of Attorney, provided that such Consortium Authorized Representative is the Lead Member;
- (e) an undertaking from the Prequalified Bidder (in case of Consortium, each Consortium Member), in the form and substance as set out in Bidding Form T4 of PART 2 of Volume I of the RFP;
- (f) the Consortium Undertaking, to be issued by the Individual Authorized Representatives of the Consortium Members, in the form and substance as set out in Bidding Form T5 of PART 2 of Volume I of the RFP;
- (g) list of Proposed Contractors (or a Prequalified Bidder (including a Consortium Member), in case the Prequalified Bidder (or the relevant Consortium Member) intends to undertake the relevant engineering, procurement, construction works and the operations & maintenance works for the Project itself) in accordance with Sub-Section 2.1.12 of the Instructions to Bidders, along with the documents / information evidencing compliance with the eligibility criteria for Proposed Contractors set out in Annexure A and the criteria set out in Paragraph A of Annexure B, each of Part 4 of Volume I of the RFP;
- (h) A detailed description of the Proposed Contractors containing:
 - (i) legal name;
 - (ii) complete head office contact information, including mailing address, telephone and fax numbers, and an e-mail address; and
 - (iii) incorporation details, including corporate charter and articles of incorporation. If the Proposed Contractor is an unincorporated legal entity, then the proof of that legal entity's existence must be provided;

- (i) an affidavit from the Proposed Contractors in the form and substance attached as Bidding Form T6 (*Form of Affidavit by Proposed Contractors*) of PART 2 of Volume I (*Bidding Procedure*) of the RFP;
- (j) in case the Proposed Contractors have formed a consortium, details of the consortium arrangements, along with any consortium agreements;
- (k) copies of the contractual arrangements executed between Prequalified Bidders and the Proposed Contractors, setting out: (i) the intention of the Prequalified Bidder and the Proposed Contractors to undertake the Project as per the requirements of the RFP, in case of award; (ii) authorization in favor of the Prequalified Bidder to submit the Proposed Contractor's information and documentation required in terms of the RFP as part of its Bid; provided that, in case of clause (i), (j) and (k) above, the Prequalified Bidders shall ensure that persons signing the documents for an on behalf of the Proposed Contractors, as required in terms of the RFP, have valid authorizations from the relevant Proposed Contractors and the said documents are issued by such persons as per the requirements of the Applicable Laws; provided further, that KWSC shall not be held liable, in the event it is determined by any forum or entity, that a document of the Proposed Contractor submitted by the Prequalified Bidder as part of its Bid, is without valid legal authority and such document shall not be accepted for evaluation;
- (l) the Bid Security, in the form and substance as set out in Bidding Form T7 of PART 2 of Volume I of the RFP, in accordance with Section 4.7 of the Instructions to Bidders; and
- (m) the completed and signed technical proposal requirements, in the form and substance as set out in Bidding Form T8 of PART 2 of Volume I of the RFP, with documents evidencing compliance of each of the technical submittals set out therein; and
- (n) any other documents required under the RFP.

4.5 FINANCIAL PROPOSAL

- 4.5.1 In preparing the Financial Proposals, the Prequalified Bidders are expected to fully understand the requirements and conditions set out in the RFP, including all contractual obligations of KWSC, the Company, the Successful Bidder and the GoS under the Concession Documents (as applicable) and the scope of works and services to be performed by the Company (as the concessionaire) in relation to the Project.
- 4.5.2 Any material omission, reservation, deviation or any condition included in the Financial Proposal to the contrary shall cause the Bid to be rejected by TFEC as non-responsive as per the Applicable Evaluation Documents. Under no circumstances shall TFEC consider / accept a conditional Financial Proposal.
- 4.5.3 The Financial Proposal submitted by the Prequalified Bidder shall comprise the following:
 - (a) signed and filled out letter of Financial Proposal, as set out in Bidding Form F1 of PART 2 of Volume I of the RFP;
 - (b) information as required in the Bid Financial Model and relevant forms as set out in Bidding Form F2 of PART 2 of Volume I of the RFP. Relevant forms in Bidding Form F2 of PART 2 of Volume I of the RFP can be downloaded from any of the websites of KWSC, PPP Unit or SPPRA. The Prequalified Bidders are required to use and fill in the forms / Bid Financial Model available at the aforementioned websites in Microsoft Excel file;
 - (c) information / documentation evidencing the Prequalified Bidder's ability to finance one hundred percent (100%) of the Project Cost, excluding the Equity Funding Amount

(GOS), through a combination of debt and equity, subject to a gearing cap of no more than a debt-to-equity ratio of 65:35, after accounting for Equity Funding Amount (GOS):

- (i) in the case of Prequalified Bidders intending to enter into financing arrangements with financial institutions in respect of the Project, an indicative financing term sheet prepared in accordance with the requirements of the RFP and the Concession Documents issued and signed by the financial institution;
 - (ii) based in sub-clause (i) above, the financing term sheet, in the format attached as Bidding Form F2-12 of PART 2 of Volume I of the RFP, prepared and signed by the Prequalified Bidder;
- (d) Prequalified Bidders are required to provide a letter from an Independent Financial Advisor, setting out the entire scope of the Project and the advisor's findings with respect thereto, and ensuring the following:
- (i) structural integrity, formulae, accuracy of the workings and outputs from the Prequalified Bidder's financial model, consistency of the technical and costing information with the Technical Proposal and the reasonableness of the financial assumptions used in a Prequalified Bidder's financial model;
 - (ii) consistency of the Prequalified Bidder's financial model with the information submitted by the Prequalified Bidders under Bid Financial Model and Bidding Form F2 set out in PART 2 of Volume I of the RFP, including the assumptions specified in Section II of Annexure B of Part 4 of Volume I of the RFP;
 - (iii) compliance with the maximum debt to equity ratio of 65:35 after accounting for Equity Funding Amount (GOS);
 - (iv) findings / confirmation of inclusion of the applicable federal, provincial and local taxes, duties, levies and other charges as per the Income Tax Ordinance, 2001 (as may be amended, modified, supplemented or re-enacted from time to time). As a documentary requirement, Prequalified Bidders are required to submit tax report from tax advisor, along with a confirmation from the Independent Financial Advisor that all the taxes in such report are aligned with the financial model provided by the Prequalified Bidder with its Financial Proposal; and
 - (v) compliance with Section 8.5 of the Instructions to Bidders.
- (e) a financial model in Microsoft Excel spreadsheet form, consistent with the Technical Proposal, setting out all the amounts in PKR and includes all the information required in terms of the Bidding Form F2 of PART 2 of Volume I of the RFP; and
- (f) any other document required in the RFP.

4.6 CURRENCIES OF BID AND PAYMENT

4.6.1 All Bids and other supporting documents shall state all monetary amounts in Pakistan Rupees (PKR). For the purpose of inputs to Bid Financial Model, the Bid Exchange Rate shall be used.

4.7 BID SECURITY

4.7.1 The Prequalified Bidder shall, from a Security Issuer, furnish, as part of the Technical Proposal, in a separately sealed envelope, a Bid Security equivalent to Pakistani Rupees One Billion (PKR 1,000,000,000) (the **Bid Security**).

- 4.7.2 The Bid Security shall be an irrevocable, unconditional and on-demand bank guarantee in the form attached as Bidding Form T7 of PART 2 of Volume I of the RFP.
- 4.7.3 The Bid Security shall be issued and maintained in PKR by a Security Issuer.
- 4.7.4 Any Bid not accompanied by a Bid Security compliant with Bidding Form T7 of PART 2 of Volume I of the RFP, shall be rejected by TFEC as non-responsive and the Prequalified Bidder shall not be allowed to submit Bid Security at a later stage. The Bid Security issued by a Foreign Bank and not counter-guaranteed / confirmed from a local bank in Pakistan shall result in the rejection of the Bid.
- 4.7.5 The Prequalified Bidders are required to submit with their original Technical Proposals the original Bid Security. TFEC shall reject a Bid if a photocopy of an original Bid Security is attached with the original Technical Proposal and such Bid shall not be further evaluated.
- 4.7.6 The Bid Security of the unsuccessful Prequalified Bidders shall be returned earlier of: (a) the expiry of the Bid Validity Period; or (b) once the Successful Bidder furnishes the Construction Security pursuant to Sub-Section 7.5 of the Instructions to Bidder and the Company has signed the Concession Agreement.
- 4.7.7 The Bid Security of the Successful Bidder shall be returned as soon as reasonably possible once the Successful Bidder has furnished the required Construction Security and the Company has signed the Concession Agreement.
- 4.7.8 The Bid Security shall be forfeited:
- (I) if a Prequalified Bidder:
 - (a) withdraws its Bid during the Bid Validity Period (except as provided in Sub-Section 5.4.4 of the Instructions to Bidders);
 - (b) is found to be engaged in any corrupt, fraudulent, collusive, coercive, or obstructive practices;
 - (c) does not accept the arithmetical corrections of its Bid in accordance with Sub-Section 6.3A of the Instructions to Bidders; and/or
 - (d) fails to fulfil its obligations under the RFP in terms thereof.
 - (II) if the Successful Bidder or the Company, as applicable:
 - (a) fails to sign the Concession Agreement, in accordance with Sub-Section 7.6 of the Instructions to Bidders;
 - (b) fails to furnish Construction Security pursuant to Sub-Section 7.5 of the Instructions to Bidders;
 - (c) fails to pay the ADB Advisory Fee within the timeline set out in this RFP and / or the Concession Agreement; and / or
 - (d) fails to comply with the requirements set out in the Notification of Award.
- 4.7.9 The Bid Security is required to protect KWSC and the GoS against the risk of Prequalified Bidder's conduct which would warrant the Bid Security's forfeiture, pursuant to Sub-Section 4.7.8 of the Instructions to Bidders.
- 4.7.10 If the Security Issuer of the Bid Security is or becomes rated below the credit ratings set out in the definition of the terms "Security Issuer" (a **Rating Event**), the Prequalified Bidder shall notify

KWSC of such fact within three (3) Business Days of the occurrence of the Rating Event. Following the notification by a Prequalified Bidder of the occurrence of a Rating Event, KWSC shall require the Bid Security to be replaced in a manner compliant with Section 4.8 below. In case the Prequalified Bidder has not replaced the Bid Security by another security that meets the requirements of Section 4.8 within fifteen (15) calendar days of the request of KWSC in this regard following KWSC's direction to replace the Bid Security, the Bid of the Prequalified Bidder will be rejected and KWSC shall be entitled to claim the full face value amount of such Bid Security; provided that, the encashed sum shall be deposited in a ring-fenced account to be treated as cash collateral; provided further that, if a new Bid Security complying with the requirements set out in this Section 4.7 is not provided by the Prequalified Bidder within an additional fifteen (15) calendar days, the cash collateral shall be finally forfeited by the Prequalified Bidder.

4.8 BID VALIDITY

- 4.8.1 The Bid Security shall be valid until twenty-eight (28) calendar days following the Bid Validity Period, as may be extended in accordance with Sub-Section 4.8.3 of the Instructions to Bidders. A Bid Security valid for a shorter period shall be rejected by TFEC as non-compliant in accordance with the Applicable Evaluation Documents.
- 4.8.2 If the Construction Security has not been issued by the Successful Bidder thirty (30) calendar days prior to the expiry of the Bid Security, then the Successful Bidder shall extend the Bid Security until such date as notified by KWSC.
- 4.8.3 In exceptional circumstances, prior to the expiration of the Bid Validity Period, KWSC may request all Prequalified Bidders to extend the period of validity of their Bids. Any such request by KWSC with respect to the extension of the Bid Validity Period and the response by the Prequalified Bidders, shall be in writing. The Bid Security requested in accordance with Sub-Section 4.7 of the Instructions to Bidders, shall also be extended accordingly for a corresponding further period not exceeding the original Bid Validity Period. Extension of Bid Security may be requested upon the extension of Bid Validity Period. A Prequalified Bidder may refuse the request, following which such Prequalified Bidder's Bid will be rejected and their Bid Security shall be returned without forfeiture. A Prequalified Bidder accepting the request shall not be required or permitted to modify its Bid.

4.9 MATTERS RELATED TO PREPARATION, SIGNING AND SUBMISSION OF BID

- 4.9.1 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Prequalified Bidder, as authorized by the Power of Attorney (Consortium Authorized Representative) and / or the Power of Attorney (Consortium Authorized Representative Revised).
- 4.9.2 The hard copy of each Bid should be bound in the hard book binding form to avoid the possibility of removal or insertion of page(s). All pages of the original Bid must be signed and stamped by the Prequalified Bidder's authorized representative. All the pages must be numbered starting from the first page to the last. Any Bid not substantially adhering to these requirements may be rejected by TFEC.
- 4.9.3 Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the authorized representative signing the Bid.
- 4.9.4 KWSC / TFEC reserves the right to reject a Bid which does not meet the requirements in Sub-Section 4.9 of the Instructions to Bidders.

5. SUBMISSION AND OPENING OF BIDS

5.1 SEALING, MARKING AND SUBMISSION OF BIDS

- 5.1.1 The Prequalified Bidders shall prepare one (1) original of the Technical Proposal and one (1) original of the Financial Proposal of the Instructions to Bidders, and clearly mark each as “ORIGINAL – TECHNICAL PROPOSAL” and “ORIGINAL – FINANCIAL PROPOSAL”, respectively, in addition to the marking stipulated in Sub-Section 4.3 of the Instructions to Bidders.

The outer envelope of the Technical Proposal shall bear a warning not to open the envelope before the Bid Submission Date. The outer envelope of the Financial Proposal shall bear a warning not to open the envelope before the Technical Proposal has been evaluated. The inner and outer envelopes of the Technical Proposal and the Financial Proposal shall bear the name of the Prequalified Bidder and be addressed to KWSC and shall the mention the name of the Project i.e., “*West Karachi Recycled Water Project I*”. These two envelopes, in turn, shall be sealed in an outer envelope bearing the address for Bid submission indicated in the Data Sheet. The envelope shall be clearly marked: “DO NOT OPEN, EXCEPT IN PRESENCE OF TFEC”. Any Prequalified Bidder (including a Consortium Member) who submits or participates in more than one (1) Bid shall be disqualified.

- 5.1.2 The Prequalified Bidders shall submit as “COPY” four (4) hard copies of the Technical Proposal and the Financial Proposal. The Prequalified Bidders shall also submit two (2) digital/electronic copies in printable softcopies (PDF) and editable softcopies (Microsoft Word, Microsoft Excel etc., as may be relevant) on the CDs / DVDs / USBs each of which should be clearly marked “Technical Proposal” and “Financial Proposal” and placed in their respective envelopes containing the Technical Proposal and the Financial Proposal marked as “ELECTRONIC COPY”. In the event of any discrepancy between the original and the copies of the Bid, the original Bid shall prevail.
- 5.1.3 If all the physical envelopes are not sealed and marked and/or the soft copies provided along with and the files contained therein are not clearly distinguished (with a view to prevent the unintentional revelation of any Bid information required to remain confidential) as required, KWSC / TFEC shall not assume any responsibility for the misplacement, unintentional revelation of Bid information or premature opening of the Bid. In case of such misplacement, unintentional revelation of Bid information or premature opening of Bid which results in disclosure of any direct or indirect financial information prior to the scheduled opening of the Financial Proposal, the Bid shall be rejected by TFEC as non-responsive.
- 5.1.4 All Bidding Forms forming part of the Technical Proposal and the Financial Proposal, as specified in the RFP, are to be properly completed and signed. No alteration is to be made in the letter of Financial Proposal, letter of Technical Proposal or in the Bidding Forms, except in filling in the blanks as directed. If any alteration is made or if these instructions have not been fully complied with, the Bid shall be rejected.
- 5.1.5 Bids shall be submitted by the Prequalified Bidders: (i) through courier / express mail; or (ii) by hand at the address indicated in the Data Sheet.

5.2 DEADLINE FOR SUBMISSION

- 5.2.1 Bids must be received by KWSC at the address provided in the Data Sheet not later than the Bid Submission Date.
- 5.2.2 No arrangements shall be made by KWSC with Prequalified Bidders for collection of the Bids from any delivery point. The Prequalified Bidders shall bear all expenses incurred in the preparation and delivery of Bids. No claims for a refund of any expense shall be entertained.
- 5.2.3 Where delivery of the Bid is by courier / express mail and the Prequalified Bidder wishes to

receive an acknowledgment of receipt of such Bid, the Prequalified Bidder shall make a request for such acknowledgement in a separate letter attached to (but not included in) the sealed Bid.

- 5.2.4 KWSC may, at its discretion, extend the Bid Submission Date by issuing an addendum in accordance with Sub-Section 3.4 of the Instructions to Bidders, in which case all rights and obligations of KWSC and the Prequalified Bidders previously subject to the earlier Bid Submission Date shall thereafter be subject to the extended Bid Submission Date.
- 5.2.5 KWSC shall not consider any Bid that arrives after the Bid Submission Date. Any Bid or any document received by KWSC after the Bid Submission Date shall be declared late, rejected, and returned unopened to the Prequalified Bidder.
- 5.2.6 Delays in the mail, delays of person(s) in transit, or delivery of a Bid to an incorrect location, shall not be accepted as an excuse for failure to deliver a Bid at the proper place and time. It shall be the Prequalified Bidder's responsibility to determine the manner in which to deliver its Bid in a timely manner.

5.3 MODIFICATION, SUBSTITUTION AND WITHDRAWAL OF BIDS

- 5.3.1 Any Prequalified Bidder may modify, substitute, or withdraw its Bid after submission provided that written notice, duly signed by authorized representative, for the modification, substitution or withdrawal is received by KWSC prior to the Bid Submission Date.
- 5.3.2 The notice for modification, substitution or withdrawal of any Bid shall be prepared, sealed, marked and delivered in accordance with the provisions applicable to the original Bid with additional marking of "MODIFICATION" or "SUBSTITUTION" on all envelopes in case of modification or substitution, or "WITHDRAWAL" on the envelope containing the notice, in case of withdrawal.
- 5.3.3 Withdrawal of a Bid during the interval between the Bid Submission Date and the expiration of the Bid Validity Period (or any extension thereof) shall result in forfeiture of the Bid Security pursuant to Sub-Section 4.7.8 of the Instructions to Bidders.
- 5.3.4 Bids requested to be withdrawn in accordance with Sub-Section 5.3.1 of the Instructions to Bidders shall be returned unopened to the requesting Prequalified Bidder(s).
- 5.3.5 After the Bid Submission Date, no changes to the Concession Documents shall be permitted other than those requested by KWSC and agreed to by the Prequalified Bidder, and inclusion of details of the Successful Bidder (to whom the Concession is awarded), and any other information that was incomplete prior to the Bid Submission Date.
- 5.3.6 Bids submitted in response to the RFP by the Prequalified Bidders shall be upon full understanding and agreement of all terms of the RFP (including the Concession Documents) and such submission shall be deemed as an acceptance to all the terms and conditions stated in the RFP (including the Concession Documents).

5.4 OPENING OF BIDS

- 5.4.1 TFEC shall conduct the opening of Technical Proposals on the same day as the Bid Submission Date at 15:30 hours (PST) at the address provided in the Data Sheet, in the presence of the Prequalified Bidders' designated representatives who choose to attend.
- 5.4.2 If the Technical Proposal and the Financial Proposal are submitted together in one envelope, other than as specified in the Instructions to Bidders, TFEC may reject the entire Bid. If any document, required to be submitted with Technical Proposal, is submitted with the Financial Proposal, or if any document required to be submitted with the Financial Proposal is submitted with the Technical Proposal, such document shall not be considered for evaluation and may also form the basis of rejection of a Bid.

- 5.4.3 The Financial Proposals shall remain unopened and will be held in custody of KWSC until the specified time of their opening, as communicated by KWSC to the Prequalified Bidders.
- 5.4.4 First, envelopes marked “WITHDRAWAL” shall be opened and read out and the inner envelope with the corresponding Bid shall not be opened but returned to the Prequalified Bidder. No Bid shall be withdrawn unless the corresponding withdrawal notice contains a valid authorization by the Prequalified Bidder to request the withdrawal and is read out during the Bid opening.
- 5.4.5 Second, outer envelopes marked “SUBSTITUTION” shall be opened. The inner envelopes containing the substitute Technical Proposal and / or substitute Financial Proposal shall be exchanged for the corresponding envelopes being substituted, which shall be returned to the Prequalified Bidder unopened. Only the substituted Technical Proposal, if any, shall be opened, read out, and recorded. The Substituted Financial Proposal, if any, will remain unopened in accordance with Sub-Section 5.4.3 of the Instructions to Bidders. No Bid shall be substituted unless a valid authorization by the Prequalified Bidder to request the substitution is submitted and is read out and recorded during the Bid opening.
- 5.4.6 Next, outer envelopes marked “MODIFICATION” shall be opened. The original Technical Proposal shall be opened, read out, and recorded, followed by the opening, reading out and recording of the modification to the Technical Proposal. Any modification to the Financial Proposal shall remain unopened in accordance with Sub-Section 5.4.3 of the Instructions to Bidders. No Bid shall be modified unless a valid authorization by the Prequalified Bidder to request the modification is submitted and is read out and recorded during the Bid opening.
- 5.4.7 All other envelopes holding the Technical Proposals shall be opened one at a time, and the following read out and recorded:
- (a) the name of the Prequalified Bidder;
 - (b) the presence and value of the Bid Security;
 - (c) whether there is a modification or substitution; and
 - (d) any other details as KWSC / TFEC may consider appropriate.
- 5.4.8 Only Technical Proposals read out and recorded during the Bid opening shall be considered for evaluation as per the requirements of the RFP. No Bid shall be rejected at the opening of Technical Proposals except for late Bids, in accordance with Sub-Section 5.2.5 of the Instructions to Bidders.
- 5.4.9 TFEC shall prepare a record of the Bid opening that shall include, as a minimum: the name of the Prequalified Bidder and whether there is a withdrawal, substitution, or modification. The Prequalified Bidders’ representatives who are present shall be requested to sign the attendance sheet. The omission of a Prequalified Bidder’s signature on the attendance sheet shall not invalidate the contents and effect of the record.
- 5.4.10 At the end of the evaluation of the Technical Proposals, TFEC shall invite the Prequalified Bidders who have submitted responsive Technical Proposals pursuant to the requirements of the RFP and who have been determined as technically qualified for award of Concession to attend the opening of the Financial Proposals. The date, time, and location of the opening of Financial Proposals shall be advised in writing by KWSC.
- 5.4.11 At any time prior to the opening of the Financial Proposals, KWSC shall notify in writing the Prequalified Bidders who have been rejected on the grounds of their Technical Proposals not being responsive to the requirements of the RFP. Such Prequalified Bidders shall be required to collect their Financial Proposals unopened from KWSC on the date notified by KWSC in terms of the Applicable Evaluation Documents.

- 5.4.12 TFEC shall conduct the opening of Financial Proposals of all Prequalified Bidders who have technically qualified, in the presence of the Prequalified Bidders' representatives who choose to attend at the address, date and time specified by KWSC. The Prequalified Bidders' representatives who are present shall be requested to sign an attendance sheet evidencing their attendance.
- 5.4.13 Financial Proposals of the Prequalified Bidders shall be opened one at a time and the following read out and recorded:
- (a) the name of the Prequalified Bidder;
 - (b) whether there is a modification or substitution;
 - (c) the Bid Water Tariff for Contract Year 1;
 - (d) the Water Tariff for Contract Year 1;
 - (e) the Project Cost submitted by Prequalified Bidder; and
 - (f) any other details as KWSC / TFEC may consider appropriate.
- 5.4.14 Only the Financial Proposals read out and recorded during the opening of Financial Proposals shall be considered for evaluation. No Financial Proposal shall be rejected at the time of opening of Financial Proposals.
- 5.4.15 TFEC shall prepare a record of the opening of Financial Proposals that shall include, as a minimum: the name of the Prequalified Bidder, the Bid Water Tariff for Contract Year 1, the Water Tariff for Contract Year 1, and the Project Cost submitted by Prequalified Bidder. The Prequalified Bidders' representatives who are present shall be requested to sign the attendance sheet. The omission of a Prequalified Bidder's signature on the attendance sheet shall not invalidate the contents and effect of the record. A copy of the attendance sheet shall be distributed to all Prequalified Bidders.

6. CLARIFICATION AND EVALUATION OF BIDS

6.1 CLARIFICATION OF BIDS

- 6.1.1 To assist in the examination, evaluation and comparison of the Technical Proposals and / or Financial Proposals, TFEC may, at its discretion, ask the Prequalified Bidders for any clarification, additional information or supporting documentation in respect of any matter associated with the documentation submitted by the Prequalified Bidders in their Bids. Any such request and the response shall be in writing. Subject to Sub-Section 6.1.3, no change in the price in the Financial Proposals or substance of the Bid shall be sought, offered or permitted except to confirm the correction of arithmetic errors discovered by TFEC in the evaluation of the Bids, in accordance with Sub-Section 6.3A of the Instructions to Bidders.
- 6.1.2 If a Prequalified Bidder does not provide clarifications of the information requested by the date and time set (as may be extended by the TFEC) in TFEC's request for clarification, the TFEC shall be entitled to reject the Bid.
- 6.1.3 As a result of clarification sought from a Prequalified Bidder, if applicable, the prices / amounts quoted by such Prequalified Bidder in the Financial Proposal may be reduced downwards but shall not be increased from the prices / amounts quoted in the Financial Proposals; provided that, this Section 6.1.3 shall not be applicable in case of errors which are solely arithmetical in nature and are not covered under Sub-Section 6.3A of the Instructions to Bidders.

6.2 EVALUATION OF BIDS

- 6.2.1 During the evaluation of Bids, the following definitions apply:
- (a) "*Deviation*" is a departure from the requirements specified in the RFP;
 - (b) "*Reservation*" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the RFP; and
 - (c) "*Omission*" is the failure to submit part, or all of the information or documentation required in the RFP.

6.3 PRELIMINARY EXAMINATION OF BIDS

- 6.3.1 Prior to the detailed evaluation of Bids pursuant to Sub-Section 6.4 of the Instructions to Bidders, TFEC shall examine each Bid to determine whether:
- (a) the Bid is complete and does not deviate from the scope of works and services to be performed in relation to the Project;
 - (b) any computational errors have been made;
 - (c) required sureties (including Bid Security) have been furnished;
 - (d) documents have been properly signed;
 - (e) valid authorization(s) is / are present;
 - (f) the Bid is valid till the Bid Validity Period; and
 - (g) the Prequalified Bidder continues to meet the evaluation and qualification criteria set out in the Prequalification Document.
- 6.3.2 Prior to conducting detailed evaluation of Bids pursuant to Sub-Section 6.4 of the Instructions to Bidders, TFEC shall examine each Bid as follows, and a Bid may not be considered acceptable

if:

- (a) it is unsigned; or
- (b) its validity is less than the Bid Validity Period.

6.3.3 Prior to the detailed evaluation of Bids pursuant to Sub-Section 6.4 of the Instructions to Bidders, TFEC shall examine each Bid as follows, and a Bid shall not be considered acceptable if:

- (a) it is not accompanied by a Bid Security;
- (b) it is received after the Bid Submission Date;
- (c) it is submitted through fax, email, or any other form of electronic transmission;
- (d) the Prequalified Bidder refuses to accept arithmetic correction(s); or
- (e) it materially deviates from the requirements of the RFP.

6.3A ARITHMETIC ERRORS

6.3A.1 TFEC shall require arithmetical errors to be rectified. If there is a discrepancy between the relevant input amounts under Bidding Form F2-1 till F2-9 and F2-11 and the outputs in Bidding Form F2-10, due to any error in calculation, the relevant input amounts under Bidding Form F2-1 till F2-9 and F2-11 shall prevail, and the output in Bidding Form F2-10 shall be corrected.

6.3A.2 If the Prequalified Bidder does not accept the arithmetically corrected amount of the Bid, its Bid shall be rejected, and its Bid Security shall be forfeited.

6.4 DETERMINATION OF RESPONSIVENESS OF BIDS

6.4.1 TFEC shall determine the responsiveness of each Bid to the RFP. The Technical Proposals that conform to all the terms and conditions of the RFP without material deviations, reservations or omissions shall be declared responsive. A material deviation, reservation or omission is one that:

- (a) if accepted, would:
 - (i) affect in any substantial way the scope, quality, or performance of the works and services in relation to the Project as specified in the RFP; or
 - (ii) limit in any substantial way KWSC's or GoS's rights or the Prequalified Bidder's or the Company's obligations under the RFP; or
- (b) if rectified, would unfairly affect the competitive position of other Prequalified Bidders presenting substantially responsive Technical Proposals.

6.4.2 TFEC's determination of a Bid's responsiveness may be based on the contents of the Bid itself without recourse to extrinsic evidence.

6.4.3 Any minor non-conformity or irregularity in a Technical Proposal that does not constitute a material deviation, reservation or omission may be waived by KWSC / TFEC or required by KWSC / TFEC to be rectified, provided such waiver or rectification does not prejudice or affect unfairly the competitive position of other responsive Technical Proposals.

6.4.4 Provided that a Bid is substantially responsive, TFEC may request that the Prequalified Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify non-material non-conformities in the Bid related to documentation requirements. Requesting information or documentation on such non-conformities shall not be related to any aspect of the

Financial Proposal. Failure of the Prequalified Bidder to comply with the request may result in the rejection of its Bid.

- 6.4.5 If a Bid is not substantially responsive to the requirements of the RFP, it shall be rejected by TFEC and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.
- 6.4.6 A responsive Financial Proposal is one which meets the requirements of the RFP without any deviation, reservation or omission. No change in the Financial Proposals shall be allowed and shall be evaluated as per the information provided by the Prequalified Bidders. A non-responsive Financial Proposal may not subsequently be made responsive by correction of the deviation, reservation, or omission.
- 6.4.7 If a Financial Proposal, in the opinion of TFEC, is seriously unbalanced or is seen to unfairly exploit the evaluation mechanism, TFEC may require the relevant Prequalified Bidder to produce detailed price analysis for any or all items of the Bid, to demonstrate the internal consistency of those prices. After evaluation of the price analysis, taking into consideration the terms of payments, KWSC / TFEC may require the Prequalified Bidder to rationalize the costs and / or terms of payments; provided that, no change in substance of Bids shall be permitted following the Bid Submission Date.

6.5 EVALUATION CRITERIA

- 6.5.1 In addition, and subject to the requirements set out in Sub-Section 6.3 and Sub-Section 6.4 each of the Instructions to Bidders, the Prequalified Bidders shall be evaluated against the evaluation criteria for the Technical Proposals and the Financial Proposals set out in Annexure B of Part 4 of Volume I of the RFP.
- 6.5.2 The Technical Proposals will be evaluated based on the “pass” or “fail” basis. A Prequalified Bidder whose Technical Proposal meets the technical evaluation criteria (in KWSC’s / TFEC’s determination) set out in Section I of Annexure B of Part 4 of Volume I of the RFP shall be considered “*pass*” and a Prequalified Bidder whose Technical Proposal fails to meet the technical evaluation criteria (in KWSC’s / TFEC’s determination) set out in Section I of Annexure B of Part 4 of Volume I of the RFP shall be considered “*fail*”.
- 6.5.3 The Bid Water Tariff for Contract Year 1 shall be calculated as per the methodology set out in Section II of Annexure B of Part 4 of Volume I of the RFP. The Bid Water Tariff for Contract Year 1 shall be clearly stated as a single figure (rounded off to two decimal places), denominated in PKR, and shall not include any provision for amendment or adjustment (whether for inflation, foreign exchange movements or otherwise), except as otherwise permitted pursuant to the provisions of Concession Agreement. For the avoidance of doubt, it is clarified that both the Bid Water Tariff for Contract Year 1 and the Water Tariff for Contract Year 1 shall be denoted as “XX.XX paisas/imperial gallon”.
- 6.5.4 Any Bid that fails to meet the evaluation criteria for the Technical Proposals and the Financial Proposals set out in Annexure B of Part 4 of Volume I of the RFP, shall be rejected.
- 6.5.5 The capabilities of the Proposed Contractors proposed in a Bid will be evaluated for acceptability in accordance with Annexure A of Part 4 of Volume I of the RFP.
- 6.5.6 Should all the Proposed Contractors be determined to be non-compliant with the requirements set out in the RFP, the respective Bid shall be rejected.

6.6 SUCCESSFUL BIDDER

- 6.6.1 Subject to the terms of this RFP and the rights granted to the Original Proponent in accordance with Applicable Laws, a Prequalified Bidder whose Bid has been determined the Best Evaluated Bid in terms of the highest Combined Score shall be declared the Successful Bidder.

6.6.2 In the event it is determined that two (2) or more Prequalified Bidders have been determined to be the Best Evaluated Bid in terms of the highest Combined Score, KWSC may require such Prequalified Bidders to re-submit the revised Financial Proposals.

6.7 KWSC'S RIGHT TO VERIFY DOCUMENTS

6.7.1 KWSC retains the right to verify particulars regarding any information, statements and / or documents furnished with a Bid. Any Prequalified Bidder found to be misrepresenting information may be disqualified at any stage of the Bidding Process and their Bid Security shall be forfeited.

7. AWARD OF CONCESSION

7.1 AWARD CRITERIA

7.1.1 Subject to Sub-Section 7.2, KWSC shall award the Project to the Prequalified Bidder whose Bid has been determined to be the Best Evaluated Bid in terms of the requirements of the Applicable Evaluation Documents and subject to the approval of the PPP Policy Board established under the Sindh PPP Act, provided that such Prequalified Bidder continues to be eligible in accordance with the requirements set out in the Prequalification Document and the RFP.

7.2 KWSC'S RIGHT TO ACCEPT / REJECT BIDS

7.2.1 No Bid shall be considered to have been accepted, unless such acceptance is confirmed in writing and notified to the Successful Bidder by KWSC.

7.2.2 KWSC reserves the right to annul the Bidding Process and reject all Bids at any time prior to the issuance of the Notification of Award, without thereby incurring any liability to the Prequalified Bidders or providing any reason for rejection of the Bids. In case of such annulment, all Bids submitted and specifically, the Bid Securities, shall be promptly returned to the Prequalified Bidders. The decision of KWSC shall be final and binding.

7.2.3 KWSC shall not be responsible for, or pay for, any expenses or losses which may be incurred by any Prequalified Bidder in the preparation of, or in connection with, its Bid.

7.2.4 Each Prequalified Bidder fully waives any and all rights to claim in respect of such expenses or losses and agrees to indemnify KWSC, its affiliates and their advisors fully in respect of any direct or indirect losses, damages, costs or expenses of any kind incurred by any of them.

7.3 NOTIFICATION OF AWARD

7.3.1 Prior to expiration of the Bid Validity Period, KWSC shall notify the Successful Bidder through the Notification of Award that its Bid has been accepted.

7.3.2 KWSC shall, at least three (3) Business Days prior to the issuance of the Notification of Award, publish on the websites of PPP Unit, SPPRA and KWSC, the results of the Bidding Process in the form of a report, which report shall also be issued to the Prequalified Bidders.

7.3.3 The Successful Bidder shall acknowledge and return the Notification of Award with its acceptance (the **Acceptance of Notification of Award**) within seven (7) calendar days of the issuance of Notification of Award, failure of which may constitute sufficient grounds for the annulment of the award and forfeiture of its Bid Security.

7.3.4 The Company shall be required to pay the ADB Advisory Fee in accordance with the timelines set out in this RFP and / or the Concession Agreement. The ADB Advisory Fee shall be non-refundable.

7.4 FORMATION OF COMPANY BY THE SUCCESSFUL BIDDER

7.4.1 The Successful Bidder shall incorporate a wholly owned Company that shall be a registered company incorporated in accordance with the Applicable Laws of Pakistan exclusively for the implementation of the Project.

7.4.2 The Successful Bidder / Company shall be obligated to replace the Bid Security (prior to expiry of the Bid Security) with the Construction Security as per the requirements set out in Sub-Section 7.5.1 of the Instructions to Bidders.

7.5 CONSTRUCTION SECURITY

- 7.5.1 The Successful Bidder / Company shall, at least five (5) Business Days prior to the date of signing of the Concession Agreement, furnish to the KWSC a satisfactory Construction Security and shall maintain the same in full force and effect until the Construction Security Expiry Date, in accordance with the requirements of the Concession Agreement and the RFP.
- 7.5.2 A failure of the Successful Bidder to comply with the requirements of Sub-Section 7.5.1 of the Instructions to Bidders shall constitute sufficient grounds for the annulment of the award and forfeiture of its Bid Security. Prior to execution of the Concession Agreement, the Construction Security may be encashed by KWSC for the same reasons as the Bid Security and for such other purpose as specified in the RFP. Following execution of the Concession Agreement, the Construction Security shall be encashed in terms of the Concession Agreement.

7.6 SIGNING OF THE CONCESSION AGREEMENT

- 7.6.1 The Concession Agreement shall be executed between, KWSC and the Company (as the concessionaire) within thirty (30) calendar days of issuance of the Notification of Award or within such extended timeline as determined by KWSC in its sole discretion. In case the Concession Agreement is not executed within the aforesaid timeline, the Bid Security or the Construction Security (as applicable) shall be forfeited and the award shall be cancelled, if such failure is due to reasons attributable to the Successful Bidder, in the sole determination of KWSC.

8. OTHER CONSIDERATIONS

8.1 CONFIDENTIALITY

- 8.1.1 Subject to Sub-Section 8.1.3 of the Instructions to Bidders and Sub-Section 3.3, no Prequalified Bidder shall contact KWSC / GoS / TFEC on any matter relating to its Bid from the time of Bid Submission Date.
- 8.1.2 Any attempt by a Prequalified Bidder to influence KWSC / GoS / TFEC in relation to the Bidding Process shall result in the rejection of its Bid and encashment of its Bid Security.
- 8.1.3 Notwithstanding Sub-Section 8.1.2 of the Instructions to Bidders, from the time of Bid opening to the time of award of the Project, if any Prequalified Bidder wishes to contact KWSC / TFEC on any matter related to the Bidding Process (including for the matters set out in Sub-Section 3.3), it should do so in writing via the modes specified in the Data Sheet.
- 8.1.4 Information relating to the examination, clarification, evaluation and recommendation for the Prequalified Bidder shall not be disclosed to any person who is not officially concerned with the Bidding Process or is not a retained professional advisor advising KWSC and / or the GoS in relation to, or matters arising out of, or concerning the Bidding Process. KWSC will endeavour to treat all information, submitted as part of the Bid, in confidence and will require all those who have access to such material to treat the same in confidence. KWSC may not divulge any such information, unless it is directed to do so by any statutory entity that has the power under law to require its disclosure, is required under the Applicable Laws in Pakistan, or it is to enforce or assert any right or privilege of KWSC, a statutory entity and / or the GoS.
- 8.1.5 All information supplied by KWSC / GoS (through KWSC) in connection with this RFP, shall be treated as confidential and the Prequalified Bidders shall not, without the prior written consent of KWSC, at any time make use of such information for their own purposes or disclose such information to any person (except as may be required by Applicable Laws). Subject to the provisions of this RFP, the RFP shall remain the property of KWSC and is issued solely for the purpose of preparation and submission of the Bid in accordance herewith.
- 8.1.6 The RFP and every part of it and all other information provided by or on behalf of KWSC must be treated as private and confidential. The Prequalified Bidders shall not disclose the fact that they have been invited to submit a Bid or release details of the RFP other than on a strictly confidential basis to those parties whom they need to consult for the purposes of preparing the Bids.
- 8.1.7 The Prequalified Bidders shall not at any time release any information concerning the RFP and / or their Bid and / or any related documents and / or any discussion with KWSC in this connection for publication in the press or on radio, television, screen or any other medium without the prior written approval of KWSC.
- 8.1.8 Each Prequalified Bidder undertakes to indemnify KWSC and the GoS and to keep KWSC and the GoS indemnified against all actions, claims, demands, liability, proceedings, damages, costs, charges and expenses whatsoever arising out of or in connection with any breach of the provisions of this Sub-Section 8.1.
- 8.1.9 Any Bid submitted in response to the RFP is submitted upon a full understanding and agreement of terms of this Sub-Section 8.1 and therefore the submission of the Bid in response to the RFP would be deemed as an acceptance to the said terms.

8.2 CORRUPT AND FRAUDULENT PRACTICES

- 8.2.1 KWSC / TFEC will reject a Bid if it determines that a Prequalified Bidder (including its Affiliate) or a Proposed Contractor has, directly or through an agent, engaged in Corrupt and Fraudulent Practices (including corrupt, fraudulent, collusive, coercive, or obstructive practices or other

integrity violations during the prequalification process for the Project or the Bidding Process) and declare such Prequalified Bidder and/or a Proposed Contractor (as the case may be) ineligible, either indefinitely or for a stated period of time, to engage with the GoS Parties.

8.2.2 For the purposes of this RFP, the term “*Corrupt and Fraudulent Practices*” means either one or any combination of the practices with respect to the Bidding Process and / or the Project given below:

- (a) “**Corrupt Practice**” means the offering, giving, receiving, or soliciting, directly or indirectly, of a bribe or anything of value to influence the actions of any persons connected with the RFQ Stage or RFP Stage for or on behalf of the GoS or KWSC, including their respective representatives;
- (b) “**Coercive Practice**” means impairing or harming or threatening to impair or harm, directly or indirectly, any person or the property of that person to influence improperly the actions of a person involved in the RFQ Stage or RFP Stage;
- (c) “**Collusive Practice**” means an arrangement between two or more persons involved in the RFQ Stage or RFP Stage designed to achieve an improper purpose, including influencing improperly or unlawfully the actions of another person;
- (d) “**Fraudulent Practice**” means any act or omission including a misrepresentation that knowingly or recklessly misleads or attempts to mislead a person involved in the RFQ Stage or RFP Stage to obtain a financial or other benefit or to avoid an obligation;
- (e) “**Obstructive Practice**” means:
 - (i) harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process or affect the execution of a contract or deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede an investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or
 - (ii) acts intended to materially impede the exercise of the inspection and audit rights of the GoS, or KWSC and their respective representatives or financiers of the Project including any development partner of the financiers;
- (f) “**Restrictive Practice**” means forming a cartel or arriving at any understanding or arrangement among the Prequalified Bidder (or in the case of a Consortium among Consortium Members of different Consortiums) with the objective of restricting or manipulating a full and fair competition in the RFQ Stage or RFP Stage;
- (g) “**Undesirable Practice**” means (i) establishing contact with any member of the KWSC or GoS or any person connected with or employed or engaged by the GoS or KWSC with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the RFQ Stage or RFP Stage or the Prequalification Application; or (ii) having a Conflict of Interest; and
- (h) “**Money Laundering or Terrorist Activities**” means engaging in or facilitating any form of money laundering or terrorist financing.

8.2.3 The Prequalified Bidder (and where the Prequalified Bidder is a Consortium, each Consortium Member) represents, warrants and covenants that as on the Bid Submission Date:

- (a) neither it nor, to the best of its knowledge, any Connected Person:

- (i) has engaged or indulged in any Corrupt and Fraudulent Practices; and
 - (ii) in the period of five (5) years prior to Bid Submission Date, has engaged or indulged in activities substantially similar to the Corrupt and Fraudulent Practices in respect of a project that is not the Project.
- (b) it shall not engage or indulge in, and shall not cause any Connected Person to engage or indulge in, any Corrupt and Fraudulent Practices;
- (c) it has not procured, and will not procure, any other person to commit or otherwise be involved with the Corrupt and Fraudulent Practices on its or any other person or entity's behalf;
- (d) neither it nor anyone engaged by it in connection with the RFQ, the RFP or the Project, including any Connected Person has been, or is, subject to:
- (i) a conviction in any court for any offence involving any Corrupt and Fraudulent Practices; or
 - (ii) a dismissal or resignation from any employment on the grounds of being implicated in any Corrupt and Fraudulent Practices;
- (e) neither it nor any Connected Person has been, or is, subject to:
- (i) being debarred or cross-debarred under the agreement for mutual recognition of debarment decisions by multilateral development banks (including African Development Bank, Asian Development Bank, European Bank For Reconstruction And Development, Inter-American Development Bank or World Bank Group) on the grounds of any breach of obligations substantially similar to the engagement or indulgence in Corrupt and Fraudulent Practices;
 - (ii) an adverse order in any judgment, award, decree by any court, tribunal or judicial forum, or enforcement proceedings (as the case may be) by any government authority with regard to any breach of any obligations substantially similar to the engagement or indulgence in Corrupt and Fraudulent Practices; or
 - (iii) are included on any sanctions lists promulgated by the UN Security Council or its Committees, or any other recognised international sanctions list.

8.2.4 Without limiting any other obligation of the Prequalified Bidder (and where the Prequalified Bidder is a Consortium, each Consortium Member), shall:

- (a) keep KWSC informed on an on-going basis as to the initiation, progress and disposition of any investigations or proceedings relating to any matter connected to the Prequalified Bidder (and where the Prequalified Bidder is a Consortium, each Consortium Member) or a Connected Person in relation to Corrupt and Fraudulent Practices;
- (b) promptly notify and provide full details to the KWSC if the Prequalified Bidder (or where the Prequalified Bidder is a Consortium each Consortium Member) becomes aware of:
 - (i) any engagement or indulgence in Corrupt and Fraudulent Practices by a Connected Person;
 - (ii) any solicitation, directly or indirectly, of a bribe or anything of value by an officer, employee, consultant or agent or the GoS or KWSC; or

- (iii) a Conflict of Interest;
 - (c) in the event of a breach of the provisions under Section 2.1.8, provide full details of such breach.
- 8.2.5 The Prequalified Bidder (and where the Prequalified Bidder is a Consortium, each Consortium Member) shall:
- (a) use its best endeavours to incorporate the provisions regarding the Corrupt and Fraudulent Practices set out in Sections 8.2.2 to 8.2.5 (inclusive) into any contract entered into by the Prequalified Bidder (and where the Prequalified Bidder is a Consortium, each Consortium Member) with a third party for the purpose of implementing any portion of the Project; and
 - (b) use reasonable endeavours to procure that any third party contracted for the purpose of implementing any portion of the Project incorporates the provisions regarding the Corrupt and Fraudulent Practices set out in Sections 8.2.2 to 8.2.5 (inclusive) into any contract that third party enters with any other third party for the purpose of implementing any portion of the Project.
- 8.2.6 The Prequalified Bidders (and where the Prequalified Bidder is a Consortium, each Consortium Member of that Consortium) understands and acknowledges that it shall not be eligible to participate in any request for prequalification or request for proposal for any other project of the GoS or KWSC for a period of five (5) years from the date such Prequalified Bidder, or Consortium Member or a Connected Person is considered by GoS or KWSC to have directly or indirectly or through an agent, engaged or indulged in Corrupt and Fraudulent Practices.

8.3 INTEGRITY PACT

The Individual Authorized Representative of each Prequalified Bidder (and where the Prequalified Bidder is a Consortium, each Consortium Member) shall sign and stamp Bidding Form T2 of PART 2 of the RFP (the **Integrity Pact**). Failure to provide such Integrity Pact may cause the Bid to be rejected by TFEC as non-responsive.

8.4 GRIEVANCE REDRESSAL

Any Prequalified Bidder being aggrieved by any act or decision of KWSC / TFEC, may after the issuance of the RFP, lodge a written complaint to the “*complaint redressal committee*” constituted by KWSC in accordance with the Applicable Evaluation Documents. The mechanism for redressal of grievances of Prequalified Bidders shall be as per the Applicable Evaluation Documents.

8.5 FEES, DUTIES AND TAXES

The Company shall be responsible for payment of any stamp duty and other fees, duties and / or taxes that may be applicable with respect to the execution of the relevant documents (including the Concession Documents) in relation to the Project.

9. DATA SHEET

The following specific data shall supplement the provisions in the Instructions to Bidders.

1.	Address for seeking clarifications on the RFP	<p>Designation: Project Director, West Karachi Recycled Water Project 1, Karachi Water & Sewerage Corporation</p> <p>Address: Room No. 7, Block-C, 9th Mile Karsaz, Shahrah-e-Faisal, Karachi – Sindh, Pakistan</p> <p>Phone No.: +92 21 99245133</p> <p>Requests for clarifications to be sent to the following email addresses:</p> <p>Email: info.p3proc@gmail.com</p> <p>Subject of email to be Att. Project Director WKRWP1 KWSC – RFP (<i>[Name of Prequalified Bidder]</i>).</p>
2.	Pre-Bid Meeting	<p>Date: April 08, 2024</p> <p>Time: 12:00 hours (PST)</p> <p>Venue: Venue for the Pre-Bid Meeting shall be specified by KWSC in writing one (1) week prior to the Pre-Bid Meeting.</p> <p><i>Virtual attendance in the Pre-Bid Meeting shall be permitted. Link for the virtual meeting shall be shared with the Prequalified Bidders prior to the date of the Pre-Bid Meeting.</i></p>
3.	Address for submission of Bids	<p>Attention: Special Secretary (Technical)</p> <p>Local Government & Housing Town Planning Department</p> <p>(on behalf of the Project Director, West Karachi Recycled Water Project 1, Karachi Water & Sewerage Corporation)</p> <p>Address: Ground Floor, Sindh Secretariat Building No. 5 Annexe Tughlaq House, Kamal Ataturk Road, Karachi – Sindh, Pakistan.</p> <p>Telephone: +92 21 99245154 – 6</p> <p>Cell: +92 300 3334567</p>
4.	Address for opening of Bids	<p>Committee Room of the Planning & Development Department, 2nd Floor, Tughlaq House, Kamal Ataturk Road, Karachi – Sindh, Pakistan.</p>
5.	Bid Submission Date	<p>May 14, 2024</p>

PART 2
BIDDING FORMS

1. BIDDING FORMS

- 1.1 The Bidding Forms comprise the forms stated below and each relevant form is required to be submitted with the Technical Proposal and the Financial Proposal, as applicable.
- 1.2 For the Technical Proposal, the following Bidding Forms are to be submitted:
- (a) **FORM T1 – LETTER OF TECHNICAL PROPOSAL;**
 - (b) **FORM T2 – FORM OF INTEGRITY PACT;**
 - (c) **FORM T3 – FORM OF POWER OF ATTORNEY;**
 - (d) **FORM T4 – FORM OF UNDERTAKING;**
 - (e) **FORM T5 – FORM OF CONSORTIUM UNDERTAKING;**
 - (f) **FORM T6 – FORM OF AFFIDAVIT BY PROPOSED CONTRACTORS;**
 - (g) **FORM T7 – FORM OF BID SECURITY;**
 - (h) **FORM T8 – TECHNICAL SUBMITTALS; AND**
 - (i) **FORM T9 – PROJECT REFERENCE FORMS.**
- 1.3 For the Financial Proposal, the following Bidding Forms are to be submitted:
- (a) **FORM 1 – LETTER OF FINANCIAL PROPOSAL; and**
 - (b) **FORM 2 – FINANCIAL FORMS.**

A. TECHNICAL PROPOSAL BIDDING FORMS

BIDDING FORM T1

LETTER OF TECHNICAL PROPOSAL

[Date]

To: The Project Director – West Karachi Recycled Water Project 1,

[Room No. 7, Block-C, 9th Mile Karsaz,
Shahrah-e-Faisal, Karachi – Sindh, Pakistan].

Re: Design, finance, build, operate, maintain and transfer of the West Karachi Recycled Water Project 1 In the Province Of Sindh (the **Project**).

Dear [Sir / Madam],

Reference the Request for Proposals document issued on [●], by Karachi Water and Sewerage Corporation (**KWSC**), (the **RFP**) in relation to the Project.

We, [Name of the Prequalified Bidder] hereby submit our Technical Proposal in conformity with the requirements of the RFP.

All capitalized terms unless defined herein shall bear the meaning as ascribed thereto in the RFP.

We, agree, confirm, undertake and declare that:

- (a) We have examined and have no reservations to the RFP, including Addenda No(s) [●] / Corrigenda No(s) [●];
- (b) We, [including all Consortium Members,] fully and completely understand and accept the terms of the RFP and hereby undertake to comply with the requirements specified therein;
- (c) We offer to perform and undertake the works and services in respect of the Project in conformity with the RFP (including the Concession Documents) without any omission, reservation and deviation; and we accept and undertake to comply with all requirements in the RFP, including the appendices / annexures attached to the RFP;
- (d) We, [including all Consortium Members,] and the Proposed Contractors, as per the requirements of the Prequalification Document and the RFP, respectively:
 - (i) do not have any Conflict of Interest; and
 - (ii) have not been declared ineligible / blacklisted by any of our employers, by any federal or provincial governmental or non-governmental department / agency in Pakistan, or any other provincial government / governments of any foreign countries or their governmental bodies and / or international organizations (e.g., World Bank, Asian Development Bank, United Nations, International Monetary Fund etc.), as at the Bid Submission Date;
- (e) that neither we, [including all Consortium Members], nor any Affiliate, Connected Person, or Contractors, are:
 - (i) included as a debarred person pursuant to the public sanctions list of any multilateral development bank that is party to the Agreement on Mutual Enforcement of Debarment Decisions of 9 April 2010 (www.crossdebarment.org); or

- (ii) subject to an adverse order in any judgment, award, decree by any court, tribunal or judicial forum, or enforcement proceedings (as the case may be) by any government authority with regard to any breach of any obligations substantially similar to the engagement or indulgence in Corrupt and Fraudulent Practices; or
 - (iii) are included on any sanctions lists promulgated by the UN Security Council or its Committees, or any other recognized international sanctions list;
- (f) neither we nor, to the best of our knowledge, any Connected Person:
- (i) has engaged or indulged in any Corrupt and Fraudulent Practices; and
 - (ii) in the period of five (5) years prior to the date of the RFP, has engaged or indulged in activities substantially similar to the Corrupt and Fraudulent Practices in respect of a project that is not the Project;
- (g) we shall not engage or indulge in, and shall not cause any Connected Person to engage or indulge in, any Corrupt and Fraudulent Practices;
- (h) neither it nor anyone engaged by it in connection with the RFP or the Project, including any Connected Person has been, or is, subject to:
- (i) a conviction in any court for any offence involving any Corrupt and Fraudulent Practices; or
 - (ii) a dismissal or resignation from any employment on the grounds of being implicated in any Corrupt and Fraudulent Practices;
- (i) Our Bid consisting of the Technical Proposal and the Financial Proposal shall be valid for a period of one hundred twenty (120) calendar days from the date fixed for the Bid Submission Date in accordance with the RFP, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (j) We understand that all the volumes, appendices / annexures attached to the RFP are integral parts of the RFP;
- (k) As security for due performance of the undertakings and obligations of this Bid, we submit unconditionally herewith a Bid Security equivalent to Pakistani Rupees One Billion (PKR 1,000,000,000) drawn in your favor or made payable to you and valid for a period twenty-eight (28) calendar days beyond the period of validity of Bid. We confirm that the Bid Security has been issued and maintained in accordance with the requirements of the RFP.
- (l) We have reviewed and accepted the form of the Concession Documents along with the appendices attached thereto (attached as Volume II and form of the other Concession Documents), and undertake to execute the same within the time period stipulated in Notification of Award;
- (m) We hereby:
- (i) acknowledge and consent to any actual, potential or perceived conflicts of interests arising as a result of the multiple current or prospective roles of ADB, MIGA and IDA in connection with the development, delivery and financing of the Project, or in connection with any pre-existing financial or advisory relationships between an institution of the ADB, World Bank Group and a Prequalified Bidder [(including the Consortium Members)] (or its Affiliate), KWSC including or in connection with the GoS' role as a shareholder in the Company and a party to the Concession Agreement;
 - (ii) waive any liability to which any World Bank Group institution might otherwise be subject in connection with such actual, potential or perceived conflicts of interest; and

- (iii) consent to the sharing of any information provided to or created by ADB in connection with the proposed financing of the Project among ADB, IDA and MIGA staff members engaged in the proposed financing of the Project;
- (n) We acknowledge that KWSC (and the GoS) will be relying on the information provided in [[our Prequalification Application]³ / [our Unsolicited Proposal]⁴] and our Bid and the documents accompanying them to determine the Successful Bidder. We certify that all information provided in [our Prequalification Application and]⁵ our Bid is true and correct and that nothing has been omitted which renders such information misleading;
- (o) We continue to satisfy and meet all the requirements specified in the Prequalification Document, including the qualifications requirements set out in the Prequalification Document [and in our Prequalification Application]⁶ and there has been no material event relating to us or, if we are a Consortium, to any of our Consortium Members, which would require disclosure to KWSC (and the GoS) or which might cause us to fail to become a Prequalified Bidder;
- (p) We understand that this Bid, together with your written acceptance thereof included in your Notification of Award, shall constitute our binding obligation, until the Concession Agreement (attached as Volume II to the RFP) and other Concession Documents are executed;
- (q) We are not participating or any of our Consortium Members (or any of our Affiliates), as a Prequalified Bidder in more than one Bid in this Bidding Process in accordance with the requirements of the RFP;
- (r) We understand that KWSC may cancel the Bidding Process at any time and that KWSC is not bound either to accept any Bid that it may receive, without incurring any liability to the Prequalified Bidders;
- (s) We agree to permit KWSC, the GoS and any persons, representatives or auditors appointed and authorized by KWSC and / or the GoS to inspect and audit our accounts, records and other documents relating to our Bid;
- (t) All the information submitted along with our Bid, including the enclosed forms and documents, is accurate in all respects.
- (u) We accept the right of KWSC to: (i) request additional information reasonably required to assess the Bid; (ii) amend the procedures and requirements or make clarifications thereof; and (iii) extend or amend the timelines as stipulated in the RFP;
- (v) All information, representations and other matters of fact communicated (whether in writing or otherwise) to KWSC by us or on our behalf, in connection with or arising out of the Bid are true, complete and accurate in all respects;
- (w) We hereby declare that all the information and statements made in this Bid are true and accept that any misrepresentation contained in it shall lead to our disqualification, forfeiture of the Bid Security and/or blacklisting by the KWSC;
- (x) We, [including all Consortium Members,] have made our own investigations and research and have satisfied ourselves in respect of all matters (whether actual or contingent) relating to the Bid and the Project.
- (y) We undertake, if our Bid is accepted, to furnish the Construction Security as per the requirements of the RFP;

³ To be deleted for the Original Proponent.

⁴ To be added only for the Original Proponent.

⁵ To be deleted for the Original Proponent.

⁶ To be deleted for the Original Proponent.

- (z) We do hereby declare that the Bid is made without any collusion, comparison of figures or arrangement with any other person or persons making a Bid for the Project.
- (aa) We understand that the RFP has been issued by KWSC for the Project; and undertake and confirm that if our Bid is accepted, the Company (to be incorporated by us, in case the Project is awarded to us) shall execute the Concession Agreement (attached as Volume II to the RFP) and all other instruments as may be required to be executed in relation to the Project as per the requirements of the RFP; and
- (bb) We acknowledge that in case the Project is awarded to us, we shall be liable to pay ADB Advisory Fee in the manner specified in the Notification of Award, the RFP and/or the Concession Agreement within the timeline stipulated in the relevant invoice issued by ADB.

Name

In the capacity of

Signed

..... (Seal)...

Duly authorized to sign the Bid for and on behalf of: *(Insert Name of the Prequalified Bidder / names of all Consortium Members)*

Date

Witness 1:

Witness 2:

Signature: _____

Signature: _____

Name: _____

Name: _____

Designation: _____

Designation: _____

Date: _____

Date: _____

CNIC/Passport No.: _____

CNIC/Passport No.: _____

BIDDING FORM T2

FORM OF INTEGRITY PACT

Dated _____

[*name of Prequalified Bidder*] (the **Bidder**) hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Sindh, Karachi Water and Sewerage Corporation, any administrative subdivision or agency thereof or any other entity owned or controlled by Government of Sindh (collectively to be hereinafter referred to as the **GoS**) through any corrupt business practice.

Without limiting the generality of the foregoing, the Bidder represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or Subsidiary Company(ies), any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoS, except that which has been expressly declared pursuant hereto.

The Bidder certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoS and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

The Bidder accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to GoS under any law, contract or other instrument, be voidable at the option of GoS.

Notwithstanding any rights and remedies exercised by GoS in this regard, the Bidder agrees to indemnify GoS for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoS in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by the Bidder as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoS.

Name of Employer: Karachi Water & Sewerage Corporation

Signature:

[Seal]

Name of Bidder: _____

Signature:

[Seal]

BIDDING FORM T3

POWER OF ATTORNEY

(A) POWER OF ATTORNEY TO AUTHORIZE A PERSON TO SIGN THE DOCUMENTS

NOTES FOR EXECUTION OF POWER OF ATTORNEY

- *To be executed by each Prequalified Bidder and in case the Prequalified Bidder is a Consortium, by each Consortium Member, authorizing the relevant attorney to, inter alia, sign the required documents on its behalf in relation to the RFP.*
- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*
- *Wherever required, the Prequalified Bidder (and in case of the Consortium, each Consortium Member, wherever required) should submit for verification the extract of the charter documents and documents such as a resolution / power of attorney in favor of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Prequalified Bidder / Consortium Member.*
- *This Power of Attorney shall be on stamp paper and notarized with the Notary Public.*
- *For a Power of Attorney executed and issued in member/contracting states of the Apostille Convention, to the extent recognized in Pakistan, the same will have to be legalized by the designated authority of the country where the Power of Attorney is executed; provided, however, if the Power of Attorney is not issued in member/contracting states of the Apostille Convention, the same will have to be notarized by Notary Public and attested by the Pakistani Embassy / Consulate in the country where the Power of Attorney is executed and, once brought into Pakistan, the same is to be attested by Ministry of Foreign Affairs, Pakistan and adhesive stamped.*
- *See Bidding Documentary Legal Requirements set out in Part 3 (Bidding Documentary Legal Requirements) of Volume I (Bidding Procedure) of the RFP.*

KNOW ALL BY THESE PRESENTS, WE, [(name of the entity and address of the registered office)] do hereby irrevocably constitute, nominate, appoint and authorize Mr. / Ms. [(Name)], son / daughter / wife of [(Name)] holding [CNIC / Passport] Number [insert number] and presently residing at [insert current residence details], who is presently employed with us and holding the position of [insert position], as our true and lawful attorney (hereinafter referred to as the **Attorney**) (with power to sub-delegate) to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to the requirements of the request for proposals document issued on [●] (the **RFP**) by Karachi Water and Sewerage Corporation (**KWSC**) in relation to the West Karachi Recycled Water Project 1 (the “**Project**”), including but not limited to signing and submission of all documents and providing information / responses to KWSC in respect of the RFP, representing us in all matters before KWSC, and generally dealing with KWSC (and the GoS), and / or any other governmental agencies or any person, in all matters in connection with or relating to or arising out of our Bid and its acceptance by KWSC and for the Project.

We hereby ratify all prior and future acts, deeds and things lawfully done by the Attorney in relation to the Project (including with respect to the submission of our Bid in response to the RFP) pursuant to this Power of Attorney and we hereby agree that all prior and / or future acts, deeds and things done by the Attorney in relation to the Project (including with respect to the submission of our Bid in response to the RFP) shall, and shall always be, deemed to have been done by us.

IN WITNESS WHEREOF WE, _____, HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS _____ DAY OF _____, 20__.

For & On Behalf of:
_____ (insert name of the entity)

By Its Duly Authorized Signatory

.....

(Signature)

Name: _____ [insert name of the person issuing this Power of Attorney who is authorized to issue this Power of Attorney on behalf of the entity]

Title / Designation: _____ [insert designation of the person issuing this Power of Attorney]

Address: _____ [insert address of the person issuing this Power of Attorney]

WITNESSES:

WITNESS 1:

WITNESS 2:

.....

.....

NAME:
CNIC / PASSPORT NUMBER:
ADDRESS:

NAME:
CNIC / PASSPORT NUMBER:
ADDRESS:

SIGNATURE OF ATTORNEY

.....

Name of Attorney: _____

CNIC / Passport Number of Attorney: _____

Title / Designation of Attorney: _____

Address of Attorney: _____

(B) POWER OF ATTORNEY TO AUTHORIZE THE CONSORTIUM AUTHORIZED REPRESENTATIVE

NOTES FOR EXECUTION OF POWER OF ATTORNEY

- *This Power of Attorney for the appointment of Consortium Authorized Representative, is to be collectively executed by the Individual Authorized Representative of each Consortium Member (appointed pursuant to the power of attorney in Form A (Power of Attorney to Authorize a Person to Sign the Documents)). The Consortium Authorized Representative shall be the same entity (i.e., the Lead Member), appointed to represent the Consortium during the prequalification stage. Subject to the approval of KWSC / TFEC, a different Consortium Authorized Representative (i.e., different from the representative appointed during the Prequalification Process) may be appointed pursuant to the Power of Attorney, provided that such Consortium Authorized Representative is the Lead Member.*
- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s).*
- *This Power of Attorney shall be on a stamp paper and notarized with the Notary Public.*
- *For a Power of Attorney executed and issued in member/contracting states of the Apostille Convention, to the extent recognized in Pakistan, the same will have to be legalized by the designated authority of the country where the Power of Attorney is executed; provided, however, if the Power of Attorney is not issued in member/contracting states of the Apostille Convention, the same will have to be notarized by Notary Public and attested by the Pakistani Embassy / Consulate in the country where the Power of Attorney is executed; and once brought into Pakistan, the same is to be attested by Ministry of Foreign Affairs, Pakistan and adhesive stamped.*
- *See Bidding Legal Documentary Requirements set out in Part 3 (Bidding Documentary Legal Requirements) of Volume I (Bidding Procedure) of the RFP.*

WHEREAS, the Karachi Water and Sewerage Corporation (**KWSC**) has invited bids from the Prequalified Applicants for the ‘WEST KARACHI RECYCLED WATER PROJECT 1’ (the **Project**) pursuant to the request for proposals document issued on [●] by KWSC (as amended from time to time) (the **RFP**);

WHEREAS, _____, _____ and _____ (each hereinafter referred to individually as a **Consortium Member** and collectively as **Consortium Members**) have formed a consortium (the **Consortium**) in accordance with the requirements of the Prequalification Document and the RFP and have issued a Consortium Undertaking as per the requirements of the RFP;

[**WHEREAS**, the Consortium Members during the Prequalification Process, designated [●], the [*Lead Member*], as identified in our Prequalification Application, as the **Consortium Authorized Representative** as per the requirements of the Prequalification Document to conduct all business for and on behalf of the Consortium during the Prequalification Process and to do on our behalf all or any of such acts, deeds or things as are necessary or required or incidental to the Project, including but not limited to, *inter alia*, signing and submission of all applications and other documents and generally to represent the Consortium in all its dealings with KWSC relating to or arising out of the Consortium’s Prequalification

Application;]⁷

AND WHEREAS, the Consortium Members issue this Power of Attorney for the appointment of the ‘**Consortium Authorized Representative**’ with all necessary powers and authority to represent and irrevocably bind all the Consortium Members in all matters connected with the Bidding Process and during execution of the relevant agreements in relation to the Project, in case the Consortium is awarded the Project.

KNOW ALL MEN BY THESE PRESENTS

WE, _____, having our registered office at _____, M/s. __, having our registered office at_____, and M/s., having our registered office at____, do hereby irrevocably designate, nominate, constitute, appoint and authorize M/s____, having its registered office at __, being one of the Consortium Members and the [*Lead Member*], as the Consortium Authorized Representative and true and lawful attorney of the Consortium (hereinafter referred to as the **Attorney**) and hereby irrevocably authorize the Attorney (with power to sub-delegate) to conduct all business for and on behalf of the Consortium and any one of us during the Bidding Process being conducted by KWSC pursuant to the RFP and to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the Project, including but not limited to signing and submission of our Bid, all applications and other documents and writings, participate in conferences / meetings, respond to queries, submit information / documents, sign and execute contracts and undertakings including the Acceptance of Notification of Award, as applicable (if awarded the Project) and generally to represent the Consortium in all its dealings with KWSC (and the GoS), and / or any other governmental agencies or any person, in all matters in connection with or relating to or arising out of the Consortium’s Bid and its acceptance by KWSC.

We hereby ratify all prior and future acts, deeds and things lawfully done by the Attorney in relation to the Project (including with respect to the submission of our Bid in response to the RFP) pursuant to this Power of Attorney and we hereby agree that all prior and / or future acts, deeds and things done by the Attorney in relation to the Project (including with respect to the submission of our Bid in response to the RFP) shall, and shall always be, deemed to have been done by us.

IN WITNESS WHEREOF WE THE ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS _____DAY OF _____20____.

For: _____ [*insert name of Consortium Member*]

(*Signature*)

Name: _____ [*Insert name of the person executing this Power of Attorney on behalf of the Consortium Member*]

Title / Designation: _____ [*Insert title / designation of the person executing this Power of Attorney on behalf of the Consortium Member*]

Address: [*Insert address of the person executing this Power of Attorney on behalf of the Consortium Member*]

For: _____ [*insert name of Consortium Member*]

⁷ Prequalified Bidders to note that this provision may be deleted in case a different Consortium Authorized representative (i.e., different from the Consortium Authorized Representative appointed during the Prequalification Process) is being appointed pursuant to the Power of Attorney.

(Signature)

Name: _____ [Insert name of the person executing this Power of Attorney on behalf of the Consortium Member]

Title / Designation: _____ [Insert title / designation of the person executing this Power of Attorney on behalf of the Consortium Member]

Address: [Insert address of the person executing this Power of Attorney on behalf of the Consortium Member]

For: _____ [insert name of Consortium Member]

(Signature)

Name: _____ [Insert name of the person executing this Power of Attorney on behalf of the Consortium Member]

Title / Designation: _____ [Insert title / designation of the person executing this Power of Attorney on behalf of the Consortium Member]

Address: [Insert address of the person executing this Power of Attorney on behalf of the Consortium Member]

WITNESSES:

WITNESS 1:

WITNESS 2:

.....

.....

NAME:
CNIC / PASSPORT NUMBER:
ADDRESS:

NAME:
CNIC / PASSPORT NUMBER:
ADDRESS:

(Executants)

(To be collectively executed by all the Individual Authorized Representatives in favor of Consortium Authorized Representative)

BIDDING FORM T4

FORM OF UNDERTAKING

Note: See Bidding Documentary Legal Requirements set out in Part 3 of Volume I of the RFP.

[Date]

Re: Design, finance, build, operate, maintain and transfer of the West Karachi Recycled Water Project 1 in the province of Sindh (the **Project**).

Reference the Request for Proposals document issued on [●], by Karachi Water and Sewerage Corporation (**KWSC**), (the **RFP**) in relation to the Project.

UNDERTAKING

(this **Undertaking**)

We, [insert name], registered under incorporation / registration number [●] under the Applicable Laws of [●], do hereby solemnly represent, declare, covenant, undertake and submit that:

- (a) as at the date hereof, the representations, declarations, covenants and undertakings in our [[Prequalification Application]⁸/[Unsolicited Proposal]⁹] remain correct, true and valid / [including the information representations, declarations, covenants and undertakings provided by [insert name of new entity, in case new entity is proposed as shareholder in terms of Sub-Section 2.1.5 and/or 2.1.6 of the Instructions to Bidders]];
- (b) as at the date hereof, all submissions, documents, forms and other information provided in our [[Prequalification Application]¹⁰/[Unsolicited Proposal]¹¹] and during the Prequalification Process, on the basis of which we were prequalified, remain true, correct and valid;
- (c) we shall notify KWSC immediately, in writing, if any change in the structure, formation, personnel or qualifications reflected in our [[Prequalification Application]¹²/[Unsolicited Proposal]¹³] that could affect our eligibility and qualification under the Prequalification Document and we acknowledge that such notification shall not render us eligible and qualified under the Prequalification Document;
- (d) we acknowledge and accept that failure to notify KWSC of such changes in a timely manner may result in our disqualification [(including the disqualification of the Consortium)] at any point in time at the discretion of KWSC;
- (e) [we confirm that we do not have any Pakistani shareholders (whether individual or corporate entity) with more than five percent (5%) shareholding (directly, indirectly, legally or beneficially);]¹⁴
- (f) in case the representations, declarations, covenants, undertakings and submissions contained in this Undertaking are found to be incorrect, untrue and / or invalid, we shall indemnify and hold

⁸ To be deleted for the Original Proponent.

⁹ To be added only for the Original Proponent.

¹⁰ To be deleted for the Original Proponent.

¹¹ To be added only for the Original Proponent.

¹² To be deleted for the Original Proponent.

¹³ To be added only for the Original Proponent.

¹⁴ Applicable in case of foreign entities.

harmless KWSC and the GoS against any loss, damage or action / claim which may arise due to:

- (i) any representation, declaration, covenant, undertaking and submission being found incorrect, untrue and / or invalid; and / or
- (ii) our disqualification from the Bidding Process; and / or
- (iii) cancellation of the award of Concession for the Project to us (in case the Concession has been so awarded at that time).

(g) For the purposes of the Project, the shareholding of the Company shall be as follows¹⁵:

ROLE <small>16</small>	NAME OF ENTITY	EQUITY SHARE / PERCENTAGE INTEREST IN THE COMPANY
Consortium Member (If applicable)		
Name of the entity (Lead Member) with the power to direct the management, policies and decisions of the Company.		

Capitalized terms used herein and not otherwise defined shall bear the meaning ascribed thereto in the RFP.

IN WITNESS WHEREOF, we have signed this Undertaking at _____ on this _____ day of _____ 20_____

Very truly yours,

_____ *[Insert name of the Prequalified Bidder / Consortium Member]*

_____ *[insert name of authorized signatory, authorized to execute this Undertaking for and on behalf of the Prequalified Bidder / Consortium Member]*

_____ *[signature of authorized signatory, executing this Undertaking]*

WITNESS 1:

WITNESS 2:

.....

.....

¹⁵ Prequalified Bidders to note that the information (i.e., the names of / Lead Member / Consortium Authorized Representative and the respective shareholding percentages of the Consortium Members) to be provided in the table should be the same as provided during the Prequalification Process in the Prequalification Applications, without any alteration. Subject to the approval of KWSC / TFEC, (i) a different Consortium Authorized Representative (i.e., different from the representative appointed during the Prequalification Process) may be appointed pursuant to the Power of Attorney, provided that such Consortium Authorized Representative is the Lead Member; and (ii) name of New Sponsoring Entity, as a Consortium Member, in case approved by KWSC / TFEC in terms of Sub-Section 2.1.5 and/or 2.1.6 of the Instructions to Bidders, to be inserted.

¹⁶ Prequalified Bidders to note that in case the Prequalified Bidder is a single entity, such Prequalified Bidder shall be the Lead Member for the purposes of the Project.

NAME:

NAME:

CNIC/PASSPORT NUMBER:

CNIC/PASSPORT NUMBER:

ADDRESS:

ADDRESS:

BIDDING FORM T5

FORM OF CONSORTIUM UNDERTAKING

Note: See Bidding Legal Documentary Requirements set out in Part 3 of Volume I of the RFP.

[Date]

Re: Design, finance, build, operate, maintain and transfer of the West Karachi Recycled Water Project 1 in the province of Sindh (the **Project**).

Reference the Request for Proposals document issued on [●], by Karachi Water and Sewerage Corporation, (the **RFP**) in relation to the Project.

CONSORTIUM UNDERTAKING

(this **Undertaking**)

We, _____, _____ and _____ (each hereinafter referred to individually as a **Consortium Member** and collectively as **Consortium Members**) have formed a consortium (the **Consortium**) in accordance with the requirements of the Prequalification Document and the RFP and hereby issue this Undertaking as per the requirements of the RFP.

We, the Consortium Members, do hereby solemnly represent, declare, covenant, undertake and submit that:

- (a) the Lead Member i.e., [*insert name of the Lead Member*], as identified during the Prequalification Process:
 - (i) shall hold minimum twenty-five percent (25%) equity / shareholding stake in the Company;
 - (ii) shall be liable in respect of the obligations of the Consortium Members in relation to the Project;
 - (iii) the Lead Member i.e., [*insert name of the Lead Member*], as identified during the Prequalification Process, continues to meet the requirements set out in the Prequalification Document;
- (b) the Consortium Authorized Representative i.e., [*insert name*], shall have the authority to conduct all business for and on behalf of the Consortium during the Bidding Process, and in the event the Consortium is awarded the concession for the Project, during signing of the Concession Documents;
- (c) we have read the Concession Documents and shall execute the same as per the requirements of the RFP;
- (d) we shall incorporate a Company for the purposes of execution of the relevant agreements and for undertaking the Project, as per the requirements of the RFP and the Applicable Laws;
- (e) [*the Lead Member*], [as specified in the formal ‘*letter of intent to form a consortium*’ submitted during the Prequalification Process as part of the Prequalification Application,]¹⁷ shall have the power to direct the management, policies and decisions, in each case, of the Company;
- (f) each Consortium Member shall hold the minimum net worth, as follows:

¹⁷ To be deleted in case the Prequalified Bidder was a single entity at the RFQ Stage and is now forming a consortium at the RFP Stage in accordance with the terms of the RFP.

[list the net worth of each Consortium Member as specified in the formal 'letter of intent to form a consortium' submitted during the Prequalification Process or in case new entity is proposed as a shareholder (as approved by KWSC / TFEC) in terms of Sub-Section 2.1.5 and/or 2.1.6 of the Instructions to Bidders, the net worth of each Consortium Member (including the new shareholder, approved by KWSC / TFEC)]

(g) for the purposes of the Project, the shareholding of the Company shall be as follows:¹⁸

ROLE	NAME OF ENTITY	EQUITY SHARE / PERCENTAGE INTEREST IN THE COMPANY
Consortium Member		
Name of the entity (Lead Member) with the power to direct the management, policies and decisions of the Company		

Capitalized terms used herein and not otherwise defined shall bear the meaning ascribed thereto in the RFP.

IN WITNESS WHEREOF, we, the Consortium Members, have signed¹⁹ this Undertaking on this

_____ day of _____ 20_____

For: _____ [*insert name of Consortium Member*]
(Signature)

Name: _____ [*Insert name of the person executing this Undertaking on behalf of the Consortium Member*]

Title / Designation: _____ [*Insert title / designation of the person executing this Undertaking on behalf of the Consortium Member*]

Address: [*Insert address of the person executing this Undertaking on behalf of the Consortium Member*]

For: _____ [*insert name of Consortium Member*]
(Signature)

Name: _____ [*Insert name of the person executing this Undertaking on behalf of the Consortium Member*]

¹⁸ Prequalified Bidders to note that the information (i.e., the names of the Lead Member / Consortium Authorized Representative and the respective shareholding percentages of the Consortium Members) to be provided in the table should be the same as provided during the Prequalification Process in the Prequalification Applications, without any alteration. Subject to the approval of KWSC / TFEC, (i) a different Consortium Authorized Representative (i.e., different from the representative appointed during the Prequalification Process) may be appointed pursuant to the Power of Attorney (Consortium Authorized Representative), provided that such Consortium Authorized Representative is the Lead Member; and (ii) name of new shareholder, as a Consortium Member, in case approved by KWSC / TFEC in terms of Sub-Section 2.1.3, 2.1.4, 2.1.5 and/or 2.1.6 of the Instructions to Bidders, to be inserted.

¹⁹ Authorized representative of each Consortium Member is required to sign this Undertaking.

Title / Designation: _____ [Insert title / designation of the person executing this Undertaking on behalf of the Consortium Member]

Address: [Insert address of the person executing this Undertaking on behalf of the Consortium Member]
For: _____ [insert name of Consortium Member]

(Signature)

Name: _____ [Insert name of the person executing this Undertaking on behalf of the Consortium Member]

Title / Designation: _____ [Insert title / designation of the person executing this Undertaking on behalf of the Consortium Member]

Address: [Insert address of the person executing this Undertaking on behalf of the Consortium Member]

WITNESSES:

WITNESS 1:

WITNESS 2:

.....

.....

NAME:

NAME:

CNIC/PASSPORT NUMBER:

CNIC/PASSPORT NUMBER:

ADDRESS:

ADDRESS:

BIDDING FORM T6

FORMAT OF AFFIDAVIT BY PROPOSED CONTRACTORS

Notes for Execution of Affidavit

- *The mode of execution of the Affidavit should be in accordance with the procedure, if any, laid down under Applicable Laws and the same should be under common seal affixed in accordance with the required procedure.*
- *The Affidavit is to be executed on a stamp paper of PKR 100/-; or if executed overseas, to adequately adhesive stamped when brought into Pakistan with a stamp duty of PKR 100/-.*
- *If executed in Pakistan, the Affidavit shall be notarized with the notary public and certified by the Oath Commissioner.*
- *For an Affidavit executed and issued in member / contracting states of the Apostille Convention, to the extent recognized in Pakistan, the same will have to be legalized by the designated authority of the country where the Affidavit is executed; provided, however, if the Affidavit is not issued in member / contracting states of the Apostille Convention, the same will have to be notarized by Notary Public and attested by the Pakistani Embassy / Consulate in the country where the Affidavit is executed; and once brought into Pakistan, the same is to be attested by Ministry of Foreign Affairs, Pakistan and adhesive stamped.*
- *To be submitted by each Proposed Contractor / each consortium member of the Proposed Contractor.*
- *See Bidding Documentary Legal Requirements set out in Part 3 of Volume I of the RFP.*
- *Prequalified Bidders are required to ensure that the person issuing this affidavit on behalf of a Proposed Contractor (including a consortium member of a Proposed Contractor) has valid legal authority to execute the Affidavit on behalf of the Proposed Contractor or a consortium member of a Proposed Contractor.*

Please find below the form and substance of the Affidavit.

AFFIDAVIT (this Affidavit)

Date: _____

Re: Design, finance, build, operate, maintain and transfer of the West Karachi Recycled Water Project 1 in the province of Sindh (the **Project**).

Reference the Request for Proposals document issued on [●], by Karachi Water and Sewerage Corporation, (the **RFP**) in relation to the Project.

(1) I, [in case of company, insert name of the authorized person and its designation] of [insert name of company] / [in case of sole proprietor, insert name of sole proprietor and its CNIC or Passport No.] of [insert name of sole proprietorship, if any] / [in case of partnership, insert name of authorized person and its CNIC or Passport No.] of [insert name of partnership, if any] (the **Entity**), a [in case of company / partnership, insert nature of company / partnership (if any)] duly organized and existing under the Applicable Laws of [Pakistan] [insert country of incorporation] with its registered office located at [insert registered address], do hereby solemnly affirm, declare and state that the Entity:

(i) does not fall within any of the circumstances for ineligibility listed in Section 2.1.9 of the RFP;

- (ii) has made full disclosure of and has not concealed any information in respect of compliance with sections 22 and 8.2;
- (iii) is not ineligible / blacklisted to participate in, bid for or undertake any contract or project through any form of public tender (due to reasons, including but not limited to engagement or indulgence in practices similar to the Corrupt & Fraudulent Practice) by any federal or provincial governmental or non-governmental department / agency in Pakistan, or any other provincial government;
- (iv) has not been declared ineligible by any court of law or convicted of fraud, corruption, collusion or money laundering or for a criminal act involving dishonesty, physical violence or harm to human life, or for any criminal offence related to their professional conduct in the period of five (5) years prior to the date of this Affidavit, nor is the subject of credible and/or persistent allegations related to, or is under investigation for, such criminal activities;
- (v) has not failed to sign a contract for a project with the Government or KWSC following it being awarded that project;
- (vi) is not blacklisted by any provincial or federal procurement regulatory authority in Pakistan;
- (vii) has no operations (directly or through any subsidiary) or carries out transactions that are not in compliance with the sanctions promulgated by the UN Security Council or its Committees or national sanctions in Afghanistan;
- (viii) is not included:
 - (i) as a debarred person pursuant to the public sanctions list of any multilateral development bank that is party to the Agreement on Mutual Enforcement of Debarment Decisions of 9 April 2010 (www.crossdebarment.org); or
 - (ii) on any sanctions lists promulgated by the UN Security Council or its Committees, or any other recognized international sanctions list;
 - (iii) has no action, suit or other legal proceeding or governmental investigation pending against it or any of its respective officers, directors or employees, or that any of the foregoing has received any notice thereof, which questions the validity and execution of this Affidavit and/or the Prequalification Application or the representations provided in this Affidavit and the Prequalification Application; has no tax liabilities or liabilities in respect of judgements awarded by any court or similar proceedings in the period of five (5) years prior to the date of this Affidavit, save in each case to the extent that it has made suitable accounting provision for such liabilities in accordance with applicable accounting regulations;
- (iv) has no tax liabilities or liabilities in respect of judgments awarded by any court or similar proceedings in the period of three (3) years prior to the date of this Affidavit, save in each case to the extent that it has made suitable accounting provision for such liabilities in accordance with applicable accounting regulations;
- (v) has not directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the award of any contract, project or transaction;

- (vi) is solvent and able to pay its debts as and when they fall due and is not in bankruptcy or liquidation proceedings or receivership, or wound up, or their affairs are not being administered by a court or a judicial officer, or their business activities have not been suspended or they are not the subject of legal proceedings of any of the foregoing and have a reasonable expectation of being able to discharge all financial liabilities as they fall due;
 - (vii) in case it has been nominated as the Qualified Contractor in terms of the RFP, the Entity shall execute all instruments as may be required to be executed by the Entity in relation to the Project as per the requirements of the RFP; and
 - (viii) is not aware of any Conflict of Interest or potential Conflict of Interest arising from prior or existing contracts or relationships which could materially affect potential involvement of the Entity in the Project and to comply with the obligations set out in the RFP or with respect to the Project.
- (2) That whatever stated above is true and correct to the best of my knowledge and belief and nothing has been concealed thereto.

All capitalized terms unless defined herein shall bear the meaning as ascribed thereto in the RFP.

Deponent

Verified on oath at _____ on this ____ day of _____, 20____ that the contents of the above Affidavit are true and correct to the best of my knowledge and belief.]²⁰

Deponent Witnesses:

1. _____
Name: _____
Address: _____

2. _____
Name: _____
Address: _____

CNIC No.: _____

CNIC No.: _____

²⁰ Prequalified Bidders to note that in case this Affidavit is executed outside Pakistan, such verification will not be required.

BIDDING FORM T7

FORM OF BID SECURITY

BANK GUARANTEE

Guarantee No. _____

(hereinafter referred to as the **Bank Guarantee**)

Executed on _____

Expiry date _____

Name of Guarantor (Bank) with address: _____

[Name of Principal (Bidder) with address:]²¹ _____

Guaranteed Amount (express in words and figures): _____ Date of Bid _____

The above premised, we (the **Guarantor Bank**) hereby undertake irrevocably and unconditionally on demand to pay to the Karachi Water & Sewerage Corporation (**KWSC**), without any notice, reference or recourse to the Prequalified Bidder or to any other entity or without any recourse or reference to any document, agreement, instrument or deed, any sum or sums (or any part thereof) equivalent in aggregate up to but not exceeding a maximum amount of:

[●] [●]/- ([●][●])

(the **Guaranteed Amount**)

at sight and immediately upon the receipt of the KWSC's first written demand (the **Demand**) at the Guarantor Bank's offices located at [●] or through SWIFT instructions transmitted by KWSC's bank on behalf of KWSC, to the Guarantor Bank, or through fax sent by KWSC at the Guarantor Bank's fax number i.e., [●], such Demand stating:

- (i) that the Prequalified Bidder is in breach of its obligations towards KWSC; and
- (ii) the total amounts demanded.

A Demand shall only be honored by us: (i) in the case of a written Demand, if it is made by and bears the signature of an authorized officer or other representative of KWSC; or (ii) in the case of a Demand transmitted through SWIFT, if it is transmitted through authenticated SWIFT instructions by KWSC's bank on behalf of KWSC; or (iii) in the case of a Demand made through fax, it is made by and bears the signature of an authorized officer or other representative of KWSC.

We, the Guarantor Bank, shall unconditionally honor a Demand hereunder made in compliance with this Bank Guarantee at sight and immediately on the date of receipt of your Demand, as stated earlier, and shall transfer the amount specified in the Demand to the bank account, as notified in the Demand, in immediately available and freely transferable funds in the currency of this Bank Guarantee, free and clear of and without any set-off or deduction for or on account of any present or future taxes, levies, imposts, duties, charges, fees, deductions or withholdings of any nature whatsoever and by whomsoever imposed.

This Guarantee shall come into force and shall become automatically effective upon its issuance.

Such demand must be received by us on or before the [●] (the **Expiry Date**), when this Bank Guarantee shall expire and shall be returned to us.

²¹ Prequalified Bidders to note that the Bid Security may be issued by any Consortium Member.

Upon expiry, this Bank Guarantee shall be returned to the Prequalified Bidder without undue delay. Multiple Demands may be made by KWSC under this Bank Guarantee, but our aggregate liability will be restricted up to the Guaranteed Amount.

We hereby agree that any amendment, renewal, extension, modification, compromise, release or discharge by mutual agreement by KWSC, the Prequalified Bidder or any other entity of any document, agreement, instrument or deed shall not in any way impair or affect our liabilities hereunder and maybe undertaken without notice to us and without the necessity for any additional endorsement, consent or guarantee by us.

This Bank Guarantee for its validity period shall not be affected in any manner by any change in our constitution or of the Prequalified Bidder's constitution or of their successors and assignees and this Bank Guarantee shall be legally valid, enforceable and binding on each of their successors and permitted assignees.

All references to any contract, agreement, deed or other instruments or documents are by way of reference only and shall not affect our obligations to make payment under the terms of this Bank Guarantee.

If one or more of the provisions of this Bank Guarantee are held or found to be invalid, illegal, or unenforceable for any reason whatsoever, in any respect, any such invalidity, illegality, or unenforceability of any provision shall not affect the validity of the remaining provisions of this Bank Guarantee.

The Guarantor Bank hereby declares and confirms that under its constitution and Applicable Laws and regulations, it has the necessary power and authority, and all necessary authorizations, approvals and consents thereunder to enter into, execute, deliver and perform the obligations it has undertaken under this Bank Guarantee, which obligations are valid and legally binding on and enforceable against the Guarantor Bank under the Applicable Laws of Pakistan.

Further, the Guarantor Bank hereby declares and confirms that the signatory(ies) to this Guarantee is / are its duly authorized officer(s) to execute this Guarantee.

This Bank Guarantee and all rights and obligations arising from this Bank Guarantee shall be governed and construed in all respects in accordance with the Applicable Laws of Pakistan. The courts in Pakistan shall have exclusive jurisdiction in respect of any dispute relating to any matter contained herein.

The issuance of this Bank Guarantee is permitted according to the Applicable Laws of Pakistan and the Applicable Laws of the jurisdiction where this Bank Guarantee is issued.

This Bank Guarantee is subject to the Uniform Rules for Demand Guarantee, ICC Publication No.758. To the extent that there is any inconsistency between the terms of this Bank Guarantee and the Uniform Rules for Demand Guarantees, ICC Publication No. 758, the terms of this Bank Guarantee shall prevail.

Name:
Designation:

BIDDING FORM T8

TECHNICAL SUBMITTALS

NOTE:

The Technical Proposal Minimum Requirements will be satisfied by:

- (a) the Technical Proposal containing all of the information and documents described in column 2 below; and
- (b) the Prequalified Bidder responding to all of the questions in column 2 by putting a checkmark in column 3 below.

SR NO.	REQUIRED SUBMITTALS	QUESTIONS AND RESPONSES ²²
	Project Delivery	
1.	Gantt Chart	<p>a) Does your schedule show as a minimum the following:</p> <p><i>Influent Delivery System and Bypass</i></p> <ul style="list-style-type: none"> ○ Connection from the raw wastewater interceptor with penstock ○ Influent Penstock Chamber ○ Influent Delivery Pipeline from the Influent Penstock Chamber to the Wastewater Treatment Plant ○ Influent Pumping Station ○ Bypass pipeline from the Influent Delivery Pipeline to the Effluent Discharge Chamber <p><i>Wastewater Treatment Plant</i></p> <ul style="list-style-type: none"> ○ Wastewater Treatment Plant ○ Sludge management ○ Treated Effluent pipeline to the Recycling Plant ○ Treated Effluent pipeline to the Effluent Discharge Chamber <p><i>Recycling Plant</i></p> <ul style="list-style-type: none"> ○ Recycling Plant (including RO) ○ Pipeline from the Recycling Plant to the Recycled Water Pumping Station ○ Blending of Permeate and Treated Effluent (<i>if applicable</i>) ○ RO Concentrate Pipeline from the Recycling Plant to the Effluent Discharge Chamber

²² The Prequalified Bidders shall answer “YES” to all the queries specified in column 3 that have been, in their opinion, satisfied. In the alternate, if, in the opinion of a Prequalified Bidder, a requirement provided in this Bidding Form T8 is “not applicable” and the Prequalified Bidder confirms the same in Column 3, such confirmation, following validation, shall be equivalent to an affirmative confirmation.

		<p><i>Recycled Water Delivery System</i></p> <ul style="list-style-type: none"> ○ Recycled Water Pumping Station ○ Recycled Water Pipeline ○ Distribution Network (Company Zones) and (Other Zones) ○ Connections to industries and Offtaker Meters (Company Zones only) <p><i>Effluent Discharge (to river)</i></p> <ul style="list-style-type: none"> ○ Effluent Discharge Chamber ○ Effluent pipeline from the Effluent Discharge Chamber to the edge of Project Land (Plants) ○ Effluent Discharge Pipeline from the edge of Project Land (Plants) to the Discharge Point (River) and outfall ○ Effluent Pumping Station (<i>if applicable</i>) <p><i>RO Concentrate Discharge (to sea)</i></p> <ul style="list-style-type: none"> ○ RO Concentrate Pipeline (Sea) from the Recycling Plant to the edge of Project Land (Plants) ○ RO Concentrate Discharge Pipeline from the edge of Project Land (Plants) to the Discharge Point (Sea) and outfall ○ RO Concentrate Pumping Station (Sea) (<i>if applicable</i>) <p><i>General</i></p> <ul style="list-style-type: none"> ○ New entrance to TP1 Site from Estate Avenue and gatehouse ○ Access road from Estate Avenue to Project Land (Plants) ○ Boundary wall / security fence around Project Land (Plants) and K-Electric grid station ○ Road system, parking area(s) and site lighting in Project Land (Plants) ○ Administration building ○ Laboratory (temporary and permanent) ○ Substations (outside of K-Electric grid station) and standby power facilities ○ Monitoring Systems including Real Time Quality Monitoring System ○ SCADA system and control room ○ Latest completion date of Electricity Delivery Point by K-Electric? <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your schedule show milestones:</p>
--	--	--

		<ul style="list-style-type: none"> ○ Signature Date ○ Preliminary Design Commencement Date ○ Effective Date ○ COD (commercial operations date)? <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>c) Does your schedule show durations for completion of:</p> <ul style="list-style-type: none"> ○ Implementation Plan ○ Offtake Planning Report ○ Preliminary Engineering Design (PED) Part 1 ○ Preliminary Engineering Design (PED) Part 2 ○ Detailed Engineering Design (DED) Part 1 ○ Detailed Engineering Design (DED) Part 2 ○ Construction ○ Commissioning <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>d) Does your schedule show task dependencies and the critical path from the Signature Date through COD?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>e) Does your schedule show durations for the Agency to approve your Implementation Plan, PED Parts 1 and 2 and DED Parts 1 and 2?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>f) Does your schedule show the Preliminary Design Commencement Date 120 calendar days after the Signature Date?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>g) Does your schedule show the Effective Date no later than 240 calendar days after the Signature Date?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>h) Does your schedule show the COD no later than 730 calendar days after the Effective Date?1</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
	General	
2.	Layout Drawing for Facilities on Project Land (Plants)	<p>a) Does your concept layout show footprint dimensions for the Influent Pumping Station, Wastewater Treatment Plant, Effluent Discharge Chamber, Recycling Plant, Recycled Water Pumping Station, Effluent Pumping Station (<i>if applicable</i>), RO Concentrate Pumping Station</p>

		(Sea) (<i>if applicable</i>), buildings and roads within the 20 acres (8 ha) available for your use in Project Land (Plants)? YES <input type="checkbox"/> NO <input type="checkbox"/>
3.	Water Balance Drawing	a) Does your water balance show all flows from the Influent Delivery Point through the wastewater treatment and recycling processes to the Recycled Water Pipeline including all discharges from Project Land (Plants) and Dewatered Sludge and Residuals? YES <input type="checkbox"/> NO <input type="checkbox"/>
4.	Hydraulic Profile Drawing	a) Does your hydraulic profile show all facilities from the Influent Delivery Point to the Recycled Water Pipeline at the required capacities? YES <input type="checkbox"/> NO <input type="checkbox"/>
5.	Laboratory Capability Statement	a) Does your statement itemize the tests and analysis that will be undertaken in your laboratory in the Project Land (Plants) for samples of Influent, Treated Effluent, Effluent, RO Concentrate to the sea, Recycled Water, Dewatered Sludge and Residuals? YES <input type="checkbox"/> NO <input type="checkbox"/>
	Influent Delivery System and Bypass	
6	Capacity Statement	a) Does your statement show the design flow of the Influent Delivery System and Bypass is not less than 1842 L/s? YES <input type="checkbox"/> NO <input type="checkbox"/> b) Does your statement show Availability of the Influent Delivery System and Bypass as 100%? YES <input type="checkbox"/> NO <input type="checkbox"/> c) Does your statement include the calculations and result for the Specific Energy Consumption value (kWh/m ³ of Influent) for the Influent Delivery System? YES <input type="checkbox"/> NO <input type="checkbox"/> d) Is the Specific Energy Consumption value for the Influent Delivery System within the limit of 0.075 kWh/m ³ of Influent flow through the Influent Pumping Station? YES <input type="checkbox"/> NO <input type="checkbox"/>
7.	Influent Specification	a) Does the Influent comply with the Quality Parameters specified in Table 4 of the MPSS? YES <input type="checkbox"/> NO <input type="checkbox"/>

8.	Influent Delivery System and Bypass Description and Drawing	<p>a) Does your description include the methodology for constructing the connection from the existing raw wastewater interceptor and the Influent Penstock Chamber? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your description show the type, number and capacity of the pumps in the Influent Pumping Station? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>c) Does your description show details of your Real Time Quality Monitoring System for Influent? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>d) Does your drawing show the Influent Penstock Chamber and the Influent Delivery Pipeline to the Wastewater Treatment Plant? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>e) Does your drawing show the Bypass Delivery Point and the Bypass pipeline to the Effluent Discharge Chamber? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>f) Does your drawing show the location of Monitoring Points for Quality Parameters and Quantity Parameters for Influent as specified? YES <input type="checkbox"/> NO <input type="checkbox"/></p>
9.	Equipment List for Major Items (Influent Delivery System).	<p>a) Does your list include as a minimum:</p> <ul style="list-style-type: none"> ○ Penstock ○ Influent pumps ○ Real Time Quality Monitoring System ○ Custody transfer flow meter <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
Wastewater Treatment Plant		
10.	Capacity Statement	<p>a) Does your statement show the biological design capacity of the Wastewater Treatment Plant is not less than 35 MIGD? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your statement show Availability of the Wastewater Treatment Plant and the Treated Effluent pipeline to the Effluent Discharge Chamber as 100%? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>c) Does your statement include the calculations and result for the Specific Energy Consumption value</p>

		<p>(kWh/m³ of Treated Effluent) for the Wastewater Treatment Plant?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>d) Is the Specific Energy Consumption value for the Wastewater Treatment Plant within the limit of 0.300 kWh/m³ of Treated Effluent?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
11.	Treated Effluent Specification	<p>a) Does your Treated Effluent comply with the Quality Parameters specified in Table 5 of the MPSS?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
12.	Mass Balance Calculations	<p>a) Does your mass balance calculations table include flows and maximum and average pollutant loadings and range of parameters affecting the biological process?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your mass balance calculations table include outputs for pollutants included in Treated Effluent discharge requirements and sludge production, including dry solids content and volume of sludge?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
13.	Process Flow Diagram (PFD) for Wastewater Treatment Plant	<p>a) Does your PFD show all components of the Wastewater Treatment Plant, including the flow/routing of all wastewater and waste streams/side streams for an Influent flow of 1842 L/s?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
14.	Process Design Report (Wastewater Treatment)	<p>a) Does your report describe the key technologies and methodologies to achieve the Quality Parameters for Treated Effluent and any supplementary treatment to enhance the quality of the feed water to the Recycling Plant?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your report provide calculations, design parameters (including mixed liquor suspended solids [MLSS], solids retention time/sludge age [SRT], hydraulic retention times [HRT] and sludge yield [Y]) and sizing of all process equipment?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>c) Does your report list the chemicals consumed by the Wastewater Treatment Plant with approximate daily quantities at design flow?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>

15.	Sludge Management Description	<p>a) Does your description of sludge management including thickening, [stabilization], dewatering and dewatered % solids by weight, including the sizing and capacity requirements for the dewatering equipment?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your description show the Dewatered Sludge quantity for offsite disposal (unit/day) and transport logistics including number of trucks and traffic routing on site.</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
16.	General Arrangement (GA) Drawing of Wastewater Treatment Plant	<p>a) Does your drawing show all process units and structures for the Wastewater Treatment Plant?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your drawing show the Treated Effluent pipeline from the Wastewater Treatment Plant to the Effluent Discharge Chamber?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>c) Does your drawing show the location of Monitoring Points for Quality Parameters and Quantity Parameters for Treated Effluent as specified?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
17.	Equipment List for Major Items (Wastewater Treatment Plant).	<p>a) Does your list include as a minimum:</p> <ul style="list-style-type: none"> ○ Major process equipment ○ Sludge management equipment <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
Recycling Plant		
18.	Capacity Statement	<p>a) Does your statement show the feed water flow, the maximum Permeate output and the total output of Recycled Water to achieve the Recycled Water Target Volume of 10,220 MIG per year to Offtakers after allowing for non-revenue water in the Distribution Network (Company Zones)?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your statement include the calculations and result for the Specific Energy Consumption value (kWh/m³ of Permeate) for the Recycling Plant?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>c) Is the Specific Energy Consumption value for the Recycling Plant within the limit of 0.900 kWh/m³ of Permeate?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>

19.	Recycled Water Specification	<p>a) Does your Recycled Water comply with the Quality Parameters specified in Table 6 of the MPSS?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
20.	Configuration Calculation	<p>a) Is your RO plant configuration optimized for the life cycle cost of recycling the Treated Effluent?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your calculation show the ratio of Permeate and Treated Effluent for any blending carried out to achieve the design output of Recycled Water?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/></p> <p>c) Does your calculation show the quantity and TDS of the RO Concentrate from the Recycling Plant for the design output of Recycled Water?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
21.	Process Flow Diagram (PFD) for Recycling Plant	<p>a) Does your PFD show all components of the Recycling Plant, including the flow/routing of all process streams and discharges?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
22.	Process Design Report (Recycling Plant)	<p>a) Does your report describe and provide calculations and sizing of all process equipment to achieve the Recycled Water requirements?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your report list the chemicals consumed by the Recycling Plant with approximate daily quantities at design flow?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
23.	General Arrangement (GA) Drawing of Recycling Plant	<p>a) Does your drawing show all process units and structures for the Recycling Plant?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your drawing show the feed water pipeline from the Wastewater Treatment Plant?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>c) Does your drawing show the RO Concentrate Pipeline from the Recycling Plant to the Effluent Discharge Chamber?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>d) Does your drawing show the location of Monitoring Points for Quality Parameters and Quantity Parameters for RO Concentrate delivered to the Effluent Discharge Chamber as specified?</p>

		YES <input type="checkbox"/> NO <input type="checkbox"/>
24.	Equipment List for Major Items (Recycling Plant)	<p>a) Does your list include as a minimum:</p> <ul style="list-style-type: none"> ○ Pretreatment ○ RO plant high pressure pumps ○ RO membranes <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
	Effluent Discharge (from Effluent Discharge Chamber to Lyari River)	
25.	Capacity Statement	<p>a) Does your statement show the design flow of the Effluent Discharge Pipeline from the edge of Project Land (Plants) to the Discharge Point (River) is not less than 1842 L/s?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your statement show the range of Effluent flow that can be delivered by gravity to the Discharge Point (River)?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>c) Does your statement indicate whether or not pumping is proposed to deliver 1842 L/s of Effluent to the Discharge Point (River)?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
26.	<p>Effluent Pumping Station Capacity Statement</p> <p>IF EFFLUENT PUMPING IS NOT PROPOSED CHECK “NOT APPLICABLE” BOXES</p>	<p>a) Does your statement show Availability of the Effluent Pumping Station as 100%?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/></p> <p>b) Does your statement show the design flow of the Effluent Pumping Station?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/></p> <p>c) Does your statement indicate the type, number and capacity of the pumps in the Effluent Pumping Station?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/></p> <p>d) Does your statement include the calculations and result for the Specific Energy Consumption value (kWh/m³ of Effluent flow through the Effluent Pumping Station)?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/></p> <p>e) Is the Specific Energy Consumption value for the Effluent Pumping Station within the limit of 0.050 kWh/m³ of Effluent flow through the Effluent Pumping Station?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/></p>

27.	Plan and Profile Drawings	<p>a) Do your drawings show the Effluent pipeline from the Effluent Discharge Chamber to the edge of Project Land (Plants)?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your plan show the Effluent Discharge Pipeline from the edge of Project Land (Plants) to the Discharge Point (River)?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>c) Do your drawings show the diameter of the Effluent Discharge Pipeline and the pipe material?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Does your profile show the requisite minimum cover to the Effluent Discharge Pipeline for the full length of the route?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>e) Do your drawings show the outfall structure at the Discharge Point (River)?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>f) Does your plan show the location of Monitoring Points for Quality Parameters and Quantity Parameters for Effluent as specified?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
	RO Concentrate Discharge (from Recycling Plant to the sea)	
28	Capacity Statement	<p>a) Does your statement show the design flow of the RO Concentrate Pipeline (Sea) from the Recycling Plant to the edge of Project Land (Plants) and the RO Concentrate Discharge Pipeline from the edge of Project Land (Plants) to the Discharge Point (Sea)?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Is the design flow greater than the maximum quantity of RO Concentrate that will be discharged from the Recycling Plant under all conditions?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>c) Does your statement indicate whether or not pumping is proposed to deliver the design flow of RO Concentrate to the Discharge Point (Sea)?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
29	RO Concentrate Pumping Station (Sea) Capacity Statement	<p>a) Does your statement show the design flow of the RO Concentrate Pumping Station (Sea)?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/></p>

	<p>IF RO CONCENTRATE PUMPING IS NOT PROPOSED CHECK “NOT APPLICABLE” BOXES</p>	<p>b) Does your statement indicate the type, number and capacity of the pumps in the RO Concentrate Pumping Station (Sea)?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/></p> <p>c) Does your statement include the calculations and result for the Specific Energy Consumption value (kWh/m³ of RO Concentrate flow through the RO Concentrate Pumping Station (Sea))?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/></p> <p>d) Is the Specific Energy Consumption value for the RO Concentrate Pumping Station (Sea) within the limit of 0.050 kWh/m³ of RO Concentrate flow through the RO Concentrate Pumping Station (Sea)?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/></p>
30	Plan and Profile Drawings	<p>a) Does your plan show the RO Concentrate Pipeline (Sea) from the Recycling Plant to the edge of Project Land (Plants)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your plan show the RO Concentrate Discharge Pipeline from the edge of Project Land (Plants) to the Discharge Point (Sea)?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>c) Do your drawings show the diameter of the RO Concentrate Discharge Pipeline and the pipe material?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>d) Does your profile show the requisite minimum cover to the RO Concentrate Discharge Pipeline for the below ground section of the route?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>e) Does your profile show the RO Concentrate Discharge Pipeline on piles for the above ground section of the route?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>f) Do your drawings show the outfall structure at the Discharge Point (Sea)?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>g) Does your plan show the location of Monitoring Points for Quality Parameters and Quantity Parameters for RO Concentrate delivered to the sea as specified?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
	Recycled Water Delivery System	

31	Capacity Statement	<p>a) Does your statement show the design flow of the Recycled Water Pumping Station and Recycled Water Pipeline? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your statement show that the design flow of the Recycled Water Pumping Station will be sufficient to supply the Recycled Water Target Volume (annual quantity) to Offtakers after allowing for non-revenue water in the Distribution Network (Company Zones)? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>c) Does your statement include the calculations and result for the Specific Energy Consumption value (kWh/m³ of Recycled Water entering the Distribution Network) for the Recycled Water Pumping Station? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>d) Is the Specific Energy Consumption value for the Recycled Water Pumping Station within the limit of 0.250 kWh/m³ of Recycled Water entering the Distribution Network? YES <input type="checkbox"/> NO <input type="checkbox"/></p>
32	Recycled Water Delivery System Description and Drawing	<p>a) Does your description show the type, number and capacity of the pumps in the Recycled Water Pumping Station? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your drawing show the location of Monitoring Points for Quality Parameters and Quantity Parameters for Recycled Water within Project Land (Plants) as specified? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>c) Does your drawing show the Recycled Water Pipeline from the Recycling Plant to the edge of Project Land (Plants) and connection to the Distribution Network? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>d) Does your drawing show the number and diameter of pipelines constructed under Estate Avenue? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>e) Does your description show that the Distribution Network will be designed for 50 MIGD and divided into zones? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>f) Does your description confirm the lengths and diameters of pipes in the Distribution Network as</p>

		<p>in Bidding Form F2-11 in your Bid Financial Model?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>g) Does your description show that the Distribution Network (Company Zones) will be designed to supply as a minimum the Recycled Water Target Volume (annual quantity) to Offtakers?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>h) Does your description show details of the Offtaker Meters and methodology for automatic meter reading?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
33.	Equipment List for Major Items and Proposed Vendors (Recycled Water Delivery System)	<p>a) Does your list include as a minimum:</p> <ul style="list-style-type: none"> ○ Recycled Water pumps ○ Offtaker Meters ○ YES <input type="checkbox"/> NO <input type="checkbox"/>
	Electrical and SCADA	
34.	Single Line Diagram (SLD)	<p>a) Does your SLD show the Electricity Delivery Point and your connections to the Electricity Delivery Point?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your SLD show transformers and major electrical loads?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>c) Does your SLD show provisions for redundancy and reliability to comply with the specified Availability requirement?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
35.	Process and Instrumentation Diagrams (P&ID).	<p>a) Are P&IDs included for all major process components?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Do your P&IDs show all process flows and include major instruments?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>c) Are the custody transfer flow meters and other key flow meters shown on the P&IDs?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
36.	SCADA System Description and Architecture Drawing.	<p>a) Does your description and drawing of the SCADA system show the software and hardware elements to control operations locally or remotely and to monitor, collect and process data?</p>

		<p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Does your description of the SCADA system show how it provides real-time operational information on plant performance?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>c) Does your description of the SCADA system show how the monthly reports on operation and maintenance of the Facilities (Appendix B of the MPSS) will be generated?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
37.	Non-flow and Non-process Energy Consumption Table	<p>a) Does your table give a breakdown in kWh of daily energy consumption that is not related to the treatment facilities or the pumping stations including but not limited to:</p> <ul style="list-style-type: none"> ○ Estate Avenue gatehouse ○ Road lighting in Project Land (Access) ○ Site lighting in Project Land (Plants) ○ Administration building ○ Laboratory ○ Substations ○ SCADA system? <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>
	Project References	
38.	Wastewater Treatment Process Project References	<p>a) Is valid documentation provided for at least one plant of a minimum design capacity of 5 MIGD that has been constructed using the same wastewater treatment design, configuration, major equipment and process as proposed for this project?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p><i>Notes:</i></p> <ol style="list-style-type: none"> 1. <i>The reference project plant(s) can have been constructed and operated by any company worldwide.</i> 2. <i>Valid documentation includes case studies, technical papers, certified data sheets and acceptance certificates.</i> 3. <i>The reference project plant(s) shall have been in service for not less than 4 years so that comprehensive performance data is available.</i> 4. <i>For each reference project plant the name and contact details shall be provided of the project owner or an independent technical adviser familiar with the project that the</i>

		<i>Agency can contact to confirm the operational performance of the plant.</i>
39.	EPC Contractor Project Reference Forms ²³	<p>a) Do the forms show that your EPC Contractor carried out at least two projects for design and construction of a wastewater treatment plant with biological nutrient removal of a minimum design capacity of 10 MIGD and which achieved commercial operation in the last 10 years?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Do the forms show that your EPC Contractor carried out at least two projects for design and construction of a reverse osmosis desalination plant of a minimum design capacity of 2 MIGD and which achieved commercial operation in the last 10 years?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p><i>Note:</i></p> <p><i>If more than one EPC Contractor is proposed each EPC Contractor is required to comply with a) and b).</i></p>
40.	O&M Contractor Project Reference Forms	<p>a) Do the forms show that your O&M Contractor carried out at least one project for operation and maintenance of a wastewater treatment plant with biological nutrient removal of a minimum design capacity of 10 MIGD for which the services continued for at least three years during the last 10 years?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>b) Do the forms show that your O&M Contractor carried out at least one project for operation and maintenance of a reverse osmosis desalination plant of a minimum design capacity of 2 MIGD for which the services continued for at least three years during the last 10 years?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>

²³ Please refer to the Project Reference Forms attached as Bidding Form T9.

BIDDING FORM T9

PROJECT REFERENCE FORMS

TECHNICAL SUBMITTAL #39

EPC Contractor Project Reference Form 1	
Name of EPC Contractor	[•]
Name of Project	[•]
Location of Project	[town and country]
Project Owner	[name and address]
Engineering Sector	[WWTP with BNR or RO Desalination Plant]
Design Capacity of Plant	[MIGD]
Description of Project	[scope and key performance parameters]
Participation of EPC Contractor in Project	[Engineering [•]%, procurement [•]% and construction [•]% of the respective services for the overall Project undertaken by the EPC Contractor]
Name(s) of partner(s) if EPC Contractor did not undertake 100% of the EPC scope	[•]
Commercial Operations Date	[month and year]
Contact for Validation	[name and business email of plant owner and/or owner's engineer who can validate information entered in the form]

EPC Contractor Project Reference Form 2	
Name of EPC Contractor	[•]
Name of Project	[•]
Location of Project	[town and country]
Project Owner	[name and address]
Engineering Sector	[WWTP with BNR or RO Desalination Plant]
Design Capacity of Plant	[MIGD]
Description of Project	[scope and key performance parameters]
Participation of EPC Contractor in Project	[Engineering [•]%, procurement [•]% and construction [•]% of the respective services for the overall Project undertaken by the EPC Contractor]
Name(s) of partner(s) if EPC Contractor did not undertake 100% of the EPC scope	[•]
Commercial Operations Date	[month and year]
Contact for Validation	[name and business email of plant owner and/or owner's engineer who can validate information entered in the form]

EPC Contractor Project Reference Form 3	
Name of EPC Contractor	[•]

Name of Project	[•]
Location of Project	[town and country]
Project Owner	[name and address]
Engineering Sector	[WWTP with BNR or RO Desalination Plant]
Design Capacity of Plant	[MIGD]
Description of Project	[scope and key performance parameters]
Participation of EPC Contractor in Project	[Engineering [•]%, procurement [•]% and construction [•]% of the respective services for the overall Project undertaken by the EPC Contractor]
Name(s) of partner(s) if EPC Contractor did not undertake 100% of the EPC scope	[•]
Commercial Operations Date	[month and year]
Contact for Validation	[name and business email of plant owner and/or owner's engineer who can validate information entered in the form]

EPC Contractor Project Reference Form 4	
Name of EPC Contractor	[•]
Name of Project	[•]
Location of Project	[town and country]
Project Owner	[name and address]
Engineering Sector	[WWTP with BNR or RO Desalination Plant]
Design Capacity of Plant	[MIGD]
Description of Project	[scope and key performance parameters]
Participation of EPC Contractor in Project	[Engineering [•]%, procurement [•]% and construction [•]% of the respective services for the overall Project undertaken by the EPC Contractor]
Name(s) of partner(s) if EPC Contractor did not undertake 100% of the EPC scope	[•]
Commercial Operations Date	[month and year]
Contact for Validation	[name and business email of plant owner and/or owner's engineer who can validate information entered in the form]

NOTE: The Prequalified Bidder may submit additional form(s) if more than four projects

TECHNICAL SUBMITTAL #40

O&M Contractor Project Reference Form 1	
Name of O&M Contractor	[●]
Name of Project	[●]
Location of Project	[town and country]
Project Owner	[name and address]
Engineering Sector	[WWTP with BNR or RO Desalination Plant]
Design Capacity of Plant	[MIGD]
Description of Project	[scope and key performance parameters]
Participation of O&M Contractor in Project	[[●]% of the overall O&M services for the Project undertaken by the O&M Contractor]
Name(s) of partner(s) if O&M Contractor did not undertake 100% of the O&M scope	[●]
Commercial Operations Date	[month and year]
Date O&M services ended	[month and year that services of O&M Contractor ended or, if services are ongoing state “ongoing at bid submission”]
Contact for Validation	[name and business email of plant owner and/or owner’s engineer who can validate information entered in the form]

O&M Contractor Project Reference Form 2	
Name of O&M Contractor	[●]
Name of Project	[●]
Location of Project	[town and country]
Project Owner	[name and address]
Engineering Sector	[WWTP with BNR or RO Desalination Plant]
Design Capacity of Plant	[MIGD]
Description of Project	[scope and key performance parameters]
Participation of O&M Contractor in Project	[[●]% of the overall O&M services for the Project undertaken by the O&M Contractor]
Name(s) of partner(s) if O&M Contractor did not undertake 100% of the O&M scope	[●]
Commercial Operations Date	[month and year]
Date O&M services ended	[month and year that services of O&M Contractor ended or, if services are ongoing state “ongoing at bid submission”]
Contact for Validation	[name and business email of plant owner and/or owner’s engineer who can validate information entered in the form]

NOTE: The Prequalified Bidder may submit additional form(s) if more than two projects.

FINANCIAL PROPOSAL BIDDING FORMS

BIDDING FORM F1

LETTER OF FINANCIAL PROPOSAL

[Date]

To: The Project Director – West Karachi Recycled Water Project 1,

[Room No. 7, Block-C, 9th Mile Karsaz,
Shahrah-e-Faisal, Karachi – Sindh, Pakistan].

Re: Design, finance, build, operate, maintain and transfer of the West Karachi Recycled Water Project 1 In the Province Of Sindh (the **Project**).

Dear [Sir / Madam],

Reference the Request for Proposals document issued on [●], by Karachi Water and Sewerage Corporation (**KWSC**), (the **RFP**) in relation to the Project.

We, [Name of the Prequalified Bidder] hereby submit our Financial Proposal in conformity with the requirements of the RFP.

All capitalized terms unless defined herein shall bear the meaning as ascribed thereto in the RFP.

We, agree, confirm, undertake and declare that:

- (a) We have examined and have no reservations to the RFP, including Addenda No(s) [●] / Corrigenda No(s) [●].
- (b) We, [including all Consortium Members,] fully and completely understand and accept the terms of the RFP and hereby undertake to comply with the requirements specified therein.
- (c) Our Bid Water Tariff for Contract Year 1 is inclusive of all federal, provincial and local duties, levies and taxes and is expressed in **PKR [insert amount in figures]/- (Pakistani Rupees [insert amount in words] only)** per Imperial Gallon of Recycled Water. For the avoidance of doubt, it is clarified that the Bid Water tariff for Contract Year 1 shall be denoted as “XX.XX paisas/imperial gallon”.
- (d) We offer to perform and undertake the works and services in respect of the Project in conformity with the RFP, including the Concession Documents, without any omission, reservation and deviation; and we accept and undertake to comply with all requirements in the RFP including the appendices / annexures attached to the RFP.
- (e) We, [including all Consortium Members,] and the Proposed Contractors, as per the requirements of the Prequalification Document and the RFP, respectively:
 - (i) do not have any Conflict of Interest; and
 - (ii) have not been declared ineligible / blacklisted by any of our employers, by any federal or provincial governmental or non-governmental department / agency in Pakistan, [or any other provincial government / governments of any foreign countries or their governmental bodies and / or international organizations (e.g., World Bank, Asian Development Bank, United Nations, International Monetary Fund etc.)], as at the Bid

Submission Date.

- (f) Neither we, [including all Consortium Members, any Affiliate], nor the Proposed Contractors:
- (ii) are included as a debarred person pursuant to the public sanctions list of any multilateral development bank that is party to the Agreement on Mutual Enforcement of Debarment Decisions of 9 April 2010 (www.crossdebarment.org); or
 - (iii) are included on any sanctions lists promulgated by the UN Security Council or its Committees, or any other recognized international sanctions list,
- (i) Our Bid consisting of the Technical Proposal and the Financial Proposal shall be valid for a period of one hundred twenty (120) calendar days from the date fixed for the Bid Submission Date in accordance with the RFP, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- (g) We understand that all the volumes, appendices / annexures attached to the RFP are integral parts of the RFP.
- (h) We have reviewed and accepted the form of the Concession Documents along with the Appendices attached thereto (attached as Volume II to the RFP) and undertake to execute the same within the time period stipulated in Notification of Award.
- (i) We hereby:
- (i) acknowledge and consent to any actual, potential or perceived conflicts of interests arising as a result of the multiple current or prospective roles of ADB, MIGA and IDA in connection with the development, delivery and financing of the Project, or in connection with any pre-existing financial or advisory relationships between an institution of the World Bank Group and a Prequalified Bidder [(including the Consortium Members)] (or its Affiliate), KWSC and including or in connection with the GoS' role as a shareholder in the Company and a party to the Concession Agreement;
 - (ii) waive any liability to which any World Bank Group institution might otherwise be subject in connection with such actual, potential or perceived conflicts of interest; and
 - (iii) consent to the sharing of any information provided to or created by ADB in connection with the proposed financing of the Project among ADB, IDA and MIGA staff members engaged in the proposed financing of the Project.
- (j) We acknowledge that KWSC (and the GoS) will be relying on the information provided in [our Prequalification Application and]²⁴ our Bid and the documents accompanying them to determine the Successful Bidder. We certify that all information provided in [our Prequalification Application and]²⁵ our Bid is true and correct and that nothing has been omitted which renders such information misleading.
- (k) We continue to satisfy and meet all the requirements specified in the Prequalification Document, including the qualifications requirements set out in the Prequalification Document and [in our Prequalification Application and]²⁶ there has been no material event relating to us or, if we are a Consortium, to any of our Consortium Members, which would require disclosure to KWSC (and the GoS) or which might cause us to fail to become a Prequalified Bidder.
- (l) We understand that this Bid, together with your written acceptance thereof included in your Notification of Award, shall constitute a binding contract between us, until the Concession

²⁴ To be deleted for the Original Proponent.

²⁵ To be deleted for the Original Proponent.

²⁶ To be deleted for the Original Proponent.

Agreement (attached as Volume II to the RFP) and other Concession Documents are executed.

- (m) We are not participating, as a Prequalified Bidder in more than one Bid in this Bidding Process in accordance with the requirements of the RFP.
- (n) We understand that KWSC may cancel the Bidding Process at any time and that KWSC is not bound either to accept any Bid that it may receive, without incurring any liability to the Prequalified Bidders.
- (o) We agree to permit KWSC, the GoS and any persons, representatives or auditors appointed and authorized by KWSC and / or the GoS to inspect and audit our accounts, records and other documents relating to our Bid.
- (p) All the information submitted along with our Bid, including the enclosed forms and documents, is accurate in all respects.
- (q) We accept the right of KWSC to: (i) request additional information reasonably required to assess the Bid; (ii) amend the procedures and requirements or make clarifications thereof; and (iii) extend or amend the timelines as stipulated in the RFP.
- (r) All information, representations and other matters of fact communicated (whether in writing or otherwise) to KWSC by us or on our behalf, in connection with or arising out of the Bid are true, complete and accurate in all respects.
- (s) We hereby declare that all the information and statements made in this Bid are true and accept that any misrepresentation contained in it shall lead to our disqualification, forfeiture of the Bid Security and / or our blacklisting by the KWSC.
- (t) We, [including all Consortium Members,] have made our own investigations and research and have satisfied ourselves in respect of all matters (whether actual or contingent) relating to the Bid and the Project.
- (u) We undertake, if our Bid is accepted, to furnish the Construction Security as per the requirements of the RFP.
- (v) We do hereby declare that the Bid is made without any collusion, comparison of figures or arrangement with any other person or persons making a Bid for the Project.
- (w) We understand that the RFP has been issued by KWSC for the Project; and undertake and confirm that if our Bid is accepted, we and the Company (to be incorporated by us, in case the Project is awarded to us), as applicable, shall execute the Concession Agreement (attached as Volume II to the RFP) and all other instruments as may be required to be executed in relation to the Project as per the requirements of the RFP.
- (x) We acknowledge that in case the Project is awarded to us, we shall be liable to pay ADB Advisory Fee in the manner specified in the Notification of Award, the RFP and/or the Concession Agreement within the timeline stipulated in the relevant invoice issued by ADB.
- (y) We confirm that the Independent Financial Advisor, who has issued the letter required in terms of Sub- Section 4.5.3(d) of the Instructions to Bidders, and attached with our Financial Proposal, meets the criteria for Independent Financial Advisor as specified in Sub-Section 4.5.3(d) of the Instructions to Bidders.

Name

In the capacity of

Signed

..... (Seal)...

Duly authorized to sign the Bid for and on behalf of: *(Insert Name of the Prequalified Bidder / names of all Consortium Members)*

Date

Witness # 1:

Witness # 2:

Signature: _____

Signature: _____

Name: _____

Name: _____

Designation: _____

Designation: _____

Date: _____

Date: _____

CNIC/Passport No.: _____

CNIC/Passport No.: _____

BIDDING FORM F2

FINANCIAL FORMS

Bidding Form F2 (*Financial Forms*) comprises of the following forms:

- (A) Bidding Form F2-1 - Technical Parameters
- (B) Bidding Form F2-2 - Project Cost Breakdown
- (C) Bidding Form F2-3 – Construction Disbursement Schedule
- (D) Bidding Form F2-4 - Uses and Sources of Funds
- (E) Bidding Form F2-5 - Fixed O&M Costs
- (F) Bidding Form F2-6 - Energy Costs
- (G) Bidding Form F2-7 - Chemical Costs
- (H) Bidding Form F2-8 - Sources and Terms of Debt Financing
- (I) Bidding Form F2-9 - Working Capital and Refinancing
- (J) Bidding Form F2-10 – Key Output Parameter
- (K) Bidding Form F2-11 – Distribution Network Bill of Quantities; and
- (L) Bidding Form F2-12 – Financing Term Sheet.

Notes for filling in the forms in Bidding Form F2 (Financial Forms):

Capitalized terms (including the abbreviations) used in the aforesaid forms, shall have the meaning given to them in Concession Agreement.

The Financial Forms from Bidding Form F2 -1 till Bidding Form F2 - 11 are required to be completed in Microsoft Excel file. The Bid Exchange Rate shall be used for conversion of foreign components of costs into equivalent Pakistan Rupees in the Bidding Forms. Prequalified Bidders are required to fill in the Bidding Forms which are available at the following websites:

PPP Unit – <https://www.pppunitsindh.gov.pk/>

VDR - <https://rb.gy/862n5>

KWSC – <https://www.kwsb.gos.pk>

Prequalified Bidders are also required to submit hard copies (as printouts) of the forms in Bidding Form F2. Note that hard copies of the forms in Bidding Form F2 (Financial Forms) submitted by the Prequalified Bidders shall prevail over soft copies in case of inconsistency.

BIDDING FORM F2-1

TECHNICAL PARAMETERS

RFP FINANCIAL PROPOSAL : Bidding Form F2 - 1 (TECHNICAL PARAMETERS)

Instructions:

For not applicable fields, please insert Zero instead of leaving it blank.

YEARS

1 2 3 4 5 6 7

Recycled Water Supply to Industries

% of Recycled Water Target Volume	%							100%
Minimum Revenue Guarantee	%	50%	35%	15%	15%	15%	15%	0%

Location of corresponding input field in Bidder's FM
**

Quality

Influent TDS	mg/L	2,000	2,000	2,000	2,000	2,000	2,000	2,000
RO Concentrate TDS	mg/L							

**

Availability

Availability for Wastewater Treatment Plant	%	100%	100%	100%	100%	100%	100%	100%
Number of days in year Recycling Plant not available	days							
Annual availability for Recycling Plant	%	100%	100%	100%	100%	100%	100%	100%

**

Quantity

Wastewater Treatment (average daily quantity)

Influent to WWTP	MGD	35.00	35.00	35.00	35.00	35.00	35.00	35.00
Treated Effluent	MGD							

**

Recycling (average daily quantity)

Feed Water to RO plant	MGD	-	-	-	-	-	-	
Permeate	MGD	-	-	-	-	-	-	
RO Concentrate	MGD	-	-	-	-	-	-	
Recycled Water to Distribution Network	MGD	-	-	-	-	-	-	
Recycled Water supplied to industries (after NRW)	MGD	-	-	-	-	-	-	28.00

**
**
**
**

Wastewater Treatment

Influent to WWTP	m3 p.a	58,076,300	58,076,300	58,076,300	58,076,300	58,076,300	58,076,300	58,076,300
Treated Effluent	m3 p.a	-	-	-	-	-	-	-

Recycling (annual outputs adjusted)

Feed Water to RO plant	m3 p.a	-	-	-	-	-	-	-
Permeate	m3 p.a	-	-	-	-	-	-	-
RO Concentrate	m3 p.a	-	-	-	-	-	-	-
Recycled Water to Distribution Network	m3 p.a	-	-	-	-	-	-	-
Recycled Water supplied to industries (after NRW)	m3 p.a	-	-	-	-	-	-	46,461,040

Other Assumptions

Exchange Rate	USD/PKR		Note: Should be Bid Exchange Rate as defined in the RFP
---------------	---------	--	---

**

Recycled Water Target Volume/365	MGD	28.00
Days in a Year	days	365.00
Months in a Year	months	12.00
MGD to m ³ per day conversion	m3/MGD	4546.09
Water Tariff Escalation (p.a.)	%	8%
Discount Rate	%	10%

BIDDING FORM F2-2

PROJECT COST BREAKDOWN

RFP FINANCIAL PROPOSAL : Bidding Form F2 - 2 (PROJECT COST BREAKDOWN)

Instructions:

Project costs shall include cost for designing, engineering, construction, procurement, testing, commissioning, transportation, and insurances as applicable
 It should also include costs related to applicable import duties, infrastructure cess, sales tax, VAT, withholding taxes and any other levies/duties and provision for escalation
 The Bid Exchange Rate, as defined in RFP, shall be used for conversion of foreign cost component, which shall be inserted in IN_1 cell H43
 The Cost of Distribution Network for 50 MIGD is from Bidding Form F2-10 (Reference BOQs for Distribution Network)
 The Foreign Cost component in EPC Cost shall represent the value of imported equipment and materials
 The cost of Electricity Delivery Point (Payment to K-Electric) of PKR 4 billion shall be reimbursed by the Company to KWSC for payments made to K-Electric
 All costs shall be referred to the Bid Submission Date
 Financing Cost shall be in accordance with the Financing Terms received from Lender/s
 For not applicable fields, please input Zero instead of leaving it blank

CapEx

(A) EPC Cost Breakdown

			Foreign Component Cost (USD)	Local Component (PKR)
Influent Delivery System and Bypass	PKR	-		
Wastewater Treatment Plant	PKR	-		
Recycling Plant	PKR	-		
Recycled Water Pumping Station	PKR	-		
Distribution Network (50 MIGD)	PKR	-		-
Effluent Discharge (to river)	PKR	-		
RO Concentrate Discharge (to sea)	PKR	-		
General (non-flow/process related)	PKR	-		
Electricity Delivery Point (Payment to K-Electric)	PKR	4,000,000,000	-	4,000,000,000
Total EPC Cost	PKR	4,000,000,000	-	4,000,000,000

Foreign Component - EPC 0.00%
 Local Component - EPC 100.00%

(B) Non - EPC Cost Breakdown

Project Development Cost	PKR	
Insurance During Construction	PKR	
Financing Fees	PKR	-
Interest During Construction	PKR	
Contingencies	PKR	
Spare - Please Specify	PKR	
Total Non - EPC	PKR	-

Breakup of Financing Fees

Upfront Fee	PKR	-
Commitment Fee	PKR	-
Lenders Fee	PKR	-
Spare - Please Specify	PKR	
Financing Fees	PKR	-

(C) Project Development fee

Project development fee paid by winning bidder	USD	1,600,000
Project development fee paid by winning bidder	PKR	-

Total Project Cost (A+B+C) PKR **4,000,000,000**

Location of corresponding input field in Bidder's FM
[worksheet, range]
**
**
**
**
**
**
**

**
**

**
**

**

BIDDING FORM F2-3

CONSTRUCTION DISBURSEMENT SCHEDULE

RFP FINANCIAL PROPOSAL : Bidding Form F2 - 3 (CONSTRUCTION DISBURSEMENT SCHEDULE)

Instructions:

For not applicable fields, please insert Zero instead of leaving it blank.
CapEx must sum 100%.

CapEx distribution

Construction Months	%	%/month	Location of corresponding input field in Bidder's
1	%		FM
2	%		**
3	%		
4	%		
5	%		
6	%		
7	%		
8	%		
9	%		
10	%		
11	%		
12	%		
13	%		
14	%		
15	%		
16	%		
17	%		
18	%		
19	%		
20	%		
21	%		
22	%		
23	%		
24	%		
Total		0%	
	check	FALSE	

BIDDING FORM F2-4

USES AND SOURCES OF FUNDS

RFP FINANCIAL PROPOSAL : Bidding Form F2 - 4 (USES AND SOURCES OF FUNDS)

Instructions:

For not applicable fields, please insert Zero instead of leaving it blank.

** = Debt and Equity (Class A + Class B) should not exceed maximum cap of 65:35*

The Viability Gap Funding amount of \$26.67 Mn, out of which \$20 Mn will be provided in dollars while the remaining \$6.67Mn in PKR. The total amount has been converted into eqv. PKR at the exchange rate of 280

Insert names of consortium members in the Shareholders' Capital section.

Funding uses	PKR	%	Location of corresponding input field in Bidder's FM
Total-As-Spent Costs			
EPC costs	4,000,000,000	100.00%	" "
Contingencies	-	-	" "
Insurance During Construction	-	-	" "
Others	-	-	" "
Project development fee	-	-	" "
Project Development Cost	-	-	" "
Financing costs	-	-	" "
Total uses	4,000,000,000	100.00%	

Check against IN_2

TRUE

Funding sources	PKR	%	Location of corresponding input field in Bidder's FM
Total Debt *	2,600,000,000	65%	" "
Class A Equity *	(6,067,600,000)		" "
Viability Gap Funding / Class B Equity *	7,467,600,000	35%	" "
Shareholders' Capital			
[Consortium Member / Firm]	-		" "
[Consortium Member / Firm]	-		" "
[Consortium Member / Firm]	-		" "
Total Equity	-	0%	
Term debt by category			
Debt tranche 1	-		" "
Debt tranche 2	-		" "
Debt tranche 3	-		" "
Total Debt	-	0%	
Total Sources	7,467,600,000	100.00%	

Balance check (uses and sources)

FALSE

BIDDING FORM F2-5

FIXED O&M COSTS

RFP FINANCIAL PROPOSAL : Bidding Form F2 - 5 (FIXED O&M COSTS)

Instructions:

For not applicable fields, please insert Zero instead of leaving it blank.

Input costs for first year of operations

Fixed Operating Cost

Fixed operating cost per annum	PKR p.a	
Insurance during operation (% of EPC Cost)	%	
Insurance during operation	PKR p.a	-
Total Fixed Cost	PKR	-

Location of corresponding input field in Bidder's FM
" "
" "
" "

BIDDING FORM F2-6

ENERGY COSTS

RFP FINANCIAL PROPOSAL : Bidding Form F2 - 6 (ENERGY COSTS)

Instructions:

For not applicable fields, please insert Zero instead of leaving it blank.

Input costs for first seven year of operations

Effluent can comprise (i) Treated Effluent not used for recycling or blending, (ii) bypassed Influent and (iii) RO Concentrate delivered to the Effluent Discharge Chamber

** = Specific Energy Consumption must not exceed KPI cap*

*** = Cap entered by bidder for non-flow related items with breakdown. To be stated in Kwh/day under annual quantity*

YEARS		1	2	3	4	5	6	7	Location of corresponding input field in Bidder's FM
Project Component	Flow Parameter	Annual Quantity (m3/a)							
Influent PS	Influent	58,076,300	58,076,300	58,076,300	58,076,300	58,076,300	58,076,300	58,076,300	
Wastewater Treatment Plant	Treated Effluent	-	-	-	-	-	-	-	
Recycling Plant	Permeate	-	-	-	-	-	-	-	
Recycled Water PS	Recycled Water to Distribution	-	-	-	-	-	-	-	
Effluent PS	Effluent (to river)	-	-	-	-	-	-	-	**
RO Concentrate PS (Sea)	RO Concentrate (to sea)	-	-	-	-	-	-	-	**
Other (non-flow related) **	Kwh per day								**
		Specific Energy Consumption (kWh/m³)*	Specific Energy Consumption (kWh/m³)*	Specific Energy Consumption (kWh/m³)*	Specific Energy Consumption (kWh/m³)*	Specific Energy Consumption (kWh/m³)*	Specific Energy Consumption (kWh/m³)*	Specific Energy Consumption (kWh/m³)*	Specific Energy Consumption (kWh/m³)*
Influent PS	Influent								0.075
Wastewater Treatment Plant	Treated Effluent								0.300
Recycling Plant	Permeate								0.900
Recycled Water PS	Recycled Water to Distribution								0.250
Effluent PS	Effluent (to river)								0.050
RO Concentrate PS (Sea)	RO Concentrate (to sea)								0.050
Annual Energy Consumption Cap	kWh p.a								
Annual Energy Cost Ceiling	PKR								
Ecost (or Price of Electricity)	PKR/MWh								43.13

BIDDING FORM F2-7

CHEMICAL COSTS

RFP FINANCIAL PROPOSAL : Bidding Form F2 - 7 (CHEMICAL COSTS)

Instructions:

For not applicable fields, please insert Zero instead of leaving it blank.

Input costs for first seven year of operations

Chemical Cost for Year 7

Project Component	Annual Quantity (m ³ /a)	Chemical Cost (PKR/a)	Unit Chemical Cost (PKR/m ³)
Wastewater Treatment Plant	58,076,300		-
Recycling Plant	0		-

Location of corresponding input field in Bidder's FM
**
**

YEARS

Project Component	Flow Parameter	1	2	3	4	5	6
		Annual Quantity (m ³ /a)					
Wastewater Treatment Plant	Treated Effluent	58,076,300	58,076,300	58,076,300	58,076,300	58,076,300	58,076,300
Recycling Plant	Permeate	0	0	0	0	0	0
		Chemical Cost (PKR/a)					
Wastewater Treatment Plant	Treated Effluent	0	0	0	0	0	0
Recycling Plant	Permeate	0	0	0	0	0	0
Total Chemical Cost	PKR p.a	0	0	0	0	0	0

BIDDING FORM F2-8

SOURCES AND TERMS OF DEBT FINANCING

RFP FINANCIAL PROPOSAL : Bidding Form F2 - 8 (SOURCES & TERMS OF DEBT FINANCING)

Instructions:

For not applicable fields, please insert Zero instead of leaving it blank.

Insert names of the banks from which Indicative Term sheet or Letter of Intent is obtained, and submitted with the Financial Proposal of RFP

Debt Financing

Debt Tranche 1	PKR	-
Debt Tranche 2	PKR	-
Debt Tranche 3	PKR	-
Debt Tranche 1	%	0%
Debt Tranche 2	%	0%
Debt Tranche 3	%	0%

Debt tranche 1

Source	Name		Location of corresponding input field in Bidder's FM
Tenor	Yr(s)		<i>[indicate source of debt]</i>
Rate	% p.a.		" "
Spread	% p.a.		" "
Repayment Frequency	Mth(s)	3.00	" "
Repayment Period	Mth(s)	0	" "
Upfront Fee	%		" "
Commitment Fee	%		" "
Arrangement Fee	%		" "
Lenders Fee	%		" "
Interest margin during operations	%		" "
Interest margin during construction	%		" "

Debt tranche 2

Source	Name		<i>[indicate source of debt]</i>
Tenor	Yr(s)		" "
Rate	% p.a.		" "
Spread	% p.a.		" "
Repayment Frequency	Mth(s)	3.00	" "
Repayment Period	Mth(s)	0	" "
Upfront Fee	%		" "
Commitment Fee	%		" "
Arrangement Fee	%		" "
Lenders Fee	%		" "
Interest margin during operations	%		" "
Interest margin during construction	%		" "

Debt tranche 3

Source	Name		<i>[indicate source of debt]</i>
Tenor	Yr(s)		" "
Rate	% p.a.		" "
Spread	% p.a.		" "
Repayment Frequency	Mth(s)	3.00	" "
Repayment Period	Mth(s)	0	" "
Upfront Fee	%		" "
Commitment Fee	%		" "
Arrangement Fee	%		" "
Lenders Fee	%		" "
Interest margin during operations	%		" "
Interest margin during construction	%		" "

BIDDING FORM F2-9

WORKING CAPITAL AND REFINANCING

RFP FINANCIAL PROPOSAL : Bidding Form F2 - 9 (WORKING CAPITAL AND REFINANCING)

Instructions:

For not applicable fields, please insert Zero instead of leaving it blank.

Input costs for first year of operations

Working Capital

Days Receivable
Days Payable

days
days

Location of corresponding input field in Bidder's FM
" "
" "

Running Finance

Minimum Cash
Rate

PKR
%p.a

" "
" "

BIDDING FORM F2-10

KEY OUTPUT PARAMETER

RFP FINANCIAL PROPOSAL : Bidding Form F2 - 10 (KEY OUTPUT PARAMETERS)

Instructions:

The macro button is to be pressed when inputs are changed or when the check button displays "FALSE" message. Once the macro is executed the check button will display "TRUE" message indicating modelling computations are completed and target IRR is achieved.

MACRO

FALSE

Target IRR on Class A Equity

Bid Water Tariff for Contract Year 1 (incl. electricity costs)	paisa/Gallons	-
Water Tariff for Contract Year 1 (excl. electricity costs)	paisa/Gallons	-
Levelized Water Tariff (Yr 1 - Yr 25)	paisa/Gallons	-
Electricity cost Included	<input style="width: 40px; height: 15px;" type="button" value="Yes"/>	

DSCR

Years	DSCR
1	0.00x
2	0.00x
3	0.00x
4	0.00x
5	0.00x
6	0.00x
7	0.00x
8	0.00x
9	0.00x
10	0.00x
11	0.00x
12	0.00x
13	0.00x
14	0.00x
15	0.00x
16	0.00x
17	0.00x
18	0.00x
19	0.00x
20	0.00x
21	0.00x
22	0.00x
23	0.00x
24	0.00x
25	0.00x

Indexed Water Tariff

Years	Tariff
1	0.00
2	0.00
3	0.00
4	0.00
5	0.00
6	0.00
7	0.00
8	0.00
9	0.00
10	0.00
11	0.00
12	0.00
13	0.00
14	0.00
15	0.00
16	0.00
17	0.00
18	0.00
19	0.00
20	0.00
21	0.00
22	0.00
23	0.00
24	0.00
25	0.00

BIDDING FORM F2-11

DISTRIBUTION NETWORK BOQS

RFP FINANCIAL PROPOSAL : Bidding Form F2 -11 (Distribution Network BoQs)

Instructions:

The cost entered by each bidder shall include for design, construction and commissioning of the Distribution Network based on the lengths and pipe diameters in the bill of quantities. The rate for each diameter shall include supply of HDPE pipes, fittings, valves, district meters, fire hydrants and all other materials, excavation, pipe bedding (where required), concrete (where required), laying and jointing of pipes and pipework items, hydrostatic testing of each network zone, valve and meter chambers, chamber covers, pipe protection (where required), backfilling, reinstatement of original ground surface and removal of surplus excavated material.

The cost of connections from the Distribution Network (Company Zones) to Offtakers and Offtaker Meters shall be recovered by the Company from Offtakers and shall not be included in the rates for the Distribution Network

Distribution Network Cost Breakdown

Pipe Details		Pipe Supply and Installation	
Outside Diameter mm	Pipe Length m	Unit Rate PKR/m	Cost PKR
160	4000		-
225	52000		-
280	17000		-
355	7000		-
450	12000		-
500	5000		-
630	5000		-
710	3000		-
800	15000		-
120,000			-

Distribution Network (50 MIGD) from IN_2 PKR -

Check TRUE

Note1: The Total BOQs cost of distribution network should match with the cost quoted in IN_2 (cell H21) under EPC Cost.

Note2: If the Distribution Network cost includes a foreign cost component, it may be entered in cell J21 in IN_2. The PKR Cost in L21 in IN_2 shall be automatically adjusted so the total cost of Distribution Network (50 MIGD) in IN_2 cell H21 matches with the total BOQ Cost in this sheet.

BIDDING FORM F2-12 – FINANCING TERM SHEET

Borrower/Customer	
Project Sponsors	
Shareholders	
Transaction/ Project	
Project Cost	
Mandated Lead Advisors & Arrangers / Agent Bank	
Facility Financiers	
Facility Amount	
Currency of the Facility	
Pricing on Facility (Fixed or floating, including floating base rate and margin)	
Tenor	
Facility Effective Date	
Availability Period	
Repayment of Facility (Period and Frequency of Repayment)	
Security/ collateral	
Arrangement/ Commitment Fee	
Debt Service Reserve / Major Maintenance Reserve	
Conditions Precedent	
Indemnification/ Representation and warranties	
Taxes and Payments	
Governing Law	

Validity	
Dispute Resolution	

Signatory for and on behalf of

[insert name of the relevant Prequalified Bidder]

Name:

Designation

PART 3

BIDDING DOCUMENTARY LEGAL

REQUIREMENTS

BIDDING DOCUMENTARY LEGAL REQUIREMENTS

NO.	DOCUMENT	REQUIREMENTS	
		LOCAL ENTITY	FOREIGN ENTITY
1.	LETTER OF TECHNICAL PROPOSAL AND LETTER OF FINANCIAL PROPOSAL	To be dated, signed by the authorized representative, duly witnessed, duly stamped (PKR 100/-) and witnessed.	To be dated, signed by the authorized representative and to be adequately adhesive stamped when brought into Pakistan with a stamp duty of PKR 100/- and witnessed.
2.	FORM OF BID SECURITY	To be issued by the Security Issuer; and dated, signed by an authorized representative and duly stamped (PKR 500/-).	To be issued by Security Issuer; and dated, signed by an authorized representative and duly stamped (PKR 500/-).
3.	POWER OF ATTORNEY	To be dated; witnessed; notarized; duly stamped (PKR 200/-); signed by an authorized representative; and in the language as required under the Instructions to Bidders.	To be dated; witnessed and signed by an authorized representative. For a Power of Attorney executed and issued in member/contracting states of the Apostille Convention, to the extent recognized in Pakistan, the same will have to be legalized by the designated authority of the country where the Power of Attorney is executed; provided, however, if the Power of Attorney is not issued in member/contracting states of the Apostille Convention, the same will have to be notarized by Notary Public and attested by the Pakistani Embassy / Consulate in the country where the Power of Attorney is executed; and once brought into Pakistan, the same is to be attested by Ministry of Foreign Affairs, Pakistan; and adequately adhesive stamped when brought into Pakistan with a stamp duty of PKR 200/-.
3.	UNDERTAKING	To be dated; signed by the authorized signatory; witnessed; duly stamped (PKR 100/-); and in the language as required under the Instructions to Bidders.	To be in the English language and in compliance with the requirements under the Instructions to Bidders. For an Undertaking executed and

			issued in member / contracting states of the Apostille Convention, to the extent recognized in Pakistan, the same will have to be legalized by the designated authority of the country where the Undertaking is executed; provided, however, if the Undertaking is not issued in member / contracting states of the Apostille Convention, the same will have to be notarized by Notary Public and attested by the Pakistani Embassy / Consulate in the country where the Undertaking is executed; and once brought into Pakistan, the same is to be attested by Ministry of Foreign Affairs, Pakistan; and adequately adhesive stamped when brought into Pakistan with a stamp duty of PKR 100/-; to be dated; signed by the authorized signatory; and witnessed.
5.	INTEGRITY PACT	To be dated and signed by the authorized representative.	To be dated and signed by the authorized representative.
6.	AFFIDAVIT	To be dated; notarized and verified by Oath Commissioner, signed by the authorized signatory; witnessed; duly stamped (PKR 100/-); and in the format as required under the Instructions to Bidders.	To be in the English language and in compliance with the requirements under the Instructions to Bidders. For an Affidavit executed and issued in member / contracting states of the Apostille Convention, to the extent recognized in Pakistan, the same will have to be legalized by the designated authority of the country where the Affidavit is executed; provided, however, if the Affidavit is not issued in member / contracting states of the Apostille Convention, the same will have to be notarized by Notary Public and attested by the Pakistani Embassy / Consulate in the country where the Affidavit is executed; and once brought into Pakistan, the same is to be attested by Ministry of Foreign Affairs, Pakistan and adhesive stamped with a stamp duty of PKR 100/-; to be dated; signed by the authorized signatory; and

			witnessed.
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PART 4
ANNEXURES

ANNEXURE A

ELIGIBILITY CRITERIA FOR PROPOSED CONTRACTORS

A Technical Proposal received from Prequalified Bidder, shall only be considered if all the following information / components have been provided and the requirements herein are satisfied:

In case any document / information furnished is in a language other than English, it will need to be accompanied by an English translation (duly notarized by Notary Public and attested by Pakistan Embassy / Consulate and Ministry of Foreign Affairs, Pakistan). In case of any discrepancy, the English translation shall prevail.

➤ **REGISTRATION WITH TAX AUTHORITIES**

The Proposed Contractor must possess a valid registration certificate from the income tax authority (i.e., the NTN certificate) and relevant sales tax authority, if applicable. Valid NTN certificate(s) and tax returns filed for last three (3) years are to be attached and relevant sales tax certificate, if applicable.

For foreign entities, a tax certificate of their country and tax returns filed for last three (3) years should be submitted.

➤ **NO CONFLICT OF INTEREST**

The Proposed Contractor may be considered to be in a conflict of interest if it, *inter alia*, participated as a consultant in the preparation of the design or technical / commercial / financial / legal specifications for the works and / or services for the Project, for the purposes of preparation of the RFP, that are the subject of this Bidding Process.

In case there is no conflict, the Proposed Contractor shall provide evidence in the form of an affidavit to this effect in the form and substance attached as Bidding Form T6 of PART 2 of Volume I of the RFP.

In case the affidavit is issued by a foreign entity, outside Pakistan, such affidavit will have to be duly notarized by Notary Public and attested by Pakistan Embassy / Consulate and Ministry of Foreign Affairs, Pakistan.

➤ **NON-BLACKLISTING**

The Proposed Contractor shall provide evidence, in the form of an affidavit (in the form and substance attached as Bidding Form T6.

For an Affidavit executed and issued in member / contracting states of the Apostille Convention, to the extent recognized in Pakistan, the same will have to be legalized by the designated authority of the country where the Affidavit is executed; provided, however, if the Affidavit is not issued in member / contracting states of the Apostille Convention, the same will have to be notarized by Notary Public and attested by the Pakistani Embassy / Consulate in the country where the Affidavit is executed.

ANNEXURE B

EVALUATION CRITERIA

(A) TECHNICAL EVALUATION CRITERIA

Along with the requirements set out in the Instructions to Bidders and the information required pursuant thereto, this section will be used to determine whether a Bid is technically compliant to the requirements of the RFP. In the event the Prequalified Bidder's Technical Proposal is evaluated to be "Pass", the Prequalified Bidder shall be awarded one hundred (100) points, whereas, in the event the Prequalified Bidder's Technical Proposal is evaluated to be a "Fail", such Prequalified Bidder shall be awarded zero (0) points.

NO.	DESCRIPTION	COMPLIANCE WITH RFP REQUIREMENTS	DETAIL TO BE EVALUATED
		YES / NO	

(B) FINANCIAL EVALUATION CRITERIA

KWSC / TFEC shall evaluate the presence and completeness of all the supporting Bidding Forms, Bid Financial Model and other documentation / information required to be submitted by a Prequalified Bidder with the Financial Proposal, as per the requirements set out in the Instructions to Bidders.

The Prequalified Bidder that has the lowest Bid Water Tariff for Contract Year 1 shall be awarded one hundred (100) points. Subsequently, each Prequalified Bidder shall be awarded points on their Financial Proposal on the basis of the following computation:

$$\text{Financial Score} = \frac{\text{lowest Bid Water Tariff for Contract Year 1}}{\text{Bid Water Tariff for Contract Year 1 of a Prequalified Bidder}} \times 100$$

(C) COMBINED SCORE

Following the calculation of the Technical Score and the Financial score, the combined score of each Prequalified Bidder shall be calculated as follows:

$$\text{Combined Score} = \frac{\text{Technical Score}^{27} + \text{Financial Score}^{28}}{200} \times 100$$

(D) METHODOLOGY FOR CALCULATION OF BID WATER TARIFF FOR CONTRACT YEAR 1

²⁷ As calculated in accordance with Paragraph (A) above.

²⁸ As calculated in accordance with Paragraph (B) above.

1.1 Methodology

- 1.1.1 Prequalified Bidders shall be required to enter the respective inputs (cells in 'blue color') in the Bid Financial Model (collectively together the Bidding Form F2 from Form F2-1 till Form F2-11).
- 1.1.2 Once all the inputs are inserted, the MACRO button in Form F2-10 (Key Output Parameters) is to be pressed to arrive at the "Bid Water Tariff for Contract Year 1". While running the macro, it has to be ensured that the drop box for "Electricity Cost Included" is checked for "YES" to arrive at the correct value of "Bid Water Tariff for Contract Year 1".
- 1.1.3 Please note that the MACRO button in Form F2-10 (Key Output Parameters) is to be pressed when inputs are changed or when the check button displays "FALSE" message. Once the macro is executed the check button will display "TRUE" message indicating modelling computations are completed and target IRR is achieved.
- 1.1.4 For the avoidance of doubt, the Bid Water Tariff for Contract Year 1, which is inclusive of Electricity Costs (Agency), shall be considered solely for Financial Evaluation purposes and shall not be used for calculation of Water Tariff under the Concession Agreement for the sale and supply of Recycled Water.

(E) METHODOLOGY FOR CALCULATION OF WATER TARIFF FOR CONTRACT YEAR 1

1.1 Methodology

- 1.1.1 To compute the Water Tariff for Contract Year 1, which is the water tariff excluding the Electricity Costs (Agency), the Bid Financial Model needs to be re-run.
- 1.1.5 For this, the Prequalified Bidders are required to re-run the macro in Form F2-10 (Key Output Parameters). First select the drop box for "Electricity Cost Included" and mark it "NO". Thereafter press the MACRO button to arrive at the value of "Water Tariff for Contract Year 1".
- 1.1.2 The Water Tariff for Contract Year 1, computed under this section, shall be subject to fixed escalation of eight percent (8%) per annum, in the manner prescribed under the Concession Agreement, and shall be the basis for calculation of Water Tariff for relevant Contract Year.
- 1.1.3 The Water Tariff for Contract Year 1 and Water Tariff thereafter for subsequent Contract Years, shall be excluding the Electricity Costs (Agency), that shall be a pass-through cost and will be paid by the KWSC, subject to maximum cap of energy consumption in kWh/m³ agreed by a Prequalified Bidder under Bidding Form F2-6 (Energy Costs) for each of component of the Facilities. Cost of any electricity consumption of the Facilities during a Contract Year, exceeding this cap, shall be borne by the Company. For detailed mechanism of Electricity Costs (Agency) and Electricity Costs (Company), refer to the relevant provisions of the Concession Agreement.

**VOLUME II – Part 1:
CONCESSION AGREEMENT AND
APPENDICES**

**VOLUME II – Part 2:
PROJECT LAND AGREEMENT**

CONCESSION AGREEMENT

BY AND BETWEEN

**THE GOVERNOR OF SINDH (THROUGH THE LOCAL GOVERNMENT & HOUSING
TOWN PLANNING DEPARTMENT, GOVERNMENT OF SINDH)**
(as GOS)

KARACHI WATER & SEWERAGE CORPORATION
(as AGENCY)

and

[●]
(as COMPANY)

DATED: AS OF _____, 2024

AT _____

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CONCESSION AGREEMENT

This **CONCESSION AGREEMENT** (this **AGREEMENT**) is entered into on [●], 2024 at Karachi, Pakistan:

BY AND BETWEEN

The Governor of Sindh through Secretary, Local Government and Housing Town Planning Department, Government of Sindh having its office located at Local Government Department, Ground Floor, Tughlaq House, Sindh Secretariat, Karachi, Pakistan, for and on behalf of the Government of Sindh (hereinafter referred to as the **GOS**), which expression shall include its successors in interest, administrators and permitted assigns,

Karachi Water & Sewerage Corporation, having its offices at Room No. 7, Block-C, 9th Mile Karsaz, Shahrah-e-Faisal, Karachi – Sindh, Pakistan, (hereinafter referred to as the **AGENCY**, which expression shall include its successors in interest, administrators and permitted assigns),

AND

[●], a company incorporated under the laws of Pakistan, having its registered office at [●] (hereinafter referred to as the **COMPANY**, which expression shall include its successors in interest, administrators and permitted assigns),

(the Agency and GoS shall be referred to as the **GOS PARTIES** and the **COMPANY**, the **GOS** and **AGENCY** shall collectively be referred to as the Parties and individually as the Party).

RECITALS

- (A) GoS is the Governor of Sindh through Secretary, Local Government and Housing Town Planning Department, Government of Sindh having its office located at Local Government Department, Ground Floor, Tughlaq House, Sindh Secretariat, Karachi, Pakistan, for and on behalf of the Government of Sindh (hereinafter referred to as the **GOS**).
- (B) The Agency is established under the Karachi Water and Sewerage Corporation Act, 2023 and is formerly known as Karachi Water & Sewage Board set up as a statutory body corporate and is responsible for supply of water and disposal of sewage within the jurisdictional limit of the Karachi Metropolitan Corporation and such jurisdictional limits extends to the battery limits of various constituents bodies operating in Karachi.
- (C) Sindh Industrial Trading Estate Limited, established under Sindh Assembly Resolution No.24-J.B/47-I, dated 2nd June, 1947, is an autonomous constituent body under the administrative supervision of the Department of Industries and Commerce, Government of Sindh (**SITE**) and is responsible for development and maintenance of infrastructure of Sindh Industrial Trading Estate including water supply, sanitation, drainage and other necessary public amenities.
- (D) The GoS Parties are desirous to recycle municipal wastewater and provide a reliable supply of Recycled Water to the industries situated within the Project Land (Distribution Company Zones) with the primary aim to alleviate Karachi's water shortages and promotion of industrial and economic growth.
- (E) In line with the Sindh Public Private Partnership Act, 2010 (and pursuant to the Sindh Public Procurement Act, 2009), as amended, and the respective rules and regulations, the Agency have invited private sector companies, by issuing Request For Proposals to tender for the grant of a concession to:
 - (i) design, build, engineer, procure, test, commission, finance, operate, maintain and transfer the Facilities;

- (ii) provide the Services; and
 - (iii) collect Revenues from the sale of Recycled Water to Offtakers;
- (the matters in (i), (ii) and (iii) being the **Project**).

(F) The Shareholders were selected by the Agency to undertake the Project as the result of a submission of a competitive public bidding process following the submission of an unsolicited proposal conducted by the Agency under the Applicable Laws and pursuant to the terms of the Request for Proposal, the Shareholders were permitted to establish the Company to implement the Project on the terms and conditions set forth in this Agreement.

NOW, THEREFORE, for and in consideration of these premises and the mutual commitments, obligations and undertakings assumed and accepted hereunder, the Parties have agreed as follows:

1 DEFINITIONS, PRINCIPLES OF INTERPRETATION

1.1 DEFINITIONS

The following terms whenever used in this Agreement shall have the following meanings:

Abandons means:

- (a) in relation to the period, from the Effective Date until the COD in respect of the Company other than due to a Force Majeure Event or a GoS Parties Risk Event:
 - (i) failure to demonstrate to the Agency its ability to perform its obligations under this Agreement (taking into account its ability to accelerate the Project Works under the EPC Contracts) such as to demonstrate that the COD will be achieved on or before the Required COD; or
 - (ii) one or more EPC Contracts have been terminated and the Company has either:
 - a. failed within sixty (60) Days after the date of that termination to conclude new EPC Contract(s) approved by the Agency (but excluding any period of approval by Agency or the Independent Experts of the EPC Contracts or EPC Contractor under this Agreement); or
 - b. concluded new EPC Contract(s) approved by the Agency within such sixty (60) Day period but a new EPC Contractor failed to commence work in respect of the Project within thirty (30) Days of concluding that EPC Contractor's new EPC Contract;
- (b) in relation to any period during the Concession Period, other than due to a Force Majeure Event or a GoS Parties Risk Event:
 - (i) a failure of the Company to perform its obligations under this Agreement for a continuous period of thirty (30) Days such as to suggest an intention to repudiate this Agreement; or
 - (ii) a failure by the Company to resume and continue the performance of all or substantially all of its obligations under this Agreement within thirty (30) Days following the cessation of a Force Majeure Event or a GoS Parties Risk Event, in each case, which prevented, hindered or delayed such performance.

Acceptance Certificate means the certificate the Company shall procure is issued by the Independent Engineer in respect of the Facilities in accordance with Section 5.6.1 (*Testing Procedure*) and Section 5.6.2 (*Acceptance Certificate*).

Accounting Principles means the generally accepted accounting principles applicable from time to time in Pakistan.

Accounting Year means in respect of the Company, the financial year commencing from first (1st) day of July of any calendar year and ending on the thirtieth (30th) day of June of the next calendar year.

ADB Advisory Fee means the amount of USD1,600,000 which shall be payable by the Company to Asian Development Bank in two instalments and without deduction or set off as provided by agreements signed by Asian Development Bank and the Agency, on the basis that the ADB Advisory Fee shall be paid by the Company in full prior to the Effective Date in accordance with Section 3.1.15 (*Other Conditions: Company Condition Precedent*).

Adjoining Projects means:

- (a) the wastewater treatment project with a capacity to be determined; and
- (b) the recycling plant with a capacity to be determined;

that are being developed by or on behalf of the Agency during the Concession Period and which are located in an area adjoining the Project Land (Plants) and which may supply customers located in the Project Land (Distribution Other Zones).

Adverse Person means:

- (a) any person whose primary residence is in or who is incorporated or organized under the laws of a country:
 - (i) which is subject to sanctions levied by the United Nations (or the Security Council thereof) pursuant to authority derived from Article 41 of Chapter 7 of the United Nations Charter (a **Sanctioned Country**); or
 - (ii) with which Pakistan does not have commercial or trade relations or otherwise does not maintain official diplomatic relations (an **Unfriendly Country**);
- (b) any national government, or any political subdivision, of any Sanctioned Country or Unfriendly Country;
- (c) any ministry, department, authority, or statutory corporation of, or any corporation or other entity (including a trust), owned or controlled directly or indirectly by the national government, or any political subdivision, of any Sanctioned Country or Unfriendly Country;
- (d) any person who has been blacklisted by any federal or provincial government, governmental body or non-governmental body of any foreign countries and/or international organizations; or
- (e) a person involved in a dispute with a Pakistan Government Authority as a defendant, counterparty or otherwise adverse to the Pakistan Government Authority and a decision, award, judgement, award or order has been handed down by a Pakistan court and that person has not complied with or is in breach of such decision, award, order or judgement.

Advertising Proceeds has the meaning set out in Section 24.1.6.

Affiliate means, with respect to any specified person, any other person that, directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such specified person. For the purposes of this definition, the term “control” (including the terms “controlled by” and “under common control with”) as applied to any person, means direct or indirect ownership of:

- (a) more than 50% of the shares of that person; or
- (b) other equity interests having ordinary voting power or possession of the power to direct or cause the direction of the board, management, policies and decisions of that person.

provided that for the purposes of this definition the Equity (GoS) shall not be included or taken into consideration and GoS shall not be an Affiliate of the Company and the Company shall not be an Affiliate of GoS.

Agency is defined in the preamble to this Agreement.

Agency Advertising Plan is defined in Section 24.1.1.

Agency Conditions Precedent has the meaning in Section 3.1(b) (*Agency and Company Conditions Precedent*).

Agency Step-in Rights is defined in Section 18.1.1.

Agency Supporting Infrastructure means the supporting infrastructure to be designed, installed, engineered, tested, commissioned, financed, procured, and completed by Agency prior to the Agency Supporting Infrastructure Completion Date and being:

- (a) the Lyari raw water interceptor to TP1; and
- (b) structures STR-A and STR-B;

which are located on the Agency side of the Influent Delivery Point and which shall be owned and operated by the Agency.

Agency Supporting Infrastructure Completion Date means the date that is three hundred and sixty five days (365) Days prior to the Required COD and the Agency shall use reasonable endeavours to complete the works for the Agency Supporting Infrastructure by the Agency Supporting Infrastructure Completion Date.

Agency Supporting Infrastructure Breach Period means in respect of a Relief Event under Section 10.1.1(a) the period commencing on the later of:

- (a) the Agency Supporting Infrastructure Completion Date; and
- (b) the Certificate of Readiness Date;

and ending on the date that the Agency Supporting Infrastructure has been completed.

Agreement means this concession agreement including the Recitals, main body and all Schedules attached hereto.

Anti-Corruption Laws means in respect of the Company and Company Engaged Persons:

- (a) all Legal Requirements in connection with bribery and corruption;
- (b) the relevant provisions, policy and standards under Asian Development Bank's Anticorruption Policies as updated from time to time;
- (c) the United States Foreign Corrupt Practices Act of 1977; and
- (d) the UK Bribery Act 2010.

Applicable Criteria means the following criteria that any third-party entity appointed by the Company in accordance with this Agreement as the Collection Agent must comply with:

- (a) the entity shall have no existing or prior history of any default in respect of any facilities obtained from any bank or other financial institution as per the Electronic Credit Information Bureau report/data maintained by the State Bank of Pakistan;
- (b) the entity is considered by the Independent Expert to be financially sound and reputable and is authorized and licensed to provide services the same or similar to those provided by a collection agent in Pakistan and has sufficient scale and resources to provide the services of the Collection Agent as contemplated under this Agreement;
- (c) the entity undertakes in its contract with the Company for appointment as Collection Agent:
 - (i) to comply with the requirements of the SITE Agreement and this Agreement as if it were a party to those agreements; and
 - (ii) not to commit any Prohibited Act; and
- (d) the entity is permitted under all Legal Requirements to operate as a Collection Agent;

during the term of its appointment as Collection Agent.

Applicable Laws means all applicable federal, provincial and local laws, promulgated or brought into force and effect in Pakistan, as the case may be, including regulations and rules made thereunder, and judgments, decrees, injunctions, writs and orders of any court of record or issued by any Government Authority.

Archaeological Items means articles of archaeological value, interest or antiquity, historical structures, human remains or other items of archaeological or historic interest.

Audit Authorities means the Governmental Authority having jurisdiction over each of the GoS Parties in respect of an audit.

Auditors means the independent public accountants appointed by the Company with the prior written approval of the GoS Parties.

Availability means with respect to the Influent Delivery System, Wastewater Treatment Plant, the Bypass, the Effluent Discharge Chamber, the Effluent Discharge Pipeline, the Effluent Pumping Station, and their supporting facilities the state in which the Influent Delivery System, Wastewater Treatment Plant, the Bypass, the Effluent Discharge Chamber, the Effluent Discharge Pipeline, the Effluent Pumping Station and such supporting facilities are capable of treating 35 MIGD of Influent to meet the Quality Parameters (Company) for Treated Effluent as determined by the Availability Tests.

Availability Event Damages means for each Day during each Contract Year on which the Company fails to satisfy the Availability requirements in this Agreement the Company shall pay

the Agency an amount equal to PKR 3,000,000 (Pakistani Rupees three million) per Day provided that such Availability Event Damages:

- (a) shall be in addition to and shall not be affected by or limited by any remedies that the Offtakers or other third parties may have against the Company under the Offtake Agreements or under any Legal Requirements; and
- (b) shall be in addition to the Company obligations to rectify the KPI Breach Event that is the failure to satisfy the Availability requirements of this Agreement.

Availability Tests means the tests and procedures for assessing the Availability of the Influent Delivery System, Wastewater Treatment Plant, the Bypass, the Effluent Discharge Chamber, the Effluent Discharge Pipeline, the Effluent Pumping Station and their supporting facilities which shall be conducted by measuring a quantity of Influent through the Monitoring System at the inlet to the Wastewater Treatment Plant during each Day of the Contract Year provided that the Treated Effluent produced complies with the Quality Parameters (Company) for Treated Effluent.

Bid means:

- (a) the technical proposal prepared in accordance with the RFP including all documents and forms; and
- (b) the financial proposal;

with respect to the Project submitted by the Lead Member in accordance with the RFP on the Bid Submission Date.

Bid Security means the bank guarantee submitted by the Shareholders or the Company pursuant to the Request for Proposal in respect of the Bid and this Project or any other interim bank guarantee provided by the Company or the Shareholders to Agency in respect of the period until the Construction Security becomes effective.

Bid Submission Date means the date on which the Bid is submitted and being the date noted as the Bid Submission Date in Schedule 14 (*Information from the Bid*).

Business Day means any Day other than:

- (a) a Saturday and a Sunday;
- (b) any Day which is a legal non-working holiday in Karachi, Pakistan; or
- (c) any Day when commercial banks in Karachi, Pakistan are closed.

Bypass means the pipeline from the Bypass Delivery Point to the Effluent Discharge Chamber.

Bypass Delivery Point means the point noted in the diagram set out in Schedule 1 (*MPSS*) downstream of the Influent Pumping Station where the Company may divert up to 35 MIGD of Influent into the Bypass, in accordance with Section 9.3 (*Company Right to Divert through Bypass*) of this Agreement.

Carbon Credits means credits (and including any underlying greenhouse gas reductions or abatements and any rights connected to the emission reduction or emission abatement activities) generated from activities that reduce or abate emissions connected with the Project based upon emissions as at the Bid Submission Date and which are verified and certified under an international or domestic voluntary or compulsory emission reduction scheme.

Carrying Cost means the servicing of Financial Indebtedness being interest or mark-up payments (or any other term for the return paid to Lenders) accruing on the Principal as set out in the Financial Model but excluding any amounts for penalty or default interest.

Certificate of Readiness means the certificate issued by the Independent Expert for the purposes of the Agency Supporting Infrastructure in accordance with Section 5.6.1(c) confirming that the Influent Delivery System, Waste Water Treatment Plant, the Bypass, the Effluent Discharge Pipeline and the Effluent Plumbing Station (if any) are in a state of readiness to commence the initial testing, commissioning and acceptance.

Change in Law means the occurrence of any of the following events on or after the Bid Submission Date:

- (a) the enactment of any new Applicable Laws, that apply in the Province of Sindh;
- (b) the repeal or modification of any existing Applicable Laws, that apply in the Province of Sindh;
- (c) a change in the interpretation or application of any Applicable Law that applies in the Province of Sindh by a court of record; and
- (d) the imposition by a Government Authority of any additional Company Consent;

provided, that each event in (a) through to and including (d) that is:

- (a) already gazetted in accordance with the Applicable Laws or actively under consideration by a Governmental Authority on or prior to the Bid Submission Date;
- (b) any change in any withholding tax, or other similar Taxes on income or dividends or other distributions distributed by the Company, the EPC Contractor or the O&M Contractor;

shall not constitute a ‘Change in Law’.

Change of Ownership means in respect of any person, a change in the persons who, directly or indirectly, ultimately control that person (excluding companies with shares or securities listed on a stock exchange). For the purposes of this definition, the term “control” (including the terms “controlled by” and “under common control with”) as applied to any person, means direct or indirect ownership of more than 50% of the shares (but excluding and not taking account of the Equity (GoS)) or other equity interests having ordinary voting power or possession of the power to direct or cause the direction of the board, management, policies and decisions of that person.

Claims means with respect to any person, any and all suits, sanctions, legal proceedings, claims, assessments, potential liabilities or demands of whatever kind.

COD means the commercial operations date, being the date of the Acceptance Certificate for the Facilities is issued by the Independent Engineer to the Company in accordance with Section 5.6.1 (*Testing Procedure*).

COD Long Stop Date means the date that is one hundred and eighty (180) Days after the Required COD.

Collection Agent means an entity which is either:

- (a) an Affiliate of the Company provided such Affiliate is permitted under all Legal Requirements to act as Collection Agent; or

- (b) a third-party entity provided that the third party entity satisfies the Applicable Criteria (as certified by the Independent Expert);

that may be contracted by the Company for collection of the Revenue under the Offtake Agreement(s)

Company Advertising Plan is defined in Section 24.1.4.

Company Authorized Representative shall have the meaning ascribed thereto in Section 5.3.1(a).

Company Conditions Precedent has the meaning in Section 3.1(c).

Company Consents means all Consents required by the Company to design, build, engineer, procure, test, commission, finance, operate, maintain, own and transfer the Facilities, the Project Works and provide the Services including the EIA and including the Consents set out in Schedule 13 (*Company Consents*).

Company Engaged Persons means each of:

- (a) the Company's agents, executives, contractors, managers, directors, employees and subcontractors;
- (b) the Company Authorized Representative;
- (c) the Company Project Engineer;
- (d) the Collection Agent;
- (e) each counterparty to a Project Agreements but excluding the Offtakers and the GoS Parties;
- (f) each Shareholder;
- (g) each EPC Contractor;
- (h) the O&M Contractor; and
- (i) other persons or personnel, in each case, that are engaged, hired, appointed, contracted (directly or indirectly) by the Company for the performance of Project Works or provision of the Services.

Company Event of Default is defined in Section 17.1 (*Company Events of Default*).

Company Management Fee means a fee for management of advertising at the Facilities set out in Section 24.1.7.

Company Preliminary Notice means a notice from Company to the GoS Parties indicating the Company's intention to terminate this Agreement and setting out:

- (a) details of the GoS Parties Event of Default; and
- (b) the applicable Cure Period.

Company Project Engineer is defined in Section 5.3 (*Company Authorized Representative & Company Project Engineer*).

Concession Direct Agreement means the direct agreement that may be entered into between the Company, the GoS Parties and the Lenders, if required by the Lenders.

Concession Period is defined in Section 2.2.1.

Confidential Information is defined in Section 25.8.1 (*Confidentiality*).

Consent means any permit, license, approval, concession, right, award, registration, certification, waiver, exemption, or other authorization, including any amendments thereto, that is required from any Government Authority.

Construction Period means the period commencing from Effective Date and ending on the Day immediately preceding the COD.

Construction Programme is defined in Section 2.4.2.

Construction Security means an irrevocable standby letter of credit substantially in the form set out in Schedule 7 (*Form of Construction Security*) issued by a Security Issuer for the amount determined under Section 5.7.2.

Contract Management Body is defined in Section 11.1 (*Contract Management Body*).

Contract Year means the twelve (12) month period starting on the COD and continuing until the Day before the first anniversary of the COD (such initial period being “Contract Year 1”) and thereafter, each successive period consisting of twelve (12) consecutive months, provided that the last Contract Year shall start on the relevant anniversary of the COD immediately prior to the Termination Date and end on the Termination Date.

Corporate Documents means the constitutional documents and the corporate authorizations set out in Schedule 4 (*Corporate Documents*).

Corrupt Act means the Company or a Company Engaged Person:

- (a) offering, giving or agreeing to give to either of the GoS Parties, a Public Official, a Government Authority or SITE or to any person employed or engaged by or on behalf of the GoS Parties, a Public Official, SITE and/or a Government Authority, any gift or consideration of any kind as an inducement or reward:
 - (i) for doing or not doing (or for having done or not having done) any act to assist the Company to secure, or obtain the Project or entry into the GoS Parties Agreements;
 - (ii) for showing or not showing favor or disfavor to any person in relation to the GoS Parties Agreements or the Project; or
 - (iii) to improve or enhance the Company’s position or the terms or arrangements in respect of the Project or the GoS Parties Agreements.
- (b) pays or agrees to pay or receive a commission or discount or a person does so on behalf of the Company or a Company Engaged Person in connection with entry into the GoS Parties Agreements unless before the relevant GoS Parties Agreements are entered into:
 - (i) particulars of the commission or discount and the terms and conditions of any such contract for the payment of such commission or discount have been disclosed in writing to either of the GoS Parties; and

- (ii) GoS Parties are satisfied the commission or discount will not influence any decision as to entry into or implementation of the GoS Parties Agreements.
- (c) defrauds or attempting to defraud or conspires to defraud either of the GoS Parties, SITE, the Public Official or any other Government Authority.

Cure Period means:

- (a) in respect of a Company Event of Default:
 - (i) subject to Section (a)(iii) of this definition, during any period when an amount is outstanding under the Financing Documents, the period commencing on the date of receipt by the Company of the GoS Parties Preliminary Notice and expiring on the date falling ninety (90) Days thereafter;
 - (ii) subject to Section (a)(iii) of this definition, during any period when there is no amount outstanding under the Financing Documents, the period commencing on the date of receipt by the Company of the GoS Parties Preliminary Notice and expiring on the date falling forty-five (45) Days thereafter; and
 - (iii) notwithstanding Sections (a)(i) and (a)(ii) of this definition above, at any time during the Concession Period, in respect of a Company Event of Default under Section 17.1(d), 17.1(e), 17.1(k), 17.1(m) or 17.1(n) of this Agreement a period commencing on the date of receipt by the Company of the GoS Parties Preliminary Notice and expiring on the date fifteen (15) Days thereafter.
- (b) in respect of a GoS Parties Event of Default, the period commencing on the date of receipt by the GoS Parties of the Company Preliminary Notice and expiring on the date falling sixty (60) Days thereafter.

Day means a 24-hour period beginning and ending at midnight, Pakistan time.

Decommissioned Project Area shall have the meaning ascribed thereto in Section 18.4.1.

Defects & Deficiencies means:

- (a) any defect failure or fault in the Project Works that is attributable (in whole or in part) to defects, failure or faults in the design, materials or work modified; and
- (b) the Project Works or the Facilities do not conform to the Design and Construction Standards in any manner.

Delay Liquidated Damages is defined in Section 5.8.1.

Design and Construction Period (Entire) means:

- (a) Construction Period; and
- (b) the period from the commencement of work by the Company or Company Engaged Persons on the Design Documents until the Effective Date.

Design and Construction Reports means monthly reports that shall be provided by the Company to the Agency each month up until COD covering the items set out in this Agreement and in Appendix A Schedule 1 (*MPSS*) and relating to the design engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities and Project Works.

Design and Construction Standards means the standards, specifications and requirements the Company shall comply with in respect of:

- (a) the design, engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities;
- (b) the Project Works;
- (c) the performance of all obligations under the Project Agreements; and

in each case above, as contained and set out in (as applicable):

- (i) this Agreement;
- (ii) the Design and Technical Specifications;
- (iii) the Legal Requirements; and
- (iv) the Design Documents;

and which shall be consistent with the Bid and provided, however, that in the event the relevant standards and requirements set out in (i) to and including (iv) immediately above are silent on a matter, then, the standards and requirements of Sections 4 and 5 Schedule 1 (*MPSS*) shall apply with respect to that matter to the extent of the silence on the matter.

Design and Technical Specifications means the design and technical specifications set out in Schedule 1 (*MPSS*) to be complied with by the Company in respect to the design, engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities and the Project Works.

Design Documents means the:

- (a) the Implementation Plan;
- (b) the Preliminary Engineering Design; and
- (c) Detailed Engineering Design;

which shall comply with the Design and Technical Specifications as certified and approved by the Independent Engineer and in accordance with Schedule 1 (*MPSS*).

Detailed Engineering Design or DED means the Detailed Engineering Design Facilities (Excluding Distribution Network) and Detailed Engineering Design Distribution Network, or either of them as the context requires and which shall be approved by the Independent Engineer.

Detailed Engineering Design Facilities (Excluding Distribution Network) means the detailed engineering design for all the Facilities except the Distribution Network prepared by the Company in accordance with this Agreement and Schedule 1 (*MPSS*) and including any as-built drawings.

Detailed Engineering Design Distribution Network means the detailed engineering design for the Distribution Network prepared by the Company in accordance with this Agreement and Schedule 1 (*MPSS*) and including any as-built drawings.

Dewatered Sludge means Raw Sludge removed from the Wastewater Treatment Plant that has been dewatered to a minimum of 20% dry solids content after completion of the Raw Sludge

Treatment and Dewatering and which meets the Quality Parameters (Company) for Dewatered Sludge as measured at the relevant Monitoring Point.

Dewatered Sludge Disposal Delivery Point means the locations permitted under Schedule 1 (MPSS) where Dewatered Sludge shall be delivered to and disposed by the Company or other locations approved by the Agency in writing from time to time.

Discharge Point means a point shown on the diagram in Figure 4 (Operations Schematic for West Karachi Recycled Water Project 1) paragraph 3.6 in Schedule 1 (MPSS) for the discharge of Effluent and RO Concentrate from the Project and includes:

- (a) the Discharge Point (River); and
- (b) the Discharge Point (Sea)

Discharge Point (River) means the point shown on the diagram in Figure 4 (Operations Schematic for West Karachi Recycled Water Project 1) paragraph 3.6 in Schedule 1 (MPSS) being the outfall where the Effluent is discharged from the Effluent Discharge Pipeline into the Lyari River.

Discharge Point (Sea) means the point shown on the diagram in Figure 4 (Operations Schematic for West Karachi Recycled Water Project 1) paragraph 3.6 in Schedule 1 (MPSS) being the outfall where RO Concentrate is discharged from the RO Concentrate Discharge Pipeline into the sea.

Dispute means any difference or disagreement of any kind whatsoever arising between the Parties in connection with, this Agreement.

Distribution Network means the network of distribution pipelines for the conveyance of Recycled Water located within the Project Land (Distribution) and being made up of:

- (a) the Distribution Network (Company Zones); and
- (b) subject to Sections 4.2 and 5.6.3 the Distribution Network (Other Zones).

Distribution Network (Company Zones) means the network of pipelines that are located within the Project Land (Distribution Company Zones) that will supply Recycled Water to Offtakers and which the Company shall ensure are capable of supplying a quantity of Recycled Water equal to the Recycled Water Target Volume to Offtakers.

Distribution Network (Other Zones) means the network of pipelines that are located within the Project Land (Distribution Other Zones) that will serve future customers who are not Offtakers and the Distribution Network (Other Zones) shall not include and the Company shall not be responsible for:

- (a) connections from the network of pipelines to each future customer; and
- (b) water meters for each future customer;

and which Distribution Network (Other Zones) subject to Sections 5.6.3(a) and 5.6.3(b) may be designed, installed, procured, engineered, tested, commissioned, and financed by the Company and transferred to Agency under Section 5.6.3(b).

Distribution Network Clawback Amount means an amount calculated using the formula set out in Part 2 of Schedule 14 (*Information from the Bid*) which amount shall be adjusted in accordance with Section 5.6.3(b)(ii) if Agency issues a Distribution Network (Other Zones) Stop Notice.

Distribution Network (Other Zones) Stop Notice means a notice that may be issued by Agency to the Company at any time prior to the Project Land Zones Determination Date that if issued shall:

- (a) require the Company not to construct, build, procure, test, commission and finance the Distribution Network (Other Zones); and
- (b) result in the treatment of the Distribution Network Clawback Amount to Agency in accordance with this Agreement, the Equity Funding and Utilisation Agreement and/or as may otherwise be agreed by the Parties,

in each case, as set out in Sections 5.6.3(a) and 5.6.3(b).

Easement Rights means easements, reservations, right-of-way and similar rights of non-exclusive access and use of land, which shall be granted (to the extent permitted by the Legal Requirements) by Agency to the Company under the Project Land Agreement for the Project Land (Distribution) and the Project Land (Pipelines).

Effective Date is defined in Section 3.1(a).

Effluent means the combined flow of:

- (a) Treated Effluent;
- (b) Influent that has been diverted by the Company through the Bypass in accordance with Section 9.3 (*Company Right to Divert through Bypass*); and
- (c) RO Concentrate;

that shall be delivered by the Company to the Effluent Discharge Chamber for discharge at the Discharge Point (River).

Effluent Discharge Chamber means a concrete open chamber within the Project Land (Plants) that receives a variable combination of Treated Effluent that is not used for recycling and Influent that has been diverted through the Bypass in accordance with Section 9.3 (*Company Right to Divert Through Bypass*) and RO Concentrate that is not discharged to the Discharge Point (Sea).

Effluent Discharge Pipeline means a pipeline that conveys Effluent from the edge of the Project Land (Plants) to the Discharge Point (River).

Effluent Pumping Station means a pumping facility located on the Project Land (Plants) downstream of the Effluent Discharge Chamber that will deliver Effluent to the Discharge Point (River) provided that if there is no provision for the design and construction of an Effluent Pumping Station in the Bid, then this Agreement shall be read as if there are no references to Effluent Pumping Station in the Agreement.

EIA means the environmental impact assessment for the Project conducted by the Company to be conducted in line with all applicable Legal Requirements and as approved by the Sindh Environmental Protection Agency and in all cases at the cost of the Company.

Electricity Connection Costs means the costs and fees payable for the initial connection of the electricity for the Facilities to the Electricity Delivery Point including in respect of any works or capital items, but excluding Electricity Costs.

[Note to Bidders: This amount is provisionally provided for as PKR 4B in the Bid financial model.]

Electricity Costs means the costs payable to the electricity provider for electricity consumed for the design, engineering, procurement, construction, installation, completion, testing commissioning of the Project Works and the operation and maintenance of the Facilities and provision of the Services.

Electricity Costs (Agency) means in respect of the period from COD until the Termination Date all Electricity Costs except for the Electricity Costs (Company) during that period.

Electricity Costs (Company) means:

- (a) in respect of the period from the Effective Date until COD means all Electricity Costs; and
- (b) in respect of the period from COD until the Termination Date means the amount determined in Part 1 of Schedule 12 (*Calculation of Electricity Costs (Company)*).

Electricity Delivery Point means the connection point that shall be located within the Project Land (Plants) where the Facilities connect into the local grid as set out in Schedule 1 (*MPSS*).

Emergency means a condition or situation that is likely to endanger or impact the security of individuals on or about the Project Land (Entire) or which poses an immediate threat of material damage to all or part of the Facilities or the Project Land (Entire) as determined by Agency in consultation with the Independent Expert.

Emergency Decommissioning shall have the meaning ascribed thereto in Section 18.4.1.

Encumbrance means any encumbrance on an asset, including a mortgage, charge, pledge, encumbrance, hypothecation and/or any security interest, assignment, privilege or priority of any kind having the effect of security or other such obligations and shall include without limitation any designation of a beneficiary or a loss payee or any similar arrangement under any Insurance Policies.

Environmental Breach Event means each of:

- (a) Environmental Breach Event (Dewatered Sludge and Residuals Disposal);
- (b) Environmental Breach Event (Spill);
- (c) Environmental Breach Event (Hazardous Chemicals); and
- (d) Environmental Breach Event (Other);

provided that there shall not be an Environmental Breach Event where caused by a GoS Parties Risk Event or a Force Majeure.

Environmental Breach Event (Dewatered Sludge and Residuals Disposal) means where:

- (a) Residuals are delivered to a point other than the Residuals Disposal Delivery Point; or
- (b) Dewatered Sludge is delivered to a point other than the Dewatered Sludge Disposal Delivery Point.

Environmental Breach Event (Hazardous Chemicals) means a material breach by the Company of Section 4.7 (*Hazardous Substances*) of this Agreement.

Environmental Breach Event (Other) means a material breach by the Company of:

- (a) the Environmental Standards; or
- (b) the environmental requirements with respect to odor and noise set out in paragraph 6.2 (*Key Performance Indicators*) Schedule 1 (*MPSS*).

Environmental Breach Event (Spill) means a material spill, leakage, or loss (excluding losses in the ordinary course of operation where the Company operates in accordance with Prudent Utility Practice) of Influent, RO Concentrate, Effluent, Treated Effluent, Permeate, Recycled Water, Raw Sludge, Dewatered Sludge or Residuals onto or from the Project Land (Entire) excluding discharge or disposal at a Discharge Point, Dewatered Sludge Disposal Delivery Point or Residuals Disposal Delivery Point.

Environmental Breach Rectification Plan means a plan prepared by the Company and submitted to the Agency for approval which shall set out detailed steps to address and remediate damage and remedy the Environmental Breach Event and which includes a forecast of the time and cost required for the Company to address and remediate damage and remedy the Environmental Breach Event.

Environmental Reports means the environmental health and safety reports which shall be provided on a monthly basis during the Concession Period in the format set out in Schedule 1 (*MPSS*) Annex 3.

Environmental Standards means:

- (a) any Legal Requirements relating to the protection of the environment or harm to, or the protection of, human, animal or plant life, the air, or to any water body or system or Hazardous Substances (including, for the avoidance of doubt, any Legal Requirements relating to obligations for monitoring, investigation and abatement in respect of the foregoing);
- (b) the requirements of the EIA; and
- (c) the Asian Development Bank “Safeguard Policy Statement” available at <https://www.adb.org/documents/safeguard-policy-statement> and the Asian Development Bank Social Protection Strategy available at <https://www.adb.org/documents/social-protection-strategy> in each case as updated from time to time.

EPC Contractor means the contractor(s) appointed to complete the design, engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities; in each case appointed by the Company and set out in the Bid or replaced or substituted under Section 14.5 and provided that in no case shall there be more than three (3) EPC Contractors and as at the Signature Date the EPC Contractor shall be the contractor(s) noted in Part 1 Schedule 14.

EPC Contract(s) means the fixed price, turnkey contract between the Company and the EPC Contractors for the design, engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities as approved by the Independent Expert and which shall be consistent with the requirements of Section 14.5 (*The EPC Contractor & the O&M Contractor*) of this Agreement provided that the Company shall ensure that one of the EPC Contractors shall provide a construction wrap to assume all construction risk for the Project.

Equity means:

- (a) the Equity (GoS); and
- (b) the Equity (Shareholders).

Equity Funding Amount (GoS) means the aggregate of the Equity Funding Amount (GoS) (Foreign) and Equity Funding Amount (GoS) (Local) which shall, in no circumstances, result in GoS holding more than forty-nine percent (49%) of the paid-up share capital of the Company.

Equity Funding Amount (GoS) (Foreign) means the amount not exceeding United States Dollar twenty million (\$ 20,000,000) to be contributed by the GoS in accordance with Equity Funding and Utilisation Agreement; provided that, the Equity Funding Amount (GoS) (Foreign) shall be solely utilized for the purposes of making payments to the offshore EPC Contractor in accordance with the Equity Funding and Utilisation Agreement and/or as may be otherwise agreed by the Parties.

Equity Funding Amount (GoS) (Local) means an amount not exceeding United States Dollars six million six hundred and seventy thousand (\$ 6,670,000) in equivalent PKR (Pakistani Rupees) to be contributed by the GoS in accordance with Equity Funding and Utilisation Agreement; provided that, the Equity Funding Amount (GoS) (Local) shall, for the purposes of this definition, be converted to PKR based on TT&OD selling rate for USD expressed in PKR, as published by the National Bank of Pakistan, applicable on the date of contribution by the GoS in the GoS equity account.

Equity Funding and Utilisation Agreement means the agreement to be entered into by the Shareholders, GoS and the Company for contribution of the Equity (Shareholders) and the Equity (GoS) into the Company.

Equity (GoS) means the equity capital to be paid into or made available for use by the Company by GoS in consideration for the issue of non-voting class B shares in the Company; provided that the Equity (GoS) shall include any subordinated debt contributed by GoS (if any part needs to be contributed as subordinated debt under the Equity Funding and Utilisation Agreement) and in a total amount that shall not exceed the Equity Funding Amount (GoS); provided further, that the Equity (GoS) shall be subject to the Subordination Terms & Legal Requirements; provided further, that the details of the Equity (GoS) are set out in Schedule 6 (*Shareholders Details and Details of Holder of Equity (GoS)*).

Equity (Shareholders) means the:

- (a) equity capital paid into the Company by the Shareholders in consideration for the issue of shares in the Company; and
- (b) loans advanced to the Company by the Shareholders or Affiliates of the Shareholders, which amounts shall be subject to the Subordination Terms & Legal Requirements.

Extension of Time means an extension of time in each case as determined under Section 2.6 prior to the Effective Date, as a result of a Relief Event, a Variation Order under Section 6.3 (*Variation Order*) or a Force Majeure, a Day for Day extension:

- (a) of a relevant date in the Project Milestone Schedule; and/or
- (b) of the Final Expiry Date;

in each case for the period determined:

- (a) in the case of a Relief Event, under Section 10.1 (*Relief Event (Special) & Relief Event*) and Section 10.2 (*Basic Requirements for Relief Costs and Extension of Time*);

- (b) in the case of a Variation Order under Section 6.3 (*Variation Order*) and Section 10.2 (*Basic Requirements for Relief Costs and Extension of Time*); and
- (c) in the case of a Force Majeure under Section 15.3(c)(ii) and 10.2 (*Basic Requirements for Relief Costs and Extension of Time*);

and as set out in the Certified Relief Order Request.

Facilities means:

- (a) the Influent Delivery System;
- (b) the Bypass;
- (c) the Wastewater Treatment Plant;
- (d) the Recycling Plant;
- (e) the Recycled Water Pumping Station;
- (f) the Recycled Water Pipeline;
- (g) the Effluent Discharge Chamber;
- (h) the Effluent Discharge Pipeline;
- (i) Effluent Pumping Station;
- (j) the RO Concentrate Pipeline;
- (k) the RO Concentrate Pipeline (Sea);
- (l) the RO Concentrate Discharge Pipeline;
- (m) RO Concentrate Pumping Station (Sea);
- (n) the Distribution Network (Company Zones);
- (o) the Distribution Network (Other Zones) but only in respect of the period after the Effective Date until the date the Distribution Network (Other Zones) is transferred by the Company to Agency in accordance with Section 5.6.3; and
- (p) the Monitoring Systems;

in each case, the associated equipment infrastructure and facilities that will be required to operate the Project and provide the Services and as more fully described in Schedule 1 (*MPSS*), but for the avoidance of doubt which excludes the Agency Supporting Infrastructure.

Final Expiry Date means the date falling twenty-five (25) years from the COD as may be extended from time to time in accordance with this Agreement.

Financial Close means the satisfaction of all of the following:

- (a) the resolution of all objections raised by the Agency and/or the Independent Auditor to the Financing Term Sheet;

- (b) the execution and delivery of the Financing Documents that (together with the Equity) evidence sufficient funding for the design, engineering, procurement, construction, installation, completion, testing and commissioning of the Project Works and Facilities;
- (c) evidence of commitments for Equity satisfactory to the Lenders; and
- (d) the satisfaction or waiver of all conditions precedent for the initial utilization of funds under the Financing Documents so that the Company has immediate access to such funds.

Financing Documents means the loan/financing agreements, security agreements and swaps, derivatives or hedging instruments as may be amended from time to time in accordance with the provisions of Section 2.5 (*Financing Term Sheet*) in respect of the financing of the design, engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities.

Financial Indebtedness means the aggregate of the following sums expressed in Pakistani Rupees outstanding and payable to the Lenders at the relevant time pursuant to the Financing Documents:

- (a) the Principal; and
- (b) the Carrying Cost;

provided that Financial Indebtedness shall not include any amounts in paragraph (a) or (b) above to the extent that it:

- (a) was allocated or contributed to costs exceeding the Project Costs approved by the GoS Parties;
- (b) exceeds the amounts provided for in:
 - (i) the Financing Term Sheet approved by the GoS Parties and the Independent Expert under Section 2.5.1; or
 - (ii) the Financial Model;
- (c) was not disbursed, drawn down or advanced for the design, engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities;
- (d) is Equity (GoS);
- (e) is Equity (Shareholders); or
- (f) relates to liabilities for the Bid Security, the Construction Security or the Operating Security

Financial Model means the financial base case for the Project, approved by the GoS Parties and the Independent Expert, as prepared by the Company and submitted as early as possible as necessary to ensure approval by the GoS Parties and the Independent Expert before the Effective Date but in any event on or before the date one hundred and twenty (120) Days after the Signature Date and agreed to by the Lenders, as amended from time to time under Section 2.5.2 and Section 5.6.3(b)(ii) with the approval of the Independent Expert and GoS Parties; provided that, following the revision of the Financial Model pursuant to Section 5.6.3(b)(ii), any reference to the term "*Financial Model*" shall be construed as a reference to the "*Revised Financial Model*".

Financial Nominee means the entity set out in Schedule 6 (*Shareholders Details ad Details of Holder of Equity (GoS)*), Part 4 (if any).

Financing Term Sheet shall have the meaning ascribed thereto in Section 2.5 (*Financing Term Sheet*).

Flow Parameters (Agency) means the flow parameters that the Agency shall comply with in respect of the quantity of Influent delivered to the Influent Delivery Point as measured by the Monitoring Systems at the relevant Monitoring Points in accordance with Schedule 1 (*MPSS*).

Flow Parameters (Company) means the flow parameters that the Company shall comply with and being in respect of the quantity of Influent as measured by the Monitoring System at the inlet to the Wastewater Treatment Plant and in accordance with Schedule 1 (*MPSS*).

Force Majeure Costs means the amount determined under Schedule 5 (*Relief Costs for A Relief Event (Special) and Force Majeure Costs*):

Force Majeure Event is defined in Section 15.1 (*Force Majeure Events*) and includes both Force Majeure (Political Event) and Force Majeure (Non-Political).

Force Majeure (Non-Political) is defined in Section 15.1(b).

Force Majeure Notice is defined in Section 15.2 (*Obligation to Notify*).

Force Majeure Period means, as determined by the Independent Experts, the period commencing from the date of occurrence of a Force Majeure Event and ending on the earlier of:

- (a) the date on which the Affected Party resumes or should have resumed (as determined by the Independent Experts) such of its obligations the performance of which it was excused in terms of Section 15.8 (*Excuse from Performance of Obligations*); and
- (b) the Termination Date.

Force Majeure (Political Event) is defined in Section 15.1(a).

GoS means the Government of Sindh as set out in Recital A in this Agreement and being a Party to this Agreement.

GoS Escrow Account means the escrow account opened with the relevant escrow bank which shall hold an account as security for the Agency obligations to pay:

- (a) the MRG Amount; and
- (b) the Electricity Costs (Agency).

GoS Escrow Account Amount means:

- (a) [●] in respect of the first Contract Year;
- (b) [●] in respect of the second Contract Year;
- (c) [●] in respect of the third Contract Year;
- (d) [●] in respect of the fourth Contract Year;
- (e) [●] in respect of the fifth Contract Year;
- (f) [●] in respect of the sixth Contract Year; and

- (g) in respect of each Contract Year after the sixth Contract Year until the Termination Date [●].

[Note to Bidders: This amount will be equal to the aggregate of:

- (a) *the MRG Amount Cap; and*
- (b) *the Electricity Costs (Agency);*

for a Contract Year.]

GoS Escrow Agreement means an agreement between GoS and the relevant escrow bank in respect of the regulation of the GoS Escrow Account.

GoS Parties is defined in the preamble to this Agreement.

GoS Parties Agreements means:

- (a) this Agreement;
- (b) the GoS Escrow Agreement;
- (c) the Equity Funding and Utilisation Agreement;
- (d) the Project Land Agreement;
- (e) the Concession Direct Agreement;
- (f) the SITE Agreement;
- (g) any other agreement entered into in respect of the Project between the:
 - (i) Agency; and
 - (ii) the Company, SITE, and/or the Shareholders;

that is designated as a “*GoS Parties Agreements*” by the Parties in writing.

GoS Parties Engaged Persons is defined in Section 16.1 (*Indemnification by the Company*).

GoS Parties Event of Default is defined in Section 17.1(x) (*GoS Parties Events of Default*).

GoS Parties Overriding Power Step-in Event means:

- (a) a national emergency as determined by the Agency;
- (b) an Emergency;
- (c) a civil commotion; or
- (d) a Force Majeure Event.

GoS Parties Preliminary Notice means a notice from GoS Parties to the Company indicating the GoS Parties’ intention to terminate this Agreement and setting out:

- (a) details of:

- (i) the Company Event of Default; or
 - (ii) the Change in Law if Section 23.1 (*Increase in Costs or Reduction in Revenues*) applies; and
- (b) the applicable Cure Period, or the relevant period in the event Section 23.1.2 applies.

GoS Parties Risk Event(s) means any of the following events:

- (a) a material breach by the GoS, Agency or SITE of the GoS Parties Agreements;
- (b) a direction from Agency or the Culture Department of the Government of Sindh in respect of the Archaeological Items under Section 5.4 (*Discovered Heritage Resources & Geological and Archaeological Finds*); or
- (c) the occurrence of a GoS Parties Overriding Power Step-in Event;

to the extent not caused by or contributed to by an act or omission of the Company or a Company Engaged Person.

Government Authority means any government, department, commission, board, bureau, agency, regulatory body, instrumentality, fiscal, legislative, judicial, court or administrative body at a national, provincial or local level, having jurisdiction or authority over the matter in question and for the avoidance of doubt includes SITE, K-Electric and Karachi Municipal Corporation.

Handover Conditions means as at the Termination Date:

- (a) where:
 - (i) the COD has not been achieved, the Facilities (or any part of the Facilities, including any partially constructed Facilities), are in a condition of repair, cleanliness and appearance that is consistent with the standards required in this Agreement (including as set out in Schedule 3 (*Acceptance Tests*)); and
 - (ii) the COD has been achieved the Facilities (or any part of the Facilities, including any partially constructed Facilities) are in the condition set out in paragraph 4.1.3 (*Design Life*) of Schedule 1 (*MPSS*);
- (b) the Company has completed training of the employees of the Handover Entity to ensure smooth taking over of the operation of the Facilities to a standard satisfactory to the Independent Engineer;
- (c) where COD has been achieved, the Independent Engineer has confirmed that the Company and the Facilities are in compliance with the requirements of the Operating Standards and the Operating Procedures; and
- (d) the Project Land (Entire) is:
 - (i) free and clear from obstructions, impediments placed by the Company, used consumables, waste and Hazardous Substances; and
 - (ii) neat, tidy and made safe and secure in accordance with Prudent Utility Practice.

Handover Entity means Agency or any other person designated by the Agency.

Handover Period means the period beginning on the Handover Period Commencement Date and ending on the Termination Date.

Handover Period Commencement Date means the date which is six months prior to the Final Expiry Date.

Handover Survey means the inspection of the Facilities to be carried out by or on behalf of the Agency to assess whether the Facilities comply with the Handover Conditions.

Handover Transition Plan means the plan to be prepared by the Company and approved by GoS Parties in accordance with Section 22.1.2, which shall set out the following:

- (a) the requirements, processes, procedures and plans for transfer of the Company's rights, title and interest in and to the Facilities and the Project Land (Entire) from the Company to the Handover Entity;
- (b) a description of the processes, procedures and plans for identification, selection and appointment of a handover transition team, including suitably experienced representatives of the Company and the Handover Entity; and
- (c) a programme detailing when each key activity relating to the handover process are to be completed.

Handover Works means the works of renewal, reconstruction, repair or reinstatement required to be carried out to the Facilities and the Project Land (Entire) in order for the Facilities and the Project Land (Entire) to satisfy the Handover Conditions.

Handover Works Amount means an estimate of the costs of carrying out the Handover Works.

Handover Works Report means the report to be prepared by or on behalf of GoS Parties in accordance with the provisions of Section 22.1.6 in response to the findings of the Handover Survey which shall set out:

- (a) the Handover Works which are required to be carried out;
- (b) the reasonable period within which such Handover Works are required to be carried out; and
- (c) the Handover Works Amount.

Hazardous Substances means any solid, liquid or gaseous material, substance, constituent, chemical, mixture, raw material, intermediate product or by product which are defined as "hazardous wastes", "hazardous materials", "toxic substances" or "toxic pollutants" under, or are otherwise regulated by, Environmental Standards.

Identified IWS means in respect of each Contract Year during the Ramp-Up Period (Phase 1) and Ramp-Up Period (Phase 2) the IWS that is identified as an Identified IWS in an Identified IWS Disconnection Plan for that Contract Year.

Identified IWS Disconnection Plan means a plan that the Parties shall direct is prepared and agreed in accordance with Section 7.1.2 (*Identified IWS Disconnection (During Ramp-Up Period (Phase 1) and Ramp-Up Period (Phase 2))*) by the Contract Management Body for each Contract Year during the Ramp-Up Period (Phase 1) and the Ramp-Up Period (Phase 2) and which shall set out:

- (a) the Identified IWS; and

(b) the IWS Disconnection Date;

for that Contract Year.

IFC Guideline means the International Finance Corporation (IFC) Environmental, Health and Safety (EHS) Guidelines of 2007.

Implementation Plan means the implementation plan prepared by the Company in accordance with Section 2.6 and Schedule 1 (*MPSS*).

Indemnified Party has the meaning given to it in Section 16.3.1 (*Notice of Claim*).

Indemnifying Party has the meaning given to it in Section 16.3.1 (*Notice of Claim*).

Independent Auditor means a person with the appropriate national or international standing having relevant experience for projects similar to the Project that shall review the financial aspects of the Project on terms set out in the Independent Auditor Terms of Engagement.

Independent Auditor Terms of Engagement means, the terms of engagement for the Independent Auditor to carry out the scope of work of the Independent Auditor as set forth in Schedule 15 (*Independent Expert Terms of Reference*) of this Agreement.

Independent Expert means:

(a) the Independent Engineer; and

(b) the Independent Auditor;

and in this Agreement, references to Independent Experts shall be to either the Independent Engineer or the Independent Auditor depending on the expertise required for the particular obligation in this Agreement.

Independent Engineer means a person with the appropriate national or international standing having relevant experience for projects similar to the Project that shall review the technical aspects of the Project on terms set out in the Independent Auditor Terms of Engagement.

Independent Engineer Terms of Engagement means the terms of engagement (including scope of work) for the Independent Engineer to carry out the scope of work of the Independent Engineer as set forth in Schedule 15 (*Independent Expert Terms of Reference*) of this Agreement.

Influent means the raw wastewater that the Agency shall deliver to the Influent Delivery Point for treatment by the Company.

Influent Delivery Pipeline means the conduit that flows from the Influent Penstock Chamber after the Influent Delivery Point and delivers Influent to the Wastewater Treatment Plant and as described in Schedule 1 (*MPSS*).

Influent Delivery Point means the point where a new connection from the existing raw wastewater interceptor is constructed by the Company and fitted with a penstock and shown in the diagram in Figure 4 (Operations Schematic for West Karachi Recycled Water Project 1) paragraph 3.6 in Schedule 1 (*MPSS*) and being the point where the Agency shall deliver the Influent.

Influent Delivery System means:

(a) the Influent Delivery Point;

- (b) the connection from the existing raw water interceptor with penstock installed at the Influent Delivery Point;
- (c) the Influent Penstock Chamber;
- (d) the Influent Delivery Pipeline; and
- (e) the Influent Pumping Station;

Influent Penstock Chamber means a concrete chamber with cover that is adjacent to the raw wastewater interceptor that receives Influent at the Influent Delivery Point and discharges into the Influent Delivery Pipeline.

Influent Pumping Station means the pumping facility on the Influent Delivery Pipeline that will deliver Influent to the Wastewater Treatment Plant.

Insurance Policies means the insurance policies that shall be taken out by the Company with the insurance coverage set out in Schedule 0 (*Insurance*) and complying with Section 12 (*Insurance*) of this Agreement.

IWS means a pipeline, part of a pipeline, or a well that the Company can demonstrate:

- (a) is located within Project Land (Distribution Company Zones) or connects to or supplies water to an Offtaker; and
- (b) has been constructed or is owned, operated or maintained:
 - (i) in breach of Legal Requirements; or
 - (ii) without the required Consent.

IWS Disconnection Date means in respect of each Contract Year during the Ramp-Up Period (Phase 1) and Ramp-Up Period (Phase 2) the date set out in each Identified IWS Disconnection Plan by which date the Identified IWS for that Contract Year shall have been removed.

KPI Breach Event means in respect of a Day during a Contract Year the Company has failed to satisfy a KPI (including but not limited to a failure to comply with the Availability requirements of this Agreement) and that is certified by the Independent Expert in accordance with Section 8.6.1.

KPIs means each of the following key performance indicators that the Company shall comply with and satisfy for each Day in each Contract Year except where caused by a GoS Parties Risk Event or Force Majeure Event:

- (a) the Availability; and
- (b) the Quality Parameters (Company) in respect of:
 - (i) Treated Effluent as measured at the relevant Monitoring Point;
 - (ii) Recycled Water as measured at the relevant Monitoring Point;
 - (iii) Effluent as measured at the relevant Monitoring Point;
 - (iv) RO Concentrate as measured at the relevant Monitoring Point;

- (v) Dewatered Sludge as measured at the relevant Monitoring Point; and
- (vi) Residuals as measured at the relevant Monitoring Point.

KPIs (Wide Scope) means:

- (a) the KPIs; and
- (b) the additional key performance indicators in paragraph 6.2 of Schedule 1 (*MPSS*).

Lapse of Consent means any Company Consent:

- (a) ceasing to remain in full force and effect and not being renewed or replaced within the time period prescribed by the Applicable Laws for the renewal or replacement of such Company Consent, the application having been properly and timely made and diligently pursued within the time period prescribed by the Applicable Laws or, where a time period is not prescribed by the Applicable Laws, within ninety (90) Days of such Company Consent ceasing to be in full force and effect; or
- (b) not being issued upon application, the application having been properly and timely made and diligently pursued within the time period prescribed by the Applicable Laws or where a time period is not prescribed by the Applicable Laws, within ninety (90) Days of proper application being made for such Company Consent; or
- (c) being made subject, upon renewal, to any terms or conditions that materially and adversely affect the Company's ability to perform its obligations under any GoS Parties Agreements and/or the Project Agreements;

in each of the above instances despite the Company, or the Company Engaged Persons compliance with the applicable procedural and substantive requirements which requirements are applied in a "non-discriminatory" manner.

Lead Member means the Shareholder that is identified as lead member as part of the Bid and being set out in Schedule 6 (*Shareholders Details and Details of Holder of Equity (GoS)*).

Legal Requirements means all:

- (a) Applicable Laws;
- (b) Consents;
- (c) Environmental Standards;
- (d) ADB Social Protection Strategy (2001), as updated from time to time; and
- (e) gender and development standards set out in (<https://www.adb.org/sites/default/files/institutional-document/32035/gender-policy.pdf>) as updated from time to time.

Lender means the persons advancing the Financial Indebtedness or financing, hedging or refinancing of the Financial Indebtedness for the Company under the Financing Documents, including their successors, assignees, agents and trustees, but Lender shall not include either of the GoS Parties or any Shareholder or Affiliate of a Shareholder that may provide loans or other financing or refinancing to the Company.

Lock-in Period means the period commencing on the Effective Date and ending at the expiry of the second (2nd) Contract Year.

Lock-in Period (Key Parties) means the period commencing on the Effective Date and ending at the expiry of the sixth (6th) Contract Year.

Loss Proceeds has the meaning set out in Section 12.4.1.

Losses means any loss, damage, liability, payment or obligation and all costs and expenses incurred in connection therewith (including reasonable legal fees) but excluding any consequential loss, incidental loss, loss of profit, indirect loss, loss of production, loss of revenue, loss of contract or loss of goodwill, punitive damages or exemplary damages.

Maintenance Account Minimum means for the period commencing on the COD and expiring at the end of the Concession Period, for each Contract Year an amount equal to the operation and maintenance costs set out in the Financial Model for that Contract Year, that the Company shall ensure is maintained in the Maintenance Payment Account.

Maintenance Payment Account means the account to be established prior to the COD by the Company and the Company shall ensure that an amount equal to at least the Maintenance Account Minimum is credited to and maintained in the Maintenance Payment Account from COD until the end of the Concession Period.

Maintenance Schedule is defined in Section 8.4.1.

Material Adverse Effect means, there has occurred or could reasonably be expected to occur any event, matter or circumstance or a change in the circumstances which materially and adversely impairs:

- (a) the business, operations, property, assets, present or future condition (financial or otherwise) or prospects of the Company, as applicable, in respect of the Project;
- (b) the ability or probability (financial or otherwise) of the Company and the Company Engaged Persons, as applicable, to perform and observe their obligations under the GoS Parties Agreements or Project Agreements;
- (c) the legality, validity or enforceability of, or the rights, obligations or remedies of, the GoS Parties under this Agreement (provided that this Section (c) shall not apply where the Company is claiming or relying upon a Material Adverse Effect); and/or
- (d) the Company's ability to design, engineer, procure, construct, install, complete, test and commission the Facilities in accordance with this Agreement.

MIGD means million imperial gallons per day.

Monitoring Points means the points at which the Monitoring Systems shall be installed and being each of the points set out in the diagram at Figure 4 (Operations Schematic for West Karachi Recycled Water Project 1) paragraph 3.6 in Schedule 1 (*MPSS*).

Monitoring Systems means the monitoring systems installed and maintained by the Company at the Monitoring Points which shall include:

- (a) the systems to monitor the Flow Parameters (Company), Flow Parameters (Agency), the Quality Parameters (Company) and Quality Parameters (Agency) including the Offtaker Meters;
- (b) the Real Time Quality Monitoring System;

- (c) other systems that are not included in paragraphs (a), and (b) but are noted in Figure 4 (Operations Schematic for West Karachi Recycled Water Project 1) paragraph 3.6 in Schedule 1 (*MPSS*); and
- (d) the SCADA system of software and hardware that allows monitoring and control of the systems in paragraph (a) to and including (c);

in each case which comply with the requirements in this Agreement and Schedule 1 (*MPSS*).

MRG Amount is the amount determined in the formula in Schedule 10 (*Minimum Revenue Guarantee*) of this Agreement.

MRG Amount Notice means a notice that may be delivered by the Company to the GoS Parties under Section 7.2.2 to claim the MRG Amount within thirty (30) Days of the end of each Contract Year during the Ramp-Up Period (Phase 1) and Ramp-Up Period (Phase 2) and which shall include:

- (a) a copy of the Company's most recent audited accounts (to the extent available) and management accounts for the period covering such Contract Year;
- (b) details of:
 - (i) the Ramp-Up Reason in the case Section 7.2.2(b)(i)a. of this Agreement applies; and
 - (ii) the failure by the Agency to comply with Section 7.1.2 (*Identified IWS Disconnection (During Ramp-Up Period (Phase 1) and Ramp-Up Period (Phase 2))*) of this Agreement, in the case Section 7.2.2(b)(i)b. or Section 7.2.2(b)(ii) of this Agreement applies;
- (c) the Company's calculation of the MRG Amount.

MRG Tests (Phase 1 and Phase 2) means in respect of each Contract Year during the Ramp-Up Period (Phase 1) and the Ramp-Up Period (Phase 2) the following requirements which the Company shall demonstrate it is in compliance with as at the date of the MRG Amount Notice:

- (a) there is no subsisting breach of this Agreement by the Company;
- (b) there has been no KPI Breach Event in the relevant Contract Year in respect of which the MRG Amount is payable;
- (c) the Company has at all times during the Contract Year complied with its obligations under Section 9.2 (*Company Obligations for Treated Effluent and Recycled Water*) to treat Influent to produce Treated Effluent that met the relevant Quality Parameters (Company);
- (d) Offtaker Meters have been installed or have been procured and are ready for installation and the Company has ensured the Distribution Network (Company Zones) is in a state of order and readiness to be able to deliver and monitor Recycled Water to Offtakers, for an estimated aggregate demand each Contract Year equal to or above the Recycled Water Target Volume; and
- (a) the Company has completed a comprehensive marketing and engagement campaign for the sale of Recycled Water based upon the Offtake Planning Report and the Company can demonstrate that there has been ongoing engagement with each Offtaker as well as Offtakers (Potential) with the aim to sign Offtake Agreements.

Notice, Notify, Notification and its grammatical variations means as notified in writing.

Notice of Remedy is defined in Section 5.9.4.

Offtake Agreements means the offtake agreements, entered into between the Collection Agent (if any) (on behalf of the Company) or the Company and each Offtaker for the supply of Recycled Water at the Water Tariff.

Offtake Delivery Points means each of the designated delivery point(s) agreed with each Offtaker for delivery of Recycled Water by the Company to that Offtaker within Project Land (Distribution Company Zones) and which form part of the Distribution Network (Company Zones).

Offtake Planning Report means a report prepared in accordance with Section 4.2.2 by a company acceptable to the Agency and the Company engaged by the Company and a copy of which shall be provided to Agency and the Independent Experts that shall set out:

- (a) an estimate of the total demand for Recycled Water within the SITE Industrial Estate and within the area that the Parties consider is reasonably likely to become the Project Land (Distribution Company Zones);
- (b) identifies potential offtakers of Recycled Water, within the SITE industrial estate and within the area that the Parties consider is reasonably likely to become the Project Land (Distribution Company Zones); and
- (c) identifies IWS within the area that the Parties consider is reasonably likely to become the Project Land (Distribution Company Zones).

Offtaker Meters means the smart water meters supplied, installed operated and maintained by the Company at the relevant Monitoring Points to facilitate billing by the Company (or the Collection Agent) and monitor the flow parameters for the Recycled Water supplied to Offtakers.

Offtaker(s) means the person(s) located or operating on the Project Land (Distribution Company Zones) to whom the Company has agreed to sell Recycled Water under executed Offtake Agreements.

Offtakers (Potential) means as at the relevant time offtakers located on the Project Land (Distribution Company Zones) that the Company has identified as potential Offtakers of Recycled Water but which have not signed an Offtake Agreement.

Operating Period means the period commencing on the COD and ending on the Termination Date.

Operating Procedures means the plans, methods and procedures for operating the Facilities and provision of the Services prepared by the Company with the approval of the Independent Expert as contained in the O&M Manual set out in Section 8.2.1(a) and Schedule 1 (*MPSS*) and which shall be consistent with the Bid.

Operating Security means an irrevocable standby letter of credit issued by a Security Issuer in the form set out in Schedule 8 (*Form of Operating Security*) for the amount determined under Section 8.9 (*Operating Security*).

Operating Standards means the service levels and performance standards for the operation and maintenance of the Facilities and provision of the Services being:

- (a) Prudent Utility Practice;
- (b) the KPIs (Wide Scope); and

(c) the Legal Requirements;

and which the Company shall comply with during each Day during each Contract Year during the Concession Period.

Operation and Maintenance Report means a monthly report prepared by the Company in accordance with Section 11.2 (*Design and Construction Reports and Operation and Maintenance Reports*) and Appendix B of Schedule 1 (*MPSS*).

O&M Agreement means the agreement to be entered into between the Company and the O&M Contractor for the operation and maintenance of the Facilities as approved by the Independent Expert.

O&M Contractor means the contractor engaged by the Company under the O&M Agreement, and which as at the Signature Date shall be the contractor noted in Part 1 Schedule 14 but which may be replaced or substituted under Section 14.5.

O&M Manual means the O&M manual prepared in digital form by the Company which shall set out the Operating Procedures and which shall be updated from time to time and made available to the Agency following each update and which shall comply with Schedule 1 (*MPSS*) and Schedule 3 (*Acceptance Tests*).

Pakistan means the Islamic Republic of Pakistan.

Pakistani Rupees and PKR mean the lawful currency of the Republic of Pakistan.

Party means the GoS, the Agency or the Company, as the case may be, and Parties means the Agency, GoS and the Company.

Penalty Rate means three (3) months KIBOR plus two point five percent (2.5%) per annum.

Permeate means the product water from the desalination process in the Recycling Plant measured at the relevant Monitoring Point prior to any blending.

Planned Downtime means normal maintenance, replacement or servicing of the Facilities that:

- (a) is planned or scheduled pursuant to Section 8.4.2;
- (b) agreed to by Agency in accordance with Section 8.4.3; and
- (c) complies with the Availability requirements.

Planned Downtime Period is defined in Section 8.4.1.

Preliminary Design Commencement Date means the date on which the Company, or the Company Engaged Person(s) commence design works for the Preliminary Engineering Design Facilities (Excluding Distribution Network) as notified by the Company to the Agency and Independent Experts in writing (and including provision of evidence of commencement if required by the Independent Experts or Agency).

Preliminary Engineering Design or **PED** means the Preliminary Engineering Design Facilities (Excluding Distribution Network) and Preliminary Engineering Design Distribution Network, or either of them as the context requires.

Preliminary Engineering Design Facilities (Excluding Distribution Network) means the preliminary engineering design for all the Facilities except the Distribution Network prepared by the Company in accordance with Section 2.6 and Schedule 1 (*MPSS*).

Preliminary Engineering Design Distribution Network means the preliminary engineering design for the Distribution Network prepared by the Company in accordance with Section 2.6 and Schedule 1 (*MPSS*).

Principal means the principal amount(s) of the financing advanced, drawn down and disbursed by the Lenders to the Company under the Financing Documents.

Prohibited Act means an act of the Company, or the Company Engaged Persons which:

- (a) is in violation of the rules governing the bidding for or granting of the Project;
- (b) which constitutes a Corrupt Act; or
- (c) which is in breach of Anti-Corruption Laws.

Project is defined in the recitals to this Agreement.

Project Agreements means:

- (a) this Agreement;
- (b) the EPC Contract(s);
- (c) the O&M Agreement;
- (d) the Offtake Agreements (to the extent executed by an Offtaker); and
- (e) any other material agreement entered into by the Company pursuant to the agreements listed in sub-clauses (a) through and including (d) above, for the purposes of the design, building, engineering, procurement, testing, commissioning, financing, operating, maintaining and transferring of the Facilities and provision of the Services, but excluding:
 - (i) the Financing Documents;
 - (ii) each of the GoS Parties Agreements (aside from this Agreement);
 - (iii) the Equity Funding and Utilisation Agreement;
 - (iv) the Independent Engineer Terms of Engagement; and
 - (v) the Independent Auditor Terms of Engagement.

Project Cost means the total cost for the design, engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities as set out in the Financial Model and which as at the Signature Date is the amount set out in Part 1 Schedule 14 and as revised in the Financial Model in accordance with the terms of this Agreement; provided that, following the revision of the Project Cost pursuant to Section 5.6.3(b)(ii), any reference to the term "*Project Cost*" shall be construed as a reference to the "*Revised Project Cost*".

Project Land Agreement means the agreement between the Company and the Agency under which the Agency shall grant to the Company:

- (a) Vacant Possession in respect of the Project Land (Plants) and the Project Land (Access); and
- (b) Easement Rights in respect of the Project Land (Distribution) and Project Land (Pipelines).

Project Land (Access) means the area of land set out in Part 1 of Schedule 1 of Project Land Agreement over which the Company shall have Vacant Possession and being the area of land on which the access road to the Project Land (Plants) and part of the Recycled Water Pipeline is located and where electricity cables will be laid from road known as Estate Avenue to the Electricity Delivery Point.

Project Land (Entire) means:

- (a) Project Land (Plants);
- (b) Project Land (Access);
- (c) Project Land (Distribution); and
- (d) Project Land (Pipelines)

Project Land (Distribution) means:

- (a) Project Land (Distribution Company Zones); and
- (b) subject to Sections 4.2 and 5.6.3 the Project Land (Distribution Other Zones).

Project Land (Distribution Company Zones) means for the period from the Project Land Zones Determination Date until the Termination Date the area of land over which the Company shall have Easement Rights determined under Section 4.2 as the area and location of the Distribution Network (Company Zones) and including the area between the Project Land (Access) and the SITE industrial estate where the road known as Estate Avenue is located and where the pipeline part of the Distribution Network (Company Zones) is located and being set out in the diagram in Part 2 of Schedule 1 of Project Land Agreement.

Project Land (Distribution Other Zones) means:

- (a) in the case the Distribution Network (Other Zones) Stop Notice is issued then Easement Rights for the Project Land (Distribution Other Zones) shall not be granted to the Company and this Agreement shall be read as if all references to the Project Land (Distribution Other Zones) were deleted from the Agreement and Part 3 of Schedule 1 of Project Land Agreement shall be left blank; and
- (b) in the case that a Distribution Network (Other Zones) Stop Notice has not been issued then for the period from the Project Land Zones Determination Date until the date the Distribution Network (Other Zones) is transferred to the Agency under Section 5.6.3 the area of land over which the Company shall have Easement Rights determined under Section 4.2 as the area and location of the Distribution Network (Other Zones) including the area between the Project Land (Access) and the SITE Industrial estate where the road known as Estate Avenue is located and where the pipeline part of the Distribution Network (Other Zones) is located and which is set out in the diagram in Part 3 of Schedule 1 of Project Land Agreement.

Project Land (Plants) means the area of land set out in in Part 1 in Schedule 1 of Project Land Agreement over which the Company shall have Vacant Possession and being the area of land on which the following are located:

- (a) Part of the Influent Delivery Pipeline to the Influent Pumping Station and the Wastewater Treatment Plant;
- (b) the Influent Pumping Station;
- (c) the Bypass;
- (d) the Wastewater Treatment Plant;
- (e) the Recycling Plant;
- (f) the Recycled Water Pumping Station;
- (g) the Effluent Discharge Chamber and effluent pipeline to the edge of the Project Land (Plants);
- (h) the Effluent Pumping Station;
- (i) the RO Concentrate Pipeline;
- (j) the RO Concentrate Pipeline (Sea);
- (k) the RO Concentrate Pumping Station (Sea); and
- (l) part of the Recycled Water Pipeline from the Recycling Plant to the edge of the Project Land (Access).

Project Land (Pipelines) means the area of land set out in Part 4 Schedule 1 of Project Land Agreement and being the area on which the following are located:

- (a) the Effluent Discharge Pipeline from the edge of the Project Land (Plants) to the Discharge Point (River);
- (b) part of the Influent Delivery System (being the Influent Delivery Point, the connection from the existing raw wastewater interceptor including the Influent Penstock Chamber and the Influent Delivery Pipeline from the outlet of the Influent Penstock Chamber to the Project Land (Plants)); and
- (c) the RO Concentrate Discharge Pipeline;

and in respect of which the Company shall be granted Easement Rights.

Project Land Zones Determination Date means the date the following areas and location are determined under Section 4.2:

- (a) the area and location of the Project Land (Distribution Company Zones); and
- (b) where a Distribution Network (Other Zones) Stop Notice has not been issued, the area and location of the Project Land (Distribution Other Zones).

Project Milestones means:

- (a) the Preliminary Design Commencement Date;
- (b) the Effective Date; and

(c) the COD.

Project Milestone Schedule means the scheduled date to achieve each Project Milestone and being the following dates:

- (a) the Required Preliminary Design Commencement Date;
- (b) the Required Effective Date; and
- (c) the Required COD.

as set out in Schedule 11 (*Project Milestone Schedule*).

Project Works means all works, services construction, and obligations undertaken and/or performed and/or to be undertaken and/or performed by the Company and Company Engaged Persons under this Agreement and shall include:

- (a) all works, services and obligations undertaken and/or performed and/or to be undertaken and/or performed by the Company and the Company Engaged Persons for the design, engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities;
- (b) all other works and obligations and services undertaken and/or performed and or to be undertaken and/or performed by the Company and the Company Engaged Persons (in addition to those set out in paragraph (a) and (c) in relation to the Design Documents; and
- (c) all other works and obligations and services undertaken and/or performed and/or to be undertaken and/or performed by the Company and the Company Engaged Persons (in addition to those set out in paragraph (a) and (b) above) at any time during the Concession Period.

Proposed Construction Programme is defined in Section 2.4.1.

Prudent Utility Practice means in respect of the Company and the Company Engaged Persons, applying, in relation to the manner in which the obligations for:

- (a) the design, engineering, procurement, construction, installation, completion, testing and commissioning of the Project Works and the Facilities; and
- (b) the performance of Services;

are rendered under this Agreement and complying with all Legal Requirements and exercising that degree of skill, care, diligence, prudence and foresight that would reasonably and ordinarily be expected from a skilled and experienced person engaged in a similar type of undertaking under similar circumstances, including taking reasonable steps to ensure that:

- (i) adequate materials, resources, and supplies are available to meet the Project's needs under normal conditions and reasonably anticipated abnormal conditions;
- (ii) sufficient and duly licensed operating personnel:
 - a. are available;
 - b. are adequately experienced and trained to operate the Facilities and provide the Services properly and efficiently taking into consideration manufacturers' guidelines and specifications; and

- c. are capable of responding to abnormal conditions;
- (iii) preventive, routine, and non-routine maintenance and repairs;
 - a. are performed on a basis that ensures reliable long-term and safe operation taking into account manufacturers' recommendations; and
 - b. are performed by knowledgeable, trained, and experienced personnel who are duly licensed and are using proper equipment, tools, and procedures;
- (iv) appropriate monitoring and testing are done to ensure the Project and the Facilities are functioning as designed and in accordance with the Design and Technical Specifications and to provide assurance that equipment will function properly under both normal and abnormal conditions; and
- (v) equipment is operated in a manner safe to workers, the general public, and the environment.

Public Official means any person (whether appointed or elected) holding a legislative, administrative or judicial office, including any person employed by or acting on behalf of a Government Authority, a public enterprise (including any officer or employee of a state-owned or state operated entity) or a public international organization.

Quality Parameters (Agency) means the quality parameters that the Agency shall ensure are complied with in respect of the Influent delivered to the Influent Delivery Point as set out in Table 4 (Influent Wastewater Quality Maximum Concentrations) of paragraph 4.2.2 of Schedule 1 (*MPSS*) as measured by the Monitoring Systems at the relevant Monitoring Points.

Quality Parameters (Company) means each of the quality parameters that the Company shall ensure are complied with and being:

- (a) in respect of Treated Effluent the quality parameters set out in Table 5 (Treated Effluent and Effluent Quality Requirements) paragraph 4.2.3 of Schedule 1 (*MPSS*);
- (b) in respect of Effluent the quality parameters set out in Table 5 (Treated Effluent and Effluent Quality Requirements) paragraph 4.2.3 of Schedule 1 (*MPSS*) and paragraph 4.2.4 Schedule 1 (*MPSS*);
- (c) in respect of Recycled Water the quality parameters in paragraph 4.2.6 in Table 6 (Recycled Water Quality Requirements) of Schedule 1 (*MPSS*);
- (d) in respect of RO Concentrate:
 - (i) where the RO Concentrate is delivered through the RO Concentrate Discharge Pipeline to the Effluent Discharge Chamber then the quality parameters set out in paragraph 4.2.5 of Schedule 1 (*MPSS*); and
 - (ii) where the RO Concentrate is delivered through the RO Concentrate Pipeline (Sea) to the Discharge Point (Sea):
 - a. the quality parameters set out in Table 5 (Treated Effluent and Effluent Quality Requirements) paragraph 4.2.3 of Schedule 1 (*MPSS*) except for the concentrations of total dissolved solids, chloride and sulphate in Table 5 (Treated Effluent and Effluent Quality Requirements) paragraph 4.2.3 of Schedule 1 (*MPSS*) which the Company shall not be required to comply with; and

- b. the total dissolved solids, chloride and sulphate concentrations tested at the relevant Monitoring Point shall be less than the concentrations of total dissolved solids, chloride and sulphate in the sea;
- (e) in respect of Dewatered Sludge the quality parameters set out in Schedule 1 (*MPSS*); and
- (f) in respect of Residuals the quality parameters set out in Schedule 1 (*MPSS*);

in each case as measured by the Monitoring Systems at the relevant Monitoring Points in accordance with the process and requirements set out in Schedule 1 (*MPSS*).

Ramp-Up Period (Phase 1) means the first, second and third Contract Years being the period commencing on the COD and ending on the day immediately prior to the third anniversary of the COD.

Ramp-Up Period (Phase 2) means the fourth, fifth and sixth Contract Years being the period commencing from the expiry of the Ramp-Up Period (Phase 1) and ending on the Day before the third (3rd) anniversary of the expiry of the Ramp-Up Period (Phase 1).

Ramp-Up Reason means the Company is able to demonstrate a reduction in the supply and sale of Recycled Water by the Company to Offtakers in a Contract Year during the Ramp-Up Period (Phase 1) below the Recycled Water Target Volume as a direct result of:

- (a) the Offtakers difficulty in accepting and understanding the security of supply, fitness for needs, quality or reliability of the Recycled Water;
- (b) the Offtakers difficulty converting over from the purchase of water from IWS to purchasing Recycled Water from the Company; or
- (c) the existence and availability of IWS supplying water to the Offtakers that competes with the Recycled Water supplied by the Company;

provided that Sections (a), (b) and (c) shall not be a Ramp-Up Reason to the extent it is caused or contributed to by a breach of the GoS Parties Agreements or Project Agreement by the Company or a Company Engaged Person.

Raw Sludge means solid products other than Residuals that are produced during the processing and treatment of Influent in the Wastewater Treatment Plant.

Raw Sludge Treatment and Dewatering means the process of thickening, stabilizing and dewatering Raw Sludge to meet the requirements for Dewatered Sludge.

Real Time Quality Monitoring System means a system using biosensor technology that monitors in real time for contaminants in the Influent that based on the biological process design could adversely affect the operational performance of the Wastewater Treatment Plant.

Recycled Water means Permeate produced by the Recycling Plant that may be blended with Treated Effluent that has not been desalinated and supplied by the Company to the Offtakers at the Offtake Delivery Points which the Company shall ensure meets the relevant Quality Parameters (Company) for Recycled Water.

Recycled Water Delivery System means:

- (a) the Recycled Water Pumping Station;
- (b) the Recycled Water Pipeline; and

- (c) the Distribution Network (Company Zones).

Recycled Water Target Volume means 10,220 MIG per annum and the Company shall ensure the Recycled Water Target Volume is the minimum quantity of Recycled Water:

- (a) that the Company shall treat and supply to Offtakers in each Contract Year after the end of the Ramp-Up Period (Phase 1) until the end of the Ramp-Up Period (Phase 2) except where any shortfall in treatment and supply of Recycled Water less than the Recycled Water Target Volume is caused by a GoS Parties Risk Event, the Agency's failure to disconnect the Identified IWS by the IWS Disconnection Date or a Ramp-Up Reason;
- (b) that the Company shall treat and supply to Offtakers in each Contract Year after the end of the Ramp-Up Period (Phase 2) except where any shortfall in treatment and supply of Recycled Water less than the Recycled Water Target Volume is caused by the Agency's failure to comply with Section 7.1.3(c) or a GoS Parties Risk Event; and
- (c) that the Distribution Network (Company Zones) is capable of supplying to Offtakers and Offtakers (Potential).

Recycled Water Pipeline means the pipeline supplying Recycled Water from the Recycling Plant through the Project Land (Access) to the edge of the Project Land (Distribution Company Zones) that feeds into and connects with the Distribution Network (Company Zones) and which is located on the Project Land (Plants) and Project Land (Access).

Recycled Water Pumping Station means the pumping station that will deliver Recycled Water from the Recycling Plant through the Recycled Water Pipeline and the Distribution Network (Company Zones) to Offtake Delivery Points.

Recycling Plant means the recycling plant and associated equipment and facilities including reverse osmosis desalination to produce Recycled Water and which will be designed, engineered, procured, constructed, installed, completed, tested and commissioned by the Company in accordance with this Agreement.

Relief Costs means:

- (a) in the case of a Relief Event (except for a Relief Event under Section 10.1.1(a)) an amount equal to the difference between:
 - (i) in costs and expenses actually incurred by the Company after the Relief Event, and
 - (ii) the higher of costs and expenses set out in the Financial Model and the actual costs and expenses immediately prior to the Relief Event;but only to the extent such difference is directly attributable to the Relief Event;
- (b) in the case of a Relief Event under Section 10.1.1(a) only means the Relief Costs determined under Part 1 of Schedule 5 (*Relief Costs for certain Relief Events and Force Majeure Costs*); and
- (c) in the case of a Relief Event (Special) an amount determined under Part 1 of Schedule 5 (*Relief Costs for A Relief Event (Special) and Force Majeure Costs*).

Relief Event means the events in Sections 10.1.1(a), 10.1.1(b), 10.1.1(c) and 10.1.1(d) of this Agreement but excluding a Relief Event (Special).

Relief Event (Special) means the event specified in Section 10.1.1(e) and Part 1 Schedule 5 (*Relief Costs for A Relief Event (Special) and Force Majeure Costs*) which shall entitle the Company to Relief Costs determined under Part 1 of Schedule 5 (*Relief Costs for A Relief Event (Special) and Force Majeure Costs*).

Relief Order Request means a request to GoS in respect of payment of Relief Costs and/or an Extension of Time upon the occurrence of a Relief Event or Relief Event (Special).

Remedy Time Period is defined in Section 5.9.4.

Repair has the meaning set out in Section 12.4.2(b).

Request for Proposals means the request for proposals dated [●] issued by the Agency calling for bids or proposals to carry out the Project including any amendments or modifications thereto.

Required COD means the date prescribed in the Project Milestone Schedule as being the deadline for the occurrence of the COD as may be extended by an Extension of Time.

Required Effective Date means the date prescribed in the Project Milestone Schedule as being the deadline for the occurrence of the Effective Date.

Required Preliminary Design Commencement Date means the date prescribed in the Project Milestone Schedule as being the deadline for commencement of Preliminary Engineering Design Facilities (Excluding Distribution Network), as may be extended pursuant to Section 2.6 of this Agreement.

Resettlement Costs means the costs required to relocate and re-settle any persons located on the Project Land (Entire), including any livelihood restoration and rehabilitation allowances as necessary or desirable to comply with the Legal Requirements, as updated from time to time.

Residuals means substances (sand, grit, trash, and similar substances) removed in the preliminary treatment processes of the Wastewater Treatment Plant in accordance with Section 8.3 (*Monitoring Systems*) and Schedule 1 (*MPSS*) and which meets the Quality Parameters (Company) for Residuals as measured at the relevant Monitoring Point.

Residuals Disposal Delivery Point means the locations permitted under Schedule 1 (*MPSS*) where Residuals shall be delivered to and disposed of by the Company or other locations approved by the Agency in writing from time to time.

Revenue means the revenues of the Company as determined under the Accounting Principles and which shall be set out in the audited accounts of the Company.

Revised Financial Model means the Financial Model revised by the Independent Auditor in accordance with Section 5.6.3(b)(ii) of this Agreement.

Revised Water Tariff means the Water Tariff revised by the Independent Auditor in accordance with Section 5.6.3(b)(ii) of this Agreement.

Revised Project Cost means the Project Cost revised by the Independent Auditor in accordance with Section 5.6.3(b)(ii) of this Agreement.

RO Concentrate means reverse osmosis concentrate which the Company shall deliver from the Recycling Plant to the Effluent Discharge Chamber or to the Discharge Point (Sea).

RO Concentrate Discharge Pipeline means a pipeline that conveys RO Concentrate from the edge of the Project Land (Plants) to the Discharge Point (Sea).

RO Concentrate Pipeline means the pipeline that conveys RO Concentrate from the Recycling Plant to the Effluent Discharge Chamber and which is located on the Project Land (Plants).

RO Concentrate Pipeline (Sea) means the pipeline that conveys RO Concentrate from the Recycling Plant to the edge of the Project Land (Plants) and which is located on the Project Land (Plants).

RO Concentrate Pumping Station (Sea) means a pumping facility located on the Project Land (Plants) that will deliver RO Concentrate to the Discharge Point (Sea) provided that if there is no provision for the design and construction of a RO Concentrate Pumping Station (Sea) in the Bid, then this Agreement shall be read as if there are no references to RO Concentrate Pumping Station (Sea).

Security Issuer means:

- (a) a Security Issuer (Pakistan); or
- (b) a Security Issuer (Foreign) provided that their obligations are counter-guaranteed by a Security Issuer (Pakistan);

provided that in each case they are reasonably acceptable to the GoS Parties.

Security Issuer (Foreign) means a bank or financial institution incorporated or organized outside Pakistan having a credit rating of at least AA or higher by PACRA, or AA or higher by VIS, or A3 or higher by Moody's or equivalent rating by Fitch or Standard and Poor.

Security Issuer (Pakistan) means a bank or a financial institution incorporated or organized in Pakistan having a credit rating of at least AA or higher by PACRA, or AA or higher by VIS, or A3 or higher by Moody's or equivalent rating by Fitch or Standard and Poor.

SEPA means Sindh Environmental Protection Agency, Government of Sindh.

SEQS means the Sindh Environmental Quality Standards being the standards known as the Sindh Environmental Industrial Waste Water, Effluent, Domestic, Sewerage, Industrial Air Emission and Ambient Airs, Noise for Vehicles, Air Emissions for Vehicles and Drinking Water Quality Standards, 2015 published in The Sindh Government Gazette on January 28, 2016 and as updated from time to time.

Services means the operation and maintenance of the Facilities and being:

- (a) the treatment of Influent to produce Treated Effluent;
- (b) the treatment of Treated Effluent to produce Recycled Water;
- (c) the supply of Recycled Water to Offtakers;
- (d) the treatment, management and discharge of Effluent at the Discharge Point (River);
- (e) the treatment, management and discharge of RO Concentrate at the Discharge Point (Sea);
- (f) the Raw Sludge Treatment and Dewatering and the management and disposal of the Dewatered Sludge at the Dewatered Sludge Disposal Delivery Point; and
- (g) the treatment of the Residuals and the management and the disposal of the Residuals at the Residuals Disposal Delivery Point;

to be provided by the Company under this Agreement.

Shareholder means any person owning any of the shares, of any class, of the Company and including the Lead Member, but excluding the holder of the Equity (GoS).

Signature Date means the date of signing of this Agreement as indicated in the preamble.

SITE is defined in Recital (C) of this Agreement.

SITE Agreement means the agreement to be entered into between SITE and Agency in respect of the matters contained in Section 3.1.1(c).

Subordination Terms shall bear the meaning as ascribed thereto in the Equity Funding & Utilisation Agreement.

Suspension means a suspension of the Project Works where the work threatens the safety or health or impacts national security in accordance with Section 5.5 (*Suspension of Project Works*).

Tax means any net income, gross income, gross receipts, sales, use, transfer, gains, *ad valorem*, franchise, profits, capital gains, license, value-added, withholding, payroll, employment, professional, business, excise, stamp, occupation, premium, property, environmental, windfall profit, documentary, registration, severance, custom duty, governmental fee, other like assessment or charge of any kind whatsoever imposed pursuant to the laws of any national, local, or foreign jurisdiction or by any political subdivision or taxing authority, together with any interest, penalty or other payment charged, and any liability for such amounts under all Applicable Laws as a result either of being a member of a combined, consolidated, unitary or affiliated group or of a contractual obligation to indemnify any person or other entity.

Termination Date means the earlier of the following dates:

- (a) the date set out in the Termination Notice issued in accordance with this Agreement; and
- (b) the Final Expiry Date.

Termination Notice means a Notice by a Party to the other Party for the termination of this Agreement in accordance with this Agreement following the expiry of the relevant Cure Period or following the expiry of the period in Section 23.1.2 in the case of a Change in Law.

Termination Payment means an amount determined under Schedule 9 (*Termination Payment*).

Termination Payment Date means the date on which the GoS shall pay the Termination Payment to the Company being the later of:

- (a) ten (10) Days after the transfer of the Project under Section 22.2; and
- (b) thirty (30) Days after the Termination Date.

Treated Effluent means effluent discharged by the Company from the Wastewater Treatment Plant which shall satisfy the relevant Quality Parameters (Company) for Treated Effluent as tested at the relevant Monitoring Point.

Uninsurable Risk means a risk against which the Company is required to take out an Insurance Policy against under Section 12 (*Insurance*) and Schedule 0 (*Insurance*) (other than any risks insured under any professional indemnity insurances) and for which, after the Bid Submission Date the Company is able to demonstrate (and which is confirmed by the Independent Expert) that:

- (a) insurance is not available within the worldwide insurance market with reputable insurers of good standing in respect of that risk; or
- (b) the insurance premium payable for insuring that risk is at such a level that the risk is not generally being insured against in the worldwide insurance market with reputable insurers of good standing.

Unplanned Downtime means any temporary loss of function of the Facilities during which the Services are not provided and which is not a Planned Downtime.

Vacant Possession means complete uninterrupted, quiet possession and control of land which shall be granted (to the extent permitted by Legal Requirements) to the Company for the Project Land (Plants) and the Project Land (Access) under the Project Land Agreement.

Variation means a notice issued by Agency under Section 6.1 (*Variation: Agency*) certified by the Independent Experts.

Variation Notice shall have the meaning ascribed thereto in Section 6.1.2.

Variation Order shall have the meaning ascribed thereto in Section 6.3 (*Variation Order*).

Wastewater Treatment Plant means the wastewater treatment plant and associated equipment and facilities which shall treat Influent and produce Treated Effluent and which will be designed, engineered, procured, constructed, installed, completed, tested and commissioned by the Company in accordance with this Agreement.

Water Tariff means in respect of each Contract Year the tariff for the supply and sale of Recycled Water and for the first Contract Year shall be the figure set out in Part 1 of Schedule 14 (*Information from the Bid*) and thereafter shall be the figure determined in accordance with Section 8.1.2; provided that, in case a Revised Water Tariff is notified by the Agency in accordance with Section 8.1.3(c) of this Agreement, any reference to the term Water Tariff shall, following the notification of the Revised Water Tariff, be construed as a reference to the Revised Water Tariff.

1.2 **PRINCIPLES OF INTERPRETATION**

1.2.1 In the interpretation of this Agreement, unless the context otherwise requires:

- (a) Words importing a gender include any gender.
- (b) Words importing the singular number shall include the plural and *vice versa*.
- (c) References to persons shall include individuals, sole proprietorships, partnerships, associations, trusts, joint ventures, unincorporated organizations, corporations, states, governments and governmental entities.
- (d) References in this Agreement or any other agreement to any statute, law, decree, regulation, or other Legal Requirement shall be construed as a reference to such statute, law, decree, regulation, or other Legal Requirement as re-enacted, re-designated, amended, or extended from time to time, except as otherwise provided in this Agreement.
- (e) A reference to any person, Party, or entity includes its permitted successors and assigns. A reference to any government agency or authority shall include any agency or authority succeeding to such agency's or authority's powers and functions.

- (f) The words “include” or “including” shall be deemed to be followed by “without limitation” or “but not limited to,” whether or not they are followed by such phrases or words with the same meaning.
- (g) References to “months” shall refer to calendar months.
- (h) The division of this Agreement into articles, clauses and sections and the insertion of headings are for convenience of reference only and shall not affect the construction or interpretation of this Agreement.
- (i) The terms "this Agreement" and similar expressions refer to this Agreement and not to any particular article, clause, section or other portion hereof and include any agreement supplemental hereto and include all schedules and annexures.
- (j) References to Articles, Clauses, Sections and Schedules are to articles, clauses, sections and schedules of this Agreement.
- (k) No provision of this Agreement shall be construed adversely to a Party solely on the ground that that Party was responsible for the preparation of this Agreement or that provision; and
- (l) where an obligation of a Party to make payment under this Agreement, as a result of the calculation of time, falls on a Day other than a Business Day, such time for performance shall be extended to the next Business Day.

2 GRANT OF CONCESSION

2.1 CONCESSION

- 2.1.1 Subject to Section 2.1.2 from the Effective Date the Agency hereby grants in favour of the Company, the rights, powers and concessions with respect to the Project and the Company undertakes and agrees the following:
- (a) the right and obligation to design, engineer, procure, construct, install, complete, test, commission and operate and maintain the Facilities;
 - (b) the right and obligation to treat and convert the Influent into Treated Effluent;
 - (c) the right to convert the Treated Effluent into Recycled Water and the obligation to produce a volume of Recycled Water equal to at least the Recycled Water Target Volume;
 - (d) the right to supply the Recycled Water to the Offtakers within the Project Land (Distribution Company Zones) under the Offtake Agreements;
 - (e) the right to collect Revenue (either by itself or through Collection Agents) from Offtakers generated from the supply of Recycled Water supplied at the Water Tariff;
 - (f) the right to retain for the Company’s own benefit the Revenues subject to the requirements to pay Tax, the requirements of this Agreement and the Legal Requirements;
 - (g) the right and obligation to discharge Effluent to the Discharge Point (River) in accordance with this Agreement;
 - (h) the right to divert the Influent delivered to the Influent Delivery Point (River) to the Bypass Delivery Point through the Bypass for conveyance as Effluent to the Discharge Point in accordance with Section 9.3 (*Company Right to Divert Through Bypass*).

- (i) the right and obligation to complete the Raw Sludge Treatment and Dewatering and dispose of the Dewatered Sludge that meets the Quality Parameters (Company) for Dewatered Sludge at the Dewatered Sludge Disposal Delivery Point;
- (j) the right and obligation to dispose of Residuals that meet the Quality Parameters (Company) for Residuals at the Residuals Disposal Delivery Point;
- (k) the right and obligation to transfer the Distribution Network (Other Zones) to the Agency in accordance with Section 5.6.3; and
- (l) other ancillary rights, in terms set forth in this Agreement.

2.1.2 Subject to Section 2.1.3 the Agency shall not award, grant or permit (and Agency shall procure that the SITE Agreement shall contain provisions that SITE does not award, grant or permit) in favour of any third person the concession for the right and obligations specified in Sections 2.1.1(d) and 2.1.1(e) in respect of the Project Land (Distribution Company Zones) for the duration of the Concession Period.

2.1.3 The Company acknowledges that Agency has informed the Company as to the potential development of the Adjoining Projects and the Company acknowledges that the Adjoining Projects may (amongst other things):

- (a) supply recycled water to customers within the Project Land (Distribution Other Zones) or to other third parties outside the Project Land (Distribution Company Zones);
- (b) build pipelines for effluent on the Project Land (Pipelines);
- (c) require access to and use of the road located on the Project Land (Access); and
- (d) require access to the Adjoining Projects from the road known as Estate Avenue;

2.1.4 The Company acknowledges that Agency have informed the Company as to SITE's rights to:

- (a) collect water charges from certain consumers within the Project Land (Distribution Company Zones); and
- (b) supply water to such consumers;

and Agency undertakes to ensure that SITE shall terminate these rights as soon as possible after the Project Land Zones Determination Date to the extent that these rights apply to the Project Land (Distribution Company Zones) so that SITE is not competing with the Company.

2.2 TERM OF CONCESSION

2.2.1 Subject to Section 2.2.2 below, the term of this Agreement and concessions granted herein shall commence on the Effective Date and expire on the Termination Date (the **Concession Period**).

2.2.2 Notwithstanding anything contained to the contrary herein, the following sections shall be binding and effective on the Signature Date and the Parties' rights or obligations under the following sections shall not be conditional on the occurrence of the Effective Date:

- (a) Section 1 (*Definitions, Principles of Interpretation*);
- (b) Section 2.1.4 (*Term of Concession*);
- (c) Section 2.3 (*Appointment of Independent Experts*);

- (d) Section 2.4 (*Development of Construction Programme*);
- (e) Section 2.5 (*Financing Term Sheet*);
- (f) Section 2.6 (*Design*);
- (g) Section 3 (*Conditions Precedent*)
- (h) Section 5.1 (*Design and Construction Responsibilities of the Company*)
- (i) Section 5.2 (*Further Responsibilities related to Design and Construction*)
- (j) Section 5.7 (*Construction Security*);
- (k) Section 10.2 (*Basic Requirements for Relief Costs and Extension of Time*);
- (l) Section 14.1(r) (*ADB Advisory Fee*);
- (m) Section 13 (*Representations and Warranties*);
- (n) Section 16 (*Indemnity*);
- (o) Section 19 (*Assignment of Rights and Ownership of the Company*);
- (p) Section 20 (*Dispute Resolution*); and
- (q) Section 25 (*General Provisions*).

2.3 **APPOINTMENT OF INDEPENDENT EXPERTS**

2.3.1 The Parties shall appoint the Independent Experts in accordance with the scope of work and criteria set out in Schedule 15 (*Independent Expert Terms of Reference*) in all cases at the cost of the Company, provided that costs shall be paid out of an escrow account jointly established by the GoS Parties and the Company which escrow account shall be funded at all times by the Company as follows:

- (a) no later than fifteen (15) Days from the Signature Date:
 - (i) the Agency shall provide to the Company a list of three (3) reputable firms for the Independent Engineer and three (3) reputable firms for the Independent Auditor; and
 - (ii) the Company shall provide to the Agency a list of three (3) reputable firms for the Independent Engineer and three (3) reputable firms for the Independent Auditor;

in each case the firms proposed for Independent Engineer and Independent Auditor by Agency and the Company shall be capable of competently and independently undertaking the Independent Engineer Scope of Work and the Independent Auditor Scope of Work;
- (b) within ten (10) Days of receipt by the Parties of the lists of firms the Parties shall meet to discuss in good faith and agree the appointment of the Independent Engineer and Independent Auditor from the lists submitted by the Parties;
- (c) if within ten (10) Days of the meeting of the Parties under Section 2.3.1(b) the Parties are unable to reach agreement as to the Independent Engineer and Independent Auditor, the Agency may select the Independent Engineer and the Independent Auditor from either the

Agency list of firms or from the Company's list of firms and the Agency decision shall be final;

- (d) within thirty (30) Days of the date in paragraph (b) or (c) (as relevant) the Agency, Independent Experts and the Company shall enter into agreements with each of the Independent Experts on terms consistent with Schedule 15 (*Independent Expert Terms of Reference*); and
- (e) nothing in this Section 2.3 (*Appointment of Independent Experts*) shall be construed as a bidding process undertaken by the Agency under the public procurement laws of Pakistan which shall not be applicable to this Section 2.3.1.

2.4 **DEVELOPMENT OF CONSTRUCTION PROGRAMME**

2.4.1 The Company shall submit to Agency and Independent Engineer at the same time as the submission of the Implementation Plan in accordance with Section 2.6 and Schedule 1 (*MPSS*), a proposed program, to be prepared in compliance with the Design and Construction Standards and Prudent Utility Practice, for completion of the Project Works and achievement of each Project Milestone by the relevant date in the Project Milestone Schedule (the **Proposed Construction Programme**). The Proposed Construction Programme shall not amend or vary the relevant dates in the Project Milestone Schedule and shall be consistent with the Implementation Plan and the implementation schedule in the Bid. The Proposed Construction Programme shall include, without restriction, the following:

- (a) the Project Milestones to be achieved in accordance with the Project Milestone Schedule;
- (b) the detailed order and timeline for each item of the Project Works;
- (c) arrangements and procedures for carrying out the Project Works;
- (d) the timelines and procedures for conducting the inspection of each item of the Project Works; and
- (e) arrangements and procedures for conducting safety related measures in relation to the Project Works.

2.4.2 The Agency and Independent Engineer shall within fifteen (15) Days of receipt of the Proposed Construction Programme from the Company revert with any comments that Agency and Independent Engineer may have to the Proposed Construction Programme. The Company shall incorporate the comments from the Agency and Independent Engineer into the Proposed Construction Programme. The Proposed Construction Programme, approved (in its absolute discretion) by the Agency and Independent Engineer shall be binding on the Parties (the **Construction Programme**).

2.4.3 The Company shall, whenever required by the Agency, the Independent Experts and including in the Design and Construction Reports, provide in writing, a general description of the arrangements which the Company proposes to adopt for the implementation of the Project Works. Any alteration to such arrangements shall be made by the Company with prior written consent of the Independent Engineer and the Agency.

2.5 **FINANCING TERM SHEET**

2.5.1 As soon as possible after the Signature Date but in any event prior to the Effective Date, the Company shall deliver to the GoS Parties and the Independent Auditor a copy of the term sheet (the **Financing Term Sheet**) reflecting the proposed material terms of the Financing Documents, and setting forth:

- (a) a schedule setting out Carrying Cost;
- (b) the maximum Principal;
- (c) any schedules or calculations that shall be included in the Financing Documents for the computation of Principal, repayments of Principal and Carrying Cost, fees and charges payable to the Lenders upon the acceleration of repayment of the Principal; and
- (d) expressly providing that the Lender shall not take any Encumbrance over the Carbon Credits or income streams from the disposal of the Carbon Credits;

and which Financing Term Sheet shall be consistent with the terms of the Financing Term Sheet set out in the Bid.

- 2.5.2 The GoS Parties and the Independent Auditor shall evaluate the terms in Section 2.5.1 to ensure that the terms are consistent with the Financial Model using the assumptions of the Financial Model, and are consistent with the Bid and to evaluate the GoS's Termination Payment obligations and other obligations under this Agreement. If GoS Parties and/or the Independent Auditor have any objections to the terms specified in such Financing Term Sheet (including but not limited to as to the currency of the Financial Indebtedness under the Financing Documents), it shall inform the Company within thirty (30) Days of its receipt.
- 2.5.3 The Company shall provide the GoS Parties, the Independent Engineer and the Independent Auditor with a copy of the Financing Documents that are consistent with the Financing Term Sheet and the Financial Model no later than fifteen (15) Business Days of its execution and in accordance with Section 3.1.11.

2.6 **DESIGN**

- 2.6.1 The Company shall submit to the Agency and the Independent Engineer, no later than thirty (30) days of the appointment of Independent Engineer, the Implementation Plan, prepared in accordance with Schedule 1 (*MPSS*). The Agency and Independent Engineer shall within fifteen (15) Days of submission from the Company, provide its comments. The Company shall incorporate the comments from the Agency and the Independent Engineer into the Implementation Plan for the approval by the Independent Engineer.
- 2.6.2 The Company shall be obligated to commence the Preliminary Engineering Design Facilities (Excluding Distribution Network) on or before the Required Preliminary Design Commencement Date. No later than one hundred and twenty (120) Days of the approval of Implementation Plan by the Agency and the Independent Engineer, the Company shall submit to Independent Engineer, the Preliminary Engineering Design Facilities (Excluding Distribution Network), prepared in accordance with Schedule 1 (*MPSS*). The Independent Engineer shall within thirty (30) Days of submission from the Company revert with any comments that Independent Engineer may have to the Preliminary Engineering Design Facilities (Excluding Distribution Network). The Company shall incorporate the comments and submit the revised version to Independent Engineer in a timely manner to ensure that the Preliminary Engineering Design Facilities (Excluding Distribution Network) approval is secured prior to Effective Date.
- 2.6.3 The Company shall proceed with Preliminary Engineering Design Distribution Network, in accordance with Schedule 1 (*MPSS*), no later than Effective Date, and shall submit with a report to the Independent Engineer who shall approve or otherwise respond within thirty (30) Days.
- 2.6.4 Detailed Engineering Design shall be based on the approved Preliminary Engineering Design and the Company shall proceed with the commencement of Detailed Engineering Design, in accordance with Schedule 1 (*MPSS*) as soon as the respective Preliminary Engineering Design

has been approved and the Effective Date has occurred. The Independent Engineer shall approve or otherwise respond to each submittal of the Company within thirty (30) Days of submission thereof.

2.6.5 The Company undertakes to obtain and maintain all such Consents as required and shall ensure that the design and engineering of the Facilities and Project Works carried out under this Section, prior to or after Effective Date, shall be in compliance with the Design and Construction Standards, Project Milestone Schedule, Construction Programme, Legal Requirements and this Agreement (including but not limited to the requirements of Sections 5.1 (Design and Construction Responsibilities of the Company) and 5.2 (*Further Responsibilities related to Design and Construction*)).

2.6.6 The Agency shall:

- (a) support and provide access to the Company to the Project Land (Plants) provided that where the Project Land Agreement has not been signed, the Company shall agree to any reasonable requirements in respect to such access as may be required by Agency; and
- (b) excavate and remove the fill material that is located on the Project Land (Plants) from the Project Land (Plants), prior to the Required Preliminary Design Commencement Date;

in each case as confirmed by the Independent Engineer.

2.6.7 If, the Company is not able to commence or carry out the Preliminary Engineering Design Facilities (Excluding Distribution Network) solely due to delay or failure on the part of Agency in complying with the Agency's obligations under Section 2.6.6(a) or 2.6.6(b) required for the Preliminary Engineering Design Facilities (Excluding Distribution Network) (as determined by the Independent Engineer), which is not otherwise attributable to the Company or the Company Engaged Persons; the Independent Experts shall confer with the Parties with a view to equitably granting an Extension of Time to adjust the Project Milestone Schedule (on a Day for Day basis) and the Implementation Plan, taking into account the effect which the Company demonstrates is solely attributable to the Agency delay or failure and which would not have occurred but for such delay or failure provided that in no case shall the Company be entitled to any Relief Costs or any other costs, compensation or payments.

2.6.8 The grant of an Extension of Time for the Project Milestone Schedule (on a Day for Day basis) pursuant to Section 2.6.7 shall be subject to, as determined by the Independent Experts, prior to any such Extension of Time being granted the Company shall have:

- (i) provided notice in writing to the Agency;
- (ii) the EPC Contracts shall have been executed in accordance with this Agreement and the EPC Contractors shall have commenced the preliminary design works under the EPC Contracts such that the Company will meet the Implementation Plan; and
- (iii) the Company shall comply with and the Parties shall proceed through the processes set out in Section 10.2 of this Agreement.

2.6.9 The remedy set out in Sections 2.6.7, 2.6.8 and 2.6.9 shall be the Company's sole and exclusive remedy with respect to any delay in achieving the Required Preliminary Design Commencement Date as a result of the Agency's failure to comply with Sections 2.6.6(a) or 2.6.6(b). The Company acknowledges that any adjustment to the Project Milestone Schedule pursuant to Sections 2.6.7, 2.6.8 and 2.6.9 shall not entitle the Company to any additional costs, payments or Relief Costs under this Agreement.

3 CONDITIONS PRECEDENT

3.1 AGENCY AND COMPANY CONDITIONS PRECEDENT

- (a) This Agreement (except for the sections in Section 2.2.2 which come into effect on the Signature Date) shall be effective and the Parties shall be bound by all its terms and conditions on the date when the conditions stated below have been fully satisfied, deferred or waived by the Parties and a written notice to such effect has been jointly signed by the Parties and certified by the Independent Experts (the **Effective Date**).
- (b) Agency shall satisfy all of the conditions precedent in Section 3.1.1 (*Effectiveness of GoS Parties Agreements: Agency Condition Precedent*) to and including Section 3.1.4 (*Legacy Employees and Landfill: Agency Condition Precedent*) to the reasonable satisfaction of the Company, prior to the Required Effective Date (the **Agency Conditions Precedent**).
- (c) The Company shall satisfy the conditions precedent set out in Section 3.1.5 (*Effectiveness of Project Agreements: Company Condition Precedent*) to and including Section 3.1.15 (*Other Conditions: Company Condition Precedent*) to the reasonable satisfaction of the Agency prior to the Required Effective Date (the **Company Conditions Precedent**).

3.1.1 EFFECTIVENESS OF GOS PARTIES AGREEMENTS: AGENCY CONDITION PRECEDENT

- (a) Each of the GoS Parties Agreements shall have been duly signed by GoS, Agency and SITE (as relevant) unless otherwise stated under this Agreement;
- (b) The Agency have provided a certificate in writing certifying that the SITE Agreement has been executed by the Agency and SITE and upon the Effective Date it will be in full force and effect; and
- (c) Agency have ensured that the SITE Agreement executed under Section 3.1.1(b) includes the following:
 - (i) permits the supply of Recycled Water to the Offtakers;
 - (ii) permits the billing of the Offtakers for the supply of Recycled Water by the Company (or Collection Agent);
 - (iii) provides for disconnection by Agency, SITE or a third party of water connections for non-payment of the Water Tariff by Offtakers provided the Company and Company Engaged Persons comply with Legal Requirements and subject to other restrictions set out in the SITE Agreement;
 - (iv) allows for disconnection by SITE, Agency or the relevant Government Authority of connections to the Offtakers' premises for Identified IWS and IWS in order to install the Offtaker Meters for Recycled Water and collecting Revenues on the basis of the Offtaker Meters;
 - (v) permits the Agency, SITE or the relevant Government Authority to disconnect Identified IWS and IWS in accordance with this Agreement subject to restrictions set out in the SITE Agreement and subject to compliance with Legal Requirements;
 - (vi) grants other approvals that may be necessary to carry out the Project Works to the extent it relates to the Distribution Network, including obligations upon SITE to negotiate in good faith to enter into documents on reasonable terms as reasonably required for the purposes of the Company's implementation of the Project Works to the extent it relates to the Distribution Network; and

- (vii) ensure the SITE Agreement has a validity for a minimum term equal to the Concession Period.

3.1.2 AGENCY AUTHORIZATIONS AND EQUITY (GoS) CONTRIBUTION: AGENCY CONDITION PRECEDENT

- (a) Certified true copies of unanimous resolutions adopted by the governing board of Agency authorizing the execution, delivery, and performance of GoS Parties Agreements (to which Agency is a party) have been delivered by Agency to the Company;
- (b) Certified true copies of resolutions adopted by the board of SITE authorizing the execution, delivery and performance of SITE's obligations under the SITE Agreement have been delivered by Agency to the Company;
- (c) Certified true copies of approvals required to authorize the execution, delivery and performance of the Equity Funding and Utilisation Agreement have been delivered by the GoS Parties to the Company
- (d) GoS has paid the Equity Funding Amount (GoS) (Local) into the GoS equity account which is an account opened in the name of GoS in accordance with the requirements of the Equity Funding and Utilisation Agreement.
- (e) GoS has made the Equity Funding Amount (GoS) (Foreign) available in accordance with the requirements of the Equity Funding and Utilisation Agreement.

3.1.3 INDEPENDENT EXPERTS: AGENCY CONDITION PRECEDENT

- (a) the Agency has signed the Independent Engineer Terms of Engagement for the appointment of the Independent Engineer; and
- (b) the Agency has signed the Independent Auditor Terms of Engagement for the appointment of the Independent Auditor.

3.1.4 AGENCY SUPPORTING INFRASTRUCTURE, LEGACY EMPLOYEES AND LANDFILL: AGENCY CONDITION PRECEDENT

- (a) The Agency has commenced design or construction work for the Agency Supporting Infrastructure, or satisfactory arrangements are in place evidencing that such works shall commence following the Effective Date and be completed before the Agency Supporting Infrastructure Completion Date.
- (b) The Agency has issued a written confirmation that all existing employees employed by the Agency, situated at the Project Land (Entire) have been relocated or transferred and all rights to access the Project Land (Entire) provided to them have been withdrawn.
- (c) The Agency has excavated and removed from the Project Land (Plants) the excavated fill material that as at the date of this Agreement is stockpiled on the Project Land (Plants).

3.1.5 EFFECTIVENESS OF PROJECT AGREEMENTS: COMPANY CONDITION PRECEDENT

- (a) Each of the Project Agreements (other than the Offtake Agreement(s)) shall have been duly signed by the parties thereto and, shall be in full force and effect. The Company shall have also delivered to the Agency and the Independent Experts a certified true copy of each executed Project Agreement; and

- (b) Each of the GoS Parties Agreements shall have been duly signed by the Company and the Shareholders (as relevant) and any other parties (other than the GoS Parties) and are in full force and effect.

3.1.6 COMPANY AUTHORIZATIONS: COMPANY CONDITION PRECEDENT

- (a) The Company has furnished and delivered to the Agency and the Independent Experts certified true copies of resolutions adopted by the board of directors of the Company and Shareholders authorizing the signing, delivery, and performance of the GoS Parties Agreements and the Project Agreements, as may be applicable to it;
- (b) Certified true copies of the Corporate Documents (including all amendments thereto) and the constitutional documents of the Shareholders, certified by the relevant corporate secretary shall have been delivered;
- (c) The Company has completed an EIA in respect of the Project, duly approved by SEPA, and the EIA is on terms that permits the Company to design, engineer, procure, construct, install, complete, test and commission the Facilities and provide the Services in accordance with this Agreement and the Design and Construction Standards and a certified true copy of the EIA has been delivered; and
- (d) The Company has obtained the Company Consents listed in Schedule 13 (*Company Consents*) that are stated as being required to be obtained by the Effective Date and certified true copies have been provided.

3.1.7 LEGAL OPINIONS / CERTIFICATIONS TO BE FURNISHED BY COMPANY: COMPANY CONDITION PRECEDENT

The Company shall have delivered to the Agency a legal opinion from the Company's external legal counsel, in a form and substance reasonably acceptable to the Agency, confirming:

- (a) the due organization and capacity of the Company and the Shareholders; and
- (b) each of the Project Agreements and the GoS Parties Agreements to which the Company or a Shareholder is a party are legal, valid, binding and enforceable.

3.1.8 CONSTRUCTION SECURITY: COMPANY CONDITION PRECEDENT

The Construction Security with an expiry date that is no earlier than thirty (30) months after the Required COD has been provided to the Agency by the Company.

3.1.9 REPRESENTATIONS AND WARRANTIES BY COMPANY: COMPANY CONDITION PRECEDENT

The representations and warranties of the Company contained in Section 13 (*Representations and Warranties*) of this Agreement were true and correct in all material respects on the Signature Date and as at the Effective Date and the Agency shall have received a certificate to that effect in the form and substance reasonably acceptable to the Agency dated as of the Effective Date and signed by the corporate secretary of the Company.

3.1.10 INSURANCE: COMPANY CONDITION PRECEDENT

The Company has delivered to the Agency certified true copies of the Insurance Policies which comply with the requirements for insurance needed to be in force as of the Effective Date in line with Section 12 (*Insurance*) and Schedule 0 (*Insurance*).

3.1.11 FINANCIAL CLOSE: COMPANY CONDITION PRECEDENT

The Company has delivered to the Agency:

- (a) a certified true copy of the duly executed Financing Term Sheet that is acceptable to the Agency and the Independent Auditor which demonstrates certainty of funds and commitments that in conjunction with the Equity is sufficient to fund the design, construction, engineering, procurement, completion, testing and commissioning of the Facilities and complies with Section 2.5 (*Financing Term Sheet*) of this Agreement;
- (b) certified true copies of the executed Financing Documents that are consistent with the Financing Term Sheet delivered under Section 3.1.11(a) above have been delivered to the Agency;
- (c) confirmation signed by the Lenders confirming that the Financial Close has been achieved and that there are no conditions to the first utilization (except for any condition requiring achievement of the Effective Date under this Agreement);
- (d) a certified true copy of the Equity Funding and Utilisation Agreement which:
 - (i) is on terms acceptable to the Independent Auditor and the Agency and demonstrates commitments to the satisfaction of Agency that in conjunction with the funds available under the Financing Documents are sufficient to fund the design, engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities; and
 - (ii) are in full force and effect and all conditions to the first contribution of such funds have been satisfied or waived by the Shareholders.
- (e) the Financial Model has been approved by the Independent Expert and the GoS Parties.

3.1.12 INDEPENDENT EXPERTS: COMPANY CONDITION PRECEDENT

The Company has provided to Agency (with copies to the Independent Experts) documents evidencing that:

- (a) the Company and the Independent Engineer have entered into a valid and effective Independent Engineer Terms of Engagement in accordance with Section 2.3 (*Appointment of Independent Experts*) and which comply with Schedule 15 (*Independent Expert Terms of Reference*);
- (b) the Company and the Independent Auditor have entered into a valid and effective Independent Auditor Terms of Engagement in accordance with Section 2.3 (*Appointment of Independent Experts*) and which comply with Schedule 15 (*Independent Expert Terms of Reference*);
- (c) the Company has provided certified true copies of the executed EPC Contracts and O&M Agreement;
- (d) the Company has provided Corporate Documents duly certified as true copies by the company secretary or a director of the Company;
- (e) the Company has provided certified copies of its board resolution that duly authorizes:
 - (i) the Company to enter into this Agreement and to undertake the obligations, liabilities, as set out in this Agreement, and the transactions as contemplated by this Agreement; and

- (ii) a specified person or persons to:
 - a. execute GoS Parties Agreements on behalf of the Company; and
 - b. undertake all other acts specifically relating to the GoS Parties Agreements, as contemplated by the GoS Parties Agreements.

3.1.13 CONSTRUCTION PROGRAMME: COMPANY CONDITION PRECEDENT

The Construction Programme and Project Milestone Schedule has been approved by Agency and the Independent Engineer in accordance with Section 2.4 (*Development of Construction Programme*) of this Agreement.

3.1.14 DESIGN DOCUMENTS: COMPANY CONDITION PRECEDENT

The Implementation Plan and the Preliminary Engineering Design Facilities (Excluding Distribution Network) has been approved by the Agency and the Independent Engineer in accordance with Section 2.6 (*Design*) of this Agreement.

3.1.15 OTHER CONDITIONS: COMPANY CONDITION PRECEDENT

- (a) The Company has provided evidence that the ADB Advisory Fee has been paid in full (without set off or deduction) by the Company to Asian Development Bank;
- (b) The Company has prepared EIA, EMP, Resettlement and Livelihood Restoration Plan and any other required environmental and social management plans/reports, in accordance with the Legal Requirements, and in form and substance satisfactory to Asian Development Bank;
- (c) The Company has paid the Resettlement Costs to the extent that the Resettlement Costs are due and payable as at the Effective Date;
- (d) The Company has paid all charges, costs, maintenance fees, and other costs in respect of the Project Land (Entire) as set out in the Project Land Agreement (including in respect to stamp duty or similar taxes and charges) to the extent that they are due and payable as at the Effective Date;
- (e) The Company has obtained the Offtake Planning Report; and
- (f) The Company has prepared and implemented the Resettlement and Livelihood Restoration Plan in accordance with Section 4.1.6.

3.2 REASONABLE EFFORTS TO SATISFY CONDITIONS PRECEDENT

3.2.1 Each of the Parties shall use reasonable efforts to satisfy the conditions attributable to that Party set out in Section 3.1 (*Agency and Company Conditions Precedent*) on or before the Required Effective Date. On each date that a Party believes that any of the conditions precedent that it must satisfy have been satisfied, it shall promptly give written notice of that fact to the other Party and to the Independent Experts together with copies of all relevant documents to demonstrate satisfaction of that condition.

3.2.2 The Parties agree that:

- (a) within thirty (30) Days of the Agency and Independent Expert's receipt from the Company, of evidence of satisfaction of a Company Condition Precedent, the Independent Experts shall review and certify whether the Company Condition Precedent has been satisfied and

shall notify Agency and Agency may rely upon the certification of the Independent Expert and approve the satisfaction of such Company Condition Precedent. In the event the Independent Expert and Agency do not raise any objection in writing to the satisfaction of a Company Condition Precedent within the thirty (30) Day period set out herein, such Company Condition Precedent shall be deemed to be not objected to by the Independent Expert and Agency. In the event the Independent Expert or the Agency raises any objections to the satisfaction of a Company Condition Precedent and notifies the same to the Company within the thirty (30) Day period set out herein, the Company shall address such objections and re-submit to the Independent Experts (with a copy to the Agency) evidence of satisfaction of such Company Condition Precedent including the objections and the process in this Section 3.2.2(a) shall be repeated until such time that the Independent Expert has certified and Agency has not objected to or is deemed to have not objected to the satisfaction of such Company Condition Precedent. The provisions of this Section 3.2.2(a) shall apply to each Company Condition Precedent for which evidence of satisfaction is submitted by the Company to the Independent Experts and Agency from time to time; and

- (b) within thirty (30) Days of the Company and Independent Expert's receipt from the Agency of evidence of satisfaction of an Agency Condition Precedent, the Independent Experts shall review and certify whether the Agency Condition Precedent has been satisfied and shall notify the Company and the Company may rely upon the certification of the Independent Expert and approve the satisfaction of such Agency Condition Precedent. In the event the Independent Expert and Company do not raise any objection in writing to the satisfaction of an Agency Condition Precedent within the thirty (30) Day period set out herein, such Agency Condition Precedent shall be deemed to be not objected to by the Independent Expert and Company. In the event the Independent Experts or the Company raises any objections to the satisfaction of an Agency Condition Precedent and notifies the same to the Independent Experts and the Agency within the thirty (30) Day period set out herein, the Agency shall address such objections and re-submit to the Independent Experts (with a copy to the Company) evidence of satisfaction of such Agency Condition Precedent and the process in this Section 3.2.2(b) shall be repeated until such time that the Independent Expert has certified and Company has not objected to or is deemed to have not objected to the satisfaction of such Agency Condition Precedent. The provisions of this Section 3.2.2(b) shall apply to each Agency Condition Precedent for which evidence of satisfaction is submitted by the Agency to the Independent Experts and the Company from time to time.

3.3 **NON-OCCURRENCE OF EFFECTIVE DATE**

3.3.1 **TERMINATION DUE TO NON-OCCURRENCE OF EFFECTIVE DATE**

- (a) The Agency may waive or extend the period for the Company to comply with a Company Condition Precedent or may terminate this Agreement with immediate effect by giving written notice thereof to the Company if any of the Company Conditions Precedent (as certified by the Independent Experts) have not been satisfied, deferred or waived on or before the Required Effective Date;
- (b) The Company may waive or extend the period for the Agency to comply with the Agency Conditions Precedent or may terminate this Agreement with immediate effect by giving written notice thereof to the Agency if any of the Agency Conditions Precedent (as certified by the Independent Experts) have not been satisfied, deferred or waived on or before the Required Effective Date; and
- (c) Any deferral and/or waiver of a condition precedent in terms of this Section 3.3 (*Non-Occurrence of Effective Date*) shall be notified in writing to the Independent Experts by

the Party granting such deferral and/or waiver of such condition in accordance with this Agreement.

3.3.2 CONSEQUENCES OF TERMINATION DUE TO NON-OCCURRENCE OF EFFECTIVE DATE

If this Agreement is terminated pursuant to Section 3.3.1 (*Termination Due to Non-Occurrence of Effective Date*) then:

- (a) if the Agency has terminated this Agreement because the Company has failed to comply with its obligations under Section 3.1 (*Agency and Company Conditions Precedent*) by the Required Effective Date, the Company shall within fifteen (15) Days of receipt of the notice terminating and the Agency shall be entitled to encash the Construction Security or the Bid Security (as applicable) to its full value (irrespective of the Agency's Losses);
- (b) If the Company has terminated this Agreement because the Agency has failed to comply with its obligations under Section 3.1 (*Agency and Company Conditions Precedent*) by the Required Effective Date, the Agency shall (within fifteen (15) Days of its receipt of a notice terminating) return the Construction Security or the Bid Security (as applicable), to the Company without any encashment, demands or Claims, provided further where the Company has incurred:
 - (i) direct third party fees and costs for obtaining the EIA;
 - (ii) fees due and payable to the Independent Experts; and
 - (iii) direct third party fees and costs due to undertaking the Implementation Plan and the Preliminary Engineering Design for the Facilities (but excluding any Detailed Engineering Design and the Company shall not be reimbursed for the Detailed Engineering Design) provided such Preliminary Engineering Design and Implementation Plan is consistent with the Design and Technical Specifications, and has been approved by the Independent Engineer;

provided that in each case such fees and costs have been approved by the Independent Expert, the Agency shall make payment for such fees and costs incurred by the Company (upon provision of evidence of such fees and costs) provided that in no circumstances shall the total of the fees and costs payable under this Section 3.3.2(b) exceed an amount equal to United States Dollars One Point Five Million only (USD 1,500,000/-).

- (c) The Company shall procure that each Shareholder undertakes and agrees to provide all funding required to undertake the activities under clause 3.3.2 (b). Any such funding by the Shareholders shall, subject to verification and confirmation by the Independent Experts, be treated as pre-funded equity amount and adjusted in accordance with the Equity Funding and Utilisation Agreement.
- (d) Except as may be contemplated the Equity Funding and Utilisation Agreement, each of the Parties hereto shall have no Claims against the other for Losses, cost, damages, compensation or otherwise for such termination of this Agreement under Section 3.3.1 (*Termination Due To Non-Occurrence of Effective Date*) other than set out in this Section 3.3.2 (*Consequences of Termination Due to Non-Occurrence of Effective Date*) and no Termination Payment shall be payable; and
- (e) This Agreement or other GoS Parties Agreements (if executed) to which the Company and/or the Shareholders are a party, shall have no further effect. The Parties shall have no further rights and shall be released from all their obligations under this Agreement except

in respect of any rights or obligations arising before the termination occurred and except as set out in Section 25.16 (*Survival*).

3.3.3 FUNDING OF EQUITY

- (a) The GoS undertakes to fund and make available from time to time the Equity Funding Amount (GoS) in accordance with the terms of the Equity Funding and Utilisation Agreement including but not limited to under Section 3.1.2(d) and 3.1.2(e).
- (b) The Company undertakes to procure funding by the Shareholders from time to time of the Equity (Shareholders) through subscription in cash in Pakistani Rupees for class A shares by the Shareholders in accordance with the Equity Funding and Utilisation Agreement.
- (c) The Parties shall procure that the Equity Funding and Utilisation Agreement includes provision that there will be a draw stop upon the disbursement of the Equity Funding Amount (GoS) into the Company so that any disbursement of the Equity Funding Amount (GoS) into the Company accounts shall be suspended where GoS Parties Preliminary Notice has been issued in respect of a Company Event of Default under Section 17.1(d), 17.1(e), 17.1(k), 17.1(m) or 17.1(n) or in respect of an Environmental Breach Event (Other) and this is certified by the Independent Expert.

3.3.4 FUNDING OF GOS ESCROW ACCOUNT

GoS shall ensure that the GoS Escrow Account is initially funded with an amount equal to the GoS Escrow Account Amount on or before the date that is six months prior to the anticipated COD (as certified by the Independent Engineer) and following that on the dates and in the amounts set out in the GoS Escrow Agreement.

4 PROJECT LAND

4.1 VACANT POSSESSION AND EASEMENT RIGHTS

4.1.1 The Agency agrees to:

- (a) grant Vacant Possession for the Project Land (Plants) and the Project Land (Access) on the Effective Date; and
- (b) grant the Easement Rights for the Project Land (Distribution) and the Project Land (Pipelines) with the effect that:
 - (i) Easement Rights in respect of the Project Land (Pipelines) shall be granted on the Effective Date; and
 - (ii) Easement Rights in respect of the Project Land (Distribution) shall be granted on the Project Land Zones Determination Date;

in each case on the terms set out in the Project Land Agreement.

4.1.2 The Agency shall obtain such Consents during the Concession Period, as may be required under the Applicable Laws, so as to ensure that the Company can enjoy Vacant Possession for the Project Land (Plants) and the Project Land (Access) and Easement Rights for the Project Land (Distribution) and the Project Land (Pipelines) for the purposes of granting the rights under Section 4.1.1.

4.1.3 The Company shall be responsible for payment of:

- (a) the Resettlement Costs; and
- (b) all charges, costs, maintenance fees and other expenses in respect of the Project Land (Entire) as set out in the Project Land Agreement and including any stamp duty or taxes and similar charges in respect of the Project Land (Entire).

4.1.4 The Company undertakes that it shall not without prior written consent of the Agency use the Project Land (Entire) for any purpose other than:

- (a) for the purposes of the implementation of the Project;
- (b) as permitted under this Agreement; and
- (c) as permitted under the Project Land Agreement;

4.1.5 In respect of the road located on the Project Land (Access) the Company shall permit third parties to have access rights to the road via the new entrance from Estate Avenue as directed by Agency, provided that where the Company can demonstrate that the access rights may significantly increase maintenance fees and costs for the road incurred by the Company then the Company may negotiate with the third party for the third party to pay for the increase in maintenance fees and costs and the Company undertakes to enter any reasonable agreement necessary to give effect to the rights and obligations in this Section 4.1.5.

4.1.6 As at the Signature Date, the Parties understand that no land acquisition or significant resettlement impact is expected on the Project Land (Entire). Notwithstanding this, the Company shall prior to the Effective Date prepare a Resettlement and Livelihood Restoration Plan in accordance with IFC Performance Standard 5 and the Legal Requirements and shall prior to the Effective Date implement such Resettlement and Livelihood Restoration Plan. The Company shall ensure that no physical or economic displacement takes place in connection with the Project until compensation and other entitlements have been provided to affected people in accordance with the Resettlement and Livelihood Restoration Plan.

4.2 **DETERMINATION OF PROJECT LAND (DISTRIBUTION OTHER ZONES) AND PROJECT LAND (DISTRIBUTION COMPANY ZONES)**

4.2.1 As at the Signature Date the area and location of the Project Land (Distribution Other Zones) and the Project Land (Distribution Company Zones) cannot be determined as the location and areas are:

- (a) dependent upon completion of the Offtake Planning Report;
- (b) dependent upon completion of the Preliminary Engineering Design Distribution Network and determination of the location of the pipelines forming the Distribution Network and the Offtaker Meters; and
- (c) subject to the Agency's decision as to whether to issue a Distribution Network (Other Zones) Stop Notice;

and the Parties agree that the area and location of the Project Land (Distribution Other Zones) and Project Land (Distribution Company Zones) shall be determined in accordance with this Section 4.2 (*Determination of Project Land (Distribution Other Zones) and Project Land (Distribution Company Zones)*).

4.2.2 As soon as possible after the Signature Date the Company shall engage an entity selected by the Company but reasonably acceptable to the Agency and Independent Engineer to prepare the Offtake Planning Report and the Company shall ensure that the Offtake Planning Report is

completed as soon as possible after the Signature Date so as not to delay the Effective Date but in any event within one hundred and eighty (180) Days of the Signature Date and in any event before the Effective Date.

4.2.3 Following completion of the Offtake Planning Report and at the latest upon completion and approval of the Preliminary Engineering Design Distribution Network, the Company shall determine the area and location of the Project Land (Distribution Company Zones) and the Project Land (Distribution Other Zones) and provide details to Agency and the Independent Experts. The Agency shall consent within thirty (30) Days to that area and location of the Project Land (Distribution Company Zones) and Project Land (Distribution Other Zones), which consent shall not be unreasonably withheld (and if Agency consents the date of such Agency consent shall be the Project Land Zones Determination Date). For the avoidance of doubt the Agency may only withhold consent where the location and area of the Project Land (Distribution Company Zones) and Project Land (Distribution Other Zones) does not comply with any of the requirements of Section 4.2.4 (a), (b) (c) or (d).

4.2.4 If the Agency does not consent under Section 4.2.3 the area and location of the Project Land (Distribution) shall be determined by the Independent Engineer with the aim of ensuring that:

- (a) the area and location of the Project Land (Distribution Company Zones) shall be at least the minimum necessary to provide the Services and construct, install, operate and access the Distribution Network (Company Zones);
- (b) the demand for Recycled Water from Offtakers and Offtakers (Potential) within the Project Land (Distribution Company Zones) as assessed in the Offtake Planning Report shall be equal to or greater than the Recycled Water Target Volume;
- (c) the land in the Project Land (Distribution Company Zones) and Project Land (Distribution Other Zones) shall be contiguous; and
- (d) the area and location of the Project Land (Distribution) shall be an area and location over which the Agency has the power and capacity to grant Easement Rights under the SITE Agreement and Project Land Agreement;

and the Independent Engineer shall act as an expert and not an arbitrator and their decision shall be binding on the Parties in the absence of fraud or manifest error (and upon the Independent Engineer consent the date of such consent shall be the Project Land Zones Determination Date).

4.2.5 In accordance with Section 5.6.3 Agency may at any time prior to the Project Land Zones Determination Date issue a Distribution Network (Other Zones) Stop Notice. If the Agency has issued a Distribution Network (Other Zones) Stop Notice then immediately upon the Project Land Zones Determination Date the Parties agree that:

- (a) Agency shall grant Easement Rights to the Company over the area and location of land that is the Project Land (Distribution Company Zones) in accordance with the Project Land Agreement and Agency shall not grant any Easement Rights in respect of the Project Land (Distribution Other Zones);
- (b) diagrams that set out the area and location of the Project Land (Distribution Company Zones) shall be inserted into Part 2 of Schedule 1 of Project Land Agreement and Part 3 of Schedule 1 of Project Land Agreement shall be left blank;
- (c) the definitions of and all references to Project Land (Distribution) shall be a reference to Project Land (Distribution Company Zones) as determined under Section 4.2.3 and 4.2.4

in this Agreement and all references to Project Land (Distribution Other Zones) shall be deemed to have been deleted from this Agreement;

- (d) the Lenders shall be permitted to take a security assignment over the Easement Rights for the Project Land (Distribution Company Zones) to the extent permitted under the Legal Requirements and the Agency shall provide any consents necessary to allow the grant of such security assignment; and
- (e) the Parties shall make any necessary changes to the Project Land Agreement to give effect to this Section 4.2 (*Determination of Project Land (Distribution Other Zones) and Project Land (Distribution Company Zones)*).

4.2.6 If the Agency has not issued a Distribution Network (Other Zones) Stop Notice, then immediately upon the Project Land Zones Determination Date the Parties agree that:

- (a) Agency shall grant Easement Rights to the Company over the area and location of land that is the Project Land (Distribution Company Zones) and the Project Land (Distribution Other Zones) in accordance with the Project Land Agreement;
- (b) diagrams that set out the area and location of the Project Land (Distribution Other Zones) and Project Land (Distribution Company Zones) determined under Section 4.2.3 and 4.2.4 shall be inserted into Part 2 and Part 3 of Schedule 1 of Project Land Agreement ;
- (c) the definitions of and all references to Project Land (Distribution), Project Land (Distribution Other Zones) and Project Land (Distribution Company Zones) in this Agreement shall be interpreted as being the areas determined under Sections 4.2.3 and 4.2.4 and set out in the diagrams in Part 2 and Part 3 of Schedule 1 of Project Land Agreement ;
- (d) the Lenders shall be permitted to take a security assignment over the Easement Rights for the Project Land (Distribution Other Zones) and Project Land (Distribution Company Zones) to the extent permitted under the Legal Requirements and the Agency shall provide any consents necessary to allow the grant of such security assignment; and
- (e) the Parties shall make any necessary changes to the Project Land Agreement to give effect to this Section 4.2 (*Determination of Project Land (Distribution Other Zones) and Project Land (Distribution Company Zones)*).

4.3 UTILITIES CONNECTION AND CONSUMPTION

4.3.1 The Company shall be responsible for obtaining and maintaining Consents for the connection and supply of electricity at the Electricity Delivery Point as well as gas, water and other utilities required in respect of the Project Works, Facilities and the Services in accordance with this Section 4.3 (*Utilities Connection and Consumption*).

4.3.2 The Company shall be responsible for liaising with relevant utility service providers regarding the provision of utilities to and from the Project Works and the Facilities (including in respect of electricity to the Electricity Delivery Point) and the location, construction and installation of necessary supporting infrastructure. Except in respect of Electricity Costs and Electricity Connection Costs which shall be regulated under Section 4.3.3 and Section 4.4 (*Electricity Connection and Consumption*), the Company shall be solely responsible for payment of all costs and fees associated with the consumption and connection of utilities for the Project.

4.3.3 In respect of Consents for the connection to the grid and to maintain a connection to the grid for electricity for the Facilities, the Services and the Project Works:

- (a) the Company shall prepare and provide to the Agency the application forms and other information and materials for the application to the electricity provider and all Government Authorities which electricity related Consents shall be applied for and maintained in the name of the Agency; and
- (b) the Agency shall be responsible for submission of the application forms and other information and materials to the electricity provider and the Government Authorities and may amend the application and other information and materials in its absolute discretion, provided that the Agency shall not be responsible for and the Company shall not be entitled to Relief Costs or an Extension of Time in respect to any inaccuracies or mistakes in the application, materials or information or delays in lodging an application for or obtaining the Consent for the connection and supply of electricity.

4.3.4 The Parties acknowledge and agree that the Company shall be responsible for and shall assume all risk in respect of:

- (a) the supply (including outages or disruptions to supply) of all utilities (including electricity) supplied to the Facilities and the Project Works and the Project Land (Entire); and
- (b) delays in respect to all works required for the connection to the grid at the Electricity Delivery Point (including works to be completed by the Company, any Government Authority, the utility supplying electricity or the relevant grid company).

4.4 **ELECTRICITY CONNECTION AND CONSUMPTION**

4.4.1 The Parties agree that the Electricity Costs and Electricity Connection Costs shall be allocated between the Parties in accordance with the requirements of this Section 4.4 (*Electricity Connection and Consumption*).

4.4.2 The Agency shall be responsible for the initial payment to the electricity provider or other Government Authority of:

- (a) all Electricity Costs; and
- (b) all Electricity Connection Costs;

when such amounts become due and payable.

4.4.3 The Electricity Costs and Electricity Connection Costs paid by the Agency under Section 4.4.2 shall be allocated between the Parties and reimbursed to the Agency as follows:

- (a) the Company shall be responsible for and shall reimburse to the Agency in accordance with Section 4.4.4:
 - (i) the Electricity Costs (Company); and
 - (ii) the Electricity Connection Costs;
- (b) the Agency shall be responsible for the Electricity Costs (Agency).

4.4.4 The Parties agree that:

- (a) in respect of the period from the Effective Date until COD the Agency shall issue a notice each quarter setting out the amount that shall be paid by the Company under Section 4.4.3(a) and the Company shall pay such amounts within thirty (30) Days of the notice.
- (b) in respect of the period from the COD until the Termination Date the Agency shall within thirty (30) Days of the end of each Contract Year issue a notice setting out the amount that shall be paid by the Company under Section 4.4.3(a) and shall also provide to the Company details of the Agency calculation of the Electricity Costs (Company).

4.4.5 If the Company does not dispute the notice issued by the Agency under Section 4.4.4(b) within ten (10) Days of the notice, then the amounts shall be payable by the Company within thirty (30) Days of the notice. If the Company disputes the notice within ten (10) Days the Independent Expert shall determine the amount payable by the Company within thirty (30) Days of the notice from the Company that the Company disputes the notice and the Company shall make payment within thirty (30) Days of the Independent Expert's determination.

4.5 **SECURITY SURVEILLANCE AND ENCROACHMENTS**

4.5.1 The Company shall be responsible for the security of and putting in place surveillance measures and protecting from encroachments and occupation for the Project Land (Plants) and Project Land (Access) from the Effective Date until the end of the Concession Period.

4.5.2 The Agency shall provide all reasonable assistance to the Company in procuring police and security assistance for removal of trespassers, removal of encroachments and security on the Project Land (Entire) but Agency shall not be responsible for any delays in police and security assistance.

4.5.3 The Company shall be fully responsible for and shall protect from, in each case, any and all occupations, theft on the Project Land (Entire). The Company further undertakes, covenants and agrees to indemnify the Agency for any Losses, costs, Claims expenses or charges incurred or resulting from any breach of its obligations under this Section 4.5 (*Security Surveillance and Encroachments*).

4.6 **NO SALE OR CREATION OF ENCUMBRANCE**

The Company shall not (and shall procure that the Company Engaged Persons shall not) part with, dispose of, sell, sublease or create any Encumbrance of any nature whatsoever on the whole or any part of the Project Land (Entire) or the Facilities and shall not place or create nor permit any person claiming through or under the Company to place or create any Encumbrance over all or any part of the Project Land (Entire) or the Facilities, save and except as otherwise expressly set forth in this Agreement.

4.7 **HAZARDOUS SUBSTANCES**

4.7.1 The Company shall ensure that:

- (a) any Hazardous Substances that were introduced by the Company or any third party other than Agency after the Effective Date and which are required to be removed or rendered non hazardous by a Government Authority in accordance with Legal Requirements shall be promptly removed or rendered non hazardous by the Company at its own cost and as soon as possible; and
- (b) there is no spill leakage, discharge, escape or exposure to any Hazardous Substances on or from the Project Land (Entire).

- 4.7.2 If the Company fails to comply promptly with its obligations to remove or render non-hazardous any Hazardous Substances in accordance with Section 4.7.1, then Agency shall have the right to enter upon the Project Land (Entire) to remove or render non-hazardous such Hazardous Substances. All costs and expenses incurred by Agency in removing or rendering non hazardous such Hazardous Substances shall be payable by the Company to Agency upon receipt of an invoice from Agency.
- 4.7.3 The Company shall maintain properly designed storage areas for its Hazardous Substances that are impermeable to leakage into the surrounding soil for storage of Hazardous Substances. Such storage shall also be covered and protected from inundation and overflow by rainfall into the surrounding soil.

5 CONSTRUCTION

5.1 DESIGN AND CONSTRUCTION RESPONSIBILITIES OF THE COMPANY

- 5.1.1 The Company undertakes to ensure that the design, engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities and Project Works:
- (a) are in compliance with the Design and Construction Standards;
 - (b) are in compliance with the Project Milestone Schedule;
 - (c) are in compliance with the Construction Programme;
 - (d) are free from Defects & Deficiencies;
 - (e) are fit for the purpose of the Project as set out in this Agreement; and
 - (f) ensure the Facilities are capable of achieving the KPIs (Wide Scope).
- 5.1.2 The Agency shall notify the Independent Experts (and the Independent Experts shall notify the Company) upon the Agency becoming aware of any breach of the obligations and undertakings referred to in Section 5.1.1 specifying in as much detail as possible the circumstances of the breach and providing supporting data and records that may be available. If the Independent Expert certifies that they consider there has been a breach of the obligations and undertakings in Section 5.1.1 they shall notify the Agency and the Company. Following notice from the Independent Experts and at the Company's expense and within a period set by the Independent Experts that shall not be less than forty five (45) Days, the Company shall rectify all such breaches of the obligations and undertakings in Section 5.1.1.

5.2 FURTHER RESPONSIBILITIES RELATED TO DESIGN AND CONSTRUCTION

- 5.2.1 For the purpose of performing obligations of the Company under Section 5.1 (*Design and Construction Responsibilities of the Company*), the Company shall, be responsible for:
- (a) a call for tenders and awarding contracts provided always that such tenders and contracts comply with requirements in the Financing Documents and Section 14.4 (*Transactions with Affiliates of Company*);
 - (b) ensuring completion and approval by the Independent Engineer and Agency of the Design Documents in accordance with the time frames and requirements of Schedule 1 (*MPSS*) and this Agreement;
 - (c) except as set out in Section 4.3.3, in respect of Consents for the connection to the grid, the Company shall be responsible for entering into contracts for the supply of materials,

equipment and services including the connection to all utilities needed for the design, engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities, Project Works and provisions of the Services; and

- (d) doing all other things necessary or desirable for the timely completion of the Facilities so as to achieve COD before the Required COD.

5.2.2 The Company shall ensure it agrees with the Agency the date for commencement of the Project Works and shall inform the Independent Experts as soon as it has commenced the Project Works.

5.3 **COMPANY AUTHORIZED REPRESENTATIVE & COMPANY PROJECT ENGINEER**

5.3.1 Within ninety (90) Days following the Signature Date, the Company shall:

- (a) appoint, with the prior Notification to the Agency and the Independent Experts a representative duly authorized to deal with the Agency in respect of all matters relating to this Agreement (the **Company Authorized Representative**);
- (b) appoint, with prior approval of the Agency and the Independent Engineer, (including in respect to terms of appointment and qualification of the Company Project Engineer) at its sole cost and expense one or more established consulting engineering firms and/or individual(s) to:
 - (i) supervise the Project Works;
 - (ii) co-ordinate with the Independent Engineer and Agency with respect to technical matters relating to the Project; and
 - (iii) ensure that the Project Works are performed in accordance with the Design and Construction Standards (the **Company Project Engineer**).

5.3.2 The Company shall:

- (a) ensure that the Company Authorized Representative and the Company Project Engineer perform their respective obligations in the same manner as the Company is required to perform its obligations under this Agreement; and
- (b) prior to any change of the Company Authorized Representative and/or the Company Project Engineer, the Company shall submit the details of the proposed replacement candidate to the Agency in writing (with copies to the Independent Experts) and shall provide any other information reasonably requested by the Agency and the Independent Expert in respect of the proposed replacement candidate.

5.4 **DISCOVERED HERITAGE RESOURCES & GEOLOGICAL AND ARCHAEOLOGICAL FINDS**

5.4.1 If the Company, or a Company Engaged Person finds any Archaeological Items anywhere on the Project Land (Entire) during design, engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities, the Company shall promptly notify the Agency of the Archaeological Items and shall take all reasonable steps (including temporary stoppage of work) to prevent loss or damage to the Archaeological Items.

5.4.2 The Parties agree that mining, geological, rights to Archaeological Items, do not form part of the rights to be granted to the Company under the Project Land Agreement, or under this Agreement and the Company hereby acknowledges and agrees that it shall not have any mining rights or interest in the underlying minerals, or Archaeological Items and that all such rights, interest and

property on or under the Project Land (Entire) shall vest in and belong to the Agency or the appropriate Governmental Authority.

- 5.4.3 The Company shall obtain all Consents from all Government Authorities that may be required by the Company in accordance with Legal Requirements, in respect of any Archaeological Items on the Project Land (Entire), prior to commencement of the Project Works. The Company shall take all reasonable precautions to prevent any person from having access to the Project Land (Entire) and from removing or damaging any Archaeological Items and shall comply with instructions Agency and/or any Government Authority may issue in relation to the protection and/or removal of such Archaeological Items.

5.5 **SUSPENSION OF PROJECT WORKS**

- 5.5.1 The Agency may by notice in writing to the Company (with a copy to the Independent Experts) require the Company to suspend the whole or any part of the Project Works for a reasonable period if:

- (a) in the reasonable opinion of the Agency:
 - (i) the Project Works or any part of the Project Works threatens the safety or health of employees or contractors of the Company, the Offtakers, Company Engaged Persons or the public; or
 - (ii) the Project Works or any part of the Project Works impacts national security;
- (b) in the case of Section 5.5.1(a)(i) only, the Independent Experts have issued certification that the aforementioned conditions in Section 5.5.1(a)(i) is satisfied (and no certification from the Independent Expert shall be required for the circumstances in Section 5.5.1(a)(ii)).

- 5.5.2 The Company shall, pursuant to any notice for a Suspension issued under Section 5.5.1, suspend the Project Works or any part thereof for such time and in such manner as may be specified by the Agency and/or the Independent Experts and the Company shall then carry out remedial measures to address the issues with the Project Works that are the subject of the Suspension in accordance with the Design and Construction Standards.

- 5.5.3 The Company may by notice (with a copy to the Agency) require the Independent Experts to inspect such remedial measures forthwith and the Independent Experts shall, following such inspection, make a report to the Agency recommending whether or not the Suspension may be revoked. Upon receiving the recommendations of the Independent Experts, the Agency shall either revoke such Suspension or instruct the Company to carry out such further remedial measures as may be necessary in the reasonable opinion of the Agency, and the procedure set forth in this Section 5.5.3 shall be repeated until such time as the Suspension hereunder is revoked.

- 5.5.4 All Losses incurred by the Company for maintaining and protecting the Project Works (or part thereof) during the period of Suspension shall be borne by the Company and there shall be no Extension of Time granted to the Company in respect of the period of Suspension.

5.6 **TESTING AND COMMISSIONING**

5.6.1 **TESTING PROCEDURE**

- (a) The Company shall carry out the testing, commissioning and acceptance of the Facilities at its own cost in accordance with Schedule 3 (*Acceptance Tests*) and the Project Agreements;

- (b) Subject to Section 4.3 (*Utilities Connection and Consumption*) and Section 4.4 (*Electricity Connection and Consumption*) the Company shall be responsible for procuring and shall bear the cost and risk of all utilities and other consumables required for testing, commissioning and acceptance of the Facilities;
- (c) The Company shall notify the Independent Engineer when the Company considers that the Influent Delivery System, Waste Water Treatment Plant, the Bypass, the Effluent Discharge Pipeline and the Effluent Pumping Station (if any) are in a state of readiness to commence the initial testing, commissioning and acceptance. If the Independent Expert considers that the Influent Delivery System, Waste Water Treatment Plant, the Bypass, the Effluent Discharge Pipeline and the Effluent Pumping Station (if any) are not in a state of readiness to commence the initial testing, commissioning and acceptance the Independent Expert shall notify the Company as to the works that are required for the Influent Delivery System, Waste Water Treatment Plant, the Bypass, the Effluent Discharge Pipeline and the Effluent Pumping Station (if any) to be ready for testing, commissioning and acceptance. If the Independent Expert considers that the Influent Delivery System, Waste Water Treatment Plant, the Bypass, the Effluent Discharge Pipeline and the Effluent Pumping Station (if any) are ready for the initial testing, commissioning and acceptance then the Independent Expert shall issue the Certificate of Readiness to the Company with a copy to Agency;
- (d) After the Certificate of Readiness has been issued and the Company considers the Facilities are in a state of readiness to commence the final testing, commissions and acceptance the Company shall notify the Independent Expert and the Agency, and the Parties together with the Independent Engineer shall agree the earliest appropriate date to commence the final testing, commissioning and acceptance (and the Agency may attend the final testing, commissioning and acceptance);
- (e) Provided that the Company has complied with the testing, commissioning and acceptance requirements of Schedule 3 (*Acceptance Tests*) and Section 5.6.1, the Agency shall bear additional expenses for any alternate supply of the Influent to the Influent Delivery Point, where Influent does not satisfy the Flow Parameters (Agency) and the Quality Parameters (Agency) as necessary to complete the testing, commissioning and acceptance of the Facilities; and
- (f) The Company shall not be in breach of this Agreement and shall not be liable to Agency if during the testing, commissioning and acceptance of the Facilities prior to the COD the Treated Effluent fails to meet the relevant Quality Parameters (Company) for Treated Effluent or the Recycled Water fails to meet the Quality Parameters (Company) for Recycled Water.

5.6.2 ACCEPTANCE CERTIFICATE

- (a) If the Independent Engineer considers:
 - (i) that the Facilities meet the commissioning, testing and acceptance standards in Schedule 3 (*Acceptance Tests*);
 - (ii) the Company has obtained all Consents for the operation and maintenance of the Facilities and provision of the Services;
 - (iii) the Company has made available to the Agency the most up to date version of the O&M Manual and any latest updates (including all as-built drawings) of the Detailed Engineering Design in accordance with Schedule 1 (*MPSS*); and

- (iv) there is no subsisting breach of the GoS Parties Agreements by the Company;

the Independent Engineer shall issue the Acceptance Certificate in respect of the Facilities in favor of the Company within five (5) Business Days of satisfying all of the requirements of Section 5.6.2(a).

- (b) If the Independent Engineer certifies that the Facilities do not meet all of the requirements of Section 5.6.2(a), it shall issue a report to the Parties detailing the requirements of Section 5.6.2(a) that have not been complied with and specifying the actions that the Company shall take to meet requirements of Section 5.6.2(a);
- (c) The Company shall immediately take the remedial actions necessary to ensure that the Facilities meet the requirements of Section 5.6.2(a) (taking into account the report of the Independent Engineer issued under Section 5.6.2(b)), and shall notify the Agency and the Independent Engineer when remedial actions have been completed. The Company shall continue to take steps to satisfy all requirements of Section 5.6.2(a) until an Acceptance Certificate has been issued and before conducting each round of commissioning, testing and acceptance the Parties shall proceed in accordance with Section 5.6.1(d); and
- (d) The Company shall ensure that the Independent Engineer is provided with all necessary information that they request as necessary to assess whether to issue the Acceptance Certificate.

5.6.3 DISTRIBUTION NETWORK (OTHER ZONES)

- (a) As part of the Bid the Parties have assumed that the Company shall be responsible for:
 - (i) the design, building, engineering, procurement, testing, commissioning and financing of the Distribution Network (Other Zones); and
 - (ii) the transfer to the Agency of the Distribution Network (Other Zones) and the transfer to the Agency (or expiring of rights under the Project Land Agreement) to the Project Land (Distribution Other Zones) upon COD;

and this Section 5.6.3 shall govern the Company's obligations in relation to the Distribution Network (Other Zones).

- (b) Notwithstanding the assumptions in the Bid as set out in Section 5.6.3(a) the Agency may at any time prior to the Project Land Zones Determination Date issue a Distribution Network (Other Zones) Stop Notice and if the Agency issue a Distribution Network (Other Zones) Stop Notice:
 - (i) the Company shall cease all work on design so far as it relates to the Distribution Network (Other Zones) and shall not construct, build, procure, test, commission and finance the Distribution Network (Other Zones);
 - (ii) the Parties shall conclude any obligations that relate to the treatment of the Distribution Network Clawback Amount in accordance with the Equity Funding and Utilisation Agreement (or as may otherwise be agreed by the Parties) within sixty (60) days of issuance of the Distribution Network (Other Zones) Stop Notice, which obligations shall include the:
 - (A) calculation of Distribution Network Clawback Amount using the formula set out in Part 2 of Schedule 14 (*Information from the Bid*) by the Company and approved by the Independent Engineer and Agency (and the Company shall provide all costs and other information and use its best endeavours to work

with the Agency and the Independent Engineer as necessary to obtain the information necessary to determine the amount of the Distribution Network Clawback Amount under Part 2 of Schedule 14 (*Information from the Bid*);

- (B) revision of the Project Cost through the Independent Auditor and subsequent notification of the Revised Project Cost to the Agency, the Company, the GoS and the Independent Engineer;
 - (C) revise the Financial Model through the Independent Auditor and subsequent notification of the Revised Financial Model to the Agency, the Company, the GoS and the Independent Engineer;
 - (D) adjustment of the Water Tariff through the Independent Auditor and subsequent notification of the Revised Water Tariff to the Agency, the Company, the GoS and the Independent Engineer;
 - (E) issuance of public notification by the Agency of the Revised Water Tariff in accordance with Section 8.1.3(c) of this Agreement; and
- (iii) the Parties shall make any amendments to this Agreement and the Project Land Agreement to give effect to this Section 5.6.3(b).
- (c) If the Agency does not issue a Distribution Network (Other Zones) Stop Notice prior to the Distribution Network (Other Zones) Determination Date then the Company shall complete the design, build, procure, test, commission and finance of the Distribution Network (Other Zones) and then upon COD, the Distribution Network (Other Zones) shall be transferred to Agency as follows:
- (i) the Company agrees in respect of the EPC Contracts to the extent such EPC Contracts apply to the Distribution Network (Other Zones) as directed by Agency, terminate the EPC Contract to the extent it applies to the Distribution Network (Other Zones) or novate or assign to Agency the Company rights and any warranties under the relevant EPC Contract to the extent they apply to the Distribution Network (Other Zones) with the effect that if assigned or novated:
 - a. Agency may claim against the EPC Contractor for any defects during the defects liability period in respect of the works for the Distribution Network (Other Zones);
 - b. Agency are the beneficiary under any bank guarantee, letter of credit or other security for the EPC Contractor's obligations in respect of the defects liability period for the works for the Distribution Network (Other Zones); and
 - c. Agency can enforce rights against the EPC Contractor under the EPC Contract, including to conduct a hydrostatic test at the end of the defects liability period to verify the integrity of the Distribution Network (Other Zones) works;
 - (ii) the Company shall obtain (and Agency shall facilitate obtaining) all necessary Consents for the transfer of the Distribution Networks (Other Zones) and novation and assignment or termination of the EPC Contracts to the extent they relate to the Distribution Network (Other Zones);

- (iii) to the extent assignable, all issued Consents if any, then held by the Company pertaining to the construction, ownership and operation of the Distribution Network (Other Zones) shall be assigned to Agency;
 - (iv) all design and other information as may be reasonably requested by Agency for the operation and maintenance of the Distribution Network (Other Zones), including all manuals and other information prepared hereunder as at the COD shall be transferred to Agency;
 - (v) computerised and non computerised records, reports, data, files, and information relating to the Distribution Network (Other Zones) shall be transferred to Agency;
 - (vi) the Company shall take such steps required under the Project Land Agreement with respect to the expiry or termination of the Company's Easement Rights in respect of the Project Land (Distribution Other Zones) or to transfer the Project Land (Distribution Other Zones) Easement Rights to Agency as may be required by Agency;
 - (vii) the Parties agree to negotiate in good faith and sign any necessary agreements or amend the GoS Parties Agreements (on reasonable terms) to effect the transfer of the Distribution Network (Other Zones) and to effect the expiry, termination or transfer of the Company's Easement Rights with respect to the Project Land (Distribution Other Zones).
- (d) If the Agency does not issue a Distribution Network (Other Zones) Stop Notice prior to the Distribution Network (Other Zones) Determination Date and the Company considers (and the Independent Expert also independently considers) that the cost for construction of the Distribution Network based upon the Detailed Engineering Design Distribution Network shall exceed the amount set out in the total amount section at the bottom of the table in Part 2 (*Bill of Quantities*) in Schedule 14 (*Information from the Bid*) then the Company may adjust the Detailed Engineering Design Distribution Network provided that the adjusted design:
- (i) is acceptable to the Independent Experts;
 - (ii) meets the Design and Technical Specifications (as certified by the Independent Expert);
 - (iii) will not diminish or affect provision of the Services by the Company (as certified by the Independent Expert); and
 - (iv) shall not delay COD;

so as to ensure that the cost for construction of the Distribution Network based upon the adjusted Detailed Engineering Design Distribution Network does not exceed the amount set out in the total amount section at the bottom of the table in Part 2 (*Bill of Quantities*) in Schedule 14 (*Information from the Bid*).

5.7 **CONSTRUCTION SECURITY**

- 5.7.1 The Company shall provide and deliver to the Agency and maintain the Construction Security as security for the performance by the Company and the Company Engaged Persons of the obligations in Section 5.7.4 for the period from the Effective Date until the date that is twenty-four (24) months after the COD (or a later date determined under Section 5.7.7) which shall be

for an amount equal to 10% (ten percent) of the Project Cost (subject to adjustment in accordance with Section 5.7.7).

- 5.7.2 The Construction Security, unless forfeited or otherwise called on by the Agency in accordance with this Agreement, shall be returned to the Company on the date that is twenty-four (24) months after the COD (or a later date determined under Section 5.7.7) but only after the Company has delivered the Operating Security to the Agency in exchange in accordance with Section 8.9.1.
- 5.7.3 Until such time as the Construction Security has been provided by the Company to Agency as a Company Condition Precedent under this Agreement, the Company shall ensure the Bid Security submitted pursuant to the Request for Proposal shall continue to remain valid and shall secure the obligations of the Company and the Company Engaged Persons as set out in Section 5.7.4 for the period until the Construction Security has been provided.
- 5.7.4 The Construction Security (and prior to provision of the Construction Security the Bid Security) shall secure all of the Company's and the Company Engaged Persons' obligations, under the GoS Parties Agreements, including the integrity and quality of the Company's and each Company Engaged Persons' workmanship and the performance of the Project Works, the Facilities and the Services and compliance of the Project Works and Facilities with the Design and Construction Standards, Availability Event Damages, Delay Liquidated Damages and all other obligations of the Company and Company Engaged Persons under the GoS Parties Agreements.
- 5.7.5 The Construction Security (and prior to the provision of the Construction Security, the Bid Security) shall be encashable in accordance with the terms thereof and shall be payable on the Agency's first written demand without any prior notice or recourse to the Company, the Company Engaged Persons or any other entity in an amount to compensate the GoS Parties for their Losses arising from the obligations in Section 5.7.4.
- 5.7.6 In the event that the Construction Security is encashed or at any time falls below the relevant amount in Section 5.7.1 then the Company shall top up the Construction Security or provide the Agency with a replacement Construction Security for the relevant amount in Section 5.7.1 so as to ensure that the Construction Security is at all times for the relevant amount set out in Section 5.7.1.
- 5.7.7 If the Agency issues a Variation Order in respect of works to be commenced prior to the expiry of the Construction Security then the Company shall:
- (a) Increase the amount of the Construction Security by an amount equal to 2 percent (two percent) of the amounts that shall be paid to the Company by the Agency in respect of the Variation Order; and
 - (b) extend the term of the Construction Security so that the Construction Security does not expire before the later of:
 - (i) twenty-four (24) months after COD; and
 - (ii) twelve (12) months after completion of the works that are the subject of the Variation Order.
- 5.7.8 In the event the Construction Security is due to expire prior to the date that is twenty-four (24) months after the COD (or the later date determined under Section 5.7.7), the Company shall extend the validity of the Construction Security, at least thirty (30) Business Days prior to its expiry, so as to keep the Construction Security valid and enforceable until the Day twenty-four (24) months after the COD (or the later date under Section 5.7.7). In the event of failure by the

Company to keep valid or extend the validity of the Construction Security in accordance with this Section 5.7.8, the Agency shall have the right to encash the Construction Security in full.

5.7.9 Upon the occurrence of the date that is twenty-four (24) months after the COD (or the later date determined under Section 5.7.7) provided the Company has provided the Operating Security under Section 8.9.1, the Construction Security shall be returned to the Company by the Agency.

5.8 **LIQUIDATED DAMAGES FOR DELAY IN ACHIEVING COD**

5.8.1 The Company shall achieve the COD on or before the Required COD and if the COD does not occur on or before the Required COD the Company shall pay the Agency liquidated damages in the amount of PKR 4,500,000/- (Pakistani Rupees four million five hundred thousand only) for each Day of delay from the Day immediately following the Required COD up to and including the Day on which the COD occurs (**Delay Liquidated Damages**).

5.8.2 The Agency may claim payment of Delay Liquidated Damages accruing under Section 5.8.1 above through invoices issued to the Company. The Company shall pay any amount due not later than thirty (30) Days after the date of an invoice. If the Company fails to pay on the due date, then the Agency shall be entitled to draw from the Construction Security the amount of Delay Liquidated Damages due. If the Company's liability for Delay Liquidated Damages exceeds the amount available to be drawn under the Construction Security, the Company shall pay the excess immediately upon written demand by the Agency.

5.8.3 The total liability of the Company for Delay Liquidated Damages pursuant to Section 5.8 (*Liquidated Damages for Delay in Achieving COD*) shall not be more than an amount equal to the amount of the Construction Security provided by the Company.

5.8.4 The Parties acknowledge that liquidated damages for specific defaults prescribed under this Section 5.8 are representative of the actual losses, liabilities, damages, costs, charges, or expenses that are suffered by the non-defaulting Party due to failure of the defaulting Party to perform its obligations in accordance with this Agreement and are not in the nature of a penalty.

5.8.5 If any of the sections pertaining to liquidated damages are found for any reason to be void, invalid or otherwise inoperative so as to disentitle the GoS Parties from claiming liquidated damages under such Section, the GoS Parties shall be entitled to claim against the Company for general damages at law.

5.9 **REMEDYING DEFECTS & DEFICIENCIES**

5.9.1 The Company undertakes that:

- (a) the Project Works shall be performed in good workman like manner in accordance and compliance with the Design and Construction Standards and shall be free from all Defects & Deficiencies; and
- (b) it shall ensure the performance and compliance, in each case, of the Project Works with the construction requirements of this Agreement.

5.9.2 To ensure the Project Works and the Facilities comply with Section 5.9.1, the Company shall remedy all Defects & Deficiencies (including the removal, replacement and reinstallation of materials and equipment, remedying of Defects & Deficiencies and retesting of repaired or replaced portions of the Project Works) at its own cost, risk and expense.

5.9.3 As part of remedying any Defect & Deficiencies, the Independent Engineer and/or the Agency may require that certain testing relating to design, construction and operations is undertaken or repeated. The requirement to test shall be made by written notice after such Defect & Deficiencies

are remedied. Such tests shall be carried out by the Company in accordance with the Design and Construction Standards and all costs and expenses shall be for the Company.

- 5.9.4 In the event the Project Works or Facilities (or any part thereof) fail to comply with the undertaking's in Section 5.9.1, then the Independent Engineer and/or the Agency (through the Independent Engineer) may issue a notice to the Company requiring the Company to rectify and remedy the Project Works or Facilities to meet the requirements of Section 5.9.1 (the **Notice of Remedy**). The Notice of Remedy shall set out the reasonable time period (as determined by the Independent Engineer) (the **Remedy Time Period**) in which the Company shall remedy and rectify the failure to comply with Section 5.9.1. The Parties agree and acknowledge that the Remedy Time Period does not amend or affect the Cure Period and the periods set out in the Cure Period (and Agency's rights in respect of the Cure Period) shall continue to apply and shall not be affected by this Section 5.9 (*Remediating Defects & Deficiencies*).
- 5.9.5 In the event of failure by the Company to rectify the failure to comply with Section 5.9.1 within the Remedy Time Period, the Agency shall, without prejudice to any of its other rights and remedies under this Agreement, be entitled to, with the prior approval of the Independent Engineer and at the risk and cost of the Company, itself rectify the failure to comply with Section 5.9.1.
- 5.9.6 The Company shall reimburse all costs incurred by the Agency (as certified by the Independent Experts) on account of such rectification of the failure to comply with Section 5.9.1 within thirty (30) Days of receipt of the Agency's claim thereof set out in an invoice approved by the Independent Experts.
- 5.9.7 The Company shall remain solely responsible and liable under this Agreement for performance and compliance with the Design and Construction Standards and this Agreement notwithstanding the Project Works are undertaken by the EPC Contractor(s).

6 VARIATION

6.1 VARIATION: AGENCY

- 6.1.1 At any time during the Construction Period or the Operating Period the Agency may require a change/amendment in the scope of the Project (the **Variation**) provided, that the accrued and cumulative change at any given time does not result in a variation in the Project Cost by more than the maximum amount permitted for a variation under Applicable Laws based upon the Independent Experts estimate of the forecast cost for the Variation.
- 6.1.2 The Agency may request the Variation by issuing a Variation Notice, certified by the Independent Experts, in accordance with the provisions of this Section 6.1.2 as follows:
- (a) at least thirty (30) Days prior to the COD in the event the Variation is required during the Construction Period; and
 - (b) at any time in the event the Variation is required during the Operating Period.

6.2 VARIATION: COMPANY

- 6.2.1 In the event at any time during the Construction Period, the Company considers that a Variation is necessary for providing safer and improved services to the Offtakers (and the Independent Expert certifies that a Variation is necessary to provide safer and improved services to Offtakers), the Company may issue a request in writing to the Agency and the Independent Expert requesting that the Agency issue a Variation Notice. Within forty-five (45) Days from the date of receipt of

such notice from the Company (which notice shall set out any information required by Agency and/or Independent Experts). The Agency may either:

- (a) accept such request, on an “as is” basis or with modifications, and issue the requisite Variation Notice in accordance with the provisions of Section 6.1.2; or
- (b) reject the request for the Variation in which case the Agency shall communicate its reasons for not accepting the request from the Company and the Variation shall not proceed.

6.3 **VARIATION ORDER**

6.3.1 The Company shall, within fifteen (15) Days of receipt of the Variation Notice, provide to the Independent Experts information as to the following:

- (a) the impact which the Variation is likely to have on:
 - (i) the Design and Technical Specifications in the event the Variation Notice is in respect of the Construction Period; and/or
 - (ii) the Services in the event the Variation Notice is in respect of the Operating Period;
- (b) the budgeted estimate of the additional cost to be incurred by the Company for implementing the Variation; and
- (c) in the event the Variation Notice is in respect of the Construction Period the estimated additional time (number of Days) that the Company would require to achieve COD as a result of the Variation and any request for an Extension of Time.

6.3.2 The Independent Engineer shall after reviewing the information, submitted by the Company pursuant to Section 6.3.1, provide a recommendation to Agency to reject or approve the design and the information and to, reject, accept or adjust the request for the Extension of Time which shall take account also of the requirements in Section 10.2 (*Basic Requirements for Relief Costs and Extension of Time*) for an Extension of Time.

6.3.3 The Agency may (in its absolute discretion), within a period of fifteen (15) Days from the date of receipt of such statement from the Independent Engineer, issue an order in writing to the Company instructing the Company to proceed with the Variation (the **Variation Order**) or decide not to proceed and not to issue the Variation Order.

6.3.4 In the event:

- (a) the Agency decides not to issue a Variation Order in accordance with Section 6.3.3; and
- (b) Section 6.2 (*Variation: Company*) did not apply so that the Agency (rather than the Company) requested the Variation under Section 6.1 (*Variation: Agency*);

then the Agency shall reimburse the Company for the direct external third party cost/expenses actually incurred by the Company in the preparation and submission of the drawings, documents, estimates and other information in compliance with the Variation Notice in Section 6.3.1 provided, such costs and expenses are duly certified by the Independent Experts as reasonable and having been incurred. For the avoidance of doubt, Agency shall not be required to pay any costs under this Section 6.3.4 where the Company requested the Variation under Section 6.2 (*Variation: Company*).

6.3.5 If the Agency does issue a Variation Order then the Agency shall pay the additional costs for the works resulting from the Variation Order as follows:

- (a) ten percent (10%) of the additional cost from the Variation Order shall be paid in advance within forty-five (45) Days of issuance of the Variation Order; and
- (b) the remaining ninety percent (90%) shall be transferred by the GoS to an escrow account pursuant to an escrow arrangement to be agreed with the Company where amounts shall be paid from the escrow account progressively upon certification by the Independent Engineer of the completion of a milestone for the works resulting from the Variation Order;

and the Company shall increase the Construction Security under Section 5.7.7 or the Operating Security under Section 8.9.7.

6.4 **AGENCY SUPPORTING INFRASTRUCTURE**

6.4.1 The Agency shall complete the Agency Supporting Infrastructure with all proper skill and care and in all material respects in accordance with:

- (a) this Agreement;
- (b) the Legal Requirements; and
- (c) Prudent Utility Practice;

and so as to ensure that the Agency Supporting Infrastructure has an operating life that is equal to or greater than the Concession Period.

6.4.2 The Agency shall use reasonable endeavours to ensure the Agency Supporting Infrastructure is completed by the Agency Supporting Infrastructure Completion Date and shall ensure the Agency Supporting Infrastructure is completed at the latest by the later of:

- (a) the Agency Supporting Infrastructure Completion Date; and
- (b) the date of the Certificate of Readiness;

and shall operate, maintain and own the Agency Supporting Infrastructure for the Concession Period.

7 **RAMP-UP PERIOD (PHASE 1) AND RAMP-UP PERIOD (PHASE 2)**

7.1 **IDENTIFIED IWS AND IWS**

7.1.1 **GENERAL PRINCIPLES**

- (a) The Parties acknowledge that the Identified IWS and IWS, located on or supplying the Project Land (Distribution Company Zones) decreases demand for Recycled Water.
- (b) The Agency agrees that during each Contract Year of the Ramp-Up Period (Phase 1) and the Ramp-Up Period (Phase 2) the Agency shall:
 - (i) disconnect the Identified IWS by the IWS Disconnection Date for that Identified IWS in accordance with this Section 7.1 (General Principles for Identified IWS); and
 - (ii) pay the MRG Amount in accordance with Section 7.2 (Minimum Revenue Guaranteed Amounts).
- (c) The Agency agrees that during each Contract Year in the period after the end of the Ramp-Up Period (Phase 2) until the Final Expiry Date the Agency shall support the Company to

ensure that the IWS is not reintroduced, reinstalled or re-connected to supply Offtaker or Offtakers (Potential) in accordance with Section 7.1.3.

7.1.2 IDENTIFIED IWS DISCONNECTION (DURING RAMP-UP PERIOD (PHASE 1) AND RAMP-UP PERIOD (PHASE 2))

- (a) At least ninety (90) Days before the commencement of each Contract Year during the Ramp-Up Period (Phase 1) and the Ramp-Up Period (Phase 2), the Company shall make available to each of the representatives on the Contract Management Body recommendations as to IWS that the Company proposes should be Identified IWS and the recommended IWS Disconnection Date for such Identified IWS for the relevant Contract Year with an explanation as to:
 - (i) the location and a plan of each pipeline proposed as Identified IWS and details of their point of entry into the premises of each Offtaker;
 - (ii) an estimate of the volume of water supplied through each pipeline or from each well proposed as Identified IWS;
 - (iii) a confirmation that immediately upon the IWS Disconnection Date the Company will be able to supply Recycled Water to Offtakers affected by the removal of the Identified IWS to replace in full the water supplied through that Identified IWS; and
 - (iv) any additional information requested by the Contract Management Body or the Agency;
- (b) Upon receipt of the recommendations in Section 7.1.2(a) the Parties shall each procure that their representatives on the Contract Management Body shall take account of the Company's recommendations and agree and prepare the Identified IWS Disconnection Plan for the relevant Contract Year which shall set out the Identified IWS and the agreed IWS Disconnection Date for that Contract Year, provided that in preparing and agreeing the Identified IWS Disconnection Plan and in particular agreeing the Identified IWS and IWS Disconnection Date the Parties shall ensure the representatives on the Contract Management Body are directed to take into consideration:
 - (i) the volume of Recycled Water that would be supplied to the Offtaker if the pipeline or well proposed as Identified IWS was disconnected or capped compared to the extent and difficulty of the works required to disconnect the pipelines and cap the wells proposed as Identified IWS;
 - (ii) the general objective to ensure that the Facilities can sell a volume of Recycled Water to Offtakers equal to at least the Recycled Water Target Volume each Contract Year as soon as possible during the Ramp-Up Period (Phase 1) and before the commencement of the Ramp-Up Period (Phase 2); and
 - (iii) a reasonable period of time for the Agency to disconnect the Identified IWS taking account of the volume and complexity of work required to disconnect the Identified IWS;
- (c) The Parties shall procure that the Contract Management Body shall prepare, agree and deliver the Identified IWS Disconnection Plan at least sixty (60) Days before the commencement of each Contract Year.

7.1.3 IWS REMOVAL (DURING PERIOD AFTER RAMP-UP PERIOD (PHASE 2))

- (a) During each Contract Year in the period from the end of the Ramp-Up Period (Phase 2) until the Final Expiry Date the Company shall take all steps necessary to enforce its rights under Applicable Laws and under the Offtake Agreements to ensure that each Offtaker does not reintroduce, install, connect to IWS or if connected to IWS shall disconnect from that IWS;
- (b) Where the Company has exhausted its rights under Applicable Laws and under the Offtake Agreements and the Company is unable to prevent reintroduction, installation or re-connection of IWS or procure disconnection of the IWS and the IWS materially impacts the Revenues of the Company, then the Company may issue a notice to the Agency requesting the Agency to disconnect or cap the IWS and which notice shall set out:
 - (i) the location and a plan of each pipeline proposed as Identified IWS and details of their point of entry into the premises of each Offtaker;
 - (ii) an estimate of the volume of water supplied through each pipeline or from each well that is IWS; and
 - (iii) a confirmation that immediately upon the disconnection of the IWS the Company shall be able to supply Recycled Water to Offtakers affected by disconnection of the IWS to replace in full the water supplied through the IWS;
- (c) Upon Agency receipt of the notice under Section 7.1.3(b) the Agency shall use reasonable endeavours under Applicable Laws to remove the IWS set out in the notice within 30 Days of the date of the notice from the Company under Section 7.1.3(b).

7.2 MINIMUM REVENUE GUARANTEED AMOUNTS

- 7.2.1 The GoS has agreed to provide the Company with support during the Ramp-Up Period (Phase 1) and the Ramp-Up Period (Phase 2) on the terms set out in this Section 7.2 (*Minimum Revenue Guaranteed Amounts*).
- 7.2.2 If during a Contract Year falling during the Ramp-Up Period (Phase 1) or the Ramp-Up Period (Phase 2):
 - (a) the Company sold and supplied to Offtakers a volume of Recycled Water that is less than the Recycled Water Target Volume;
 - (b) the shortfall in the volume of Recycled Water below the Recycled Water Target Volume in Section 7.2 (*Minimum Revenue Guaranteed Amounts*) was due to:
 - (i) in the case of a Contract Year during the Ramp-Up Period (Phase 1):
 - a. a Ramp-Up Reason; or
 - b. the Agency's failure to disconnect the Identified IWS by the IWS Disconnection Date in accordance with Section 7.1.2 (*Identified IWS Disconnection (During Ramp-Up Period (Phase 1) and Ramp-Up Period (Phase 2))*) of this Agreement;
 - (ii) in the case of a Contract Year during the Ramp-Up Period (Phase 2), the Agency's failure to disconnect the Identified IWS by the IWS Disconnection Date in accordance with Section 7.1.2 (*Identified IWS Disconnection (During Ramp-Up Period (Phase 1) and Ramp-Up Period (Phase 2))*) of this Agreement; and
 - (c) the Company was in compliance with the MRG Tests (Phase 1 and Phase 2)

then the Company may issue a MRG Amount Notice to the GoS Parties.

7.2.3 If the Company issues a MRG Amount Notice, then upon receipt of the MRG Amount Notice the GoS Parties shall:

- (a) if GoS Parties accept the information in the MRG Amount Notice the GoS shall pay the MRG Amount to the Company within thirty (30) Days of the date of the MRG Amount Notice; or
- (b) if GoS Parties require further information from the Company the Company shall provide the information requested and upon receipt of adequate information the GoS Parties in consultation with the Independent Expert shall then make a determination as to whether GoS shall pay the MRG Amount or dispute any information in the MRG Amount Notice or supplied under this Section 7.2.3; or
- (c) if GoS Parties do not accept or disputes any of the information in the MRG Amount Notice the Parties shall provide the MRG Amount Notice to the Independent Expert for the Independent Expert determination as to:
 - (i) whether the MRG Amount is payable; and
 - (ii) if the MRG Amount is payable, the MRG Amount;

and the Independent Expert shall act as an expert and not an arbitrator and shall not be required to give reasons for its decision and the Independent Experts determination shall be final and binding on the Parties in the absence of manifest error or fraud.

7.2.4 The Company shall not be entitled to make a Claim and the GoS shall not be required to pay the MRG Amount in respect of a shortfall in volume of Recycled Water below the Recycled Water Target Volume under this Section 7.2 (*Minimum Revenue Guaranteed Amounts*) to the extent the Company is entitled to claim or has claimed compensation or relief under any other provision of this Agreement, including for Relief Costs, for Force Majeure Costs under Section 15 (*Force Majeure*) in respect to that shortfall in Recycled Water below the Recycled Water Target Volume;

8 OPERATION AND MAINTENANCE

8.1 WATER TARIFF

8.1.1 The Company shall be allowed to charge the Offtakers the Water Tariff under the Offtake Agreements for Recycled Water delivered to the Offtakers. The Company shall ensure the terms of collection of the Water Tariff from the Offtakers shall be in accordance with the Offtake Agreements, the Legal Requirements and the SITE Agreement.

8.1.2 The Parties agree that commencing from the second Contract Year: the Water Tariff shall be adjusted at the commencement of each Contract Year so that the Water Tariff for that Contract Year shall be an amount equal to 108% of the Water Tariff applicable on the final day of the immediately previous Contract Year.

8.1.3 The Agency shall ensure that:

- (a) prior to COD or such earlier date as may be required by Applicable Laws, the Agency shall complete all requirements for the public notification of the Water Tariff in the government gazette as required by Applicable Laws;

- (b) prior to the date required by Applicable Laws the Agency shall complete all requirements for the public notification of each increase in the Water Tariff under Section 8.1.2 in the government gazette as required by Applicable Laws; and
- (c) immediately following the determination by the Independent Auditor of the Revised Water Tariff in accordance with Section 5.6.3(b)(ii) above, the Agency shall, within sixty (60) days of such determination, complete all requirements for the public notification of the Revised Water Tariff in the government gazette as required by Applicable Laws.

as necessary to ensure that the Company is able to charge the Water Tariff (or the Water Tariff adjusted under Section 8.1.2) for Recycled Water supplied to Offtakers.

8.2 **GENERAL O&M OBLIGATIONS**

8.2.1 The Company shall be responsible for the management, operation, maintenance, safety and repair of the Facilities and the provision of the Services and the Company shall ensure that the Facilities operate and the Services are provided in accordance with:

- (a) the Operating Procedures;
- (b) the Operating Standards; and
- (c) the requirements of this Agreement.

8.2.2 The Company shall prepare the O&M Manual that is:

- (a) consistent with the Operating Standards;
- (b) incorporates the operating and maintenance procedures specified or recommended by equipment suppliers and manufacturers; and
- (c) is approved by the Independent Experts.

8.3 **MONITORING SYSTEMS**

8.3.1 The Company shall:

- (a) install the Monitoring Systems at each of the Monitoring Points;
- (b) ensure that the Monitoring Systems operate reliably and properly at all times;
- (c) ensure the Monitoring Systems are capable of testing and monitoring as necessary to determine satisfaction by the Company of the KPIs and Section 8.6; and
- (d) conduct the laboratory testing of Influent, Treated Effluent, Effluent, RO Concentrate discharged to the sea and Recycled Water in accordance with the requirements of Schedule 1 (*MPSS*).

8.3.2 The Company shall carry out maintenance, calibration and replacement of the Monitoring Systems in accordance with the Operating Standards and the Design and Construction Standards and the requirements of Schedule 1 (*MPSS*). The Agency is entitled to be present during any measurement, test, calibration, inspection, maintenance and replacement of, all or any part of the Monitoring Systems.

8.3.3 Except as set out in Section 9 (*Treatment Obligations*), the Company shall bear the costs incurred for the installation, operation, maintenance, calibration and replacement of the Monitoring Systems.

8.3.4 Either Party may request, at any time, additional testing or calibration of the Monitoring Systems. If Agency requests additional testing or calibration (**Additional Calibration**), Agency shall bear all costs associated with the testing or calibration unless the test discloses that the accuracy of the tested Monitoring Systems is outside the standards set out in Schedule 1 (*MPSS*) then:

- (a) the Company shall ensure the Monitoring Systems are calibrated, adjusted, repaired or replaced within three (3) Days following the test so that they comply with the standards set out in Schedule 1 (*MPSS*); and
- (b) the Company shall bear all costs of the tests, calibration, repair, adjustment or replacement of the Monitoring Systems.

8.4 **MAINTENANCE PLANS**

8.4.1 The Company shall submit to the Agency, not later than sixty (60) Days prior to the start of each Contract Year, a maintenance plan and schedule for the Facilities for that Contract Year (the **Maintenance Schedule**). The Maintenance Schedule for each Contract Year shall indicate the dates and times during which the normal delivery of Services will be interrupted for each Planned Downtime during that Contract Year (the **Planned Downtime Period**). Notwithstanding anything else in this Agreement, the Maintenance Schedule and the Planned Downtime Period during any Contract Year shall:

- (a) be consistent with and shall ensure the Company operates the Influent Delivery System, Wastewater Treatment Plant, the Bypass, the Effluent Discharge Chamber, the Effluent Discharge Pipeline and their supporting facilities in compliance with the Availability requirements in this Agreement;
- (b) be designed to minimise interruption to supply of Recycled Water to Offtakers; and
- (c) ensure that the Company is able to supply the Recycled Water Target Volume.

8.4.2 Subject to the Planned Downtime complying with the Availability requirements, a Planned Downtime shall be confirmed by the Parties sixty (60) Days prior to such Planned Downtime and reconfirmed again twenty-eight (28) Days in advance of the Planned Downtime. The Agency may request the Company to reschedule a Planned Downtime, at least twenty-one (21) Days prior to a Planned Downtime, for any valid reason and the Company shall make reasonable efforts to accommodate the request consistent with Operating Standards. If the Company cannot accommodate the request, it shall inform the Agency in writing as early as possible, which should not be later than fourteen (14) Days after its receipt of a request for rescheduling any Planned Downtime.

8.4.3 In case any Unplanned Downtime occurs or is foreseen to occur, the Company shall immediately notify the Agency in writing specifying the date and time of the commencement of the Unplanned Downtime and its expected duration.

8.5 **SAFE OPERATIONS**

8.5.1 The Company shall:

- (a) maintain at the Project Land (Entire) and the Facilities all safety devices and safety practices required by the Legal Requirements and, the requirements of all Insurance Policies and the Operating Standards;

- (b) keep accurate records of any accident or other occurrence at the Project Land (Entire) and the Facilities that results in injury to persons or damage to property and provide to the Agency reasonable access to these records, from time to time as requested by the Agency, subject to requirements of confidentiality; and
- (c) maintain safety and security of the Project Land (Entire) and the Facilities, including those safety and security requirements of the Agency (as notified in writing by the Agency to the Company).

8.6 **KEY PERFORMANCE INDICATORS**

8.6.1 The Company shall satisfy each KPI at all times during each Day during each Contract Year. If the Agency considers that at any time during the Contract Year or following the end of the Contract Year, the Company has not satisfied any KPI in respect of any Day during a Contract Year and that there has been a KPI Breach Event it shall notify the Independent Expert.

8.6.2 If the Independent Expert considers there has been a KPI Breach Event then it shall within ten (10) Days of the notice from the Agency notify the Parties its determination as to whether there has been a KPI Breach Event. Upon the Independent Expert notifying the Parties there has been a KPI Breach Event the Agency may notify the Company:

- (a) where the KPI Breach Event is a failure to comply with the Availability requirements of this Agreement, then the Agency may require the Company to pay the Availability Event Damages and the notice shall set out the Agency's calculation of the amount of the Availability Event Damages; and
- (b) in the case of any KPI Event Breach the Agency may require the Company to take steps to rectify the KPI Breach Event within a period set out in the notice from the Agency but which period shall not be less than thirty (30) Days;

and the Company shall:

- (a) where the KPI Breach Event is a failure to satisfy the Availability requirements of this Agreement, pay the Availability Event Damages within thirty (30) Days of a notice issued by the Agency following the end of each month during a Contract Year in which a KPI Breach Event that is a failure to satisfy Availability requirements of this Agreement occurs; and
- (b) in the case of all KPI Breach Event shall rectify the KPI Breach Event within the time frame set out in the notice from Agency.

8.6.3 During the Concession Period the Agency may conduct such tests, including Availability Tests or obtain such information from the Company in order to assess satisfaction of the KPIs (Wide Scope).

8.6.4 The Parties acknowledge that Availability Event Damages for a KPI Breach Event where there has been a failure to comply with Availability requirements of this Agreement under this Section 8.6 are representative of the actual losses, liabilities, damages, costs, charges, or expenses that are suffered by the GoS Parties due to failure of the Company to perform its obligations in accordance with this Agreement and are not in the nature of a penalty.

8.6.5 If any of the sections pertaining to Availability Event Damages are found for any reason to be void, invalid or otherwise inoperative so as to disentitle the GoS Parties from claiming Availability Event Damages under such Section, the GoS Parties shall be entitled to claim against the Company for general damages at law.

8.7 **ENVIRONMENTAL COMPLIANCE AND BREACH**

- 8.7.1 The Company shall comply with the Environmental Standards for the Project Works, design, engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities, the Project Land (Entire) and provision of the Services. The Company shall ensure that necessary budgetary and human resources are made available to fully implement the EIA and EMP. The Company shall take all necessary steps to protect the environment and shall not cause damage and nuisance to people and property resulting from pollution, noise and other results of its operations and so as to ensure an Environmental Breach Event does not occur. The Company shall do the following: (a) submit semi-annual environmental and social monitoring reports to the Agency, GoS, Independent Experts and Asian Development Bank; (b) if any unanticipated environmental and/or social risks and impacts arise during implementation of the Project, promptly inform Asian Development Bank, GoS, Independent Experts and Agency of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and (c) report any actual or potential breach of compliance with the measures and requirements set forth in the EIA, EMP or Resettlement and Livelihood Restoration Plan promptly after becoming aware of such breach.
- 8.7.2 If at any time during the Concession Period the Agency considers that an Environmental Breach Event has occurred then Agency shall notify the Company and the Independent Expert. Where the Independent Expert considers that an Environmental Breach Event has occurred the Independent Expert shall notify the Parties within ten (10) Days of the notice from the Agency. Upon receipt of the notice from the Independent Expert that the Independent Expert considers an Environmental Breach Event has occurred, the Company shall promptly and in any event not more than thirty (30) Days following the notice from the Independent Expert of the Environmental Breach Event, prepare and provide to Agency an Environmental Breach Rectification Plan for approval by Agency and the Independent Expert
- 8.7.3 If the Agency or the Independent Expert does not approve the Environmental Breach Rectification Plan, then the Parties together with the Independent Expert shall meet to discuss the Environmental Breach Rectification Plan and if the Parties are unable to agree the Environmental Breach Rectification Plan within thirty (30) Days of the date on which the Agency refused to approve the Environmental Breach Rectification Plan then the determination of the Environmental Breach Rectification Plan shall be referred to the Independent Expert for determination whose decision shall be final and binding on the Parties in the absence of fraud or manifest error.
- 8.7.4 Immediately upon approval of the Environmental Breach Rectification Plan the Company shall implement the Environmental Breach Rectification Plan.
- 8.7.5 In addition to its obligation to implement the Environmental Breach Rectification Plan the Company undertakes to indemnify, defend and hold the Agency harmless from any and all liabilities, Losses, Claims, damages, costs, penalties, fines, expenses, fees (including reasonable attorney's fees) and charges of any nature associated with:
- (a) an Environmental Breach;
 - (b) the Environmental Breach Rectification Plan; and
 - (c) any non-compliance by the Company with its obligations in this Section 8.7 (*Environmental Breach*).

8.8 **MAINTENANCE PAYMENT ACCOUNT**

8.8.1 The Company shall open the Maintenance Payment Account prior to the COD and shall ensure that an amount equal to the higher of:

- (a) the Maintenance Account Minimum; and
- (b) the amount required under the Financing Documents;

stands to the credit of the Maintenance Payment Account at all times from COD through the Concession Period.

8.8.2 The Company shall not create any Encumbrance over the Maintenance Payment Account except in favor of the Lenders.

8.8.3 The Company shall issue irrevocable standing instructions to the relevant bank (in a form and substance agreed with Agency) containing instructions to debit the Maintenance Payment Account for maintenance payments due and payable in accordance with the Financial Model.

8.9 **OPERATING SECURITY**

8.9.1 On or before the expiry of the Construction Security under Section 5.7.1 the Company shall provide the Operating Security so that from the expiry of the Construction Security under Section 5.7.1 until the end of the Concession Period the Company shall maintain the Operating Security which shall be for an amount equal to PKR750,000,000 (Pakistani Rupees seven hundred and fifty million).

8.9.2 The Operating Security shall secure all of the Company's and the Company Engaged Persons' obligations under the GoS Parties Agreements including liabilities, payments, liquidated damages, indemnities, representations, guarantees, warranties and responsibilities under the GoS Parties Agreements, including the integrity and quality of the Company's and the Company Engaged Persons' workmanship the quality and quantity of any equipment, materials, items and components supplied, the performance of Project Works by the Company and Company Engaged Persons and compliance of the same with the Legal Requirements, the payment of any amounts under Section 8.7 or Availability Event Damages and the provision of the Services to be provided by the Company and Company Engaged Persons under the GoS Parties Agreements and this Agreement.

8.9.3 The Operating Security shall be encashable in accordance with the terms thereof and shall be payable on the Agency's first written demand without any prior notice, reference or requirement to first seek recourse to the Company, the Company Engaged Persons or any other entity in an amount to compensate the GoS Parties for their Losses or other amounts arising under Section 8.9.2.

8.9.4 In the event that:

- (a) the Operating Security is encashed or at any time falls below the relevant amount in Section 8.9.1 for any reason;
- (b) the amount of the annual operating and maintenance costs set out in the Financial Model materially increase; or
- (c) the amount of the Operating Security is increased under Section 8.9.7;

then the Company shall top up the Operating Security or provide the Agency with a replacement Operating Security for the relevant amount in Section 8.9.1 as adjusted under this Section 8.9.4 so as to ensure that the Operating Security is at all times for the relevant amount set out in Section 8.9.1 and Section 8.9.4.

- 8.9.5 In the event of failure by the Company to keep valid or extend the validity of any Operating Security, (and the Company shall ensure that the Operating Security is renewed at least thirty (30) Days prior to expiring), then if the Operating Security has not been renewed at least thirty (30) Days prior to expiry, the Agency shall have the right to encash such Operating Security at any time prior to its expiry to its full outstanding value.
- 8.9.6 Upon the delivery of the new Operating Security for a Contract Year in the Operating Period provided to the Agency by the Company in accordance with this Section 8.9 (*Operating Security*) on or prior to the commencement of such Contract Year, the previous Operating Security issued for the previous Contract Year shall be null and void and shall be returned to the Company by the Agency simultaneously with the provision of the new Operating Security.
- 8.9.7 If the Agency issues a Variation Order in respect of works to be commenced after the issuance of the Operating Security then the Company shall increase the amount of the Operating Security by an amount equal to 2 percent (two percent) of the amounts that shall be paid to the Company by the Agency in respect of the Variation Order provided that the amount of the Operating Security shall revert back to the original amount in Section 8.9.7 after twelve (12) months of completion of the works that are the subject of the Variation Order.
- 8.9.8 Notwithstanding anything else in this Agreement, if based upon the Handover Survey, the Handover Works are required to be completed by the Company, then the Parties shall require the Independent Expert to determine whether the Operating Security should be increased to an amount determined by the Independent Expert to take account of the Handover Works and ensure that Agency has adequate security for operation and maintenance of the Facilities and completion of the Handover Works and in making its determination as to whether to increase the Operating Security and the increased amount of the Operating Security the Independent Expert shall take account of:
- (a) the cost and complexity of the Handover Works;
 - (b) the amount of the Operating Security that the Company holds;
 - (c) the Company's record of compliance with its obligations under this Agreement during the Concession Term; and
 - (d) the amount standing to the credit of the Maintenance Payment Account;

9 TREATMENT OBLIGATIONS

9.1 AGENCY OBLIGATIONS FOR INFLUENT

- 9.1.1 The Agency shall deliver to the Influent Delivery Point Influent that is above or equal to the Flow Parameters (Agency) and that satisfies the Quality Parameters (Agency).

9.2 COMPANY OBLIGATIONS FOR TREATED EFFLUENT AND RECYCLED WATER

- 9.2.1 Where the Agency has delivered to the Influent Delivery Point Influent that is above or equal to the Flow Parameters (Agency), then:
- (a) the Company shall pump out of the Influent Penstock Chamber a volume of Influent that shall equal but not exceed the Flow Parameters (Agency);
 - (b) to the extent the Influent met the Quality Parameters (Agency) the Company shall treat the Influent to produce Treated Effluent that meets the Quality Parameters (Company) for Treated Effluent; and

- (c) the Company may treat the Treated Effluent to produce Recycled Water that satisfies the Quality Parameters (Company) for Recycled Water or may discharge the Treated Effluent at the Discharge Point (River);

9.2.2 The Agency has delivered to the Influent Delivery Point Influent that was below the Flow Parameters (Agency), then:

- (a) the Company shall pump out of the Influent Penstock Chamber all of the Influent in the Influent Penstock Chamber;
- (b) to the extent the Influent met the Quality Parameters (Agency) the Company shall treat the Influent delivered to the Influent Delivery Point to produce Treated Effluent that meets the relevant Quality Parameters (Company) for Treated Effluent; and
- (c) the Company may treat the Treated Effluent to produce Recycled Water that satisfies the Quality Parameters (Company) for Recycled Water or may discharge the Treated Effluent at the Discharge Point (River).

9.3 **COMPANY RIGHT TO DIVERT THROUGH BYPASS**

9.3.1 The Company shall only be permitted to divert the Influent pumped out of the Influent Penstock Chamber to the Bypass Delivery Point through the Bypass for conveyance as Effluent to the Discharge Point (River) where that Influent failed to satisfy the Quality Parameters (Agency) in accordance with this Section 9.3.

9.3.2 For the duration of the period that the Influent failed to satisfy the Quality Parameters (Agency) as determined under paragraph 4.2.2 of Schedule 1 (*MPSS*), the Company may divert the Influent to the Bypass Delivery Point through the Bypass for conveyance as Effluent to the Discharge Point (River) provided that the Company acknowledges that:

- (a) the Company may initially divert the Influent through the Bypass where the Company considers (acting reasonably based upon information from the Real Time Quality Monitoring Systems) that accepting the Influent into the Wastewater Treatment Plant may materially damage the Wastewater Treatment Plant; and
- (b) the Company shall immediately conduct laboratory tests on the Influent diverted through the Bypass in accordance with paragraph 4.3 of Schedule 1 (*MPSS*) to assess whether that Influent failed the Quality Parameters (Agency) and shall immediately provide the laboratory tests to Agency.

9.3.3 The Parties acknowledge that:

- (a) notwithstanding the Company's decision under Section 9.3.2(a) that the Influent may materially damage the Waste Water Treatment Plant and notwithstanding the information from the Real Time Quality Monitoring Systems the Company shall only be permitted under this Section 9.3 (*Company Right to Divert through Bypass*) to divert Influent through the Bypass where that Influent fails to satisfy the Quality Parameters (Agency);
- (b) the Company shall not be entitled to claim a Relief Event (Special) and shall not be entitled to an indemnity under Section 9.6 (*Indemnity and Release*) in respect of Influent diverted through the Bypass where the laboratory tests show that the Influent in fact complied with the Quality Parameters (Agency); and
- (c) in respect of Influent diverted through the Bypass, the Company shall only be in breach of the Company's obligations to treat Influent under Section 9.2 (*Company Obligations for Treated Effluent and Recycled Water*), Section 9.3 (*Company Right to Divert through*

Bypass) and Section 9.5 (*Company Obligations for Effluent*) where the Company diverted Influent through the Bypass and on more than five (5) occasions in any Contract Year the laboratory tests demonstrated that the Influent diverted through the Bypass in fact satisfied the Quality Parameters (Agency).

9.4 **COMPANY OBLIGATIONS FOR DEWATERED SLUDGE AND RESIDUALS**

9.4.1 The Parties agree that the Company shall treat the Raw Sludge and complete the Sludge Treatment and Dewatering and treat the Residuals in accordance with the Operating Standards, the requirements of Schedule 1 (*MPSS*) and the directions of Agency.

9.4.2 The Company shall ensure that:

(a) the Dewatered Sludge:

(i) meets the Quality Parameters (Company) for Dewatered Sludge as measured at the relevant Monitoring Points; and

(ii) is disposed of at the Dewatered Sludge Disposal Delivery Point;

(b) the Residuals:

(i) meet the Quality Parameters (Company) for Residuals as measured at the relevant Monitoring Points; and

(ii) are disposed of at the Residuals Disposal Delivery Point.

9.5 **COMPANY OBLIGATIONS FOR EFFLUENT**

9.5.1 The Company agrees that:

(a) the Effluent shall comply with the relevant Quality Parameters (Company) for Effluent as measured at the relevant Monitoring Point; and

(b) all Effluent complying with the Quality Parameters (Company) for Effluent shall be delivered to the Discharge Point (River).

9.5.2 Once the Effluent complying with the Quality Parameters (Company) for Effluent as measured at the relevant Monitoring Points has been delivered by the Company to the Discharge Point (River), the Company shall have no further responsibility in terms of handling or disposal of the Effluent.

9.6 **COMPANY OBLIGATIONS FOR RO CONCENTRATE**

9.6.1 The Company agrees that:

(a) RO Concentrate shall be delivered either to the Effluent Discharge Chamber for delivery to the Discharge Point (River) or shall be delivered to the Discharge Point (Sea);

(b) RO Concentrate discharged at the Discharge Point (Sea) shall comply with the relevant Quality Parameters (Company) for RO Concentrate as measured at the relevant Monitoring Point and upon discharge at the Discharge Point (Sea), the Company shall have no further responsibility in terms of handling or disposal of the RO Concentrate; and

(c) RO Concentrate delivered by the Company to the Effluent Discharge Chamber will become part of the Effluent and the Company shall comply with the provisions of Section 9.5 with respect to such RO Concentrate.

9.7 **INDEMNITY AND RELEASE**

- 9.7.1 The Company shall ensure the Agency is updated as to any failure to comply with Section 9 (*Treatment Obligations*), including any instances, where Treated Effluent, Recycled Water, Dewatered Sludge, Residuals or Effluent failed to comply with the relevant Quality Parameters (Company).
- 9.7.2 Without limiting the Company's obligations under Section 9 (*Treatment Obligations*), the Company indemnifies Agency for any Claim (including any Claim by an Offtaker, a Government Authority or by SITE) or any Loss which may arise in connection with:
- (a) a failure by the Company to comply with its obligations under this Section 9 (*Treatment Obligations*); and
 - (b) any failure by the Company to monitor or notify Agency in accordance with Section 9.7.1.
- 9.7.3 The Agency shall indemnify the Company for any Claim or Loss in respect of any fine or penalty payable by the Company to a Government Authority in connection with the Company diverting Influent in accordance with Section 9.3 (*Company Right to Divert through Bypass*) through the Bypass to the Bypass Delivery Point and conveyance of such Influent to the relevant Discharge Point (River) provided that the Agency shall not be liable under this Section 9.7.3 where the laboratory tests conducted under Section 9.3.2(b) establish that the Influent delivered to the Influent Delivery Point satisfied the Quality Parameters (Agency).
- 9.7.4 Notwithstanding anything else in this Agreement, the Agency shall not be liable for and shall not indemnify the Company in respect of any Claim or any Losses in respect of damage to the Facilities or any Claims or any Losses for any third parties including Offtakers where the Influent failed to satisfy the Quality Parameters (Agency) except to the extent of the Agency liability for a Relief Event (Special).

10 COMPENSATION

10.1 **RELIEF EVENT (SPECIAL) & RELIEF EVENT**

- 10.1.1 The Company may issue a Relief Order Request, upon the occurrence of any of the following events as certified by the Independent Experts:
- (a) at any time prior to COD the Agency fails to complete the Agency Supporting Infrastructure by the later of:
 - (i) the Agency Supporting Infrastructure Completion Date and
 - (ii) the date of the Certificate of Readiness;
- and that causes a delay in the Project Works and means the Company cannot achieve a Project Milestone in accordance with the Project Milestone Schedule in which case the Company shall be entitled to:
- (i) an Extension of Time; and
 - (ii) Relief Costs calculated under Schedule 5, Part 1 and paid by the GoS;
- to the extent the delay in the Project Works directly results from the Agency failure to complete the Agency Supporting Infrastructure by the date set out under Section 10.1.1(a)(i). and 10.1.1(a)(ii).;

- (b) at any time prior to COD there is a direction or Consent required from the Agency or a Government Authority in respect of the Archaeological Items under Section 5.4 (*Discovered Heritage Resources & Geological and Archaeological Finds*), and that causes a delay in the Project Works and means the Company cannot achieve a Project Milestone in accordance with the Project Milestone Schedule in which case the Company shall be entitled to:
 - (i) an Extension of Time; and
 - (ii) Relief Costs paid by the GoS;

to the extent the delay directly results from the direction or Consent from the Agency or Government Authority in respect of the Archaeological Items under Section 5.4 (*Discovered Heritage Resources & Geological and Archaeological Finds*);
- (c) at any time prior to COD there is a delay by the Agency in granting access for the Company or the Company Engaged Persons to the Project Land (Entire), which delay constitutes a breach by Agency under the Project Land Agreement and causes a delay in the Project Works and means the Company cannot achieve a Project Milestone in accordance with the Project Milestone Schedule in which case the Company shall be entitled to:
 - (i) an Extension of Time; and
 - (ii) Relief Costs paid by the GoS;

to the extent the delay directly results from such delay in granting or procuring the grant of the Company or the Company Engaged Person access to the Project Land (Entire);
- (d) at any time prior to COD there is a GoS Parties Risk Event (other than the GoS Parties Risk Event in Section 10.1.1(d)) and that causes a delay in the Project Works and means the Company cannot achieve a Project Milestone in accordance with the Project Milestone Schedule in which case the Company shall be entitled to:
 - (i) an Extension of Time; and
 - (ii) Relief Costs paid by the GoS;
- (e) at any time after COD the occurrence of Relief Event (Special) as specified in Schedule 5 (*Relief Costs for A Relief Event (Special) and Force Majeure Costs*) as certified by an Independent Expert provided that for each Relief Event (Special), the Company shall:
 - (i) be entitled to the Relief Cost corresponding to the relevant Relief Event (Special) as specified in Schedule 5 (*Relief Costs for A Relief Event (Special) and Force Majeure Costs*) paid by the GoS; and
 - (ii) not be entitled to an Extension of Time.

10.1.2 The Company shall issue the Relief Order Request to the Independent Expert and GoS Parties within seven (7) Days of the Company becoming aware or when it should have become aware of the Relief Event or Relief Event (Special) and the Relief Order Request shall set out:

- (a) details of the Relief Event or Relief Event (Special) including supporting information;
- (b) computation of:

- (i) the Relief Costs corresponding to the Relief Event or Relief Event (Special) (if any); and
 - (ii) the Day for Day extension for the Extension of Time (if any).
- (c) a report setting out in detail the reasons for the Extension of Time including a plan for minimising the delay to ensure the COD is achieved in the shortest possible time; and
- (d) other information to evidence compliance with Section 10.2.5.

10.1.3 Subject to Section 10.2 (*Basic Requirements for Relief Costs and Extension of Time*) the GoS shall pay the Relief Costs (if any) as specified in the Certified Relief Order Request within forty-five (45) Days of receipt of the Certified Relief Order Request and where there is an Extension of Time in the Certified Relief Order then the relevant dates in the Project Milestones Schedule and the Final Expiry Date shall be amended to incorporate that Extension of Time in the Certified Relief Order Request.

10.2 **BASIC REQUIREMENTS FOR RELIEF COSTS AND EXTENSION OF TIME**

10.2.1 This Section 10.2 (*Basic Requirements for Relief Costs and Extension of Time*) shall apply to a Relief Order Request and a request for an Extension of Time resulting from a Variation Order under Section 6.3.2 a Force Majeure under Section 14.3(c)(ii) or set out in a Relief Order Request. The Parties agree that:

- (a) the Company shall not be entitled to Relief Costs or an Extension of Time:
 - (i) to the extent the Extension of Time or the Relief Costs results from or is caused or contributed to by an act or omission of the Company or the Company Engaged Persons;
 - (ii) if the Project Works (or any part thereof) are not in compliance with this Agreement; and
 - (iii) to the extent the Company is, in breach of its obligations under the GoS Parties Agreements;
- (b) there shall be no double counting so that the Company shall not be permitted to claim Relief Costs or an Extension of Time in respect of an event or matter that the Company has been compensated for or has obtained an extension of time under another Relief Event or another provision of the GoS Parties Agreements including through payment of the MRG Amount or of Force Majeure Costs; and
- (c) if the GoS pays Relief Costs and/or grants an Extension of Time, then the GoS Parties shall not be liable in any manner whatsoever to the Company in respect of any Losses, damage, cost, expense, Claims, demands and proceedings relating to or arising out of the occurrence or existence of the circumstances underlying that Relief Event or Relief Event (Special) other than the Relief Cost, Extension of Time, Force Majeure Costs or amounts in a Variation Order as relevant.

10.2.2 The Independent Experts and GoS Parties shall have a right to seek additional information, and propose any modifications to the Relief Order Request or the request for an Extension of Time. In the event of any disagreement between Independent Experts, the GoS Parties and the Company on the nature of the Relief Event or Relief Event (Special) and computation of Relief Costs and/or Extension of Time, the Parties shall negotiate in good faith to resolve any differences. In no circumstances shall the Extension of Time and the Relief Costs in the Certified Relief Order Request exceed the Company's request in the Relief Order Request.

- 10.2.3 Following receipt by the Independent Experts and GoS Parties of the Relief Order Request or other request for an Extension of Time along with all information as may be deemed necessary by the Independent Expert, the Independent Experts (in consultation with GoS Parties) shall issue its certification verifying the occurrence of the Relief Event or Relief Event (Special) and setting out the Relief Costs and/or Extension of Time (**Certified Relief Order Request**). The Certified Relief Order Request shall prevail over any Relief Order Request or Extension of Time. The Parties shall procure the Certified Relief Order Request shall be issued by the Independent Experts to the GoS Parties and the Company no later than thirty (30) Days from the date of receipt of the Relief Order Request or other request for Extension of Time.
- 10.2.4 The Company shall ensure the Project Works shall not be delayed pending the issuance of a Certified Relief Order Request or by the granting of an Extension of Time or payment of Relief Costs.
- 10.2.5 The Parties further agree that in case of an Extension of Time, the following additional provisions shall apply:
- (a) the Company shall otherwise be ready to progress with the aspect of the Project Works for which an Extension of Time is being sought. In the event the Company is in any event delayed in the performance of its obligations due to reasons other than the Relief Event, Variation Order or Force Majeure. The Company shall not be granted any Extension of Time to the extent of such pe-existing delays or to the extent not attributable to a Relief Event, Variation Order or Force Majeure; and
 - (b) the Company shall consult with the GoS Parties and the Independent Experts in order to determine steps (if any) which can be taken to overcome or minimize the actual or anticipated delay. The Company shall thereafter comply with all reasonable instructions that the Independent Experts shall give in order to overcome or minimize such delay.

11 CONTRACT MANAGEMENT AND REPORTING

11.1 CONTRACT MANAGEMENT BODY

- 11.1.1 Within five (5) Business Days after the Effective Date, a contract management body shall be established including representatives of the Independent Experts, the Company and the Agency which shall be responsible for monitoring, managing and evaluating the full implementation of the Project (**Contract Management Body**). Within two (2) Business Days from its creation, each of the Parties shall immediately send written notice to the other Party naming that Party's representatives on the Contract Management Body provided that each of the Parties may appoint no more than two representatives.
- 11.1.2 The Parties shall procure the Contract Management Body of the Parties shall meet once a month or more frequently if necessary, in order to discuss the progress of the Project, including the following:
- (a) the information reported in the Operation and Maintenance Report, and the Design and Construction Reports and the Environmental Reports during the Concession Period;
 - (b) any problems or issues in the implementation of the Project and solutions to the same, including preventive or remedial actions which should be taken when the agreed outputs or costs of the Project deviate from the Financial Model;
 - (c) methods for managing significant Project risks;

- (d) lessons learned from the monitoring and management of the Project and based on such lessons, the necessary adjustments that can be made in the implementation of the Project in order to improve Project outcomes; and
- (e) the Identified IWS Disconnection Plan for each Contract Year during the Ramp-Up Period (Phase 1) and the Ramp-Up Period (Phase 2);

whereupon the Contact Management Body shall report back to the Parties the results of their discussion and agreement on the issues in paragraphs (a) to and including (e) above.

11.2 **DESIGN AND CONSTRUCTION REPORTS AND OPERATION AND MAINTENANCE REPORTS**

11.2.1 During the period from:

- (a) the Required Preliminary Design Commencement Date until COD the Company shall provide the Design and Construction Reports to the Agency with a copy to the Independent Experts and the Contract Management Body;
- (b) the COD until the Termination Date the Company shall provide the Operation and Maintenance Reports to the Agency, the Independent Expert and the Contract Management Body; and
- (c) the Effective Date until the Termination Date the Company shall provide the Environmental Reports to the Agency, the Independent Experts and the Contract Management Body.

11.2.2 The Operation and Maintenance Reports and the Design and Construction Reports shall be prepared in English and shall be submitted:

- (a) in the case of the Design and Construction Reports within four (4) Business Days after the end of each calendar month during the period from the Required Preliminary Design Commencement Date until the COD;
- (b) in the case of the Operation and Maintenance Reports within two (2) Business Days after the end of each calendar month during the period from COD until the Termination Date; and
- (c) in the case of the Environmental Reports at the same time as the Design and Construction Reports and Operation and Maintenance Reports during the Concession Period.

11.2.3 The Company shall ensure the Design and Construction Reports submitted by the Company shall include (amongst other things) details of:

- (a) any delays or likely delays in progress that may mean failure to achieve a Project Milestone by the date set out in the Project Milestone Schedule; or
- (b) any delays or issues that may impact any of the timelines, intervals and procedures in respect of the Construction Programme.

11.2.4 Where:

- (a) the Design and Construction Reports shows that the Project Works or Facilities are not complying with the Design and Construction Standards, the Project Milestone Schedule or the Construction Programme;

- (b) the Operation and Maintenance Report shows that Facilities or Services are not complying with the Operating Standards, the Operating Procedures, the KPIs (Wide Scope) or not meeting other requirements of this Agreement; or
- (c) the Environmental Reports show the Facilities or Services are not complying with the Environmental Standards, the KPIs (Wide Scope) or not meeting other requirements of this Agreement;

the Company shall also separately submit:

- (i) a full explanation of the reasons for the non compliance;
- (ii) the steps that the Company has or will be taking to ensure that performance complies with the requirements set out in Section 11.2.4(a) and 11.2.4(b) ; and
- (iii) the timeframe for their implementation of the steps to ensure performance complies with Section 11.2.4(a) and 11.2.4(b) .

11.2.5 At the request of the Agency at any time, the Company shall prepare and submit supplemental reports providing additional information related to the Facilities, the Services or the Project Works.

11.3 **FINANCIAL REPORTS**

11.3.1 **FISCAL YEAR; ACCOUNTING PRINCIPLES**

The Company shall have a fiscal year consistent with the Accounting Year. The Company shall at all times comply with the Accounting Principles and maintain proper books and records in accordance with the Legal Requirements.

11.3.2 **FINANCIAL REPORTS AND PUBLIC AUDIT**

- (a) The Company shall keep accurate records of all receipts and expenses related to the operation of the Facilities and provision of the Services.
- (b) The Company shall prepare unaudited quarterly financial statements in accordance with the Accounting Principles consistently applied. The quarterly unaudited financial statements shall be duly signed by the Company's chief accountant and shall be submitted to the Agency within thirty (30) Business Days after the end of each quarter for the duration of the Operating Period.
- (c) The Company shall prepare audited annual financial statements in accordance with the Accounting Principles consistently applied. The annual financial statements shall be audited by the Auditors. Within ninety (90) Days after the end of each Accounting Year for the duration of the Operating Period (including the Accounting Year in which the Termination Date occurs), the Company shall submit to the Agency an annual report on the Company's management, operations, and finance during the preceding year, including copies of the audited financial statements with the Auditors' notes and comments.
- (d) In addition to the foregoing reports, the Company shall provide the Agency at its request and on a timely basis all financial information in respect of the Company's operations reasonably required to permit the Agency to satisfy its financial, tax, and other reporting requirements.
- (e) The Company acknowledges that the GoS Parties are subject to public audit by the Audit Authorities. For this purpose, the Company shall provide on a timely basis any information

as may be requested by the GoS Parties or Audit Authorities for purposes of such public audit.

11.4 **OTHER REPORTS**

- 11.4.1 The Company shall, at least fourteen (14) Days prior to it becoming effective, report to the Agency, the Independent Expert any:
- (a) material change in its Corporate Documents;
 - (b) change in its Accounting Year;
 - (c) change in its board of directors;
 - (d) change in its chief executive officer,
 - (e) copies of all documents filed in compliance with the requirements of the Companies Act, 2017 as amended or superseded from time to time; and
 - (f) without prejudice to the provisions of Section 19.3.1 (*Restriction on Transfer of Shares of Company*), details of the transfer of shares to any person who thereby becomes a registered holder of greater than five percent (5%) of the issued shares of the Company (including details of such shareholder), or details of a transfer of shares to or from a person or entity who, immediately prior to such transfer, held greater than five (5) percent of the issued shares of the Company;
- 11.4.2 The Company shall maintain complete and accurate records accounting for all transactions relating to any Extension of Time, Relief Costs, Variation, MRG Amounts, minutes of board meetings and shareholder meetings and other records, which records shall be subject to inspection and audit by the Agency and the Independent Experts.

11.5 **RIGHT OF AGENCY TO MONITOR**

- 11.5.1 The Agency (and the Independent Experts) shall be entitled to inspect, check, test and monitor the Project and the Facilities at any time during the Concession Period by providing a prior notice to the Company of at least three (3) Days.
- 11.5.2 The Company shall allow the Agency, the Independent Experts or its duly authorized representatives to conduct such inspection check, test and monitoring during normal business hours. The inspection, test, check and monitoring shall be conducted in the presence of a duly designated representative of the Company. All costs incurred by the Agency in exercising its inspection and monitoring rights pursuant to this Section 11.5.2 shall be borne solely by the Agency.
- 11.5.3 The Parties shall use all reasonable efforts to minimize any disruption to the delivery of the Services during an inspection check, test or monitoring.
- 11.5.4 The Company shall ensure that the Agency, the Independent Experts or duly authorized representative is given sufficient access to any part of the Facilities to carry out an inspection check, test or monitoring. For this purpose, the Company shall:
- (a) provide assistance and make available equipment or materials as may be reasonably required;
 - (b) not make any part of the Facilities inaccessible; and

(c) allow the Agency to take copies of documents requested by the Agency.

11.5.5 The Company shall promptly correct any deficiency identified by the Agency, the Independent Experts or its duly authorized agent during such inspection check, test or monitoring.

11.6 **AMENDMENTS TO FINANCING DOCUMENTS**

11.6.1 Following the Effective Date, the Company shall not execute any amendment or modification changing or affecting the repayment of Principal or Carrying Cost or other key financial terms or material modifications (including any refinancing) of the Financing Documents or enter into any loan agreement or incur any additional debt without submitting to the Agency and the Independent Auditor, no less than thirty (30) Business Days prior to execution of such amendment or modification to the Financing Documents or new Financing Documents, a schedule or term sheet setting forth the proposed revised schedule for repayment of Principal and the other key financial terms or material modifications.

11.6.2 The Agency and the Independent Auditor shall notify the Company of any objections to the term sheet or schedule related to the proposed modification to the schedule for repayment of Principal or other key financial terms or material modifications as soon as reasonably possible, and in any case within thirty (30) Days of receipt of the term sheet or schedule. At the request of the Agency and the Independent Auditor, prior to the execution of such amendments or modifications to the Financing Documents or new Financing Documents, the Company shall deliver to Agency and the Independent Auditor, in a form satisfactory to Agency, assurances, undertakings or agreements that no alteration or enhancement as a result of such refinancing or new or additional debt financing shall increase in any respect the financial obligations of the Agency hereunder or under any GoS Parties Agreements or affect in any way the right of the Agency to acquire the Facilities and the Project Land (Entire) free and clear of all Encumbrances in accordance with Section 22 (*Handover*).

11.6.3 The Company shall deliver to the Agency and the Independent Auditor, copies of all amendments to the Financing Documents within ten (10) Business Days after the execution of each such document.

11.6.4 Notwithstanding anything to the contrary, the Company shall not make any addition, replacement or amendments to any of the Financing Documents without the prior written consent of the Agency and the Independent Auditor if such addition, replacement or amendment has, or may have, the effect of imposing or increasing any financial liability or obligation on the Agency (as certified by the Independent Auditor), and in the event that any replacement or amendment is made without such consent, the Company shall not enforce such replacement or amendment nor permit enforcement thereof against the Agency.

12 **INSURANCE**

12.1 **COMPANY REQUIRED INSURANCE POLICIES**

12.1.1 The Company at its cost shall obtain and maintain and cause its Company Engaged Persons to obtain, at a minimum, the Insurance Policies.

12.1.2 The Insurance Policies shall be issued by reputable and financially sound insurers or reinsurers duly licensed by the Securities and Exchange Commission of Pakistan and reasonably acceptable to the Agency. All Insurance Policies shall have the endorsements and satisfy the other requirements and other terms set out in Schedule 0 (*Insurance*). The Company shall not be required to obtain any Insurance Policy for an Uninsurable Risk, provided that for the avoidance of doubt the GoS Parties shall not assume any liability for and the GoS Parties shall not be required

to compensate the Company for Losses arising in respect of any Uninsurable Risk except to the extent that the Company's Losses are compensated under Sections 10 and 7.2.

12.2 INSURANCE CERTIFICATES

The Company shall provide the Agency with certified copies of the Insurance Policies required to be obtained in accordance with this Agreement within ten (10) Days after the date such Insurance Policies are obtained or renewed and in any event by the date required under Section 3.1.10 (*Insurance: Company Condition Precedent*).

12.3 FAILURE TO SECURE AND MAINTAIN REQUIRED INSURANCE

If the Company fails to obtain or maintain any Insurance Policy or endorsement or satisfy the other requirements required by this Agreement, the Agency shall have the right but not the obligation to procure such Insurance Policy or endorsement at the Company's expense. If the Company fails to reimburse the Agency within seven (7) Days after being notified of the Agency's payment of any insurance premium for an Insurance Policy, the Agency may encash the Construction Security or Operating Security for the amount of the insurance premium and other costs. If the Construction Security or Operating Security is insufficient, the Agency shall deduct the insurance premium and other costs from any amount due and payable by the Agency to the Company under this Agreement and make a Claim against the Company for any amounts outstanding.

12.4 APPLICATION OF INSURANCE PROCEEDS

12.4.1 The Company shall notify the Agency in relation to any and all insurance proceeds received by it in respect to any Insurance Policies (**Loss Proceeds**) and shall ensure the Loss Proceeds are applied in accordance with this Section 12.4 (*Application of Insurance Proceeds*).

12.4.2 Subject to Section 12.4.4, the Company shall apply all Loss Proceeds:

- (a) in the case of comprehensive or public liability insurance or workers' compensation insurance, in satisfaction of the Claim, demand, proceeding, Losses or liability in respect of which such Loss Proceeds are payable; and
- (b) in the case of any other insurance, so as to ensure the performance by the Company of its obligations under this Agreement, including where necessary the use of the Loss Proceeds for the reinstatement, restoration or replacement (**Repair**) of the Facilities.

12.4.3 If the Loss Proceeds are insufficient to cover the amounts payable, Losses or Claims under Section 12.4.2(a) or to Repair the Facilities, the Company shall be responsible for paying any shortfall so as to cover amounts payable, Losses, or Claims under Section 12.4.2(a) or to Repair the Facilities under Section 12.4.2(b).

12.4.4 The Agency may, at its option, elect to require the Company not to apply the Loss Proceeds towards the Repair of the Facilities under Section 12.4.2(b). If the Agency elect to require the Company not to apply the Loss Proceeds towards the Repair of the Facilities in accordance with this Section 12.4.4, the Agency shall notify this election to the Company in writing promptly whereupon this Agreement shall terminate and the provisions of Section 21.2 (*Termination for GoS Parties Event of Default*) shall apply and the Agency shall be required to pay the relevant Termination Payment to the Company in accordance with Schedule 9 (*Termination Payment*).

13 REPRESENTATIONS AND WARRANTIES

Each of the GoS Parties represents and warrants to the Company and the Company represents and warrants to each of the GoS Parties as at the dates set out in Section 13.7 (*Relevant Dates for the*

Representations and Warranties) each of the representations and warranties in Section 13.1 (*Corporate Existence and Authority*) to and including 13.6 (*Due Authorization & Non-Contravention of Other Agreements*).

13.1 **CORPORATE EXISTENCE AND AUTHORITY**

It is:

- (a) a corporation (in the case of the Company); and
- (b) a statutory body corporate (in the case of each of the GoS Parties);

duly organized and validly existing under the laws of Pakistan and it has all requisite legal power and authority to conduct its business, and to execute, deliver, perform and implement this Agreement.

13.2 **GOVERNMENT CONSENTS AND APPROVALS**

The Consents and any internal approvals and authorisations required to be obtained by the GoS Parties and by the Company (as the case may be) to authorize the execution, delivery, and performance of this Agreement have been obtained and are in full force and effect.

13.3 **NON-CONTRAVENTION OF LEGAL REQUIREMENTS**

It has no knowledge of any violation or breach of any Legal Requirement which may result in any Material Adverse Effect.

13.4 **VALIDITY AND ENFORCEABILITY OF AGREEMENT**

This Agreement constitutes legal, valid, and binding obligations, upon the Party enforceable in accordance with its terms, except to the extent that its enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, liquidation or other similar laws affecting creditors' rights generally.

The Party is subject to the Applicable Laws, and hereby expressly and irrevocably waives any immunity in any jurisdiction in respect of this Agreement and/or matters arising hereunder including any obligation, liability or responsibility hereunder.

It has complied with Applicable Laws in all material respects and has not been subject to any fines, Claims, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have a Material Adverse Effect.

13.5 **NO ADVERSE LITIGATION**

In the case of the Company only, there is no litigation, arbitration, investigation or proceeding pending, or to its best knowledge, threatened, against or affecting the Company or the Company Engaged Persons that:

- (a) could reasonably be expected to have a Material Adverse Effect;
- (b) may affect the legality, validity, or enforceability of this Agreement; or
- (c) may otherwise result in a breach of this Agreement.

13.6 **DUE AUTHORIZATION & NON-CONTRAVENTION OF OTHER AGREEMENTS**

In the case of the Company only, the execution, delivery, and performance of this Agreement has been duly authorized by all requisite corporate action, and will not:

- (a) require any further consent or approval of its board of directors, shareholders, or any other third party, other than those that have been obtained;
- (b) violate its Corporate Documents, charter or incorporation documents, or other agreement or instrument to which it is a party or by which it or its property may be bound, or violate any law, judgment, order, writ, injunction, determination, or award presently in effect and applicable to it; or
- (c) breach any Legal Requirements.

13.7 **RELEVANT DATES FOR THE REPRESENTATIONS AND WARRANTIES**

The representations in Section 13.1 (*Corporate Existence and Authority*) to and including Section 13.6 (*Due Authorization and Non-contravention of other Agreements*) are true, correct and accurate:

- (a) in respect of GoS Parties as at the Effective Date; and
- (b) in respect of the Company as at the Signature Date, the Effective Date, COD and as at 30 June during each Contract Year during the Concession Period.

13.8 **COMPANY REPRESENTATIONS AND WARRANTIES**

- (a) In addition to the Company's other representations and warranties under Sections 13.1 (*Corporate Existence and Authority*) to and including 13.6 (*Due Authorization and Non-contravention of other Agreements*), the Company represents and warrants to each of the GoS Parties that as of the Signature Date, the Effective Date, COD and as at 30 June in each Contract Year during the Concession Period:
 - (i) it has the financial standing and capability to undertake and implement the Project in accordance with this Agreement;
 - (ii) the:
 - a. Company is not in breach of or has defaulted on any payment obligations in respect of any financial indebtedness (including the Financial Indebtedness); and
 - b. Company Engaged Persons are not in breach of or have defaulted on any payment obligations in respect of any financial indebtedness which may have a Material Adverse Effect;
 - (iii) no information in any document furnished by the Company to the GoS Parties or to any Government Authority in relation to the Company Consents, the Request for Proposal or the Company's Bid contains any untrue or misleading statement;
 - (iv) in respect of the Signature Date only, the Company has the ability to achieve Financial Close on or before the Required Effective Date;
 - (v) each of the Company and the Company Engaged Persons have complied with Legal Requirements and the Request For Proposal (to the extent the same are applicable to the Company and the Company Engaged Persons) in the preparation, finalization, delivery and submission of its Bid for the award of the Project and the Project to the

Company and have undertaken all acts and deeds (to the extent the same are applicable to the Company and the Company Engaged Persons) necessary for award of the Project to the Company in terms of the Request For Proposal and the Legal Requirements;

- (vi) in respect of the Shareholders:
 - a. none of the Shareholders is an Adverse Person;
 - b. the Shareholders are the entities notified to the Agency and those Shareholders notified to Agency are the registered, legal and beneficial owners of the shares of the Company as notified to Agency; and
 - c. there are no Encumbrances, options, warrants, rights, calls, commitments, conversion rights, rights of exchange, plans, or other agreements of any character providing for the purchase, issuance, or sale of any shares of the paid up capital in, or the voting of, the Company, other than as created under the Financing Documents.
- (b) In respect of the Signature Date, the Effective Date, the COD and each 30 June in each Contract Year during the Lock-in Period, except as otherwise provided in Section 19.3.1 (*Restriction on Transfer of Shares of Company*), the Company undertakes, represents and warrants:
 - a. the direct and indirect ownership of the shares of the Company held by each of the Shareholders is as set out in Schedule 6 (*Shareholders Details and Details of Holder of Equity (GoS)*);
 - b. each Shareholder is the registered, legal, and beneficial owner of the number of shares in the Company set out opposite that Shareholders name in Schedule 6 (*Shareholders Details and Details of Holder of Equity (GoS)*);
 - c. all shares shall, when issued, have been authorized, allotted, and called-up and validly issued and registered by the Company and fully paid; and
 - d. there are no Encumbrances, options, warrants, rights, calls, commitments, conversion rights, rights of exchange, plans, or other agreements of any character providing for the purchase, issuance, or sale of any shares of the paid up capital in, or the voting of, the Company, other than as created under the Financing Documents;
- (c) In respect of the Signature Date, the Effective Date, COD and each 30 June in each Contract Year during the Lock-in Period (Key Parties):
 - (i) the Lead Member owns 51% or more of the shares (excluding Equity (GoS)) of the Company; and
 - (ii) there has been no Change of Ownership of the Financial Nominee (if any);
- (d) In the event that any occurrence or circumstance comes to the attention of either Party that renders any of its representations or warranties untrue or incorrect as at the relevant date, such Party shall immediately Notify the other Party.

14 COVENANTS AND UNDERTAKINGS

14.1 CONDUCT OF COMPANY

The Company undertakes to the Agency that during the Concession Period the Company shall:

- (a) obtain and maintain all Consents (including the Company Consents) required by the Company and Company Engaged Persons (in the case of Company Consents by the date set out for obtaining such Company Consents in Schedule 13 (*Company Consents*)) (and in the case of Section 2.6 the date required under Section 2.6) for the design, building, engineering, procurement, testing, commissioning, financing, operating, maintaining, owning and transferring of the Facilities and provision of the Services, and including any renewals of the same in conformity with the Legal Requirements, and deliver copies of such Consents to the Agency and the Independent Expert from time to time;
- (b) make its own arrangements for materials (including construction materials), parts, components, supplies, tools, machinery etc. for performance of the Project Works provided that the proposed manufacturers and suppliers for equipment and technology are the manufacturers and suppliers set out in the Bid (unless approved otherwise by the Independent Experts);
- (c) be responsible for strict compliance with the relevant Legal Requirements notwithstanding the appointment and/or engagement by the Company of the Company Engaged Persons to implement the Project (or any part thereof) and performance of Project Works (or any part thereof);
- (d) afford access to the Project Land (Entire) to the authorized representatives of the Agency, the Independent Experts and any Government Authority having jurisdiction over the Project, including those concerned with safety, security or environmental protection to inspect the Project Works and the Facilities and, upon reasonable notice, to investigate any matter within their authority, and provide to such persons assistance reasonably required to carry out their respective duties and functions;
- (e) maintain its corporate existence and its rights to carry on the operation of its business;
- (f) provide all necessary assistance to the Agency's authorized representative, as the Agency's authorized representative may reasonably require for the performance of its duties and services;
- (g) make all payments to the GoS Parties of the amounts due and payable by the Company in accordance with the terms of this Agreement and the GoS Parties Agreements;
- (h) ensure that no damage is caused to any property belonging to Agency and/or other third parties in the execution of the Project Works;
- (i) coordinate and manage all the Project Works and each of the EPC Contractors and be responsible for the coordination and general management of the Project Works;
- (j) provide to the Agency, the Independent Auditor and the Independent Engineer all such information relating to the Project Works and the execution and completion of the same as is reasonably requested by the Agency, the Independent Auditor and the Independent Engineer from time to time;
- (k) Notify the Agency, the Independent Engineer and/or the Independent Auditor (as applicable) without undue delay upon becoming aware of any changes in the information provided and/or to be provided to the same by the Company pursuant to the Design and Construction Standards;

- (l) ensure that the Project Agreements entered into by the Company shall not be inconsistent with the terms and conditions of the GoS Parties Agreements;
- (m) undertake and perform from time to time, all such acts, deeds and things as may be necessary or required before commencement of Project Works (or any part thereof) for the performance of the Project Works under and in accordance with the Design and Construction Standards;
- (n) exercise control over its Company Engaged Persons and require them to comply with this Agreement, all Legal Requirements, and all applicable policies of the Company. The Company shall also require its Company Engaged Persons to conform to the highest standards of professionalism and ethical conduct. To the extent permitted by the Legal Requirements, the Company shall dismiss or discipline any of its Company Engaged Persons who do not conform to such standards and shall take immediate action at its own expense to correct any violations of such standards;
- (o) ensure that all Offtake Agreements:
 - (i) include a clause providing that the Offtakers shall be restricted from directly or indirectly purchasing water from any Identified IWS or any IWS to the extent the Offtakers are supplied with Recycled Water or the Company has the capacity to supply the Offtaker with Recycled Water;
 - (ii) include a clause providing that the Offtaker undertakes to disconnect or cap any Identified IWS noted in an Identified IWS Disconnection Plan or disconnect or cap any IWS upon notice from the Company;
 - (iii) include a clause providing that the Offtake Agreements may be novated to the Handover Entity or terminated by Agency at the election of the Agency upon the Termination Date;
 - (iv) include a clause providing that the Offtake Agreements continue to be valid and enforceable notwithstanding any transfer of the Facilities to the Handover Entity following from any handover following the Termination Date (unless the Company notifies the Offtaker that the Offtake Agreement is terminated);
 - (v) are consistent with the SITE Agreement and comply with this Agreement;
 - (vi) comply with all Legal Requirements; and
 - (vii) provide for the adjustment of the Water Tariff to the Revised Water Tariff in accordance with this Agreement.
- (p) ensure that at all times from the Effective Date until the COD, it has adequate funding, in the form of contributed and unconditional commitments of Equity and commitments of debt under the Financing Documents, for the design, engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities to achieve COD by the Required COD; and
- (q) ensure that the Shareholders have the financial standing and resources to comply with their obligations under the Equity Funding and Utilisation Agreement and this Agreement during the Concession Period.
- (r) to pay the ADB Advisory Fee as follows:
 - (i) the first instalment of the ADB Advisory Fee, being USD1,200,000 shall be payable

in accordance with an invoice from ADB immediately following the Signature Date;
and

- (ii) the second instalment of the ADB Advisory Fee, being USD400,000 shall be payable on the earlier of the Effective Date and fifteen months from the Signature Date.
- (s) (i) to implement the Resettlement and Livelihood Restoration Plan; and (ii) submit environmental and social monitoring reports confirming compliance with the Legal Requirements, identifying any non-compliance or failure, and the actions being taken to remedy it; and (iii) facilitate carrying out of any monitoring/verification activities by or on behalf of Asian Development Bank;
- (t) to ensure that each Contract Year after the end of the Ramp-Up Period (Phase 2) the Company shall treat and supply the Recycled Water Target Volume to the Offtakers except where any shortfall in supply of Recycled Waters is caused by:
 - (i) a failure by Agency to comply with Section 7.1.3(c); or
 - (ii) a GoS Parties Risk Event.
- (u) ensure that the Company achieves the KPIs (Wide Scope).

14.2 **NO OTHER BUSINESS**

The Company shall not:

- (a) engage in any business activity except those which are reasonably required to implement this Agreement;
- (b) enter into any merger, consolidation, or amalgamation with any entity or person; or
- (c) dispose of any material assets except as may be required by the Lenders to enforce any Encumbrance permitted to be granted by the Company to such Lenders pursuant to Section 19.2 (*Permitted Assignment to Lenders*) of this Agreement and the Financing Documents.

14.3 **COVENANTS AGAINST CORRUPTION**

- (a) The Company shall ensure that the Company and its Company Engaged Persons, will not engage in any Prohibited Act, and shall immediately notify the Agency of any violation of this undertaking and shall indemnify and hold the GoS Parties harmless for all Losses arising out of such Prohibited Act;
- (b) The Company represents and warrants as at the Signature Date, the Effective Date, COD, and 30 June each Contract Year and undertakes at all other times that the Company and the Company Engaged Persons directly or indirectly:
 - (i) has not given, made, offered, or received (or agreed to give, make, offer or receive), any payment, gift, benefit or advantage as an inducement or reward in connection with the Project, the Bid or the GoS Parties Agreements which would violate any Legal Requirements and/or Anti-Corruption Laws;
 - (ii) has not exercised any unlawful influence in breach of Applicable Laws over any Government Authority in connection with the Project, the Bid or the GoS Parties Agreements; and
 - (iii) has not engaged in any Prohibited Act.

- (c) With respect to any of the matters which are the subject of this Agreement or in connection with this Agreement and any matters resulting from it, the Company undertakes that it and the Company Engaged Persons will not:
 - (i) request any action, inaction or services that would violate any Legal Requirements and/or any Anti-Corruption Laws; or
 - (ii) receive, agree or attempt to receive the benefits of or profits from a crime or any Prohibited Act or agree to assist any person to retain the benefits of or profits from a crime or any Prohibited Act.
- (d) The Company undertakes that:
 - (i) if it has actual or constructive knowledge, disclose the name of the person/s and the amount paid, of any commission, favor, benefit or consideration given to or on behalf of any Public Official; and
 - (ii) disclose any information on complaints, investigations, formal inquiries, prosecution or other enforcement actions initiated or conducted against the Company or Company Engaged Persons, or its officers, officials, agents, employees or representatives, relating to corruption, bribery, money laundering, racketeering, obstruction of justice or other legal or a prohibited act, ethical violation.
- (e) The Company shall not subcontract any portion or portions of its obligations under this Agreement to any Public Official or to any relatives of any Public Official directly or indirectly involved in the award of the Agreement, the implementation of the Project or the Services; and
- (f) The Company shall be prohibited from engaging in relation to the Project any legal, financial, technical or other advisers that have been engaged by the GoS Parties in relation to the Project or any employee of the GoS Parties, save where such engagement or employment has ended or been terminated for a period of not less than one year.

14.4 **TRANSACTIONS WITH AFFILIATES OF COMPANY**

Any contract or other transaction or a series of contracts or transactions entered into by the Company with any of its Affiliates in connection with the Project, whether for the purchase of goods or services or otherwise, shall:

- (a) be entered into on an arm's length basis and on commercial terms that would reasonably be expected to apply in the open market between contracting parties that are not Affiliates; and
- (b) not exceed in aggregate PKR 15,000,000 (Pakistani Rupees fifteen million only) in any Contract Year.

14.5 **THE EPC CONTRACTOR & THE O&M CONTRACTOR**

14.5.1 The Company undertakes that it shall:

- (a) ensure that the EPC Contracts and the O&M Agreement are entered into on an arm's length basis and on commercially viable terms acceptable to Agency; and
- (b) ensure the EPC Contracts include clauses providing that in respect of the works for the Distribution Network (Other Zones) there is:

- (i) provision for a hydrostatic test at the end of the defects liability period in respect of the Distribution Network (Other Zones);
 - (ii) provision for the Company to terminate (if instructed by Agency) the EPC Contract to the extent it relates to the Distribution Network (Other Zones) upon issue of the Distribution Network (Other Zones) Stop Notice by Agency; and
 - (iii) provision for a defect liability period of at least twelve (12) months that is supported by adequate security provided by the EPC Contractor.
- (c) ensure that the Facilities are designed, built and commissioned in accordance with the Design and Technical Specifications and this Agreement;
 - (d) ensure that the EPC Contractors and the O&M Contractor perform their respective obligations in the same manner that the Company is required to perform its obligations under this Agreement; and
 - (e) ensure the EPC Contracts and O&M Agreement provide for such contracts to be, at the option of the GoS Parties to be novated or assigned to the GoS Parties or their nominee without any further consent or approval from the Company or the EPC Contractor or O&M Contractor or entitle the GoS Parties or their nominee to step into such contract, in substitution of the Company, if this Agreement is terminated prior to the Final Expiry Date, provided that the step-in rights of the GoS Parties shall be subject to any substitution rights of the Lenders.

14.5.2 The Company shall at all times comply and shall procure that the Company Engaged Persons comply with the Environmental Standards.

14.5.3 Except as may be calculated within the Termination Payment, the GoS Parties shall not be liable for Losses or Claims of any nature resulting from the EPC Contracts and the O&M Agreement entered into by the Company as a result of the expiry of the Concession Period or termination of this Agreement or for any other reason.

14.5.4 Any substitution and/or replacement of an EPC Contractor or the O&M Contractor of the Project may be rejected by the Agency in the event that the appointment of the EPC Contractor or the O&M Contractor may involve or impact national security interests, whereupon the Agency shall notify the Company that the substitution and/or replacement of the EPC Contractor or O&M Contractor has been rejected.

14.5.5 Without affecting Agency's right to approve or reject the substitution or replacement of an EPC Contractor and O&M Contractor under Section 14.5.4, the Independent Engineer (in respect of technical matters) and the Independent Auditor (in respect of financial matters) shall in the event of any substitution of an EPC Contractor and/or the O&M Contractor, certify that such EPC Contract and/or O&M Contractor meets the requirements of Section 14.5.5(a), (b) and (c). The Parties shall procure that the Independent Experts shall set out (in the reasonable opinion of the Independent Engineer (in respect of technical matters) and the Independent Auditor (in respect of financial matters) their assessment as to whether:

- (a) such EPC Contractor is technically and financially capable of performing its part of the Project Works and completing them so as to achieve COD by the Required COD;
- (b) such O&M Contractor is technically and financially capable to perform the operations and maintenance of the Facilities (or any part thereof); or

- (c) such EPC Contractor and/or the O&M Contractor is/are, at least, technically, financially and otherwise capable in terms of the criteria provided in the Request for Proposal.

and if the Independent Auditor and Independent Engineer consider that the requirements of Section 14.5.5(a), (b) and (c) are complied with then the substitution of such EPC Contractor and/or O&M Contractor shall be considered approved.

- 14.5.6 The execution of an EPC Contract(s) and/or the O&M Agreement, or any material amendment thereof shall be subject to the prior approval of the Agency. The Company shall deliver to Agency and the Independent Experts copies of a proposed EPC Contract(s) and O&M Agreement (with a copy to the Agency), or any amendment thereof. The Agency shall, within forty five (45) Days of the delivery of a proposed EPC Contract(s) and O&M Agreement and/or any amendments thereof by the Company, grant its approval or disapproval of the same, in consultation with the Independent Experts). In the event there is no response or objections to a proposed EPC Contract(s) by the Agency within forty five (45) Days of the delivery of the same by the Company, the Agency shall be deemed not to have objected. For the avoidance of doubt there shall be no deemed approval of the O&M Agreement.
- 14.5.7 The Company shall deliver certified (as being true and correct) copies of each executed EPC Contract and O&M Agreement, together with all amendments thereto, to the Agency, the Independent Experts within seven (7) Days of execution of the same and in any event before the date set out in Section 2.5.3.

14.6 **COMPANY ENGAGED PERSONS**

- 14.6.1 The Company shall, commencing from the Effective Date, have requisite organization and designate and appoint suitable Company Engaged Persons as it may deem appropriate to implement and supervise the Project, perform the Services to deal with the Independent Engineer/Independent Auditor/the Agency and to be responsible for all necessary exchange of information required pursuant to the Design and Construction Standards.
- 14.6.2 The Company shall ensure that the Company Engaged Persons are experienced and qualified for the purposes of Project implementation and performance of the Project Works and provision of the Services are at all times properly trained for their respective functions and that a sufficient number of Company Engaged Persons with the necessary qualifications and experience are on site as necessary to provide the Services in accordance with the Operating Standards.
- 14.6.3 The Company shall be fully and solely responsible for:
 - (a) observance by all the Company Engaged Persons of all the provisions and requirements of this Agreement; and
 - (b) the acts, omissions, failure to perform, breaches or defaults of the Company Engaged Persons of this Agreement as fully as if they were the acts, omissions, failures, breaches or defaults of the Company of this Agreement.
- 14.6.4 The Company shall be responsible for strict compliance with the Design and Construction Standards and the Operating Standards and this Agreement notwithstanding the appointment and/or engagement by it of the Company Engaged Persons to complete the Project Works, implement the Project (or any part thereof) and performance of Services and any engagement by the Company of any of the Company Engaged Persons shall not release or discharge the Company of any of its liabilities, responsibilities or obligations under the Design and Construction Standards or this Agreement.

- 14.6.5 Upon the Signing Date, the GoS Parties shall be released or discharged from any liabilities, duties and obligations of any description, whether deriving from contract, common law, statute or otherwise, whether present or future, actual or contingent, ascertained or unascertained or disputed, owing to the Company and arising out of or in respect of the Agreement, including such liabilities, duties or obligations that arose prior to the Signing Date.
- 14.6.6 Employment of any foreign Company Engaged Persons shall be subject to grant of requisite regulatory permits and approvals including employment/residential visas and work permits, if any required, and the obligation to apply for and obtain the same shall be the sole responsibility of the Company and, notwithstanding anything to the contrary contained in this Agreement or otherwise, refusal of or inability to obtain any such permits and approvals by the Company or an EPC Contractor and/O&M Contractor shall not constitute Force Majeure Event, Lapse of Consent or a GoS Parties Risk Event, and shall not in any manner excuse the Company from the performance and discharge of its obligations and liabilities under the Design and Construction Standards and this Agreement. The Company shall use reasonable efforts to promote local contractors and to employ and engage, to the extent practicable local employees and contractors.
- 14.6.7 The Company undertakes that it shall itself and any of its Company Engaged Persons shall be available to attend any meetings with the Agency, the Independent Engineer and/or the Independent Auditor at all reasonable times, as required and Notified by the Agency, the Independent Engineer and/or the Independent Auditor (as applicable) to the Company. All costs for attending such meetings by (including those relating to preparation and attendance in such meetings by the Company Engaged Persons) shall be on the Company's account.

14.7 ADJOINING PROJECTS

- 14.7.1 The Company acknowledges being informed by the Agency, that the Agency may continue to develop the Adjoining Projects at any time during the Concession Period. If the Agency make a decision to proceed with the Adjoining Projects the Agency shall notify the Company and the Parties shall meet to discuss the development of the Adjoining Projects to the extent the Agency are permitted to do so under Applicable Laws with the aim of minimizing the impact of the Adjoining Projects upon the Project.
- 14.7.2 The Parties acknowledge that detailed studies have not been completed for the structure, feasibility, award, financing, design and delivery of the Adjoining Projects. Notwithstanding this, the Company undertakes and agrees that it shall:
- (a) make reasonable amendments to any GoS Parties Agreements as may be necessary to facilitate the feasibility, bankability, financing, delivery and award of the Adjoining Projects; and
 - (b) provide information as to the Project as may reasonably be necessary to facilitate the award, financing, feasibility, implementation and bankability of the Adjoining Projects.

15 FORCE MAJEURE

15.1 FORCE MAJEURE EVENTS

A **Force Majeure Event** means any event or circumstance or combination of events or circumstances (including the effects thereof) that is beyond the reasonable control of a Party and that on or after the Effective Date materially and adversely affects the performance by such affected Party (the **Affected Party**) of its obligations under or pursuant to this Agreement; provided, however, that, such material and adverse effect could not have been prevented, overcome or remedied in whole or in part by the Affected Party through the exercise of diligence and reasonable care, it being understood and agreed that reasonable care includes any activities

to protect the Facilities from a casualty or other event that are reasonable in light of the probability of the occurrence of such event, the probable effect of such event if it should occur, and the likely efficacy of the protection measures. Without limiting the generality of the foregoing, **Force Majeure Events** hereunder shall include each of the following events and circumstances (including the effects thereof), but only to the extent that each satisfies the requirements above:

- (a) the following events that occur inside or directly involve Pakistan (each a **Force Majeure (Political Event)**):
 - (i) any act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, insurrection, or act or campaign of terrorism or political sabotage; or
 - (ii) any Lapse of Consent (providing that a report of the Lapse of Consent shall have been given to the Agency and the Independent Experts) and the Lapse of Consent shall have existed for ninety (90) consecutive Days or more; or
 - (iii) any strike, work-to-rule, go-slow, or analogous labour action that is politically motivated or nationwide and that (or its effects) shall have existed for thirty (30) consecutive Days or more.

- (b) the following events beyond the reasonable control of the Affected Party (each a **Force Majeure (Non-Political)**), including, but not limited to:
 - (i) lightning, fire, earthquake, tsunami, flood, storm, cyclone, typhoon, or tornado, which has, in each case, affected the work or operations for more than fifteen (15) consecutive Days; or
 - (ii) any Lapse of Consent (providing that a report of the Lapse of Consent has been given to the Agency and the Independent Experts) and that shall have existed for less than ninety (90) consecutive Days; or
 - (iii) any strike, work-to-rule, go-slow, or analogous labour action that is not politically motivated or is not nationwide and that shall have existed for thirty (30) consecutive Days or more; or
 - (iv) explosion, chemical contamination, radioactive contamination or ionizing radiation; or
 - (v) epidemic or pandemic including an epidemic or pandemic that is characterised by the World Health Organisation as an epidemic or pandemic.

- (c) Force Majeure Events shall expressly not include the following conditions, events or circumstances:
 - (i) late delivery or interruption in the delivery of machinery, equipment materials, spare parts or consumables;
 - (ii) a delay in the performance of a Company Engaged Person;
 - (iii) a breakdown in machinery and/or equipment;
 - (iv) normal wear and tear or random flaws in materials and equipment;
 - (v) a delay caused by rains and monsoons;

- (vi) inability to obtain access to or a disruption in a supply of energy;
- (vii) failure to make a payment of money in accordance with the Party's obligations under this Agreement;
- (viii) any failure by the Company or its Company Engaged Persons to obtain or maintain any Consent due to negligence or default by the Company or such Company Engaged Persons;
- (ix) any failure to research, consider, plan for or take into account reasonably foreseeable ground and weather conditions at the Project Land (Entire);
- (x) any failure by a contractor which results in the failure or inability of the Company to perform its obligations under this Agreement where the cause of such failure by the contractor would not otherwise constitute a Force Majeure Event pursuant to this Agreement;
- (xi) late performance by the Company or any Company Engaged Person caused by the failure of the Company or such Company Engaged Person to engage qualified subcontractors and suppliers or to hire an adequate number of personnel or labour;
- (xii) late delivery of equipment, machinery, plant or materials;
- (xiii) inability to obtain or maintain adequate funding for the Project;
- (xiv) submission of documents and/or drawings for approval by Agency at a time which does not leave sufficient time for review by Agency; and
- (xv) an epidemic or pandemic that is not characterised as an epidemic or pandemic by the World Health Organisation;

provided, that each of the events described in Section 15.1(c)(i), (ii), (iii) or (vi) shall constitute a Force Majeure Event to the extent that such events or circumstances are caused by an event or circumstance that is in itself a Force Majeure Event whether experienced directly by the Company or by one of its Company Engaged Persons.

15.2 **OBLIGATION TO NOTIFY**

- (a) Notwithstanding anything contained herein, the Affected Party shall, as soon as practicable, and in any case within seven (7) Days of the date of occurrence of a Force Majeure Event or from the date of having knowledge thereof, notify the Independent Experts and the other Party, of the occurrence of the Force Majeure Event by the issuance of a notice in writing (the **Force Majeure Notice**).
- (b) The Affected Party shall provide all relevant details in respect of the Force Majeure Event in the Force Majeure Notice, including the following:
 - (i) the nature and extent of the Force Majeure Event;
 - (ii) the estimated Force Majeure Period;
 - (iii) the nature of and the extent to which, performance of any of the Affected Party's obligations under this Agreement are affected by the Force Majeure Event;

- (iv) the measures which the Affected Party has taken or proposes to undertake to alleviate/mitigate the impact of the Force Majeure Event and to resume performance of such of its obligations that are affected by the Force Majeure Event; and
 - (v) any other relevant information concerning the Force Majeure Event, and /or the rights and obligations of the Parties under this Agreement.
- (c) The Parties shall, as soon as practicable upon the receipt of the Force Majeure Notice and in any case within five (5) Days from the date of receipt of the same, convene a meeting, along with the Independent Experts for the purpose of conducting discussions, in good faith, and where necessary the Parties shall agree to conduct inspections and / or surveys of the Project in order to:
- (i) assess the impact of the underlying Force Majeure Event; and
 - (ii) to determine the likely duration of the Force Majeure Period;
- to formulate damage mitigation measures and the steps to be undertaken by the Parties for resumption of the obligations, the performance of which had been affected by the Force Majeure Event.
- (d) The Affected Party shall during the Force Majeure Period provide to the other Party with regular (not less than weekly) reports in respect of the matters set out in Section 15.2(b) and such other information, details and / or documents that the other Party may reasonably require.

15.3 **CONSEQUENCE OF FORCE MAJEURE EVENT**

Upon occurrence of a Force Majeure Event, provided the Affected Party has complied with this Section 15 (*Force Majeure*), then the following shall apply:

- (a) there shall be no termination of this Agreement except in accordance with the provisions of Section 15.5 (*Termination Notice for Force Majeure Event*), Section 15.6 (*Termination Payment for Force Majeure Event*) and Section 21 (*Contract Termination*);
- (b) if the Force Majeure Event occurs after the Effective Date but prior to COD and delays the Project Works such that a Project Milestone cannot be achieved by the relevant date in the Project Milestone Schedule the Parties in conjunction with the Independent Experts shall consult concerning the effect of the Force Majeure Event upon the Project Milestones and in accordance with the requirements of Section 10.2 (*Basic Requirements for Relief Costs and Extension of Time*) agree an equitable Extension of Time to take account of the effect and ability of the Company and the EPC Contractor to reschedule the Project Works to avoid or minimise delays resulting from the Force Majeure Event and if the Parties are unable to agree upon the Extension of Time then the Independent Experts shall determine the Extension of Time and the Independent Experts determination shall be final and binding on the Parties in the absence of fraud or manifest error; and
- (c) so long as the Affected Party has complied with Section 15.2 (*Obligation to Notify*), then:
 - (i) the Affected Party shall not be liable for any failure or delay in performing its obligations (other than an obligation to make a payment) under this Agreement during such Force Majeure Period; and
 - (ii) any deadline for performance of any obligation of such Party under this Agreement shall be extended provided that such Party shall have no entitlement to any relief under this Section 15.3 (*Consequence of Force Majeure Event*) to the extent that

such failure or delay would have nevertheless been experienced by it had such Force Majeure Event not occurred.

15.4 **ALLOCATION OF COSTS ARISING OUT OF FORCE MAJEURE**

- (a) Upon occurrence of a:
 - (i) Force Majeure (Non-Political), the GoS Parties shall not pay any Force Majeure Costs to the Company; and
 - (ii) Force Majeure (Political Event), the GoS shall pay the Force Majeure Costs to the Company.
- (b) Save for and except as expressly provided in this Section 15.4 (*Allocation of Costs Arising out of Force Majeure*) and, if applicable, Section 15.5 (*Termination Notice for Force Majeure Event*), Section 15.6 (*Termination Payment For Force Majeure Event*), GoS Parties shall not be liable in any manner whatsoever to the Company in respect of any Losses, damage, cost, expense, Claims, demands and proceedings other than set out in this Section 15.4 (*Allocation of Costs Arising Out of Force Majeure*).

15.5 **TERMINATION NOTICE FOR FORCE MAJEURE EVENT**

- (a) If:
 - (i) a Force Majeure Event (Political Event) subsists for a continuous period of one hundred and twenty (120) Days, the Company may in its discretion terminate this Agreement by issuing a Termination Notice to Agency;
 - (ii) in case of a Force Majeure (Political Event), the GoS Parties determine at any time that the Force Majeure Costs relating to the same are unacceptable then the GoS Parties may in its discretion Terminate this Agreement by issuing a Termination Notice to the Company; or
 - (iii) in case of a Force Majeure (Non-Political) that subsists for one hundred and twenty (120) Days the GoS Parties may in their discretion terminate this Agreement by issuing a Termination Notice to the Company.

in each case above, without being liable in any manner whatsoever, save as provided in this Section 15.5 (*Termination Notice for Force Majeure*) and Section 15.6 (*Termination Payment for Force Majeure Event*), and upon issue of such Termination Notice, this Agreement shall, notwithstanding anything to the contrary contained herein, be immediately terminated.

15.6 **TERMINATION PAYMENT FOR FORCE MAJEURE EVENT**

In the event of a termination of this Agreement in accordance with Section 15.5, then the GoS shall make a Termination Payment to the Company on or prior to the Termination Payment Date in accordance with Schedule 9 (*Termination Payment*).

15.7 **FORCE MAJEURE DISPUTE RESOLUTION**

In the event that the Parties are unable to agree in good faith about the occurrence or existence of a Force Majeure Event, such Dispute shall be finally settled in accordance with the dispute resolution procedure set out in Section 20 (*Dispute Resolution*), provided, that the burden of proof as to the occurrence or existence of such Force Majeure Event shall be upon the Party claiming relief and/or excuse on account of such Force Majeure Event.

15.8 EXCUSE FROM PERFORMANCE OF OBLIGATIONS

- (a) If the Affected Party is rendered wholly or partially unable to perform its obligations under this Agreement because of a Force Majeure Event, it shall be excused from performance of such of its obligations (except payment obligations) to the extent it is unable to perform on account of such Force Majeure Event, provided, that in addition to the obligations and requirements under Section 10.2 (*Basic Requirements for Relief Costs and Extension of Time*):
 - (i) the suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure Event and/or of the effects of the same;
 - (ii) the Affected Party shall make all reasonable efforts to mitigate or limit damage to the other Party arising out of or as a result of the existence or occurrence of such Force Majeure Event; and
 - (iii) when the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party (with a copy to the Independent Engineer and the Independent Auditor) notice to that effect and shall promptly resume performance of its obligations hereunder.

16 INDEMNITY

16.1 INDEMNIFICATION BY THE COMPANY

- 16.1.1 The Company shall indemnify, defend, and hold harmless the GoS Parties, their directors, officers, employees, and representatives, their Affiliates, agents, advisors, contractors, or licensees and their respective directors, officers, and employees (but excluding the Company) (the **GoS Parties Engaged Persons**), from and against all Claims asserted against the GoS Parties or any GoS Parties Engaged Persons by any third party or any Losses of GoS Parties or any GoS Parties Engaged Persons as a result of the following:
- (a) for Claims or Losses (except for workers' compensation Claims or Losses), resulting from any negligent act or omission of the Company or any Company Engaged Persons that results from the performance of this Agreement;
 - (b) for Claims or Losses in connection with failure of the Company to comply with this Agreement;
 - (c) for any Claims or Losses arising from an Environmental Breach Event (including under Section 8.7);
 - (d) for Claims or Losses in connection with any Claims or any actions from:
 - (i) Offtakers or Offtakers (Potential);
 - (ii) SITE; or
 - (iii) any occupants of the Project Land (Distribution) or Project Land (Pipelines);
 - (e) for Claims or Losses in connection with the GoS Parties application for and maintaining Consents in respect to the connection and supply of electricity;

against the GoS Parties or the GoS Parties Engaged Persons, and which is attributable to the provision of the Services, the Project Works, the Company's obligations under this Agreement or the Company's failure to comply with this Agreement;

16.1.2 The Company shall not be obliged to indemnify the GoS Parties to the extent that any of the matters referred to in paragraphs (a) to and including (e) above are caused or contributed to by the breach of this Agreement by the GoS Parties.

16.2 **INDEMNIFICATION BY GOS PARTIES**

The GoS shall indemnify, defend, and hold harmless the Company, and the Company Engaged Persons from and against all Losses and Claims asserted against the Company or any Company Engaged Persons for any loss of or damage to property or death or injury to persons (except for workers' compensation Claims and Losses) resulting from any breach of this Agreement by the GoS Parties, except to the extent such loss, damage, injury, or death is caused by the Company or a Company Engaged Person.

16.3 **INDEMNIFICATION PROCEDURES**

16.3.1 **NOTICE OF CLAIM**

Each of the Parties shall provide the other Party with written notice of any matter constituting or that may lead to a Claim under this Agreement which may give rise to a request for indemnification under this Section 16 (*Indemnity*) (the **Indemnified Party**) it shall notify the other Party (the **Indemnifying Party**) within twenty-one (21) Days of receipt of the Claim or demand and shall not settle or pay the Claim without the prior approval of the Indemnifying Party, which approval shall not be unreasonably withheld. In the event that the Indemnifying Party wishes to contest or dispute the Claim or demand, it may conduct the proceedings in the name of the Indemnified Party in accordance with Section 16.3.2 (*Defense of Claim*).

16.3.2 **DEFENSE OF CLAIM**

- (a) The Indemnifying Party may, at its option and at its expense, control the contest and defense of any Claim, action, suit or proceeding, with respect to which it is or may be obligated to indemnify the Indemnified Party; provided, however, it gives prompt notice of its intention to do so to the Indemnified Party, and reimburses the Indemnified Party for the reasonable costs and expenses incurred by the Indemnified Party prior to assumption by the Indemnifying Party of such defense under this Agreement and with respect to which it or the Indemnified Party is named as a party;
- (b) If the Indemnified Party is also named as a party to any such proceeding, the Indemnified Party shall have the right to retain its own counsel at its own expense. Except when the interests of the Parties with respect to such Claim are adverse or potentially adverse, the Indemnifying Party shall:
 - (i) keep the Indemnified Party and its counsel reasonably informed as to the progress of such contest and defense;
 - (ii) to the extent reasonably practicable give the Indemnified Party and its counsel the opportunity to review and comment in advance on all written submissions and filings relevant to the Claim; and
 - (iii) consider in good faith any reasonable suggestions made by the Indemnified Party or its counsel or permit the Indemnified Party and its counsel to submit documentation or attend those portions of any meetings and proceedings that relate to the Claim;

- (c) Unless and until the Indemnifying Party acknowledges in writing its obligation to indemnify the Indemnified Party and assumes control of the defense of a claim, suit, action or proceeding in accordance with Section 16.3.2(a), the Indemnified Party shall have the right, but not the obligation, to contest, defend and litigate, with counsel of its own selection, any claim, action, suit or proceeding by any third party, alleged or asserted against such Party in respect of, resulting from, related to or arising out of any matter for which it is entitled to be indemnified hereunder, and the reasonable costs and expense thereof shall be subject to the indemnification obligations of the Indemnifying Party hereunder;
- (d) Upon assumption by the Indemnifying Party of the control of the defense of a claim, suit, action or proceeding, the Indemnifying Party shall reimburse the Indemnified Party for the reasonable costs and expenses of the Indemnified Party in the defense of the claim, suit, action or proceeding prior to the Indemnifying Party's acknowledgment of the Indemnification and assumption of the defense; and
- (e) Following acknowledgment of the indemnification and assumption of the defense by the Indemnifying Party, the Indemnified Party shall have the right to employ its own counsel, and such counsel may participate in such action, but the fees and expenses of such counsel shall be at the expense of such Indemnified Party, when and as incurred, unless:
 - (i) the employment of counsel by such Indemnified Party has been authorized in writing by the Indemnifying Party; or
 - (ii) the Indemnified Party shall have reasonably concluded that there may be a conflict of interest between the Indemnifying Party and the Indemnified Party in the conduct of the defense of such action; or
 - (iii) the Indemnifying Party shall not, in fact, have employed independent counsel reasonably satisfactory to the Indemnified Party, to assume the defense of such action and shall have been so notified by the Indemnified Party; or
 - (iv) the Indemnified Party shall have reasonably concluded and specifically Notified the Indemnifying Party either:
 - a. that there may be specific defenses available to it which are different from or additional to those available to the Indemnifying Party; or
 - b. that such claim, action, suit or proceeding involves or could have a Material Adverse Effect upon it beyond the scope of this Agreement.

Provided that if Sections 16.3.2(e)(ii), (iii) or (iv) shall be applicable, then the counsel for the Indemnified Party shall have the right to direct the defense of such claim, demand, action, suit or proceeding on behalf of the Indemnified Party, and the reasonable fees and disbursements of such counsel shall constitute legal or other expenses hereunder.

16.3.3 PAYMENT OF CLAIM

The Indemnifying Party shall pay the Indemnified Party within thirty (30) Days after notice to the Indemnifying Party of the actual payment of a Claim by the Indemnified Party.

16.3.4 SURVIVAL ON TERMINATION

The provisions of this Section 16 (*Indemnity*) shall survive Termination for a maximum period of five (5) years following the Termination Date and the provisions of this Section 16 (*Indemnity*)

shall apply solely in respect of Losses or Claims that arose immediately on or prior to the Termination Date.

16.3.5 LIMITATION OF LIABILITY & INDEMNIFICATION FOR FINES AND PENALTIES

- (a) Neither Party shall be liable to the other Party in contract, tort, warranty, strict liability (except as may be expressly provided in any GoS Parties Agreements), or any other legal theory for any indirect, consequential, incidental, punitive, or exemplary damages and are not loss of project, loss of production, loss of revenue, loss of contract or loss of goodwill; provided, that the Parties hereby agree that the Termination Payment, Delay Liquidated Damages, the MRG Amount, Force Majeure Costs and Relief Costs payable under this Agreement are not indirect, consequential, incidental, punitive or exemplary damages and are not loss of project, loss of production, loss of revenue, loss of contract or loss of goodwill. Neither Party shall have any liability to the other Party except pursuant to, or for breach of any GoS Parties Agreements provided, however, that this provision is not intended to constitute a waiver of any rights of one Party against the other with regard to matters unrelated to any GoS Parties Agreements or to any activity not contemplated by the same;
- (b) Except as set out in Section 9.7.3, any fines or other penalties incurred by the Company for non-compliance with the Legal Requirements or other governmental directions issued pursuant thereto and in accordance therewith or the Company Consents shall not be reimbursed by GoS Parties or any Government Authority but shall be the sole responsibility of the Company; and
- (c) Notwithstanding anything else in this Agreement, the GoS Parties shall not be liable to the Company for any Claim to the extent that:
 - (i) the Company is entitled to claim, has claimed or has been paid any Insurance Proceeds;
 - (ii) the Claim arises in connection to, relates to or is connected to a fraudulent or reckless act or omission of the Company or a Company Engaged Person; and
 - (iii) the Company is compensated or paid or entitled to compensation or payment under any other Section of this Agreement including but not limited to the MRG Amount, Relief Costs, Force Majeure Costs or Termination Payment;

17 EVENTS OF DEFAULT

17.1 COMPANY EVENTS OF DEFAULT

The occurrence of any of the following events shall constitute a Company Event of Default:

- (a) The COD has not occurred by the COD Long Stop Date.
- (b) Any representation or warranty by the Company under this Agreement or any GoS Parties Agreements including Section 13 (*Representations and Warranties*) is:
 - (i) incorrect or inaccurate as at the relevant date; and
 - (ii) that is reasonably likely to have a Material Adverse Effect.
- (c) The Company creates or permits to exist any Encumbrance over the Facilities, the Projects, the Company, or any rights or interests of the Company, the shares of the Company, in any part of the Project Land (Entire) or the Revenues or Loss Proceeds in favor of any person

save and except as contemplated under the Financing Documents as otherwise expressly permitted in terms of this Agreement;

- (d) The Company assigns or transfers any of its rights or obligations under this Agreement, except as permitted by Section 19.2 (*Permitted Assignment to Lenders*).
- (e) The Company:
 - (i) passes a resolution for or becomes voluntarily or involuntarily the subject of rehabilitation, receivership, or suspension of payment proceedings under any bankruptcy or insolvency law or other law or procedure for the relief of financially distressed debtors;
 - (ii) does not, is unable, or admits its inability to pay its debts when due or as they mature; or
 - (iii) becomes insolvent, takes or suffers any action for its liquidation or dissolution, or has a receiver or liquidator appointed for all or any substantial part of its assets and, in the event any such occurrence is involuntary, it results in the entry of an order for relief or the adjudication of the Company or any such guarantor of the Company as bankrupt or insolvent and it remains undismissed or undischarged for a period of thirty (30) Days.
- (f) The Company Abandons the Project or any part of the Project.
- (g) There is:
 - (i) a material breach by the Company or by a Company Engaged Person of the GoS Parties Agreements (to which they are a party); and
 - (ii) that has a Material Adverse Effect.
- (h) The Company fails to provide a suitable replacement Construction Security from a Security Issuer under this Agreement within sixty (60) Days when such Security Issuer:
 - (i) fails to satisfy the requirements for the Security Issuer set out in Section 1.1 (*Definition of "Security Issuer"*) of this Agreement;
 - (ii) becomes voluntarily or involuntarily the subject of rehabilitation, receivership, or suspension of payment proceedings under any bankruptcy or insolvency law or other law or procedure for the relief of financially distressed debtors;
 - (iii) does not or is unable to pay its debts when due or as they mature; or
 - (iv) becomes insolvent, takes or suffers any action for its liquidation or dissolution, or has a receiver or liquidator appointed for all or any substantial part of its assets and, in the event any such occurrence is involuntary, it results in the entry of an order for relief or the adjudication of the Company's guarantor as bankrupt or insolvent and it remains undismissed or undischarged for a period of thirty (30) Days.
- (i) The Company fails to provide, maintain, replace or top up:
 - (i) the Construction Security in accordance with Section 5.6.3(d) (*Construction Security*); or
 - (ii) the Operating Security under Section 8.9 (*Operating Security*).

- (j) A failure by the Company to take out and maintain the Insurance Policies;
- (k) There is:
 - (i) a Change of Ownership; or
 - (ii) a transfer of an interest in the Company that does not comply with Section 19.3 (*Ownership of Shares of Company*).
- (l) The Company defaults in the payment of any amount due and payable (which amounts are not in dispute) to GoS Parties under this Agreement and such default continues unremedied for a period of sixty (60) Days from receipt by the Company of a notice in writing from the GoS Parties of the amount due and payable.
- (m) Any assets or shares of the Company are expropriated, confiscated, compulsorily acquired or nationalized by any Government Authority or entity due to an act or omission of the Company or the Company Engaged Persons, and that causes a Material Adverse Effect.
- (n) The enforcement of any security or exercise by the Lenders of their remedies under the Financing Documents and/or the failure by the Lenders (or the agent of the same) to comply with the Concession Direct Agreement.
- (o) The Company ceases to provide all or a substantial part of the Services in accordance with this Agreement for more than sixty (60) Business Days within any period of six (6) months.
- (p) The Company has:
 - (i) failed to perform any of its obligations under this Agreement (other than a failure that constitutes a Company Event of Default under any other clause of this Section 17.1 (*Company Events of Default*)); and
 - (ii) that has a Material Adverse Effect.
- (q) At any time prior to the COD:
 - (i) the aggregate amount (without double-counting) of all costs, expenses, and liabilities required in order to achieve the COD; EXCEEDS
 - (ii) the aggregate of the amounts unconditionally available to the Company under the:
 - a. Financing Documents; and
 - b. the Equity Funding and Utilisation Agreement;as assessed by an Independent Expert;
- (r) The Company or a Company Engaged Person commits a Prohibited Act;
- (s) The Company has failed to comply with or implement an Environmental Breach Rectification Plan within forty-five (45) Days of receipt of a Notice from Agency in respect to failure by the Company to comply with or implement the Environmental Breach Rectification Plan.
- (t) There has been a KPI Breach Event and:

- (i) the Company has failed to comply with its obligations with respect to payment of the Availability Event Damages under Section 8.6.2(a); or
 - (ii) the KPI Breach Event has not been rectified within the period set out in the notice from Agency for the rectification of the KPI Breach Event in Section 8.6.2(b).
- (u) In respect of any Contract Year after the Ramp-Up Period (Phase 2) and except where caused by:
- (i) a GoS Parties Risk Event;
 - (ii) Agency failure to remove Identified IWS by the IWS Disconnection Date or under Section 7.1.3(c); or
 - (iii) a Ramp-Up Reason;

the Company fails to treat and to supply a quantity of Recycled Water to Offtakers equal to Y in the formula below:

$$Y = 70\% \times \left(\text{Recycled Water Target Volume} \times \frac{f}{365} \right)$$

where f means the total number of Days in the Contract Year that no Relief Event (Special) occurred.

- (v) The cap upon Delay Liquidated Damages in Section 5.8.3 is reached or exceeded;
- (w) The Shareholders fail to contribute any amount of Equity (Shareholders) at the times required under the Equity Funding and Utilisation Agreement.
- (x) The Company has failed to rectify the failure to comply with Section 5.9.4 within the Remedy Time Period; and
- (y) Subject to Section 17.1(l), failure by the Company to pay any amount due from the Company under this Agreement to any person other than a GoS Party, including Resettlement Costs, and any other sum due and payable by the Company under any Legal Requirements (such as Taxes, stamp duty on Project Documents) in the currency or in the manner specified in the relevant Legal Requirements, within sixty (60) Days of a notice from the GoS Parties after such amount is due and payable under relevant Legal Requirements;

17.2 **GOS PARTIES EVENTS OF DEFAULT**

The occurrence of any of the following events, in relation to the Project, shall constitute a **GoS Parties Event of Default**:

- (a) A representation or warranty by the GoS Parties under Section 13 (*Representations and Warranties*) is:
 - (i) incorrect or inaccurate as at the relevant date; and
 - (ii) that is reasonably likely to have a Material Adverse Effect.
- (b) There is an expropriation, sequestration, compulsory acquisition, nationalization or requisition of a material part of the Project assets and/or Equity (Shareholders) by the GoS

Parties or other Government Authority that is not caused by an act or omission of the Company or Company Engaged Persons.

- (c) The GoS Parties default in the payment of any material amount due and payable (which amount is not in dispute) to the Company under this Agreement and such default continues unremedied for a period of sixty (60) Days from receipt by the GoS Parties of a notice in writing from the Company of the amount due and payable.
- (d) The GoS Parties fail to perform any of their material obligations under this Agreement and that has a Material Adverse Effect.
- (e) There is a breach by the GoS Parties of Section 19.1 (*No Assignment*).
- (f) Termination of the GoS Parties Agreements as a result of a material breach by GoS Parties and that has a Material Adverse Effect.
- (g) Termination of the Project Land Agreement as a result of a breach by Agency and that has a Material Adverse Effect;
- (h) Termination of the SITE Agreement by SITE as a result of a breach by Agency and that has a Material Adverse Effect.
- (i) The Agency has failed to remove Identified IWS by the relevant IWS Disconnection Date where the IWS Disconnection Date falls during the Ramp-Up Period (Phase 2) in accordance with Section 7.1.2 (*Identified IWS Disconnection (During Ramp-Up Period (Phase 1) and Ramp-Up Period (Phase 2))*) provided that each of the following has been satisfied:
 - (i) the Company has given the Agency notice of the failure to comply with Section 7.1.2 (*Identified IWS Disconnection (During Ramp-Up Period (Phase 1) and Ramp-Up Period (Phase 2))*) within thirty (30) Days of the relevant IWS Disconnection Date and the Agency has failed to remedy the failure to comply within fifteen (15) Days of the Company's notice;
 - (ii) the Company has notified each Offtaker that is connected to the Identified IWS that the Agency failed to disconnect or cap and informed the Offtaker that they are in breach of their Offtake Agreement and must disconnect or cap the Identified IWS; and
 - (iii) the Company as at the date of the Company Preliminary Notice has satisfied the MRG Tests (Phase 1 and Phase 2).

18 STEP-IN AND OVERRIDING POWERS

18.1 AGENCY STEP-IN RIGHTS

18.1.1 The Agency shall have the option to assume operational responsibility for the Facilities (in the capacity of an operator only) in order to continue operation of the Facilities or complete any necessary repairs to assure the continued delivery of the Services (**Agency Step-in Rights**). Agency Step-in Rights shall arise only upon the occurrence and continuance of a Company Event of Default that could reasonably be expected to materially adversely affect the Company's ability to operate and maintain the Facilities in accordance with this Agreement.

- (a) The Agency shall notify the Company in writing of the following:
 - (i) its intention to exercise Agency Step-in Rights;

- (ii) the reason for its exercise of Agency Step-in Rights; and
 - (iii) the date it will commence exercise of Agency Step-in Rights.
- (b) The Agency may only exercise the Agency Step-in Rights:
- (i) for the period set out in Section 18.2.5 (*Reversion of Operational Responsibility to Company*); and
 - (ii) for so long as amounts are outstanding under the Financing Documents, the Agency must first obtain the consent of the Lenders.
- (c) During the period of the Agency's exercise of the Agency Step-in Rights, the Agency shall be the operator of the Facilities. The Company's obligation to provide part of the Services covered by the exercise of the Agency Step-in Rights shall be suspended, and the Agency shall retain the right to terminate the Agreement due to a Company Event of Default (and Agency shall not have waived any other rights under this Agreement). The exercise of the Agency Step-in Rights shall not be deemed as or result in a transfer of title to the Facilities or a transfer of the Company's obligations as owner of the Facilities.

18.2 IMPLEMENTATION OF AGENCY STEP-IN RIGHTS

18.2.1 AGENCY'S CONTRACTS, CONSENTS, ETC.

- (a) Within three (3) Days of the Company's receipt of the Agency's notice of its exercise of Agency Step-in Rights, the Company shall assign to the Agency the Company's rights under all agreements necessary to:
- (i) operate the Facilities and provide the Services; and
 - (ii) receive the Revenues under the Offtake Agreements;
- provided that such assignment shall automatically cease upon the reversion of operation responsibility to the Company; and
- (b) The Company shall promptly take all steps necessary to permit the Agency to exercise as operator of the Facilities the Company's rights under all Consents to the extent such rights are necessary for the Agency to operate the Facilities during the Agency's exercise of Agency Step-in Rights. The Company shall give the Agency access to all design manuals, construction drawings, and other documentation required to operate the Facilities.

18.2.2 PAYMENTS TO COMPANY AND AGENCY

- (a) During any period in which the Agency exercises the Agency Step-in Rights, the Agency may (in its discretion) continue making payments for and on behalf of the Company in accordance with the terms of this Agreement; and
- (b) During the exercise of the Agency Step-in Rights, the Agency shall be entitled to:
- (i) remuneration from the Company for all of the Agency's costs incurred in connection with exercising the Step-in Rights and operating the Facilities; and
 - (ii) to collect all Revenues under the Offtake Agreements

18.2.3 PAYMENT OF COMPANY'S OBLIGATIONS

- (a) The Agency shall have the right (but not the obligation) to make any payments due from and on behalf of the Company which are necessary to operate the Facilities, including payments for fuel, maintenance, repairs, insurance, Taxes, and other operating costs of the Facilities, and providing the Services together with all regularly scheduled payments under the Financing Documents (pro-rated for the amount attributable to such period), but only to the extent that the Company is unable to meet any such payments; and
- (b) The Parties shall cooperate with each other and shall execute and deliver all documents necessary or desirable to make those payments in a timely and proper manner. The remuneration and payments referred to in Section 18.2.2(b) and Section 18.2.3(a) that become payable during this period shall be regarded as funds advanced by the Agency to the Company. The Agency shall send invoices for such amounts and the Company shall promptly reimburse the Agency. The Parties shall resolve disputed amounts on the same terms and conditions as the settlement of disputed invoices. Notwithstanding the provisions of Section 25.2 (*No Set-Off or Deductions*), the Agency may obtain payment by making deductions from any amounts due to the Company pursuant to this Agreement, provided that such payments shall be subordinated to sums owed to the Lenders.

18.2.4 STANDARDS OF OPERATION

During any period when the Agency is operating the Facilities, the Agency shall use its reasonable endeavours to operate and maintain the Facilities in accordance with Prudent Utility Practice. The Company shall have the right to monitor the Agency's operation of the Facilities to the extent reasonably required to ascertain whether the Agency are operating and maintaining the Facilities in accordance with Prudent Utility Practice. The Agency shall have no more liability to the Company than would a third party operation and maintenance contractor with respect to the operation and maintenance of the Facilities by the Agency during the exercise of such step-in rights.

18.2.5 REVERSION OF OPERATIONAL RESPONSIBILITY TO COMPANY

The Agency shall return operational responsibility for the Facilities to the Company following any exercise by the Agency of the Agency Step-in Rights reasonably promptly following the cure of the Company Event of Default that led to the exercise of the Agency Step-in Rights.

18.3 GOS PARTIES OVERRIDING POWER EVENT

- 18.3.1 The Agency shall have the right upon the occurrence of a GOS Parties Overriding Power Event, to take over the performance of any or all the obligations of the Company to the extent deemed necessary by the Agency or as directed by the relevant Government Authority, and exercise such control over the Facilities, the Project Works and the Project Land (Entire) and / or give such directions to the Company as may be deemed necessary by the Agency; provided, however, that the exercise of such overriding powers by the Agency shall be of no greater scope and of no longer duration than is reasonably required in the circumstances of the GOS Parties Overriding Power Event which causes the exercise of such overriding. The Company hereby agrees to act in accordance with the instructions issued by the Agency pursuant to the provisions of this Section 18.3 (*GOS Parties Overriding Power Event*) and undertakes to provide assistance and co-operation to the Agency for performance of its obligations hereunder.

18.4 EMERGENCY DECOMMISSIONING

- 18.4.1 In the event, during the Operating Period, in the reasonable opinion of the Company, there exists an Emergency that warrants de-commissioning and closure to traffic and / or the users of the whole or any part of the Project Land (Entire) (the **Decommissioned Project Area**), the Company shall be entitled to de-commission and close the whole or any part of the Decommissioned Project

Area, as the case may be, to the traffic and/or the users for so long as such Emergency and the consequences thereof warrant (the **Emergency Decommissioning**); provided, however, that such Emergency Decommissioning and the particulars thereof shall be notified by the Company to the Agency and the Independent Engineer without any delay, and the Company shall diligently abide by the Design and Construction Standards in dealing with such Emergency Decommissioning and act in accordance with the directions that the Independent Engineer may issue for dealing with such Emergency Decommissioning; provided, however:

- (a) the Company shall procure the Independent Engineer shall, within seven (7) Days from the date of the Emergency Decommissioning, certify whether such Emergency Decommissioning was warranted; and
- (b) the Company shall re-commission the Decommissioned Project Area, without any delay, whenever the Independent Engineer either:
 - (i) notifies the Company to re-commission the same; or
 - (ii) certifies that such Emergency Decommissioning was not warranted.

18.4.2 Without prejudice to the provisions of Section 18.4.1, the Company hereby undertakes to re-commission the Decommissioned Project Area efficiently and in a time sensitive manner and as quickly as practicable after the circumstances leading to the Emergency Decommissioning have ceased to exist or have so abated as to enable the Company to re-commission the Decommissioned Project Area and shall notify the Agency and the Independent Engineer of the same without any delay.

18.4.3 The Agency shall provide details of the Emergency Decommissioning of the Decommissioned Project Area and the re-commissioning thereof to the affected persons/users and Offtakers by means of public announcements/notice. The Independent Engineer shall determine whether the Company has successfully re-commissioned the Decommissioned Project Area and made the same available for users and Offtakers as soon as practicable upon the termination/ceasing of the circumstances that have resulted in the Emergency Decommissioning.

18.4.4 The Parties agree that expenses, Losses charges and costs in respect of the Emergency Decommissioning shall be for the Company except that any reasonable direct costs incurred by the Company for works necessary in respect of the Emergency Decommissioning that are directed by Agency to be undertaken shall be paid by Agency, provided such direct costs of the works are certified by the Independent Engineer as reasonable and direct costs of the Emergency Decommissioning works directed by the Agency.

19 ASSIGNMENT OF RIGHTS AND OWNERSHIP OF THE COMPANY

19.1 NO ASSIGNMENT

19.1.1 Neither Party may sell, assign, or transfer its rights or obligations under or pursuant to this Agreement without the prior written consent of the other Party, except that the Company may assign its rights to the Lenders in accordance with Section 19.2 (*Permitted Assignment to Lenders*).

19.1.2 Subject to the provisions of Section 19.2 (*Permitted Assignment to Lenders*), the Company shall not:

- (a) create nor permit to subsist any Encumbrance, or otherwise transfer or dispose of all or any of its rights and benefits under this Agreement; or

- (b) create or permit to subsist any Encumbrance on the Facilities or any of the Company's rights or interests on the Project Land (Entire) or otherwise transfer or dispose of the Facilities or Company's rights or interests on the Project Land (Entire);

in each case above, provided such Encumbrance complies with all Legal Requirements and except with prior consent in writing of the Agency, which consent the Agency shall be entitled to decline without assigning any reason.

19.2 **PERMITTED ASSIGNMENT TO LENDERS**

19.2.1 The GoS Parties consent to the collateral assignment of the Company's rights under this Agreement to the Lenders pursuant to the Financing Documents and agrees:

- (a) without any extension of the Cure Period to afford the Lenders a reasonable opportunity to remedy any Company Event of Default or any other event or occurrence which gives the GoS Parties the right to terminate or suspend this Agreement;
- (b) in the event of a default under the Financing Documents and a foreclosure sale of the Company's interest in the Facilities, the GoS Parties shall accept the purchaser of the Company's interest as the successor to the Company under this Agreement, provided that such purchaser:
 - (i) if COD has not been achieved, has reasonable access to funding necessary to achieve the COD by the Required COD;
 - (ii) meets all legal, technical, and financial qualifications of an operator set by the GoS Parties for the Project in the Request for Proposal and this Agreement;
 - (iii) shall not be an Adverse Person;
 - (iv) assumes the performance of the Company's obligations under this Agreement (except those obligations that by their nature cannot be performed by any person other than the Company); and
 - (v) cures all outstanding payment defaults of the Company under this Agreement, and makes provision reasonably satisfactory to the GoS Parties for the cure of all other outstanding defaults of the Company under this Agreement;
- (c) in the event of an acceleration of the loans under the Financing Documents, to enter into, at the request of the Lenders, a replacement agreement substantially similar to this Agreement with the Lenders or a party designated by the Lenders but that in no event increases the GoS Parties' liabilities or obligations or reduces their rights.

19.2.2 The Company acknowledges and agrees that any collateral assignment to the Lenders pursuant to the Financing Documents shall not relieve the Company of its obligations to the GoS Parties under this Agreement.

19.2.3 The GoS Parties agree to enter into an acknowledgment and consent agreement with the Lenders as to the foregoing matters and as to such other matters of a type customarily dealt with in a consent to an assignment for security purposes of a borrower's interest in a contract as the Lenders may reasonably request.

19.3 **OWNERSHIP OF SHARES OF COMPANY**

19.3.1 **RESTRICTION ON TRANSFER OF SHARES OF COMPANY**

- (a) During the Lock-in Period no direct or indirect disposal of any shares in the Company may occur, except a direct or indirect disposal of an interest in the Company arising as a consequence of:
 - (i) the grant or enforcement of security in favor of the Lenders over or in relation to any of the shares in the Company pursuant to the terms of the Financing Documents; or
 - (ii) any transfer by a Shareholder to its Affiliate of such Shareholder's shares in the Company provided the Shareholder remains responsible for the obligations of the Affiliate under the GoS Parties Agreements;
- (b) Subject to Section 19.3.1(c) and after the Lock-in Period, provided that there is no Change of Ownership or any transfer by the Lead Member in breach of Section 19.3.1(c) (and this Section 19.3.1(b) shall not apply to a Change of Ownership or a change in shareholding by the Lead Member in breach of Section 19.3.1(c)) any Shareholder may transfer its direct and indirect ownership interests in the shares of the Company, provided, however, that:
 - (i) collectively and at any given time the new Shareholders shall have the legal, financial, and technical capabilities necessary to successfully carry out the implementation and operation of the Project that are equal to or better than the legal, financial, and technical qualifications of the Shareholders as at the Signature Date; and
 - (ii) any incoming Shareholders shall not be an Adverse Person.
- (c) At any time during the Concession Period, if a Shareholder desires to transfer any part of its direct or indirect ownership of the shares of the Company, which shall result in:
 - (i) the Shareholders as at the Signature Date holding less than 51% of the shares (excluding Equity (GoS)) in of the Company after the transfer; or
 - (ii) a Change of Ownership; or
 - (iii) the Lead Member holding less than 51% of the shares (excluding Equity (GoS)) in the Company

then Agency consent shall be required and the Company must first submit to the Agency in order for the Agency to consider whether to give consent, a description of:

- a. details of the proposed transfer of the Shareholder's direct or indirect interest in the shares of the Company;
 - b. the identity of the proposed transferee; and
 - c. if applicable, any proposed amendment to the Corporate Documents of the Company.
- (d) If at any time during the Concession Period there is a Change of Ownership of the Financial Nominee then Agency consent shall be required for such Change of Ownership.
 - (e) The Agency may request from the Company and the Company shall provide to the Agency within five (5) Days following such request, any additional information that the Agency consider necessary for its evaluation of the proposed transfer.

20 DISPUTE RESOLUTION

20.1 EXCLUSIVE PROCEDURE FOR RESOLVING DISPUTES

20.1.1 This Section 20 (*Dispute Resolution*) sets forth the sole procedures for resolving any Dispute between the Parties, and neither Party may commence or maintain any suit or legal or equitable proceeding concerning a Dispute hereunder until the Dispute has been determined in accordance with the arbitration procedure provided for herein, and then only to enforce or facilitate the execution of the award rendered in such arbitration. The Parties agree to waive, to the maximum extent permitted by Applicable Law, the right of appeal to a court of law.

20.2 MUTUAL DISCUSSIONS

In case any Dispute occurs, the Parties shall attempt in good faith to settle such Dispute by mutual discussions between the Parties held at the principal office of the Agency and beginning not later than seven (7) Days after the receipt by one Party of a written notice from the other Party of the existence of the Dispute.

20.3 PROCEEDINGS OF THE INDEPENDENT EXPERTS

20.3.1 If a Dispute cannot be settled by mutual discussion within thirty (30) Days or such longer period as may be agreed in writing by the Parties after the commencement of such discussions under Section 20.2 (*Mutual Discussions*), then the Dispute shall be referred to the Independent Experts for determination.

20.3.2 Except as otherwise expressly provided in this Agreement, all decisions of the Independent Experts shall be in writing and set out reasons and shall be handed down within not more than sixty (60) Days after the receipt of a request by either Party for a decision of the Independent Experts pursuant to this Agreement or by such later time as may be agreed by the Parties. The Independent Expert shall act as an expert and not an arbitrator and the decision of the Independent Expert shall be final and binding on the Parties in the absence of fraud or manifest error.

20.4 ARBITRATION

If a Dispute cannot be settled by mutual discussion within thirty (30) Days after the commencement of such discussions under Section 20.2 (*Mutual Discussions*) and:

- (a) the Parties agree in writing to refer the Dispute to arbitration rather than to the Independent Experts;
- (b) there was fraud or manifest error in connection with the decision of the Independent Experts; or
- (c) the Dispute relates to a matter that is not within the expertise of the Independent Expert;

then a Party may submit such Dispute to arbitration in Karachi in accordance with the Arbitration Act 1940 and rules thereunder. The arbitration proceedings shall be conducted in the English language. The Parties agree that the arbitrators may apply equitable principles if they consider their application to particular matters to be consistent with the spirit of this Agreement and the underlying intent of the Parties.

20.5 ARBITRAL AWARD

All arbitral awards shall be in writing and shall state the reasons upon which they are based. The awards shall be final and binding on the Parties. The awards may include an award of costs, including reasonable attorneys' fees and disbursements. Judgments upon the awards may be

entered by any court having jurisdiction thereof or having jurisdiction over the Parties or their assets.

20.6 **ENFORCEMENT OF AWARD**

By execution and delivery of this Agreement each of the Parties hereby accepts and consents to the jurisdiction of the arbitral panel and, solely for purposes of the enforcement of any arbitral award under this Section 20 (*Dispute Resolution*), to the jurisdiction of any court of competent jurisdiction, for itself and in respect of its property, and waives in respect of both itself and its property any defense it may have as to or based on sovereign immunity, jurisdiction, improper venue, or inconvenient forum. Each of the Parties hereby irrevocably consents to the service of any process or other papers by the use of any of the methods and to the addresses set for the giving of notices in Section 25.4 (*Notices*). Nothing herein shall affect the right of any Party to serve such process or papers in any other manner permitted by law.

20.7 **CONTINUING OBLIGATIONS**

Pending settlement of any Dispute pursuant to this Section 20 (*Dispute Resolution*), the Parties shall continue to comply with and perform their obligations under this Agreement without prejudice to a final adjustment in accordance with a decision of the Independent Experts or a final award rendered following an arbitral panel in accordance with this Section 20 (*Dispute Resolution*).

21 **CONTRACT TERMINATION**

21.1 **TERMINATION FOR COMPANY EVENT OF DEFAULT**

21.1.1 Without prejudice to any other right or remedy which the GoS Parties may have in respect thereof under this Agreement, upon the occurrence and continuation of a Company Event of Default, the GoS Parties shall be entitled to terminate this Agreement by issuing a Termination Notice to the Company, provided, that before issuing the Termination Notice, the GoS Parties may issue the GoS Parties Preliminary Notice.

21.1.2 After issuing the GoS Parties Preliminary Notice, in the event the underlying Company Event of Default is not cured within the Cure Period and is subsisting at the expiry of the Cure Period, the GoS Parties shall be entitled to:

- (a) terminate this Agreement by issuing the Termination Notice upon expiry of the Cure Period; and
- (b) encash the Construction Security or the Operating Security, as applicable and in effect as such time, on or following the issuance of the Termination Notice.

21.1.3 The following shall apply in respect of the Cure Period relating to a Company Event of Default:

- (a) the Cure Period provided in this Agreement shall not relieve the Company from liability for damages (as expressly set out in this Agreement), if any, caused by its underlying breach or default; and
- (b) the Cure Period shall not be extended by any period of suspension (including a Suspension) under this Agreement;

21.2 **TERMINATION FOR GOS PARTIES EVENT OF DEFAULT**

21.2.1 Without prejudice to any other right or remedy which the Company may have in respect thereof under this Agreement, upon the occurrence and continuation of a GoS Parties Event of Default, the Company may issue the Company Preliminary Notice.

21.2.2 In the event the underlying GoS Parties Event of Default is not cured by the GoS Parties within the Cure Period and the same is subsisting at the expiry of the Cure Period, the Company shall be entitled to terminate this Agreement by issuing the Termination Notice upon expiry of the Cure Period.

21.3 **RIGHTS OF THE GOS PARTIES ON TERMINATION**

Upon the Termination Date:

- (a) the Company's right to collect Revenue shall cease and all amounts payable by the Offtakers and third parties to the Company shall be directed to the Agency or to the Lenders; and
- (b) Section 22.2 (*Handover and Transfer*) shall apply to the transfer of the Facilities and Project Land ((Entire) to the Company.

21.4 **TERMINATION PAYMENTS**

21.4.1 The Termination Payment shall be payable to the Company by the GoS on or prior to the Termination Payment Date in accordance with a demand being made by the Company in writing, subject to the same being duly certified by the Independent Experts. If the Termination Payment becomes subject to any Tax (to the extent that Tax is payable to a Government Authority in Pakistan under Applicable Laws in Pakistan), the GoS shall pay to the Company such additional compensation (as determined by the Independent Auditor) such that the net amount received by the Company after deduction of such Tax (to the extent that Tax is payable to a Government Authority in Pakistan under Applicable Laws in Pakistan) shall be equal to the total Termination Payment that would have been received had no such Tax been paid or incurred.

21.5 **MODE OF PAYMENT**

21.5.1 Notwithstanding any instructions to the contrary issued or any dispute raised by the Company, the Termination Payment, and all other payments that are or may be payable by the GoS under any of the provisions of this Agreement shall, so long as any amount is outstanding under the Financing Documents, be made only by way of transfer directly to a bank account designated by the Lenders and advised to the GoS and the Company in writing and in the event there are no amounts outstanding under the Financing Documents to a bank account notified by the Company.

21.5.2 Notwithstanding anything to the contrary contained in this Agreement, any termination pursuant to the provisions of this Agreement shall be without prejudice to ACCRUED rights of either Party including its right to claim and recover money damages and other rights and remedies which it may have under Applicable Law. All rights and obligations of either Party under this Agreement, including without limitation Termination Payment, shall survive the termination of this Agreement to the extent such survival is necessary for giving effect to such rights and obligations.

22 **HANDOVER**

22.1 **HANDOVER WORKS**

22.1.1 On the Termination Date, the Company shall ensure that the Facilities and the Project Land (Entire) satisfy the Handover Conditions.

- 22.1.2 By no later than the Handover Period Commencement Date, the Company shall submit to Agency, for Agency's review and approval in consultation with the Independent Experts, a draft Handover Transition Plan. In the event that Agency in consultation with the Independent Experts disapproves any aspect of the draft Handover Transition Plan, it shall notify the Company within fourteen (14) Days of delivery of the draft Handover Transition Plan and the Company shall prepare and resubmit to Agency, for Agency's review and approval, as soon as practicably possible a revised plan. In the event Agency does not notify the Company within such fourteen (14) Day period, that version of the Handover Transition Plan shall be deemed approved. If the Parties are unable to agree the Handover Transition Plan within ninety (90) Days of the date on which the draft Handover Transition Plan was first provided to Agency, then the matter shall be referred to an Independent Expert for determination and the Independent Expert shall act as an expert and not an arbitrator and their decision shall be final and binding on the Parties.
- 22.1.3 The Parties acknowledge that preparation and completion of the Handover Transition Plan and implementation of work required or contemplated by the Handover Transition Plan shall be paid for by the Company. In no circumstance shall the Company be entitled to any additional remuneration for fulfilling its obligations under this Section 22 (*Handover*).
- 22.1.4 Agency shall, within the times set out in, and in accordance with, the Handover Transition Plan agreed in accordance with Section 22.1.2:
- (a) procure the carrying out of the Handover Survey;
 - (b) review the operational and maintenance records of the Facilities for the previous two years; and
 - (c) have access to the Monitoring Systems and measurements provided by the Facilities instrumentation as well as additional portable instrumentation, but will not be permitted to interfere with the normal operation and maintenance of the Facilities.
- 22.1.5 Agency shall provide the Company with a written copy of a report of the findings of the Handover Survey within five (5) Days following the conclusion of the Handover Survey. The Company shall have a period of thirty (30) Days following the receipt of the Handover Works Report to review and raise any objections thereto with Agency relating to the Handover Works Report. If the Parties are unable to agree the Handover Works Report within thirty (30) Days of the date on which the Handover Works Report was received by the Company, the Dispute shall be referred to the Independent Expert.
- 22.1.6 If, following the Company's receipt of the report on the Handover Survey provided under Section 22.1.5, it is agreed or determined that:
- (a) no Handover Works are required, then:
 - (i) Agency shall promptly, but in any event not later than ten (10) Days following the conclusion of the Handover Survey, notify the Company in writing that no Handover Works are required; or
 - (ii) the Company shall be entitled to continue to receive directly the full amount of the Revenues and any sums due to it under any provision of this Agreement;
 - (b) Handover Works are required, then Agency shall promptly, but in any event not later than thirty (30) Days following the conclusion of the Handover Survey, provide the Company with the Handover Works Report.

- 22.1.7 The Company shall implement the Handover Works in accordance with this Section 22 (*Handover*) and in accordance with the Handover Works Report and the Handover Transition Plan pending the resolution of any such Dispute described in Section 22.1.7. If the Independent Expert determines that no Handover Works (or part thereof) were required, Agency shall reimburse any reasonable costs incurred by the Company in carrying out such Handover Works (or part thereof) within thirty (30) Days of the date of such determination.
- 22.1.8 If and to the extent that the Company fails to execute the Handover Works in accordance with the Handover Works Report and the Handover Transition Plan, then Agency may:
- (a) carry out such Handover Works at the cost of the Company; and
 - (b) to the extent of its performance of the Handover Works under Section 22.1.8(a) call upon the Operating Security to meet the cost of such Handover Works or, where there is insufficient Operating Security to meet the cost of such Handover Works recover such amounts from the Company as a debt payable on demand, to pay for such Handover Works or deduct the amounts from the Termination Payment (if any) in accordance with Schedule 9 (*Termination Payment*).

22.2 **HANDOVER AND TRANSFER**

- 22.2.1 The Company shall immediately upon the Termination Date transfer, free and clear of all Encumbrances, and at no cost or expense to Agency either:
- (a) all of the Company's right, title and interest in the Facilities and the Project Land (Entire);
or
 - (b) the shares in the Company;
- to the Handover Entity in each case in a condition that satisfies the Handover Conditions and provided the selection of (a) or (b) above shall be made by Agency.
- 22.2.2 The transfer of the Company's right, title and interest in the Company, the Facilities and Project Land (Entire) under Section 22.2.1 shall include, insofar as they are necessary to operate and maintain the Facilities, and to occupy the Project Land (Entire) all of the Company's right, title and interest in, to and under:
- (a) to the extent assignable, all issued Consents if any, then held by the Company pertaining to the construction, and operation of the Facilities and its rights in relation to the Project Land (Entire);
 - (b) any proprietary components needed for the construction, and operation of the Facilities;
 - (c) the O&M Manual;
 - (d) all raw materials, consumables and spare parts;
 - (e) all tangible personal property;
 - (f) all intangible personal property, including patents, patent licences, patent applications, tradenames, trademarks, trademark registrations and applications, trade secrets, copyrights, know how and any other intellectual property rights;
 - (g) all buildings and fixtures;
 - (h) computerised and non computerised records, reports, data, files, and information;

- (i) all warranties of equipment, materials and work;
- (j) all contract rights under the Project Agreements and the Insurance Policies;
- (k) all work in progress under contracts with vendors, suppliers, contractors, Company Engaged Persons and subcontractors;
- (l) all rights with respect to Loss Proceeds payable to or for the account of the Company, but unpaid at the Termination Date;
- (m) all staff requested by the Agency to be transferred to the Handover Entity and which agree for their employment to be transferred to the Handover Entity; and
- (n) all personnel files of transferring staff.

22.2.3 The Company shall, subject to the provisions of the Handover Transition Plan agreed or determined in accordance with Section 22.1 (*Handover Works*):

- (a) terminate all subcontracts, except for subcontracts and other contractual agreements (including warranties) as may be designated by Agency for assignment, to the extent such subcontracts or other agreements may be so assigned, to the Handover Entity and assign to the appropriate person all such subcontracts so designated for assignment;
- (b) fully co-operate with, and provide assistance to, the Handover Entity as is necessary to expedite the orderly and seamless handover of the Facilities but in any case not longer than two (2) months following the expiry of the Handover Period. The obligations of the Company set out in this Section 22.2.3 shall apply during the relevant notice period of termination with effect from the date of receipt of a Termination Notice; and
- (c) in the event the Termination Date occurs on the Final Expiry Date, the Agency shall have the option (but not the obligation) to require the Company to continue operating the Facilities on substantially the same terms and conditions as set forth in this Agreement details of which shall be agreed between the Parties, for a period of twelve (12) months commencing from the Final Expiry Date, upon issuance of a notice by the Agency no later than ninety (90) Days prior to the Final Expiry Date.

22.3 **TRANSFER CONSIDERATION**

The Parties agree that the Facilities shall be transferred to the Handover Entity on the Termination Date for a sum of (as consideration) PKR 1/- (Pakistani Rupees One only).

23 **CHANGE IN LAW**

23.1 **INCREASE IN COSTS OR REDUCTION IN REVENUES**

23.1.1 If as a direct result of Change in Law, the Company suffers an:

- (a) increase in costs; or
- (b) reduction in Revenues;

compared to the costs and Revenues set out in the Financial Model and the aggregate amount of such increase in costs or reduction in Revenues exceeds PKR 285,000,000/- (Pakistani Rupees two hundred and eighty five million only) in any Accounting Year (as determined by the Independent Experts), the Company may notify the GoS Parties and propose amendments to this Agreement so as to place the Company in the same financial position as they would have enjoyed

had there been no such Change in Law. Upon notice the Parties shall meet, as soon as reasonably practicable but no later than thirty (30) Days from the date of notice, and either agree on amendments to this Agreement provided, that if no agreement is reached within sixty (60) Days of the aforesaid notice, the Independent Experts shall agree the amendments to the Agreement and the amount that would place the Company in the same financial position that they would have enjoyed had there been no such Change in Law and the GoS Parties shall make amendments and pay such amount to the Company.

- 23.1.2 Notwithstanding anything contained to the contrary in this Agreement, in the event that the Change in Law under this Section 23.1 (*Increase in Costs or Reduction in Revenues*) (together with its effects) subsists for a period of one hundred and twenty (120) Days or more and results in an increase in costs or reduction in Revenues exceeding PKR 570,000,000/- (Pakistani Rupees five hundred and seventy million), the Agency shall have the right to issue a GoS Parties Preliminary Notice to the Company of its intent to terminate this Agreement and, subsequently (at any time after the date falling thirty (30) Days from the date of issuance by the GoS Parties Preliminary Notice) terminate this Agreement by issuance of a Termination Notice.

23.2 REDUCTION IN COSTS

If as a result of Change in Law, the Company benefits from a reduction in costs or increase in Revenues compared to the amounts set out in the Financial Model and the amount of the reduction in costs or increase in Revenues exceeds PKR 285,000,000 /- (Pakistani Rupees two hundred and eighty five million only) in any Accounting Year (as determined by the Independent Experts), the Agency may notify the Company and require the Company to pay an amount (as determined and certified by the Independent Experts) that would place the Company in the same financial position that it would have enjoyed had there been no such Change in Law, and within fifteen (15) Days of receipt of such notice, along with particulars thereof, the Company shall pay the amount specified therein to the Agency.

24 ADDITIONAL MATTERS

24.1 ADVERTISING & ADVERTISING REVENUES

- 24.1.1 The GoS Parties shall have a right to propose from time to time a plan for various advertising activities to be implemented at the Facilities (the **Agency Advertising Plan**).
- 24.1.2 The Gos Parties shall submit the Agency Advertising Plan to the Independent Experts for their approval.
- 24.1.3 Upon approval of the Agency Advertising Plan by the Independent Experts, the GoS Parties shall be fully responsible for the implementation of the Agency Advertising Plan.
- 24.1.4 The Company shall have a right to propose, from time to time, a plan for various advertising activities to be implemented on the Facilities (the **Company Advertising Plan**). The Company shall submit the Company Advertising Plan to the GoS Parties for their approval. In the event the GoS Parties approve the Company Advertising Plan within forty-five (45) Days of receipt, the Company shall submit the same to the Independent Experts for their approval.
- 24.1.5 Upon approval of the Company Advertising Plan by the Independent Experts, the Company shall be fully responsible for the implementation of the Company Advertising Plan.
- 24.1.6 The GoS exclusively reserve the right to the revenues relating to and/or generated from the implementation of the approved Agency Advertising Plan and the approved Company Advertising Plan (as determined by the Independent Auditor) (the **Advertising Proceeds**). In case the Advertising Proceeds are paid to the Company then the Company shall ensure the Advertising

Proceeds are paid to GoS as a dividend for class B shares without deduction except, where relevant the Company Management Fee under Section 24.1.7.

- 24.1.7 The Company shall be entitled to a management fee which shall not exceed twenty percent (20%) of the Advertising Proceeds generated from implementation of the approved Company Advertising Plan only (as verified by the Independent Auditor) (“**Company Management Fee**”). The Company shall not be entitled to any fee where the Advertising Proceeds are generated from advertising rights or a management proposal from the Agency Advertising Plan. Provided, however, Advertising Proceeds generated from the approved Company Advertising Plan shall be paid by the Company to the GoS in accordance with Section 24.1.6 after deducting the fee under this Section 24.1.7 (as verified and approved by the Independent Auditor).
- 24.1.8 The Parties shall ensure (as verified and certified by the Independent Engineer) that the implementation of the Agency Advertising Plan and/or the Company Advertising Plan (as applicable), shall be carried out in such a manner so as not to hinder or impair the provision of the Services and design, engineering, procurement, construction, installation, completion, testing and commissioning of the Facilities, general integrity of the Facilities and with full regard for the safety of all Offtakers.

24.2 **CARBON CREDITS**

- 24.2.1 The Parties acknowledge and agree that activities at the Project after the Bid Submission Date may generate emission reductions or emission abatements against baseline emissions from the Project as the Project is envisaged at the Bid Submission Date and there is potential for these emission reductions or emission abatements to be verified or certified as Carbon Credits.
- 24.2.2 The Parties agree that:
- (a) the Agency may (in its absolute discretion) take steps (at the cost of Agency) under a domestic or international emissions scheme (voluntary or otherwise) to have the emission reductions or emission abatements in connection with the Project certified and verified as Carbon Credits;
 - (b) the Agency may seek or arrange the funding or financing of an emission reduction or emission abatement projects and activities through funding from any third party;
 - (c) to the extent permitted under Applicable Laws the Parties agree and undertake to ensure Agency:
 - (i) is the sole registered owner of the Carbon Credits;
 - (ii) shall have the power to dispose, transfer, sell, grant as security, retire or set-off the Carbon Credits in Agency’s absolute discretion and without seeking consent from any Party;
 - (iii) shall be entitled to receive (and the Company waives any rights to) all of the revenues from the sale of Carbon Credits;
- 24.2.3 The Company undertakes to (as necessary):
- (a) sign any agreements with a third party purchaser of the Carbon Credits to waive any rights to the Carbon Credits;
 - (b) sign any agreement necessary to transfer the Carbon Credits for no consideration to the Agency’s registry account;

- (c) ensure that the Carbon Credits are not used to offset or reduce the Company's own emissions;
- (d) ensure that the Company does not grant and the Lenders do not take any Encumbrance over the Carbon Credits or the income stream from the sale of the Carbon Credits and the Financing Documents shall expressly carve out the Carbon Credits and the income stream from the Carbon Credits;
- (e) negotiate in good faith any agreements and take any steps reasonably necessary to give effect to the requirements of this Section 24.2.2;
- (f) ensure that the Agency (and any third party designated by Agency) shall to the extent required or desirable for the Project Works, the Services or otherwise under this Agreement, be able to:
 - (i) access the Project Land (Entire); and
 - (ii) obtain and access any information and data;

as may be required to complete verification, certification and registration of the Carbon Credits, issuance into the Agency's registry account or a registry account designated by Agency or for the purposes of funding of an emission reduction or emission abatement project or activity.
- (g) provide any other support or assistance to facilitate the Agency's objectives under this Section 24.2, provided the Company shall not be required to incur any significant cost or contribute any funds as part of the support, assistance or facilitation under this Section 24.2.3(g).

25 GENERAL PROVISIONS

25.1 TAXES

- 25.1.1 The Company shall be responsible to make all payments in respect of rates, Taxes (as applicable), charges, levies, assessments or equivalent taxes levied on it (including in respect of all Revenues) and shall be liable for all Taxes imposed on the Project Land (Entire) and the Facilities.
- 25.1.2 The Company may raise any objections in terms of any charges levied on it by any Government Authority provided, that such objections shall be filed and pursued at the Company's cost and subject to Agency's rights under Section 23 (*Change in Law*) the Company shall be entitled to any benefit accruing as a result of the Company's successful objection to such charges.
- 25.1.3 The Company accepts that the Agency or any other Government Authority shall not provide any guarantee, subsidy, grant or provide any financial support of any nature to the Company in respect of the Project other than as set out in this Agreement and the Equity Funding and Utilisation Agreement.

25.2 NO SET-OFF OR DEDUCTIONS

Except as expressly provided for in this Agreement, all payments made pursuant to this Agreement shall be made free and clear of and without deduction for or on account of any setoff or counterclaim.

25.3 PENALTY FOR LATE PAYMENT

Any amount due by one Party to another Party under this Agreement which is not paid by that Party on the date set out in this Agreement shall bear interest at the Penalty Rate from the due date until payment is received by the other Party.

25.4 **NOTICES**

25.4.1 **ADDRESSES**

All notices, requests, agreements, or consents shall be in writing and in English and shall be deemed to have been duly given and duly received:

- (a) upon delivery if delivered by hand against written acknowledgment of receipt;
- (b) on the Business Day following confirmed transmission if sent by e-mail or telefacsimile; provided that such e-mail or telefacsimile transmission shall be followed by notification by mail postmarked within three (3) Days;
- (c) upon delivery if sent by certified, registered (return receipt requested), or express mail, first-class postage prepaid, or by an express courier service, marked for overnight delivery; and
- (d) where the notice is to the GoS Parties then it shall be addressed to both of GoS and Agency.

The word “notify” shall be construed accordingly. All notices shall be addressed as follows:

To GoS:

Government of Sindh

Local Government Department, Ground Floor, Tughlaq House, Sindh Secretariat, Karachi, Pakistan

Telephone: [●]

Facsimile: [●]

Attention: [●]

To the Agency:

Karachi Water & Sewerage Corporation

Room No. 7, Block-C 9th Mile Karsaz, Shahrah-e-Faisal, Karachi – Sindh, Pakistan

Telephone: [●]

Facsimile: [●]

Attention: [●]

To the Company:

[Full Company Name]

[Company Address]

Telephone: [●]

Facsimile: [●]

Attention: [●]

25.4.2 CHANGE OF ADDRESS

A Party may change its address by giving the other Party written notice of such change pursuant to Section 25.4.1 (*Addresses*), provided that any such change shall not be effective until notice of such change has been received by the other Party in accordance with Section 25.4.1 (*Addresses*).

25.5 NO DOUBLE COUNTING

Nothing in this Agreement shall entitle a Party to recover for the same Loss, Claim, liability, cost or expense or make a Party liable for the same Loss, Claim, liability, cost or expense more than once and no amount shall be taken into account, set-off or credited more than once under this Agreement, with the intent that there will be no double counting under this Agreement.

25.6 ENTIRE AGREEMENT

This Agreement, together with its Schedules, constitutes the entire agreement between the Parties with respect to the transactions contemplated herein. All previous documents, undertakings, and agreements, whether oral, written or otherwise, between the Parties concerning the subject matter of this Agreement are hereby cancelled and shall not affect or modify any of the terms or obligations set forth in this Agreement.

25.7 WAIVERS

The failure of a Party to insist upon a strict adherence to any term of this Agreement on any occasion shall not be considered a waiver of any right thereafter to insist upon a strict adherence to that term or any other term of this Agreement. No waiver by a Party of any default or breach of this Agreement shall be construed as a waiver of any other provision, condition, or term hereof or of any other default or breach of the same provision, condition, or term. No delay in the exercise and no single or partial exercise by a Party of any right, remedy, or power hereunder, in equity, or at law. Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation thereunder nor time or other indulgence granted by a Party to the other Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder shall preclude any other or further exercise thereof or the exercise of any other right, remedy, or power existing hereunder, in equity, or at law. Any waiver must be in writing and signed by a duly authorized representative of the Party issuing the waiver.

25.8 CONFIDENTIALITY AND DISCLOSURE

25.8.1 CONFIDENTIALITY

Each of the Parties shall hold in strict confidence from any other person all documents and information concerning any other Party or any of its Affiliates furnished to it or its advisors,

consultants, contractors, or agents by the other Party in connection with this Agreement or the transactions contemplated hereby (**Confidential Information**), unless:

- (a) disclosed in accordance with the requirements and rules of any recognised stock exchange;
- (b) disclosed to the Lenders; and
- (c) disclosed in an action or proceeding brought by either Party in pursuit of its rights or in the exercise of its remedies hereunder.

Notwithstanding the foregoing, this Section 25.8.1 (*Confidentiality*) shall not apply to such documents or information that were:

- (i) previously known by the person receiving such documents or information (provided such information was not obtained in breach of confidentiality obligations);
- (ii) in the public domain (either prior to or after the furnishing of such documents or information hereunder) through no fault of such receiving Party; or
- (iii) later acquired by such receiving person from another source so long as such receiving person is not aware that such source is under an obligation to the other Party to keep such documents and information confidential.

25.8.2 REQUIRED DISCLOSURE

Any Party required (or in the case of the Company where Shareholders are required) by any Legal Requirement or in the course of administrative or judicial proceedings or in accordance with required disclosures of publicly-listed companies by registered securities exchanges to disclose information that is otherwise required to be maintained in confidence pursuant to Section 25.8.1 (*Confidentiality*), may disclose such information notwithstanding the provisions of Section 25.8.1 (*Confidentiality*); provided, however, that the Party making the disclosure shall give prior notice to the other Party of the requirement and the terms thereof and shall cooperate to the maximum extent practicable to resist or minimize the disclosure of the information. The Party disclosing such information shall use reasonable efforts, at the other Party's cost, to obtain proprietary or confidential treatment of such information by the third party to whom the information is disclosed, and to the extent such remedies are available, shall use reasonable efforts to seek protective orders limiting the dissemination and use of the information at the other Party's cost. For avoidance of doubt, this Agreement does not alter the rights of the Parties to object to the Legal Requirement or proceedings requiring the disclosure.

25.9 FURTHER ASSURANCES

The Parties will do, execute, and deliver, or will cause to be done, executed, and delivered, all such further acts and such other things as each of the Parties may reasonably request for the purpose of giving effect to this Agreement or for the purpose of establishing compliance with the representations, warranties, and covenants of this Agreement.

The Parties further assure that they shall perform their obligations in a highly professional and diligent manner, with due efficiency and economy and timely execution of works and other obligations, in all respects with that degree of skill, diligence, prudence and foresight required from them, and with due attention to the need for fairness, openness and good faith in their dealings.

25.10 SEVERABILITY

The validity of the remaining articles, clauses, provisions, terms, and parts of this Agreement shall not be affected by a court, administrative board, or other proceeding of competent jurisdiction deciding that an article, section, provision, term, or part of this Agreement is illegal, unenforceable, in conflict with any law, or contrary to public policy. In such event the Parties hereto shall, by amendment of this Agreement, properly replace such provision by a reasonable new provision or provisions that, as far as legally possible, approximate to what the Parties intended by such original provision and the purpose thereof.

25.11 **LANGUAGE**

This Agreement is being executed in the English language only.

25.12 **COUNTERPARTS**

This Agreement may be executed in one or more duplicate counterparts and when signed by each of the Parties shall constitute an original and a single binding agreement. Any Party hereto may execute this Agreement by signing any such counterpart (including by facsimile). Signature pages may be detached from multiple separate counterparts and attached to a single counterpart so that all signatures are physically attached to the same counterpart.

25.13 **REMEDIES CUMULATIVE**

Except as set out in this Agreement, no remedy or right herein conferred is intended to be exclusive of any other remedy or right, but every such remedy or right shall be cumulative and shall be in addition to every other remedy or right herein conferred or now or hereafter existing at law or in equity.

25.14 **AMENDMENTS**

No amendments or modifications of this Agreement shall be valid except by written agreement signed by duly authorized representatives of the Parties. Minutes of meetings or other informal documents shall not constitute a written agreement for purposes of the preceding sentence.

25.15 **GOVERNING LAW**

This Agreement shall be governed by and interpreted in accordance with the laws of Pakistan.

25.16 **SURVIVAL**

All express representations, warranties, indemnities, and limitations of liability included in this Agreement shall survive its completion or termination for any reason. Termination of this Agreement (a) shall not relieve the Company or the GoS Parties of any obligations hereunder which expressly or by implication survives Termination hereof, and (b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, shall not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of or caused by acts or omissions of such Party prior to the effectiveness of such Termination or arising out of such Termination.

25.17 **DISCLAIMER**

(a) Subject to the terms of this Agreement, the Company acknowledges that prior to the execution of this Agreement, the Company has, after a complete and careful examination and due diligence, made an independent evaluation of the Concession, the Request For Proposal, the Project, the Design and Technical Specifications, the Project requirements, the Project Land (Entire), the partly completed inlet structures, any existing structures on the Project Land (Entire), local conditions, physical qualities of ground, subsoil and

geology, traffic volumes and all information provided by the Agency or obtained, procured or gathered otherwise, and has determined to its satisfaction the accuracy or otherwise thereof and the nature and extent of difficulties, risks and hazards as are likely to arise or may be faced by it in the course of performance of its obligations hereunder and on the basis of such examination and determinations is entering into this Agreement for the purpose of accepting the Concession for the implementation of the Project in accordance with the terms and conditions of this Agreement. Except as expressly provided in this Agreement, the Agency make no representation whatsoever, express, implicit or otherwise, regarding the accuracy, adequacy, correctness, reliability and/or completeness of any assessment, assumptions, statement or information provided by it and the Company confirms that it shall have no claim whatsoever against the Agency in this regard;

- (b) Subject to the terms of this Agreement, the Company acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth in Section 25.17 (*Disclaimer*) and hereby acknowledges and agrees that the Agency shall not be liable for the same in any manner whatsoever to the Company, and the Company Engaged Persons or any person claiming through or under any of them;
- (c) Any mistake or error in or relating to any of the matters set forth in Section 25.17 (*Disclaimer*) shall not vitiate this Agreement or render it voidable;
- (d) In the event that either Party becomes aware of any mistake or error relating to any of the matters set forth in sub-paragraph (a) of this Section 25.17 (*Disclaimer*) above, such Party shall immediately notify the other Party, specifying the mistake or error; provided, however, it is expressly agreed between the Parties that any such failure on part of the Agency to give any notice pursuant to this sub-paragraph (a) of Section 25.17 (*Disclaimer*) shall not prejudice the disclaimer of the Agency contained in sub-paragraph (a) of this Section 25.17 (*Disclaimer*) and shall not in any manner shift to the Agency any risks assumed by the Company pursuant to this Agreement; and
- (e) Except as otherwise provided in this Agreement, all risks relating to the Facilities, the Project Works and the Services shall be borne by the Company and the Agency shall not be liable in any manner for such risks or the consequences thereof.

25.18 **JOINT AND SEVERAL**

- 25.18.1 The Agency and GoS shall be jointly and severally liable for all of the obligations of the Agency GoS Parties in this Agreement.
- 25.18.2 In the case of any obligation upon the Company under this Agreement, unless specifically expressed as that obligation being performed for, or for the benefit of one of the GoS Parties, that Company's obligation shall be interpreted as being performed for, or for the benefit of the GoS Parties and may be enforced by either of the GoS Parties or both of the GoS Parties.

SIGNATURE PAGE

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed on the day, month and year first above mentioned.

AS THE GOS

For and on behalf of) SIGNATURE
[●])
through its authorised signatory)

Name:
Designation:

Name:
Designation:

in the presence of

WITNESSES: SIGNATURE

1. Name:
Address:
CNIC / Passport No:

2. Name:
Address:
CNIC / Passport No:

AS THE AGENCY

For and on behalf of) SIGNATURE
[●])
through its authorised signatory)

Name:
Designation:

Name:
Designation:

in the presence of

WITNESSES: SIGNATURE

1. Name:
Address:
CNIC / Passport No:

2. Name:
Address:
CNIC / Passport No:

AS THE COMPANY

For and on behalf of) SIGNATURE
[●])
through its authorised signatory)

Name:
Designation:

Name:
Designation:

in the presence of

WITNESSES: SIGNATURE

1. Name:
Address:
CNIC / Passport No:

2. Name:
Address:
CNIC / Passport No:

SCHEDULE 1
MPSS

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1. Introduction

Capitalized terms used in this appendix and not otherwise defined herein shall have the meanings given to them in Section 1.1 (Definitions) of the Concession Agreement.

These Minimum Performance Standards and Specifications (MPSS) for the nominal 35 million imperial gallons per day (MIGD) West Karachi Recycled Water Project 1 (the Project) establish the scope for the Project under the Concession Agreement and the basic performance standards applicable to the design, construction and operation of the Project Works and the Facilities.

2. Project Overview

2.1. Project Location

The Project is located in Haroonabad district of Karachi, Sindh Province, Pakistan as shown in Figure 1 and Figure 2.

The Facilities shall be constructed within an existing Karachi Water & Sewerage Corporation (KWSC) wastewater treatment plant site known as the TP1 Site and in Sindh Industrial Trading Estate (SITE) with additional easements for Influent, Effluent and RO Concentrate pipelines outside of the TP1 Site.

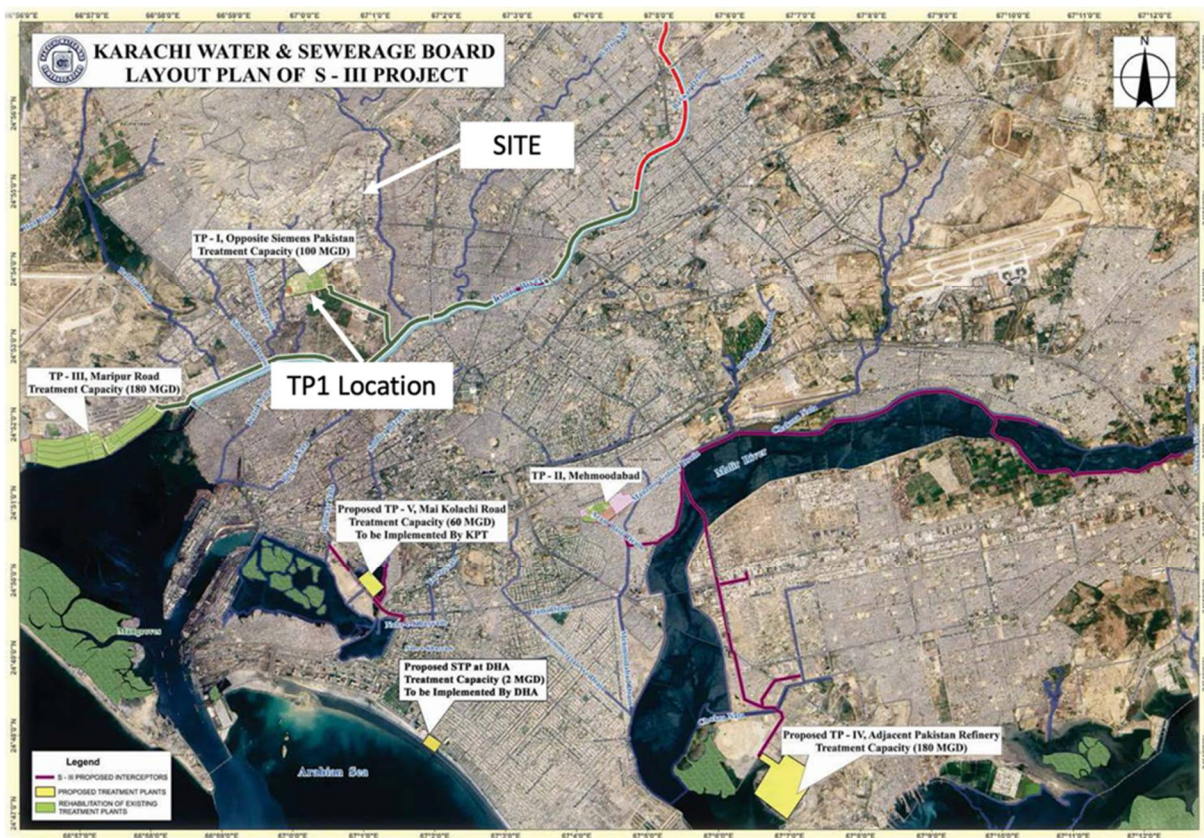


Figure 1. Overall Location Map

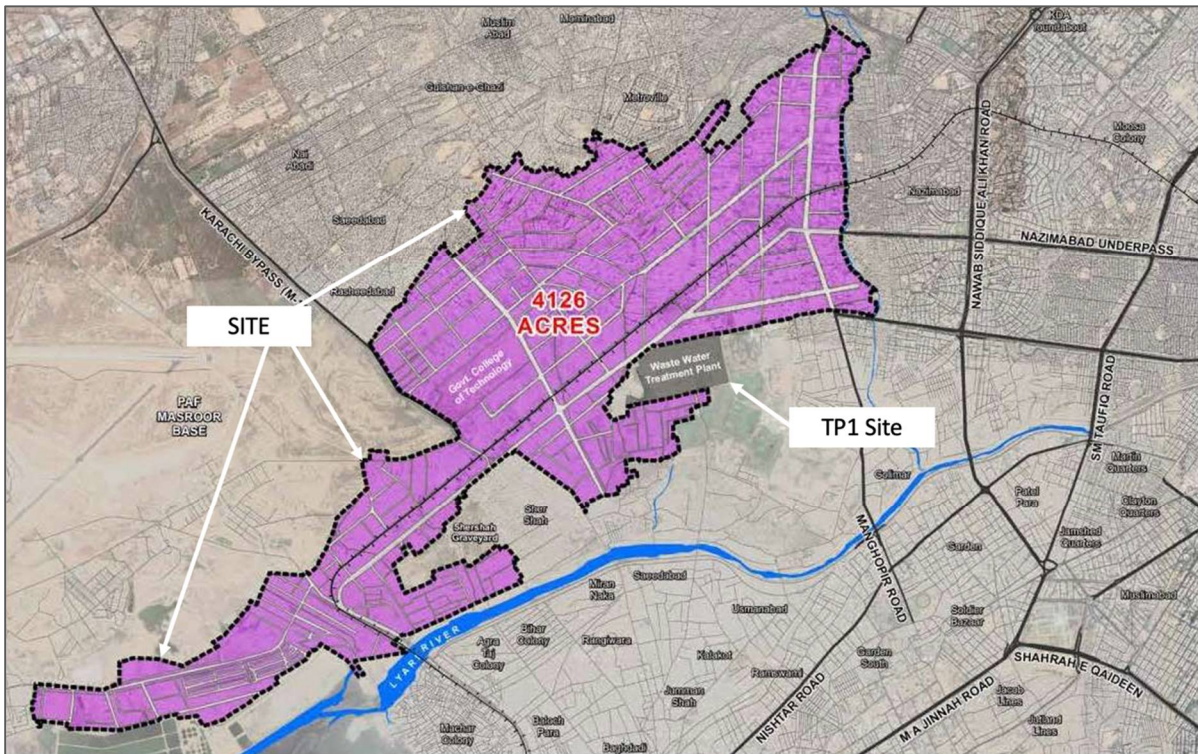


Figure 2. Location of the TP1 Site and SITE

2.2. General Overview

The Project shall include the following components:

- Design, construction, operation and maintenance of an Influent Delivery System comprising a new connection from the existing raw wastewater interceptor outside the south-east corner of the TP1 Site, Influent Penstock Chamber, Influent Delivery Pipeline and Influent Pumping Station to convey 35 MIGD of Influent to the Wastewater Treatment Plant;
- Design, construction, operation and maintenance of a Bypass around the Wastewater Treatment Plant;
- Design, construction, operation and maintenance of a Wastewater Treatment Plant with a capacity of 35 MIGD;
- Design, construction, operation and maintenance of a Recycling Plant, Recycled Water Pumping Station and Recycled Water Pipeline to supply a minimum of 28 MIGD (average daily quantity over a Contract Year) of Recycled Water to Offtakers for industrial use within SITE (not including non-revenue water);
- Design, construction, operation and maintenance of a Distribution Network (Company Zones) to deliver a minimum of 28 MIGD (average daily quantity over a Contract Year) of Recycled Water to Offtakers within SITE (not including non-revenue water), and design and construction of a Distribution Network (Other Zones) for future consumers within SITE. The overall Distribution Network shall be designed to deliver 50 MIGD of Recycled Water to industries in SITE;
- Design, construction, operation and maintenance of an Effluent Discharge Chamber (EDC) and an Effluent Discharge Pipeline from the TP1 Site to the Lyari River;
- Design, construction, operation and maintenance of an Effluent Pumping Station if proposed by the Company in the Bid;
- Design, construction, operation and maintenance of an RO Concentrate Discharge Pipeline from the TP1 Site to the sea;
- Design, construction, operation and maintenance of an RO Concentrate Pumping Station (Sea) if proposed by the Company in the Bid; and
- Design, construction, operation and maintenance of Monitoring Systems at the Monitoring Points..

A wastewater treatment plant on the TP1 Site is currently being rehabilitated and expanded by KWSC. The ongoing construction activities shall be conducted within an area that is separate from the land allocated for the Project within the TP1 Site (the Project Land (Plants) and Project Land (Access) as shown in Figure 5. Figure 3 shows the design layout of the ongoing construction contract on the TP1 Site. There will be no interfaces between the Project and the ongoing construction contract.

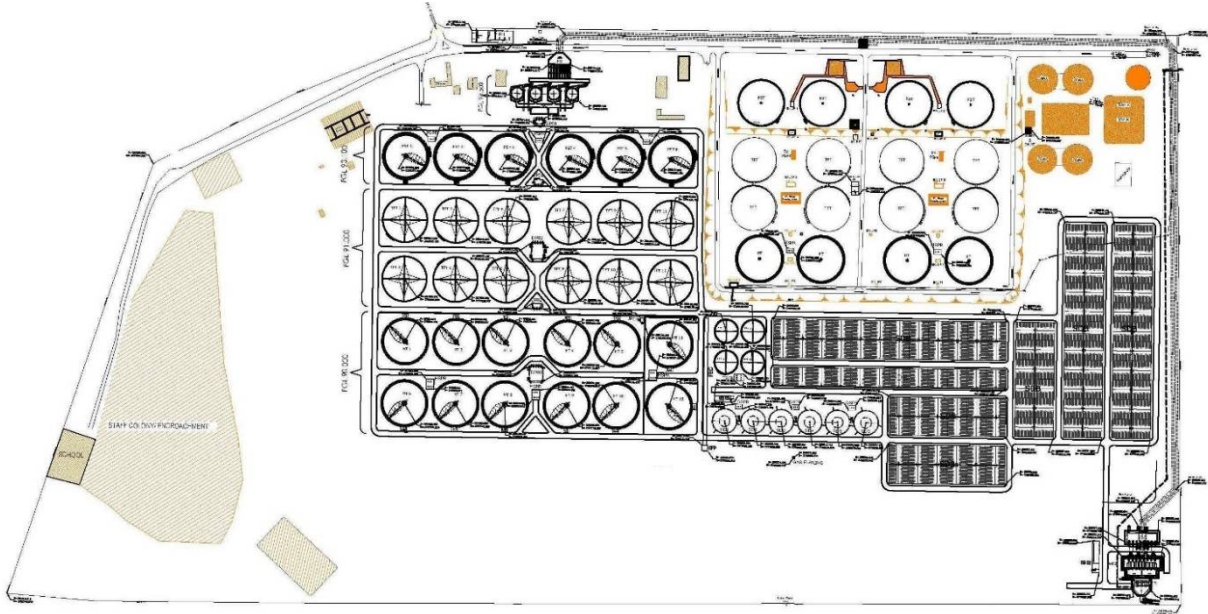


Figure 3. Design Layout of Works in Ongoing Construction Contract on TP1 Site

2.3. Influent Delivery System, Wastewater Treatment Plant and Effluent Discharge

An Influent Delivery System comprising a connection from the raw wastewater interceptor outside the south-east corner of the TP1 Site (the Influent Delivery Point), Influent Penstock Chamber, Influent Delivery Pipeline and Influent Pumping Station shall deliver 35 MIGD of Influent from the interceptor to the Wastewater Treatment Plant.

A Wastewater Treatment Plant incorporating a multi-stage biological treatment process shall treat 35 MIGD of Influent as specified in Table 4 to a Treated Effluent quality specified in Table 5 that as a minimum meets the discharge standards of the Sindh Environmental Quality Standards (SEQS) for Municipal and Liquid Industrial Effluents and the Indicative Values for Treated Sanitary Sewage Discharges in the International Finance Corporation (IFC) Environmental, Health, and Safety (EHS) Guidelines and provides feed water of an acceptable quality for the Recycling Plant.

A Bypass shall enable Influent under specified conditions not to pass through the Wastewater Treatment Plant and an Effluent Discharge Pipeline shall convey up to 35 MIGD from the southern boundary of the Project Land (Plants) to the Discharge Point (River) at the Lyari River. If the Company proposes to pump Effluent to the Discharge Point (River) when the volume exceeds the pipeline capacity for gravity flow an Effluent Pumping Station shall be provided by the Company.

2.4. Recycling Plant and Recycled Water Delivery System and RO Concentrate Discharge

A Recycling Plant and a Recycled Water Delivery System comprising Recycled Water Pumping Station, Recycled Water Pipeline and Distribution Network shall treat the Treated Effluent from the Wastewater Treatment Plant and distribute Recycled Water to the Offtakers within SITE. The Recycling Plant shall supply, unless otherwise specified in the Concession Agreement, not less than 10,220 MIG of Recycled

Water during each Contract Year after the end of an initial 6 year ramp up period (28 MIGD average daily quantity) delivered to the Offtakers (not including non-revenue water) meeting the Recycled Water quality requirements as included in Table 6.

The RO Concentrate from the Recycling Plant shall be delivered to the Effluent Discharge Chamber provided that the Effluent complies with the discharge standards as included in Table 5. If the TDS, chloride or sulphate concentrations of the Effluent exceed the allowable limits for discharge to inland waters, all or part of the RO Concentrate shall be delivered to the Discharge Point (Sea) so that the Effluent delivered to the Discharge Point (River) remains in compliance with Table 5 at all times.

The Distribution Network shall be designed to supply 50 MIGD of Recycled Water from the northern edge of the TP1 Site to industries in SITE, subdivided into zones for water management. The Company shall designate a number of zones, the Distribution Network (Company Zones), within which they shall supply the Offtakers a minimum of 28 MIGD (average daily quantity over a Contract Year of Recycled Water). The remaining zones, the Distribution Network (Other Zones), are for future use by the Agency.

The Distribution Network (Company Zones) and Distribution Network (Other Zones) shall be supplied by separate pipelines within the TP1 Site. The Recycled Water Pipeline connecting to the Distribution Network (Company Zones) shall be operated and maintained by the Company and the pipeline within the TP1 Site connecting to the Distribution Network (Other Zones) shall be constructed in the future by the Agency. The Distribution Network (Other Zones) includes a pipeline (or dual pipeline) under Estate Avenue, the road north of the TP1 Site, which shall extend 2 m into the TP1 Site and terminate in a valve and blank flange to facilitate future connection by the Agency.

3. Scope of Work

3.1. Overall Scope of the Project

The scope of work for the Project shall include but not be limited to:

- a) Engineering design of the Influent Delivery System, Wastewater Treatment Plant, Bypass, Recycling Plant, Recycled Water Delivery System, Distribution Network (Other Zones), Effluent Discharge Pipeline, Effluent Pumping Station (if applicable), RO Concentrate Discharge Pipeline, RO Concentrate Pumping Station (Sea) (if applicable), and Monitoring Systems as required herein;
- b) Securing all Company Consents and other approvals, permits, licenses, etc. necessary for Project implementation as specified in the Concession Agreement;
- c) Construction of the Facilities and provision of all temporary facilities necessary for the design, construction and operation of the Facilities;
- d) Procurement of materials, plant and equipment, and construction of the Facilities.
- e) Testing and commissioning of the Facilities;
- f) Operation and maintenance of the Facilities throughout the Operating Period, excluding the Distribution Network (Other Zones); and
- g) Construction of all necessary connections to utilities as required.

3.2. Implementation Plan

The Company shall prepare an Implementation Plan for the design and construction of the Facilities accompanied by a detailed Gantt chart (the Proposed Construction Programme) showing task dependencies and the critical path from the Signature Date through COD.

All surveys, investigations and other studies or investigations required by the Company for implementation of the Project shall be the responsibility of the Company to perform or procure the performance thereof. All studies, reports and data provided in this MPSS and associated data rooms, etc. are for information only and should be verified by the Company prior to execution of the Project.

3.3. Preliminary Engineering Design

Preliminary Engineering Design (PED) for the Facilities shall proceed in accordance with the Implementation Plan and as a minimum the following shall be prepared:

PED Part 1: Preliminary Engineering Design Facilities (Excluding Distribution Network)

- a) All necessary surveys and site investigations required to support the development of the Project design;
- b) Design parameters and assumptions made to substantiate the engineering design basis of the PED;
- c) Preliminary design of the Influent Delivery System;
- d) Wastewater process design calculations;
- e) Recycling Plant process design calculations, including reverse osmosis (RO) system design;
- f) Preliminary design of the Recycled Water Pumping Station and Recycled Water Pipeline;
- g) Preliminary design of the Effluent Discharge Pipeline and Effluent Pumping Station (if pumping is proposed);
- h) Preliminary design of the RO Concentrate Discharge Pipeline and RO Concentrate Pumping Station (Sea) (if pumping is proposed);
- i) Drawings showing layouts for all disciplines; architectural, structural, civil, electrical, mechanical and instrumentation/SCADA. Work shall include building, utility and access road details, equipment layout, pipe materials, sizes, alignments, profiles and sections, and valve and meter locations, including process flow diagrams (PFD) and process and instrumentation diagrams (P&ID);
- j) Confirmation that adequate electrical power shall be available for the Facilities and preliminary design of the substation(s) and equipment that shall connect from the Electricity Delivery Point;
- k) Preliminary single line diagram from the Electricity Delivery Point to low voltage distribution including standby power facilities;
- l) Value engineering on the constructability, sustainability, efficiency, economy, suitability and life cycle costs of the proposed works; and
- m) Update of the Gantt chart submitted with the Implementation Plan with milestones for detailed design and construction.

The Company shall proceed with Preliminary Engineering Design Facilities (Excluding Distribution Network) no later than the Required Preliminary Design Commencement Date and shall submit with a report to the IE in accordance with the timelines stipulated under Section 2.6 of this Agreement.

PED Part 2: Preliminary Engineering Design Distribution Network

- n) Survey of industrial establishments in SITE to determine demand nodes for Recycled Water (part of the Offtake Planning Report);
- o) Preliminary design for the Distribution Network (50 MIGD) and network model with zones for water management;
- p) Proposed subdivision by the Company of the Distribution Network into Distribution Network (Company Zones) and Distribution Network (Other Zones);
- q) Estimated CAPEX for Distribution Network (Company Zones) and Distribution Network (Other Zones) based on rates in the bid;
- r) Details of Offtaker Meters; and
- s) Update of the Gantt chart submitted for Part 1 of the PED to include the Distribution Network (50 MIGD) with milestones for detailed design and construction of each zone.

The Company shall proceed with Preliminary Engineering Design Distribution Network, no later than Effective Date, and shall submit with a report to the IE who shall approve or otherwise respond within 30 days.

3.4. Detailed Engineering Design

Detailed Engineering Design (DED) of the Facilities shall be based on the approved PED and as a minimum the following shall be prepared:

DED Part 1: Detailed Engineering Design Facilities (Excluding Distribution Network)

- a) Detailed civil, structures and site layouts and mechanical/electrical arrangement drawings;
- b) Combined services plan, including all connections to utilities;
- c) Architectural, general arrangement and elevation drawings of buildings, plants, tanks and structures;
- d) Pipeline layouts, longitudinal sections and connection details with all valves and meters;
- e) Design parameters and calculations to substantiate the engineering design basis of the DED, including the RO system calculations;
- f) Single line diagram(s) from the Electricity Delivery Point to low voltage distribution including standby power facilities;
- g) Details of process control, instrumentation and interconnection diagrams;
- h) Details of SCADA system including interfaces, input/output schedule and hardware and software;
- i) Site lighting arrangements with levels of illumination;
- j) Entrance from Estate Avenue, access road in the Project Land (Access), access road and footpath layout in the Project Land (Plants) including surface water drainage;
- k) Detailed schedule of works with itemized CAPEX and OPEX estimate;
- l) Updated value engineering for the final design proposal;
- m) Copies of specifications to be included in procurement documents;
- n) Details of proposed suppliers or shortlisted suppliers of equipment;
- o) Terms of warranties and performance guarantees to be obtained for equipment; and
- p) Update of the Gantt chart submitted with the PED with milestones for construction (excluding the Distribution Network in Part 2).

DED Part 2: Detailed Engineering Design Distribution Network

- q) Design parameters and calculations to substantiate the engineering design basis of the Distribution Network (50 MIGD), including a detailed hydraulic model for Distribution Network (Company Zones) and Distribution Network (Other Zones);
- r) Pipeline layouts, longitudinal sections and connection details with all valves and meters for zone management;
- s) Specifications and locations (GIS coordinates) for Offtaker Meters;
- t) Final CAPEX for Distribution Network (Company Zones) and Distribution Network (Other Zones) based on rates in the bid;
- u) Copies of specifications to be included in procurement documents;
- v) Details of proposed suppliers or shortlisted suppliers of materials and equipment;
- w) Terms of warranties and performance guarantees to be obtained for materials and equipment; and
- x) Update of the Gantt chart submitted for Part 1 of the DED with milestones for construction of the Distribution Network (Company Zones) and, unless a Distribution Network (Other Zones) Stop Notice has been issued by the Agency, the Distribution Network (Other Zones).

The drawings shall include all information necessary to obtain permits for the construction activities and to construct the Facilities.

The Company shall proceed separately with DED Part 1 and DED Part 2 as soon as the respective Preliminary Engineering Design has been approved and shall submit each part of the DED with a report to the IE who shall approve or otherwise respond on each part within 30 days.

The Company shall commence the construction activities for the Facilities or Project Works or part thereof, only when the respective DED has been approved by the Independent Engineer (IE).

The Agency and the IE shall be allowed to review the technical content of the Company's design and construction documents produced for the DED for compliance with this MPSS, the Implementation Plan and any other applicable requirements.

The Company shall prepare and submit monthly progress reports for design activity as detailed in Appendix A.

3.5. Construction and Commissioning

The Company shall be responsible for obtaining all Company Consents, permits, licenses and approvals as specified in the Concession Agreement and as necessary for any portion of the construction activities to proceed in accordance with the DED, approved by the IE, for that portion.

The Company shall provide all necessary facilities, amenities and services for during construction of the Facilities. Those include, but are not limited to:

- Entrance from Estate Avenue into the TP1 Site and access road (to sub-base) through the Project Land (Access) to the Project Land (Plants);
- Site offices;
- Site storage;
- Temporary fencing and access control;
- Parking;
- Access roads inside the Project Land (Plants);
- Water and sanitary facilities inside the Project Land (Plants); and
- Power for site offices and construction activities.

The Company shall be responsible for security of the Project Land (Access) and the Project Land (Plants) at all times during construction and operations activities and for security of the Project Land (Pipelines) and Project Land (Distribution) during construction activities.

The Company shall procure all materials, equipment, and construct and commission all facilities and infrastructure required for the Facilities.

The Agency and the IE shall be allowed to monitor, inspect, evaluate and check the progress and quality of the Company construction and commissioning activities to ensure compliance with this MPSS, the Implementation Plan and any other applicable requirements.

Prior to commencing construction of any portion of the works the Company shall submit their construction plan for approval by the IE.

Not less than 90 days before the anticipated date of the commissioning of any portion of the works the Company shall submit full details of the tests, methods and procedures of tests and methods of evaluation it proposes for approval by the IE prior to commencement of any commissioning activity.

Not less than 21 days before the scheduled date of the commissioning of any portion of the Facilities the Company shall prepare relevant sections of the O&M Manual (as specified in Section 3.6) for reference by the IE and other parties during commissioning, incorporating as a minimum the following information:

- a) Full and detailed instructions for operation of equipment;
- b) Full and detailed instructions and schedules for maintaining equipment;
- c) Health and safety information pertaining to fixtures, plant and equipment to be commissioned;
- d) Manufacturers' technical specifications and instructions for component parts;
- e) Comprehensive parts list for all items of equipment;

- f) Drawings showing pipelines, valves and other operational data; and
- g) Certifications and warranties applicable to the equipment being commissioned.

The Company shall submit to the IE, for review, a complete set of as-built drawings of the Facilities, showing the as-built locations, sizes and details of the work as executed, prior to the commencement of commissioning tests. The Company shall obtain details from the IE as to their size, the referencing system, and other relevant details.

In addition, as may be requested by the IE, the Company shall supply to the IE as-built drawings and as-built records / data of any works, carried out for the purpose remedying any defects in the Facilities during the Operating Period.

Not more than seven (7) days after the completion of commissioning of any portion of the Facilities the Company shall update the relevant sections of the O&M Manual to incorporate as-built data and test results and submit to the IE for review.

The Company shall prepare and submit monthly progress reports on construction activities as detailed in the Concession Agreement. A list of required elements for the progress report is included in Appendix A.

3.6. Operation and Maintenance

The Company shall be fully responsible for operating and maintaining the Facilities, including the management and disposal of Effluent, RO Concentrate, Dewatered Sludge and Residuals during the Operating Period. The schematic included in Figure 4 shows the limits of construction and operations of the Facilities by the Company.

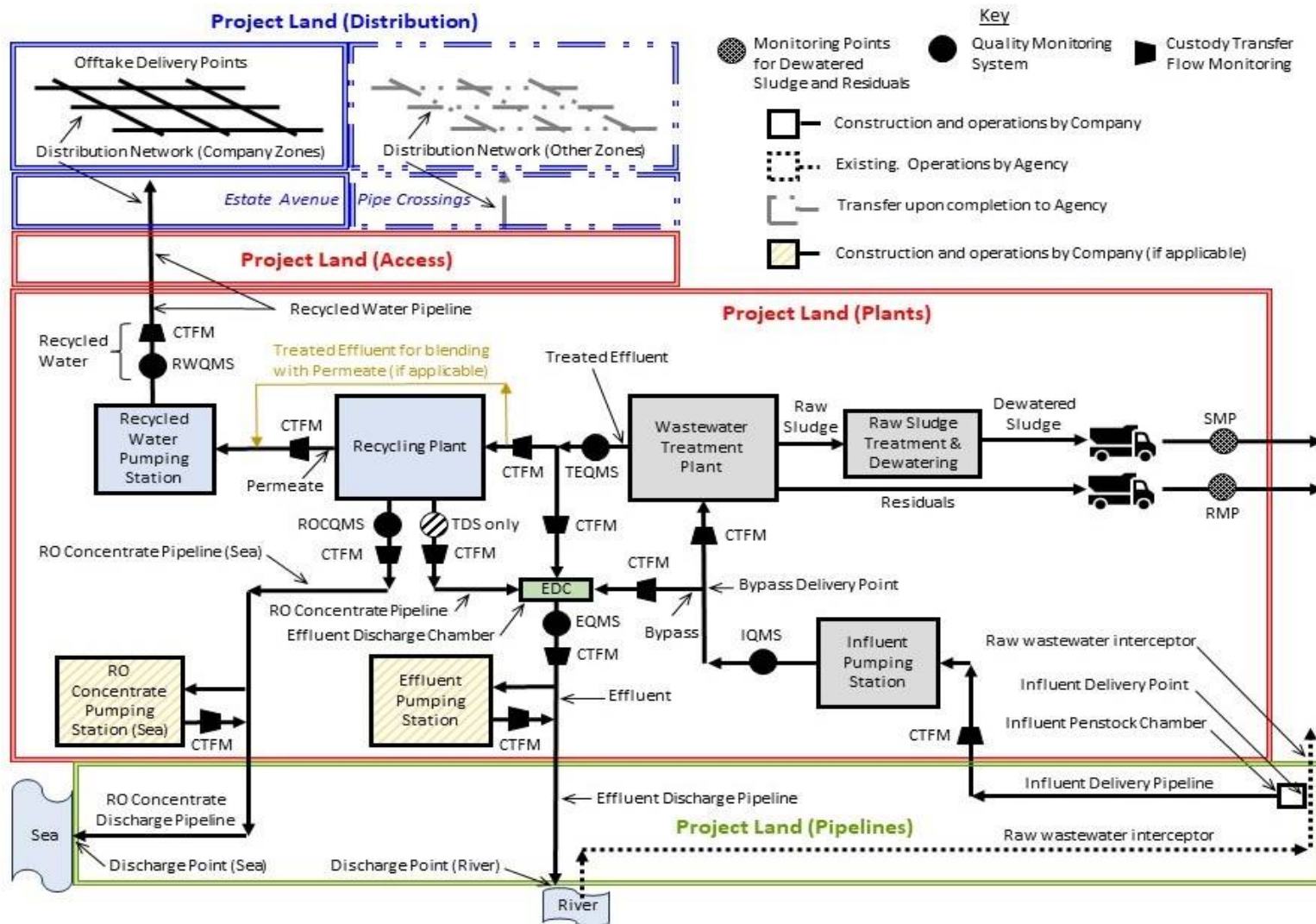


Figure 4. Operations Schematic for West Karachi Recycled Water Project 1

Table 1. Project Components and Monitoring Requirements
for West Karachi Recycled Water Project 1

FACILITIES	PROCESS AND FLOW COMPONENTS	MONITORING
Influent Delivery System and Bypass	<ul style="list-style-type: none"> ○ Connection from raw wastewater interceptor with penstock ○ Influent Penstock Chamber ○ Influent Delivery Pipeline from Influent Penstock Chamber to Wastewater Treatment Plant ○ Influent Pumping Station ○ Bypass pipeline from Influent Delivery Pipeline to EDC 	<p>Quantity</p> <ul style="list-style-type: none"> ● Influent at Influent Delivery Point - measured in Project Land (Plants) ● Influent to Wastewater Treatment Plant ● Influent through Bypass <p>Quality</p> <ul style="list-style-type: none"> ● Influent (also Real Time)
Wastewater Treatment Plant	<ul style="list-style-type: none"> ○ Wastewater Treatment Plant ○ Sludge management ○ Treated Effluent pipeline to Recycling Plant ○ Treated Effluent pipeline to EDC 	<p>Quantity</p> <ul style="list-style-type: none"> ● Treated Effluent to Recycling Plant ● Treated Effluent to EDC <p>Quality</p> <ul style="list-style-type: none"> ● Treated Effluent <p>Other</p> <ul style="list-style-type: none"> ● Dewatered Sludge ● Residuals
Recycling Plant	<ul style="list-style-type: none"> ○ Recycling Plant (including RO) ○ Pipeline from Recycling Plant to Recycled Water Pumping Station ○ Blending of Permeate and Treated Effluent to produce Recycled Water (<i>if applicable</i>) ○ RO Concentrate Pipeline from Recycling Plant to EDC 	<p>Quantity</p> <ul style="list-style-type: none"> ● Permeate at outlet of Recycling Plant (prior to any blending) ● RO Concentrate in RO Concentrate Pipeline to EDC <p>Quality</p> <ul style="list-style-type: none"> ● RO Concentrate (TDS only) in RO Concentrate Pipeline to EDC
Recycled Water Delivery System	<ul style="list-style-type: none"> ○ Recycled Water Pumping Station ○ Recycled Water Pipeline ○ Distribution Network (Company Zones) ○ Distribution Network (Other Zones) - <i>design and possible construction but not operation</i> 	<p>Quantity</p> <ul style="list-style-type: none"> ● Recycled Water in Recycled Water Pipeline ● Recycled Water at Offtaker Meters (aggregate) <p>Quality</p> <ul style="list-style-type: none"> ● Recycled Water in Recycled Water Pipeline ● Recycled Water at Offtaker Meters (spot checks)
Effluent Discharge (to river)	<ul style="list-style-type: none"> ○ Effluent Discharge Chamber (EDC) ○ Effluent pipeline from EDC to TP1 Site boundary ○ Effluent Discharge Pipeline from TP1 Site boundary to Discharge Point (River) and outfall 	<p>Quantity</p> <ul style="list-style-type: none"> ● Effluent at outlet of EDC ● Effluent at outlet of Effluent Pumping Station (<i>if applicable</i>) <p>Quality</p> <ul style="list-style-type: none"> ● Effluent at outlet of EDC for delivery to Discharge Point (River)

	<ul style="list-style-type: none"> ○ Effluent Pumping Station (<i>if applicable</i>) 	
RO Concentrate Discharge (to sea)	<ul style="list-style-type: none"> ○ RO Concentrate Pipeline (Sea) from Recycling Plant to TP1 Site boundary ○ RO Concentrate Discharge Pipeline from TP1 Site boundary to Discharge Point (Sea) and outfall ○ RO Concentrate Pumping Station (Sea) (<i>if applicable</i>) 	<p>Quantity</p> <ul style="list-style-type: none"> ● RO Concentrate in RO Concentrate Pipeline (Sea) ● RO Concentrate at outlet of RO Concentrate Pumping Station (Sea) (if applicable) <p>Quality</p> <ul style="list-style-type: none"> ● RO Concentrate in RO Concentrate Pipeline (Sea) for delivery to Discharge Point (Sea)

Responsibility of the Company for operations and maintenance of the Facilities shall include flow monitoring of the following:

- (a) the Influent to the Influent Pumping Station;
- (b) the Influent to the Wastewater Treatment Plant;
- (c) the Influent through the Bypass to the Effluent Discharge Chamber;
- (d) the Treated Effluent to the Recycling Plant;
- (e) the Treated Effluent to the Effluent Discharge Chamber (not used for recycling);
- (f) the Permeate from the Recycling Plant (prior to any blending);
- (g) the RO Concentrate to the Effluent Discharge Chamber;
- (h) the Recycled Water in the Recycled Water Pipeline;
- (i) the Recycled Water delivered through Offtaker Meters;
- (j) the Effluent at the outlet of the Effluent Discharge Chamber
- (k) the Effluent from the Effluent Pumping Station (if applicable)
- (l) the RO Concentrate in the RO Concentrate Pipeline [Sea]; and
- (m) the RO Concentrate from the RO Concentrate Pumping Station (Sea) (if applicable).

Responsibility of the Company for operations and maintenance of the Facilities shall include quality monitoring of the following:

- (a) the Influent;
- (b) the Treated Effluent at the outlet of the Wastewater Treatment Plant;
- (c) the RO Concentrate to the Effluent Discharge Chamber (TDS only);
- (d) the Recycled Water;
- (e) the Effluent at the outlet of the Effluent Discharge Chamber; and
- (f) the RO Concentrate in the RO Concentrate Pipeline (Sea).

The Company shall provide and install custody transfer mass flow meters in locations as shown in Figure 4. The signal for those flow meters shall be connected to the SCADA system of the Company. The Company shall be responsible for maintaining and controlling the flow from the Influent Pumping Station to deliver 35 MIGD throughout the Operating Period.

Quality measurement of the Influent, Treated Effluent, Effluent, RO Concentrate when discharging to the sea and Recycled Water shall each include 24-hour composite sampling on a continuous basis for the laboratory testing and reporting of all parameters included in Table 4, Table 5 and Table 6 as applicable and defined herein. Quality measurement of the RO Concentrate when delivered to the Effluent Discharge Chamber shall record TDS on a continuous basis for information. Monitoring of the Dewatered Sludge and Residuals shall be as required to comply with the provisions of this MPSS.

Additionally a Real Time Quality Monitoring System for the Influent shall be installed by the Company.

The Company shall throughout the Operating Period prepare and continuously update the digital O&M Manual for all installed Facilities as follows:

- a) Information shall be progressively collated throughout the Operating Period so it is always up to date and enables complete and seamless delivery of the Facilities at the Termination Date;
- b) The O&M Manual shall have cloud back-up with certified data security and remote disaster recovery for maximum uptime and operational resilience;
- c) The content, structure and handover format shall be designed for ease of access to information by the Agency, Company and other parties involved in O&M of the Facilities;
- d) The O&M Manual shall be capable of being updated with event logging, version control and operational history;
- e) Manufacturers, suppliers, contractors and subcontractors shall follow a standardized submission format for specifications, procedures, certifications and warranties; and
- f) The O&M Manual shall provide a complete, accurate and secure archive for asset management.

The Company shall submit the content of the O&M Manual to the IE for review and modify as required by the IE.

The Company shall be responsible for ensuring that the Facilities remain fit for purpose during the Operating Period and comply with the Key Performance Indicators (KPI) specified in Section 6.

The Company shall prepare and submit monthly and annual reports of O&M activities as detailed in the Concession Agreement. The minimum required elements of the monthly reports are included in Appendix B. The format and content of the annual reports shall be as directed by the IE to satisfy the requirements of the Agency.

3.7. Sustainability

The Company shall use reasonable endeavors to incorporate the following initiatives insofar as they are applicable to a wastewater treatment and recycling utility:

Table 2. Sustainability Initiatives

Initiative	Description
Sustainability strategy	Able to demonstrate by a reputable standard of outstanding progress towards sustainable business
Stakeholder engagement	Gender-sensitive stakeholder engagement practices at all levels of supply chain
Environmentally sustainable management	Formal process in place, responsible people assigned and able to demonstrate an Environmental Management Plan in compliance with ISO 14001
Green procurement	Adopt green procurement practices of suppliers and customers
Management practices	Assess greenhouse footprint and produce formal policy, procedures and practices supporting energy efficiency and carbon management
Reduced carbon footprint	Implementation of practices that assist in reducing their carbon footprint for entire product life-cycle including raw material supply chain, product manufacture, product distribution system
Energy use associated with non-production business	Integrated resource (materials, water, energy) management plan incorporating links to other eco-efficiency practices (e.g., materials, water)
Energy use associated with production	Incorporate eco-efficiency processes and practices (e.g. linking energy to materials, water and production) that results in

Initiative	Description
	integration and re-engineering production and business processes with measurable business outcomes
Infrastructure design	Design of the infrastructure integrates management concepts/technologies that facilitate effective energy management, monitoring and reporting
Energy management	Management and reporting of consumption and reduction for an integrated approach to energy management
Water cycle management	Integrated approach to water cycle management and sludge management that considers local environment and supply chain
Wastewater handling	Procedures and practices in place to manage, reduce/improve, monitor and report on wastewater discharge

3.8. ISO Certification

The Company shall achieve ISO 9001:2015 certification and ISO 14001:2015 certification within 12 months of the Signature Date.

The Company shall maintain valid certificates for ISO 9001 and ISO 14001 (or applicable, updated certificates) throughout the Concession Period.

4. Design Requirements

4.1. General Design Requirements

4.1.1. Design Principles

The following general design principles shall be followed:

- a) The Influent Pumping Station and Wastewater Treatment Plant shall be designed with N+1 redundancy to enable partial shutdown during maintenance while allowing treatment of the design capacity. The Influent Delivery System, the Wastewater Treatment Plant, the Bypass, the Effluent Discharge Chamber, the Effluent Discharge Pipeline and the Effluent Pumping Station (if applicable) shall be available to operate at design capacity 100 percent of the time during the Operating Period;
- b) The Recycling Plant, the RO Concentrate Discharge Pipeline, the RO Concentrate Pumping Station (Sea) (if applicable), the Recycled Water Pumping Station, the Recycled Water Pipeline and the Distribution Network (Company Zones) shall be designed to maximize availability during the Operating Period;
- c) The Facilities shall be designed to operate automatically with minimal operator intervention;
- d) Critical duty sets of equipment shall have at least one dedicated standby unit configured for immediate use;
- e) Odor control measures shall be incorporated in the design of the Influent Pumping Station and Wastewater Treatment Plant as required to ensure that there is no increase in noxious odors at the boundary of the Project Land (Plants), and to ensure that all local air quality requirements are maintained;
- f) The noise level from any component of the Facilities shall not exceed 70 dB(A) at the boundary of the Project Land (Plants);
- g) Piping/pipelines for the Facilities shall be constructed below ground with a minimum of 1.0 m cover above crown to final grade. Pipelines under roads shall have a minimum of 1.2 m cover;
- h) Maximum velocity in pipelines included for the Facilities shall not exceed 3 m/s; and
- i) Energy efficient features shall be included in the design of the Facilities to assure compliance with the Specific Energy Consumption for the Influent Delivery System, the Wastewater

Treatment Plant, the Recycling Plant, the Recycled Water Pumping Station, the Effluent Pumping Station (if applicable) and the RO Concentrate Pumping Station (Sea) (if applicable).

4.1.2. Codes and Standards

The Facilities shall comply with the applicable regulations, codes and standards of Sindh Province and of Pakistan.

In the absence of specific design guidelines in national codes and standards the European Union (EU) Eurocodes (EN), American Water Works Association (AWWA), American National Standards Institute (ANSI), American Standards for Testing of Materials (ASTM) or other applicable standards may be utilized.

4.1.3. Design Life

The minimum design life of capital investment components shall be:

- Civil, Structural and Concrete Works 50 years
- Piping 50 years
- Steel Structures (including tanks) 30 years
- Mechanical Components (except aeration diffusers) 25 years
- Electrical Motors 20 years
- Electrical Equipment (MCCs, Transformers, Switchgear) 20 years
- PLCs, SCADA, Instruments 15 years

The Company shall be responsible for the full replacement and/or upgrading of all system components for the Facilities for the entire Operating Period at the expense of the Company.

The Company shall replace, repair or refurbish all components and facilities such that the Facilities shall operate with only routine maintenance with no major capital expenditure for a period of 12 months after the Final Expiry Date.

4.2. General Design Parameters

4.2.1 Capacities

The treatment, production and/or hydraulic capacity of the Facilities shall be as included in Table 3.

Table 3. Treatment, Production and/or Hydraulic Capacity Requirements of Facilities

Row	Facility	Treatment Capacity (MIGD)	Hydraulic Capacity (GPM/LPS)	Minimum Production or Supply Capacity (MIGD)
1	Connection from raw wastewater interceptor		24,306/1,842	
2	Influent Penstock Chamber	35		
3	Influent Delivery Pipeline		24,306/1,842	
4	Influent Pumping Station		24,306/1,842	

Row	Facility	Treatment Capacity (MIGD)	Hydraulic Capacity (GPM/LPS)	Minimum Production or Supply Capacity (MIGD)
5	Bypass to Effluent Discharge Chamber		24,306/1,842	
6	Wastewater Treatment Plant	35		
7	Sludge Treatment and Dewatering	35		
8	Treated Effluent pipeline to Effluent Discharge Chamber		24,306/1,842	
9	Recycling Plant	As required to supply minimum of 28 (average over a Contract Year) of Recycled Water at Offtaker Meters		
10	RO Concentrate Pipeline to Effluent Discharge Chamber		As required based on RO plant capacity and configuration	
11	Recycled Water Pumping Station		As required to meet diurnal demand patterns of Offtakers	
12	Recycled Water Pipeline		As required to meet diurnal demand patterns of Offtakers	
13	Distribution Network (Company Zones)		As required to meet diurnal demand patterns of Offtakers	28 (average over a Contract Year) at Offtaker Meters
14	Distribution Network (Other Zones)		As required to meet diurnal demand patterns of consumers	22 after non-revenue water
15	Effluent Discharge Chamber	35		
16	Pipeline from Effluent Discharge Chamber to boundary of Project Land (Plants)		24,306/1,842	
17	Effluent Discharge Pipeline to Discharge Point (River)		24,306/1,842	
18	Effluent Pumping Station (Optional)		As required to deliver Effluent to Discharge Point (River) if gravity flow is not feasible	
19	RO Concentrate Pipeline (Sea) to		As required based on RO plant	

Row	Facility	Treatment Capacity (MIGD)	Hydraulic Capacity (GPM/LPS)	Minimum Production or Supply Capacity (MIGD)
	boundary of Project Land (Plants)		capacity and configuration	
20	RO Concentrate Discharge Pipeline to Discharge Point (Sea)		As required based on RO plant capacity and configuration	
21	RO Concentrate Pumping Station (Sea) (Optional)		As required to deliver RO Concentrate to Discharge Point (Sea) if gravity flow is not feasible	

The Company shall not be responsible for accepting Influent in excess of 35 MIGD nor shall the Company deliver more than 35 MIG through the Influent Pumping Station during any Day.

4.2.2 Influent Quality

The Facilities shall process the Influent from residential, mixed use, institutional, industrial and other developments within the sewerage catchment area throughout the Operating Period.

The expected influent pollutant loadings at the Inflow Delivery Point are shown in Table 4 below. The Company shall ensure that the Wastewater Treatment Plant shall be designed for the maximum influent concentrations as shown in Table 4.

Table 4. Influent Wastewater Quality Maximum Concentrations

Parameter	Maximum Allowable Concentration (mg/L unless noted)
pH (pH units)	6-9
Biochemical Oxygen Demand (BOD ₅)	250
Chemical Oxygen Demand (COD)	600
Total Suspended Solids (TSS)	400
Total Dissolved Solids (TDS)	3500
Oil and Grease	100
Phenolic Compounds (as phenol)	2
Cyanide (as CN ⁻) total	0.3
Anionic Detergents (MBAS)	20
Ammonia (NH ₃)	70
Pesticides	0.15
Cadmium	0.1
Chromium (+3, +5)	1
Copper	1
Lead	0.5
Mercury	0.01
Selenium	0.5

Nickel	1
Silver	1
Arsenic	1
Barium	1.5
Boron	6
Total Phosphorus (TP)	15

If the any of the Influent parameters exceed the maximum concentration limits on a 24-hour composite sample basis as shown in Table 4, the Company may have the right to divert Influent through the Bypass, subject to the provisions of Section 9.3 of the Concession Agreement. A bypass event may also be triggered by the Real Time Quality Monitoring System described in Section 4.3.5.

4.2.3 Treated Effluent Quality

Treated Effluent from the Wastewater Treatment Plant shall at all times comply with Table 5 in order to meet the requirements of the Sindh Environmental Quality Standards (SEQS) for Municipal and Liquid Industrial Effluents for discharge “into Inland Waters” and the Indicative Values for Treated Sanitary Sewage Discharges in the International Finance Corporation (IFC) Environmental, Health, and Safety (EHS) Guidelines of 2007.

Table 5. Treated Effluent and Effluent Quality Requirements

Parameter	Maximum Allowable Concentration (mg/L unless noted)
pH (pH units)	6-9
Biochemical Oxygen Demand (BOD ₅)	30
Chemical Oxygen Demand (COD)	125
Total Suspended Solids (TSS)	50
Total Dissolved Solids (TDS)	3500
Oil and Grease	10
Phenolic Compounds (as phenol)	0.1
Chloride (as Cl ⁻)	1000
Fluoride (as F ⁻)	10
Cyanide (as CN ⁻) total	1
Anionic Detergents (MBAS)	20
Sulphate (SO ₄ ²⁻)	600
Sulphide (S ²⁻)	1
Ammonia (NH ₃)*	40
Pesticides	0.15
Cadmium	0.1
Chromium (+3, +5)	1
Copper	1
Lead	0.5
Mercury	0.01
Selenium	0.5
Nickel	1
Silver	1
Zinc	5

Arsenic	1
Barium	1.5
Iron	8
Manganese	1.5
Boron	6
Chlorine	1
Total Nitrogen (TN)*	10
Total Phosphorus (TP)	2

* Ammonia (NH₃) is included in Table 5 to demonstrate SEQS regulatory compliance but the level will be governed by the maximum allowable concentration of Total Nitrogen (TN).

4.2.4 Effluent Quality

Effluent flow from the Effluent Discharge Chamber and at the Discharge Point (River) shall at all times comply with the maximum allowable concentration limits specified in Table 5.

If the TDS, chloride or sulphate concentrations of the Effluent reach the limits specified in Table 5, the Company shall immediately reduce the proportion of RO concentrate in the Effluent to a level whereby the Effluent is compliant with Table 5.

The reduction of RO Concentrate in the Effluent shall be accomplished by discharging all or part of the RO Concentrate from the Recycling Plant to the sea as described in Section 4.8.

4.2.5 RO Concentrate Quality

RO Concentrate that is delivered to the Effluent Discharge Chamber will be part of the Effluent which is required to comply with the quality limits as included in Table 5.

RO Concentrate that is delivered to the Discharge Point (Sea) shall at all times comply with the quality requirements shown in Table 5 except for TDS, chloride and sulphate for which the concentration limits in Table 5 shall not apply. The TDS, chloride and sulphate limits for RO Concentrate discharged to the sea shall be below sea concentration.

4.2.6 Recycled Water Quality

The Recycled Water produced from the Recycling Plant shall at all times comply with the quality limits as included in Table 6 in the Recycled Water Pipeline and at the individual Offtake Delivery Points.

Table 6. Recycled Water Quality Requirements

Parameter	Maximum Allowable Concentration (mg/L unless noted)
pH (pH units)	6.5-8.5
Suspended Solids (SS)	--
Turbidity (NTU)	5
Color (APHA color scale)	30
Biochemical Oxygen Demand (BOD ₅)	10
Chemical Oxygen Demand (COD)	60
Total Hardness (as CaCO ₃)	450
Total Alkalinity (as CaCO ₃)	350

Ammonia-Nitrogen (NH ₃ -N)	10
Total Phosphorus (TP)	1
Total Dissolved Solids (TDS)	1000
Oil and Grease	1
Anionic Detergents (MBAS)	0.5
Fecal Coliform (MPN/L)	2000

4.2.7 Locations of Facilities

The land available for the Facilities within and adjacent to TP1 Site is shown in Figure 5. The alignments in Figure 5 are for indication only and the pipeline route easements are shown in survey drawings referenced in Schedule 1 of Project Land Agreement.

① is part of the Project Land (Pipelines) and shows the approximate location of the connection from the existing raw wastewater interceptor and 170 m of the Influent Delivery Pipeline that is outside the southern boundary of the TP1 Site. A right of way 10 m wide shall be shared by the Effluent Discharge Pipeline and the RO Concentrate Discharge Pipeline from the southern boundary of the Project Land (Plants) until they reach the alignment of the raw wastewater interceptor.

② is the Project Land (Plants), an area of approximately 21.55 acres of which 1.56 acres in the north-west corner is reserved for K-Electric to construct a GIS grid station for the Project. In the remaining 20 acres the Influent Pumping Station, continuation of the Influent Delivery Pipeline, the Wastewater Treatment Plant, the Bypass, the Effluent Discharge Chamber, the Recycling Plant, the RO Concentrate Pipeline, the RO Concentrate Pipeline (Sea), the Recycled Water Pumping Station, the Effluent Pumping Station (if applicable), the RO Concentrate Pumping Station (Sea) (if applicable), buildings and internal access roads shall be constructed.

③ is the Project Land (Access), a 25 m wide corridor through TP1 site from the northern boundary to the Project Land (Plants). Within the corridor shall be the Recycled Water Pipeline from the Project Land (Plants) connecting at the northern boundary to the Distribution Network (Company Zones), an access road to the Project Land (Plants) to be constructed by the Company from a new entrance on Estate Avenue, and 132kV cable that K-Electric shall lay below ground from Estate Avenue to the GIS grid station in the Project Land (Plants).

④ is part of the Project Land (Distribution) and shows the start of the Distribution Network (Company Zones) and the Distribution Network (Other Zones) as two sets of single or dual pipelines under Estate Avenue. One set of the pipelines under the road is for future connection by the Agency and shall terminate inside the TP1 Site boundary.

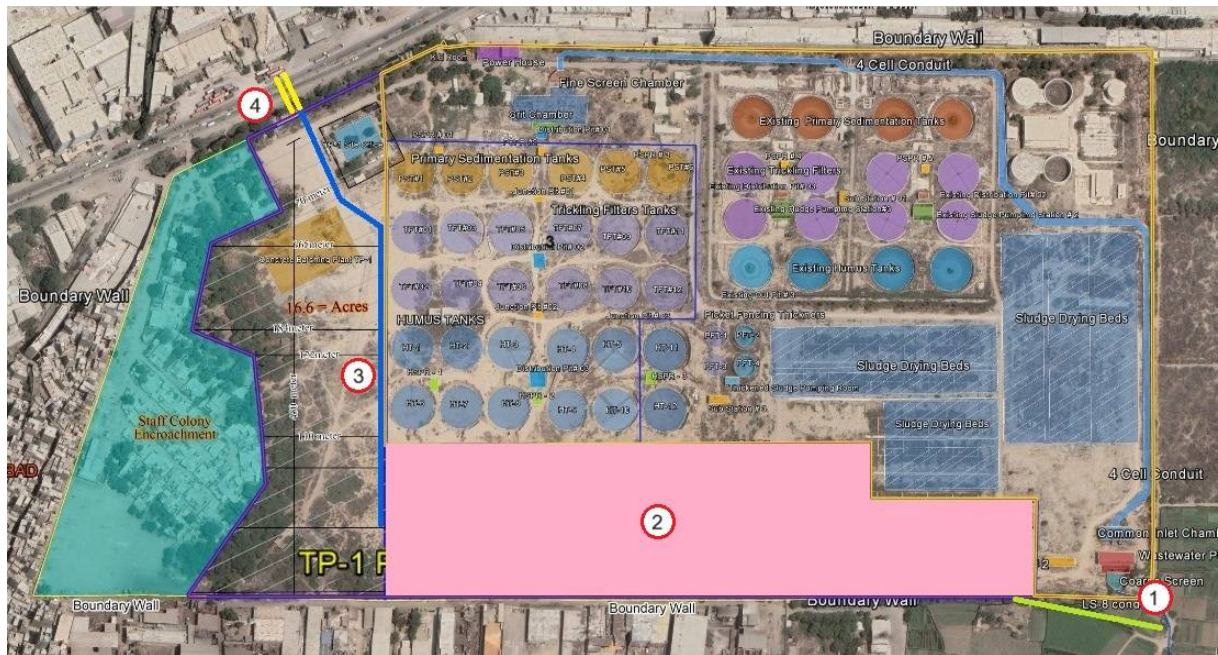


Figure 5. Land Available for Facilities within and adjacent to TP1 Site

The remainder of the Distribution Network (not shown in Figure 5) comprising the Distribution Network (Company Zones) and the Distribution Network (Other Zones) shall be constructed within SITE in the Project Land (Distribution).

The Effluent Discharge Pipeline shall be constructed within the Project Land (Pipelines) from the southern boundary of the Project Land (Plants) to the raw wastewater interceptor outside the south-east corner of the TP1 Site and thereafter shall follow the route of the interceptor to the Discharge Point (River) as shown (C to D) in Figure 6.

The RO Concentrate Discharge Pipeline shall be constructed within the Project Land (Pipelines) from the southern boundary of the Project Land (Plants) to the raw wastewater interceptor outside the south-east corner of the TP1 Site and thereafter shall follow the route of the interceptor to the Lyari River and along the river bed to the Discharge Point (Sea) as shown (C to D to E) in Figure 6.

The alignments in Figure 6 are for indication only and the pipeline route easements are shown in survey drawings referenced in Schedule 1 of Project Land Agreement.

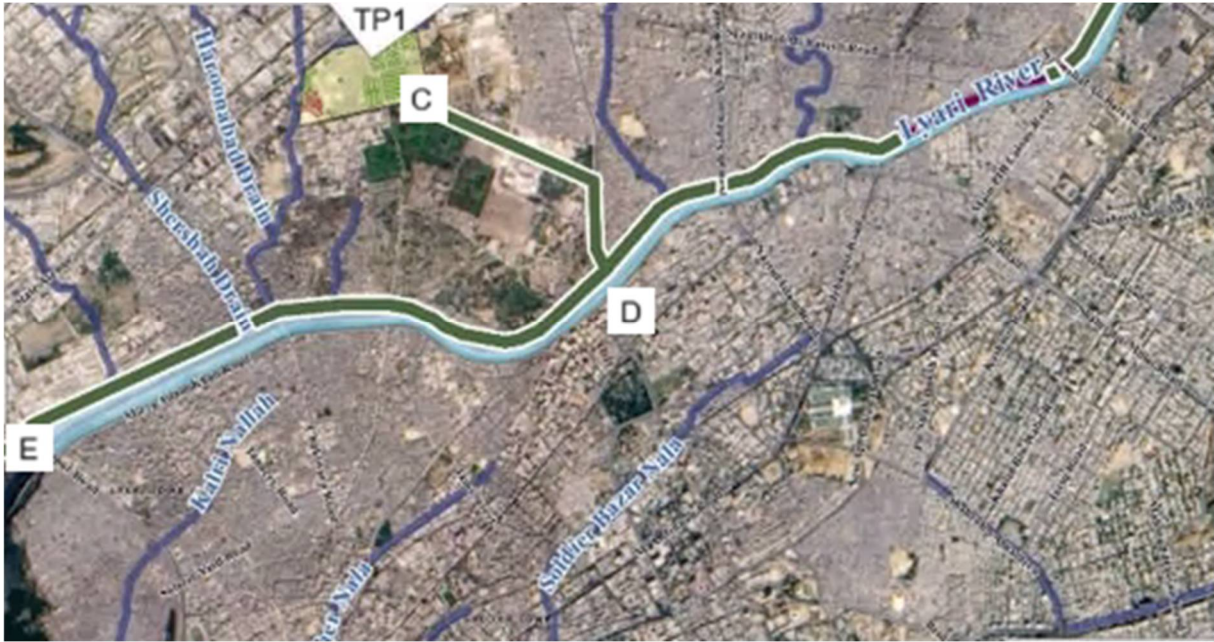


Figure 6. Interceptor Routes to be shared with Discharge Pipelines

4.3. Influent Delivery System and Bypass Design Criteria

4.3.1 Influent Delivery Pipeline

Influent shall be delivered to the TP1 Site by a reinforced concrete box culvert (the raw wastewater interceptor) as shown in Figure 7 that is constructed for the full length although the structures STR-A and STR-B that will divert flow from the nullahs into the culvert are not yet completed.



Figure 7. Route of Raw Wastewater Interceptor to TP1 Site

The internal dimensions of the culvert at the TP1 Site are 2.5 m x 2.5 m and the top of the culvert is approximately 8 m below ground level following the configuration shown in Figure 8. Manholes are

constructed at intervals along the interceptor and the last manhole (MH-1) before entering the TP1 Site is shown in Figure 9.

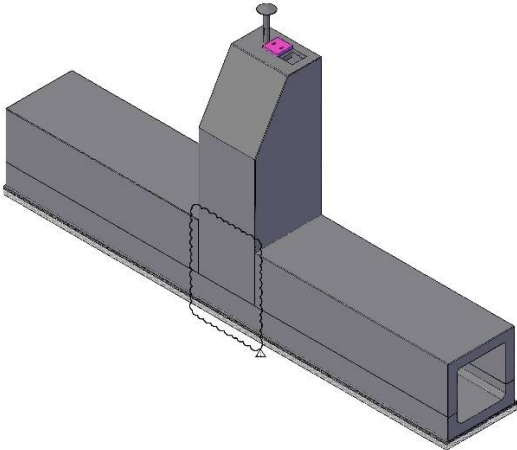


Figure 8. Isometric View of Raw Wastewater Interceptor

The culvert already extends inside the boundary of TP1 Site for connection to the coarse screen chamber for the ongoing construction contract. The Company shall install a separate connection from the existing box culvert near to MH-1 for the supply of Influent to the Project.



Figure 9. Location of Manhole MH-1 on Raw Wastewater Interceptor

The Company shall construct an outlet in the box culvert for the design flow and supply and install a penstock (sluice gate or slide gate) so that in the event of an Environmental Breach Event involving Influent the Facilities can be isolated by the Company or by the Agency from the ongoing construction project and the raw wastewater interceptor.

The outlet with penstock on the raw wastewater interceptor shall discharge Influent for the Project into the Influent Penstock Chamber, a reinforced concrete chamber adjacent to the raw wastewater interceptor that is designed and constructed by the Company with a cover to provide access to the penstock and facilitate operation from ground level. The dimensions of the chamber shall be approved by the IE.

The Influent Delivery Point for the Project shall be the outlet created by the Company in the box culvert. The Company shall carry out scheduled routine maintenance on the penstock and not less than once every month during the Operating Period shall fully close and open the penstock to demonstrate that it is virtually drop-tight. If any leakage is observed the Company shall undertake remedial maintenance of the penstock including the supply of any replacement parts that may be required or replacement of the entire penstock.

The Company shall construct an Influent Delivery Pipeline from the Influent Penstock Chamber to the Wastewater Treatment Plant incorporating a pumping facility. The hydraulic design capacity of the Influent Delivery System shall accommodate the hydraulic conditions during operation of the Influent Pumping Station and during times when the pumping station is not operating.

4.3.2 Influent Pumping Station

4.3.2.1 Pumping Station Building

The Influent Pumping Station shall be constructed with reinforced concrete substructure, superstructure framework and roof slab, and include lighting, small power, adequate ventilation, and fire and safety equipment.

MCCs shall be housed in dedicated rooms, separate to the mechanical plant that they control.

4.3.2.2 Pumps and Motors

The prime considerations when selecting pumps shall be low maintenance costs, reliability and trouble-free operation.

Each pump shall be capable of continuous vibration-free running when operating over the complete range of flows and be designed to give a continuous falling head/quantity characteristic to allow stable parallel operation. The net positive suction head (NPSH) required shall be compatible with that available to enable the pump to operate without cavitation over the full range of operating conditions.

The materials of construction of both the pump and motor shall be resistant to corrosion in the liquids that are being conveyed.

Under normal operating conditions pumps shall be controlled remotely but provision shall be included for this function to be carried out manually at a local control panel. The pumping station shall be capable of meeting the required flow with the largest pump out of service.

4.3.2.3 Surge Analysis

A surge analysis shall be undertaken for the pumping system to determine whether surges shall occur in the discharge line(s) following pump stoppage or power failure. If the analysis establishes that surge shall occur, then surge protection equipment shall be provided.

4.3.2.4 Crane

The Influent Pumping Station shall include a gantry crane sufficient to maintain the pumps, motors, valves, etc. for the duration of the Operating Period and shall be capable of lifting the heaviest single equipment item within the pumping station. The crane and all related facilities shall be in accordance with all local and applicable international codes and standards for access, safety and operation, including the Sindh Occupational Safety and Health Act, 2017.

4.3.2.5 Ventilation System

The Influent Pumping Station shall include a ventilation system that meets all local standards and is in accordance with the standards and requirements of the Sindh Occupational Safety and Health Act, 2017 and all other applicable laws, regulations and codes for confined spaces ventilation.

4.3.3 Bypass

A Bypass shall be designed to deliver 1,842 liters per second of Influent from the Influent Delivery Pipeline downstream of the Influent Pumping Station to the Effluent Discharge Chamber without entering the Wastewater Treatment Plant.

Under specified conditions Influent may be diverted into the Bypass from the Bypass Delivery Point in the Influent Delivery Pipeline and shall flow to the Effluent Discharge Chamber.

4.3.4 Influent Delivery System and Bypass Piping and Valves

Materials for pipelines utilized for the Influent Delivery System and Bypass shall be resistant to corrosive attack and mechanically satisfactory for the duty.

Preferred pipe materials are:

- Influent Delivery Pipeline – Coated Reinforced Concrete, HDPE or cement mortar-lined Ductile Iron
- Bypass - Coated Reinforced Concrete, HDPE or cement mortar-lined Ductile Iron

Pipe pressure ratings shall be determined according to test and working pressure requirements of applicable standards and relevant sections of this MPSS.

All valves including the penstock required for operation of the Influent Delivery System and Bypass shall be provided and where applicable integrated with the SCADA system. Open/close indication for the Influent Delivery System Penstock shall be incorporated into the SCADA system. Valves shall be placed to ensure isolation of all facilities for emergency conditions and maintenance activities. Such valves shall include isolating valves, air valves, washout valves, non-return valves and pressure regulating valves. Valves for raw sewage, sludge, etc. shall be non-clogging type and shall be designed to seal properly considering the fluid and solids conditions.

Materials for valves utilized for the Influent Delivery System and Bypass shall be resistant to corrosive attack and mechanically satisfactory for the duty.

Duty and standby equipment items shall be equipped with an isolating valve at the feed and outlet to enable removal for off-line maintenance.

4.3.5 Influent Delivery System and Bypass Monitoring Systems

Mass flow meters shall be supplied and installed by the Company to measure:

- a) the Influent to the Influent Pumping Station;
- b) the Influent to the Wastewater Treatment Plant; and
- c) the Influent through the Bypass to the Effluent Discharge Chamber.

The flow meters shall be suitable for custody transfer applications and perform to Accuracy Class 1 as defined in OIML R 49-1 Edition 2013, and incorporate data-logging equipment compatible with data-capture and processing systems for the Facilities.

Equipment for monitoring the quality of the Influent shall be supplied and installed by the Company. Monitoring shall include 24-hour composite sampling on a continuous basis and the Company shall be responsible for the laboratory testing and reporting of all parameters included in Table 4.

In addition a Real Time Quality Monitoring System shall be installed, operated and maintained by the Company as a part of the Influent Monitoring System. The Real Time Quality Monitoring System shall utilize biosensor or electrobiosensor technology (voltage, current or other) to identify pollutants harmful to the biological treatment system and determine when to discharge Influent to the Bypass Delivery Point. The systems and data shall be made available to the Agency in real-time. Each time a bypass is triggered by the Real Time Quality Monitoring System, the Company shall sample and analyze the Influent based on the limits in Table 4 within 48 hours. Laboratory testing shall take precedence over the Real Time Quality Monitoring System. Figure 10 shows the anticipated arrangement and protocol for the Influent quality monitoring.

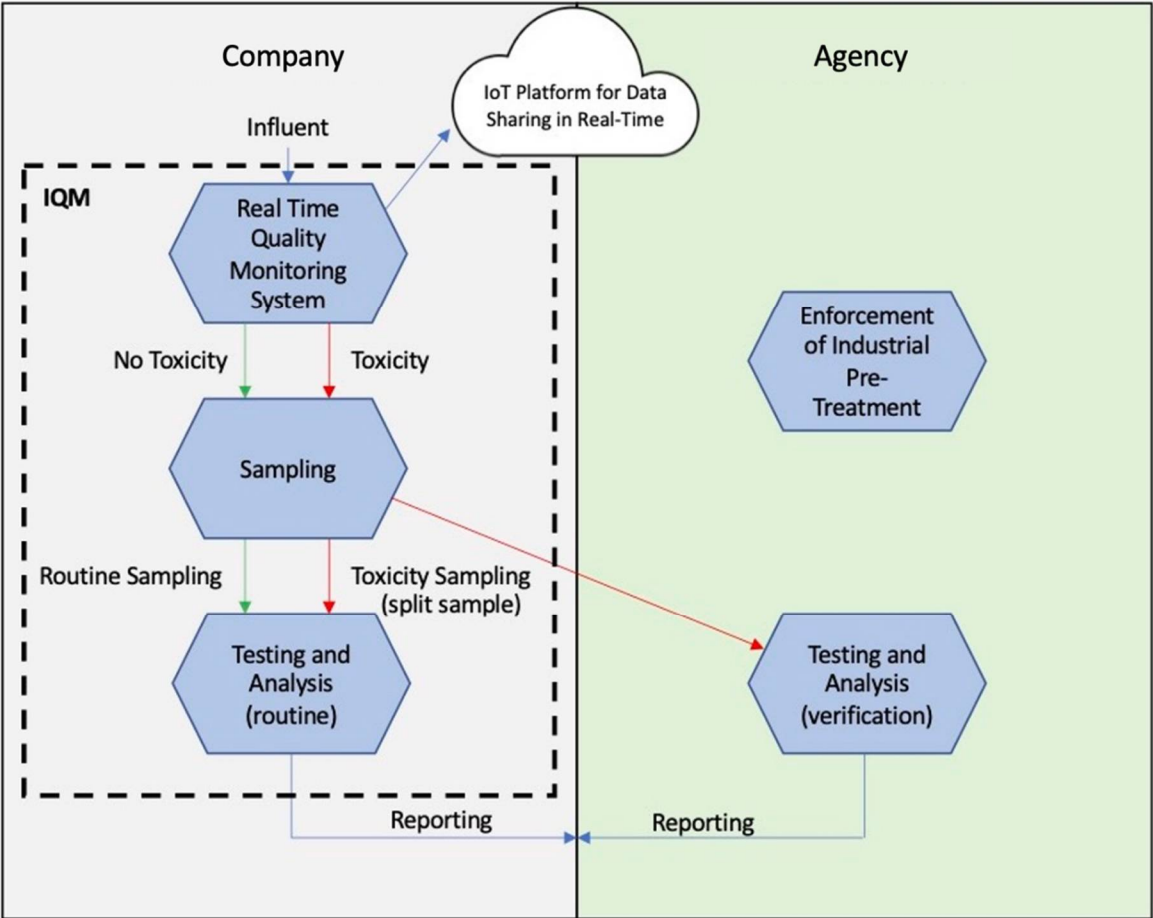


Figure 10. Influent Wastewater Quality Monitoring Schematic

When a bypass event is triggered, the Company shall continue to monitor the Real Time Quality Monitoring System. Once a bypass event is triggered, the bypass event shall be stopped and the Influent returned to the treatment process when there is no detection of pollutants harmful to the biological treatment system for a period of 4 hours.

If the Real Time Quality Monitoring System provides false bypass triggering events (as determined by laboratory testing) more than 3 consecutive times or more than 5 times out of 10 events on a rolling average, the Company shall be responsible for re-calibrating or replacing the system to meet the requirements of this MPSS.

The Company shall be responsible for the accuracy and completeness of all Monitoring Systems. Any damage to the biological treatment systems, equipment or operational ability of the treatment facilities shall be the sole responsibility of the Company. The quality monitoring systems shall be designed, constructed, operated and maintained to provide the information required in this MPSS and to protect the treatment facilities from damage, including damage to the biomass within the biological treatment system.

4.3.6 Influent Delivery System and Bypass SCADA and Instrumentation

The Influent Delivery System and Bypass shall be connected by a SCADA system of software and hardware elements that allows the Company to control operations and processes locally or at remote control centres and to monitor, collect and process data. The SCADA system and software shall be as included in Section 4.9.

The SCADA system shall provide real-time information on the status of the Influent delivery and shall facilitate monitoring and reporting of the following:

- a) Open/Close indication for the Influent Delivery System penstock
- b) Influent flow to the Influent Pumping Station;
- c) Influent flow to the Wastewater Treatment Plant;
- d) Influent flow through the Bypass;
- e) Real time Influent quality;
- f) Real Time Quality Monitoring System alarm;
- g) Diagnostic data for routine maintenance purposes;
- h) Long-term planning of capital expenditures and asset management;
- i) Analysis of the evolution of KPI; and
- j) Energy consumption.

The start-up of pumps in the Influent Pumping Station shall be controlled by Programmable Logic Controller (PLC). Start up and shut down programmes shall be incorporated into the PLC including sequence operation, time delays and safety cut-outs to ensure safe and trouble-free operation of equipment.

Alarms shall be provided for the following conditions, as a minimum:

- a) Power is unavailable at the Influent Pumping Station;
- b) Influent is flowing through the Bypass;
- c) Penstock is not fully open; and
- d) Standby power facility failure.

Local instrumentation shall be provided for all items of equipment and processes indicating data or the position or status, and shall be readily visible to operators without the use of temporary ladders or platforms.

4.3.7 Influent Delivery System and Bypass Electrical

The Company shall be responsible for all electrical supply, equipment and facilities for the Influent Delivery System and Bypass.

Standby automatic mains failure power facilities shall be provided for critical items of equipment required to maintain the specified Availability. If diesel generators are provided the bulk fuel tanks shall be of sufficient capacity to provide not less than three days of storage at full load and be provided with an external filling point accessible by road.

The Specific Energy Consumption for the Influent Delivery System shall be no more than 0.075 kWh/m³ of Influent as measured by the Custody Transfer Flow Meters on the inlet to the Wastewater Treatment Plant and on the Bypass.

4.4. Wastewater Treatment Plant Design Criteria

4.4.1. General

The Wastewater Treatment Plant and related works shall have a continuous operating capacity of 35 MIGD and a hydraulic capacity of at least 1,842 liters per second. Full redundancy (N+1) shall be incorporated into the design of the facility for all structures, equipment, and electrical components such that all facilities can operate with the largest unit out of service, with full, stand-by structures and equipment provided.

4.4.2. Preliminary Treatment

Pretreatment shall be provided to optimize the biological treatment processes, to prevent odors and to remove grit or sand which may damage operating equipment. Pretreatment facilities shall have a continuous treatment capacity of 35 MIGD.

Residuals (screenings, sand and grit) must be removed from the Project Land (Plants) on a routine basis so as to prevent odors. Screenings must be washed and dewatered to a minimum solids content of 25 percent by weight and disposed in an offsite Residuals disposal facility pre-approved by the Agency. Grit shall be dewatered to a minimum of 60 percent solids by weight and disposed in an offsite disposal facility pre-approved by the Agency. Monitoring of the moisture content for the residuals prior to removal from the Project Land (Plants) shall be the responsibility of the Company. Disposal of Residuals (including transportation to the relevant pre-approved facility) shall be the responsibility of the Company.

4.4.3. Primary Clarifiers

The Company is encouraged to implement the use of primary clarifiers to minimize energy use in the Wastewater Treatment Plant. Primary clarifiers (if provided) shall be designed with a minimum overflow rate of 40 meters/day and shall have a minimum depth of 3 meters and a minimum hydraulic residence time of 2 hours.

4.4.4. Main Treatment Process

The treatment method shall be a multi-stage biological process incorporating biological nutrient removal (BNR) or other processes in accordance with international best practices to remove organic pollutants, solids, nitrogen and other impurities from the effluent in order to comply with the Treated Effluent quality requirements as included in Table 5.

The Company shall consider technologies or solutions with lower specific energy consumption and reduced sludge production. Review and approval of the wastewater treatment process in the PED shall take into consideration the value engineering and energy efficiency evaluation undertaken by the Company to improve sustainability and efficiency.

Secondary clarifiers included in the main treatment process for solids separation shall be designed with a minimum overflow rate of 20 meters/day and shall have a minimum depth of 4 meters and a minimum hydraulic residence time of 2 hours.

4.4.5. Sludge Handling

Sludge shall be thickened and stored in a manner to minimise odors prior to stabilisation.

Following stabilization, the sludge shall be dewatered to a minimum of 80% liquid (20% solids) content and shall pass a paint filter moisture test. Either before dewatering or following dewatering, the sludge shall be treated and/or stabilized to meet the following requirements:

- Test for fecal coliform density as an indicator for all pathogens. The geometric mean of seven samples shall be less than 2 million MPNs per gram per total solids or less than 2 million CFUs per gram of total solids at the time of testing.
- Passing of a Toxicity Characteristic Leaching Procedure (TCLP) test

The Dewatered Sludge shall be monitored for compliance with the requirements above prior to removal from the Project Land (Plants). Dewatered Sludge meeting the requirements above shall be transported by the Company to a pre-approved offsite disposal site.

Sludge handling, stabilization, dewatering, transportation and disposal shall also be in accordance local, regional and national regulations.

4.4.6. Treated Effluent Discharge

Treated Effluent from the Wastewater Treatment Plant that is not transferred to the Recycling Plant shall be delivered to the Effluent Discharge Chamber as shown in Figure 4 for disposal to the river as described in Section 4.7.

4.4.7. Wastewater Treatment Plant Mechanical and Process Equipment

All mechanical and process equipment shall be selected for the efficient and safe operation for the specific operating conditions. The prime considerations when selecting equipment shall be low maintenance costs, reliability and trouble-free operation.

All equipment shall be capable of continuous vibration-free running when operating over the complete range of operating conditions and be designed to give a continuous falling head/quantity characteristic to allow stable parallel operation.

All equipment shall be designed with N+1 redundancy to allow for continuous operation during maintenance or emergency conditions.

The materials of construction of equipment and motors shall be resistant to corrosion in the liquids or solids that are being conveyed or the environment for installation.

Under normal operating conditions equipment shall be controlled remotely but provision shall be included for this function to be carried out manually at local control panels along with provisions for emergency stop.

4.4.8. Wastewater Treatment Plant Piping and Valves

Materials for pipelines utilized for the Wastewater Treatment Plant shall be resistant to corrosive attack and mechanically satisfactory for the duty.

Preferred pipe materials are:

- Wastewater Treatment Plant – Reinforced Concrete, HDPE, Ductile Iron or PVC as suitable for the liquid to be conveyed and the pressure conditions

Pipe pressure ratings shall be determined according to test and working pressure requirements of applicable standards and relevant sections of this MPSS.

All valves required for operation of the Wastewater Treatment Plant shall be provided and where applicable integrated with the SCADA system. Valves shall be placed to ensure isolation of all facilities for emergency conditions and maintenance activities. Such valves shall include isolating valves, air valves, washout valves, non-return valves and pressure regulating valves. Valves for raw sewage, sludge, etc. shall be non-clogging type and shall be designed to seal properly considering the fluid and solids conditions.

Materials for valves utilized for the Wastewater Treatment Plant shall be resistant to corrosive attack and mechanically satisfactory for the duty.

Duty and standby equipment items shall be equipped with an isolating valve at the feed and outlet to enable removal for off-line maintenance.

4.4.9. Ventilation System

The Wastewater Treatment Plant shall include ventilation systems that meet all local standards and is in accordance with the standards and requirements of the Sindh Occupational Safety and Health Act, 2017 and all other applicable laws, regulations and codes for confined spaces ventilation.

4.4.10. Wastewater Treatment Plant Monitoring Systems

Mass flow meters shall be supplied and installed by the Company to measure:

- a) the Treated Effluent to the Recycling Plant; and
- b) the Treated Effluent not used for recycling or blending to the Effluent Discharge Chamber.

The flow meters shall be suitable for custody transfer applications and perform to Accuracy Class 1 as defined in OIML R 49-1 Edition 2013, and incorporate data-logging equipment compatible with data-capture and processing systems for the Facilities.

Equipment for monitoring the quality of Treated Effluent shall be supplied and installed by the Company. Monitoring shall include 24-hour composite sampling on a continuous basis and the Company shall be responsible for the laboratory testing and reporting of all parameters included in Table 5.

On any Day when Influent does not bypass the Wastewater Treatment Plant and RO Concentrate is not delivered to the Effluent Discharge Chamber laboratory testing of the Treated Effluent may be waived and replaced by laboratory testing of the Effluent downstream of the Effluent Discharge Chamber.

4.4.11. Wastewater Treatment Plant SCADA and Instrumentation

The Wastewater Treatment Plant shall be connected by a SCADA system of software and hardware elements that allows the Company to control operations and processes locally or at remote control centers and to monitor, collect and process data and allows the Agency to view the operations in real-time. The SCADA system and software shall be as included in Section 4.9.

The SCADA system shall provide accurate performance and operational information from real-time data enabling control room operators to quickly and reliably assess the integrity of the Wastewater Treatment Plant and enable problems to be detected before they become events and reduces the risk of system or performance failure.

The integrated system shall provide real-time information on the status of the Wastewater Treatment Plant infrastructure and shall facilitate monitoring and reporting of the following:

- a) Treated Effluent flow;

- b) On/off for major process equipment;
- c) Dissolved oxygen concentration in the biological treatment process;
- d) Other process related parameters as necessary for operation of the Wastewater Treatment Plant diagnostic data for routine maintenance purposes;
- e) Long-term planning of capital expenditures and asset management;
- f) Analysis of the evolution of KPI; and
- g) Energy consumption.

The SCADA system shall interact with other activities and departments within the Company and the information provided shall be available for other purposes beyond day-to-day operations.

The start-up of the Wastewater Treatment Plant and equipment shall be controlled by Programmable Logic Controller (PLC). Start up and shut down programs shall be incorporated into the PLC including sequence operation, time delays and safety cut-outs to ensure safe and trouble-free operation of equipment.

Alarms shall be provided for the following conditions, as a minimum:

- a) Power unavailable at any key element (wastewater treatment, sewage pumps);
- b) Standby power facility failure;
- c) Failure of key equipment; and
- d) Flow exceedances.

Local instrumentation shall be provided for all items of equipment and processes indicating data or the position or status and shall be readily visible to operators without the use of temporary ladders or platforms. Materials selection shall be for the conditions for each individual component.

4.4.12. Wastewater Treatment Plant Electrical

The Company shall be responsible for all electrical supply, equipment and facilities for the Wastewater Treatment Plant.

Standby automatic mains failure power facilities shall be provided for critical items of equipment required to maintain the specified Availability. If diesel generators are provided the bulk fuel tanks shall be of sufficient capacity to provide not less than three days of storage at full load and be provided with an external filling point accessible by road.

The Specific Energy Consumption for the Wastewater Treatment Plant shall be no more than 0.300 kWh/m³ of Treated Effluent as measured by the Custody Transfer Flow Meters on the inlet to the Recycling Plant and on the pipeline to the Effluent Discharge Chamber.

4.5. Recycling Plant Design Criteria

4.5.1. General

The Recycling Plant shall be designed and constructed to provide the required quantity of Recycled Water to deliver the Recycled Water Target Volume at Offtake Delivery Points in compliance with the quality requirements specified in Table 6.

As described in Section 4.3.1 the Influent delivered to the TP1 Site will be from two nullahs that divert flow into the raw wastewater interceptor. A programme for 24-hour composite samples of the flow at the mouth of each nullah is underway and will continue during the bid period. Nine sets of sampling have been carried out since August 2023 with 58 tests for TDS concentration in multiple laboratories certified by the Sindh Environmental Protection Agency (SEPA) and the results are as shown in Figure 11.

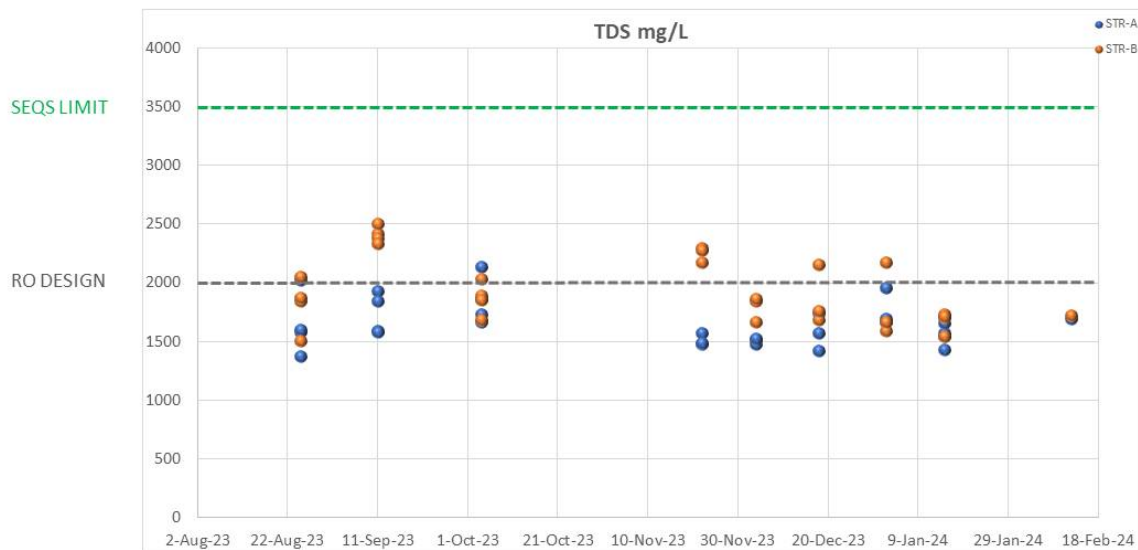


Figure 11. Sample TDS Results from Gujro Nullah and Orangi Nullah

Based on sampling to date the average TDS concentration of water from the nullahs is 1648 mg/L at STR-A and 1925 mg/L at STR-B. The proportion of flow from each nullah in the raw wastewater interceptor will not be known until the diversion structures have been constructed by the Agency but an average TDS concentration of 2000 mg/L for the feed water to the Recycling Plant is indicated as a design parameter for the Project.

The Recycled Water Target Volume is the aggregate quantity to be supplied to industries during a Contract Year and the Recycling Plant shall be designed to supply daily variations in Recycled Water demand for which 28 MIGD is an average over a Contract Year and not a design quantity. The maximum permeate output and the feed water to the RO plant at that output shall be stated in the Recycling Plant capacity statement.

4.5.2. Pretreatment

Pretreatment systems shall be designed and constructed to optimize the operation of the reverse osmosis (RO) treatment system and to provide any additional treatment beyond that produced in the Wastewater Treatment Plant. The Company shall utilize sustainable and low energy consuming treatment processes where possible within the pretreatment system.

4.5.3. RO System

An RO treatment system shall be provided to reduce the salinity as required to meet the Recycled Water quantity and quality requirements. Best practices for RO system design and operation, including energy use optimization and recovery optimization, shall be considered by the Company.

4.5.4. RO Concentrate

RO Concentrate discharged from the Recycling Plant shall be delivered to the Effluent Discharge Chamber or to the Discharge Point (Sea) as shown in Figure 4 and described in Section 4.2.5 and Section 4.8.

4.5.5. Recycling Plant Mechanical and Process Equipment

All mechanical and process equipment shall be selected for the efficient and safe operation for the specific operating conditions. The prime considerations when selecting equipment shall be low maintenance costs, reliability and trouble-free operation.

All equipment shall be capable of continuous vibration-free running when operating over the complete range of operating conditions and be designed to give a continuous falling head/quantity characteristic to allow stable parallel operation.

All equipment shall be designed with N+1 redundancy or suitable redundancy to maximize availability.

The materials of construction of equipment and motors shall be resistant to corrosion in the liquids or solids that are being conveyed or the environment for installation.

Under normal operating conditions equipment shall be controlled remotely but provision shall be included for this function to be carried out manually at local control panels along with provisions for emergency stop.

4.5.6. Recycling Plant Piping and Valves

Materials for pipelines utilized for the Recycling Plant shall be resistant to corrosive attack and mechanically satisfactory for the duty.

Pipe pressure ratings shall be determined according to test and working pressure requirements of applicable standards and relevant sections of this MPSS.

All valves required for operation of the Recycling Plant shall be provided and where applicable integrated with the SCADA system. Valves shall be placed to ensure isolation of all facilities for emergency conditions and maintenance activities. Such valves shall include isolating valves, air valves, washout valves, non-return valves and pressure regulating valves. Valves shall be designed to seal properly considering the fluid and solids conditions.

Materials for valves utilized for the Recycling Plant shall be resistant to corrosive attack and mechanically satisfactory for the duty.

Duty and standby equipment items shall be equipped with an isolating valve at the feed and outlet to enable removal for off-line maintenance.

4.5.7. Recycling Plant Monitoring Systems

Mass flow meters shall be supplied and installed by the Company to measure:

- a) the Permeate from the Recycling Plant (prior to blending); and
- b) the RO Concentrate to the Effluent Discharge Chamber;

The flow meters shall be suitable for custody transfer applications and perform to Accuracy Class 1 as defined in OIML R 49-1 Edition 2013, and incorporate data-logging equipment compatible with data-capture and processing systems for the Facilities.

Equipment for monitoring the TDS of the RO Concentrate to the Effluent Discharge Chamber on a continuous basis with real time data shall be supplied and installed by the Company. The Company shall be responsible for the laboratory testing and reporting of TDS of the RO Concentrate to the Effluent Discharge Chamber on a monthly basis to validate the accuracy of the monitoring equipment.

Monitoring the quality of the RO Concentrate that is discharged to the sea is described in Section 4.8.

4.5.8. Recycling Plant SCADA and Instrumentation

The Recycling Plant shall be connected by a SCADA system of software and hardware elements that allows the Company to control operations and processes locally or at remote control centers and to monitor, collect and process data and allows the Agency to view the operations in real-time. The SCADA system and software shall be as included in Section 4.9.

The SCADA system shall provide accurate performance and operational information from real-time data enabling control room operators to quickly and reliably assess the integrity of the Recycling Plant and enable problems to be detected before they become events and reduces the risk of system or performance failure.

The integrated system shall provide real-time information on the status of the Recycling Plant infrastructure and shall facilitate monitoring and reporting of the following:

- a) Pretreatment feed flow;
- b) RO system feed flow;
- c) Permeate flow;
- d) RO system flux;
- e) RO Concentrate flow;
- f) RO Concentrate TDS;
- g) Selected Recycled Water quality parameters;
- h) On/off for major process equipment;
- i) Other process related parameters as necessary for operation of the Recycling Plant diagnostic data for routine maintenance purposes;
- j) Long-term planning of capital expenditures and asset management;
- k) Analysis of the evolution of KPI;
- l) Energy consumption; and
- m) Planned outages.

The SCADA system shall interact with other activities and departments within the Company and the information provided shall be available for other purposes beyond day-to-day operations.

The start-up of the Recycling Plant and equipment shall be controlled by Programmable Logic Controller (PLC). Start up and shut down programs shall be incorporated into the PLC including sequence operation, time delays and safety cut-outs to ensure safe and trouble-free operation of equipment.

Alarms shall be provided for the following conditions, as a minimum:

- a) Power unavailable at any key element;
- b) Standby power facility failure;
- c) Failure of key equipment;
- d) Flow exceedances; and
- e) High pressure.

Local instrumentation shall be provided for all items of equipment and processes indicating data or the position or status and shall be readily visible to operators without the use of temporary ladders or platforms. Materials selection shall be for the conditions for each individual component.

4.5.9. Recycling Plant Electrical

The Company shall be responsible for all electrical supply, equipment and facilities for the Recycling Plant.

Standby automatic mains failure power facilities shall be provided for critical items of equipment required to maximize availability. If diesel generators are provided the bulk fuel tanks shall be of sufficient capacity to provide not less than three days of storage at full load and be provided with an external filling point accessible by road.

The Specific Energy Consumption for the Recycling Plant shall be no more than 0.900 kWh/m³ of Permeate as measured by the Custody Transfer Flow Meter on the outlet of the Recycling Plant prior to any blending with undesalinated Treated Effluent.

4.6. Recycled Water Delivery System Design Criteria

4.6.1. Recycled Water Pumping Station and Recycled Water Pipeline

A Recycled Water Pumping Station shall be designed and constructed in the Project Land (Plants) with sufficient capacity to supply the Recycled Water Target Volume at Offtake Delivery Points.

The Recycled Water Pumping Station shall deliver Recycled Water to the northern edge of the Project Land (Plants) through a Recycled Water Pipeline that shall feed the Distribution Network (Company Zones). The Recycled Water Pipeline shall be designed and constructed by the Company to supply the Recycled Water Target Volume at Offtake Delivery Points.

4.6.1.1. Pumping Station Building

The Recycled Water Pumping Station shall be constructed with reinforced concrete substructure, superstructure framework and roof slab, and include lighting, small power, adequate ventilation, and fire and safety equipment.

MCCs shall be housed in dedicated rooms, separate to the mechanical plant that they control.

4.6.1.2. Pumps and Motors

The prime considerations when selecting pumps shall be low maintenance costs, reliability and trouble-free operation.

Each pump shall be capable of continuous vibration-free running when operating over the complete range of flows and be designed to give a continuous falling head/quantity characteristic to allow stable parallel operation. The net positive suction head (NPSH) required shall be compatible with that available to enable the pump to operate without cavitation over the full range of operating conditions.

The materials of construction of both the pump and motor shall be resistant to corrosion in the liquids that are being conveyed.

Under normal operating conditions pumps shall be controlled remotely but provision shall be included for this function to be carried out manually at a local control panel. The pumping station shall be capable of meeting the required flow with the largest pump out of service.

4.6.1.3. Surge Analysis

A surge analysis shall be undertaken for pumping systems to determine whether surges shall occur in the discharge line(s) following pump stoppage or power failure. If the analysis establishes that surge shall occur, then surge protection equipment shall be provided.

4.6.1.4. Crane

The Recycled Water Pumping Station Pumping Station shall include a gantry crane sufficient to maintain the pumps, motors, valves, etc. for the duration of the Operating Period and shall be capable of lifting the heaviest single equipment item within the pumping station. The crane and all related facilities shall be in accordance with all local and applicable international codes and standards for access, safety and operation, including the Sindh Occupational Safety and Health Act, 2017.

4.6.1.5. Ventilation System

The Recycled Water Pumping Station Pumping Station shall include a ventilation system that meets all local standards and is in accordance with the standards and requirements of the Sindh Occupational Safety and Health Act, 2017 and all other applicable laws, regulations and codes for confined spaces ventilation.

4.6.2. Recycled Water Pumping Station and Recycled Water Pipeline Piping and Valves

Materials for pipelines utilized for the Recycled Water Pumping Station and Recycled Water Pipeline shall be resistant to corrosive attack and mechanically satisfactory for the duty.

Preferred pipe materials are:

- Recycled Water Pumping Station – HDPE, Ductile Iron or PVC as suitable for the liquid to be conveyed and the pressure conditions
- Recycled Water Pipeline – HDPE or Ductile Iron as suitable for the liquid to be conveyed and the pressure conditions

Pipe pressure ratings shall be determined according to test and working pressure requirements of applicable standards and relevant sections of this MPSS.

All valves required for operation of the Recycled Water Pumping Station and Recycled Water Pipeline shall be provided and where applicable integrated with the SCADA system. Valves shall be placed to ensure isolation of all facilities for emergency conditions and maintenance activities. Such valves shall include isolating valves, air valves, washout valves, non-return valves and pressure regulating valves.

Materials for valves utilized for the Recycled Water Pumping Station and Recycled Water Pipeline shall be resistant to corrosive attack and mechanically satisfactory for the duty.

Duty and standby equipment items shall be equipped with an isolating valve at the feed and outlet to enable removal for off-line maintenance.

4.6.2.1. Recycled Water Pumping Station and Recycled Water Pipeline Monitoring Systems

A mass flow meter shall be supplied and installed by the Company to measure:

(a) Recycled Water in the Recycled Water Pipeline

The flowmeter shall be suitable for custody transfer applications and perform to Accuracy Class 1 as defined in OIML R 49-1 Edition 2013, and incorporate data-logging equipment compatible with data-capture and processing systems for the Facilities.

Equipment for monitoring the quality of the Recycled Water in the Recycled Water Pipeline shall be supplied and installed by the Company. Monitoring shall include 24-hour composite sampling on a continuous basis and the Company shall be responsible for the laboratory testing and reporting of all parameters included in Table 6.

4.6.2.2. Recycled Water Pumping Station and Recycled Water Pipeline SCADA and Instrumentation

The Recycled Water Pumping Station and Recycled Water Pipeline shall be connected by a SCADA system of software and hardware elements that allows the Company to control operations and processes locally or at remote control centres and to monitor, collect and process data. The SCADA system and software shall be as included in Section 4.9.

The SCADA system shall provide real-time information on the status of the Recycled Water Pumping Station and Recycled Water Pipeline and shall facilitate monitoring and reporting of the following:

- a) Recycled Water flow at the discharge of the Recycled Water Pumping Station;
- b) Selected Recycled Water quality parameters;
- c) Diagnostic data for routine maintenance purposes;
- d) Long-term planning of capital expenditures and asset management;
- e) Analysis of the evolution of KPI;
- f) Energy consumption; and
- g) Planned outages.

The start-up of pumps shall be controlled by Programmable Logic Controller (PLC). Start up and shut down programmes shall be incorporated into the PLC including sequence operation, time delays and safety cut-outs to ensure safe and trouble-free operation of equipment.

Alarms shall be provided for the following conditions, as a minimum:

- a) Power is unavailable; and
- b) Selected Quality Parameters for the Recycled Water are out of specification.

Local instrumentation shall be provided for all items of equipment and processes indicating data or the position or status, and shall be readily visible to operators without the use of temporary ladders or platforms.

4.6.2.3. Recycled Water Pumping Station and Recycled Water Pipeline Electrical

The Company shall be responsible for all electrical supply, equipment and facilities for the Recycled Water Pumping Station and Recycled Water Pipeline.

Standby automatic mains failure power facilities shall be provided for critical items of equipment required to maximize availability. If diesel generators are provided the bulk fuel tanks shall be of sufficient capacity to provide not less than three days of storage at full load and be provided with an external filling point accessible by road.

The Specific Energy Consumption for the Recycled Water Pumping Station shall be no more than 0.250 kWh/m³ of Recycled Water as measured by the Custody Transfer Flow Meter on the Recycled Water Pipeline.

4.6.3. Recycled Water Distribution Network

The Distribution Network shall be designed and constructed by the Company to supply 50 MIGD of Recycled Water to industries in SITE. As part of the Offtake Planning Report a survey of industrial establishments in SITE shall be undertaken by the Company in order to determine demand nodes and zones for water management.

The Company shall designate a number of the zones as the Distribution Network (Company Zones) within which they shall supply Offtakers with the Recycled Water Target Volume. The remaining

Distribution Network (Other Zones) shall not be available to the Company for distribution of Recycled Water.

The Distribution Network (Other Zones) shall be designed to convey the balance of 50 MIGD of Recycled Water to consumers that shall not be supplied by the Company. The Distribution Network (Other Zones) shall be designed by the Company and unless construction is cancelled, in accordance with the provisions of Section 5.6.3 (b) of the Concession Agreement, shall be transferred to the Agency at COD for future use.

The Distribution Network (Company Zones) and Distribution Network (Other Zones) start at the northern boundary of the TP1 Site with two sets of single or dual pipelines under Estate Avenue. The Recycled Water Pipeline in the Project Land (Access) shall connect to one set of the pipeline road crossings for the Distribution Network (Company Zones).

4.6.3.1. Distribution Network Design Criteria

A hydraulic model utilizing a network analysis program shall be prepared and the Distribution Network shall be designed to meet a demand for Recycled Water of industries within SITE of 50 MIGD after the removal of all IWS.

The maximum diameter of pipe in the Distribution Network shall be 800 mm. Dual pipelines shall be installed where a diameter greater than 800 mm is indicated by the network analysis.

The Company shall designate specific zones that shall comprise the Distribution Network (Company Zones) based on the following criteria:

- a) The zones shall be contiguous;
- b) Within each zone the Company shall supply all industries that are potential Offtakers for Recycled Water; and
- c) The aggregate demand for Recycled Water in the zones shall not exceed the Recycled Water Target Volume by more than 10%.

The Company shall provide a direct connection to each Offtaker in the Distribution Network (Company Zones) at the boundary of their property for the installation of Offtaker Meters by the Company.

The Distribution Network (Other Zones) shall comprise the pipelines, fittings, valves and flow meters ready for future connection to industries by others. For the Distribution Network (Other Zones) the Company shall not be required to supply or install consumer meters and shall supply but not install fire hydrants.

Since the Distribution Network shall be designed after the Signature Date each bidder shall include for supply and installation of the following lengths and diameters of pipeline in the Distribution Network.

Table 7. Distribution Network Pipes

OD (mm)	Length (m)
160	4,000
225	52,000
280	17,000
355	7,000
450	12,000
500	10,000
710	3,000

800	15,000
120,000	

The cost shall include for design, construction and commissioning of the Distribution Network based on the lengths and pipe diameters in the bill of quantities in Bidding Form F2-11 in the Bid Financial Model. The rate for each diameter shall include supply of HDPE pipes, fittings, valves, district meters, fire hydrants and all other materials, excavation, pipe bedding (where required), concrete (where required), laying and jointing of pipes and pipework items, hydrostatic testing of each network zone, valve and meter chambers, chamber covers, pipe protection (where required), backfilling, reinstatement of original ground surface and removal of surplus excavated material.

The cost of connections from the Distribution Network (Company Zones) to Offtakers and Offtaker Meters shall be recovered by the Company from Offtakers and shall not be included in the rates for the Distribution Network.

The maximum velocity in any pipeline shall not exceed 3 m/s.

A minimum pressure of 150 kPa (1.5 bar) shall be achieved at all times throughout the Distribution Network.

4.6.3.2. Distribution Network Piping and Valves

Design and installation of pipelines comprising the Distribution Network shall be in accordance with Parts 1, 2, 3 and 5 of EN 12201 - Plastics piping systems for water supply, and for drainage and sewerage under pressure - Polyethylene (PE).

Pipes and fittings shall be from a single manufacturer, who is fully experienced and qualified in the manufacture of the pipe to be used. The Company is responsible for compatibility between pipe materials, fittings and appurtenances.

The pipe material shall comply with designation PE 100 as specified in EN 12201-1:2011 with minimum required strength (MRS) of 10.0 Mpa (100 bar).

The geometrical and dimensional properties of pipes shall comply with EN 12201-2:2011 and the SDR (Standard Dimensional Ratio) selected to suit the testing requirement of 150% of the operating design pressure that can be generated by the Recycled Water Pumping Station.

Fittings shall comply with EN 12201-3:2011 which specifies mechanical properties of fittings including any non-PE components, together with geometrical and marking requirements.

The performance requirements for the assembled piping system shall be as specified in EN 12201-5:2011 which covers such aspects as leak tightness of joints, resistance to pull out under longitudinal forces and hydrostatic strength of the combined system.

Pipe pressure ratings shall be determined according to test and working pressure requirements of the Applicable Standards.

All valves required for operation of the Distribution Network shall be provided and where applicable in the Distribution Network (Company Zones) integrated with the SCADA system. Valves shall be placed to ensure isolation of all facilities for emergency conditions and maintenance activities. Such valves shall include isolating valves, air valves, washout valves, non-return valves and pressure regulating valves.

4.6.3.3. Distribution Network Fire Hydrants

Fire hydrants shall be supplied for the entire Distribution Network and installed within the Distribution Network (Company Zones) in compliance with local fire codes.

Fire hydrants for the Distribution Network (Other Zones) shall be delivered to the Agency for future installation by the Agency.

The minimum pressure requirement for fire hydrants shall be 150 kPa (1.5 bar).

4.6.3.4. Distribution Network Water Management

A water management system with the following minimum requirements shall be provided by the Company to:

- a) Establish a leak control strategy for the Distribution Network;
- b) Prepare district metered zones within the Distribution Network;
- c) Subdivide the Distribution Network into Distribution Network (Company Zones) and Distribution Network (Other Zones) with each network comprising contiguous zones;
- d) Provide district meter programming and linkage to SCADA for the Distribution Network (Company Zones);
- e) Provide pressure management and flow measurement system for the Distribution Network (Company Zones);
- f) Develop a real-time water balance model for the Distribution Network (Company Zones) to assess non-revenue water (NRW); and
- g) Create and update the water network model, calibration, analysis and simulation to enhance operational, maintenance and planning activities.

4.6.3.5. Distribution Network Monitoring Systems

The Company shall monitor on a weekly basis the quality of Recycled Water at not less than 10 Offtaker Meters in randomly diverse locations within the Distribution Network and at specific locations within 12 hours of receiving a complaint from an Offtaker regarding the quality of Recycled Water delivered. If the quality of Recycled Water at any Offtaker Meter fails to comply with the parameters specified in Table 6 the Company shall take immediate steps to rectify the problem and deliver Recycled Water that meets the specification.

4.6.3.6. Distribution Network SCADA and Revenue Meters

Revenue water meters (Offtaker Meters) shall be supplied by the Company and installed at each Offtake Delivery Point in the Distribution Network (Company Zones).

The Offtaker Meters shall be smart meters for automatic/automated meter reading (AMR) with real-time monitoring and remote data collection linked to the SCADA system. Features shall include water volume consumed, flow rate, period reading, sensor error, battery level, reverse flow alarm, low battery alarm, leak alarm, magnetic fraud alarm, leak volume and leak flow.

The Company shall provide advanced metering infrastructure (AMI) for automated, two-way communication and shall comply with EN 13757-1:2014 - Communication systems for meters and remote reading of meters - Part 1: Data exchange.

Software shall be provided to manage the Distribution Network (Company Zones) hydraulics, allowing comparison of AMI consumption per district with delivered volumes, and to integrate and display data from multiple sources such as SCADA, GIS, network model and sensors.

The smart water platform functionality shall include an electronic (GIS based) map of the Distribution Network (Company Zones), leak detection based on evolution of consumption, graphical historical data analysis, configurable dashboards and customizable alarms.

The smart water meters and AMI shall incorporate the following:

- a) Remote, automatic reading and recording on an hourly basis;
- b) Integration of metering data with billing system;
- c) Accuracy of AMI readings compared to meter readings >99.5%;
- d) Battery life of transmitter not less than 12 years from installation date;
- e) Display and analysis for the end customers regarding consumption;
- f) No repeaters between transmitters and gateways;
- g) Customer engagement and solution for water conservation; and
- h) Alerts for blocked meter, under counting meters, fraud events, leaks, overconsumption of water and other anomalies.

The Company shall establish a website for Offtakers to monitor billing and consumption. All complaints regarding service made by Offtakers and responses from the Company shall be logged and accessible through the website.

The Company shall supply all necessary pipework and fittings to connect from the Distribution Network (Company Zones) to each Offtaker Meter.

4.6.3.7. Distribution Network Electrical

The Company shall be responsible for all electrical supply, equipment and facilities for the Distribution Network, including standby power facilities, as required.

4.7. Effluent Discharge to the River Design Criteria

4.7.1. Effluent Discharge Chamber

The Company shall be responsible for the design, construction, operation and maintenance of an Effluent Discharge Chamber in the Project Land (Plants). The chamber shall be an open reinforced concrete structure that shall receive:

- a) Treated Effluent not being used for recycling or blending;
- b) Influent diverted through the Bypass; and
- c) RO Concentrate from the Recycling Plant.

Incoming flows to the chamber shall be visible to operators from outside the railings to be fixed around the chamber to restrict access.

Flow out of the Effluent Discharge Chamber is Effluent and a pipeline designed to deliver 1,842 liters per second shall be constructed from the outlet of the chamber to the southern boundary of the Project Land (Plants) where it connects to the Effluent Discharge Pipeline to the Lyari River.

4.7.2. Effluent Discharge Pipeline Design

The Company shall design and construct an Effluent Discharge Pipeline from the southern boundary of the Project Land (Plants) to an outfall structure at the Discharge Point (River). The Effluent Discharge Pipeline shall be constructed within the Project Land (Pipelines) from the southern boundary of the Project Land (Plants) to the raw wastewater interceptor outside the south-east corner of the TP1 Site and thereafter shall follow the route of the interceptor to the Discharge Point (River) as shown in Figure 6.

The hydraulic design capacity of the Effluent Discharge Pipeline shall accommodate the conditions during operation of the Wastewater Treatment Plant when there is no recycling in progress. The total flow shall be conveyed either by a single pipeline or by dual parallel pipelines of the same diameter with pipes manufactured from polyethylene in the most economical configuration for the flow and ground conditions.

The pipeline(s) shall be constructed below ground with a minimum of 1.0 m cover above crown to final grade. Pipelines under roads shall have a minimum of 1.2 m cover.

The maximum velocity in any individual pipeline shall not exceed 3 m/s.

The minimum design life of the effluent pipeline system shall be 50 years.

Design and installation of the Effluent Discharge Pipeline shall be in accordance with Parts 1, 2, 3 and 5 of EN 12201 - Plastics piping systems for water supply, and for drainage and sewerage under pressure - Polyethylene (PE).

Pipes and fittings shall be from a single manufacturer, who is fully experienced and qualified in the manufacture of the pipe to be used. The Company is responsible for compatibility between pipe materials, fittings and appurtenances.

The pipe material shall comply with designation PE 100 as specified in EN 12201-1:2011 with minimum required strength (MRS) of 10.0 Mpa.

The geometrical and dimensional properties of pipes shall comply with EN 12201-2:2011 and the SDR (Standard Dimensional Ratio) selected to suit the testing requirement of 150% of the operating design pressure that can be generated by the effluent pumping station.

Fittings shall comply with EN 12201-3:2011 which specifies mechanical properties of fittings including any non-PE components, together with geometrical and marking requirements.

The performance requirements for the assembled piping system shall be as specified in EN 12201-5:2011 which covers such aspects as leak tightness of joints, resistance to pull out under longitudinal forces and hydrostatic strength of the combined system.

4.7.3. Discharge Point (River)

An outfall structure for the pipeline(s) to discharge Effluent into Lyari River at the Discharge Point (River) shall be designed and constructed at an approved location. The outfall shall comply with the Environmental Management Plan approved for construction of the works.

4.7.4. Effluent Discharge Monitoring Systems

A mass flow meter shall be supplied and installed by the Company to measure:

a) the Effluent at the outlet of the Effluent Discharge Chamber.

The flowmeter shall be suitable for custody transfer applications and perform to Accuracy Class 1 as defined in OIML R 49-1 Edition 2013, and incorporate data-logging equipment compatible with data-capture and processing systems for the Facilities.

Equipment for monitoring the quality of Effluent shall be supplied and installed by the Company. Monitoring shall include 24-hour composite sampling on a continuous basis and the Company shall be responsible for the laboratory testing and reporting of all parameters included in Table 5.

4.7.5. Effluent Discharge SCADA and Instrumentation

The flow meter to measure Effluent shall be connected by a SCADA system of software and hardware elements that allows the Company to monitor, collect and process data and allows the Agency to view the operations in real-time. The SCADA system and software shall be as included in Section 4.9.

Additional SCADA and instrumentation shall be provided by the Company if Effluent is pumped to the river as described in Section 4.7.6.

4.7.6. Effluent Pumping Station (OPTIONAL)

The Company has the option to design and construct the Effluent Discharge Pipeline to accommodate gravity flow under all conditions or to install a smaller diameter pipeline capable of delivering lower flows by gravity with a pumping station to deliver higher flows to the Discharge Point (River). The Company shall select the lower cost option (including electricity cost) over the Operating Period.

The Effluent Pumping Station if provided shall be constructed in the Project Land (Plants] with sufficient capacity to supply the required quantity of Effluent from the Effluent Discharge Chamber to the Discharge Point (River).

The pumping station building, pumps and motors, surge analysis, ventilation system, materials, SCADA system and instrumentation shall be generally in accordance with Section 4.3 for the Influent Pumping Station.

A mass flow meter shall be supplied and installed by the Company to measure:

- a) the Effluent at the outlet of the Effluent Discharge Pumping Station.

The Company shall be responsible for all electrical supply, equipment and facilities for the Effluent Pumping Station. Standby automatic mains failure power facilities shall be provided for critical items of equipment required to maintain the specified Availability.

The Specific Energy Consumption for the Effluent Pumping Station shall be no more than 0.050 kWh/m³ of Effluent as measured by the Custody Transfer Flow Meter on the discharge pipeline from the Effluent Pumping Station.

4.8. RO Concentrate Discharge to the Sea Design Criteria

4.8.1. RO Concentrate Pipeline Design

The Company shall design and construct an RO Concentrate pipeline from the Recycling Plant to the Discharge Point (Sea).

The RO Concentrate Pipeline (Sea) shall be constructed within the Project Land (Plants). The RO Concentrate Discharge Pipeline shall be constructed within the Project Land (Pipelines) from the southern boundary of the Project Land (Plants) to the raw wastewater interceptor outside the south-east corner of the TP1 Site and thereafter shall follow the route of the interceptor to the Lyari River and along the river bed to the Discharge Point (Sea) as shown (C to D to E) in Figure 6.

The hydraulic design capacity of the RO Concentrate Discharge Pipeline shall accommodate the hydraulic conditions when all of the Treated Effluent is recycled. The total flow shall be conveyed by a single pipeline with pipes manufactured from polyethylene.

The RO Concentrate Discharge Pipeline shall be constructed below ground from the Project Land (Plants) to the Lyari River and above ground along the river bed to the sea on piled supports. The below

ground section shall have a minimum of 1.0 m cover above crown to final grade and under roads shall have a minimum of 1.2 m cover.

The maximum velocity in the pipeline shall not exceed 3 m/s.

The minimum design life of the RO Concentrate Discharge Pipeline shall be 50 years.

Design and installation of the RO Concentrate Discharge Pipeline shall be in accordance with Parts 1, 2, 3 and 5 of EN 12201 - Plastics piping systems for water supply, and for drainage and sewerage under pressure - Polyethylene (PE).

Pipes and fittings shall be from a single manufacturer, who is fully experienced and qualified in the manufacture of the pipe to be used. The Company is responsible for compatibility between pipe materials, fittings and appurtenances.

The pipe material shall comply with designation PE 100 as specified in EN 12201-1:2011 with minimum required strength (MRS) of 10.0 Mpa.

The geometrical and dimensional properties of pipes shall comply with EN 12201-2:2011 and the SDR (Standard Dimensional Ratio) selected to suit the testing requirement of 150% of the operating design pressure that can be generated by the effluent pumping station.

Fittings shall comply with EN 12201-3:2011 which specifies mechanical properties of fittings including any non-PE components, together with geometrical and marking requirements.

The performance requirements for the assembled piping system shall be as specified in EN 12201-5:2011 which covers such aspects as leak tightness of joints, resistance to pull out under longitudinal forces and hydrostatic strength of the combined system.

4.8.2. Discharge Point (Sea)

An outfall structure for the pipeline to discharge RO Concentrate into the sea at the Discharge Point (Sea) shall be designed and constructed at an approved location. The outfall shall comply with the Environmental Management Plan approved for construction of the works.

4.8.3. RO Concentrate Discharge Monitoring Systems

A mass flow meter shall be supplied and installed by the Company to measure:

- a) the RO Concentrate in the RO Concentrate Pipeline (Sea).

The flowmeter shall be suitable for custody transfer applications and perform to Accuracy Class 1 as defined in OIML R 49-1 Edition 2013, and incorporate data-logging equipment compatible with data-capture and processing systems for the Facilities.

Equipment for monitoring the quality of RO Concentrate that is discharged to the sea shall be supplied and installed by the Company. Monitoring shall include 24-hour composite sampling on a continuous basis and the Company shall be responsible for the laboratory testing and reporting of all parameters included in Table 5.

4.8.4. RO Concentrate Discharge SCADA and Instrumentation

The flow meter to measure RO Concentrate in the RO Concentrate Pipeline (Sea) shall be connected by a SCADA system of software and hardware elements that allows the Company to monitor, collect and process data and allows the Agency to view the operations in real-time. The SCADA system and software shall be as included in Section 4.9.

Additional SCADA and instrumentation shall be provided by the Company if RO Concentrate is pumped to the sea as described in Section 4.8.5.

4.8.5. RO Concentrate Pumping Station (Sea) (OPTIONAL)

The Company has the option to design and construct the RO Concentrate Discharge Pipeline to accommodate gravity flow or to install a pumping station to deliver to the Discharge Point (Sea). If both options are feasible the Company shall select the lower cost option (including electricity cost) over the Operating Period.

The RO Concentrate Pumping Station (Sea) if provided shall be constructed in the Project Land (Plants] with sufficient capacity to supply the required quantity of RO Concentrate from the Recycling Plant to the Discharge Point (Sea).

The pumping station building, pumps and motors, surge analysis, ventilation system, materials, SCADA system and instrumentation shall be generally in accordance with Section 4.3 for the Influent Pumping Station.

A mass flow meter shall be supplied and installed by the Company to measure:

- a) the RO Concentrate at the outlet of the RO Concentrate Pumping Station (Sea).

The Company shall be responsible for all electrical supply, equipment and facilities for the RO Concentrate Pumping Station (Sea). Standby automatic mains failure power facilities shall be provided for critical items of equipment required to maximize availability.

The Specific Energy Consumption for the RO Concentrate Pumping Station (Sea) shall be no more than 0.050 kWh/m³ of RO Concentrate as measured by the Custody Transfer Flow Meter on the discharge pipeline from the RO Concentrate Pumping Station (Sea).

4.9. SCADA System

The Facilities shall be connected by a Supervisory Control and Data Acquisition (SCADA) system of software and hardware elements that allows the Company to control operations and processes locally or at remote control centres and to monitor, collect and process data.

The SCADA system shall provide accurate plant and network performance and operational information from real-time data enabling control room operators to quickly and reliably assess the integrity of the plant and network and enable problems to be detected before they become events, and reduces the risk of system or performance failure.

The integrated system shall provide real-time information on the status of the wastewater and recycling infrastructure and shall facilitate:

- a) Geographic information system (GIS) for the Recycled Water network;
- b) Diagnostic data for routine maintenance purposes;
- c) Programme for leak control and non-revenue water reduction;
- d) Long-term planning of capital expenditures and asset management;
- e) Customer technical data from automatic meter reading (AMR) meters;
- f) Generation of O&M reports;
- g) Reporting and analysis of the evolution of KPI;
- h) Electricity consumption and charges; and
- i) Planned outages.

The start-up of plant items and pumps shall be controlled by Programmable Logic Controller (PLC). Start up and shut down programmes shall be incorporated into the PLC including sequence operation, time delays and safety cut-outs to ensure safe and trouble-free operation of equipment.

The SCADA system shall remain in continuous operation by means of an uninterruptible power supply (UPS) in the event of a power failure. The UPS shall provide 6 hours of operation in the absence of an incoming power source.

4.10. Power Supply

The Company shall be responsible for submitting application to K-Electric for the provision and connection of power supply at the Electricity Delivery Point for the Facilities and for payment of connection charges from K-Electric.

The Company shall be responsible for design, construction, maintenance and operation of all necessary equipment, materials and facilities to ensure power supply for the Facilities throughout the Operating Period, including necessary substations, high voltage transformers and associated equipment.

The Company shall be wholly responsible for all necessary improvements and facilities for power supply from the Electricity Delivery Point. It shall be the sole responsibility of the Company to ensure that the agreement reached with K-Electric has no gaps in equipment, operations or maintenance, and the Company shall be wholly responsible for a complete and working system for power supply.

The Company shall install standby automatic failure power facilities for critical items of equipment required to keep the infrastructure operating to the specified parameters. .

4.11. Ancillary Works

4.11.1. Access Road

The Company shall design and construct a new heavy vehicle entrance from Estate Avenue into the Project Land (Access) that bridges the nullah outside the northern boundary of the TP1 Site.

The Company shall construct an asphaltic pavement road in the Project Land (Access) with carriageway width of not less than 8 m from Estate Avenue to the Project Land (Plants).

The Company shall carry out earthworks and provide all materials and construct subbase and base courses, pavement surface treatment, asphaltic concrete surfacing and concrete curbs.

The access road must conform to all laws, rules, codes and regulations related to road construction in Sindh Province and shall be designed for vehicular loadings during construction of the Facilities in the Project Land (Plants) and during the Operating Period for sludge removal from the Project Land (Plants).

4.11.2. Gatehouse and Boundaries

The Company shall design and construct entrance gates and a gatehouse at the new entrance from Estate Avenue to the Project Land (Access). The gatehouse shall be permanently staffed by the Company during the Operating Period to monitor and control traffic using the access road in the Project Land (Access).

The Company shall design and construct entrance gates and a gatehouse in the western boundary of the Project Land (Plants). The gatehouse shall be permanently staffed by the Company during the Operating Period to monitor and control vehicles and personnel entering and leaving the Project Land (Plants).

The Company shall design and construct a boundary wall on the southern perimeter of the Project Land (Plants) to a design approved by the Agency.

The Company shall design and construct a security fence on the northern, eastern and western boundary of the Project Land (Plants) and around the K-Electric grid station to a design approved by the Agency.

The Company shall construct a lockable gate 10 m wide in the western boundary fence to K-Electric grid station for the exclusive use of K-Electric.

4.11.3. Buildings

The Company shall design and construct an administration building on the Site. The building shall include a dedicated SCADA control room and offices for the Company's management, and technical and administrative staff. The space shall incorporate a meeting room and office for exclusive use of the Agency, with a total area of at least 60 square meters. The Agency meeting room and office shall be fully furnished with conference table, chairs and desk.

The Company shall also provide building(s) for operation and maintenance as appropriate, including the laboratory in Section 4.11.4.

The design of buildings and structures must conform to all laws, rules, codes and regulations related to land development, and building construction for constructing such buildings in the Sindh Province.

All building services and facilities design requirements and specifications shall comply with all local plumbing, mechanical, electrical and fire codes.

The design of buildings shall endeavor to follow general principles for green building, such as:

- a) Design smart buildings that strive for optimum energy management;
- b) Maximize use of natural light and ventilation;
- c) Use shading devices and plant strips to minimize solar heat gain;
- d) Harvest rainwater for fire protection and industrial use;
- e) Use solar energy to supplement electricity supply in the daytime;
- f) Utilize energy saving fixtures to reduce electricity consumption;
- g) Specify water efficient fixtures and fittings to reduce water consumption; and
- h) Optimize the use of locally-sourced materials that are low maintenance and environmentally friendly.

4.11.4. Laboratory

The Company shall be responsible for constructing, supplying, operating and maintaining a laboratory in the Project Land (Plants) for measurement and reporting of all Quality Parameters for Influent, Treated Effluent, Effluent, Recycled Water, RO Concentrate to the sea, Dewatered Sludge and Residuals listed in this MPSS throughout the Operating Period.

The laboratory equipment and procedures shall comply with the latest edition of Standard Methods for the Examination of Water and Wastewater as published by the American Water Works Association, Public Works Association of America and the Water Environment Federation.

The Company shall, within six months of the Signature Date construct and operate a temporary water quality laboratory in the Project Land (Plants) to be replaced by a permanent laboratory as required herein.

From the time of establishment of the temporary laboratory until the commencement of commissioning the Company shall sample and test the flow at the outlet of Gujro Nullah and the outlet of Orangi Nullah

(which will feed the raw wastewater interceptor in unknown proportions) in order to predict the Influent quality envelope and any seasonal variation:

- 24-hour composite sampling, twice per month including at least one set of samples each quarter during the weekend (Saturday/Sunday)

The samples shall be analyzed for all parameters specified in Table 5 of this MPSS and the laboratory reports shall be submitted to the IE.

Prior to COD the Company shall apply to Sindh Environmental Protection Agency (SEPA) for certification of the on-site laboratory which shall be renewed to remain valid throughout the Operating Period.

4.11.5. Ancillary Works Electrical

The Company shall provide in their bid a breakdown in kWh of daily energy consumption for non-process and non-flow related items including but not limited to:

- Estate Avenue gatehouse
- Road lighting in Project Land (Access)
- Site lighting in Project Land (Plants)
- Project Land (Plants) gatehouse
- Administration building
- Laboratory
- Substations
- SCADA system

The energy consumption for listed items that are not included in Specific Energy Consumption calculations for plants or pumping stations and are metered separately shall not be greater than 1,000 kWh/d on average during a Contract Year.

5. Construction Standards

5.1. Construction Plan

The Construction Plan shall be based on the DED approved by IE, and incorporate the following:

- a) Detailed construction schedule with milestones;
- b) Detailed Traffic Management Plan;
- c) Contractor's Environmental Management Plan (EMP);
- d) Contractor's Occupational Health and Safety Plan;
- e) Contractor's Quality Management Plan (QMP); and
- f) Contractor's Installation Plan;

5.2. Traffic Management

During construction, the following must be carried out to ensure that traffic disruption is minimized in the construction area and its immediate surrounding area:

- a) Safe, efficient and continuous passage of vehicles is provided;
- b) The traffic carrying capacity of the immediate surrounding roads is maintained;
- c) Traffic congestion and disruption to public transport is minimized; and
- d) Pedestrian safety and, as required, alternative means of walking within or near the construction area is provided.

5.3. Construction, Materials and Equipment Standards

5.3.1. General

The design, construction, operation and management of all Facilities shall comply with the applicable standards of the following:

- Pakistan Standards and Quality Control Authority (PSQCA)
- American Association of State Highway and Transportation Officials (AASHTO)
- American Concrete Institute (ACI)
- American Concrete Pipe Association (ACPA)
- American Iron and Steel Institute (AISI)
- American Society of Mechanical Engineers (ASME)
- American Water Works Association (AWWA)
- Association for Materials Protection and Performance (AMPP)
- ASTM International (ASTM)
- British Standards (BS) and Codes of Practice (CP) by BSI Group
- European Standards (EN)
- International Electrotechnical Commission (IEC)
- International Organization for Standardization (ISO)
- National Fire Protection Association (NFPA)

5.3.2. Concrete

Reinforcement bars for structural concrete shall have yield strengths of minimum 460 N/mm². Welded wire fabric shall have bars with yield strength of 500 N/mm².

The allowable stresses for the design of the structure are based on the specified compressive strength of the concrete at 28 days or at the earliest age at which the concrete may be expected to receive its full load. Table 8 and Table 9 show the minimum 28 days compressive strength of concrete and concrete cover, respectively.

Table 8. Minimum 28 days compressive strength of concrete

Type	Compressive Strength
All structural concrete	30 MN/m ² (C25/30)
Precast Concrete	37 MN/m ² (C30/37)
Blinding Concrete	15 MN/m ² (C12/15)
Lean concrete used for levelling and filling	15 MN/m ² (C12/15)

Table 9. Concrete cover details

Type	Cover
Precast Concrete	25/50 mm
For all external works at faces cast in contact with the ground	75 mm
Concrete not exposed to weather or in contact with the ground	
Slabs and walls	30 mm
Beams and columns	40 mm
Concrete exposed to weather or in contact with the ground	
Reinforcement bar dia. 16 mm and smaller	40 mm
	50 mm

5.3.3. Structural Steel

The design, supply, fabrication and erection of structural steel work and minimum necessary quality of materials and workmanship which are to be conducted are to be carried out in accordance with this Specification:

All material supplied shall be accompanied by the mill test certificates regarding chemical analysis and mechanical characteristics required by those standards or Client approved equivalent international standard.

All materials used in construction shall be stored so that they are safe from damage by construction traffic or deterioration by exposure to weather. In areas where corrosive salts are present in the atmosphere near the ground, the steel components must be stacked on supports at least one meter clear of the ground. Under no circumstances shall material be stored directly on the ground.

5.3.4. Miscellaneous Steelwork

Access stairs and ladders shall be provided for walkways, platforms and floors that are required for the purposes of operation, maintenance and inspection. Main operating platforms shall be provided with a minimum of two exits, one of which shall be a stairway. Access to platforms other than main operating platforms shall be by ladders complete with cages.

Stairways shall have a minimum width of 800 mm. Maximum step riser shall be 200 mm. Maximum tread width shall be 285 mm. The height of handrailing shall be 1100 mm measured from the top edge of the step.

Ladders and cages shall be shop-welded at the manufacturer's works. All rungs shall be fabricated of round steel with a diameter of 25 mm. The spacing between the rungs shall be 280 mm. The distance (center to center) of the stringers shall be 500 mm. For ladders with a height of more than 5.0 m safety cages shall be provided. Safety cages shall start at a height of 2.5 m above platform or ground. For ladder routes exceeding 10 m in height, intermediate platforms shall be provided.

Platforms shall be provided for working areas, storage facilities, and access to all equipment requiring inspection, maintenance and operation. Working platforms shall be provided for such facilities as valves, instruments, controls, manholes and cleanouts. Minimum width of platforms, walkways and catwalks shall be 800 mm. Flooring shall normally be constructed from GRP grating (Tramex or equivalent).

Toe plates shall extend continuously around edges of all platforms, landings, walkways and openings except at stairs and ladder accesses.

Handrails shall extend around edges of all platforms, landings, walkways and stairways and shall be bolted to supporting members. Stairways shall be provided with handrails when they consist of more than 4 steps. Handrails shall be equipped with a middle rail and shall always start with a post. The maximum spacing for handrail posts shall be 2.5 m. The height of handrails shall be 1100 mm measured from top of grating.

All miscellaneous steelworks shall be epoxy coated.

5.3.5. Pipelines

The overall trench construction and pipe placement procedures shall be consistent with the recommended pipe design and trench design and national and international guidelines. The following sequence of procedures and operations is applicable:

- a) Trench depth selected consistent with application and pipe design/selection criteria.
- b) Trench width and length segments constructed consistent with pipe size.
- c) Trench dewatered or stabilized, as necessary.
- d) Bedding material placed, leveled and compacted, as necessary.
- e) Pipe placed in trench.
- f) Embedment material placed in haunches, and compacted, as necessary.
- g) Leak testing of pipe and connections before trench backfill.
- h) Remainder of the initial backfill placed and, if required, compacted in lifts.
- i) Secondary backfill placed to protect the pipe during the final backfilling and to provide support for the top portion of the pipe.
- j) Placement of final backfill, consisting of any qualifying material that satisfies road construction or other requirements and compacted, as necessary.

5.3.6. Electrical

5.3.6.1. Transformers

Distribution transformers shall be dual oil filled transformers. Transformer cooling shall be ONAN and manufactured in accordance with IEC 60076. ^[11]_{SEP} The winding connection shall be Dyn11, with off load tap changers provided with 5 positions (2.5% per step).

The transformer windings shall be designed to withstand impulse, induced, and dielectric test voltages in accordance with IEC 60076-3.

The transformers shall be designed to operate continuously with high levels of harmonic currents generated by variable speed drives.

Surge arrestors shall be provided on each bushing.

5.3.6.2. Distribution Switchboards

Switchboards for 1kV (MV) shall comply with IEC 62271/IEEE C37.20.2 shall comply with the requirements of IEC 62271/IEEE C37.20.2. Circuit breakers shall be withdrawable each in a dedicate compartment.

Switchboards for LV (615/400VAC) shall comply with the requirements of IEC 62439/IEEE C37.20.1.

Fault ratings shall be determined based on a zero source impedance, impedance of the 11kV/0.4kV distribution transformers and zero cable impedance.

All switchboards shall be provided with current and voltage transformers for protection, instrumentation and where required, metering.

5.3.6.3. Motor Control Centers

Withdrawable Motor control centers (where applicable) shall comply with the same requirements as related switchboards.

Motor starters and Variable frequency drives shall be in withdrawable compartments.

5.3.6.4. Electric Motors

Electric motors shall comply with the applicable sections of IEC 60034.

5.3.6.5. Cabling

Cables shall be run in ducts or covered trenches. Cables shall be laid on racks in trenches and laid on cable trays or ladders outside of trenches. MV cables shall be run in separate cable ducts to LV and control and instrument cables. Cable trays and ladders shall preferably be constructed from GRP wherever practical.

5.3.6.6. Earthing and Equal Potential Bonding

Earthing and equal potential bonding shall be provided for all electrical equipment. All metal enclosures shall be bonded to earth. All cable trays, ladders, metallic ducts and all electrical equipment shall be bonded to earth.

5.3.6.7. Variable Frequency Drives

Variable Frequency Drives (VFD) shall be housed in an air-conditioned room. The room shall be designed such that each VFD can be completely refurbished whilst the rest of the Facilities are operational. This shall either require overhead lifting equipment, or the floor shall be designed to support the weight of the largest component + suitable trolley, so that the component can be removed from the VFD room and replaced.

Variable frequency (speed) drives (VFD) are preferred for all motor drives above 15kW. VFDs shall comply with the requirements of the latest revision of EN 61800. EN61000-3-12 Limits for harmonic currents produced by equipment.

5.4. Environmental Management

5.4.1. Regulations and Guidelines

The Company shall comply with the Pakistan Environmental Protection Act of 1997, Sindh Environmental Protection Act of 2014, other applicable national and provincial regulations concerning the environment, and international sustainability standards to the extent that they are applicable to the Project.

Pakistan Environmental Protection Agency (PEPA) has published guidelines for conducting environmental assessments and the environmental management of projects. The guidelines that are most relevant to the Project are:

- Guidelines for the Preparation and Review of Environmental Reports, PEPA 1997;
- Guidelines for Public Consultation, PEPA 1997; and
- Sectoral Guidelines for Environmental Reports - Major Sewerage Schemes, PEPA 1997.

The Project is classified under Schedule III of the Sindh Environmental Protection Agency (Review of IEE and EIA) Regulations, 2021 and will require an Environmental Impact Assessment (EIA) study to be conducted for obtaining the No Objection Certificate (NOC) from SEPA.

The Project shall also comply with Asian Development Bank Safeguard Policy, <https://www.adb.org/documents/safeguard-policy-statement>.

5.4.2. Environmental Impact Assessment (EIA)

Since the Project is classified by SEPA under Schedule III, an Environmental Impact Assessment (EIA) study shall be filed with SEPA, which is responsible for its review and issuance of NOC before the Company commences Project Works.

The EIA study shall be prepared by the Company to meet IFC Performance Standards, Asian Development Bank's Safeguard Policy Statement (2009), and other relevant Applicable Laws. The purpose is to gather all relevant data concerning the environmental and social baselines, evaluate the impacts of the Project, to assess the impacts as per the relevant national and international requirements and guidelines, and develop mitigation, and management plans to enable these impacts to be avoided or minimized to an acceptable level. Upon receipt of the draft EIA study by SEPA, the standard procedures as per SEPA requirements will be followed (i.e. the public shall be notified through newspaper of a public hearing to be conducted after 30 days of the advertisement). The Company shall incorporate any comments received from stakeholders during the public hearing into the draft EIA study and resubmit to SEPA. Once SEPA approves the EIA they will issue the NOC that is a prerequisite for the Company to commence construction.

5.4.4. Environmental Management Plan (EMP)

An EMP shall be included in the EIA study which summarizes the potential impacts that are expected and provides mitigation measures and assigns responsibility for managing these potential issues.

The EMP as contained in the EIA study that SEPA shall review for issuance of NOC shall be based on the final design and the Company shall fulfill any conditions imposed by SEPA as a part of the NOC.

Prior to commencement of works, the Company shall prepare site specific EMPs (SSEMPs), which shall be submitted to the IE for approval but do not need to be submitted to SEPA, unless otherwise specifically required by SEPA.

5.5. Occupational Safety and Health

The Company shall submit to the Agency an Occupational Health and Safety Plan in accordance with ISO 45001:2018 and in accordance with the Sindh Occupational Safety and Health Act, 2017 stating among others:

- a) Construction Safety and Health Committee: State the composition of the Company's Construction Safety and Health Committee, if one has been formed. Otherwise, state an undertaking of the Company to organize such committee and appoint its members before the start of construction work at the project site;
- b) Specific Safety Policies: State the specific safety policies which the Contractor undertakes to observe and maintain in its construction site, including the frequency of and persons responsible for conducting toolbox and gang meetings;
- c) Penalties and Sanctions: State the penalties and sanctions for violations of the Construction Safety and Health Plan;
- d) Information and Training: State the frequency, content and persons responsible for orienting, instructing, and training all workers at the site with regard to the Construction Safety and Health Plan under which they operate;
- e) Waste Disposal: State the manner of disposing waste arising from the construction;
- f) Safety Provisions: PPE, Safety Personnel and Facilities, Worker's Welfare Facilities, and Construction Safety Signage; and
- g) Safety on Construction Heavy Equipment: It must be ensured that appropriate certification is obtained.

The Construction Safety and Health Plan shall be executed and verified by the Company and shall be submitted the Agency which may approve, disapprove or modify the same according to the existing laws, rules and regulations and other issuances.

The Construction Safety and Health Plan shall be approved by the Agency and shall be implemented for the project.

The Project shall also comply with the Asian Development Bank Social Protection Strategy available at <https://www.adb.org/documents/social-protection-strategy>.

5.6. Quality Management

A Quality Management Plan (QMP) shall be prepared to provide description of the quality control system to be utilized for the Project.

All the necessary tests during construction shall be done in accordance with the schedule of minimum testing requirements for items of work and materials as included in the QMP.

5.7. Completion of Construction

The IE shall determine if the Facilities fully comply with the following requirements for Completion:

- a) The subject works have been completed in accordance with the DED approved by the IE and the MPSS;
- b) All tests on the Facilities have been successfully completed and accepted by the IE (such list of tests and testing procedure having been agreed after the Effective Date by the Parties and the IE each acting reasonably in accordance with Good Utility Practice and having regard to the specific equipment used in the Facility);
- c) The subject works can be safely and reliably placed in commercial operation;
- d) The O&M manual has been updated to incorporate all information on the subject works and approved by the IE; and
- e) As-built drawings of the subject works have been prepared and approved by the IE
- f) the Company has obtained all required Consents for operation and maintenance of the Facilities as determined by the IE.

6. Performance Criteria

6.1. Service Obligations

The Company shall ensure that the Facilities remain fit for purpose at all times during the Operating Period and comply with the Key Performance Indicators (KPI (Wide Scope)) defined in Section 6.2 which reflect the main performance standards to be achieved by the Facilities designed, constructed, operated and maintained by the Company.

During the Operating Period the Company shall ensure that they have sufficient resources available to

- a) Operate, maintain, renew, commission, and decommission the Facilities so that, at all times, the Facilities are capable of meeting the service obligations; and
- b) Without prejudice repair and correct on a priority basis any defect in the Facilities that could adversely affect public health or welfare, or cause damage to persons or property.

6.2. Key Performance Indicators (KPI (Wide Scope))

- a) Wastewater Treatment Plant Flow Rate: 35 MIGD continuous, including the requirement for N+1 redundancy for all major components, structures and systems.
- b) Treated Effluent Quality: Treated Effluent must, other than during a Special Relief Event, continuously meet the Treated Effluent standards in accordance with Table 5.

- c) Recycled Water Quality: Recycled Water must continuously meet the Recycled Water standards in accordance with Table 6.
- d) Recycled Water Delivery: The quantity of Recycled Water supplied to industries in SITE shall not be less than 10,220 MIG during a Contract Year as measured by the aggregate flow through Offtaker Meters.
- e) Effluent Quality: Effluent from the Effluent Discharge Chamber must, other than during a Special Relief Event, continuously meet the Effluent standards in accordance with Table 5.
- f) RO Concentrate Quality: RO Concentrate discharged to the sea must continuously meet the Effluent standards in accordance with Table 5 except for TDS, chloride and sulphate.
- g) Energy Consumption: The Company shall propose and not exceed throughout the Operating Period energy consumptions as follows:
 - i. Specific Energy Consumption for the Influent Delivery System which shall not be greater than 0.075 kWh/m³ of Influent flow as measured by the Custody Transfer Flow Meters on the inlet to the Wastewater Treatment Plant and on the Bypass.
 - ii. Specific Energy Consumption for the Wastewater Treatment Plant which shall not be greater than 0.300 kWh/m³ of Treated Effluent flow as measured by the Custody Transfer Flow Meters on the inlet to the Recycling Plant and on the pipeline to the Effluent Discharge Chamber.
 - iii. Specific Energy Consumption for the Recycling Plant which shall not be greater than 0.900 kWh/m³ of Permeate flow as measured by the Custody Transfer Flow Meter on the outlet of the Recycling Plant prior to any blending with undesalinated Treated Effluent.
 - iv. Specific Energy Consumption for the Recycled Water Pumping Station which shall not be greater than 0.250 kWh/m³ of Recycled Water flow as measured by the Custody Transfer Flow Meter on the Recycled Water Pipeline.
 - v. Specific Energy Consumption for the Effluent Pumping Station (if applicable) which shall not be greater than 0.050 kWh/m³ of Effluent flow as measured by the Custody Transfer Flow Meter on the discharge pipeline from the Effluent Pumping Station.
 - vi. Specific Energy Consumption for the RO Concentrate Pumping Station (Sea) (if applicable) which shall not be greater than 0.050 kWh/m³ of RO Concentrate flow as measured by the Custody Transfer Flow Meter on the RO Concentrate Pipeline (Sea).
 - vii. Energy consumption for all other electricity consumption on the Project Land (Plants) and (Project Land (Access) not included in (i), (ii), (iii), (iv), (v) or (vi) which shall not be greater than 1,000 kWh/d on average during a Contract Year.
- h) Availability: Availability of the Influent Delivery System and Wastewater Treatment Plant and supporting facilities including but not limited to the Bypass, the Effluent Discharge Chamber, the Effluent Discharge Pipeline and the Effluent Pumping Station (if applicable) shall be not less than 100% as calculated in terms of days per year that the Influent Delivery System and Wastewater Treatment Plant are available (365/365 or 366/366).
- i) Sludge Management: Sludge from the Wastewater Treatment Plant shall be stabilized to prevent vector attraction, shall be dewatered to a maximum of 80% moisture and shall be hauled by the Company from the Project Land (Plants) on a daily basis to an approved disposal or reuse site.
- j) Odor Control: Measures shall be implemented so that no increase in offensive or noxious odors occurs at the boundary of the Project Land (Plants) as shown in Figure 5.
- k) Noise: No noise at the boundary of the Project Land (Plants) in excess of 70 dB(A).

- l) Social and Gender Elements: The Company shall develop a gender-sensitive stakeholder engagement plan, establish a minimum target of women it shall employ in the project cycle, and ensure that the project site has enabling work environment for women, including separate toilet facilities and the development of a code of conduct to prevent sexual exploitation, abuse and harassment (SEAH). The stakeholder engagement plan should demonstrate the engagement of men and women, including how information related to the project is disclosed and grievance mechanisms are established and made accessible to all.
- m) Maintenance: The Company shall develop and maintain a maintenance management system (MMS), including the O&M Manual, O&M Procedures, maintenance records, schedule maintenance plans, unscheduled maintenance or repair events.
- n) Reporting: All operational data, including operating levels, flows, equipment operation, etc. and including all water quality data and the MMS, shall be reported and available virtually through a protected server in real time (continuously reported). The Company shall be responsible for the maintenance and security of the server and data.

Appendix A. Form of Monthly Report on Design and Construction

- Executive Summary
- Health and safety status
- Quality assurance/control status and any issues
- Site condition and weather status
- Major accomplishments during report period
- Risk report and mitigation
- Critical issues and action
- Schedule status, including updated schedule
- Critical path analysis if any delay
- Key milestones status
- Engineering design status
- Procurement status, including manufacturing and delivery
- Construction status
- Testing and commissioning status
- Updated Document Submittal Register
- Resource status, including latest organization chart
- Construction equipment on site
- Cost report with cash flow forecast
- Payment and invoice status
- Status of any outstanding variations or claims
- Project trends/changes to the Works
- Coordination with Agency and third parties
- Photographs with reference and date

Appendix B. Form of Monthly Report on Operations and Maintenance

The monthly reports on operation and maintenance of the Facilities shall be in a format approved by the IE:

As a minimum the following shall be generated by the SCADA system:

- Daily volume, monthly aggregate and average daily volume of:
 - Influent through the Influent Pumping Station (m³)
 - Influent to the Wastewater Treatment Plant (m³) [A1_{FM}]
 - Influent through the Bypass to the Effluent Discharge Chamber (m³) [A2_{FM}]
 - Treated Effluent to the Recycling Plant (m³) [B1_{FM}]
 - Treated Effluent to the Effluent Discharge Chamber (m³) [B2_{FM}]
 - Permeate from the Recycling Plant (prior to any blending) (m³) [C_{FM}]
 - RO Concentrate to the Effluent Discharge Chamber (m³)
 - Recycled Water through the Recycled Water Pumping Station (m³) [D_{FM}]
 - Recycled Water at the Offtake Delivery Points (m³)
 - Effluent outflow from the Effluent Discharge Chamber (m³)
 - Effluent through the Effluent Pumping Station (if applicable) (m³) [E_{FM}]
 - RO Concentrate from the Recycling Plant for discharge to the sea (m³)
 - RO Concentrate through the RO Concentrate Pumping Station (sea) (if applicable) (m³) [F_{FM}]

Note: References in square brackets relate to the electricity cost calculation in Schedule 12.

- Daily average, maximum and minimum for Quality Parameters for:
 - Influent at IQMS in Figure 4 for all parameters in Table 4
 - Treated Effluent at TEQMS in Figure 4 for all parameters in Table 5
 - RO concentrate to Effluent Discharge Chamber for TDS only
 - Recycled Water at RWQMS for all parameters in Table 6
 - Effluent at EQMS in Figure 4 for all parameters in Table 5
 - RO Concentrate at ROCQMS in Figure 4 for all parameters in Table 5
- Any exceedances of Quality Parameters including values and dates for:
 - Influent as specified in Table 4
 - Treated Effluent as specified in Table 5
 - Effluent to the river as specified in Table 5
 - Recycled Water as specified in Table 6
 - RO Concentrate to the sea as specified in Table 5 (except for TDS, chloride and sulphate)
- Daily and monthly aggregate electricity consumption for:
 - Influent Pumping Station (kWh)
 - Wastewater Treatment Plant (kWh)
 - Recycling Plant (kWh)
 - Recycled Water Pumping Station (kWh)
 - Effluent Pumping Station (if applicable) (kWh)
 - RO Concentrate Pumping Station (Sea) (if applicable) (kWh)
 - Other consumption not process or flow related (kWh)
 - Aggregate for the Facilities (kWh)
- Monthly average Specific Energy Consumption for:

- Influent flow through the Influent Pumping Station (kWh per m³)
 - Treated Effluent flow from the Wastewater Treatment Plant (kWh per m³)
 - Permeate flow from the Recycling Plant (kWh per m³)
 - Recycled Water flow through the Recycled Water Pumping Station (kWh per m³)
 - Effluent flow through the Effluent Pumping Station (if applicable) (kWh per m³)
 - RO Concentrate flow through the RO Concentrate Pumping Station (Sea) (if applicable) (kWh per m³)
- Monthly aggregate and average daily chemical usage of each chemical for:
 - Wastewater Treatment
 - Recycling
 - Number of days when Influent at the Influent Delivery Point was less than 35 MIGD
 - Number of days when Influent was diverted through the Bypass
 - Number of hours when the Influent Delivery System or the Wastewater Treatment Plant or Effluent discharge was not available
 - Number of hours when the Recycling Plant or the Recycled Water Pumping Station or the Recycled Water Pipeline or the Distribution Network (Company Zones) was not available

As a minimum the following shall be generated from manual records:

- Weight/Volume of Dewatered Sludge disposed off site
- Weight/Volume of Residuals disposed off site

Appendix C. Environmental Reports

1.1 Health & Safety, Environmental and Social Reporting

- Health & Safety, Environmental and Social Incidents
- Health and Safety Performance / incidents
- Environmental non-compliance and/or incidents
- Social non-compliance and/or incidents
- Complaints

1.2 Health & Safety, Environmental and Social Management

- Corrective actions
- Trainings
- Labour relations and conditions
- Social action plan implementation
- Environmental breach rectification plan implementation

1.3 Health & Safety, Environmental and Social Monitoring

- Inspections and audits
- Air quality, noise, and vibration
- Hazardous Chemicals
- Dewatered Sludge and Residuals Disposal

1.4 Resettlement activities

1.5 Community safety and security

1.6 Stakeholder engagement / CSR activities

1.7 Other observations, risks, and issues

**SCHEDULE 2
INSURANCE**

**MINIMUM INSURANCE REQUIREMENTS
INSURANCE FOR CONSTRUCTION ACTIVITIES**

1. Marine Cargo

- Cover** : Physical loss or damage to all materials, equipment, machinery, spares and other items for incorporation in the Project Works and Facilities on an “all risks” basis whilst in transit by sea, air, or land from the country of origin anywhere in the world to the Project Land (Entire);
Cover is to be on the basis of Institute Cargo Clauses (A) plus war, strike, riot and civil commotion and should include a minimum of sixty (60) Days of storage on the Project Land (Entire).
- Sum Insured** : The value of largest shipment or the highest value in temporary storage (as part of the journey to the site) plus insurance and freight (CIF) whichever is greater.
At any time, the shipment value shall not exceed United States Dollars ten million only (USD 10,000,000/-).
- Deductibles** : Not to exceed United States Dollars fifteen thousand only (USD 15,000/-) for each loss.
- Period of Insurance** : From commencement of first shipment to the unloading of final shipment at the Project Land (Entire).
- Insured Parties** : Agency, EPC Contractor and all other contractors and sub- contractors of any tier involved in the supply of goods, materials or equipment for incorporation into the Project Activities.
- Extensions and Conditions** : Cover to include:
(i) Institute Cargo Clauses “A”;
(ii) Institute Cargo Clauses (Air Cargo);
(iii) Institute Strikes & War clauses (Cargo);
(iv) Institute Strikes & War clauses (Air Cargo);
(v) Institute Replacement clause;
(vi) Institute Classification clause;
(vii) 50/50 clause; and
(viii) 200% accumulation clause.

2. Construction “AllRisks”

- Cover** : Physical loss or damage to the assets installed or rehabilitated as part of the Project Works or construction activities, including all equipment, materials, plant, machinery, spares, temporary structures and all other property of whatsoever nature or description (but excluding the construction plant and equipment belonging to or the responsibility of the contractors)
to be incorporated in, used or rehabilitated in connection with

the Project, including testing and commissioning.

- Sum Insured*** : The full reinstatement or replacement value of the assets installed or rehabilitated as part of the Project Works or construction activities, including any “free issue” items.
- Deductibles*** : Not to exceed for each and every occurrence:
- (i) United States Dollars twenty thousand only (USD 20,000/-) in respect of testing and commissioning, extended maintenance and defects coverage;
 - (ii) United States Dollars thirty thousand only (USD 30,000/-) in respect of storm, tempest, flood, tsunami; and
 - (iii) United States Dollars fifteen thousand only (USD 15,000/-) in respect of all other losses.
- Period of Insurance*** : From the earlier of the notice to proceed as defined in the EPC Contract, the Commencement Date or from the commencement of the construction activity at Project Land (Entire), until the COD, plus cover for minimum twelve (12) Months extended maintenance.
- Insured Parties*** : The GoS Parties, the Company, the EPC Contractor and all other contractors and sub-contractors of any tier, including consultants for their activities on or about the Project Land (Entire) only.
- Extensions and Conditions*** : To include:
- (i) Offsite storage;
 - (ii) Inland transit of locally procured materials wholly within Pakistan;
 - (iii) Strike, riot and civil commotion (unless covered under the Terrorism and Sabotage insurance);
 - (iv) Insurers to waive all rights of subrogation against the Karachi Water and Sewerage Board (Agency) and against all other Insured Parties as provided above;
 - (v) LEG 2/96 faulty design / defects coverage;
 - (vi) Escalation provision;
 - (vii) Inadvertent errors and omissions;
 - (viii) Claims will be paid in the currency in which the cost is incurred;
 - (ix) 50/50 clause;
 - (x) Removal of debris;
 - (xi) Expediting expenses;
 - (xii) Public authority requirements; and
 - (xiii) Professional fees,

and subject to sub-limits based on prevailing insurance market norms.

3. Third Party Liability

- Cover*** : Legal liability of the Insured Parties as provided below for death or bodily injury to third parties or loss or damage to third party property arising out of or in connection with the Project Works and construction activities.
- Limit of Indemnity*** : No less than United States Dollars ten million only (USD 10,000,000/-) for each occurrence but in the aggregate in respect of sudden and accidental pollution risks.
- Deductibles*** : Not to exceed United States Dollars ten thousand only (USD 10,000/-) for each and every occurrence.
- Period of Insurance*** : As per the Construction All Risks insurance.
- Insured Parties*** : The GoS Parties, the EPC Contractor and all other contractors and sub-contractors of any tier and their respective directors, officers and employees, and including consultants for their activities on or about the Project Land (Entire) only.
- Geographical Limits*** : Pakistan and including business trips worldwide in connection with the Project.
- Extensions and Conditions*** : To include:
- (i) Cross liability;
 - (ii) Worldwide jurisdiction subject to North American conditions; and
 - (iii) Sudden, unintended and unexpected seepage, pollution and contamination.

4. Terrorism and Sabotage

- Cover*** : Physical loss or damage and consequent loss of gross profit following delay to the anticipated COD caused by an act of terrorism and/or sabotage to the Project.
- Sum Insured*** : A sum which is sufficient to cover the largest foreseeable loss scenario for full reinstatement value of such lost or damaged property.
- Indemnity Period*** : Twelve (12) Months from the anticipated COD or as otherwise approved by the Independent Engineer.
- Deductibles*** : Not to exceed United States Dollars twenty-five thousand only (USD 25,000/-) in respect of physical loss or damage for each and every occurrence.
For revenues no more than sixty (60) Days.
- Period of Insurance*** : As per the Construction All Risks insurance.
- Insured Parties*** : KW&SB, the EPC Contractor and all other contractors and sub-

contractors of any tier.

Geographical Limits : Pakistan.

5. **Marine Delay in Start-Up (“MDSU”) Insurance**

Cover : Loss of revenue following delay in start of commercial operations of the Project, as a direct result of physical loss or damage covered under the Marine Cargo Insurance above.

Sum Insured : Estimated gross revenue or an amount at least equal to the estimated amount due to Lenders under the Financing Documents and fixed expenses incurred during the Indemnity Period.

Indemnity Period : Not less than twelve (12) Months from the anticipated COD.

Period of Cover Insured : As per Marine Cargo insurance above.

Insured : The borrower and the lenders each for their respective rights and interests.

Deductibles : No more than forty-five (45) Days.

General : To include delay due to damage to the carrying vessel or conveyance.

6. **Delay in Start Up (“DSU”) Insurance**

Cover : Loss of revenue following delay in start of commercial operations of the Project as a direct result of physical loss or damage covered under Construction All Risk Insurance above.

Sum Insured : Estimated gross revenue or an amount at least equal to the estimated amount due to Lenders under the Financing Documents and fixed expenses during the Indemnity Period.

Indemnity Period : Not less than twelve (12) Months from the anticipated COD.

Period of Cover Insured : As per the Construction All Risks insurance.

Insured : The borrower and the lenders each for their respective rights and interests.

Deductible : No more than sixty (60) Days.

General : To include:
(a) Denial of access; and
(b) Customers’ and suppliers’ extensions (in respect of FLEXA perils).

7. **Miscellaneous**

Other insurance as is customary, desirable or necessary to comply with the Legal Requirements, such as workers’ compensation and employers’ liability insurance in relation to all workmen employed in the construction of the Project, and motor vehicle liability insurance for all vehicles owned, hired, leased, used or borrowed for use in Pakistan in connection with the Project.

INSURANCE FOR OPERATIONS AND MAINTENANCE ACTIVITIES

(during the Concession Period)

From the Effective Date, as applicable, and renewable annually unless otherwise agreed by Agency:

1. Property Damage “AllRisks”

Cover : To cover physical loss or damage to all assets comprising the Project, including but not limited to, buildings and their contents, machinery, spares, fixtures, fittings and all other personal property, against “all risks” of physical loss or damage and machinery breakdown.

Sum Insured : An amount sufficient to reinstate the Facilities.

Deductibles : Not to exceed for each and every occurrence:

- United States Dollars twenty-five thousand only (USD 25,000/-) in respect of storm, tempest, flood, tsunami; and
- United States Dollars fifteen thousand only (USD 15,000/-) for all other losses.

Period of Insurance : From the COD and renewable annually till the Final Expiry Date.

Insured Parties : The GoS Parties, the O&M Contractor and all other contractors and sub-contractors of any tier and including consultants for their activities on or about the Project Land (Entire) only.

Extensions and Conditions : To include:

- (i) Offsite storage;
- (ii) Inland transit of locally procured materials wholly within Pakistan;
- (iii) Strike, riot and civil commotion (unless covered under the Terrorism and Sabotage insurance);
- (iv) Insurers to waive all rights of subrogation against the GOS Parties and, in respect of their Project Land (Entire) activities only, against all other Insured Parties as provided above;
- (v) Escalation provision;
- (vi) Inadvertent errors and omissions;
- (vii) Claims will be paid in the currency in which the cost is incurred;
- (viii) Removal of debris;
- (ix) Expediting expenses;
- (x) Public authority requirements; and

(xi) Professional fees,
and subject to sub-limits based on prevailing insurance market norms.

2. Third Party Liability

<i>Cover</i>	Legal liability of the Insured Parties, as provided below, for death or bodily injury to third parties or loss or damage to third party property arising out of or in connection with the ownership, operation, use or maintenance of the Project, including supply of products.
<i>Limit of Indemnity</i>	No less than United States Dollars ten million only (USD 10,000,000/-) for each occurrence but in the aggregate in respect of sudden and accidental pollution risks.
<i>Deductibles</i>	Not to exceed United States Dollars ten thousand only (USD 10,000/-) for each and every occurrence.
<i>Period of Insurance</i>	As per the Property Damage All Risks insurance.
<i>Insured Parties</i>	The GoS Parties, the O&M Contractor and all other contractors and sub-contractors of any tier and their respective directors, officers and employees, and including consultants for their activities on or about the Project Land (Entire) only.
<i>Geographical Limits</i>	Pakistan and including business trips worldwide in connection with the Project.
<i>Extensions and Conditions</i>	To include: (i) Cross liability; (ii) Worldwide jurisdiction subject to North American conditions; and (iii) Sudden, unintended and unexpected seepage, pollution and contamination.

3. Terrorism and Sabotage

<i>Cover</i>	Physical loss following interruption in the O&M Activities by an act of terrorism and/or sabotage to the Project.
<i>Sum Insured</i>	A sum which is sufficient to cover the largest foreseeable loss scenario for full reinstatement value of such lost or damaged property.
<i>Indemnity Period</i>	Twelve (12) Months from the anticipated COD.
<i>Deductibles</i>	Not to exceed United States Dollars twenty-five thousand only (USD 25,000/-) in respect of physical loss or damage for each and every occurrence.
<i>Period of Insurance</i>	As per the Property Damage All Risks insurance.

Insured Parties : The GoS Parties, the O&M Contractor and all other contractors and sub-contractors of any tier.

Geographical Limits : Pakistan.

4. **Business Interruption Insurance**

Cover : Loss of revenue as a direct consequence of loss of or damage to the Project insured under Property All Risks Insurance.

Sum Insured : Gross revenue or an amount equal to the estimated amount due to

Lenders under the Financing Documents due and fixed expenses incurred during the Indemnity Period.

Indemnity Period : Not less than twelve (12) Months.

Period of Cover : As per Property All Risks Insurance above.

Insured : The GoS Parties, the O&M Contractor and all other contractors

and sub-contractors of any tier and including consultants for their activities on or about the Project Land (Entire) only.

Deductibles : No more than thirty (30) Days for each and every loss.

General : To include denial of access.

5. **Miscellaneous**

Other insurances which are:

(i) customary or necessary to comply with the Legal Requirements, such as contractual insuring responsibility, workers' compensation and employers' liability insurances in relation to all workmen employed in the Project or in connection with its operation; and motor vehicle liability insurance for all vehicles owned, hired, leased, used or borrowed for use in Pakistan in connection with the Project; and

(ii) required by Applicable Laws.

SCHEDULE 3 ACCEPTANCE TESTS

1 General

Not less than 90 Days before the anticipated COD of any portion of the Project Works and the Facilities the Company shall submit full details of the tests, methods and procedures for testing, commissioning and acceptance and methods of evaluation it proposes for approval by the Independent Engineer prior to commencement of any commissioning, testing and acceptance activity.

Not less than 21 Days before the scheduled date of the testing, commissioning and acceptance of any portion of the Facilities the Company shall prepare relevant sections of the O&M Manual (as specified in Schedule 1 (*MPSS*)) for review and use by the Independent Engineer and other third parties during commissioning, testing and acceptance, incorporating as a minimum (and in addition to requirements for the O&M Manual in Schedule 1 (*MPSS*)) the following information:

- (a) Full and detailed instructions for operation of equipment;
- (b) Full and detailed instructions and schedules for maintaining equipment;
- (c) Health and safety information pertaining to fixtures, plant and equipment to be commissioned;
- (d) Manufacturers' technical specifications and instructions for component parts;
- (e) Comprehensive parts list for all items of equipment;
- (f) Drawings showing pipelines, valves and other operational data; and
- (g) Certifications and warranties applicable to the equipment being commissioned.

The Company shall be responsible for all testing, commissioning and acceptance of the Facilities necessary to prove that the Facilities are properly constructed and functional and comply with the requirements of the Agreement.

The Company shall complete test, commission and accept the Facilities in a logical, sequential, and systematic manner, producing sign off check sheets for each item at each stage.

All testing, commissioning and acceptance will adhere to internationally recognized standards where these are available, and the Company shall clearly indicate in the plan in the first paragraph of this Schedule 3 (*Acceptance Tests*) which standards are applicable and what the pass/fail criteria are.

Unless otherwise noted in this section, the Acceptance Tests shall be performed for all Facilities.

All the Acceptance Tests shall be successfully completed, documented, and approved by the Independent Engineer (with listed punch list items as appropriate). Testing, commissioning and acceptance shall comprise at least the following steps:

2 Construction Completion Tests and Checks

2.1 Water Retaining Structures Hydrostatic Test

All water retaining structures shall be hydrostatically tested by filling them to their overflow and confirming no leaks.

2.2 Pipeline Pressure Test

All pipework shall be pressure tested on site after installation. The test pressure shall not be less than 1.25 times the stated working pressure of the pipeline measured at the highest elevation along the test section and not less than 1.5 times the stated working pressure at the lowest elevation of the test section or surge pressure, whichever is greater. Testing shall follow all requirements of the applicable American Water Works Association (AWWA) standard for the pipe material used.

2.3 Power Supply Test

The main electrical switchgear shall be tested and certified in accordance with all applicable codes and standards in accordance with the manufacturer's recommendations.

2.4 Panel and Wiring Test

All panels shall be tested on site to ensure they are safe to operate, and all power cables shall be megger tested.

2.5 Installation Check

Installation checks shall be performed on all equipment to confirm that the equipment is correctly installed and tagged as per the manufacturer's recommendations. All piping connections shall be complete, including instrument air piping/impulse lines; all cables shall be terminated and dressed (glands, labels etc.) and end to end tests shall be performed. Where vendor attendance is provided, the vendor shall sign off the installation as complete.

3 Dry Testing

3.1 Control System Check

All equipment shall be proven to be correctly represented in SCADA, and properly controlled from SCADA. This includes, but is not limited to:

- Actuated valves shall open and close when instructed to do so by SCADA, and the open/closed status shall be correctly displayed.
- Motors shall start and stop when instructed to do so, and will run at the set speed when commanded
- All analogue instruments shall display correctly in SCADA and alarms shall be generated as appropriate

All digital instruments shall display and alarm correctly in the SCADA system.

3.2 No-Load Test

Four-hour no-load tests shall be performed on decoupled motors to confirm that motors are correctly installed and functioning and that there is no excessive vibration or hot spots (tests shall include regular monitoring of vibration and temperature at key points throughout the test duration). All interlocks shall also be proven whilst the motor is decoupled (e.g., high winding/bearing temperature, high vibration etc.).

4 Wet Testing

4.1 System Flushing

The Facilities shall be extensively flushed prior to Wet Testing to assure that all tanks and components are empty prior to testing.

4.2 Full-Load Test

A four-hour full-load test shall be performed on every pump to confirm that vibration, noise, and temperature are all within acceptable limits. The full load test shall be performed as close to the pumps maximum design duty point, in as far as that is practical. If not practical for process reasons, then the pump shall operate at its maximum design duty point flowrate, and the head shall be made to be as close as possible to the duty point.

4.3 Site Acceptance Test (SAT)

The control system shall be proven process by process, to demonstrate that the control system correctly controls the field equipment according to the control philosophy. All protection systems shall be demonstrated, as far as possible from the field (e.g., for a low-pressure switch which trips a pump, the pressure tapping shall be isolated and vented to atmospheric pressure whilst the pump is running, to prove the pump is tripped). In addition, Process and Instrumentation Diagram loops shall be tuned at this stage. Each unit process should be wet tested, and SAT tested in a logical process sequence, such that once the SAT is completed for that unit process, it can be left in automatic operation whilst the downstream processes are commissioned.

4.4 RO SAT Test (Recycling Plant Only)

Each RO Train shall be SAT tested to the maximum extent possible without running the high-pressure pump. The permeate ports shall be plugged during this testing, to prevent salt water from entering the permeate system (alternatively, the permeate header may be blanked, as long as this does not result in seawater coming into contact with ferrous metal which does not meet the specification for contact with seawater). This shall include SAT testing of the CIP and Flushing Systems using fresh water from a suitable source.

4.5 Pump Test (Recycling Plant Only)

Following RO Train SAT without membranes, the membranes shall be loaded, the HP Pump full load test performed and any SATs which could not be performed without loading membranes.

4.6 Disinfection (Recycling Plant, Recycled Water Pumping Station, Recycled Water Pipeline and Distribution Network)

On completion of the above tests, and before Recycled Water is delivered to customers, all piping, tanks, and equipment downstream of the combined permeate header check valve shall be disinfected according to AWWA 651, 652 and 653, latest edition. The Company shall be responsible for neutralizing and safe disposal of the chlorinated water used during disinfection.

5 Performance Tests

On completion of the above testing, completion and acceptance, performance testing can commence, comprising process performance test, flowmeter calibration test and capacity test.

5.1 Process Performance Test (Wastewater Treatment Plant and Recycling Plant)

The purpose of the process performance test is to demonstrate that the treatment facilities are capable of meeting the respective KPI (Wide Scope). This test shall last for 48 hours for each plant at flow conditions decided by the Independent Engineer. During this test, all discharges shall be pumped to disposal by the Company. The water quality as measured by the on-line instruments shall be within specification throughout the Process Performance Test and extensive laboratory analysis shall be performed by an accredited third-party laboratory to prove that water quality meets all water quality KPIs throughout the test. The RO Concentrate feed water shall meet with all the requirements of the membrane vendor, such as but not limited to, Silt Density Index and turbidity 100% of the time during the Performance Test.

5.2 Flowmeter Calibration

The flowmeter calibration test shall use a drop test to prove that all flow meters (CTFM) meet the specified accuracy as included in applicable standards.

5.3 Capacity Test

The Capacity Test shall be a 24-hour test to prove that Wastewater Treatment Plant and Recycling Plant can produce the required capacities (as included in Schedule 1 (MPSS) and KPI (Wide Scope) as defined in the Agreement) in a 24-hour period. This test shall use the CTFMs (after they have been proven by the flowmeter calibration test) and consider any accumulation/depletion in tank levels. The same water quality parameters (including online instrumentation) shall be monitored as during the Process Performance Test, and the Facilities shall meet the same performance criteria as during the Process Performance test for the Capacity Test to be accepted.

5.4 Performance Verification

The Company shall comply with the daily requirements for those items included in Appendix B (*Form of Monthly Report on Operations and Maintenance*) of Schedule 1 (MPSS) for not less than 7 Days.

6 Update of O&M Manuals

Not more than seven (7) Days after the completion of commissioning of any portion of the Facilities the Company shall update the relevant sections of the O&M Manual to incorporate as-constructed data and test results and submit to the Independent Engineer for review.

7 Acceptance Certificate

If the Independent Engineer considers:

- (a) that the Facilities meet the commissioning, testing and acceptance standards in this Schedule 3 (*Acceptance Tests*); and
- (b) that all other requirements of Section 5.6.2 of the Agreement have been satisfied;

then the Independent Engineer shall issue the Acceptance Certificate in respect of the Facilities in favour of the Company in accordance with the provisions of Section 5.6.2 of the Agreement.

SCHEDULE 4
CORPORATE DOCUMENTS

The Memorandum and Articles of Association and Certificate of Incorporation of the Company

The joint venture or consortium agreement between the Shareholders

The joint development agreement or consortium agreement between the Shareholders (if any)

SCHEDULE 5
RELIEF COSTS FOR CERTAIN RELIEF EVENTS AND FORCE MAJEURE COSTS

Part 1: Relief Costs for a Relief Event in Section 10.1.1(a) and Relief Event (Special)

Relief Event	Calculation of Relief Costs for a Relief Event or a Relief Event (Special)
Relief Event (Special): Influent delivered to the Influent Delivery Point does not satisfy Section 9.1.1.	For each Day the Influent does not satisfy Section 9.1.1 (as set out in paragraph 4.2.2 Schedule 1 (MPSS)) and as certified by the Independent Expert, the Agency shall pay the Company Relief Costs equal to χ : $\chi = SF \times \text{Water Tariff}$
Relief Event in Section 10.1.1(a).	For each Day of the Agency Supporting Infrastructure Breach Period the Company shall be entitled to Relief Costs equal to X: $X = DSC + 50\% \times FOM$

In the above formula terms are defined as follows:

Part 2: Force Majeure Costs

Force Majeure Costs	Calculation of Force Majeure Costs
Force Majeure Costs (Pre - COD)	For each Day of the Deemed Commissioning Period to the extent affected by the Force Majeure, the GoS shall pay Force Majeure Costs (Pre-COD) equal to Y: $Y = REC + DSC$
Force Majeure Costs (Post - COD)	For each Day of the Force Majeure Period the GoS shall pay Force Majeure Costs (Post-COD) equal to Y: $Y = (REC + DSC + FOM) \times \text{Operation Level (Shortfall)}$

Part 3: Definitions

In Parts 1, 2 and 3 the following terms shall have the following meanings:

REC	means the return on equity accrued on the equity invested, as set out in the Financial Model, which is intended to compensate the Company for the return on Equity (Shareholder), for each Day during a Force Majeure Period.
DSC	means the amounts due and payable under the Financing Documents (excluding any amounts for penalty or default interest), as set out in the Financial Model, which is intended to compensate the Company for the Carrying Cost and repayments of Principal,

	for each Day during a Force Majeure Period or each Day of a Contract Year during the Agency Supporting Infrastructure Breach Period (as relevant).
FOM	means the fixed annual operating and maintenance costs for the Facilities as set out in the Financial Model, which is intended to compensate the Company for the fixed operation and maintenance cost of the Facilities, for each Day of Contract Year during a Force Majeure Period or each Day of a Contract Year during the Agency Supporting Infrastructure Breach Period (as relevant).

Deemed Commissioning Period means a period commencing on the date that the Company would have achieved the COD but for the Force Majeure (Political Event) until the earlier of:

- (a) the date that the Company achieves the COD; and
- (b) the end of the Force Majeure Period.

DRWT means 28,000,000 and being the Recycled Water Target Volume expressed as a daily figure in imperial gallons.

Force Majeure Costs means:

- (a) in the case of a Force Majeure (Political Event) where the Company is the Affected Party at any time in the period between the Effective Date and COD the Force Majeure Costs (Pre - COD); and
- (b) in the case of a Force Majeure (Political Event) where the Company is the Affected Party at any time from COD until the end of the Concession Period the Force Majeure Costs (Post - COD).

Force Majeure Period has the meaning set out in the definitions section.

Operation Level (Historical Capacity) means a percentage that represents the actual historical capacity of the Facilities and being figure equal to:

- (a) in respect of the first Contract Year 100%; and
- (b) in respect of each Contract Year after the first Contract Year a percentage equal to Y:

$$Y = \left(\frac{\text{Number of Days Operation Level (Design Capacity) achieved in previous Contract Year}}{365} \right) \times \frac{100}{1}$$

Operation Level (Design Capacity) means for the Facilities the state in which the Facilities are capable of treating 35 MIGD of Influent to meet the Quality Parameters (Company) for Effluent and Treated Effluent and produce Recycled Water equal to the DRWT to meet the Quality Parameters (Company) for Recycled Water.

Operation Level (Reduced Capacity) means a percentage figure that represents the reduced operational level of the Facilities during the Force Majeure Period and being a percentage figure equal to χ in the following formula:

$$\chi = \frac{\text{Days Operation Level (Design Capacity) achieved during Force Majeure Period}}{\text{Force Majeure Period}} \times \frac{100}{1}$$

Operation Level (Shortfall) means a percentage figure that represents the shortfall in operation levels against historical operation levels as a result of the Force Majeure and being a percentage figure equal to Z in the following formula:

$$Z = \text{Operation Level (Historical Capacity)} - \text{Operation Level (Reduced Capacity)}$$

SF means a figure expressed in imperial gallons which represents the shortfall in Recycled Water that the Facilities would have produced if the Agency had satisfied the Flow Parameter (Agency) and Quality Parameters (Agency) and being in respect of each Day an imperial gallons figure equal to X in the formula below:

$$X = (35,000,000 - Y) \times \frac{\text{DRWT}}{35,000,000}$$

Where Y means the volume of Influent in imperial gallons that satisfied the Quality Parameters (Agency) that Agency delivered to the Influent Delivery Point on the relevant Day.

SCHEDULE 6
SHAREHOLDERS DETAILS AND DETAILS OF HOLDER OF EQUITY (GOS)

Part 1: Shareholders

Name of Shareholder	Address of Shareholder	Number and class of shares in Company	Percentage interest in Company (excluding B shares)
[•]	[•]	[•]	[•]
[•]	[•]	[•]	[•]
[•]	[•]	[•]	[•]

Part 2: Lead Member

Name of Lead Member	Address of Lead Member	Number and class of shares in Company	Percentage interest in Company (excluding B shares)
[•]	[•]	[•]	[•]

Part 3: Equity (GoS)

Name of GoS Entity that holds the Equity (GoS) and is lender in the case of subordinated debt	Address of GoS	Number and class of Equity (GoS)	Amount of Equity (GoS) contributed in consideration for B Class shares	Percentage interest in total issued capital of the Company	Amount of Equity (GoS) contributed as subordinated debt (if any)	Total Amount of (GoS)
[•]	As set out in Section 25.4	[•] B Class shares with no voting rights	[•]	[•]	[•]	[•]

Part 4: Financial Nominee

Name of Financial Nominee	Address of Financial Nominee
[•]	[•]

SCHEDULE 7
FORM OF CONSTRUCTION SECURITY

Guarantee No. _____

(hereinafter referred to as the “**Bank Guarantee**”) Executed on _____

Expiry date _____

Name of Guarantor (Bank) with address

[Name of Principal (**Company**) with address:]

Guaranteed Amount (express in words and figures):

Date of Bid _____

The above premised, we (the “**Guarantor Bank**”) hereby undertake irrevocably and unconditionally on demand to pay to the Karachi Water & Sewerage Corporation (“**Agency**”), without any notice, reference or recourse to the Company or to any other entity or without any recourse or reference to any document, agreement, instrument or deed, any sum or sums (or any part thereof) equivalent in aggregate up to but not exceeding a maximum amount of:

[•] [•] /- ([•] [•])

(the “**Guaranteed Amount**”)

at sight and immediately upon the receipt of the Agency’s first written demand (the “**Demand**”) at the Guarantor Bank’s offices located at [•] or through SWIFT instructions transmitted by Agency’s bank on behalf of Agency, to the Guarantor Bank, or through fax sent by Agency at the Guarantor Bank’s fax number i.e., [•], such Demand stating:

- (a) that the Company is in breach of its obligations towards Agency; and
- (b) the total amounts demanded.

A Demand shall only be honoured by us: (i) in the case of a written Demand, if it is made by and bears the signature of an authorised officer or other representative of Agency; or (ii) in the case of a Demand transmitted through SWIFT, if it is transmitted through authenticated SWIFT instructions by Agency’s bank on behalf of Agency; or (iii) in the case of a Demand made through fax, it is made by and bears the signature of an authorised officer or other representative of Agency.

We, the Guarantor Bank, shall unconditionally honour a Demand hereunder made in compliance with this Bank Guarantee at sight and immediately on the date of receipt of your Demand, as stated earlier, and shall transfer the amount specified in the Demand to the bank account, as notified in the Demand, in immediately available and freely transferable funds in the currency of this Bank Guarantee, free and clear of and without any set-off or deduction for or on account of any present or future taxes, levies, imposts, duties, charges, fees, deductions or withholdings of any nature whatsoever and by whomsoever imposed.

This Guarantee shall come into force and shall become automatically effective upon its issuance.

Such demand must be received by us on or before the [●] (the “**Expiry Date**”), when this Bank Guarantee shall expire and shall be returned to us.

Upon expiry, this Bank Guarantee shall be returned to the Company without undue delay. Multiple Demands may be made by Agency under this Bank Guarantee, but our aggregate liability will be restricted up to the Guaranteed Amount.

We hereby agree that any amendment, renewal, extension, modification, compromise, release or discharge by mutual agreement by Agency, the Company or any other entity of any document, agreement, instrument or deed including the Concession Agreement between the Company and Agency shall not in any way impair or affect our liabilities hereunder and maybe undertaken without notice to us and without the necessity for any additional endorsement, consent or guarantee by us.

This Bank Guarantee for its validity period shall not be affected in any manner by any change in our constitution or of the Company’s constitution or of their successors and assignees and this Bank Guarantee shall be legally valid, enforceable and binding on each of their successors and permitted assignees.

All references to any contract, agreement, deed or other instruments or documents are by way of reference only and shall not affect our obligations to make payment under the terms of this Bank Guarantee.

If one or more of the provisions of this Bank Guarantee are held or found to be invalid, illegal, or unenforceable for any reason whatsoever, in any respect, any such invalidity, illegality, or unenforceability of any provision shall not affect the validity of the remaining provisions of this Bank Guarantee.

The Guarantor Bank hereby declares and confirms that under its constitution and Applicable Laws and regulations, it has the necessary power and authority, and all necessary authorizations, approvals and consents thereunder to enter into, execute, deliver and perform the obligations it has undertaken under this Bank Guarantee, which obligations are valid and legally binding on and enforceable against the Guarantor Bank under the Applicable Laws of Pakistan.

Further, the Guarantor Bank hereby declares and confirms that the signatory(ies) to this Guarantee is/are its duly authorized officer(s) to execute this Guarantee.

This Bank Guarantee and all rights and obligations arising from this Bank Guarantee shall be governed and construed in all respects in accordance with the Applicable Laws of Pakistan. The courts in Pakistan shall have exclusive jurisdiction in respect of any dispute relating to any matter contained herein.

The issuance of this Bank Guarantee is permitted according to the Applicable Laws of Pakistan and the Applicable Laws of the jurisdiction where this Bank Guarantee is issued.

This Bank Guarantee is subject to the Uniform Rules for Demand Guarantee, ICC Publication No.758. (except that Article 15(a) of the Uniform Rules for Demand Guarantees shall not apply). To the extent that there is any inconsistency between the terms of this Bank Guarantee and the Uniform Rules for Demand Guarantees, ICC Publication No. 758, the terms of this Bank Guarantee shall prevail.

Name:

Designation:

SCHEDULE 8
FORM OF OPERATING SECURITY

Guarantee No. _____

(hereinafter referred to as the “**Bank Guarantee**”) Executed on _____

Expiry date _____

Name of Guarantor (Bank) with address

[Name of Principal (**Company**) with address:]

Guaranteed Amount (express in words and figures):

Date of Bid _____

The above premised, we (the “**Guarantor Bank**”) hereby undertake irrevocably and unconditionally on demand to pay to the Karachi Water & Sewerage Corporation (“**Agency**”), without any notice, reference or recourse to the Company or to any other entity or without any recourse or reference to any document, agreement, instrument or deed, any sum or sums (or any part thereof) equivalent in aggregate up to but not exceeding a maximum amount of:

[●] [●] /- ([●] [●])
(the “**Guaranteed Amount**”)

at sight and immediately upon the receipt of the Agency’s first written demand (the “**Demand**”) at the Guarantor Bank’s offices located at [●] or through SWIFT instructions transmitted by Agency’s bank on behalf of Agency, to the Guarantor Bank, or through fax sent by Agency at the Guarantor Bank’s fax number i.e., [●], such Demand stating:

- (a) that the Company is in breach of its obligations towards Agency; and
- (b) the total amounts demanded.

A Demand shall only be honoured by us: (i) in the case of a written Demand, if it is made by and bears the signature of an authorised officer or other representative of Agency; or (ii) in the case of a Demand transmitted through SWIFT, if it is transmitted through authenticated SWIFT instructions by Agency’s bank on behalf of Agency; or (iii) in the case of a Demand made through fax, it is made by and bears the signature of an authorised officer or other representative of Agency.

We, the Guarantor Bank, shall unconditionally honour a Demand hereunder made in compliance with this Bank Guarantee at sight and immediately on the date of receipt of your Demand, as stated earlier, and shall transfer the amount specified in the Demand to the bank account, as notified in the Demand, in immediately available and freely transferable funds in the currency of this Bank Guarantee, free and clear of and without any set-off or deduction for or on account of any present or future taxes, levies, imposts, duties, charges, fees, deductions or withholdings of any nature whatsoever and by whomsoever imposed.

This Guarantee shall come into force and shall become automatically effective upon its issuance.

Such demand must be received by us on or before the [●] (the “Expiry Date”), when this Bank Guarantee shall expire and shall be returned to us.

Upon expiry, this Bank Guarantee shall be returned to the Company without undue delay. Multiple Demands may be made by Agency under this Bank Guarantee, but our aggregate liability will be restricted up to the Guaranteed Amount.

We hereby agree that any amendment, renewal, extension, modification, compromise, release or discharge by mutual agreement by Agency, the Company or any other entity of any document, agreement, instrument or deed including the Concession Agreement between the Company and Agency shall not in any way impair or affect our liabilities hereunder and maybe undertaken without notice to us and without the necessity for any additional endorsement, consent or guarantee by us.

This Bank Guarantee for its validity period shall not be affected in any manner by any change in our constitution or of the Company’s constitution or of their successors and assignees and this Bank Guarantee shall be legally valid, enforceable and binding on each of their successors and permitted assignees.

All references to any contract, agreement, deed or other instruments or documents are by way of reference only and shall not affect our obligations to make payment under the terms of this Bank Guarantee.

If one or more of the provisions of this Bank Guarantee are held or found to be invalid, illegal, or unenforceable for any reason whatsoever, in any respect, any such invalidity, illegality, or unenforceability of any provision shall not affect the validity of the remaining provisions of this Bank Guarantee.

The Guarantor Bank hereby declares and confirms that under its constitution and Applicable Laws and regulations, it has the necessary power and authority, and all necessary authorizations, approvals and consents thereunder to enter into, execute, deliver and perform the obligations it has undertaken under this Bank Guarantee, which obligations are valid and legally binding on and enforceable against the Guarantor Bank under the Applicable Laws of Pakistan.

Further, the Guarantor Bank hereby declares and confirms that the signatory(ies) to this Guarantee is/are its duly authorized officer(s) to execute this Guarantee.

This Bank Guarantee and all rights and obligations arising from this Bank Guarantee shall be governed and construed in all respects in accordance with the Applicable Laws of Pakistan. The courts in Pakistan shall have exclusive jurisdiction in respect of any dispute relating to any matter contained herein.

The issuance of this Bank Guarantee is permitted according to the Applicable Laws of Pakistan and the Applicable Laws of the jurisdiction where this Bank Guarantee is issued.

This Bank Guarantee is subject to the Uniform Rules for Demand Guarantee, ICC Publication No.758 (except that Article 15(a) of the Uniform Rules for Demand Guarantees shall not apply). To the extent that there is any inconsistency between the terms of this Bank Guarantee and the Uniform Rules for Demand Guarantees, ICC Publication No. 758, the terms of this Bank Guarantee shall prevail.

Name:

Designation:

**SCHEDULE 9
TERMINATION PAYMENT**

This Schedule 9 consists of two (2) parts. Part 1 is a Termination Payment Table showing the amounts of the Termination Payment payable by the GoS to the Company on the Termination Payment Date following a termination of this Agreement in accordance with the Agreement.

Where any amounts below are in a foreign currency any such amounts shall be converted into PKR in accordance with the exchange rate on the Termination Date.

Part 1: Termination Payment Table

	TERMINATION EVENT	TERMINATION PAYMENT PAYABLE BY GOS
1.	Termination by the Company for a GoS Parties Event of Default	$a1 + b + c + d + f - e$
2.	Termination by the Company after one hundred and twenty (120) Days of a Force Majeure (Political Event) under Section 15.5.	$a1 + b - e - f$
3.	Termination by the Agency for a Company Event of Default	$a2 - e - f$
4.	Termination by the Agency after one hundred and twenty (120) days of a Force Majeure (Political Event) under Section 15.5.	$a1 + b + c + d + f - e$
5.	Termination by Agency after one hundred and twenty (120) Days of a Force Majeure (Non-Political) under Section 15.5.	$a1 + b + c - e$
6.	Termination by the Agency under Section 15.5(a)(ii) following a Force Majeure (Political Event) where Agency does not wish to accept payment of the Force Majeure Costs	$a1 + b + c + d + f - e$
7.	Termination by Agency where Agency elect not to require the Company to apply Loss Proceeds to Repair the Facilities under Section 12.4.4 of this Agreement.	$a1 + b + c - e$
8.	Termination by the Agency for a Change of Law after one hundred and twenty (120) Days in accordance with Section 23.1.2.	$a1 + b + c + d + f - e$

Part 2: Termination Payment Elements

In this Schedule 9, the letters a1, a2, b, c, d, e and f mean the following amounts:

a1 = an amount equal to 100% of the Financial Indebtedness LESS an amount equal to any cash balances in the accounts of the Company at the Termination Date.

a2 = an amount equal to 90% of the Financial Indebtedness LESS an amount equal to any cash balances in the accounts of the Company at the Termination Date.

b = Termination Equity

c = Termination Dividend Amount

d = means any amount that the Company must pay as a result of the termination of this Agreement:

- (i) to the EPC Contractor but only where the Termination Date is a date prior to COD; and
- (ii) to the O&M Contractor but only where the Termination Date is a date after COD

e = Loss Proceeds but only to the extent the Loss Proceeds exceed amounts required for Repair or are not used for any Repair.

f = any costs in connection with the transfer of the Project Land (Entire) and Facilities from the Company to the Handover Entity

Handover Works (Estimate) means an estimate of the costs for the Handover Works to be completed following the Termination Date, as determined by the Independent Experts.

Termination Dividend Amount means an amount equal to the Termination Equity IRR multiplied by the Termination Equity for a period that is the lesser of:

- (a) three (3) years; and
- (a) the period from the Termination Date of the Concession Period until the Final Expiry Date.

Termination Equity means:

- (a) in the case where the Termination Date is a date prior to COD an amount equal to the Equity (Shareholders) LESS:
 - (A) any amount of the Equity (Shareholders) that was allocated or contributed on account of cost overruns;
 - (B) any amount of the Equity (Shareholders) that was allocated or contributed to costs exceeding the Project Costs approved by Agency; and
 - (C) any amount of the Equity (Shareholders) that exceeds the amount allocated for Equity (Shareholders) in the Financial Model;
- (b) in the case where the Termination Date is a date after the COD an amount equal to the Equity (Shareholders) LESS:
 - (A) an amount of the Equity (Shareholders) that was allocated or contributed on account of cost overruns;
 - (B) an amount of the Equity (Shareholders) that was allocated or contributed to costs exceeding the Project Costs approved by Agency;
 - (C) where the Facilities and Project Land (Entire) do not satisfy the Handover Conditions as at the Termination Date in accordance with Section 22.1.1 then an amount equal to the Handover Works (Estimate);
 - (D) any amount of the Equity (Shareholders) that exceeds the amount allocated for Equity (Shareholders) in the Financial Model;

which amount shall in the case of paragraph (b) be depreciated on a straight line basis from COD until the Final Expiry Date.

Termination Equity IRR means 20%.

SCHEDULE 10
MINIMUM REVENUE GUARANTEE

MRG Amount means an amount equal to A in the following formula, provided that A shall not be higher than the MRG Cap Amount with the consequence that where A is higher than the MRG Cap Amount then A shall be deemed to equal the MRG Cap Amount:

$$A = (V \times \text{Water Tariff} - B)$$

V means a volume of Recycled Water in imperial gallons equal to:

- (a) the Recycled Water Target Volume expressed in imperial gallons; LESS
- (b) for each Contract Year the aggregate of:
 - (i) the volume of Recycled Water sold or supplied by the Company to Offtakers in the relevant Contract Year in imperial gallons; PLUS
 - (ii) the volume of Recycled Water in imperial gallons that would have been sold or supplied by the Company but was not sold or supplied because of:
 - a. in the case of a Contract Year falling during the Ramp-Up Period (Phase 1), a reason other than:
 - (A) a Ramp-Up Reason; OR
 - (B) a failure to remove the Identified IWS by the IWS Disconnection Date in accordance with Section 7.1.2 (Identified IWS Disconnection (During Ramp-Up Period (Phase 1) and Ramp-Up Period (Phase 2)); and
 - b. in the case of a Contract Year falling during the Ramp-Up Period (Phase 2) a reason other than the failure to remove the Identified IWS by the IWS Disconnection Date in accordance with Section 7.1.2 (*Identified IWS Disconnection (During Ramp-Up Period (Phase 1) and Ramp-Up Period (Phase 2))*).

B means without double counting any deduction taking account of Section 7.2.4, the total amount of compensation the Company is paid by Agency under any Section of this Agreement including under Section 10.1 (*Relief Event (Special) & Relief Event Compensation*) and Section 15 (*Force Majeure*) of this Agreement in respect of any shortfall in production of Treated Effluent or Recycled Water for the relevant Contract Year;

provided that where A is a negative number then A shall equal zero.

MRG Cap Amount means:

- (a) in respect of Contract Year 1 means 50% of the Recycled Water Target Volume in imperial gallons MULTIPLIED BY the Water Tariff;
- (b) in respect of Contract Year 2 means 35% of the Recycled Water Target Volume in imperial gallons MULTIPLIED BY the Water Tariff;
- (c) in respect of Contract Year 3 means 15% of the Recycled Water Target Volume in imperial gallons MULTIPLIED BY the Water Tariff;

- (d) in respect of Contract Year 4 means 15% of the Recycled Water Target Volume in imperial gallons MULTIPLIED BY the Water Tariff;
- (e) in respect of Contract Year 5 means 15% of the Recycled Water Target Volume in imperial gallons MULTIPLIED BY the Water Tariff; and
- (f) in respect of Contract Year 6 means 15% of the Recycled Water Target Volume in imperial gallons MULTIPLIED BY the Water Tariff.

SCHEDULE 11
PROJECT MILESTONE SCHEDULE

PROJECT MILESTONE	PROJECT MILESTONE SCHEDULE
Required Preliminary Design Commencement Date	The date that is 120 Days after the Signature Date.
Required Effective Date	The date that is 240 Days after the Signature Date.
Required COD	The date that is 730 Days after the Effective Date.

SCHEDULE 12
CALCULATION OF ELECTRICITY COSTS (COMPANY)

Part 1: Calculation of paragraph (b) in the definition of Electricity Costs (Company)

Electricity Costs (Company) in respect of paragraph (b) in the definition of Electricity Costs (Company) for each Contract Year shall be an amount equal to Y in the formula below:

$$Y = (YECA - YECC) \times E_{\text{cost}}$$

provided that where Y is a negative number, then Y shall equal zero.

Part 2: Calculation of ECC

The ECC for each Day shall be calculated as set out below:

$$ECC = A_{ECC} + B_{ECC} + C_{ECC} + D_{ECC} + E_{ECC} + F_{ECC} + G_{ECC}$$

Where each of A_{ECC} , B_{ECC} , C_{ECC} , D_{ECC} , E_{ECC} , F_{ECC} and G_{ECC} are set out in the right hand column of Table 1 below, provided that E_{ECC} will be deleted from the above formula where the Effluent Pumping Station is not included within the Bid and F_{ECC} will be deleted from the above formula where the RO Concentrate Pumping Station (Sea) is not included within the Bid.

Project Component	Flow Measurement	Flow measured by CTFM m ³ /d	Specific Energy Consumption kWh/m ³	Energy Consumption Cap kWh/d
Influent Delivery System	<i>Influent</i> flow through the Influent Pumping Station measured by the totalized daily readings of two [CTFMs] after the Influent Pumping Station	A1 _{FM} and A2 _{FM}	A _{SEC}	A _{ECC} = (A1 _{FM} + A2 _{FM}) x A _{SEC}
Wastewater Treatment Plant	<i>Treated Effluent</i> flow from the Wastewater Treatment Plant measured by the totalized daily readings of two [CTFMs] after the Wastewater Treatment Plant	B1 _{FM} and B2 _{FM}	B _{SEC}	B _{ECC} = (B1 _{FM} + B2 _{FM}) x B _{SEC}
Recycling Plant	<i>Permeate</i> flow from the Recycling Plant measured by the totalized daily reading of a CTFM after the Recycling Plant before any blending	C _{FM}	C _{SEC}	C _{ECC} = C _{FM} x C _{SEC}

Project Component	Flow Measurement	Flow measured by CTFM m ³ /d	Specific Energy Consumption kWh/m ³	Energy Consumption Cap kWh/d
Recycled Water Pumping Station	<i>Recycled Water</i> flow through the Recycled Water Pumping Station measured by the totalized daily reading of a CTFM after the Recycled Water Pumping Station before distribution	D _{FM}	D _{SEC}	D _{ECC} = D _{FM} x D _{SEC}
OPTIONAL Effluent Pumping Station	<i>Effluent</i> flow through the Effluent Pumping Station measured by the totalized daily reading of a CTFM after the Effluent Pumping Station	E _{FM}	E _{SEC}	E _{ECC} = E _{FM} x E _{SEC}
OPTIONAL RO Concentrate Pumping Station (Sea)	<i>RO Concentrate</i> flow through the RO Concentrate Pumping Station (Sea) measured by the totalized daily reading of a CTFM on the RO Concentrate Pipeline (Sea)	F _{FM}	F _{SEC}	F _{ECC} = F _{FM} x F _{SEC}
Other metered consumption that is not included within any of the Project Components above	<i>Not related to flow</i>	n/a	n/a	G _{ECC}

Table 1: Calculation of ECC for each Day in a Contract Year

Totalized daily flows in m³ for each of the flow meters shown in Figure 1 will be generated by the SCADA system.

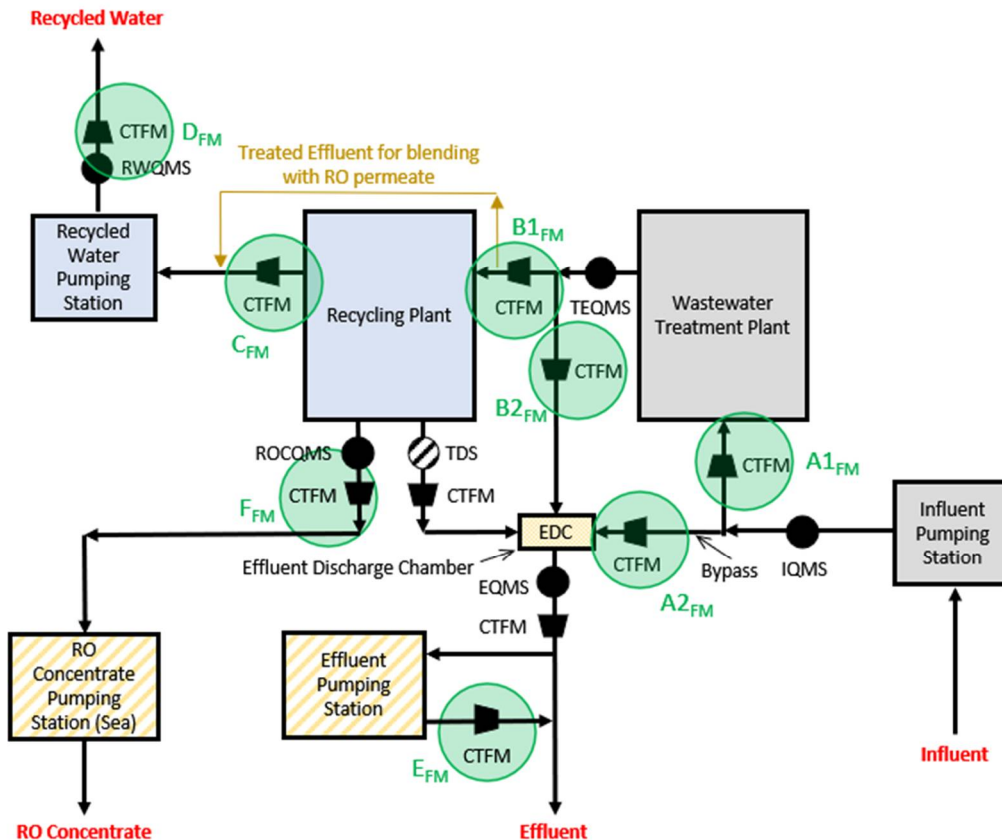


Figure 1: Flow Meters for measurement of ECC

The energy consumption for non-flow related items (G_{ECC}) shall be a daily cap in kWh quoted by the Company in its Bid with a breakdown for substantiation.

Part 3: Definitions

In this Schedule 12 (*Calculation of Electricity Costs (Company)*):

ECC means the ceiling for electricity consumption of the Facilities for each Day in a Contract Year calculated by using the formula in Part 2 of Schedule 12 (*Calculation of Electricity Costs (Company)*).

Ecost means the electricity tariff in PKR /kWh that the electricity provider charges to Agency as at the commencement of each Contract Year on the basis that Ecost shall be fixed for the Contract Year and if the electricity provider changes the electricity tariff during a Contract Year then Ecost shall be adjusted at the commencement of the immediately following Contract Year.

SEC means the total electricity consumption per unit of applicable flow for each of the Influent Delivery System, the Wastewater Treatment Plant, the Recycling Plant, the Recycled Water Pumping Station and the Effluent Pumping Station as described in Table 1 of Part 2 in Schedule 12 (*Calculation of Electricity Costs (Company)*).

YECA means the actual electricity consumption of the Facilities during a Contract Year measured by the custody transfer electricity meter on the 132kV grid connection to the Electricity Delivery Point.

YECC means ECC multiplied by the number of Days in the Contract Year.

SCHEDULE 13
COMPANY CONSENTS

SR. NO.	CONSENTS/PERMITS	AUTHORITY	RESPONSIBLE PARTY	TIMELINES
ENVIRONMENTAL COMPLIANCES				
1.	Approval of the EIA by SEPA.	SEPA	Company	Prior to the Effective Date.
2.	License issued by the SEPA for the import, generation, collection, consignment, transportation, treatment, disposal, storage, handling or otherwise usage of any hazardous substance.	SEPA	Company	Prior to COD.
GOVERNMENTAL/MUNICIPAL PERMITS				
3.	NoC's from relevant agency(ies)/ authority(ies) (as the case may be) in relation to the existing utilities on Project Land (Plants) and Project Land (Access).	Relevant agency/authority	Company	Prior to Effective Date.
4.	For the payment of dividends to non-resident shareholders, the Company is required to advise the Director, Exchange Policy Department (Investment Division), State Bank of Pakistan, Karachi the name of its bankers through whom it would like to make remittance. On receipt of nomination of a bank from the company, the State Bank will authorize the bank concerned to effect remittance of dividends, whether interim or final, to the non-resident shareholders of the Company without its prior approval.	SBP	Company	Prior to Effective Date.

SR. NO.	CONSENTS/PERMITS	AUTHORITY	RESPONSIBLE PARTY	TIMELINES
5.	General or special permission from SBP to make any payments to or for the credit of any person resident outside of Pakistan.	SBP	Company	Prior to Effective Date.
PAKISTAN ENGINEERING COUNCIL				
6.	The entity intending to undertake construction or engineering work/activity must obtain a license from the Pakistan Engineering Council (PEC).	PEC	Company (Note to be obtained in the name of the EPC contractors and the O&M Contractors).	Prior to Effective Date.
LABOUR LAWS				
7.	Application for registration as an establishment and renewal of such registration certificate after every two (2) years.	Deputy Chief Inspector for the area where the Company is located.	Company	Within three (3) months of incorporation of the Company.
8.	The Company shall communicate to the Sindh Employees' Old-Age Benefits Institution (SEOBI) the name and other prescribed particulars of the Company and of every insured person employed in the industry or establishment.	SEOBI	Company	Within thirty (30) days of incorporation of the Company.
9.	Registration of the workplace and Project Land (Plants) and Project Land (Access) with the GoS or a designated authority.	GoS or its designated authority.	Company	Before using the workplace or Project Land (Plants) and Project Land (Access).
10.	Approval of the health and safety training from the GoS that is required to be provided to the health and safety representative of the Company.	GoS	Company	Before the health and safety representative of the Company is given such

SR. NO.	CONSENTS/PERMITS	AUTHORITY	RESPONSIBLE PARTY	TIMELINES
				training.
GoS AND SITE				
11.	Grant of license to supply water.	GoS	Company	Prior to COD.
12.	Grant of license in respect of the Project Land to the Concessionaire.	GoS	Company	Prior to Effective Date.
13.	Grant of license/authorization to collect Water Tariff from Offtaker(s).	GoS	Company	Prior to COD.
14.	Determination of Water Tariff.	GoS	Company	Prior to COD.
MISCELLANEOUS				
15.	Sanction of the GoS permitting the Company to connect the electricity supply lines to earth.	GoS	Company	Prior to Effective Date.
16.	Registration with the Pakistan Single Window Company (PSWC) for imports and exports.	Pakistan Single Window	Company	Prior to import of goods / equipment.
17.	Construction permits.	Sindh Building Control Authority.	Company	Prior to Effective Date.
TAX				
18.	Registration of the Company with the FBR either offline or through the FBR Iris Portal to obtain the National Tax Number (NTN).	Federal Revenue Board	Company	The registration can be completed simultaneously with the Company incorporation process.
19.	Registration for sales tax on services.	Sindh Revenue Board	Company	Within thirty (30) days after receiving

SR. NO.	CONSENTS/PERMITS	AUTHORITY	RESPONSIBLE PARTY	TIMELINES
				notification of their taxable services from Sindh Revenue Board.
20.	Professional tax registration with the Excise and Taxation Department of the district.	Excise and Taxation Department	Company	Within thirty (30) days of incorporation of the Company.

SCHEDULE 14
INFORMATION FROM THE BID

Part 1: Key Inputs from the Bid

The relevant amounts for each row below shall be extracted from relevant information from the Bid.

Items	Relevant amount
Water Tariff	The Water Tariff for the first Contract Year shall be PKR [●] per imperial gallon of Recycled Water
Bid Submission Date	[●]
EPC Contractor	[●]
O&M Contractor	[●]
Project Cost	[●]

Part 2: Distribution Network Clawback Amount

The Distribution Network Clawback Amount shall be an amount equal to A in the following:

A = the amount set out as the Total Amount at the bottom of the table below in this Part 2 (*Bill of Quantities*)– Y

Where:

Y = the relevant Unit Rate multiplied by the pipes that are actually used in the Distribution Network (Company Zones) (based upon the relevant Outside Diameter and Pipe Length that are actually used);

Where Unit Rate means the amount set out in the Unit Rate column below of this Part 2 (*Bill of Quantities*).

The information in the Unit Rate column and the Cost column shall be inserted from information extracted from the Bid.

DISTRIBUTION NETWORK (50 MIGD)			
Pipe Details		Pipe Supply and Installation	
Outside Diameter mm	Pipe Length m	Unit Rate PKR/m	Cost PKR
160	4,000	[●]	[●]
225	52,000	[●]	[●]
280	17,000	[●]	[●]
355	7,000	[●]	[●]
450	12,000	[●]	[●]

DISTRIBUTION NETWORK (50 MIGD)			
Pipe Details		Pipe Supply and Installation	
Outside Diameter mm	Pipe Length m	Unit Rate PKR/m	Cost PKR
500	5,000	[•]	[•]
630	5,000	[•]	[•]
710	3,000	[•]	[•]
800	15,000	[•]	[•]
Total Amount:			[•]

Part 3: Energy Consumption Caps

Specific Energy Consumption (SEC) caps entered in the bid Technical Submittals in compliance with the Key Performance Indicators specified in 6.2 g) of Schedule 1 (MPSS).

Project Component	Flow and CTFM Reference	Specific Energy Consumption kWh/m³
Influent Delivery System	Influent (to WWTP) - A1_{FM} Influent (to Bypass) - A2_{FM}	A_{SEC} [•]
Wastewater Treatment Plant	Treated Effluent (recycling) - B1_{FM} Treated Effluent (to EDC) - B2_{FM}	B_{SEC} [•]
Recycling Plant	Permeate - C_{FM}	C_{SEC} [•]
Recycled Water PS	Recycled Water (to distribution) - D_{FM}	D_{SEC} [•]
Effluent PS	Effluent (to river) - E_{FM}	E_{SEC} [•]
RO Concentrate PS (Sea)	RO Concentrate (to sea) - F_{FM}	F_{SEC} [•]

Energy consumption cap entered in the bid Technical Submittals in compliance with the Key Performance Indicators specified in 6.2 g) of Schedule 1 (MPSS).

Project Component	Energy Consumption kWh/d
Non-Flow/Process	[•]

SCHEDULE 15
INDEPENDENT EXPERT TERMS OF REFERENCE

Part 1:

1.1 Indicative Independent Auditor Terms of Reference

The Independent Auditor shall perform its scope of work on a basis that is at arms length to the Parties. The scope of work of the Independent Auditor for the Project shall include the following:

- (a) Perform all actions and services set out in the Concession Agreement, Project Land Agreement and the Equity Funding and Utilisation Agreement (in each case including all schedules) (“**Relevant Agreements**”) to be performed by the Independent Auditor diligently and within the timelines set out therein (the “**IA Services**”).
- (b) Exercise, in the performance of the IA Services, all skill, care and diligence to be expected of a properly qualified and competent professional experienced in each of the disciplines to which the IA Services relate.
- (c) Cooperate with the other parties to the Relevant Agreements in respect of matters relating to the Independent Auditor for the purposes of, *inter alia*, facilitating of the Project, the Services and the Project Works.
- (d) The IA Services shall include:
 - monitoring financial aspects;
 - certification and approvals;
 - issuing monthly progress reports;
 - cost certification;
 - expert adjudicator on financial matters relating to Force Majeure Event, terminations, project delays Disputes or other project issues as and when they arise and of the Project’s issues, funding mechanisms, project risks and setting out the relevant Party responsibility as laid down in the Relevant Agreements; and
 - other matters detailed in Relevant Agreements.
- (e) As and when requested or required pursuant to the Relevant Agreements, review and comment on any documents provided to it pursuant to the Relevant Agreements and request further documents as may be required for performance of the IA Services.
- (f) To work in close coordination with the Independent Engineer and exchange information as required for the performance of their respective tasks.
- (g) To give presentations to various Governmental Authorities and the GoS Parties on

the Financial Model and explain the impact of tariff, Relief Costs, the Electricity Costs, the MRG Amount and Force Majeure Events and termination events, on the value for money. Also be in meetings of the GoS Parties during various approvals (if and as required).

- (h) On a request from the Company, the Lenders or GoS Parties, establish the existence of a Material Adverse Effect and recommend based on the terms of the Relevant Agreements, a mechanism and amendments to the Concession Agreement to overcome the same.
- (i) Follow and review a system of periodic reports in such frequency and formats as determined by the Company and the GoS Parties and participate in the Contract Management Body, and review the Design and Construction Reports and the Operation and Maintenance Reports and the Environmental Reports.
- (j) During the Design and Construction Period (Entire), monitor financial progress against the Construction Programme, Implementation Plan and Project Milestone Schedule.
- (k) Determine, *inter alia*, the MRG Amount, Relief Costs, Electricity Costs, Electricity Connection Costs, Termination Payments, Handover Works Amount, contributions of Equity to be paid in accordance with the Relevant Documents.
- (l) Issue certifications to facilitate disbursement of funding from stakeholders (including equity) with respect to construction and other expenditures in accordance with the Relevant Agreements.
- (m) In respect of the occurrence of a Relief Event, Relief Event (Special), Force Majeure Event or upon issuance of a MRG Amount Notice in accordance with the provisions of the Concession Agreement, consult with the Company and the GoS Parties in order to determine the amount of resultant compensation, if any, in accordance with the provisions of the Concession Agreement and issue necessary certifications in this respect.
- (n) In respect of Termination Payments, determine the amount of resultant compensations, if any, in accordance with the provisions of the Concession Agreement and issue necessary certifications in this respect.
- (o) In accordance with Section 24 assist to review the Company Advertising Plan and verify the Advertising Proceeds.
- (p) Review the Financing Term Sheet and the Financing Documents (and amendments thereto).
- (q) In accordance with the Concession Agreement make recommendations as to the EPC Contractor or the O&M Contractor.
- (r) Monitor the debt-to-equity ratio of the Company.
- (s) Monitor the shareholding percentage of each Shareholder on a quarterly basis from the Effective Date.

- (t) Issue various certificates or confirmations in consultation with the Independent Engineer (where applicable) including but not limited to the Acceptance Certificate, confirmation as to satisfaction of conditions precedent, confirmation as to fees and costs under Section 3.3.2 of the Concession Agreement, confirmation as to a Suspension, decisions as to the cost of the Distribution Network, decisions as to a KPI Breach Event or Environmental Breach Event, decisions in respect to the Handover Works, decisions in respect to Relief Order Requests, decisions as to Extension of Time and other decisions and confirmations, as more particularly described in the Concession Agreement. The Independent Auditor will rely on reports, studies, surveys, and other documents provided by the Company or Company Engaged Persons in performance of the work under this paragraph.
- (u) In case of a failure to achieve the Project Milestone Schedule, issue delay notices, in consultation with the Independent Engineer, as described in the Concession Agreement.
- (v) Together with the Independent Engineer, act to resolve any disputes arising due to a conflict between the sections and schedules of the Concession Agreement.
- (w) Together with the Independent Engineer, advise the GoS Parties on the financial implications of a Variation requested by the Company.
- (x) Together with the Independent Engineer, advise GoS Parties on any changes, modifications, amendments, supplements or waivers to the Financing Documents, the EPC Contract and the O&M Agreement.
- (y) Upon receipt of a notice of Change in Law from the Company pursuant to the Concession Agreement, as and when requested or required, confirm occurrence of the Change in Law and certify the consequent financial impact, in accordance with the Concession Agreement.
- (z) Together with the Independent Engineer, advise GoS Parties on any changes, modifications, amendments, supplements to the Insurance Policies.
- (aa) Comply with the Legal Requirements in its performance of the IA Services.
- (bb) Perform such other obligations and responsibilities as set out in the Relevant Agreements.
- (cc) Perform such other obligations and responsibilities as mutually agreed between the Parties.
- (dd) Perform any other action or services set out in the Independent Expert Terms of Engagement.
- (ee) Together with the Independent Engineer review the Offtake Planning Report.

1.2 Independent Auditor Criteria

An international or local auditing firm (not individuals) appointed as the Independent Auditor shall meet the following criteria:

- Have the experience of undertaking a similar role in at least two (2) either i) project financed infrastructure projects; or ii) PPP projects.
- Have the following permanent employees for at least one (1) year:
 - (i) team leader with at least fifteen (15) years of experience with complete knowledge and understanding of project financed infrastructure projects or PPP projects;
 - (ii) tax expert with at least ten (10) years of experience with complete knowledge of Pakistan tax law and its application to the Project;
 - (iii) auditing expert with at least ten (10) years of experience;
 - (iv) financial modelling expert with at least ten (10) years of experience;
 - (v) other experts required to perform the obligations of the Independent Auditor under the Project as specified herein.
- Provide an undertaking that the above staff shall be employed on the Project if the work is awarded to the firm. Relevant staff members must be available to attend all inspections and meetings with the GoS Parties or other Governmental Authorities. Any change in staff for this assignment would need to be replaced with similar experience.
- Ensure that its staff are fully familiar with project financed infrastructure projects or PPP projects and the role of the Independent Auditor in such projects. In addition, staff should be familiar with Pakistan Income Tax Ordinance, 2001, governmental public procurement regulatory framework and Relevant Agreements.

1.3 Independent Auditor Payments

The Independent Auditor shall be paid out of an escrow account established jointly by the GoS Parties and the Company that is funded by the Company.

Part 2: Indicative Independent Engineer Terms of Reference

2.1 General

The Independent Engineer shall perform its scope of work on an arms length basis from the Parties. The scope of work of the Independent Engineer for the Project shall include the following:

- (a) Perform all actions and services set out in the Concession Agreement, Project Land Agreement and Equity Funding and Utilisation Agreement (in each case including all schedules) (**Relevant Agreements**) to be performed by the Independent Engineer diligently and within the timelines set out therein (the “**IE Services**”).

- (b) Exercise, in the performance of the IE Services, all skill, care and diligence to be expected of a properly qualified and competent professional experienced in each of the disciplines to which the IE Services relate.
- (c) Cooperate with the other parties to the Relevant Agreements in respect of matters relating to the Independent Engineer for the purposes of, *inter alia*, facilitating implementation of the Project, the Project Works and the Services.
- (d) Coordinate and liaise with the Parties in respect of matters that require the Independent Engineer's inputs for performance of the IE Services.
- (e) As and when requested or required, consult with the parties to the Relevant Agreements and / or any other relevant stakeholders of the Project for the performance of IE Services and request (where available and applicable) any documents that are required by the Independent Engineer to perform the IE Services.
- (f) As and when requested or required pursuant to this Agreement and other Relevant Agreements, review and comment on any documents provided to it pursuant to the Relevant Agreements and request further documents as may be required for performance of the IE Services.
- (g) Prepare, issue, deliver, review and / or approve (as applicable) all documents contemplated to be prepared, issued, delivered, reviewed and/or approved (as applicable) by the Independent Engineer under this Agreement or the other Relevant Agreements.
- (h) Visit any of the offices of the Company or any other location where relevant personnel or records of the Company are located.
- (i) Comply with the Legal Requirements in its performance of the IE Services.
- (j) In performing the IE Services, not in any way materially adversely interfere with the performance of the Company's, the Contractors' and the GoS Parties' obligations and with the conduct of their business.
- (k) Report to the Parties in case the quality standards and quality control provisions are not maintained on the Project Land (Entire).
- (l) Perform all such duties and obligations that are to be performed by the Independent Engineer under the Relevant Agreements.
- (m) Perform functions, including issuance of directions to the Company or the Company Engaged Persons, in respect of the emergency decommissioning of the Facilities, as may be required by the Relevant Agreements.
- (n) Perform its duties in respect of insurance claims and proceeds, as set out in the Concession Agreement.
- (o) Perform functions in respect of a Variation, as set out in the Concession Agreement, including in respect to payments out of an escrow account against

achievement of milestones under the Concession Agreement.

- (p) Perform the respective roles and duties that are to be performed by the Independent Engineer upon termination of the Concession Agreement in respect of the Handover Works or on or prior to the Final Expiry Date.
- (q) As and when requested or required, attend / visit, during normal working hours, any place where work is being carried out in respect of any equipment or material to be incorporated into the Facilities, Project Works or Design Documents with full opportunity to inspect, examine, measure or test any such works, equipment or material.
- (r) As and when requested or required, certify any delays in the achievement of the Project Milestone Schedule, Implementation Plan or Construction Programme (including certifying an Extension of Time) and coordinate with the Independent Auditor in respect of matters relating to the same.
- (s) Consult with the Parties in respect to the sufficiency and / or insufficiency of the insurance proceeds required to repair, replace, reinstate or rectify the relevant loss or damage to the Facilities in accordance with the Concession Agreement.
- (t) Upon receipt of an invoice in relation to the Project Works, certify to all Parties of the completion of the relevant milestone under the EPC Contracts and Equity Funding and Utilisation Agreement.
- (u) Be present at and observe performance of all Acceptance Tests under the Concession Agreement or provide for authorized representatives to perform the foregoing functions.
- (v) Provide operational recommendations in risk management reports to the Parties, from time to time, during the Concession Period.
- (w) Upon receipt of a notice of Change in Law from the Company pursuant to the Concession Agreement, as and when requested or required, confirm occurrence of the Change in Law and certify the consequent financial impact, in accordance with the Concession Agreement.
- (x) Inspect the Facilities at the time of handing over thereof by the Company to the GoS Parties or Handover Entity and assess Handover Works and perform functions in respect of such handing over as provided in the Concession Agreement.
- (y) Present to the Parties as and when required on the progress of the Project and other milestones specified in the Construction Programme, Implementation Plan and Project Milestone Schedule and review the Design and Construction Reports and Operation and Maintenance Report and the Environmental Reports and participate in the Contract Management Body.
- (z) Pursuant to the terms of the Project Land Agreement, review and approve the status report submitted by the Company, on an annual basis, on the occurrence

and status of occupations, thefts, encroachments and Encumbrances arising from time to time on the Project Land (Entire) to ensure compliance by the Company of its obligations to protect the Project Land (Entire) from such encroachments under the Relevant Agreements.

- (aa) Issue various certificates or confirmations in consultation with the Independent Auditor (where applicable) including but not limited to Acceptance Certificate, confirmation as to satisfaction of conditions precedent, confirmation as to fees and costs under Section 3.3.2 of the Concession Agreement, confirmation as to Suspension, decisions as to the cost of the Distribution Network, decisions as to a KPI Breach Event or Environmental Breach Event, decisions in respect to the Handover Works, decisions in respect to Relief Order Requests, decisions as to Extension of Time and any other decisions, certifications or confirmations, as more particularly described in the Concession Agreement. The Independent Auditor will rely on reports, studies, surveys, and other documents provided by the Company or Company Engaged Persons in exercising these duties.
- (bb) In case of a failure to achieve the Project Milestone Schedule, issue delay notices, in consultation with the Independent Auditor as described in the Concession Agreement.
- (cc) Together with the Independent Auditor, act to resolve any disputes arising due to a conflict between the sections and schedules of the Concession Agreement.
- (dd) Together with the Independent Auditor, advise the GoS Parties on the technical implications of a Variation requested by the Company.
- (ee) Together with the Independent Auditor, advise the GoS Parties on any changes, modifications, amendments, supplements or waivers to the Financing Documents, EPC Contracts, O&M Agreement or changes to or appointment of the EPC Contractors or O&M Contractor.
- (ff) Together with the Independent Auditor, advise GoS Parties on any changes, modifications, amendments, or supplements to the Insurance Policies.
- (gg) Perform such other obligations and responsibilities as set out in the Relevant Agreements.
- (hh) Perform such other obligations and responsibilities as mutually agreed between the Parties.
- (ii) Perform any other action or services set out in the Independent Engineer Contract.
- (jj) Determine, *inter alia*, the MRG Amount, Relief Costs, Electricity Costs, Electricity Connection Costs to be paid in accordance with the Concession Agreement.

2.2 Proposed Design Documents Review Phase

With respect to the review and approval of the EPC Contract, IE Services shall include the following:

- (a) Review and approve the adequacy of primary data collected for the Project, including topographical surveys, geo-technical and sub-soil investigations, hydrological investigation and any other surveys, investigations and analyses conducted to prepare the Design Documents and EPC Contracts.
- (b) Review and approve the condition survey of existing utilities & their relocation design, and EPC Contracts prepared and submitted by the Company to the Independent Engineer for the construction of various components of the Project, the Project Works and the Facilities.
- (c) Identification of Project design features or any part of the Design Documents and any major equipment component that does not appear to meet the Design and Construction Standards or fails to adhere to the technical specifications provided in the Concession Agreement.
- (d) Review and approve the Implementation Plan, the Project Milestone Schedule and the Construction Programme and make assessments as to Extension of Time under the Concession Agreement.
- (e) Provide an opinion on and approve the Design Documents, construction documents and generally provide an opinion on the quality of the designs with respect to their effect on the anticipated service life of the Facilities and Project Works, the degree of maintenance needed to meet performance requirements and KPIs and Availability over the Concession Period and confirm payment of fees under the Concession Agreement Section 3.3.2.
- (f) Review and approve the reports prepared and submitted by the Company or its Company Engaged Persons or third parties including the Design and Construction Reports, the Operation and Maintenance Report and the Offtake Planning Report.
- (g) Determine that adequate provisions have been made for the following in the EPC Contracts for:
 - (i) design;
 - (ii) material sourcing;
 - (iii) material transportation equipment;
 - (iv) utilities;
 - (v) equipment procurement;
 - (vi) construction and Project Works; and
 - (vii) testing and Acceptance Tests.
- (h) review and approve completion of the conditions precedent and also in relation to early access by the Company to the Project Land (Plants) and removal of infill by Agency under the Concession Agreement prior to the relevant date.

- (i) Review and comment on the consistency of all Relevant Agreements.
- (j) Review the available Company Consents or applications for Company Consents.
- (k) Review and comment on the utilities' arrangements for the Project.
- (l) Review and approve the adequacy and reasonableness of the Project coordination and monitoring systems.
- (m) Review the safety measures proposed for the construction of the Facilities and Project Works and their compliance with the safety regulations.
- (n) Review, audit, comment and approve the working methodology submitted by the Company regarding the construction of Project infrastructure in densely populated areas to avoid disturbance to traffic and public.
- (o) Report to the GoS Parties in case the quality standards and quality control provisions Operating, Design and Construction Standards or Environmental Standards are not maintained on the Project Land (Entire).

2.3 Supervision Services during the Construction Period

During the Construction Period, the IE Services to be performed by the Independent Engineer shall include the following:

- (a) Supervise the Project Works in detail and to approve the materials, formworks, and workmanship of the Project Works on a daily and fulltime basis. As stated in the Concession Agreement, the Independent Engineer shall have no authority to relieve the Company of any of its duties or to impose additional obligations.
- (b) Review and approve the Operating Procedure, O&M Manual, construction manuals and operation and maintenance manuals prepared and submitted by the Company.
- (c) Supervise / approve the Project Works and provision of Services, including material testing, water sampling, water quality testing, equipment installation, facility integration, treatment process testing, and review the water quality and treatment testing results and to order special tests of water quality and / or completed works, and / or order removal and substitution of substandard material, equipment and / or work as required under Relevant Agreements.
- (d) Review and approve work methodology of each component of the Project Works.
- (e) Review quality assurance and quality control during the Construction Period.
- (f) Identify construction delays, if any and recommend to the GoS Parties the remedial measures to expedite the progress of the Project Works.
- (g) Review the "Design Documents, construction documents" and "*as-built*" drawings for each component of the Project Works prepared and submitted to Independent Engineer by the Company.

- (h) Review the safety measures provided for the Project Works.
- (i) Determine any extension of the Construction Programme, Implementation Plan or Project Milestone Schedule and any Extension of Time, to which the Company is entitled and notify the GoS Parties in writing accordingly.
- (j) Review compliance by the Company of its obligations under the Concession Agreement.
- (k) Within any period set out in the Relevant Documents (or if no period is set out within thirty (30) Days), give a notice to the Company:
 - (i) of 'no-objection,' which may include comments concerning minor matters which will not substantially affect the Services or Project Works; or
 - (ii) that the Company fails, to the extent stated, to comply with the requirements of the Independent Engineer or as otherwise stated in the Concession Agreement, with reasons.

If the Independent Engineer instructs that further documents are reasonably required from the Company to demonstrate that the Services or Project Works or design comply with the Concession Agreement, the Company shall prepare and submit the same promptly to the Independent Engineer at the Company's cost.

If the Independent Engineer gives a notice that the Company fails to comply with the requirements of the Independent Engineer or those stated in the Concession Agreement, the Company shall revise the documents, resubmit them to the Independent Engineer in accordance with this section, and the review period shall be calculated from the date that the Independent Engineer receives the documents.

For performance testing, KPIs and Acceptance Tests, the Independent Engineer shall:

- (a) Review test procedures developed by the O&M Contractor or EPC Contractors and confirm compliance with applicable test codes and standards and with testing criteria specified in the Concession Agreement;
- (b) Review the quality control reports, water testing results and testing reports and results in accordance with the Concession Agreement.
- (c) Review test reports prepared by Company or the Company's testing consultant; and
- (d) Make visits to the Project Land (Entire) to verify that the Project Works, including testing requirements, have been completed and thereafter sign and issue the Acceptance Certificate.
- (e) Determine the area and location of the Project Land (Distribution) if required under the Concession Agreement.

- (f) Issue the Certificate of Readiness.

2.4 Operating Supervision Services

During the Operating Period, the IE Services to be performed by the Independent Engineer shall include the following:

- (a) Supervise and approve ‘as-built records’ of the execution of the Project Works, as prepared by the Company, showing the exact as-built locations, sizes and details of the Project Works. The Independent Engineer shall have no authority to relieve the Company of any of its duties or to impose additional obligations.
- (b) Require as-built records before the beginning of the testing on completion and Acceptance Tests of the Project Works, but also updated as-built records to the extent that any construction and / or rehabilitation activities are executed by the Company during and /or after the Acceptance Tests.
- (c) Review and approve the Operating Procedures and O&M Manual prepared by the Company. The Operating Procedures and O&M Manual shall include enough detail to ensure the operation, maintenance and performance of Services and the Facilities to comply with the KPIs included in the Concession Agreement. The Operating Standards shall also allow to operate, maintain, dismantle, reassemble, adjust and repair the Facilities as necessary, including an inventory of spare parts.
- (d) Detect Defects and Deficiencies, errors, omissions, ambiguities, inconsistencies, inadequacies or other defects in the Project Works and issue the necessary notices of no-objection and review and assess remedying of the same.
- (e) Review the Acceptance Tests submitted by the Company to carry out the tests on completion, as specified in the Concession Agreement.
- (f) Give a notice to the Company stating the extent to which the Acceptance Tests does not comply with the Concession Agreement or the Independent Engineer’s requirements. Within fourteen (14) Days after receiving this notice, the Company shall review the test programme to rectify any non-compliance. If the Independent Engineer gives no such notice within fourteen (14) Days after receiving the test programme (or the revised programme), the Independent Engineer shall be deemed to have given a notice of no-objection. The Company shall not commence the tests until a notice of no-objection is given, or is deemed to have been given, by the Independent Engineer.
- (g) Issue the Acceptance Certificate after checking the results and workability of the Acceptance Tests and the Facilities after the prescribed Acceptance Tests.
- (h) Make decisions in respect to an Emergency and in respect to the Advertising Plan as required under the Concession Agreement.

2.5 Environmental and Social Matters

Concerning the environmental and social matters under the Project, the IE Services to be performed by the Independent Engineer shall include the following:

- 1.5.1 Before COD: review for compliance with the Legal Requirements, including the Environmental Standards the EIA application to be prepared by the Company in accordance with the Concession Agreement (and drafts and revisions of the same).
- 1.5.2 During the Design and Construction Period (Entire), at least visit the Project Land (Entire) daily or weekly (depending upon requirements of GoS Parties and Company) to:
- (a) review environmental and social management, monitoring and reporting undertaken by the Company, including implementation of mitigation measures, which shall include but not be limited to:
 - (i) labour and working conditions,
 - (ii) potential impacts to agriculture and livestock from changes in soil moisture;
 - (iii) solid and Hazardous Substances, storage, treatment and disposal, including sub-contractor practices;
 - (iv) noise level compliance at nearby sensitive receptors;
 - (v) Influent wastewater quality;
 - (vi) Treated Effluent, Effluent quality and Recycled Water quality during commissioning;
 - (vii) emergency response procedures;
 - (viii) review or assess any Environmental Breach;
 - (ix) other required environmental, health, and safety management practices;
 - (x) health and safety procedures;
- 1.5.2.1 undertake independent verification field monitoring of the Company's compliance with its Environmental Standards; and
- 1.5.2.2 inspect the Project Land (Entire), review grievance logs and interview representatives of stakeholders,
- in each case, as needed to ascertain whether the Company's activities are in compliance with the Legal Requirements, including the Environmental Standards.
- 1.5.3 On a semi-annual basis during the first two (2) years of the Operating Period, and on an annual basis for another three (3) years thereafter:

1.5.3.1 review environmental and social management, monitoring and reporting undertaken by the Company;

1.5.3.2 undertake independent verification field monitoring of the Company's compliance with its Environmental Standards; and

1.5.3.3 inspect the Project Land (Entire), review grievance logs and interview representatives of affected communities,

in each case, as needed to ascertain whether the Company's activities are in compliance with the Legal Requirements, including the Environmental Standards.

1.5.4 Within sixty (60) Days following the end of the first three (3) years of the Operating Period, the Independent Engineer shall issue a report indicating whether:

1.5.4.1 the Company has performed the Project Works and is conducting the Services in accordance with the Legal Requirements, including the Environmental Standards, and has in place adequate procedures and practices to manage environmental and social risks and impacts; and

1.5.4.2 the GoS Parties and any relevant Governmental Authority is adequately equipped to monitor and enforce, and is effectively monitoring and enforcing, the Parties' environmental and social obligations under the Concession Agreement.

If both the foregoing conditions are met, there will be no need for further annual review. If at least one of the two foregoing conditions is not met, the Parties will in good faith agree on a supplementary scope of work to be carried out by the Independent Engineer for a period up to the duration of the Project.

2.6 Independent Engineer Criteria

An international or local engineering firm (not individuals) appointed as the Independent Engineer shall meet the following criteria:

- Have the experience of undertaking a similar role in at least two (2) either i) project financed infrastructure projects; or ii) PPP projects.
- Have the experience of designing or checking the design of at least two (2) projects that are the same or similar to the Project.
- Have the experience of supervising at least two (2) projects involving the construction of Wastewater Treatment Plants and one (1) project involving the construction of a Reverse Osmosis Desalination Plant..
- Have the following permanent employees for at least one (1) year:
 - (i) team leader with at least twenty (20) years of experience with complete knowledge and understanding of wastewater projects, project financed infrastructure projects and PPP projects;

- (ii) hydraulic engineering expert with at least fifteen (15) years of experience;
 - (iii) civil engineering expert with at least fifteen (15) years of experience;
 - (iv) wastewater treatment process expert with at least fifteen (15) years of experience;
 - (v) reverse osmosis desalination plant expert with at least ten (10) years of experience;
 - (vi) electrical-mechanical engineering expert with at least fifteen (15) years of experience;
 - (vii) SCADA system expert with at least ten (10) years of experience;
 - (viii) contract management expert with at least ten (10) years of experience;
 - (ix) other experts required to perform the obligations of the Independent Engineer under the Project as specified herein.
- Provide an undertaking that the above staff shall be employed on the Project if the work is awarded to the engineering firm. Relevant staff members must be available to attend all inspections and meetings with the GoS Parties. Any change in staff for this assignment would need to be replaced with similar experience.
 - Ensure that its staff are fully familiar with project financed infrastructure projects or PPP projects and the role of the Independent Engineer in such projects. In addition, the staff should be familiar with FIDIC conditions of contract, governmental public procurement regulatory framework, and the Project Agreements.
 - Ensure that its staff have at least a minimum bachelor's degree in the relevant engineering field with a specialization in water sector projects.

2.7 Independent Engineer Payment

The Independent Engineer shall be paid out of an escrow account jointly established by the Company and the GoS Parties that is funded by the Company.

PROJECT LAND AGREEMENT

between

THE KARACHI WATER AND SEWERAGE CORPORATION

- and -

[*THE COMPANY*]

relating to

**WEST KARACHI RECYCLED WATER
PROJECT 1**

Dated [●]

THIS PROJECT LAND AGREEMENT is made on [●], 2024 (the **Signing Date**), at Karachi, Pakistan.

BETWEEN

- (1) **KARACHI WATER AND SEWERAGE CORPORATION**, a corporation established pursuant to section 3 of the Karachi Water and Sewerage Corporation Act, 2023, with its office located at [●], Pakistan (**AGENCY** which expression shall, unless excluded by or repugnant to the context, be deemed to include its successors in interest, administrators and permitted assigns); and
- (2) [**COMPANY**], a [●] company incorporated under the Laws of Pakistan whose registered office is located at [●] (the **Company** which expression shall, unless excluded by or repugnant to the context, be deemed to include its successors in interest, administrators and permitted assigns).

(The Agency and the Company are hereinafter collectively referred to as the **Parties** and individually as a **Party**).

RECITALS

- A. **WHEREAS**, the Governor of Sindh, acting through the [Local Government & Housing Town Planning Department, Government of Sindh] (the **GoS**) and the Parties have entered into a concession agreement dated [●] (the **Concession Agreement**);
- B. **WHEREAS**, in terms of the Concession Agreement, Agency has agreed to grant a License to the Company in respect of the Project Land (Entire) for the purposes of carrying out the Project Works;
- C. **AND WHEREAS**, the Parties are now entering into this Agreement to set out the terms and conditions relating to the use of the Project Land (Entire) by the Company and the rights and obligations of the Parties with respect thereto.

NOW THEREFORE, in consideration of the mutual covenants contained herein, the Parties agree as follows:

1. DEFINITIONS AND INTERPRETATION

1.1 Definitions

Unless specified otherwise herein in this Agreement (including the Recitals), all capitalized terms shall have the meanings assigned to them under the Concession Agreement. In addition, the following terms shall have the following meanings, unless the context otherwise requires:

Agency has the meaning given to it in the Preamble;

Agreement means this Project Land Agreement, as amended, and supplemented from time to time;

Company has the meaning given to it in the Preamble;

Concession Agreement has the meaning given to it in Recital A;

GoS has the meaning given to it in Recital A;

License has the meaning given to it in clause 2.1.1 of this Agreement;

License Period has the meaning given to it in clause 2.1.1 of this Agreement;

Parties has the meaning given to it in the Preamble;

Party has the meaning given to it in the Preamble;

Preamble means the preamble of this Agreement;

Recitals means the recitals of this Agreement;

Required Project Site means the Project Land (Access) and Project Land (Plants); and

Signing Date has the meaning given to it in the Preamble;

1.2 Interpretation

The rules of construction and interpretation set forth in clause 1.2 of the Concession Agreement shall apply, *mutatis mutandis*, to this Agreement.

2. RIGHT TO ACCESS, LICENSE AND RELATED MATTERS

2.1 Right to Access and License of the Project Land (Entire)

2.1.1 Subject to the provisions of this Section 2.1, the Agency hereby, subject to the Concession Agreement, grants to the Company:

(a) the Vacant Possession of all the land and rights comprising of:

(i) Project Land (Plants); and

(ii) Project Land (Access);

(b) the Easement Rights for:

(i) Project Land (Pipelines); and

(ii) Project Land (Distribution),

in each case, for the purposes set out in the Concession Agreement (the **License**).

2.1.2 The License shall commence on the physical handing over of the Vacant Possession of the Required Project Site to the Company by the Agency and the grant of Easement Rights for the Project Land (Pipelines), in each case, in accordance with the terms of the Concession Agreement; provided that, in the event the Distribution Network (Other Zones) Stop Notice has not been issued by the Agency in accordance with the Concession Agreement, the Easement Rights for the Project Land (Distribution) shall commence as of the Project Land Zones Determination Date; provided further that, in the event the Distribution Network (Other Zones) Stop Notice has been issued by the Agency in accordance with the Concession Agreement, the Easement Rights for the Project Land (Distribution Company Zones) shall commence as of the Project Land Zones Determination Date and the Agency shall not grant, or be liable to grant, any Easement Rights for the Project Land (Distribution Other Zones).

2.1.3 Upon commencement of the License (or part thereof), the same shall be co-terminus on the Termination Date without the need for any action to be taken by the Parties to terminate the License (the **License Period**). Any extension of the Concession Period shall also extend the License and the Company and the Agency shall enter into such addendums, extensions or modifications of this Agreement as are necessary to give effect to such extension.

2.1.4 This Agreement shall be duly executed by the Parties and, to the extent required by

Applicable Laws, registered by the Company with the relevant Government Authority and all costs, fees, expenses, duties, charges and taxes (including charges relating to the registration of this Agreement) relating to the same shall be borne by the Company.

- 2.1.5 Notwithstanding anything contained herein or the Concession Agreement, the Parties hereby acknowledge and confirm that no right, title, interest, benefit or otherwise is granted to the Company under this Agreement.
- 2.1.6 The Agency shall grant such permission or exemptions as may be required under the Applicable Laws relating to and regulating land, as applicable in the Province of Sindh, Pakistan, so as to ensure that the Company can enjoy Vacant Possession and hold the area of land comprising the Required Project Site, other than where failure to enjoy Vacant Possession results from a breach by the Company of the Applicable Laws.
- 2.1.7 Subject to clause 3.1, the License granted in terms of clause 2.1.1 shall terminate without the need for any action to be taken by the Parties on expiry of the License Period.
- 2.1.8 The Company shall ensure that, during the License Period, the Agency, any relevant Government Authority, the Independent Experts and each of their representatives, officers, employees, and agents shall, in each case, have the right to access the Required Project Site to exercise their rights under the Applicable Laws and perform their obligations under the Concession Agreement; provided that, such access shall be subject to any reasonable requirements of the Company regarding safety and security of the Required Project Site.

2.2 Title and Use of Project Land (Entire)

- 2.2.1 The Agency represents and warrants that it has the power and authority to grant the License to the Company for the Project Works during the License Period; provided that, the title to the Project Land (Entire) shall always vest with Agency.
- 2.2.2 The Company undertakes, covenants and agrees that it shall only use the Project Land (Entire) solely for the purposes of undertaking the relevant Project Works in accordance with the requirements of the Concession Agreement.

2.3 No Sale or Creation of Encumbrance

Subject to the terms of the Concession Agreement, the Company shall not part with, dispose of, sell, lease, sub-lease, license or sub-license or create any Encumbrance of any nature whatsoever on the whole or any part of the Project Land (Entire) and shall not place or create nor permit any EPC Contractor and/or the O&M Contractor or other person claiming through or under the Company to place or create any Encumbrance over all or any part of the Project Land (Entire), or on any rights of the Company therein or under this Agreement.

2.4 Protection of Required Project Site from Encroachments

- 2.4.1 For the duration of the License Period, the Company shall:
 - (a) be fully responsible for and shall protect the Required Project Site from, in each case, any and all occupations, thefts, encroachments and Encumbrances;
 - (b) develop a security protocol for security of the Required Project Site and arrange for (at its own cost and expense) appropriately trained and qualified security personnel to undertake the security of the Required Project Site;
 - (c) immediately upon becoming aware, notify Agency and the Independent

Engineer, of any occupations, thefts, encroachments and Encumbrances on the Required Project Site, and Agency shall, upon receipt of such notification, provide reasonable assistance to the Company in procuring police assistance for removal of trespassers and/or encroachments on the Required Project Site; provided, however, the provision of any assistance by Agency (including delay or omission to provide such assistance) shall not relieve or absolve the Company of its obligations under this Agreement or the Concession Agreement; and

- (d) submit an annual report intimating to Agency and the Independent Engineer either: (i) occurrence and status of occupations, thefts, encroachments, and Encumbrances on the Required Project Site in the relevant year (if any); or (ii) confirming that the Required Project Site is free from any occupations, thefts, encroachments and Encumbrances in the relevant year of the License Period.

2.4.2 The Company undertakes, covenants and agrees that it shall, for the Concession Period, remain liable for any Claims and/or damage to the Required Project Site.

3. BREACH AND TERMINATION

3.1 Any breach or default by a Party of its obligations under this Agreement shall be dealt with in accordance with the terms of the Concession Agreement. This Agreement shall stand automatically terminated on the expiry of the License Period.

4. REPRESENTATIONS AND WARRANTIES

4.1 Agency's Representations and Warranties

The Agency hereby represents and warrants to the Company that it has the power and authority to:

- (a) grant the License to the Company; and
- (b) enter into and deliver this Agreement, and that this Agreement forms the valid, binding, and enforceable obligations of Agency.

4.2 Company's Representations & Warranties

The Company hereby represents and warrants to Agency that:

- (a) it has the power and authority to enter into and deliver this Agreement and that this Agreement forms the valid, binding, and enforceable obligations of the Company; and
- (b) the execution and performance of this Agreement by the Company does not violate any Applicable Laws or any other obligations to which the Company is subject.

5. NOTICES

5.1 Notices

The provisions of clause 25.4 of the Concession Agreement shall be incorporated by reference into this Agreement and apply, *mutatis mutandis*, hereto.

6. GOVERNING LAW AND DISPUTE RESOLUTION

6.1 Governing Law

This Agreement and any non-contractual obligations arising out of or in connection with it shall

be governed by and construed in accordance with the Laws of Pakistan.

6.2 Dispute Resolution

The provisions of clause 20 of the Concession Agreement shall be incorporated by reference into this Agreement and apply, *mutatis mutandis*, hereto.

7. MISCELLANEOUS

7.1 Partial Invalidity and Severability

If for any reason whatsoever, any provision of this Agreement is, or becomes invalid, illegal or unenforceable, or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions of this Agreement shall not be affected in any manner, and the Parties shall negotiate in good faith with a view to agreeing upon one or more provisions which may be substituted for such invalid, unenforceable or illegal provision(s), as nearly as is practicable.

7.2 Amendment

No amendment or modification of this Agreement shall be valid and effective unless agreed to by the Parties, confirmed by the Agency, and evidenced in writing.

8. ORIGINALS

8.1 Number of Originals

This Agreement shall be executed in two (2) originals.

IN WITNESS WHEREOF, the Parties, intending to be legally bound, have caused this Agreement to be executed by their duly authorised representatives as of the date first written above.

KARACHI WATER AND SEWERAGE CORPRATION

Signature

Name
(block capitals)

Title

In the presence of:

Witness signature

Witness name
(block capitals)

Witness signature

Witness name
(block capitals)

THE COMPANY

Signature

Name
(block capitals)

Title

In the presence of:

Witness signature

Witness name
(block capitals)

Witness signature

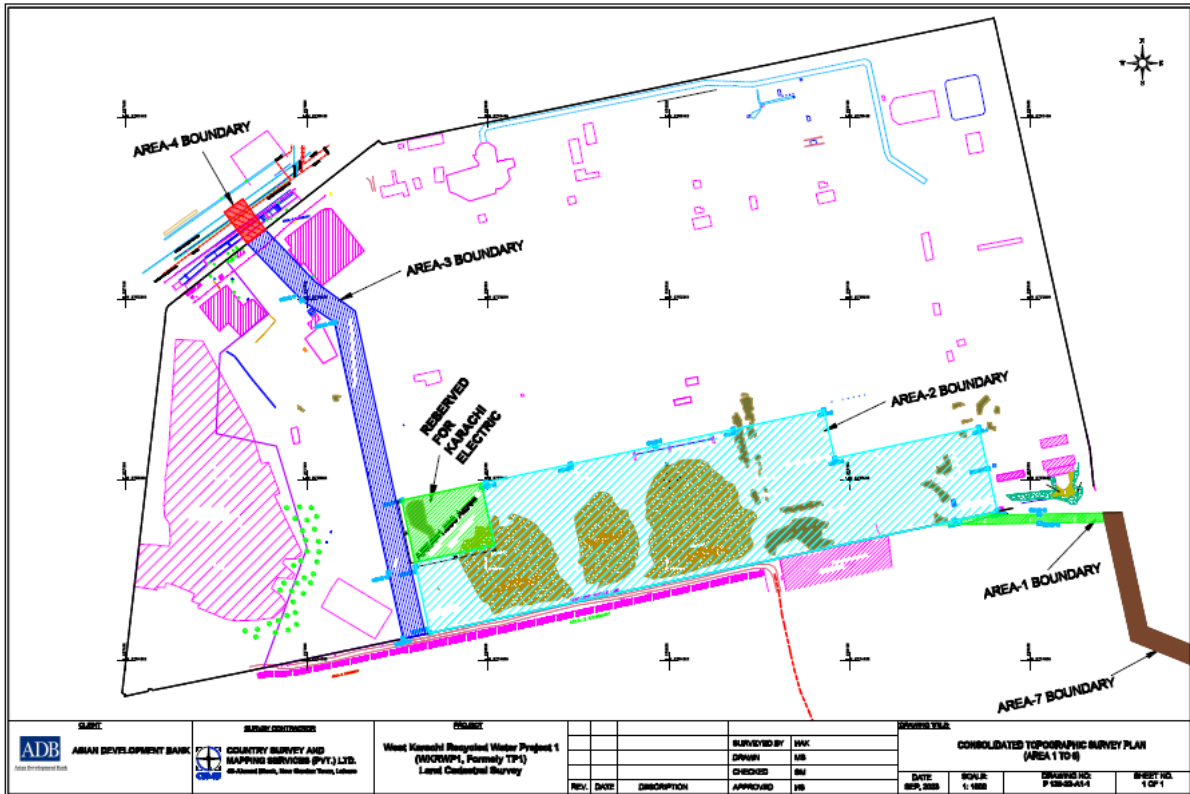
Witness name
(block capitals)

SCHEDULE 1- PROJECT LAND

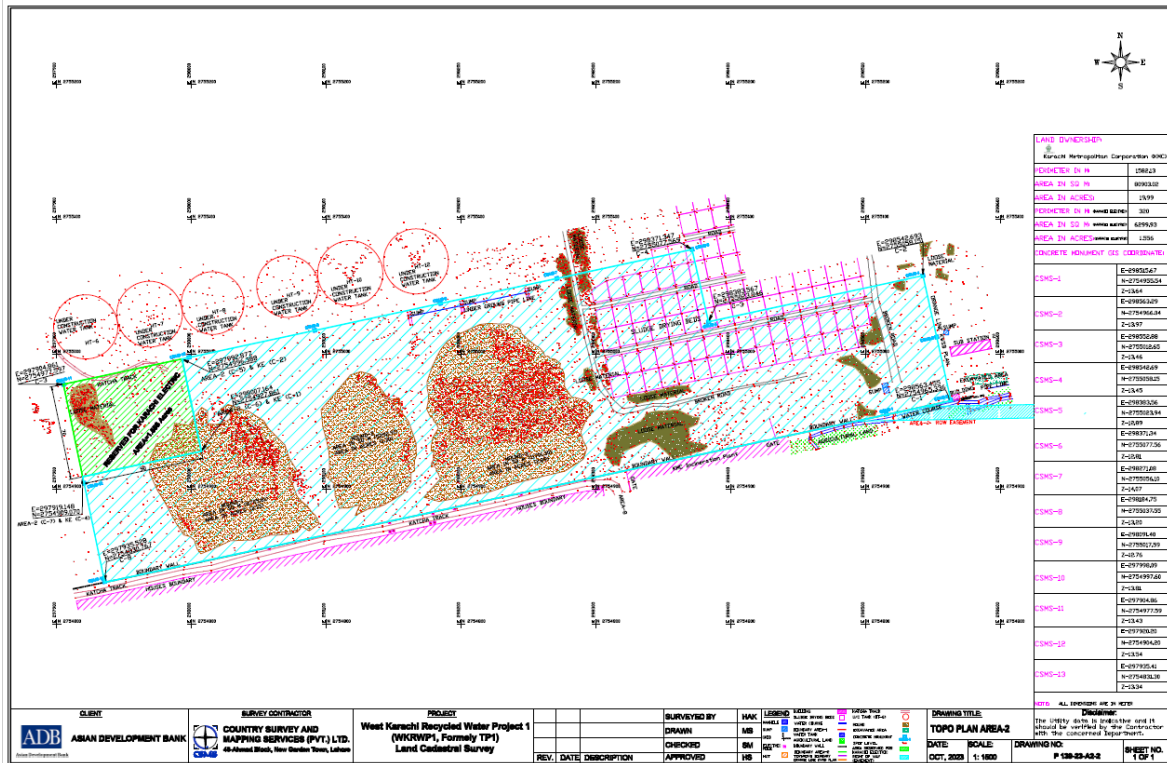
Part 1: Project Land (Plants)

Means:

- (i) the area within AREA-2 BOUNDARY in Drawing No. P139-23-A1-1; and
- (ii) the area marked in blue in Drawing No. P139-23-A2-2.



Drawing No. P139-23-A1-1



Drawing No. P139-23-A2-2

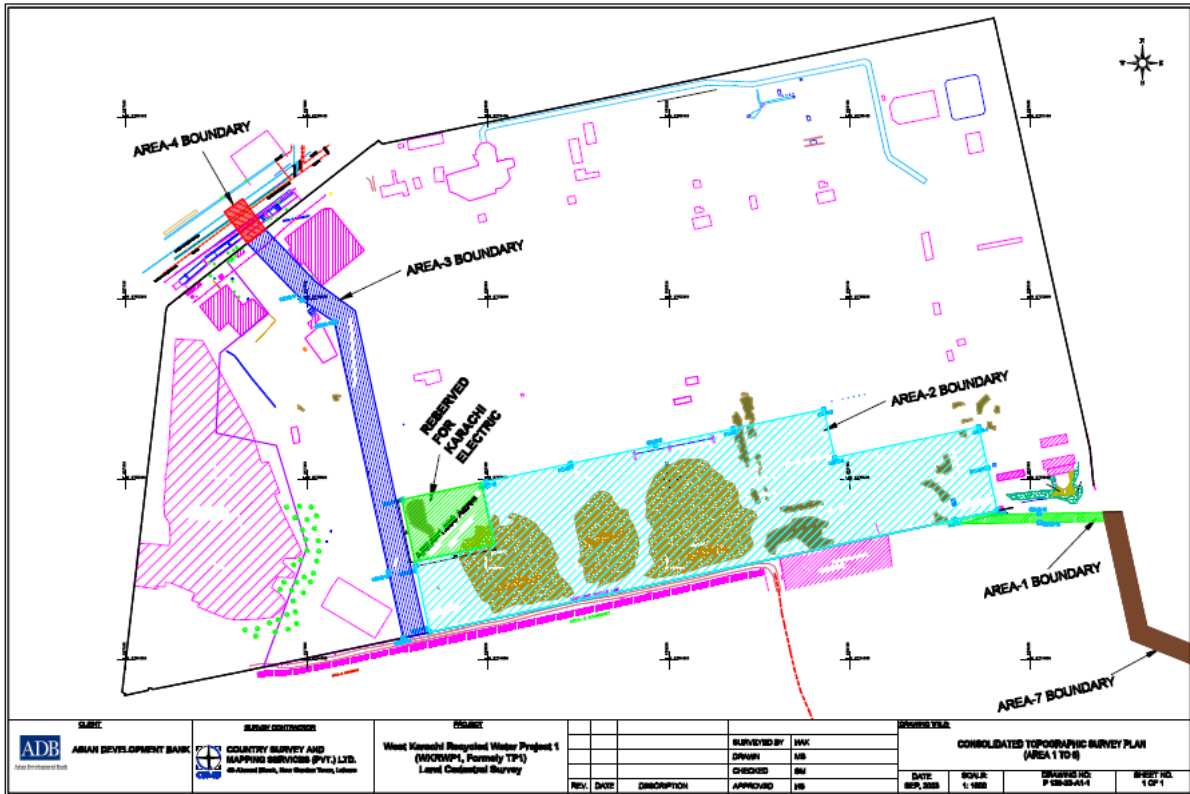
Part 2: Project Land (Distribution Company Zones)

[As at the date of this Agreement this part is intentionally left blank]

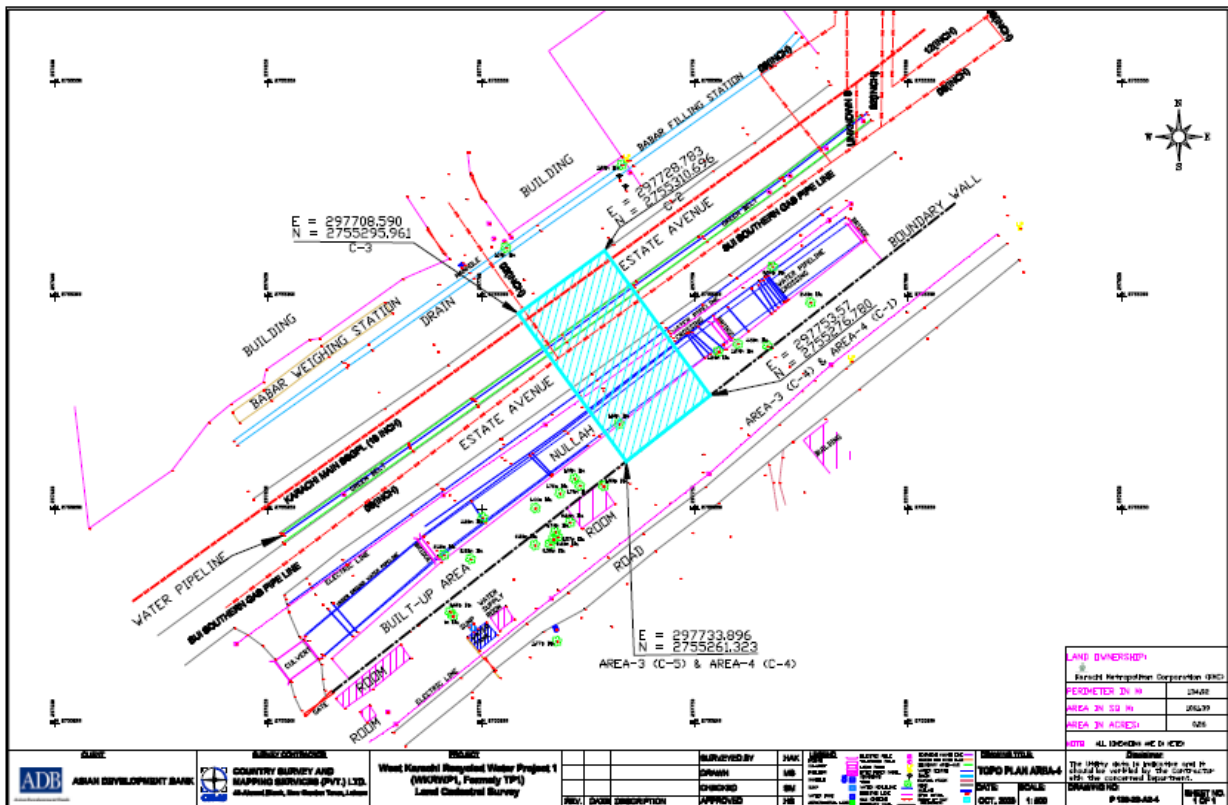
As at the Project Land Zones Determination Date the diagram above shall be replaced with a diagram that sets out the area of land determined under Section **Error! Reference source not found.** and **Error! Reference source not found.** of the Concession Agreement being the area where the Distribution Network (Company Zones) shall be located and including the area of land between the Project Land (Access) and the SITE Industrial estate where Estate Avenue is located and where the pipeline part of the Distribution Network (Company Zones) shall be installed.

For the Distribution Network (Company Zones) crossing Estate Avenue:
means:

- (i) the area within AREA-4 BOUNDARY in Drawing No. P139-23-A1-1; and
- (ii) the area marked in blue in Drawing No. P139-23-A2-4.



Drawing No. P139-23-A1-1



Drawing No. P139-23-A2-4

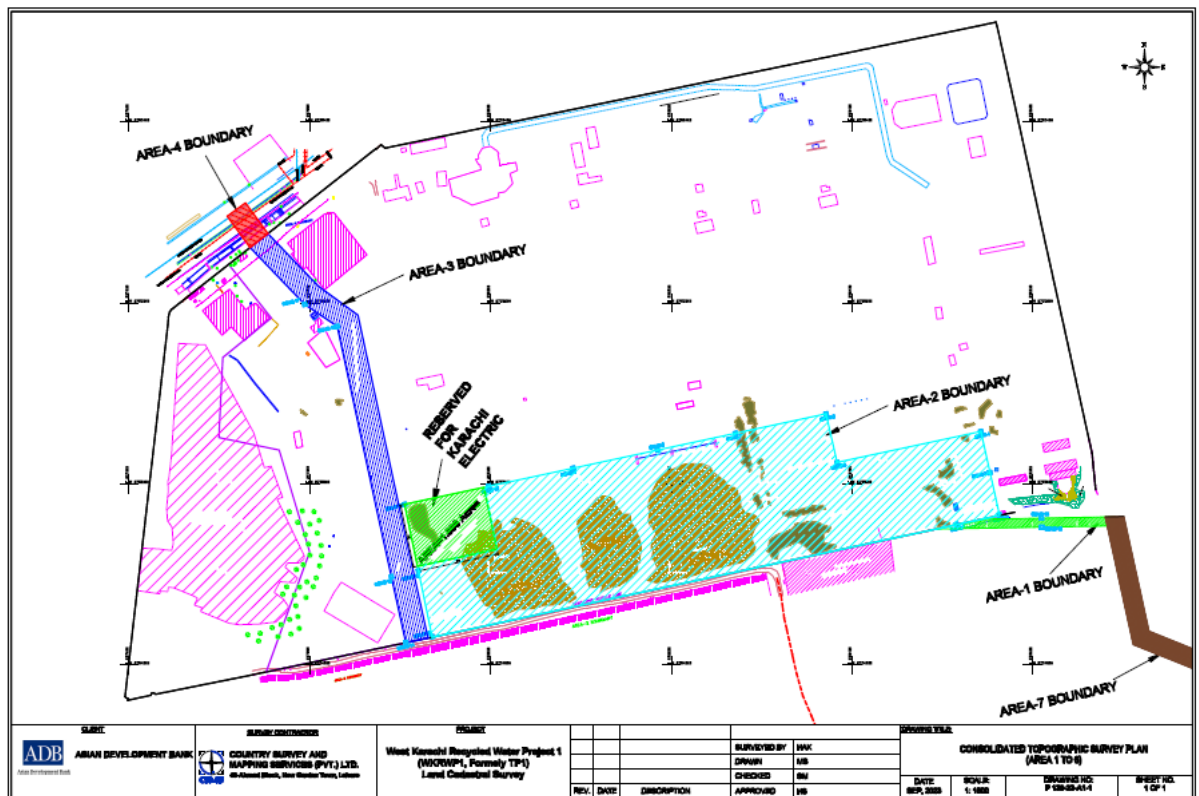
Part 3: Project Land (Distribution Other Zones)

[As at the date of this Agreement this Part is intentionally left blank]

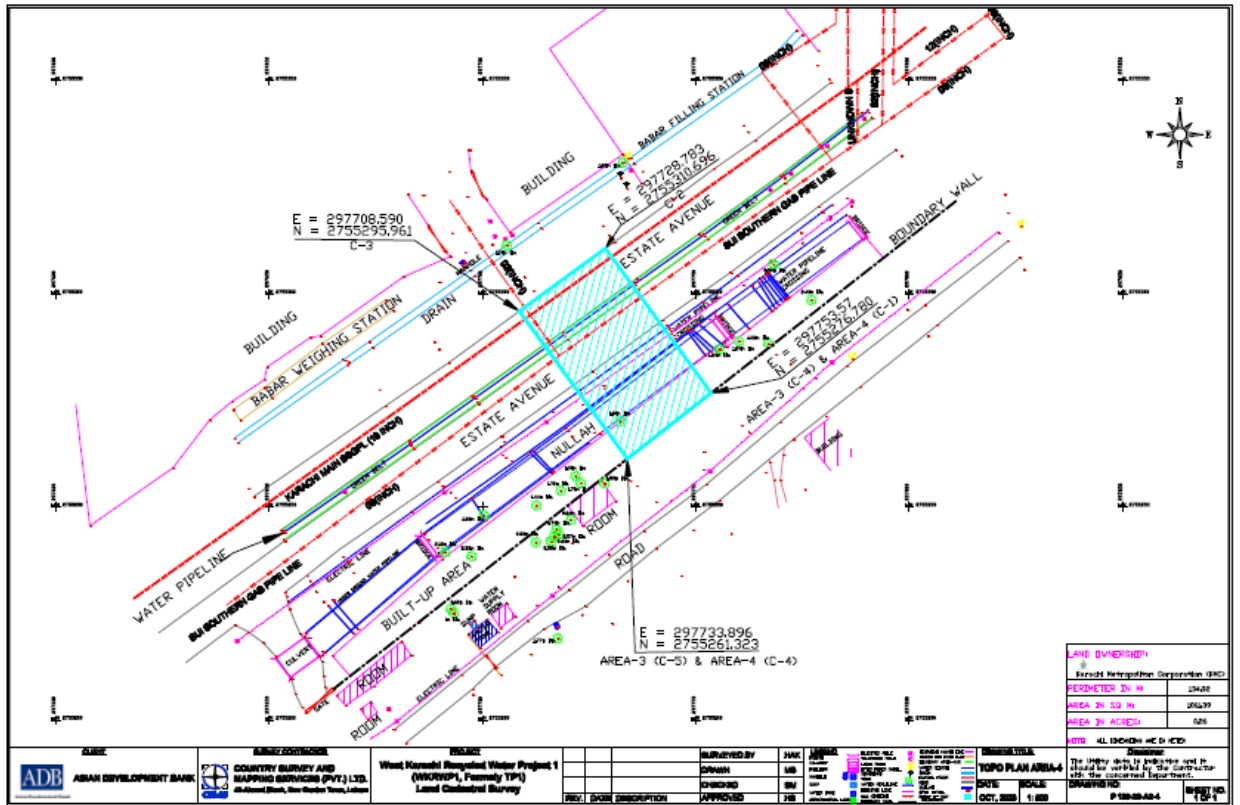
As at the Project Land Zones Determination Date the diagram above shall be replaced with a diagram that sets out the area of land determined under Section **Error! Reference source not found.** and **Error! Reference source not found.** of the Concession Agreement being the area where the Distribution Network (Other Zones) is located and including the area of land between the Project Land (Access) and the SITE Industrial estate where Estate Avenue is located and where the pipeline part of the Distribution Network (Other Zones) shall be installed.

For the Distribution Network (Other Zones) crossing Estate Avenue:
means:

- (i) the area within AREA-4 BOUNDARY in Drawing No. P139-23-A1-1; and
- (ii) the area marked in blue in Drawing No. P139-23-A2-4.



Drawing No. P139-23-A1-1

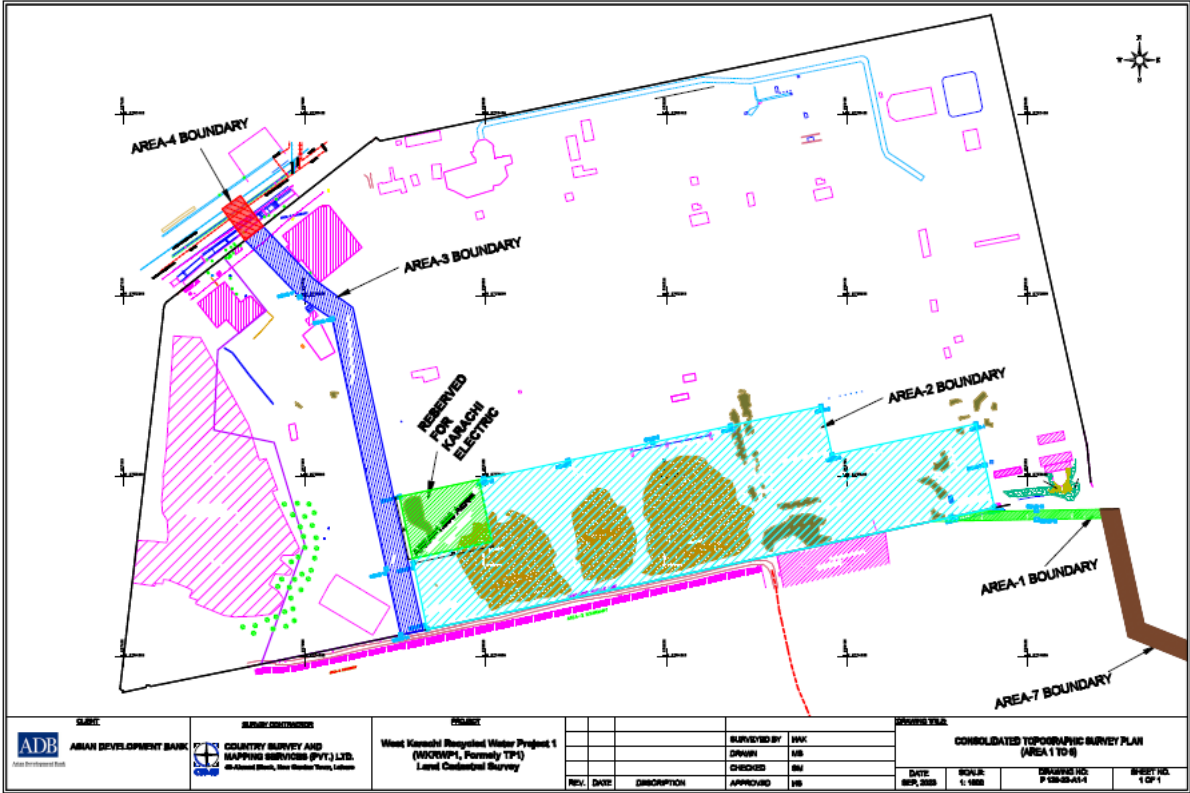


Drawing No. P139-23-A2-4

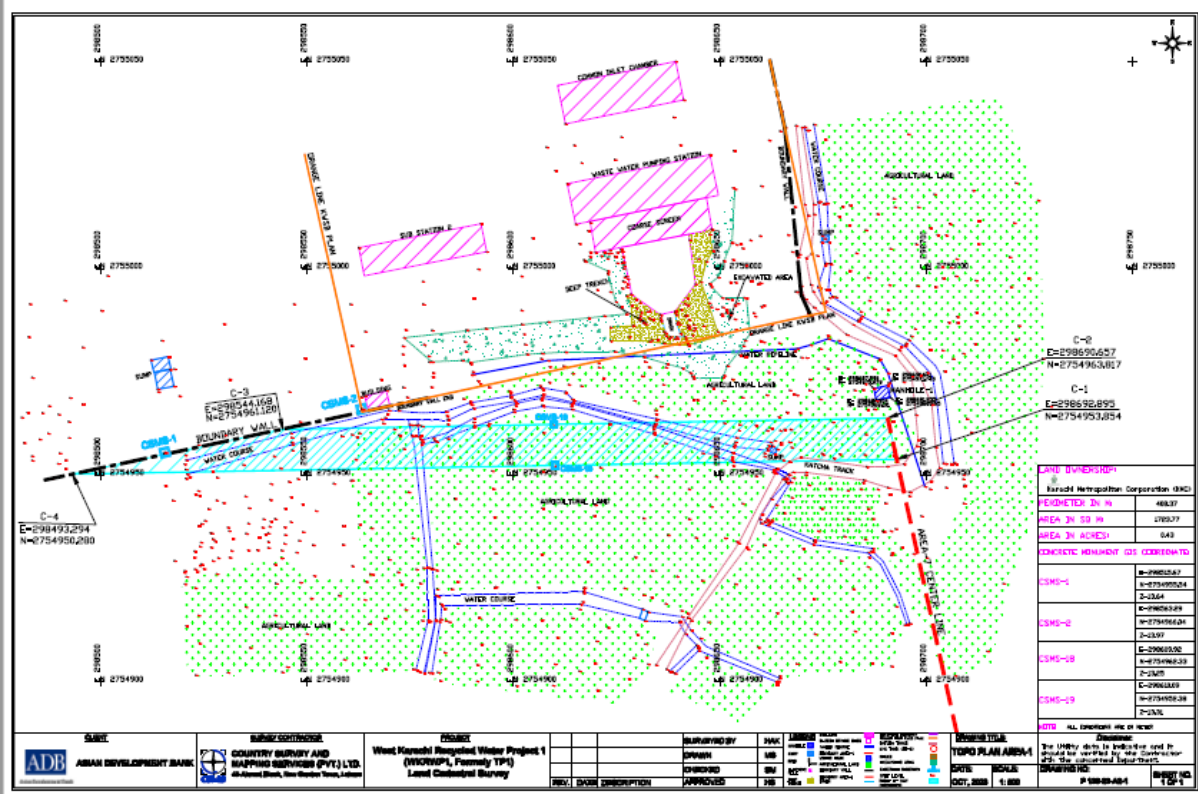
Part 4: Project Land (Pipelines)

For sections of the Influent Delivery Pipeline, the Effluent Discharge Pipeline and the RO Concentrate Discharge Pipeline between Project Land (Plants) and the raw wastewater interceptor: means:

- (i) the area within AREA-1 BOUNDARY in Drawing No. P139-23-A1-1; and
- (ii) the area marked in blue in Drawing No. P139-23-A2-1.



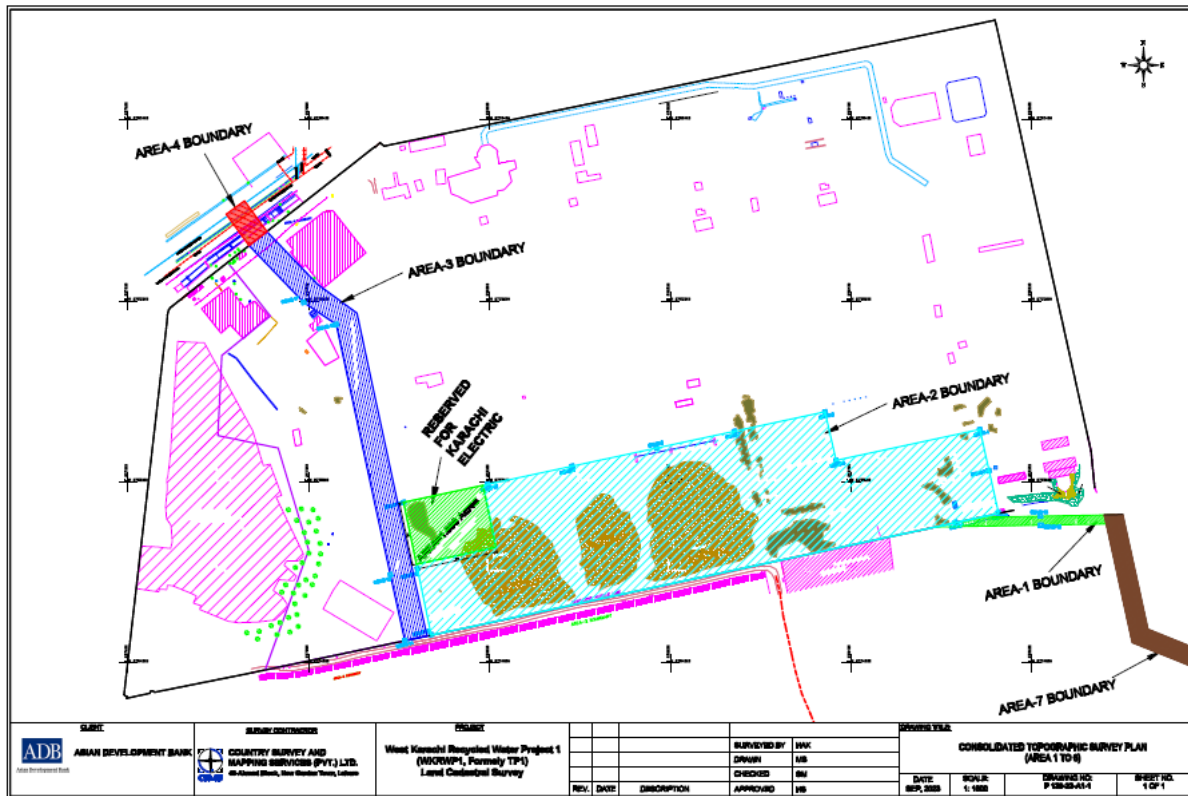
Drawing No. P139-23-A1-1



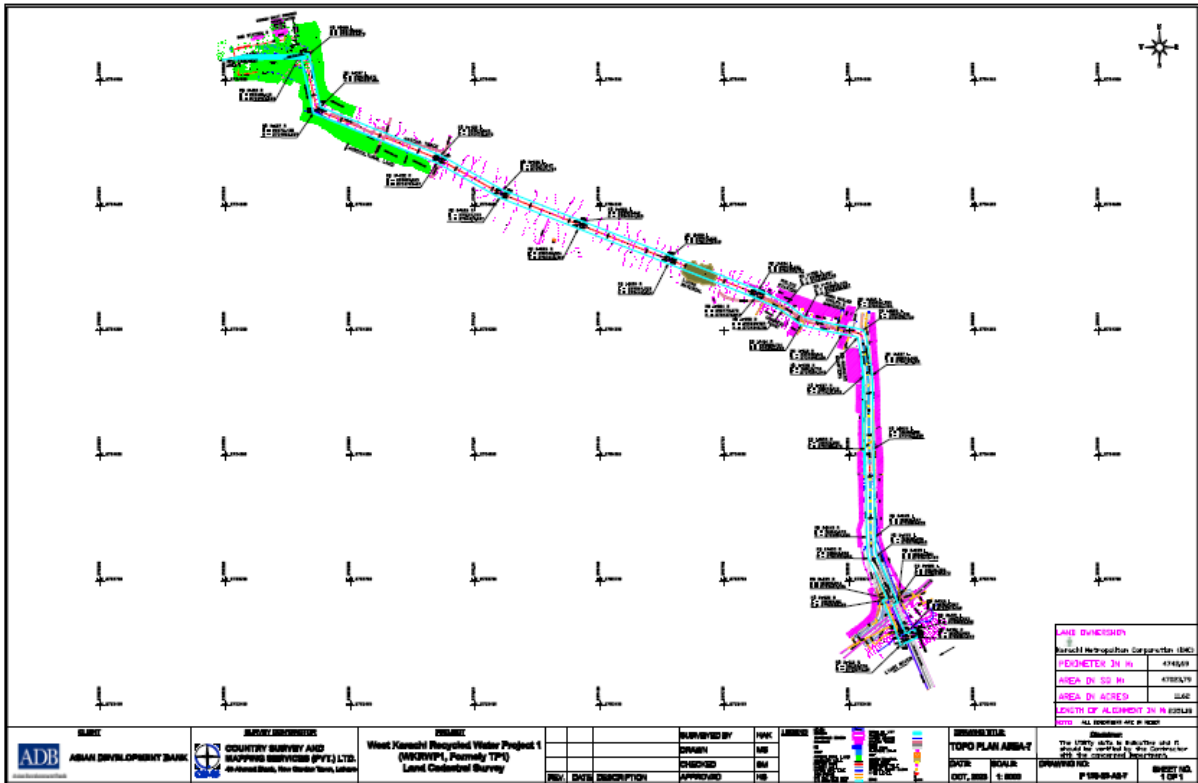
Drawing No. P139-23-A2-1

For sections of the Effluent Discharge Pipeline and the RO Concentrate Discharge Pipeline along the route of the raw wastewater interceptor between TP1 Site and Lyari River:
means:

- (iii) the route marked C to D in Figure 6 of Schedule 1(MPSS) of the Concession Agreement;
- (iv) the area within AREA-7 BOUNDARY in Drawing No. P139-23-A1-1; and
- (v) the area marked in blue in Drawing No. P139-23-A2-7.



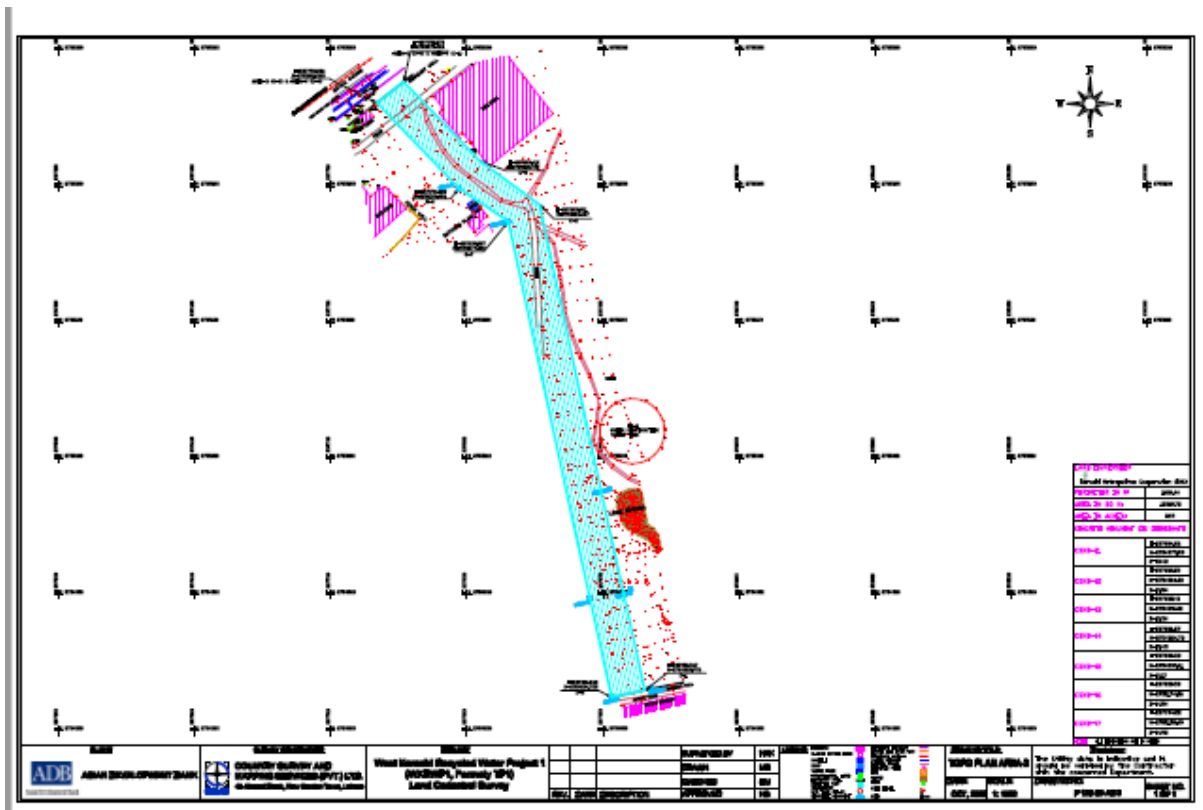
Drawing No. P139-23-A1-1



Drawing No. P139-23-A2-7

For the section of the RO Concentrate Discharge Pipeline along the route of Lyari River to the sea: means

- (vi) the route marked D to E in Figure 6 of Schedule 1 (MPSS) of the Concession Agreement; and
- (vii) the area marked between blue lines in Drawing No. P139-23-A1-9.

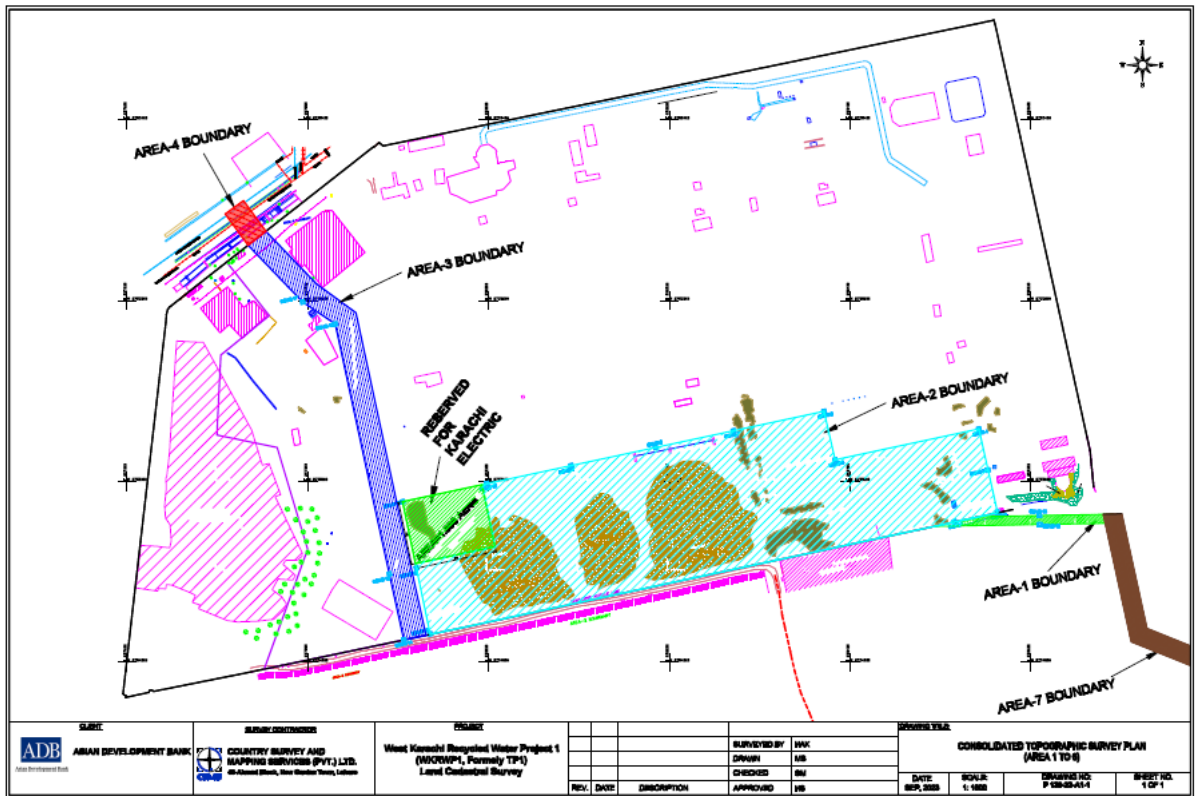


Drawing No. P139-23-A1-9

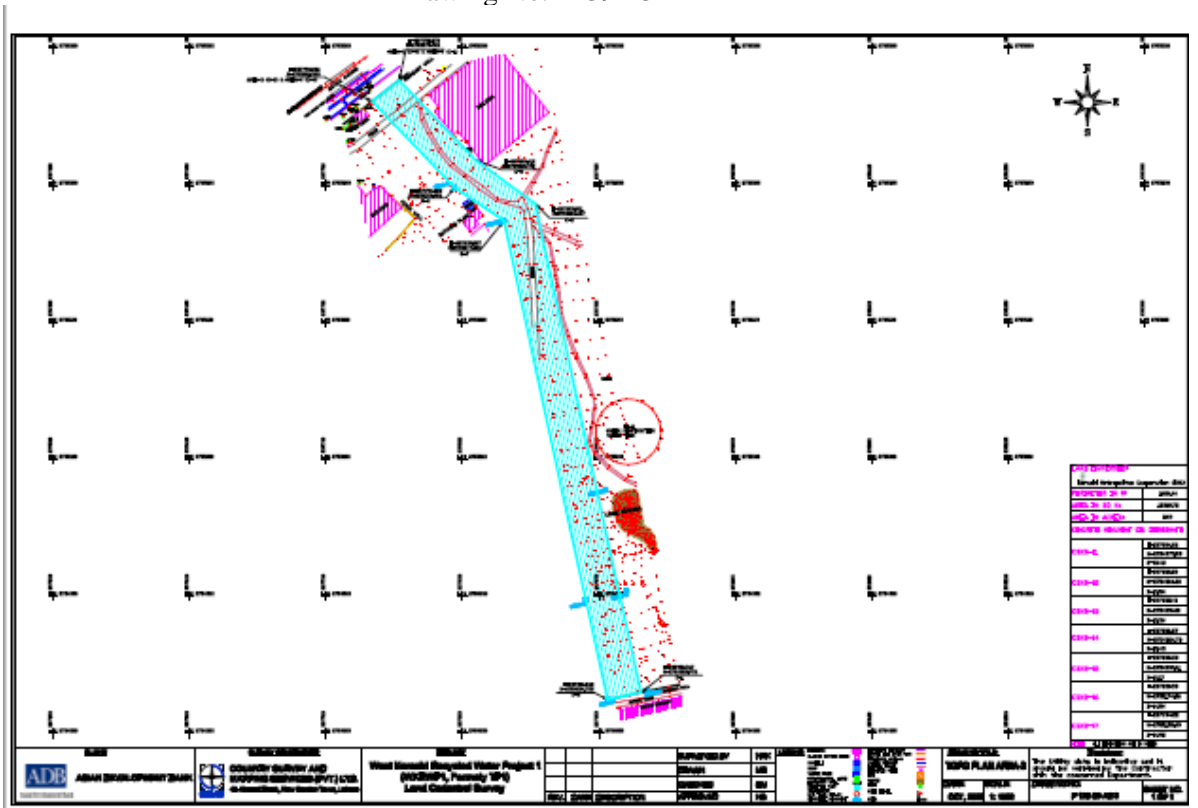
Part 5: Project Land (Access)

means:

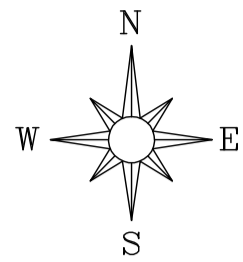
- (i) the area within AREA-3 BOUNDARY in Drawing No. P139-23-A1-1; and
- (ii) the area marked in blue in Drawing No. P139-23-A2-3.



Drawing No. P139-23-A1-1



Drawing No. P139-23-A2-3



CLIENT

SURVEY CONTRACTOR

PROJECT

DRAWING TITLE:



ASIAN DEVELOPMENT BANK



COUNTRY SURVEY AND MAPPING SERVICES (PVT.) LTD.
45-Ahmad Block, New Garden Town, Lahore

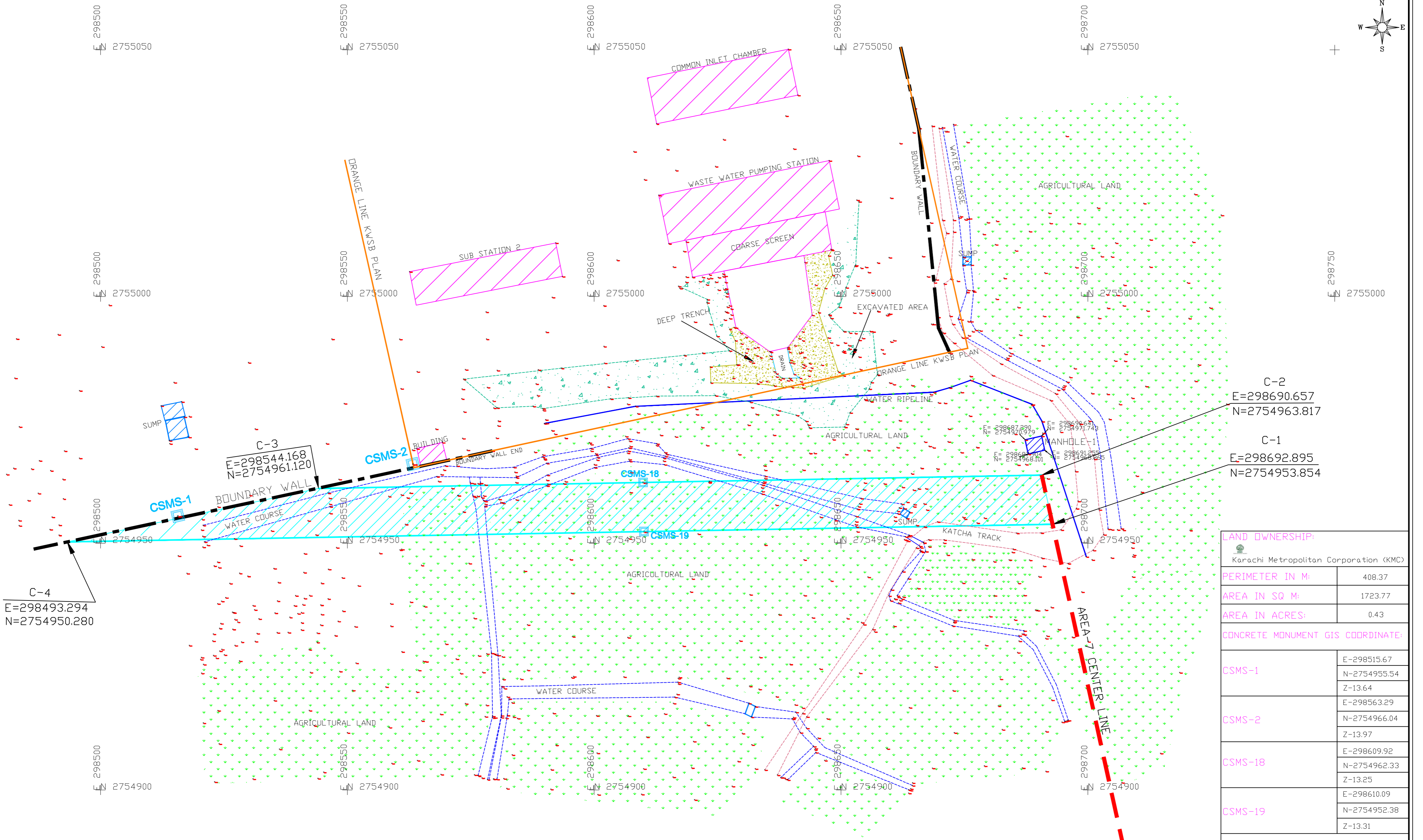
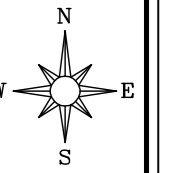
West Karachi Recycled Water Project 1 (WKRWP1, Formely TP1) Land Cadastral Survey

SURVEYED BY	HAK
DRAWN	MS
CHECKED	SM
APPROVED	HS

CONSOLIDATED TOPOGRAPHIC SURVEY PLAN (AREA 1 TO 6)

DATE SEP, 2023	SCALE: 1: 1600	DRAWING NO: P 139-23-A1-1	SHEET NO. 1 OF 1
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REV.	DATE	DESCRIPTION



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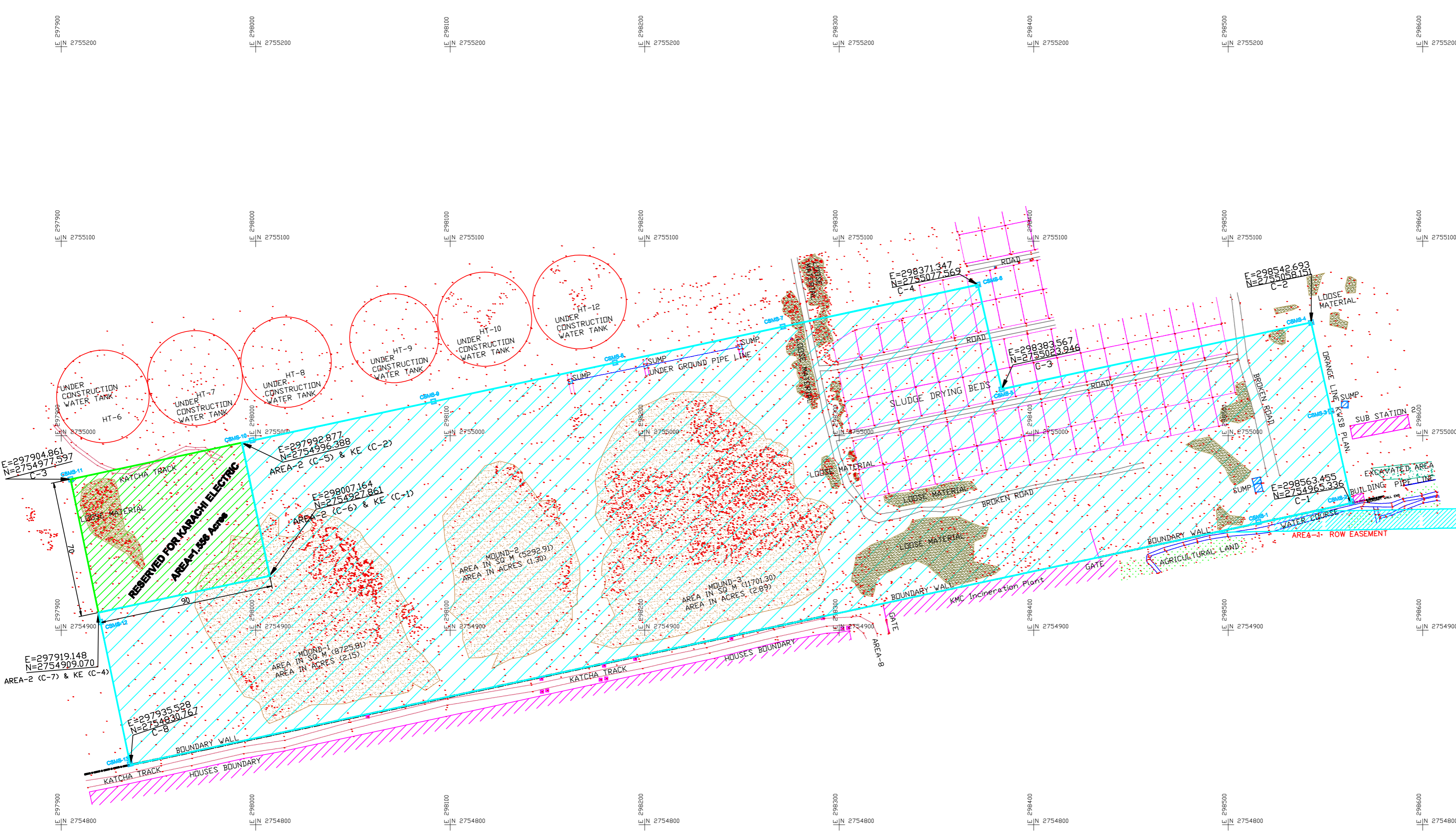
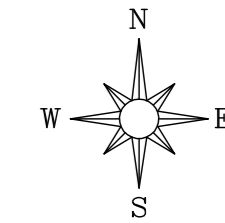
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C-3
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LAND OWNERSHIP:	
Karachi Metropolitan Corporation (KMC)	
PERIMETER IN M:	408.37
AREA IN SQ M:	1723.77
AREA IN ACRES:	0.43
CONCRETE MONUMENT GIS COORDINATE:	
CSMS-1	E-298515.67 N-2754955.54 Z-13.64
CSMS-2	E-298563.29 N-2754966.04 Z-13.97
CSMS-18	E-298609.92 N-2754962.33 Z-13.25
CSMS-19	E-298610.09 N-2754952.38 Z-13.31
NOTE: ALL DIMENSIONS ARE IN METER	

CLIENT ASIAN DEVELOPMENT BANK	SURVEY CONTRACTOR COUNTRY SURVEY AND MAPPING SERVICES (PVT.) LTD. 45-Ahmad Block, New Garden Town, Lahore	PROJECT West Karachi Recycled Water Project 1 (WKRWP1, Formely TP1) Land Cadastral Survey	SURVEYED BY HAK	HAK MS	LEGEND BUILDING SLUDGE DRYING BEDS WATER COURSE SUMP GRID ELECTRICAL PIPE DEEP TRENCH COMMON INLET CHAMBER WASTE WATER PUMPING STATION COARSE SCREEN DEEP TRENCH EXCAVATED AREA ORANGE LINE KWSB PLAN WATER PIPELINE AGRICULTURAL LAND BOUNDARY WALL BOUNDARY AREA-1 BOUNDARY AREA-1 TENTATIVE BOUNDARY ORANGE LINE KWSB PLAN KATCHA TRACK UVC TANK (HT-6) MOUND EXCAVATED AREA CONCRETE MONUMENT SPOT LEVEL RIGHT OF WAY (EASEMENT)	DRAWING TITLE: TOPO PLAN AREA-1	DATE: OCT, 2023	SCALE: 1: 500	DRAWING NO: P 139-23-A2-1	SHEET NO. 1 OF 1
REV. 1 2 3	DATE 	DESCRIPTION 	APPROVED 	HS 						



LAND OWNERSHIP:	
Karachi Metropolitan Corporation (KMC)	
PERIMETER IN M:	1582.13
AREA IN SQ M:	80903.02
AREA IN ACRES:	19.99
PERIMETER IN M (KARACHI ELECTRIC):	320
AREA IN SQ M (KARACHI ELECTRIC):	6299.93
AREA IN ACRES (KARACHI ELECTRIC):	1.556
CONCRETE MONUMENT GIS COORDINATE:	
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CSMS-4	E-298542.69 N-2755058.15 Z-13.45
CSMS-5	E-298383.56 N-2755023.94 Z-12.89
CSMS-6	E-298371.34 N-2755077.56 Z-12.81
CSMS-7	E-298271.08 N-2755056.10 Z-14.07
CSMS-8	E-298184.75 N-2755037.55 Z-13.20
CSMS-9	E-298091.40 N-2755017.59 Z-12.76
CSMS-10	E-297998.09 N-2754997.60 Z-13.81
CSMS-11	E-297904.86 N-2754977.59 Z-13.43
CSMS-12	E-297920.20 N-2754904.20 Z-13.54
CSMS-13	E-297935.41 N-2754831.30 Z-13.34

NOTE: ALL DIMENSIONS ARE IN METER

CLIENT



ASIAN DEVELOPMENT BANK

SURVEY CONTRACTOR



COUNTRY SURVEY AND MAPPING SERVICES (PVT.) LTD.
45-Ahmad Block, New Garden Town, Lahore

PROJECT

West Karachi Recycled Water Project 1 (WKRWP1, Formely TP1) Land Cadastral Survey

REV.	DATE	DESCRIPTION	SURVEYED BY	HAK

LEGEND	LEGEND	LEGEND
BUILDING	SLUDGE DRYING BEDS	KATCHA TRACK
MANHOLE	WATER COURSE	U/C TANK (HT-6)
SUMP	BOUNDARY AREA-1	MOUND
GRID	WATER TANK	EXCAVATED AREA
ELECTRIC POLE	AGRICULTURAL LAND	CONCRETE MONUMENT
HUT	BOUNDARY WALL	AREA RESERVED FOR KARACHI ELECTRIC
	BOUNDARY AREA-2	SPOT LEVEL
	TENTATIVE BOUNDARY	AREA RESERVED FOR RIGHT OF WAY (EASEMENT)
	ORANGE LINE KWSB PLAN	

DRAWING TITLE:			
TOPO PLAN AREA-2			
DATE:	SCALE:	DRAWING NO:	SHEET NO.
OCT, 2023	1: 1500	P 139-23-A2-2	1 OF 1

Disclaimer:
The Utility data is indicative and it should be verified by the Contractor with the concerned Department.

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N = 2755350

E = 297650
N = 2755350

E = 297700
N = 2755350

E = 297750
N = 2755350

E = 297800
N = 2755350

E = 297600
N = 2755300

E = 297650
N = 2755300

E = 297700
N = 2755300

E = 297750
N = 2755300

E = 297800
N = 2755300

E = 297600
N = 2755250

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N = 2755250

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N = 2755250

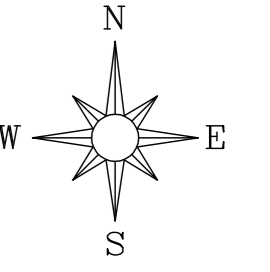
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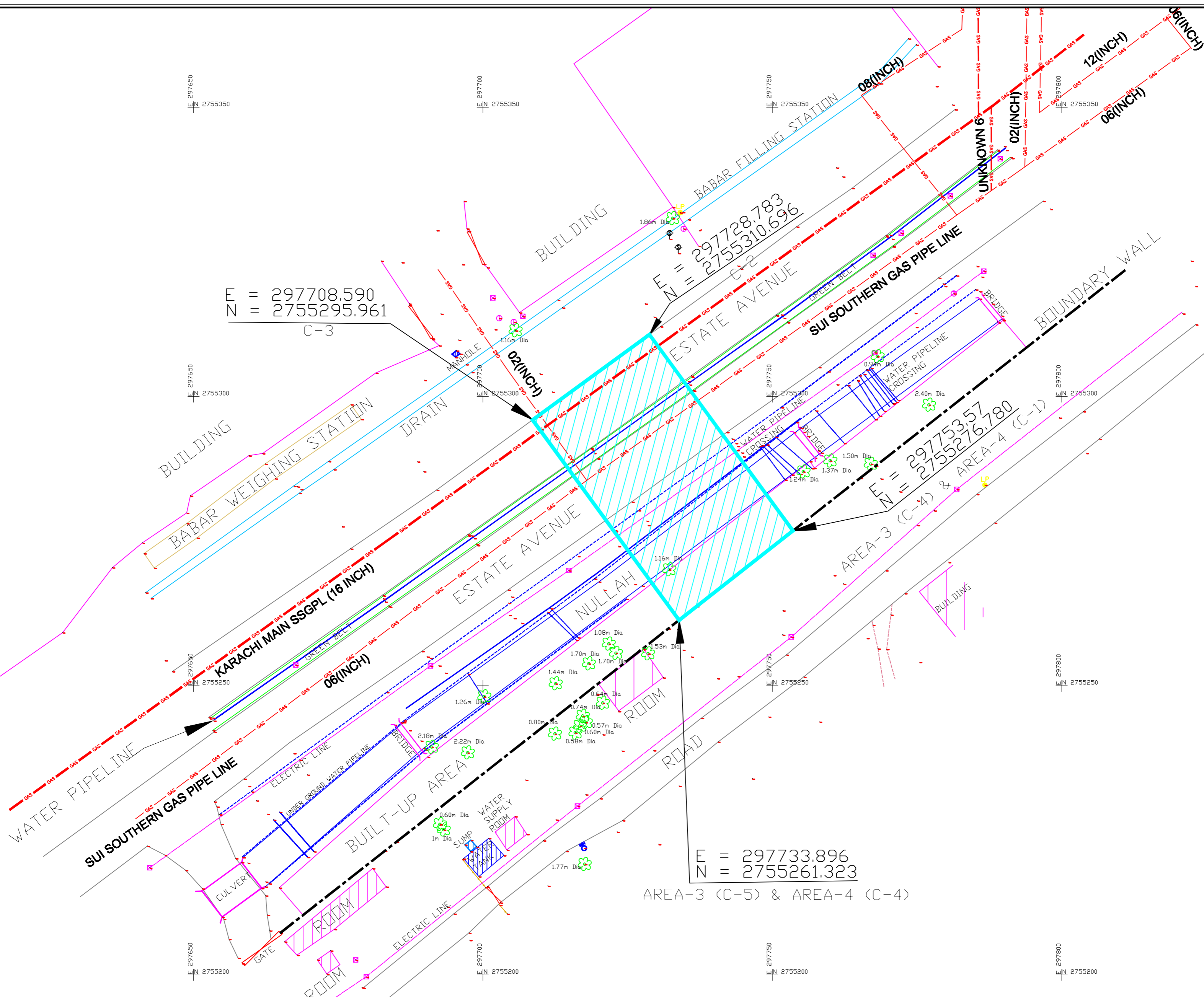


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C-2

E = 297753.57
N = 2755276.780
C-1

E = 297733.896
N = 2755261.323
AREA-3 (C-5) & AREA-4 (C-4)



LAND OWNERSHIP:	
Karachi Metropolitan Corporation (KMC)	
PERIMETER IN M:	134.92
AREA IN SQ M:	1061.39
AREA IN ACRES:	0.26
NOTE: ALL DIMENSIONS ARE IN METER	

CLIENT



ASIAN DEVELOPMENT BANK

SURVEY CONTRACTOR



COUNTRY SURVEY AND MAPPING SERVICES (PVT.) LTD.
45-Ahmad Block, New Garden Town, Lahore

PROJECT

West Karachi Recycled Water Project 1 (WKRWP1, Formerly TP1) Land Cadastral Survey

REV.	DATE	DESCRIPTION

SURVEYED BY	HAK
DRAWN	MS
CHECKED	SM
APPROVED	HS

LEGEND

	ELECTRIC POLE		TENTATIVE PURPLE LINE
	BRIDGE		ORANGE LINE KWSB PLAN
	CULVERT		BOUNDARY AREA-4/5
	BUILDING		WATER COURSE
	LIGHT POLE		DRAIN
	OPTIC FIBER CABLE		KATCHA TRACK
	SIGNBOARD		ROAD
	TREE		SPOT LEVEL
	WATER PIPELINE		NULLAH
	ELECTRIC LINE		RIGHT OF WAY (EASEMENT)
	GAS PIPELINE		
	AGRICULTURAL LAND		
	BOUNDARY WALL		

DRAWING TITLE:

TOPO PLAN AREA-4

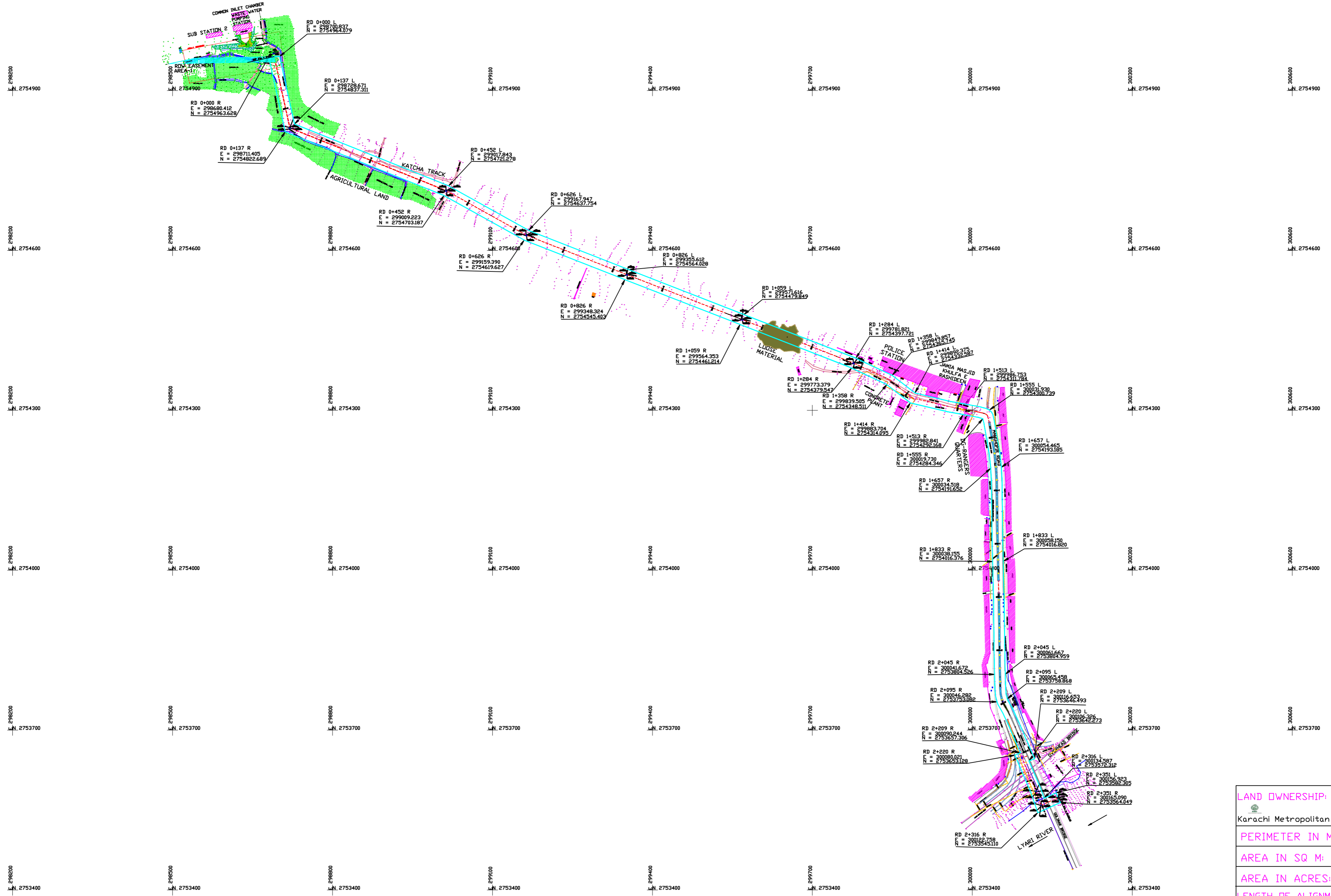
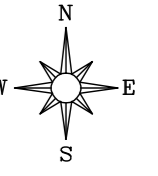
DATE: OCT, 2023

SCALE: 1: 500

Disclaimer:
The Utility data is indicative and it should be verified by the Contractor with the concerned Department.

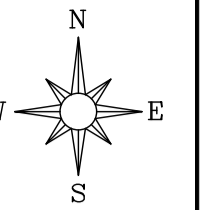
DRAWING NO: P 139-23-A2-4

SHEET NO: 1 OF 1

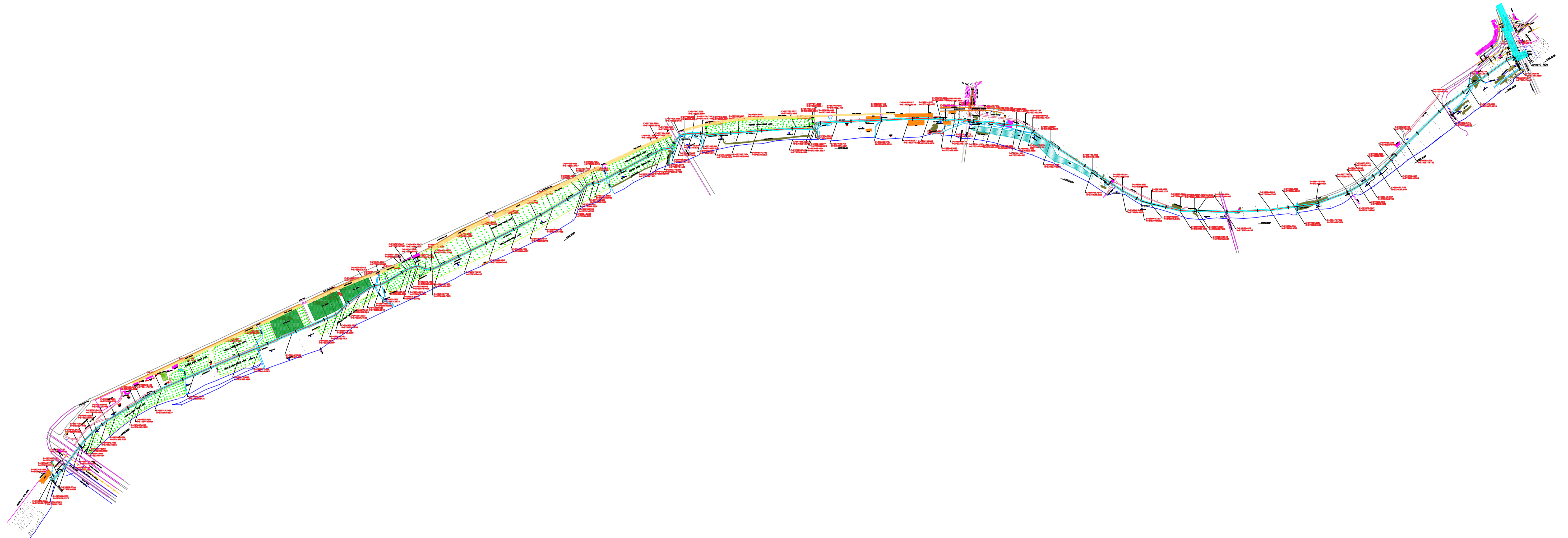


LAND OWNERSHIP:	
Karachi Metropolitan Corporation (KMC)	
PERIMETER IN M:	4742.69
AREA IN SQ M:	47023.79
AREA IN ACRES:	11.62
LENGTH OF ALIGNMENT IN M:	2351.18
NOTE: ALL DIMENSIONS ARE IN METER	

CLIENT ASIAN DEVELOPMENT BANK <small>Asian Development Bank</small>	SURVEY CONTRACTOR COUNTRY SURVEY AND MAPPING SERVICES (PVT.) LTD. 45-Ahmad Block, New Garden Town, Lahore	PROJECT West Karachi Recycled Water Project 1 (WKRWP1, Formely TP1) Land Cadastral Survey	SURVEYED BY	HAK	LEGEND RIVER BRIDGE OVERHEAD BRIDGE BUILDING MH SLUMP AGRICULTURAL LAND BOUNDARY WALL CENTER LINE SAFETY WALL WATER PIPE LINE IRON FENCE SUI GAS PIPE LINE UGS TELEPHONE LINE RIGHT OF WAY ELEMENT WATER COURSE KATCHA TRACK FOOT PATH ELECTRIC POLE HUT LOOSE MATERIAL LIGHT POLE TELEPHONE POLE OPTICAL FIBER CABLE SPOT LEVEL GRID	DRAWING TITLE: TOPO PLAN AREA-7 DATE: OCT, 2023 SCALE: 1: 5000 DRAWING NO: P 139-23-A2-7 SHEET NO. 1 OF 1															
			DRAWN	MS			CHECKED	SM	APPROVED	HS											
<table border="1"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			REV.	DATE	DESCRIPTION				<table border="1"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>APPROVED</th> <th>HS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			REV.	DATE	DESCRIPTION	APPROVED	HS					
REV.	DATE	DESCRIPTION																			
REV.	DATE	DESCRIPTION	APPROVED	HS																	



AREA-9



LAND OWNERSHIP:	
Karachi Metropolitan Corporation (KMC)	
PERIMETER IN M:	10703.89
AREA IN SQ M:	26743.23
AREA IN ACRES:	6.61
LENGTH OF ALIGNMENT IN M:	5349.52
<small>NOTE: ALL DIMENSIONS ARE IN METER UNLESS MENTIONED OTHERWISE</small>	

ASIAN DEVELOPMENT BANK <small>Asian Development Bank</small>	COUNTRY SURVEY AND MAPPING SERVICES (PVT.) LTD. 45-Ahmad Block, New Garden Town, Lahore	PROJECT West Karachi Recycled Water Project 1 (WKRWP1, Formely TP1) Land Cadastral Survey	SURVEYED BY	HAK	LEGEND <small> RIVER, NALLAH, BRIDGE, BROKEN BRIDGE, BUILDING, FOUNDATION, MANHOLE, OLD MANHOLE, WATER TANK, FOREST, GROUND, LOOSE MATERIAL, PIPE, BOUNDARY WALL, CENTER LINE, SAFETY WALL, WATER PIPE LINE, SUB GAS PIPE LINE, SOFT TRACK, ROAD, NURSERY PLANT, STONE PITCHING, FOND, HUT, SPOT LEVEL, GRID, ROW </small>	DRAWING TITLE: TOPO PLAN LYARI RIVER		
			DRAWN	MS		DATE:	SCALE:	DRAWING NO:
REV.	DATE	DESCRIPTION	CHECKED	SM	Feb, 2024	1: 6500	P 139-23-A1-9	1 OF 1
APPROVED	HS							



Reference No: EPA/PS/DCI/116/697/2023
OFFICE OF DIRECTOR GENERAL
ENVIRONMENTAL PROTECTION AGENCY
GOVERNMENT OF SINDH
Plot # ST-2/1, Sector 23, Korangi Industrial
Area, Karachi-74900
Ph: 021-35065950, 35065621, 35065946
epsindh@cyber.net.pk
Fax No. 021-35065940
Dated: 10th October, 2023

SUBJECT: RECYCLED WATER PROJECTS AND EFFLUENT DISCHARGE.

Dear Sir,

Syed Salahuddin Ahmed,

السلام عليكم.

Reference letter No.MD/CEO(KW&SC)/213/2023 dated 18th August, 2023

Sindh Environmental Protection Agency (SEPA) commends the efforts of Water and Sewerage Board for initiatives aimed at conserving the limited water resources in Karachi by implementing a program involves the utilization of treated effluent from municipal wastewater facilities as a source of recycled water. Utilization of recycled water in the industries would be landmark steps towards sustainable water management.

Referring to contents of your letter, it is to state that Sindh EPA has critically examined situation arising from disposal of Effluent of RO Plant having excessive concentration of TDS and Chlorides comparing to limits prescribed in Sindh Environmental Quality Standards (SEQS).

It is pertinent to inform that the Government of Sindh has notified SEQS after the 18th Amendments to the Constitution of Pakistan, as the subject of Environment was devolved to the provincial level. These SEQS align with the previously enforced National Environmental Quality Standards (NEQS) for handling of effluent from various sources and being implemented by all provincial and Federal Environmental Protection Agencies. Therefore, initiating a special case of revising SEQS for this particular scenario would be challenging and objectionable to stakeholders.

You must be aware that several meetings have been taken place between Sindh EPA officials and experts from the Asian Development Bank, all aimed at finding a solution for disposal of RO wastewater. After extensive deliberation, a consensus was developed to adopt the best available practices to address this issue.

As a result of this collaborative effort, it is concluded that laying a pipeline from the project location for the disposal of RO effluent into the sea would be the most suitable option,

based on the higher concentration of TDS in seawater, (i.e; sea concentration limits as defined in SEQS apply) which is less likely to affect marine water quality and the ecosystem.

It is further suggested that the proponent must adhere to Section 17 of the Sindh Environmental Protection Act, 2014, which mandates an environmental assessment before construction of projects. In accordance with the Sindh Environmental Assessment Regulations, 2021, the projects would be required to conduct an Initial Environmental Examination (IEE) and/or Environmental Impact Assessment (EIA) study as per the Schedule applicable to the proposed project. In case an EIA report is required to be prepared, its contents will undergo a public security procedure before this department can issue approval to proceed for construction.


Naeem Ahmed Mughal

✓
Mr. Salahuddin Ahmed
Chief Executive Officer,
Karachi Water & Sewerage Board,
CEO Secretariat, Block-D,
9th Mile Karsaz, Shahrah-e-Faisal, Karachi

Copy to for information to:

- The Director General, Public-Private Partnership Unit, Finance Department, Government of Sindh.



The Sindh Government Gazette

Published by Authority

KARACHI THURSDAY JANUARY 28, 2016

PART-I

GOVERNMENT OF SINDH
SINDH ENVIRONMENT PROTECTION
AGENCY

NOTIFICATION

NO.EPA/TECH/739/2014:- In exercise of the powers conferred under clause (g) of sub-section (1) of section 6 of the Sindh Environmental Protection Act, 2014, the Sindh Environmental Protection Agency, with the approval of the Sindh Environmental Protection Council, is pleased to establish the following standards:-

I. (1) These Standards may be called the Sindh Environmental Industrial Waste Water, Effluent, Domestic, Sewerage, Industrial Air Emission and Ambient Airs, Noise for Vehicles, Air Emissions for Vehicles and Drinking Water Quality Standards, 2015.

(2) These Standards shall come into force at once.

2. In these Standards, unless there is anything repugnant in the subject or context -

- (a) "Government" means the Government of Sindh;
- (b) "Standards" means the Sindh Environmental Quality Standards.

SINDH ENVIRONMENTAL QUALITY STANDARDS FOR MUNICIPAL AND LIQUID INDUSTRIAL EFFLUENTS (mg/l, UNLESS OTHERWISE DEFINED)

S. No.	Parameter	Standards		
		Into Inland Waters	Into Sewage Treatment ⁽⁵⁾	Into Sea ⁽¹⁾
1	2	3	4	5
1.	Temperature 40 ⁰ C or Temperature Increase *	≤3 ⁰ C	≤3 ⁰ C	≤3 ⁰ C
2.	pH value (H ⁺)	6-9	6-9	6-9
3.	Biochemical Oxygen Demand (BOD) ₅ at 20 ⁰ C ⁽¹⁾	80	250	80**
4.	Chemical Oxygen Demand(COD) ⁽¹⁾ ...	150	400	400
5.	Total Suspended Solids (TSS) ...	200	400	200
6.	Total Dissolved Solids (TDS)	3500	3500	3500
7.	Oil and Grease	10	10	10
8.	Phenolic compounds (as phenol)	0.1	0.3	0.3
9.	Chloride (as Cl ⁻)	1000	1000	SC***
10.	Fluoride (as F ⁻)	10	10	10
11.	Cyanide (as CN ⁻) total	1.0	1.0	1.0
12.	An-ionic detergents (as MBAS) ⁽²⁾	20	20	20
13.	Sulphate (SO ₄ ²⁻)	600	1000	SC***
14.	Sulphide (S ²⁻)	1.0	1.0	1.0
15.	Ammonia (NH ₃)	40	40	40
16.	Pesticides ⁽³⁾	0.15	0.15	0.15
17.	Cadmium ⁽⁴⁾ ..	0.1	0.1	0.1
18.	Chromium (trivalent and hexavalent) ⁽⁴⁾ ..	1.0	1.0	1.0
19.	Cooper ⁽⁴⁾ ...	1.0	1.0	1.0
20.	Lead ⁽⁴⁾	0.5	0.5	0.5
21.	Mercury ⁽⁴⁾	0.01	0.01	0.01
22.	Selenium ⁽⁴⁾	0.5	0.5	0.5
23.	Nickel ⁽⁴⁾ ..	1.0	1.0	1.0
24.	Silver ⁽⁴⁾	1.0	1.0	1.0
25.	Total toxic metals ...	2.0	2.0	2.0
26.	Zinc ...	5.0	5.0	5.0
27.	Arsenic ⁽⁴⁾	1.0	1.0	1.0
28.	Barium ⁽⁴⁾	1.5	1.5	1.5
29.	Iron ...	8.0	8.0	8.0
30.	Manganese ...	1.5	1.5	1.5
31.	Boron ⁽⁴⁾	6.0	6.0	6.0
32.	Chlorine ...	1.0	1.0	1.0

Explanations:

1. Assuming minimum dilution 1:10 on discharge, lower ratio would attract progressively stringent standards to be determined by the Sindh Environmental Protection Agency. By 1:10 dilution means, for example that for each one cubic meter of treated effluent, the recipient water body should have 10 cubic meter of water for dilution of this effluent.
2. Methylene Blue Active Substances; assuming surfactant as biodegradable.
3. Pesticides include herbicides, fungicides, and insecticides.
4. Subject to total toxic metals discharge should not exceed level given at S. N. 25.
5. Applicable only when and where sewage treatment is operational and BOD₅=80mg/l is achieved by the sewage treatment system.
6. Provided discharge is not at shore and not within 10 miles of mangrove or other important estuaries.
 - *. The effluent should not result in temperature increase of more than 3⁰C at the edge of the zone where initial mixing and dilution take place in the receiving body. In case zone is not defined, use 100 meters from the point of discharge.
 - ** The value for industry is 200 mg/l
 - *** Discharge concentration at or below sea concentration (SC).

- Note:
1. Dilution of liquid effluents to bring them to the STANDARDS limiting values is not permissible through fresh water mixing with the effluent before discharging into the environment.
 2. The concentration of pollutants in water being used will be subtracted from the effluent for calculating the STANDARDS limits".

“SINDH ENVIRONMENTAL QUALITY STANDARDS FOR INDUSTRIAL GASEOUS EMISSION (mg/Nm³, UNLESS OTHERWISE DEFINED).”

S. No.	Parameter	Source of Emission	Standards
1	2	3	4
1.	Smoke	Smoke opacity not to exceed	40% or 2 Ringleman Scale or equivalent smoke number
2.	Particulate matter	(a) Boilers and Furnaces	
	(1)	(i) Oil fired	300
		(ii) Coal fired	500
		(iii) Cement Kilns	300

		(b) Grinding, crushing, Clinker coolers and Related processes, Metallurgical Processes, converter, blast furnaces and cupolas.	500
3.	Hydrogen Chloride	Any	400
4.	Chlorine	Any	150
5.	Hydrogen Fluoride	Any	150
6.	Hydrogen Sulphide	Any	10
7.	Sulphur Oxides ⁽²⁾ ⁽³⁾	Sulfuric acid/ Sulphonic acid plants	
		Other Plants except power Plants operating on oil and coal	1700
8.	Carbon Monoxide	Any	800
9.	Lead	Any	50
10.	Mercury	Any	10
11.	Cadmium	Any	20
12.	Arsenic	Any	20
13.	Copper	Any	50
14.	Antimony	Any	20
15.	Zinc	Any	200
16.	Oxides of Nitrogen	Nitric acid Manufacturing unit.	3000
		(3) Other plants except power plants operating on oil or coal:	
		Gas fired	400
		Oil fired	600
		Coal fired	1200

Explanations:-

1. Based on the assumption that the size of the particulate is 10 micron or more.
2. Based on 1 percent Sulphur content in fuel oil. Higher content of Sulphur will case standards to be pro-rated.
3. In respect of emissions of Sulphur dioxide and Nitrogen oxides, the power plants operating on oil and coal as fuel shall in addition to Standards specified above, comply with the following standards:-

A. Sulphur Dioxide

Sulphur Dioxide Background levels Micro-gram per cubic meter ($\mu\text{g}/\text{m}^3$) Standards.

Background Air Quality (SO ₂ Basis)	Annual Average	Max. 24-hours Interval	Criterion I Max. SO ₂ Emission (Tons per Day Per Plant)	Criterion II Max. ground level increment to ambient (One year Average)
Unpolluted	<50	<200	500	50
Moderately Polluted*				
Low	50	200	500	50
High	100	400	100	10
Very Polluted**	>100	>400	100	10

* For intermediate values between 50 and 100 $\mu\text{g}/\text{m}^3$ linear interpolations should be used.

** No projects with Sulphur dioxide emissions will be recommended.

B. Nitrogen Oxide

Ambient air concentrations of Nitrogen oxides, expressed as NO_x should not be exceed the following:-

Annual Arithmetic Mean	100 $\mu\text{g}/\text{m}^3$ (0.05 ppm)
------------------------	--

Emission level for stationary source discharge before missing with the atmosphere should be maintained as follows:-

For fuel fired steam generators as Nanogram (10^0 -gram) per joule of heat input:

Liquid fossil fuel	130
Solid fossil fuel..	300
Lignite fossil fuel	260

Note:- Dilution of gaseous emissions to bring them to the STANDARDS limiting value is not permissible through excess air mixing blowing before emitting into the environment.

Sindh Environmental Quality Standards for Motor
Vehicle Exhaust and Noise

(i) For in-use Vehicles

S. No.	Parameter	Standards (maximum permissible limit)	Measuring Method	Applicability
1	2	3	4	5
1.	Smoke	40% or on the Ringleman Scale during engine acceleration mode	To be compared with Ringleman Chart at a distance of 6 meters or more.	Immediate effect
2	Carbon Monoxide	6 %	Under idling conditions: Non- dispersive infrared detection through gas analyzer.	
3.	Noise	85 db (A)	Sound-meter at 7.5 meter from the source.	

For new Vehicles

EMISSION STANDARDS FOR DIESEL VEHICLES

(a) For passenger Cars and Light Commercial Vehicles (g/Km)

Type of Vehicle	Category/Class	Tiers	CO	HC+ NOx	PM	Measuring Method	Applicability
1	2	3	4	5	6	7	8
Passenger Cars.	M I: with reference mass (RW).	Pak-II, IDI	1.0	0.7	0.08		All imported and local manufactured
	up to 2500 kg. Cars with RW over 2500 kg. to meet NI Category standards	Pak-II DI	1.0	0.9	0.10	NEDC (ECE 15+ EUDCI)	Diesel vehicles with effect from 01-07-2012
Light Commercial Vehicles	NI-I (RW < 1250 Kg)	Pak-II IDI	1.0	0.70	0.08		
		Pak-II DI	1.0	0.90	0.10		
	NI-II (1250kg < RW < 1700 Kg)	Pak-II IDI	1.25	1.0	0.12		
		Pak-II DI	1.25	1.3	0.14		
	NI-III (RW < 1700 Kg)	Pak-II IDI	1.50	1.2	0.17		
Pak-II DI		1.50	1.6	0.20			

Parameter Standards (maximum permissible limit) Measuring method

Noise	85 db (A)	Sound-meter at 7.5 meters from the source
-------	-----------	---

(b) For Heavy Duty Diesel Engines and Large Goods Vehicles (g/Kwh)

Type of Vehicle	Category/ Class	Tiers	CO	HC	NOx	PM	Measuring Method	Applicability
1	2	3	4	5	6	7	8	9
Heavy Duty Diesel Engines	Turks and Buses	Pak-II	4.0	1.1	7.0	0.15	ECE-R-49	All Imported and local manufactured diesel vehicles with the effect 1-7-2012
Large goods Vehicles	N2(2000 and up	Pak-II	4.0	7.0	1.10	0.15	EDC	

Parameter Standards (maximum permissible limit) Measuring method

Noise	85 db (A)	Sound-meter at 7.5 meters from the Source
-------	-----------	---

Emission Standards for Petrol Vehicles (g/km)

Type of Vehicle	Category/ Class	Tier	Co	HC+ NOx	Measuring Method	Applicability
1	2	3	4	5	6	7
Passenger Cars.	M I: with reference mass (RW). upto 2500 kg. Cars with RW over 2500 kg. to meet NI Category standards	Pak-II	2.20	0.5	NEDC (ECE 15+ EUDCL)	All imported and new models * locally manufactured petrol vehicles with effect from 1 st July, 2009**

Light Commercial Vehicles	NI-I (RW<1250 kg) NI-NI-II (1250kg> kg RW < 1700 Kg)	Pak-II	2.20	0.5	
		Pak-II	4.0	0.65	
		Pak-II	5.0	0.08	
	NI-III(RW> 1700 kg)				
Motor Rickshaws & Motor Cycles	2,4 strokes < 150 cc	Pak-II	5.5	1.5	ECER 40
	2,4 strokes > 150cc	Pak-II	5.5	1.3	

Parameter Standards (maximum permissible limit) Measuring method

Noise source 85 db (A) Sound-meter at 7.5 meters from the source

Explanations:

- DI: Direct Injection.
- IDI: Indirect Injection.
- EUDCL: Extra Urban Driving Cycle.
- NEDC: New European Driving Cycle.
- ECE: Urban Driving Cycle.
- M: Vehicles designed and constructed for the carriage of passenger and comprising no more than eight seats in addition to the driver's seat.
- N: Motor vehicles with at least four wheels designed and constructed for the carriage of goods.
- * New model means both model and engine type change.
- ** The existing models of petrol driven vehicles locally manufactured will immediately switch over to Pak-II emission standards but no later than 30th June, 2012.

SINDH ENVIRONMENTAL QUALITY STANDARDS FOR AMBIENT AIR

Pollutants	Time-weight average	Concentration in Ambient Air	Method of measurement
Sulphur Dioxide(SO ₂)	Annual Average* 24 hours**	80 µg/m ³ 120 µg/m ³	Ultraviolet Fluorescence method
Oxides of Nitrogen as (NO)	Annual Average* 24 hours**	40 µg/m ³ 40 µg/m ³	Gas Phase Chemiluminescence
Oxides of Nitrogen as (NO ₂)	Annual Average* 24 hours**	40 µg/m ³ 80 µg/m ³	Gas Phase Chemiluminescence
O ₃	1 hour	130 µg/m ³	Non dispersive UV absorption method
Suspended Particulate Matters(SPM)	Annual Average* 24 hours**	360 µg/m ³ 500 µg/m ³	High Volume Sampling (Average flow rate not less than 1 l in 3/minutes)
Respirable Particulate Matter PM10	Annual Average* 24 hours**	120 µg/m ³ 150 µg/m ³	B Ray absorption method
Respirable Particulate Matter PM2.5	Annual Average* 24 hours**	40 µg/m ³ *** 75 µg/m ³	B Ray absorption method
Lead Pb	Annual Average* 24 hours**	1 µg/m ³ 1.5 µg/m ³	ASS Method after sampling using EPM 2000 or equivalent filter paper
Carbon Monoxide(CO)	8 hours** 1 hours**	5 mg/m ³ 10 mg/m ³	Non Dispersive Infra Red(NDIR) method

*Annual arithmetic mean of minimum 104 measurements in a year taken twice a week, 24 hourly and at uniform interval.

** 24 hourly/8 hourly values should be met 98% in a year, 2% of the time. It may exceed but not on two consecutive days.

*** Annual Average limit of $40\mu/m^3$ or background annual average concentration plus allowable allowance of $9\mu/m^3$, whichever is lower.

Sindh Standards for Drinking Water Quality

Properties / Parameters	Standard Values for Sindh	WHO Standards	Remarks
Bacterial			
All water intended for drinking (e.Coli or Thermo tolerant Coliform bacteria)	Must not be detectable in any 100 ml sample	Must not be detectable in any 100 ml sample	Most Asian countries also follow WHO standards
Treated water entering the distribution system (E.Coli or thermo tolerant coliform and total coliform bacteria)	Must not be detectable in any 100 ml sample	Must not be detectable in any 100 ml sample	Most Asian countries also follow WHO standards
Treated water in the distribution system (E.coli or thermo tolerant coliform and total coliform and total coliform bacteria)	Must not be detectable in any 100 ml sample In case of large supplies, where sufficient samples are examined, must not be present in 95% of the samples taken throughout any 12-month period	Must not be detectable in any 100 ml sample In case of large supplies, where sufficient samples are examined, must not be present in 95% of the samples taken throughout any 12-month period	Most Asian countries also follow WHO standards
Physical			
Colour	≤ 15 TCU	≤ 15 TCU	
Taste	Non objectionable/Acceptable	Non objectionable/Acceptable	
Odour	Non	Non	

	objectionable/Acceptable	objectionable/Acceptable
Turbidity	< 5 NTU	< 5 NTU
Total hardness as CaCO ₃	< 500 mg/l	---
TDS	< 1000	< 1000
pH	6.5 - 8.5	6.5 - 8.5
Chemical		
<i>Essential Inorganic</i>	<i>mg/Litre</i>	<i>mg/Litre</i>
Aluminium (Al) mg/l	≤ 0.2	0.2

Properties / Performance	Standard Values for Pakistan	Who Standards	Remarks
Antimony (Sb)	≤ 0.005 (P)	0.02	
Arsenic (As)	≤ 0.05 (P)	0.01	Standard for Pakistan similar to most Asian developing countries
Barium (Ba)	0.7	0.7	
Boron (B)	0.3	0.3	
Cadmium (Cd)	0.01	0.003	Standard for Pakistan similar to most Asian developing countries
Chloride (Cl)	< 250	250	
Chromium (Cr)	≤ 0.05	0.05	
Copper (Cu)	2	2	
<i>Toxic Inorganic</i>	<i>mg/Liter</i>	<i>mg/Litre</i>	
Cyanide (CN)	≤ 0.05	0.07	Standard for Pakistan similar to Asian developing countries
Fluoride (F)*	≤ 1.5	1.5	
Lead (Pb)	≤ 0.05	0.01	Standard for Pakistan similar to most Asian developing countries
Manganese (Mn)	≤ 0.5	0.5	
Mercury (Hg)	≤ 0.001	0.001	
Nickel (Ni)	≤ 0.02	0.02	

Properties / Performance	Standard Values for Pakistan	Who Standards	Remarks
Nitrate (NO ₃)	≤ 0.50	50	
Nitrite (NO ₂)	≤ 3 (P)	3	
Selenium (SE)	0.01 (P)	0.01	
Residual chlorine	0.2-0.5 at consumer end 0.5-1.5 at source	---	
Zinc (Zn)	5.0	3	Standard for Pakistan similar to most Asian developing countries

Properties / Performance	Standard Values for Pakistan	Who Standards	Remarks
Organic			
Pesticides mg/L		PSQCA No. 4639-2004, Page No. 4 Table No. 3 Serial No. 20-58 may be consulted.***	Annex II
Phenolic compounds (as Phenols) mg/l.		≤ 0.002	
Polynuclear aromatic hydrocarbons (as PAH g/l.)		0.01 (By GC/MS method)	
Radioactive			
Alpha Emitters bq/L or pCi	0.1	0.1	
Beta emitters	1	1	

*** PSQCA: Pakistan Standards Quality Control Authority

Proviso:

The existing drinking water treatment infrastructure is not adequate to comply with WHO guidelines. The Arsenic concentrations in some parts of Sindh have been found high then Revised WHO guidelines. It will take some time to control arsenic through treatment process. Lead concentration in the proposed standards is higher than WHO Guidelines. As the piping system for supply of drinking water in urban centers are generally old and will take significant resources and time to get them replaced. In the recent past, Lead was completely phased out from petroleum

products to cut down Lead entering into environment. These steps will enable to achieve WHO guidelines for Arsenic, Lead, Cadmium and Zinc. However, for bottled water, WHO limits for Arsenic, Lead, Cadmium and Zinc will be applicable and PSQCA Standards for all the remaining parameters.

Sindh Environmental Quality Standards for Noise

S. No.	Category of Area / Zone	Effective from 1 st Jan, 2015		Effective from 1 st January, 2015	
		Limit in dB(A) Leq *			
		Day Time	Night Time	Day Time	Night Time
1.	Residential Area (A)	65	50	55	45
2.	Commercial Area (B)	70	60	65	55
3.	Industrial Area (C)	80	75	75	65
4.	Silence Zone (D)	55	45	50	45

- Note:
1. Day time hours: 6:00 a.m to 10:00 p.m
 2. Night time hours: 10:00 p.m to 6:00 a.m
 3. Silence zone; Zones which are declared as such by the competent authority. An area comprising not less than 100 meters around hospitals, educational institutions and courts
 4. Mixed categories of areas may be declared as one of the four above-mentioned categories by the competent authority.
- * dB(A) Leq; Time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

3. Repeal and Savings.

- (1) The provisions of the Statutory Notification dated 10th August, 2000 and 18th October, 2010, issued by the Ministry of Environment, Government of Pakistan, to the extent of the Province of Sindh are hereby repealed.
- (2) All actions taken, proceedings initiated shall be deemed to have been taken and initiated validly under the the provisions of these Rules.

DIRECTOR GENERAL
SINDH ENVIRONMENTAL PROTECTION
AGENCY

WEST KARACHI RECYCLED WATER PROJECT 1

ADDENDUM TO DRONE SURVEY VIDEO IN THE VDR

The video was produced in May 2023 and there are some subsequent changes to descriptions and scope of the Project shown and narrated in the video.

1. In the video the Project Land (Plants) is indicated as 20 acres or approximately 8 hectares.
As described in the MPSS and shown in Drawing No. P 139-23-A2-2 the surveyed area of the Project Land (Plants) is approximately 21.55 acres of which 1.56 acres is reserved for K-Electric to construct their grid station. The remaining area of the Project Land (Plants) for construction of treatment facilities and pumping stations is 20 acres.
2. In the video it states that there are some mounds of excavated fill material within Project Land (Plants) that will be relocated by the PPP contractor to provide a level site with no encumbrances for construction of the PPP works.
As stated in Section 3.1.4 of the Concession Agreement the Agency is required to excavate and remove the excavated fill material that is stockpiled on the Project Land (Plants) prior to the Effective Date.
3. In the video the connection from the raw wastewater interceptor to supply Influent to the Project is between manhole MH-1 and the southern boundary of the TP1 Site with the Influent Delivery Pipeline to the Project Land (Plants) of up to 150 m.
As described in the MPSS and shown in Drawing No. P 139-23-A2-1 the connection to the interceptor will be south of MH-1 and the Influent Delivery Pipeline from there to the Project Land (Plants) will be straight for a distance of approximately 170 m.
4. In the video there is no mention of the Effluent Discharge Pipeline to the Lyari River or the RO Concentrate Discharge Pipeline to the sea.
The two discharge pipelines with optional pumping stations were added to the scope of the Project after the video was produced.

Engr Syed Salahuddin Ahmed
CEO Secretariat KW&SC
Block-D, 9th Mile Karsaz,
Shara-e-Faisal, Karachi-75350

7248
CEO/ M.D. KW&SC
Diry No. 7248
Date 08-09-23
Time

Ref. No. NC-CFT/2023/04
Dated: 5th Sep. 2023.

Subject: West Karachi Recycled Water Project-1 (35 MGD) – Power Demand and Electricity Delivery Point.

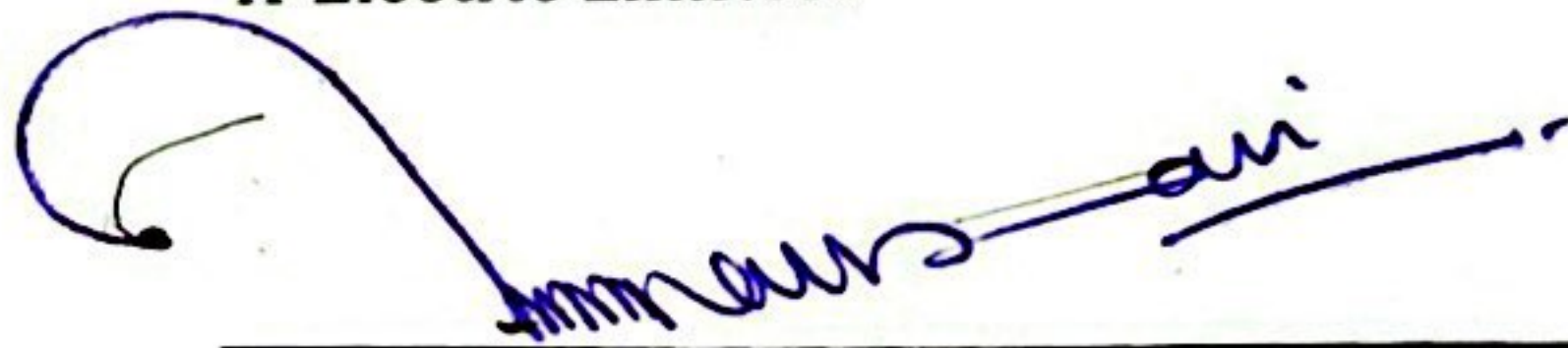
We are writing here with reference to your letter Ref: MD/CEO/KW&SC/213/2023 dated 18th Aug,2023 on the subject matter. Below please find the KE point wise response for finalization of the Request for Proposal (RFP) documents:

- 1- As per NEPRA CSM, Land size should be a minimum of 1.5 acre for a GIS grid station. Land shape should be rectangular with a minimum of 60 meters aside.
- 2- Grid regime will be 132/11kV, however 11kV secondary voltages will be available for user load.
- 3- Load requirement is 6~9MW, for which a dedicated grid station shall be required as per NEPRA CSM. SLD of the proposed grid and technical detail is attached as Annexure-A, it is based on the joint survey conducted by KW&SC and KE technical team on 2nd Aug-23.
Tentative estimated cost of above-mentioned technical proposal is attached as Annexure-B. Please note that cost provided by KE is tentative and is based on latest available estimates, therefore not binding on KE. Actual firmed up cost of the project will be determined after completion of competitive tendering process.

Note: Annexure-B is not in the VDR

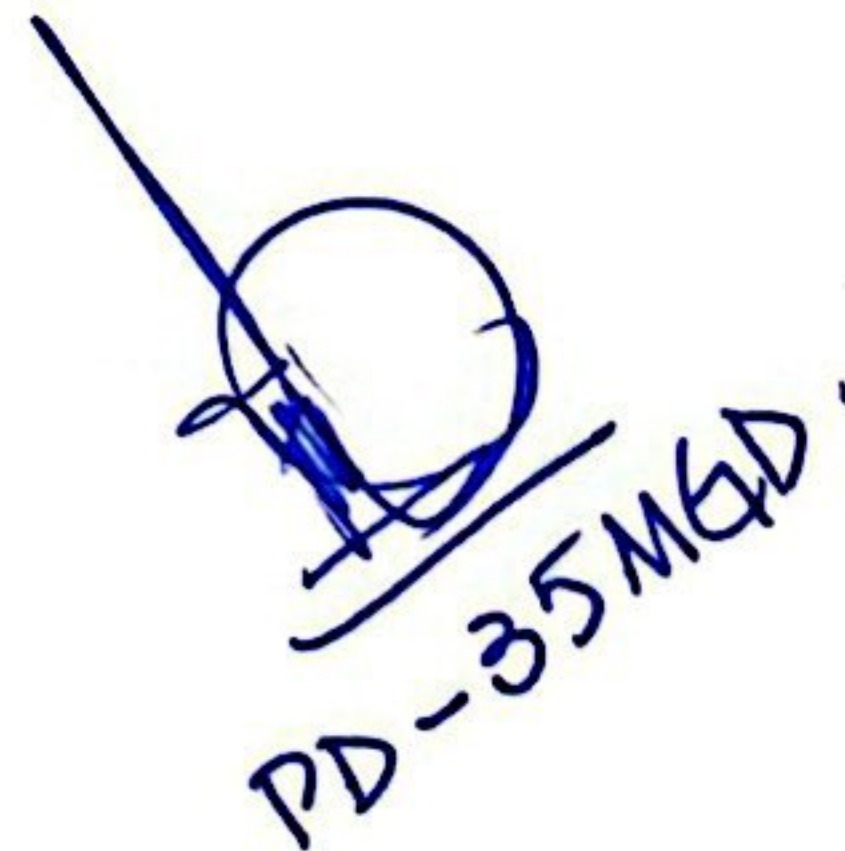
Thanking you,

On behalf of,
K-Electric Limited.



Rizwan Ahmed Ansari
Head of NC (Planning & Execution)
UAN: 111 537 211 Ext: 1666
Cell: +92 0333 0228535

K-Electric Limited
4th floor, KE Building, Civic Centre
Gulshan-e-Iqbal, Karachi.



PD-35MGD.

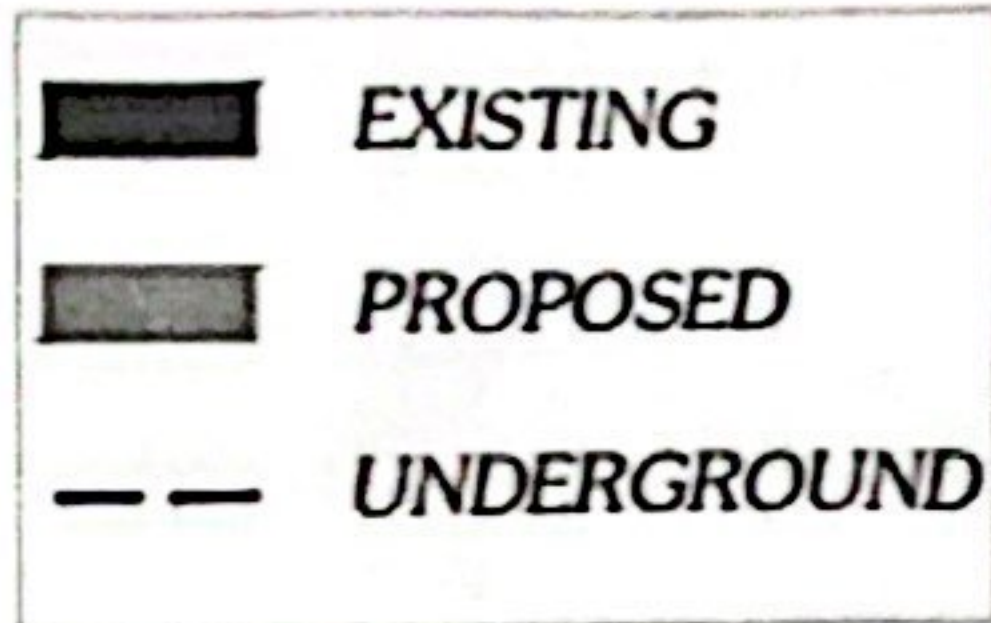
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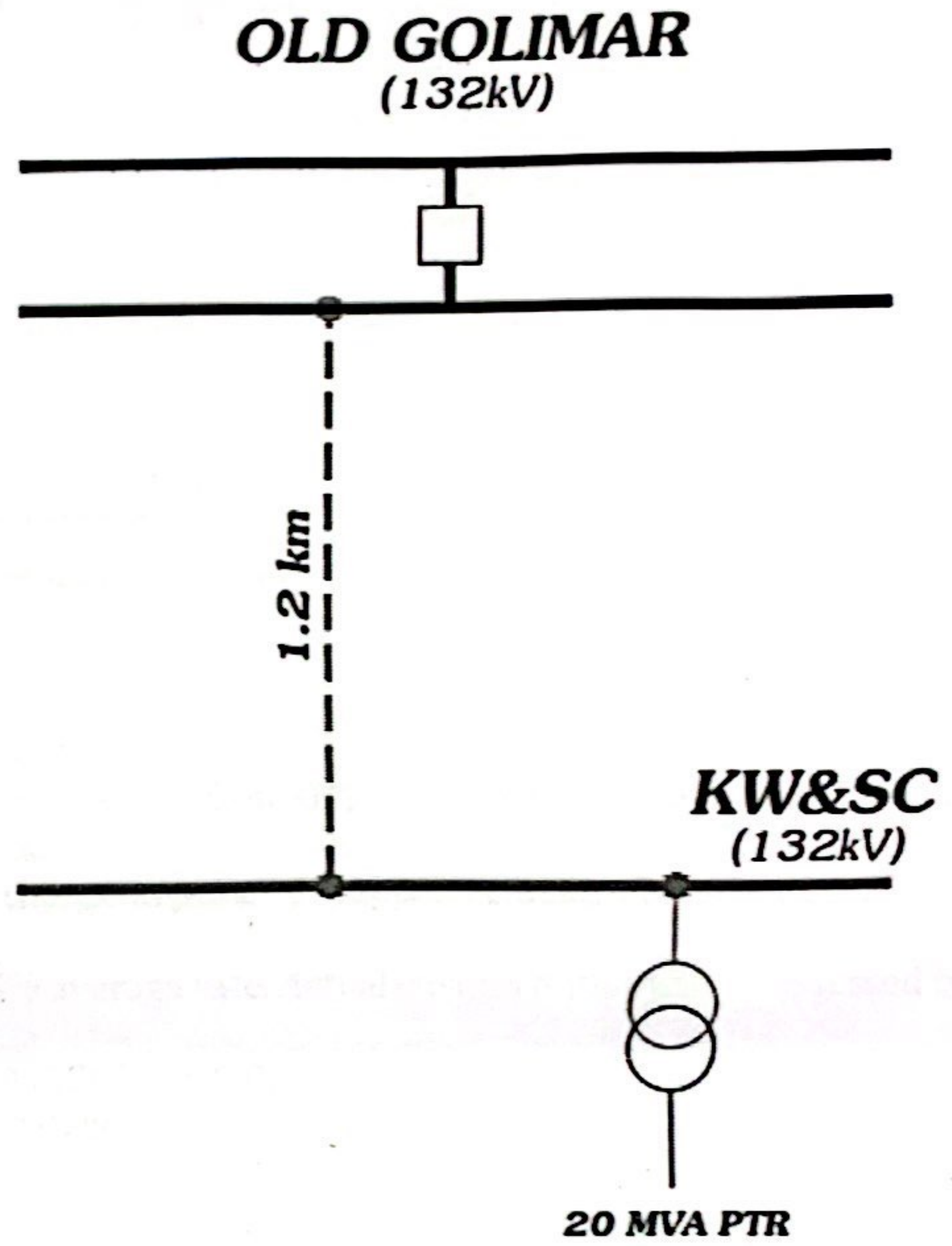
08/09

Annexure A

Proposed Plan for 132kV KW&SC



Items	Qty
132kV T/L Bay at KW&SC	1
132kV T/L Bay at Old Golimar	1
132kV PTR bay	1
132kV UG Cable (800mm ² XLPE)	1.2 km



Zahra Dastgir
Project Director
Krachi Waste water Recycling Project
KW&SC
MD Secretariat, 9th Mile Karsaz, Shahrah e Faisal Karachi

Ref. No. NC-CFT/2023/06
Dated:13thNov. 2023.

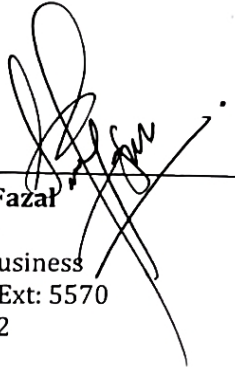
Subject: West Karachi Recycled Water Project-1, Electricity Delivery Point.

We are writing here with reference to your letter Ref: KW&SC/PD/KWWRP/TP1/2023/16 dated 19th Oct,2023 on the subject matter.

Kindly note that, the allocated dimensions mentioned in maps/drawing for grid stations has meet the requirements for regular shape. However, please mark the access and approach roads (preferably front road access to Grid should be 60ft wide and turning road to be 80ft wide) for heavy equipment movement, along with entry points as it is important for grid construction and its Operation & Maintenance.

Thanking you,

On behalf of,
K-Electric Limited.



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