DRAFT CONCESSION AGREEMENT

for

Implementation of Energy Saving Measures by Supply, Installation and Commissioning of 137 Energy Efficient Pumpsets, Capacitor Banks, Harmonics Filter, Transformer and Operation & Maintenance of 37 Pumping Stations across 10 Water Supply Schemes in Coimbatore region on Shared Saving Model under PPP mode

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THIS AGREEMENT is entered into on this the [•] day of [•], 2025

BETWEEN

The Tamil Nadu Water Supply and Drainage Board, established under the [•], having its head office at _____, represented by its Chief Engineer, Coimbatore(hereinafter referred to as the **"Authority"** or the **"TWAD Board"** or the **"TWAD"**)which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and permitted assigns under **PART ONE**;

AND

[*please insert name of the Selected Bidder*], a_____[1] incorporated under the provisions of the _____[2] and having its registered office at [•], represented by its [•] authorized vide board resolution/ power of attorney dated _____(hereinafter referred to as the "**Concessionaire**") which expression shall, unless repugnant to the context or meaning thereof, include its successors and permitted assigns and substitutes under **PART TWO**;

OR

[*please insert name of the Selected Bidder*], a Consortium (hereinafter referred to as the **"Concessionaire"**)of _____, incorporated under the provisions of the _____ and having its registered office at [•] and _____, incorporated under the provisions of the _____ and having its registered office at [•], represented by _____ (hereinafter referred to as the "**Lead Member**") which expression shall, unless repugnant to the context or meaning thereof, include its successors and permitted assigns and substitutes under **PART TWO**;

WHEREAS:

A) TWAD intends to implement energy saving measures by supply, installation and commissioning of 137 energy efficient Pumpsets, capacitor banks, harmonics filter, transformer and operation & maintenance of 37 pumping stations across 10 Water Supply Schemes in Coimbatore region on Shared Savings model under PPP mode (the **"Project"**).

B) TWAD had accordingly invited proposals by prescribing the technical and financial terms and conditions vide its Request for Proposal dated [•] (the **"Request for Proposal"** or **"RFP")** for selecting the Concessionaire for implementing the Project

[1]Details of nature/ type of the entity to be mentioned.
[2]Details of relevant statute as per nature of the entity to be added.

and had shortlisted certain Bidders including, *interalia*, the {Single Bidder/Consortium comprising of the Lead Member and Other Members (collectively the **"Consortium"**)} (hereinafter referred to as the "**Successful Bidder**").

C) After evaluation of the bids received, TWAD had accepted the bid of the Successful Bidder and issued its Letter of Award bearing number [•] dated [•] (hereinafter referred to as the **"Letter of Award"** or the **"LOA"**) to the Successful Bidder requiring, inter alia, the execution of this Concession Agreement within [28 (Twenty eight)] days of the date of issue thereof.

D) By its letter dated [•] the Successful Bidder has requested the Authority to accept it as the entity which shall undertake and perform the obligations and exercise the rights of the Selected Bidder including the obligation to enter into this Concession Agreement pursuant to the Letter of Award. The Concessionaire has further represented to the effect that it has delivered to the Authority a legal opinion with respect to the authority of the Concessionaire to enter into this Concession Agreement and the enforceability of the provisions thereof.

E) The Authority has agreed to the said request of the Selected Bidder/ Concessionaire and has accordingly agreed to enter into this Concession Agreement with the Concessionaire for implementing the Project, subject to and on the terms and conditions set forth hereinafter.

NOW, THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth in this Concession Agreement, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the Parties agree as follows:

ARTICLE-1: DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them:

"Accounting Year" means the financial year commencing from the first day of April of any calendar year and ending on the thirty-first day of March of the next calendar year;

"Actual Energy Savings" shall mean the energy savings achieved by the Concessionaire both in percentage terms and in kWh/ KL terms, measured at each pumping station on a bi-monthly basis by computing the difference between the Baseline Specific Energy Consumption and the actual specific energy consumption.

"Adjusted Equity" means the equity funded in Indian Rupees and adjusted on the first day of the current month (the **"Reference Date"**), in the manner set forth below, to reflect the change in its value on account of depreciation and variations in WPI, and for any Reference Date occurring:

(a) on or before COD, the Adjusted Equity shall be a sum equal to the equity funded in Indian Rupees and expended on the Project, revised to the extent of one half of the variation in WPI occurring between the first day of the month of Appointed Date and the Reference Date;

(b) on COD, an amount equal to the Adjusted Equity shall be deemed to be the base (the **"Base Adjusted Equity"**);

(c) after COD, the Adjusted Equity hereunder shall be shall be a sum equal to the Base Adjusted Equity, reduced by 0.833% (zero point eight three three percent)[3] thereof at the commencement of each month following the COD [reduction of 2.50% (two point five zero percent) per quarter of an year] and the amount so arrived at shall be revised to the extent of variation in WPI occurring between the COD and the Reference Date;

For the avoidance of doubt, the Adjusted Equity shall, in the event of termination, be computed as on the Reference Date immediately preceding the Transfer Date; provided that no reduction in the Adjusted Equity shall be made for a period equal to the duration, if any, for which the Concession Period is extended, but the revision on account of WPI shall continue to be made.

"Advance Procurement Plan" means the procurement plan to be prepared by the Concessionaire during the Study Period and approved by TWAD as per Clause 2.4.1.5;

"Affected Party" shall have the meaning as set forth in Clause 26.1;

[3] This factor has been arrived upon dividing 100 percent by the number of months comprising the Concession Period.

"Agreement" or **"Concession Agreement"** means this Agreement, its Recitals, and the Schedules hereto and any amendments thereto made in accordance with the provisions contained in this Agreement;

"Agreement Date" means the date on which this Concession Agreement is executed between the parties;

"Applicable Laws" means all laws, brought into force and effect by the Government including policies, rules, bye-laws, regulations, circulars, government orders and notifications made thereunder, and judgments, decrees, injunctions, writs and orders of any court of record, applicable to this Agreement and the exercise, performance and discharge of the respective rights and obligations of the Parties hereunder, as may be in force and effect during the subsistence of this Agreement;

"Applicable Permits" means all clearances, licenses, permits, authorizations, no objection certificates, consents, approvals and exemptions required to be obtained or maintained by the Parties under Applicable Laws in relation to the due performance of their respective obligations under this Agreement;

"**Appointed Date**" means the date on which every Condition Precedent is either satisfied or waived, as the case may be, in accordance with the provisions of this Agreement, and such date shall be the date of commencement of the Concession Period;

"Associate" or **"Affiliate"** shall mean, in relation to the Concessionaire/Consortium Member, any other person who either directly or indirectly controls, is controlled by or is under the common control with such Concessionaire/Consortium Member(for the purpose of this definition, the expression "control" (including, with correlative meaning, the terms "controlled by" and "under common control with") means with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than fifty percent (50%) of the voting shares of such person and/or the power to direct the management and policies of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person, whether by operation of law or by contract or otherwise;

"Authority Default" shall have the meaning as set forth in Clause 29.2.1;

"Authority Indemnified Persons" shall have the meaning set forth in Clause 32.1.1;

"Authority Representative" means such person or persons as may be authorized in writing by TWAD to act on its behalf under this Agreement and shall include any person or persons having authority to exercise any rights or perform and fulfil any obligations of TWAD under this Agreement;

"Bank" means a scheduled commercial bank which has been included in the second schedule of the Reserve Bank of India Act, 1934 and appended from time to time by RBI;

"Baseline Energy Consumption" or **"Baseline Specific Energy Consumption"** means the average of the Specific Energy Consumption of all the Pumpsets (in use including the stand-by Pumps) in a particular Pumping Station during the Baseline Period measured in

kWh per KL. An indicative Baseline Energy Consumption measured during the energy audit carried out by a third-party consultant appointed by TWAD is provided under **Schedule-1** of this Agreement.

"Bid" means the documents in their entirety comprised in the bid submitted by the Selected Bidder in response to the Request for Proposal in accordance with the provisions thereof and **"Bids"** shall mean the bids submitted by any and all the Bidders;

"**Bid Documents**" shall collectively mean RFP, any addendum, corrigendum thereof, including the draft Concession Agreement and any amendments thereto, provided by the Authority for this Project;

"Change in Law" means the occurrence of any of the following after the Bid Due Date:

(a) The enactment of any new Indian law;
(b) The repeal, modification or re-enactment of any existing Indian law as applicable to the State of Tamil Nadu;
(c) The commencement of any Indian law, as applicable to the State of Tamil Nadu which has not entered into effect until the Bid Due Date;
(d) a change in the interpretation or application of any Indian law, as applicable to the State of Tamil Nadu by a judgment of a court of record which has become final, conclusive and binding, as compared to such interpretation or application by a court of record prior to the Bid Due Date; or
(e) Any change in the rates of any of the Taxes that have a direct effect on the Project.

"Change of Scope" shall have the meaning as set forth in Clause 16.1.1;

"Chief Engineer" means the Chief Engineer, TWAD, Coimbatore and shall represent the term TWAD Board or TWAD specified in this Concession Agreement, who shall be responsible for all approvals, not limited to approving the Concessionaire's invoices.

"COD" or "Commercial Operation Date" or "Actual COD" shall have the meaning as set forth in Clause 15.1;

"Concessionaire's Representative" means such person or persons as may be authorized in writing by the Concessionaire to act on its behalf under this Agreement and shall include any person or persons having authority to exercise any rights or perform and fulfil any obligations of the Concessionaire under this Agreement;

"Completion Certificate" shall have the meaning as set forth in Clause 14.1;

"Concession" shall have the meaning as set forth in Clause 3.1.1;

"Concessionaire" shall have the meaning attributed thereto in the array of Parties hereinabove as set forth in the Recitals;

"Concession Period" means the period starting on and from the Appointed Date and ending on the Transfer Date, which shall consist of 8 months of Implementation Period starting from

the Appointed Date and 10 years of Operations Period starting from the Scheduled Commercial Operation Date (COD).

"**Concession Year**" shall mean any given year, forming part of the Concession Period, commencing on the date and month of the Appointed Date and ending on a day prior to the said date and month of each Subsequent Year.

"Concessionaire Default" shall have the meaning as set forth in Clause -29;

"Conditions Precedent" shall have the meaning set forth in Clause 4.1.1;

"Cure Period" means the period specified in this Agreement for curing any breach or default of any provision of this Agreement by the Party responsible for such breach or default and shall:

(a) commence from the date on which a notice is delivered by one Party to the other Party asking the latter to cure the breach or default specified in such notice;
(b) not relieve any Party from liability to pay Damages or compensation under the provisions of this Agreement; and
(c) not in any way be extended by any period of Suspension under this Agreement;

provided that if the cure of any breach by the Concessionaire requires any reasonable action by the Concessionaire that must be approved by TWAD hereunder, the applicable Cure Period shall be extended by the period taken by TWAD to accord its approval;

"Damages" shall have the meaning as set forth in Sub-Article (v) of Article 1;

"Day" means any calendar day of the Gregorian Calendar.

"Debt Due" means the aggregate of the following sums expressed in Indian Rupees outstanding on the Transfer Date:

(a) the principal amount of the debt provided by the Lenders under the Financing Agreements for financing the Project Cost (the **"Principal"**) but excluding any part of the Principal that had fallen due for repayment two years prior to the Transfer Date;

(b) all accrued interest, financing fees and charges payable under the Financing Agreements on, or in respect of, the debt referred to in Sub-Article (a) above until the Transfer Date but excluding (i) any interest, fees or charges that had fallen due one year prior to the Transfer Date, (ii) any penal interest or charges payable under the Financing Agreements to any Senior Lender, and (iii) any pre-payment charges in relation to accelerated repayment of debt except where such charges have arisen due to Authority Default; and

(c) any Subordinated Debt which is included in the Financial Package and disbursed by lenders for financing the Project Cost.

Provided that if all or any part of the Debt Due is convertible into Share at the option of Lenders, it shall for the purposes of this Agreement be deemed to be Debt Due even after

such conversion and the principal thereof shall be dealt with as if such conversion had not been undertaken.

Provided further that the Debt Due, on or after COD, shall in no case exceed 70% (seventy percent) of the Project Cost.

"Debt Service" means the sum of all payments on account of Principal, interest, financing fees and charges due and payable in an Accounting Year to the Lenders for and in respect of Debt Due under the Financing Agreements;

"Dispute" shall have the meaning as set forth in Clause 37.1.1;

"Dispute Redressal Committee" means a Committee headed by the Managing Director / Joint Managing Director and consisting of Engineering Director, TWAD Board as Member, in order to resolve any disputes between the Authority and the Concessionaire.

"Dispute Resolution Procedure" means the procedure for resolution of Disputes as set forth in Article 37;

"Document" means documents in printed or written form, or in tapes, discs, drawings, computer programmers, writings, reports, photographs, films, cassettes, or expressed in any other written, electronic, audio or visual form;

"Earmarked Quantity" shall mean the daily quantity of water required to be pumped from each pumping stations in Million Litres per Day (MLD);

"Energy Audit Report" means the report prepared by a third-party consultant appointed by TWAD after carrying out energy audit in all the 37 Pumping Stations, extracts of which is provided under Schedule-17 of this Agreement.

"Energy Saving Measures (ESM)" means the installation of new equipment, modification or alteration of existing equipment/facilities, or following revised operations and maintenance procedures, to reduce energy usage and costs, by improving efficiency of use.

"Emergency" means a condition or situation that is likely to endanger the security of the individuals on or about the Project Facilities, including Users thereof, or which poses an immediate threat of material damage to any of the Project Facilities;

"Emergency Response Plan" means a documented strategy outlining procedures to manage and respond to emergency situations, minimizing harm to people, property, and operations;

"Equipment" means all plant, facilities, machinery, tools, apparatus, appliances or things of every kind required in or for installation, commissioning, operations and maintenance of the Project Facilities that are to be provided by the Concessionaire.

"Equity" means the sum expressed in Indian Rupees representing the amount expended by the Concessionaire for meeting the equity component of the Project Cost, and for the purposes of this Agreement shall include any interest-free funds raised by the Concessionaire for meeting such equity component.

"Escrow Account" means an Account which the Concessionaire shall open and maintain with a Bank in which all inflows and outflows of cash on account of capital and revenue receipts and expenditures shall be credited and debited, as the case may be, in accordance with the provisions of this Agreement;

"Escrow Agreement" shall have the meaning as set forth in Clause 23.1.2;

"Escrow Bank" shall have the meaning as set forth in Clause 2 of Schedule 8;

"Escrow Default" shall have the meaning as set forth in Clause 6.1 of Schedule8;

"**Financial Close**" means the fulfilment of all condition's precedent to the initial availability of funds under the Financing Agreements;

"Financial Model" means the financial model adopted by Lenders, setting forth the capital and operating costs of the Project and revenues there from on the basis of which financial viability of the Project has been determined by the Lenders, and includes a description of the assumptions and parameters used for making calculations and projections therein;

"Financial Package" means the financing package set forth in the Financial Model and approved by the Lenders, and includes Equity, all financial assistance specified in the Financing Agreements and Subordinated Debt, if any;

"Financing Agreements" means the agreements executed by the Concessionaire in respect of financial assistance to be provided by the Lenders by way of loans, guarantees, subscription to non-convertible debentures and other debt instruments including loan agreements, guarantees, notes, debentures, bonds and other debt instruments, security agreements, and other documents relating to the financing (including refinancing) of the Project;

"Force Majeure" shall have the meaning ascribed to it in Clause 26.1;

"GOI" means the Government of India**;**

"Good Industry Practice" means the practices, methods, techniques, designs, standards, skills, diligence, efficiency, reliability and prudence which are generally and reasonably expected from a reasonably skilled and experienced operator engaged in the same type of works as envisaged under this Agreement and which would be expected to result in the performance of its obligations by the Concessionaire in accordance with this Agreement, Applicable Laws and Applicable Permits;

"Government" means the Government of the India or the State Government, as the case may be;

"Guaranteed Energy Savings" shall mean the Actual Energy Savings in percentage terms, which shall be 25% (twenty-five percent) during the Concession Period.

"Implementation Plan" means the plan of progressive Project Milestones to be submitted during the study period in accordance with which the new energy efficient Pump sets and its

allied systems in the Pumping Stations along with the technical specifications, designs etc. which are going to be installed;

"Implementation Period" means the period of 8 (eight) months commencing from the Appointed Date till COD;

"INR" or **"Indian Rupees"** or **"Re"** or **"Rs"** or **"Rupees"** means the lawful currency of the Republic of India;

"Insurance Cover" means the aggregate of the maximum sums insured under the insurances taken out by the Concessionaire pursuant to Article 24;

"Intellectual Property" means all patents, trademarks, service marks, logos, get-up, trade names, internet domain names, rights in designs, blue prints, programs and manuals, drawings, copyright (including rights in computer software), database rights, semi-conductor, topography rights, utility models, rights in know-how and other intellectual property rights, in each case whether registered or unregistered and including applications for registration, and all rights or forms of protection having equivalent or similar effect anywhere in the world;

"Key Performance Indicators" means the performance indicators in relation to the operations and maintenance of the Project Facilities;

"LOA" or "Letter of Award" means the formal document confirming the order to the Concessionaire after final negotiation.;

"Lenders" means the financial institutions, banks, multilateral lending agencies, trusts, funds and agents or trustees of debenture holders, including their successors and assignees, who have agreed to guarantee or provide finance to the Concessionaire under any of the Financing Agreements for meeting all or any part of the cost for implementing the Project and who hold *paripassu* charge on the assets, rights, title and interests of the Concessionaire in accordance with the provisions of this Agreement;

"Lenders' Representative" means the person duly authorized by the Lenders to act for and on behalf of the Lenders with regard to matters arising out of or in relation to this Agreement, and includes his successors, assigns and substitutes;

"Material Adverse Effect" means any act or event on the ability of either Party to perform any of its obligations under and in accordance with the provisions of this Agreement and which act or event causes a material financial burden or loss to either Party;

"Month" means calendar month of the Gregorian Calendar.

"O&M" means the operations and maintenance of the Project Facilities along with the TWAD Facilities within the premises of 37 Pumping Stations during the Operations Period and includes all matters connected with or incidental to such operations and maintenance, and provision of services and facilities, in accordance with Clause 17.6 of this Agreement;

"Operations Period" means the period commencing from the COD and ending on the Transfer Date during which the Concessionaire shall be responsible for the operations and maintenance of the Project Facilities;

"Parties" means the parties to this Agreement collectively and **"Party"** shall mean any of the parties to this Agreement individually;

"Partial COD" shall mean the date on which completion certificate(s) are issued by the Authority, upon completion of the installation and commissioning of the Project Facilities, with respect to each Pumping Station any time prior to the Scheduled COD or Actual COD, whichever occurs earlier;

"Performance Security" means a financial guarantee in the appropriate form including a security deposit or bank guarantee or both furnished by the Concessionaire to the Authority for the performance of its obligations under the Concession Agreement;

"Preliminary Notice of Termination" shall have the meaning as set forth in Article-29;

"Project Assets" shall mean the Project Facilities and the TWAD Facilities, present within the premises of the Project Site(s), forming an integral part of the Energy Saving Measures adopted by the Concessionaire;

"Project Cost" shall mean the capital cost incurred for implementing the Project and shall be limited to the lowest of:

(i) the capital cost of the Project, as set forth in the Financial Package and the Financing Agreements;
(ii) the actual capital cost of the Project, incurred towards implementation of the Project and certified by the Authority upon verification of the capital accounts furnished by the Concessionaire till the date of COD.

"Project Facilities" shall mean the 137 energy efficient Pumpsets, 35 Capacitor Banks, 17 Harmonics Filter and 1 Transformer along with the allied electrical and instrumentation equipment installed and commissioned by the Concessionaire across 37 Pumping Stations, as part of the Energy Saving Measures;

"Project Manager" means the person appointed by the Concessionaire and named to perform the duties delegated by the Concessionaire.

"Project Milestones" means the progressive milestones set forth in the Implementation Schedule;

"Project Site" or "Project Site(s)" means collectively the 37 nos. Pumping Stations and individually each Pumping Station, as the case may be, which is under the ownership of TWAD;

"Pumping Station" shall mean the premises under the ownership of TWAD at 37 locations under the 10 Combined Water Supply Schemes (CWSS) in the Coimbatore region, wherein bulk water is presently pumped and stored for onward pumping, storing and distribution to end consumers.

"Quoted Share" shall mean the percentage share in the Actual Energy Savings, not exceeding 70% (seventy percent), as quoted by the Concessionaire in its Financial Proposal.

"Returned Assets" means the portion of TWAD Assets, including mechanical, electrical & instrumentation equipment and the infrastructure facilities including any appurtenances to the water supply pipelines installed by TWAD within the premises of the 37 Pumping Stations, limited to the extent not required by the Concessionaire during the Operations Period, as may be listed and returned to the Authority on a date amicably decided, not later than the Takeover Date by the Concessionaire. These assets do not form an integral part of the Energy Saving Measures proposed by the Concessionaire.

"Right of Way" means the constructive possession of the Project Site(s), together with all way leaves, easements, unrestricted access and other rights of way, howsoever described, necessary for the Concessionaire to perform its duties and obligations pursuant to this Agreement;

"Safety Requirements" shall have the meaning as set forth in Clause 18.1.1;

"Scheduled COD" shall mean the day on which the Implementation Period of 8 (eight) months from the Appointed Date expires;

"Scope of the Project" shall have the meaning as set forth in Article 2.2;

"Scope of Work" shall have the meaning as set forth in Article 2.4;

"Shared Savings" shall mean the savings in monetary terms (in Indian Rupee) computed as per the formula provided under Clause 22.4 of this Agreement.

"Specific Energy Consumption (SEC)"is a measure of actual energy (kWh) consumed per quantity (KL) of Water Pumped (kWh/KL).

"Standard Operating Procedures" means the procedures set out by the Concessionaire in relation to the operations and maintenance of the Project Facilities and the TWAD Facilities as may be approved by the Authority;

"State" means the State of Tamil Nadu;

"**State Government**" shall mean the Government of Tamil Nadu;

"Study Period" means the period of 120 (One Hundred and Twenty) days commencing from the Agreement;

"Suspension" shall have the meaning as set forth in Clause 28.1;

"Takeover Date" shall be the date on which the Concessionaire takes over the operations and maintenance of the Pumping Stations along with the TWAD Facilities present in the Project Site(s) on as-is-where-is basis from the Authority. Takeover Date for each of the 37 Pumping Stations could be different as it is linked to the occurrence of Partial COD.

"Takeover Plan" outlines the process of transferring the operations and maintenance of the Pumping Stations along with the TWAD Facilities present in the Project Site(s) on as-is-where-is basis from the Authority to the Concessionaire on the Takeover Date;

"Taxes" means any Indian taxes including excise duties, customs duties, value added tax, sales tax, local taxes, cess and any impost or surcharge of like nature (whether Central or State) on the goods, materials, equipment and services incorporated in and forming part of the Project charged, levied or imposed by any Government, but excluding any interest, penalties and other sums in relation thereto imposed on any account whatsoever. For the avoidance of doubt, Taxes shall not include taxes on corporate income;

"Technical Specifications" means the specifications to the quality, quantity, capacity and other technical requirements for the installation, operation and maintenance of the Project Facilities, as set forth in this bid document, and any modifications thereof, or additions thereto, as included in the design and engineering for the Project Facilities, as specified under Schedule-12 of this Agreement;

"Termination" means the expiry or termination of this Agreement and the Concession granted hereunder;

"Termination Notice" means the communication issued in accordance with this Agreement by one Party to the other Party terminating this Agreement;

"Termination Payment" means the amount payable by the Authority to the Concessionaire, under and in accordance with the provisions of this Agreement, upon Termination. For the avoidance of doubt, it is expressly agreed that the amount payable shall be subject to the limitations specified in Clause 30.3 of this Agreement;

"Transfer Date" means the date on which this Agreement and the Concession hereunder expires pursuant to the provisions of this Agreement or is terminated by a Termination Notice;

"Total Energy Savings" shall mean the Actual Energy Savings multiplied by the volume of Pumped Quantity of water in each Pumping Station;

"TWAD Assets" means all the existing assets within the premises of the 37 Pumping Stations as on date which shall continue to be termed so, till handing over of the 37 Pumping Stations by the Authority to the Concessionaire on the Takeover Date, which includes the mechanical, electrical & instrumentation equipment and the infrastructure facilities including the water supply pipelines along with any appurtenances to it installed by TWAD.

"TWAD Board" or "TWAD" means Tamil Nadu Water Supply and Drainage Board represented by the Chief Engineer, TWAD, Coimbatore or any such person assigned by the Chief Engineer, TWAD, Coimbatore.

"TWAD Facilities" shall mean the portion of TWAD Assets, including the facilities not limited to infrastructure facilities, mechanical, electrical & instrumentation equipment and water supply pipelines along with any appurtenances installed to it by TWAD within the premises of the 37 Pumping Stations, which are retained by the Concessionaire as part of its Energy Saving Measures, post the Partial COD or the Actual COD, whichever occurs earlier.

"Third Party" means any person, real or juridical, or entity other than the Parties to this Agreement.

1.2 Interpretation

1.2.1. In this Agreement, unless the context otherwise requires,

(a) references to any legislation or any provision thereof shall include amendment or re-enactment or consolidation of such legislation or any provision thereof so far as such amendment or re-enactment or consolidation applies or is capable of applying to any transaction entered into hereunder;

(b) references to laws of India or Indian law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications which have the force of law in the territory of India and as from time to time may be amended, modified, supplemented, extended or re-enacted;

(c) references to a "**person**" and words denoting a natural person shall be construed as a reference to any individual, firm, company, corporation, society, trust, government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and shall include successors and assigns;

(d) the table of contents, headings or sub-headings in this Agreement are for convenience of reference only and shall not be used in, and shall not affect, the installation or interpretation of this Agreement;

(e) the words **"include" and "including**" are to be construed without limitation and shall be deemed to be followed by **"without limitation"** or **"but not limited to"** whether or not they are followed by such phrases;

(f) references to "**development**" include, unless the context otherwise requires, construction, renovation, refurbishing, augmentation, up gradation and other activities incidental thereto, and **"develop"** shall be construed accordingly;

(g) any reference to any period of time shall mean a reference to that according to Indian Standard Time;

(h) any reference to day shall mean a reference to a calendar day;

(i) Reference to a **"business day"** shall be construed as reference to a day (other than a Sunday) on which banks in the State are generally open for business;

(j) Reference to a **"day"** shall be construed as reference to a calendar day (including Sunday);

(k) any reference to month shall mean a reference to a calendar month as per the Gregorian calendar;

(l) references to any date, period or Project Milestone shall mean and include such date, period or Project Milestone as-may be extended pursuant to this Agreement;

(m) any reference to any period commencing **"from"** a specified day or date and **"till"** or **"until"** a specified day or date shall include both such days or dates; provided that if the last day of any period computed under this Agreement is not a business day, then the period shall run until the end of the next business day;

(n) the words having singular meaning shall also include plural and vice versa;

(o) References to any gender shall include the other and the neutral gender;

(p) "**lakh**" means a hundred thousand (100,000) and "crore" means ten million (10,000,000);

(q) **"Indebtedness**" shall be construed so as to include any obligation (whether incurred as principal or surety) for the payment or repayment of money, whether present or future, actual or contingent;

(r) references to the **"winding-up**", **"dissolution", "insolvency", or "reorganisation**" of a company or corporation shall be construed so as to include any equivalent or analogous proceedings under the law of the jurisdiction in which such company or corporation is incorporated or any jurisdiction in which such company or corporation carries on business including the seeking of liquidation, winding-up, reorganisation, dissolution, arrangement, protection or relief of debtors;

(s) save and except as otherwise provided in this Agreement, any reference, at any time, to any agreement, deed, instrument, license or document of any description shall be construed as reference to that agreement, deed, instrument, license or other document as amended, varied, supplemented, modified or suspended at the time of such reference; provided that this Sub-Article (s) shall not operate so as to increase liabilities or obligations of TWAD hereunder or pursuant hereto in any manner whatsoever;

(t) any agreement, consent, approval, authorization, notice, communication, information or report required under or pursuant to this Agreement from or by any Party or TWAD shall be valid and effective only if it is in writing under the hand of a duly authorized representative of such Party or TWAD, as the case may be, in this behalf and not otherwise;

(t) the Schedules and Recitals to this Agreement and the request for proposals forms an integral part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement;

(u) references to Recitals, Articles, Sub-Articles, Provisos or Schedules in this Agreement shall, except where the context otherwise requires, mean references to Recitals, Articles, Sub-Articles, Provisos and Schedules of or to this Agreement; reference to an Annex shall, subject to anything to the contrary specified therein, be construed as a reference to an Annex to the Schedule in which such reference occurs; and reference to a Paragraph shall, subject to anything to the contrary specified therein, be construed as a reference to a Paragraph of the Schedule or Annex, as the case may be, in which such reference appears;

(v) the damages payable by either Party to the other of them, as set forth in this Agreement, whether on per diem basis or otherwise, are mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty (the **"Damages"**); and

(w) Time shall be of the essence in the performance of the Parties' respective obligations. If any time period specified herein is extended, such extended time shall also be of the essence.

1.2.2. Unless expressly provided otherwise in this Agreement, any Documents required to be provided or furnished by the Concessionaire to TWAD shall be provided free of cost and in three copies, and if TWAD is required to return any such Documents with their comments and/or approval, they shall be entitled to retain two copies thereof.

1.2.3. The rule of installation, if any, that a contract should be interpreted against the parties responsible for the drafting and preparation thereof, shall not apply.

1.2.4. Any word or expression used in this Agreement shall, unless otherwise defined or construed in this Agreement, bear its ordinary English meaning and, for these purposes, the General Clauses Act 1897 shall not apply.

1.3 Language

1.3.1. The ruling language of the Contract and communications shall be English.

1.3.2. Singular and Plural

The singular shall include the plural and the plural the singular, except where the context otherwise requires.

1.4 Headings

The headings and marginal notes in the Concession Agreement are included for ease of reference and shall neither constitute a part of the Agreement nor affect its interpretation.

1.5 Entire Agreement

The Concession constitutes the entire agreement among the Authority and the Concessionaire with respect to the subject matter of Contract and supersedes all communications, negotiations and agreements (whether written or oral) that are not included in the Contract.

1.6 Amendment

No amendment or other variation of the Concession Agreement shall be effective unless it is in writing, is dated, expressly refers to the Concession, is approved by the Authority, and is signed by a duly authorized representative of each party hereto.

1.7 Measurements and arithmetic conventions

All measurements and calculations shall be in the metric system and calculations done to 2 (two) decimal places, with the third digit of 5 (five) or above being rounded up and below 5 (five) being rounded down.

1.8 Priority of agreements, articles and schedules

1.8.1. This Agreement, and all other agreements and documents forming part of or referred to in this agreement are to be taken as mutually explanatory and, unless otherwise expressly provided elsewhere in this Agreement, the priority of this Agreement and other documents and agreements forming part hereof or referred to herein shall, in the event of any conflict between them, be in the following order:

(a) this Agreement;
(b) the Bid; and
(c) the RFP.

1.8.2. Subject to provisions of Clause 1.4, in case of ambiguities or discrepancies within this Agreement, the following shall apply:

(a) between two or more Articles of this Agreement, the provisions of a specific Article relevant to the issue under consideration shall prevail over those in other Articles;
(b) between the Articles of this Agreement and the Schedules, the Articles shall prevail and between Schedules and Annexes, the Schedules shall prevail;
(c) between any two Schedules, the Schedule relevant to the issue shall prevail;

(d) between the written description on the Designs and Drawings and the Technical Specifications, the latter shall prevail;

(e) between the dimension scaled from the Designs and Drawings and its specific written dimension, the latter shall prevail; and

(f) between any value written in numerals and that in words, the latter shall prevail.

1.8.3. No relaxation, forbearance, delay or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect or restrict the rights of that party under the Contract, nor shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.

1.8.4. Any waiver of a party's rights, powers or remedies under the Contract must be in writing, must be dated and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

1.9 Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Concession Agreement.

1.10 Joint and several liability

1.10.1. The Consortium Members shall, without prejudice to the provisions of this Agreement, be deemed to be jointly and severally liable to the Authority for the performance of the obligations of the Concessionaire under this Agreement.

ARTICLE-2: SCOPE OF THE PROJECT

2.1 Project Phases

The Project has been divided into the following phases:

a) the initial phase, which shall consist of the Study Period of 120 days from the Agreement Date;
b) the Implementation Period, which shall consist of 8 months starting from the Appointed Date to the Scheduled COD or Partial COD or Actual COD whichever occurs earlier; and
c) the Operations Period, which shall consist of 10 years from the Scheduled COD.

2.2 Scope of the Project

The scope of the Project (the **"Scope of the Project"**) shall consist of the following:

(a) the studies, analysis and assessment of the TWAD Assets and the conditions prevailing in the Project Site(s), as may be conducted by the Concessionaire, during the Study Period;

(b) Procuring 137 nos. of energy efficient Pumpsets, 35 nos. of Capacitor Banks, 17 nos. of Harmonics Filters and 1 no. of Transformer as per the Advance Procurement Plan approved by the Authority;

(c) Installation of the energy efficient Pumpsets with minimal disruption to the pumping activities carried out by the Authority in the Project Site(s), till the Actual COD or Partial COD, whichever occurs earlier;

(d) Installation of all the allied equipment viz. mechanical, electrical and instrumentation equipment at the 37 Pumping Stations, ensuring proper integration with the existing TWAD Facilities at the Project Site(s) during the Implementation Period;

(e) Carrying out the necessary trial runs of the energy efficient Pumpsets installed along with the allied equipment installed at the Project Site(s) and rectify any issues identified prior to the commissioning of the Project Facilities;

(f) Successfully commissioning the Project Facilities installed and seamlessly integrating them with the TWAD Facilities (retained by the Concessionaire)in the Project Site(s) on Actual COD or Partial COD, whichever occurring earlier;

(g) Operating the upgraded Pumping Stations in compliance to the Key Performance Indicators (KPIs) stipulated under **Schedule-7** during the Operations Period, optimizing performance for energy efficiency.

(h) Pumping the Earmarked Quantity of water specified under **Schedule-2**, based on the availability of bulk water source, which is made available by the Authority during the Operations Period.

(i) Undertaking comprehensive maintenance of the Project Facilities, TWAD Facilities and the allied equipment in the Project Site(s) during the Operations Period, including preventive and corrective maintenance to ensure safety, reliability and longevity of the Project Assets.

(j) Implementing a system for monitoring flow (of water), energy consumption and generating regular reports to track the Actual Energy Savings achieved. This data shall be sent to the Authority upon its request and may be used to validate the invoices raised by the Consultant.

(k) Raise invoices based on the Actual Energy Savings achieved across the 37 Pumping Stations as per the formulae and computation methodology specified under **Schedule-16** of this Agreement, in the name of the Authority and receive payments through the Escrow Account.

(l) Providing training to Authority's personnel, 6 months prior to the Transfer Date, regarding the operations and maintenance of the Project Assets and the upgraded Pumping Stations.

(m) Adhering to all applicable regulations, standards, and safety requirements throughout the Concession Period.

(n) Handing over of the Project Assets to the Authority, upon termination or expiry of the Concession, on the Transfer Date.

(o) Performance and fulfilment of all other obligations of the Concessionaire in accordance with the provisions of this Agreement and matters incidental thereto or necessary for the performance of any or all of the obligations of the Concessionaire under this Agreement.

The detailed Scope of Work for the Concessionaire shall be as per Clause 2.4 of this Agreement.

2.3 Activity Chart

The obligations of the Concessionaire under this Agreement shall consist of the following major activities:

A. List of Major Activities:

Activity	Terminology/ Target Date	Time Period
Signing of the Concession Agreement	Agreement Date	28 days from the date of issuing the LoA
Study of TWAD Assets and assessment of actual energy consumption	Study Period	120 days from the Agreement Date
Satisfying the Conditions Precedent by both the Parties	CP Period/ Appointed Date	120 days from the Agreement Date
Financial Closure	Appointed Date	120 days from the Agreement Date
Installation and commissioning of the Project Facilities and seamlessly integrating them with the TWAD Facilities	Implementation Period	8 months from the Appointed Date
Operations and Maintenance of Project Facilities along with the TWAD Facilities	Operations Period	10 years from the Scheduled COD
Pumping Stations ready for commercial operations by the Concessionaire prior to the Scheduled COD.	Partial COD	Any date prior to the Scheduled COD or Actual COD whichever occurs earlier.
Scheduled Commercial Operations	Scheduled COD	8 months from the Appointed Date
Commercial Operation Date (for the Pumping Stations which has not achieved Partial COD)	COD/ Actual COD	8 months from the Appointed Date
Take over of the Project Facilities by the Concessionaire	Takeover Date	Any day within 30 (thirty) days prior to the Partial COD or Actual COD.
Transfer of Project Assets by the Concessionaire to the Authority	Transfer Date	Expiry of the Concession Period or Termination whichever occurs earlier.

B. List of key documents

Document submission	Key Date
Performance Security	Within 28 (twenty-eight) days from the date of issuing the Letter of Award
Submission of Technical Validation Report by the Concessionaire	Within 45 (Forty-five) days from the Agreement Date
Submission of Advance Procurement Plan by the Concessionaire	Within 45 (Forty-five) days from the Agreement Date
Submission of Implementation Plan by the Concessionaire	Within 45 (Forty-five) days from the Agreement Date
Approval of the Technical Validation Report by the Authority	Within 60 (sixty) days from the Agreement Date
Approval of the Advance Procurement Plan by the Authority	Within 60 (sixty) days from the Agreement Date
Approval of the Implementation Plan	Within 60 (sixty) days from the Agreement Date
Operations & Maintenance Plan	Not later than 30 (thirty) days prior to the Actual COD
Standard Operating Procedures and Policy	Along with O&M Plan
Submission of Bi-monthly Progress Reports by the Concessionaire	Within 7 (seven) days after the close of each bi-monthly period during the Implementation Period
Submission of Compliance Reports by the Authority	Once in two months during the Implementation Period.
Submission of Half-yearly Progress Reports by the Concessionaire	Within 7 (seven) days after the close of each half-yearly period during the Operations Period
Submission of O&M Inspection Reports by the Authority	Once in six months during the Operations Period.

2.4 Detailed Scope of Work

The Concessionaire shall implement energy saving measures by supply, installation and commissioning of 137 Energy Efficient Pumpsets, 35 nos. of Capacitor Banks, 17 nos. of Harmonics Filters, 1 no. of Transformer and Operation &Maintenance of 37 Pumping Stations across 10 Water Supply Schemes in Coimbatore region.

The 10 Combined Water Supply Schemes (CWSS) under the Project, which are functioning as 10 Maintenance Divisions in the Coimbatore region are listed in the table below:

Sl. No.	Name of Division	Name of CWSS
1.	Maintenance Division, Salem	CWSS to Attur-Narasingapuram Municipalities, 20 Townpanchayats and 1345 rural habitations in 12 unions of Salem District
2.	Maintenance Division, Edappady	CWSS to Iruppali, 236 Fluoride Affected Habitations and 1237 Wayside Habitations in Salem District
3.	Maintenance Division, Namakkal	CWSS to 2Tps and 318 Rural Habitations in Namakkal District (Phase I)
4.	Maintenance Division, Erode	CWSS to Chennimalai, Perundurai, K.C.Palayam RTP, Chithode, Nasiyanur RTP and 69 other habitations in Chennimalai, Perundurai Union of Erode District-Treatment Plant at Konavaikal
5.	Maintenance Division Erode	Nallampatti TP, Pallapalaym TP, Kanjikoil TP, Pethampalayam TP and 60 Rural Habitations in Perundurai and Bhavani Unions of Erode District
6.	Maintenance Division Erode	CWSS to Doddampalaym and 116 other rural habitations in Sathyamangalam and Bhavanisagar Unions of Erode District - WTP at Bhavanisagar
7.	Maintenance Division Thiruppur	CWSS of Muthur, Kangayam and 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats
8.	Maintenance Division (Pillur)	CWSS to CLPRA
9.	Sewerage Division, Pollachi	Suleeswaranpatty CWSS
10.	Maintenance Division (Siruvani)	Kurichi Kuniamuthur CWSS

2.4.1. **Study Period**

During the Study Period, the Concessionaire shall undertake studies, analysis and assessment as may be required to evaluate the present condition of TWAD Assets in the37 Pumping Stations along with the existing infrastructure and facilities, including the pumping system present within the premises of the 37 Pumping Stations.

2.4.1.1. **Comprehensive Assessment**

2.4.1.1.1. The Concessionaire shall undertake a comprehensive assessment of the TWAD Assets in 37 Pumping Stations along with the existing infrastructure and facilities, which shall include, but not limited to the following activities:

(a) Establish contact with all relevant stakeholders, including any third-party agencies engaged by TWAD and familiarize itself with the operations of the 37 Pumping Stations, including the Standard Operating Procedures (SOPs) followed by TWAD for the day-to-day activities in the Project Site(s).

(b) The Concessionaire shall read, familiarize itself with, and understand the relevant institutional arrangements and Applicable Laws to determine in detail which roles TWAD, as the asset holding and operating entity, plays in the following: (i) Energy Efficiency Regulations and Standards, (ii) Water Supply Regulations and Policies, (iii) Electrical Safety Regulations and Standards, (iv) Contractual and Procurement Regulations and (v) Institutional Arrangements.

(c) The Concessionaire shall undertake a detailed condition assessment of the existing pumping systems for raw water transmission, treated water transmission and boosters if any and assess the efficiency of the existing pumping systems across the 37 Pumping Stations.

2.4.1.1.2. **Technical Assessment of Existing Equipment**

(i) Inspections: Conduct thorough visual inspections of all pumps, motors, transformers, and other relevant equipment to assess their condition, identify signs of wear and tear, and determine their remaining useful life.

(ii) Vibration Analysis: Conduct vibration analysis of pumps and motors to detect imbalances or other mechanical issues that could contribute to energy losses and premature failure.

(iii) Oil Analysis: For larger transformers, conduct oil analysis to assess the condition of the insulating oil and identify any potential problems.

(iv) Maintenance Records Review: Review historical maintenance records to identify recurring issues with equipment and understand the maintenance history of each asset.

2.4.1.1.3. **Electrical System Analysis**

(i) Power Quality Measurement: Measure power quality parameters, including voltage, current, power factor, and harmonic distortion, to assess the impact of the existing electrical system on energy efficiency.

(ii) Harmonic Analysis: Conduct a detailed harmonic analysis to identify the sources and levels of harmonic distortion in the electrical system.

(iii) Capacitor Bank Sizing: Verify the appropriate size and type of capacitor bank to improve power factor and reduce energy losses. Concessionaire can propose latest technologies.

(iv) Harmonic Filter Design: Review the harmonic filter provided in the feasibility report to mitigate harmonic distortion and improve power quality.

(v) Evaluate the existing electrical wiring, grounding, and other electrical components to ensure they meet current standards and can safely handle the increased load.

2.4.1.1.4. **Operational Data Review**

(i) Collect historical operational data, including pumping schedules, flow rates, water demand patterns, and maintenance logs.

(ii) Analyse the collected data to understand how the water supply system is currently operated and identify any opportunities for improvement.

2.4.1.2. **Energy Savings Projections**

(i) Adopt the detailed methodology provided in the Bid Documents for projecting energy savings with respect to the Baseline Energy Consumption.

(ii) Perform detailed calculations to estimate the potential energy savings that can be achieved upon successfully implementing the Project.

(iii) Conduct a sensitivity analysis to assess the impact of different variables (e.g., water demand, energy prices) on the projected energy savings.

The comprehensive assessment shall form the basis for the Implementation Plan to be prepared and submitted by the Concessionaire to the Authority.

2.4.1.3. **Technical Validation Report**

2.4.1.3.1. The Concessionaire shall carry outperformance assessment of the TWAD Assets present across the 37 Pumping Stations and the existing infrastructure and facilities, including the pumping system present within the premises of the 37 Pumping Stations, as a means to validate the Energy Audit Report provided by the Authority.

2.4.1.3.2. Subsequently, the Concessionaire shall prepare and submit to the Authority, a Technical Validation Report (the **"Technical Validation Report"**)within 45 (forty-five) days from the Agreement Date, including but not limited to the following aspects:

(a) confirmation of the Standards and Technical Specifications provided under Schedule-12 of this Agreement;

(b) confirmation of the Earmarked Quantity of water to be pumped on a daily basis with respect to each of the 37 Pumping Stations provided under Schedule-2 of this Agreement;

(c) confirmation of the capacity, type and quantity of the energy efficient Pumpsets to be procured, installed and commissioned as part of the Project provided under Schedule-11 of this Agreement;

(d) suggestions and modifications, if any to the standards and technical specifications for the energy efficient Pumpsets, which are in a way better than the Standards and Technical Specifications proposed by the Authority and shall ensure better performance in terms of energy efficiency.

(e) design and drawings of the energy efficient Pumpsets proposed by the Concessionaire as part of the Energy Saving Measures.

2.4.1.3.3. The Authority upon receipt of the Technical Validation Report, shall evaluate the suggestions and modifications proposed by the Concessionaire, particularly with respect to the design and drawings of the energy efficient Pumpsets and assess the pros and cons of adopting the changes.

2.4.1.3.4. Subsequently, the Authority may approve or reject the suggestions and modifications, as the case may be, in its individual assessment of the benefits to the Authority, **no later than 15 days** from the receipt of the Technical Validation Report.

2.4.1.3.5. In the event that the Authority fails to communicate its decision regarding the suggestions and modifications thereto, in writing to the Concessionaire within 18 (eighteen) days of the receipt of the Technical Validation Report from the Concessionaire, the suggestions and modifications recommended by the Concessionaire in the Technical Validation Report shall be deemed to be approved.

2.4.1.4. **Validation of Baseline Energy Consumption**

The Concessionaire shall validate the indicative Baseline Energy Consumption details provided under **Schedule-1** by undertaking the following activities during the Study Period:

(a) The Concessionaire shall assess the actual energy consumption across the 37 Pumping Stations during the Study Period, by choosing a period of 60 (sixty) days for validation.

(b) The Concessionaire shall deploy adequate manpower to record the energy meter readings during the Study Period and assess the energy consumption data in comparison with the Indicative Baseline Energy Consumption details provided under Schedule-1 of the Concession Agreement.

(c) The Concessionaire shall write to the Authority **within 90 (ninety) days from the Agreement Date**, regarding any major variation/ deviation between the energy consumption data recorded and analysed by it and the Baseline Energy Consumption details provided by the Authority in the DCA.

(d) The Authority shall verify such variations/ deviations from the Baseline Energy Consumption indicated by the Concessionaire and shall incorporate

necessary changes to the Baseline Energy Consumption details provided under Schedule-1 to the DCA with respect to the 37 Pumping Stations.

(e) The Authority, on reasonable grounds, shall accept the variations/ deviations from the Baseline Energy Consumption indicated by the Concessionaire and shall not withhold any approval or any changes to be incorporated in the Indicative Baseline Energy Consumption details provided by them, in any case **not later than 120 (one hundred and twenty) days from the Agreement Date**.

(f) The Authority and the Concessionaire shall sign-off on the Baseline Energy Consumption details, as updated/ revised by the Authority (the **"Final Baseline Energy Consumption"**) and the same shall be appended to the Concession Agreement as Schedule-21, which shall form part of the Concession Agreement executed by the Parties.

2.4.1.5. **Advance Procurement Plan**

2.4.1.5.1. The Concessionaire shall, no later than 45 (forty five) days from the Agreement date, submit to the Authority the draft Advance Procurement Plan.

2.4.1.5.2. The Advance Procurement Plan shall provide for all such items which shall be procured to ensure the Concessionaire is able to meet the Project Milestones during the Implementation Period.

2.4.1.5.3. Within 15 (fifteen) days after receiving the Advance Procurement Plan, the Authority shall review it and provide comments on it, approve or suggest revisions to the draft Advance Procurement Plan.

2.4.1.5.4. In the event that the Authority fails to approve the draft Advance Procurement Plan or suggest any revisions thereto in writing to the Concessionaire within 18 (eighteen) days after receiving the Advance Procurement Plan, the Advance Procurement Plan submitted by the Concessionaire shall be deemed to be approved.

2.4.1.5.5. In the event the Concessionaire agrees with the changes proposed by the Authority to the draft Advance Procurement Plan under Clause 2.4.1.5.4, the Concessionaire shall resubmit the draft Advance Procurement Plan within 7 (seven) days of the receipt of the changes proposed by the Authority and the Authority shall, subject to satisfactory incorporation of the changes suggested by them, approve the plan within 7 (seven) days of receipt of the revised draft.

2.4.1.5.6. In the event the Concessionaire disagrees with the changes suggested by the Authority to the draft Advance Procurement Plan under Clause 2.4.1.5.4, the Authority and the Concessionaire shall meet to discuss and resolve these issues.

2.4.1.5.7. Once the Authority and the Concessionaire reach agreement on the draft Advance Procurement Plan, or if the draft Advance Procurement Plan is approved/ deemed to be approved as provided in Clause 5.1.7, TWAD and the Concessionaire shall

sign off on the finalized version of the Advance Procurement Plan (the **"Advance Procurement Plan"**).

2.4.1.6. **Implementation Plan**

The draft Implementation Plan to be prepared and submitted by the Concessionaire within 45 (forty-five) days from the Agreement Date shall be in line with the guidelines provided under **Schedule-3** of this Agreement.

(a) The draft Implementation Plan shall provide a roadmap for the implementation of the Project. The Concessionaire while formulating the Implementation Plan may suggest new technologies/ ideas which will improve the performance of the proposed Project.

(b) TWAD shall review Implementation Plan and communicate in writing the comments and suggested amendments, if any, to the draft as it considers appropriate, within 15 (fifteen) days of receipt of the draft from the Concessionaire.

(c) The Implementation Plan shall include an Implementation Schedule with the progressive Project Milestones to be achieved by the Concessionaire during the Implementation Period, as indicated in the Schedule-15 of this Agreement.

(d) In the event that the Authority fails to approve the Implementation Plan or suggest any revisions thereto in writing to the Concessionaire within 18 (eighteen) days of the receipt of the Implementation Plan from the Concessionaire, the Implementation Plan submitted by the Concessionaire shall be deemed to be approved.

2.4.2. **Implementation Period**

The scope of work during the Implementation Period covers:

2.4.2.1. Supply and delivery/ receipt of suitable energy efficient Pumpsets and associated items to the Project Site(s) in line with the Advance Procurement Plan, unloading, handling and storage at the Project Site(s), complete installation including cement concrete foundation and supporting steel structure wherever necessary, final check-up, painting, performance testing and commissioning of the energy efficient Pumpsets and related electrical equipment, instrumentation system and other required accessories as per the Standards and Technical Specifications on turnkey basis.

2.4.2.2. Supply and/ or erection of material which have not been specifically mentioned in the Standards and Technical Specifications, but are at most necessary to complete the work for trouble free, efficient operation and guaranteed performance of the Projects hall be deemed as included within the scope and shall be provided by Concessionaire without any extra cost to the Authority.

2.4.2.3. **Concessionaire to return the TWAD Assets not forming part of its Energy Saving Measures**

2.4.2.3.1. The Concessionaire shall make a list of the TWAD Assets along with the value of the corresponding assets, taken out from the list provided by the Authority under Schedule-18 of this Agreement, which are not forming an integral part of the Energy Saving Measures proposed by the Concessionaire and are not required by the Concessionaire during the Operations Period.

2.4.2.3.2. The list shall be prepared and submitted by the Concessionaire as per the format provided under Schedule-19 of this Agreement and shall include the mechanical, electrical & instrumentation equipment and the infrastructure facilities including any appurtenances to the water supply pipelines installed by TWAD within the premises of the 37 Pumping Stations, which are not required by the Concessionaire during the Operations Period.

2.4.2.3.3. The Concessionaire shall submit the list to the Authority, 3 (three) months prior to the Actual COD or the Scheduled COD whichever is earlier, indicating their intent to return those assets to the Authority.

2.4.2.3.4. The Authority and the Concessionaire shall arrive at a consensus on the list, not later than 45 (forty-five) days from its receipt by the Authority and if required may take up joint inspection to the Project Site(s) to discuss and finalise the list.

2.4.2.3.5. The Concessionaire shall handover the TWAD Assets and the Authority shall takeover possession of the TWAD Assets included in the Final list(the **"Returned Assets"**) on a date mutually agreed between the Parties, in any case not later than the Takeover Date.

2.4.2.3.6. Authority shall ensure that the Returned (TWAD) Assets included in the Final list are removed from the Project Site(s).

2.4.2.3.7. Notwithstanding anything contained in this Agreement, the Concessionaire shall not be held responsible for the Returned (TWAD) Assets not removed/ cleared from the Project Site(s) by the Authority, any time after its takeover by the Authority and in no case, any time later than the Takeover Date.

2.4.2.4. **Operations & Maintenance Plan**

2.4.2.4.1. The Concessionaire shall prepare the Operations and Maintenance Plan (O&M Plan) describing in detail how the Concessionaire shall improve energy savings in a cost effective and sustainable manner to meet out the Key Performance Indicators during the Operations Period. The draft O&M Plan shall be submitted no later than 30 (thirty) days prior to the Actual COD.

2.4.2.4.2. The draft O&M Plan shall be in line with the guidelines provided under **Schedule-3** of this Agreement.

2.4.2.4.3. TWAD shall review the O&M Plan and communicate in writing the comments and suggested amendments, if any, to the draft as it considers appropriate within 15 (fifteen) days of receipt of the draft from the Concessionaire.

2.4.2.4.4. In the event that the Authority fails to approve the O&M Plan or suggest any revisions thereto in writing to the Concessionaire within 18 (eighteen) days of the receipt of the O&M Plan from the Concessionaire, the draft O&M Plan submitted by the Concessionaire shall be deemed to be approved.

2.4.3. **Operations Period**

During the Operations Period, the Concessionaire shall undertake the following activities but not limited to the following for the successful operations and maintenance of the Project.

2.4.3.1. **Operations and Maintenance of Project Facilities along with TWAD Facilities**

2.4.3.1.1. The Concessionaire shall undertake operations and maintenance of the 37 Pumping Stations along with the infrastructure and facilities present therein from the Takeover Date till the Transfer Date.

2.4.3.1.2. The Concessionaire shall be completely responsible for the operations and maintenance of the Project Facilities installed in the Project Site(s), including attending to the repairs during the Operations Period.

2.4.3.1.3. Any repair work arising with respect to the TWAD Facilities, limited only to the extent of 10% (ten percent) of the value of the respective TWAD Facilities listed under the Schedule-20 of this Agreement, towards attending to such repair works shall be termed as minor repairs (the **"Minor Repairs"**).

2.4.3.1.4. Any repair work arising with respect to the TWAD Facilities, amounting more than 10% (ten percent) of the value of the respective TWAD Facilities listed under the Schedule-20 of this Agreement, towards attending to such repair works shall be termed as major repairs (the **"Major Repairs"**)

2.4.3.1.5. The Concessionaire shall be responsible for the operations and maintenance of the TWAD Facilities retained by the Concessionaire in the Pumping Stations as part of its Energy Saving Measures, only to the extent of attending to the Minor Repairs.

2.4.3.1.6. All Major Repairs with respect to the TWAD Facilities shall be the responsibility of the Authority and shall be dealt in accordance with the provisions for Change of Scope detailed out under Article-16 of this Agreement.

2.4.3.2. **Continuous Energy Monitoring during Operations**

The Concessionaire shall undertake the following activities as part of monitoring the energy consumption, post the implementation of the Energy Saving Measures:

(i) Detailed Metering: Install calibrated meters to measure energy consumption at each Pumping Station. This should include measuring both active power (kW) and reactive power (KVAR) to understand power factor and identify opportunities for improvement.

(ii) Equipment-Specific Measurement: Wherever possible, measure energy consumption of individual pumps and motors to identify high energy usage by specific pumps than the rated average and repair the pumps prior to any possible damages, particularly to the coil.

(iii) Operational Data Logging: Log operational data (flow rates, pressure, pump running hours) concurrently with energy consumption data to correlate energy use with operational parameters.

(iv) Data Analysis: Analyse the collected data to identify patterns in energy consumption, peak demand periods, and areas of inefficiency.

(v) Thermographic Surveys: Conduct thermographic surveys of electrical equipment (transformers, switchgear, etc.) to identify hotspots and potential issues that could contribute to energy losses or equipment failure.

2.4.4. **Terms and Conditions specified in the RFP**

All the terms and conditions specified under Section-7 of the RFP shall be deemed to be part of the Detailed Scope of Work specified under this Clause-2.4.

ARTICLE-3: GRANT OF CONCESSION

3.1 The Concession

3.1.1. Subject to and in accordance with the provisions of this Agreement, Applicable Laws and Applicable Permits, the Authority hereby appoints the Concessionaire and grants an exclusive right and power to undertake implementation of the Project, operations and maintenance of the Project Facilities along with the TWAD Facilities within the Project Site(s) in conformity with the Implementation Plan and the Key Performance Indicators (the "**Concession**").

3.1.2. The Concession is hereby granted for a period of 10 (ten) years and 8 (eight) months (hereinafter referred to as the **"Concession Period"**) commencing from the Appointed Date, during which the Concessionaire is authorized to implement the Project and to operate and maintain the Project Facilities along with the TWAD Facilities in accordance with the provisions hereof. Provided that, in the event of Termination, the Concession Period shall mean and be limited to the period commencing from the Appointed Date and ending on the Termination Date.

3.1.3. Subject to and in accordance with the provisions of this Agreement, an exclusive Concession is hereby granted which shall oblige or entitle (as the case may be) the Concessionaire to:

a. have the Right of Access to the Project Site(s) during the Study Period;

b. enjoy the Right of Way to the Project Site(s) during the Implementation Period for the purpose of and to the extent conferred by the provisions of this Agreement;

c. enjoy the complete/ full Right of Way to the Project Site(s) during the Operations Period;

d. obtain finance and perform the Scope of Work to execute the Project;

e. install, conduct trial runs and commission the Project Facilities during the Implementation Period;

f. manage, operate and maintain the Project Facilities along with the TWAD Facilities and the Project Site(s) during the Operations Period;

g. perform and fulfil all of the Concessionaire's obligations under and in accordance with this Agreement;

h. save as otherwise expressly provided in this Agreement, bear and pay all costs, expenses and charges in connection with or incidental to the performance of the obligations of the Concessionaire under this Agreement;

i. neither assign, transfer or sublet or create any lien or encumbrance on this Agreement, or the Concession hereby granted or on the whole or any part of the Project Facilities nor transfer, lease or part possession thereof, save and

except to the Lenders and the Concessionaires as expressly permitted by this Agreement without prior approval of the Authority;

3.2 Acceptance of Concession

3.2.1. The Concessionaire hereby accepts the Concession and agrees to implement the Project in accordance with the terms and conditions set forth herein and to perform/ discharge all of its obligations in accordance with the terms and conditions set forth in this Agreement.

3.3 Extension of Concession Period

3.2.2. During the Concession Period, if the total Earmarked Quantity of water is not pumped by the Concessionaire due to non-availability of water or due to source depletion or any reasons attributable to the Authority, the Authority shall extend the Concession Period (the **"Extended Concession Period")** on a pro-rata basis with respect to the reduction in the quantum of Earmarked Quantity of water for 37 Pumping Stations, stipulated by the Authority for the Concession Period (10 years).

3.2.3. The Guaranteed Energy Savings by the Concessionaire during the Extended Concession Period shall be 20% (twenty percent) and all the provisions of this Agreement, including computation of Shared Savings, shall apply mutatis-mutandis for the Extended Concession Period.

ARTICLE-4: CONDITIONS PRECEDENT

4.1 Conditions Precedent (CP)

4.1.1. Save and except as expressly provided in Articles 4, 5, 6, 7, 8, 9, 10, 26,37and 38, or unless the context otherwise requires, the respective rights and obligations of the Parties under this Agreement shall be subject to the satisfaction in full of the conditions precedent specified in this Clause 4.1 (the **"Conditions Precedent"**).

4.1.2. The Conditions Precedent specified in this Agreement, are required to be satisfied within a period of 120 (one hundred and twenty) days from the Agreement Date(the **"Conditions Precedent Period"** or the **"CP Period"**), either by the Concessionaire or by the Authority and/or by both the Parties, as the case may be.

4.1.3. The Conditions Precedent required to be satisfied by the Authority shall be deemed to have been fulfilled when the Authority shall have:

(a) provided Right of Access to the Project Site(s) to the Concessionaire for conducting initial study of the existing TWAD Assets and undertaking condition assessment at the Project Site(s) within3 (three) days from the Agreement date;

(b) made available within3 (three) days from the Agreement Date, the following database to the Concessionaire:

(i) Energy consumption data across 37 Pumping Stations in the last completed financial year;

(ii) Technical data pertaining to the existing equipment in the Project Site(s) such as pumps, motors, panel boards, switches and other electrical equipment;

(iii) Information about the operations of each of the 37 Pumping Stations in the last completed financial year as recorded in the log book;

(iv) Water quality data (latest month); and

(v) Energy Audit Report for the year 2023-24 (complete report) prepared and submitted to the Authority by a third-party consultant for all the 37 Pumping Stations.

(c) approved Technical Validation Report within 60 (sixty) days from the Agreement Date, upon its submission by the Concessionaire;

(d) approved the Advance Procurement Plan within 60 (sixty) days from the Agreement Date, upon its submission by the Concessionaire;

(e) approved the Implementation Plan within 60 (sixty) days from the Agreement Date, upon its submission by the Concessionaire;

(f) signed-off the Final Baseline Energy Consumption details with the Concessionaire;

(g) executed the Escrow Agreement and made operational the Escrow Account opened with the Escrow Bank; and

(h) executed the Substitution Agreement as may be required under the Financing Agreements.

4.1.4. The CP Period shall be extended by the actual number of days by which the fulfilment of Clause 4.1.3 (a), (b) and (c)are delayed by TWAD.

4.1.5. The Conditions Precedent required to be satisfied by the Concessionaire shall be deemed to have been fulfilled when the Concessionaire shall have:

(a) secured the Right of Access to the Project site(s) from the Authorityfor conducting initial study of the existing TWAD Assets and the existing condition at the Project Site(s) within3 (three) daysfrom the Agreement date;

(b) submitted the Technical Validation Report within 45 days and obtained approval of the report by the Authority within 60 (sixty) days from the Agreement Date.

(c) submitted the Advance Procurement plan within 45 (forty-five) days and obtained approval of the report by the Authority within 60 (sixty) days from the Agreement Date.

(d) submitted the Implementation Plan within 45 (forty-five) days and obtained approval of the plan by the Authority within 60 (sixty) days from the Agreement Date;

(e) placed order with reputed Original Equipment Manufacturers (OEMs) for purchase of the Project Facilities as per the approved Advance Procurement Plan and received the Purchase Orders;

(f) signed-off the (updated/ revised) Baseline Energy Consumption details along with the Authority;

(g) executed the Escrow Agreement and made operational the Escrow Account opened with the Escrow Bank;

(h) executed and procured execution of the Substitution Agreement, as may be required under the Financing Agreements; and

(i) delivered to the Authority {from the Consortium Members, their respective} confirmation of the correctness of the representations and warranties set forth in Sub- Clause (k), (l) and (m) of Clause 7.1 of this Agreement from the Agreement date.

4.1.6. Each Party shall make all reasonable endeavours to satisfy the Conditions Precedent within the time stipulated and shall provide the other Party with such reasonable cooperation as may be required to assist that Party in satisfying the Conditions Precedent for which that Party is responsible. Subject only to payment of Damages, it is agreed between the Parties that the obligation to fulfil each parties' Conditions Precedent is an independent obligation of the respective Party.

4.1.7. The Parties shall notify each other in writing at least once in 15 (fifteen) days on the progress made in satisfying the Conditions Precedent. Each Party shall promptly inform the other Party when any Condition Precedent for which it is responsible has been satisfied.

4.2 Damages for delay by TWAD

In the event that (i) TWAD does not procure fulfilment of any or all of the Conditions Precedent set forth in Clause 4.1.2 within the period specified in respect thereof, and (ii) the delay has not occurred as a result of breach of this Agreement by the Concessionaire or due to Force Majeure, TWAD shall pay to the Concessionaire Damages in an amount calculated at the rate of 0.1% (zero point one per cent) of the Performance Security for each day's delay until the fulfilment of such Conditions Precedent, subject to the maximum limit equal to 10% of the aggregate amount of the Performance Security and upon reaching such limit, the Concessionaire may, in its sole discretion terminate the Agreement. The Damages payable hereunder shall be the sole remedy available to the Concessionaire for delay by TWAD.

Provided further that in the event of delay by the Concessionaire in procuring fulfilment of the Conditions Precedent specified in Clause 4.1.3, no Damages shall be due or payable by TWAD under this Clause 4.2 until the date on which the Concessionaire shall have procured fulfilment of the Conditions Precedent specified in Clause 4.1.3.

4.3 Damages for delay by the Concessionaire

In the event that (i) the Concessionaire does not procure fulfilment of any or all of the Conditions Precedent set forth in Clause 4.1.3 within the period specified in respect thereof, and (ii) the delay has not occurred as a result of failure to fulfil the obligations under Clause 4.1.2 or other breach of this Agreement by TWAD, or due to Force Majeure, the Concessionaire shall pay to TWAD Damages in an amount calculated at the rate of 0.2% (zero point two percent) of the Performance Security for each day's delay until the fulfilment of such Conditions Precedent. Provided, however, that the Damages payable hereunder shall be subject to the maximum limit equal to 10% of the aggregate amount of the Performance Security and upon reaching such limit, TWAD may, in its sole discretion and subject to the provisions of Clause 9.2, terminate the Agreement. Provided further that in the event of delay by TWAD in

procuring fulfilment of the Conditions Precedent specified in Clause 4.1.2, no Damages shall be due or payable by the Concessionaire under this Clause 4.3 until the date on which TWAD shall have procured fulfilment of the Conditions Precedent specified in Clause 4.1.2.

4.4 Deemed Termination upon delay

Without prejudice to the provisions of Clause 4.2 and 4.3, and subject to the provisions of Clause 9.2, the Parties expressly agree that in the event the conditions precedent in Clause 4.2 and 4.3 are not completed, for any reason whatsoever, before the 1st (first) anniversary of the Agreement Date or the extended period provided in accordance with this Agreement, all rights, privileges, claims and entitlements of the Concessionaire under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Concessionaire, and the Concession Agreement shall be deemed to have been terminated by mutual agreement of the Parties. Provided, however, that in the event the non-occurrence of the Agreement Date is for reasons attributable to the Concessionaire, the Performance Security, if any, of the Concessionaire shall be encashed and appropriated by TWAD as Damages thereof.

ARTICLE-5: OBLIGATIONS OF THE CONCESSIONAIRE

5.1 General Obligations of the Concessionaire

5.1.1. Subject to and on the terms and conditions of this Agreement, the Concessionaire shall, at its own cost and expense, procure implementation of the Project and undertake the operation and maintenance of the Project and observe, fulfil, comply with and perform all its obligations set out in this Agreement or arising hereunder.

5.1.2. The Concessionaire shall obtain necessary approvals from the competent authority in the performance of its obligations under this Agreement.

5.1.3. Subject to the provisions of Clauses 5.1.1 and 5.1.2, the Concessionaire shall discharge its obligations in accordance with Good Industry Practice and as a reasonable and prudent person.

5.1.4. The Concessionaire shall comply with all Applicable Laws and Applicable Permits (including renewals as required) in the performance of its obligations under this Agreement.

5.2 Obligations of the Concessionaire prior to the Appointed Date

5.2.1. The responsibilities and duties of the Concessionaire shall include the following, in addition to and without prejudice to other obligations under this Agreement:

(a) to appoint its representative as the Project Director (the **"Project Director"**), within 30 (thirty) days from the Agreement Date, duly authorized to deal with the Authority in respect of all matters under or arising out of or relating to this Agreement;

(b) to submit to TWAD its Technical Validation Report within 45 (forty-five) days from the Agreement Date;

(c) to submit to TWAD its Advance Procurement Plan within 45 (forty-five) days from the Agreement Date;

(d) to submit to TWAD its Implementation Plan within 45 (forty-five) days from the Agreement Date;

(e) to obtain due permits, necessary approvals, clearances and sanctions from the competent authorities for all activities or infrastructure facilities and/ or utilities required at the Project Site(s);

(f) to operate and maintain the Project Facilities and Project Site(s) at all times as per Article-15 in conformity with this Concession Agreement;

5.2.2. Undertake, do, and perform all such acts, deeds and things as may be necessary or required before commencement of implementation under and in accordance with the Implementation Plan, this Agreement, Applicable Laws, and Applicable Permits.

5.2.3. Subject to and on the terms and conditions of this Agreement, the Concessionaire shall, at its own cost and expense, procure finance for implementing the Project and to undertake the operations and maintenance of the Project Facilities along with the TWAD Facilities and observe, fulfil, comply with and perform all its obligations set out in this Agreement or arising hereunder.

5.3 Obligations of the Concessionaire during Implementation Period

5.3.1. The Concessionaire shall undertake supply, installation, testing, and commissioning of 137 Energy Efficient Pumpsets, 35 nos. of Capacitor Banks, 17 nos. of Harmonics Filters and 1 no. Transformer in conformity with the Standards and Technical Specifications set forth under Schedule-12 and the Implementation Plan.

5.3.2. During the Implementation Period, the responsibilities and duties of the Concessionaire shall include the following, in addition to and without prejudice to other obligations under this Agreement:

(a) to implement the Project without incurring any damages to the TWAD Assets in the Project Site(s);

(b) to not hinder the regular operations and maintenance activities undertaken by the Authority;

(c) to ensure that the Pumped Quantity of water does not fall below 3% (three percent) of the Earmarked Quantity for the respective Pumping Stations, due to the works undertaken by the Concessionaire including the trial run of the Project Facilities carried out at the Project Site(s);

(d) to adhere to the timelines and the Project Milestones agreed upon by the Parties as part of the Implementation Schedule;

(e) to make arrangements in coordination with the Authority for safe storage of the Project Facilities delivered/ received on the Project Site(s), within the premises of the Pumping Stations, till the Takeover Date;

(f) to submit to TWAD its Operations and Maintenance Plan not later than 30 (thirty) days prior to the Actual COD;

5.3.3. Save and except as otherwise provided in this Agreement or Applicable Laws, as the case may be, the Concessionaire shall, in discharge of all its obligations under this Agreement, conform with and adhere to Good Industry Practice at all times.

5.3.4. The Concessionaire shall, at its own cost and expense, in addition to and not in derogation of its obligations elsewhere set out in this Agreement:

(a) make, or cause to be made, necessary applications to the relevant government instrumentalities with such particulars and details as may be required for

obtaining Applicable Permits, and obtain and keep in force and effect such Applicable Permits in conformity with the Applicable Laws;

(b) perform and fulfil its obligations under the Financing Agreements;

(c) ensure and procure that the sub-contractors of the Concessionaire shall comply with all Applicable Permits and Applicable Laws in the performance by them of any of the Concessionaire's obligations under this Agreement.

5.3.5. The Concessionaire shall remedy any and all loss or damage to the TWAD Assets during the Operation Period as per the provisions of this Agreement, save and except to the extent that any such loss or damage shall have arisen on account of any default or neglect of the Authority or on account of a Force Majeure.

5.3.6. The Concessionaire agrees and undertakes that the installation and commissioning shall be completed in accordance with the Implementation Schedule and Project Milestones provided in the Implementation Plan.

5.4 Obligations of the Concessionaire towards taking over of the Project Site(s) for Operations & Maintenance

5.4.1. No later than thirty (30) days prior to the Actual COD or Partial COD, whichever occurs earlier, the Concessionaire shall prepare and submit to the Authority, a list of facilities and assets including mechanical, electrical & instrumentation equipment and the infrastructure facilities including any appurtenances to the water supply pipelines installed by TWAD within the premises of the 37 Pumping Stations, limited to the extent not required by it during the Operations Period.

5.4.2. The Concessionaire, upon approval of the list by the Authority, shall dismantle and handover such facilities and assets and the Authority shall takeover the facilities and assets, which shall be termed as the Returned Assets, on a date amicably decided by the Parties, but in no case later than the Takeover Date.

5.4.3. No later than thirty (30) days prior to the Actual COD or Partial COD, whichever occurs earlier, the Concessionaire shall provide to the Authority a draft Takeover Plan for the efficient takeover of the operations and maintenance of the Project Site(s) including the TWAD Facilities from the Authority on the Takeover Date.

5.4.4. The Takeover Date shall be any day prior to the Partial COD or Actual COD, whichever occurs earlier, but in no case be later than the Actual COD.

5.4.5. The Takeover Plan shall be mutually agreed between the Parties and the Authority shall in accordance to such Takeover Plan, handover the Project Site(s) along with the Project Facilities and TWAD Facilities, present therein on as-is-where-is basis to the Concessionaire.

5.5 Obligations of the Concessionaire during the Operations Period

5.5.1.1. The Concessionaire shall ensure efficient operations, maintenance and performance monitoring of 37 Pumping Stations across 10 Water Supply Schemes in accordance with the Key Performance Indicators (KPIs) stipulated under Schedule-7 of this Agreement.

5.5.1.2. The Concessionaire shall ensure that all pumping stations achieve and maintain optimal efficiency levels, reduced energy consumption while pumping the Earmarked Quantity of water on a daily basis.

5.5.1.3. The Concessionaire shall submit energy savings report combined for 37 nos. Pumping Stations along with the invoice once in two months to the Authority, providing detailed insights into energy saved, operational improvements, and compliance with the agreed KPIs.

5.5.2. Standard Operating Procedures (SOPs)

The Concessionaire shall prepare and submit a booklet with the Standard Operating Procedures (SOPs) (the **"Standard Operating Procedures"**) for the operations and maintenance of the Pumping Stations including the Project Facilities, 3 (three) months prior to the Transfer Date.

5.6 Obligations of the Concessionaire towards Change in Ownership

5.6.1. The Concessionaire shall not undertake or permit any Change in Ownership, except with the prior written approval of the Authority.

5.6.2. Notwithstanding anything to the contrary contained in this Agreement, the Concessionaire agrees and acknowledges that:

(a) all acquisitions of the share in the Consortium/ JV by an acquirer, either by himself or with any person acting in concert, directly or indirectly, including by transfer of the direct or indirect legal or beneficial ownership or control of any share, in aggregate of 25% (twenty five per cent) or more in the Consortium/ JV;

shall constitute a Change in Ownership requiring prior written approval of the Authority, the decision of the Authority in this behalf being final, conclusive and binding on the Concessionaire, and undertakes that it shall not give effect to any such acquisition of share in the Consortium/ JV without such prior approval of the Authority. For the avoidance of doubt, it is expressly agreed that approval of the Authority hereunder shall be limited to public interest perspective, and the Authority shall endeavor to convey its decision thereon expeditiously. It is also agreed that the Authority shall not be liable in any manner on account of grant or otherwise of such approval and that such approval or denial thereof shall not in any manner absolve the Concessionaire from any liability or obligation under this Agreement.

5.6.3. Any Change in Ownership pursuant to the Clauses 5.6.1 and 5.6.2 above shall be as indicated in the table below and with the prior approval of the Authority:

Entity	**Shareholding in the Joint Venture prior to signing of Concession Agreement**	**Till COD**	**After COD till the end of Concession Period**
Consortium	100% by the Member Firms of the Consortium	No Change in shareholding permitted	Consortium to collectively hold 100% in the JV.
Lead Member	At least 51% to be held by the lead member of the consortium	No Change in shareholding permitted	At Least 51% to be held by the Lead Member of the consortium
Other Member Firms	**At Least 26%** to be held by the Member Firm whose credentials have been evaluated for its qualification against the Technical Qualification Criteria specified under (i) (b) or (ii) (b) of the RFP.	No Change ©n shareholding permitted	**At Least 26%** to be held by the Member Firm whose credentials have been evaluated for its qualification against the technical qualification criteria specified under (i) (b) or (ii) (b) of the RFP.

ARTICLE-6: OBLIGATIONS OF THE AUTHORITY

6.1 Obligations of the Authority

6.1.1. The Authority shall, at its own cost and expense undertake, comply with and perform all its obligations set out in this Agreement or arising hereunder.

6.1.2. Payment of TNPDCL/ TNEB charges at any point of time during the Agreement Period shall be the sole responsibility of the Authority.

6.1.3. **Continued Operations & Maintenance by the Authority till COD**

6.1.3.1. Until COD, either Partial COD or Actual COD as the case may be, TWAD shall continue to operate and maintain the 37 Pumping Stations by deputing requisite manpower at the Project Site(s).

6.1.3.2. TWAD shall provide space, within the premises of the Project Site(s), as may be required by the Concessionaire for storage of materials, including Pumpsets procured by the Concessionaire.

6.1.3.3. TWAD shall facilitate the necessary arrangements done by the Concessionaire at its own cost and expense for safe storage of the procured material in the space provided by TWAD at the Project Site(s).

6.1.3.4. TWAD shall provide necessary facilitation to the Concessionaire during the Implementation Period for material movement to and from the Project Sites(s) for completion of works related to installation and commissioning.

6.1.4. **Obligations of TWAD towards streamlining TNPDCL/ TNEB Billing**

6.1.4.1. Take up with TNPDCL for changing the billing cycle for all the 37 Pumping Stations in a manner that it falls within the first 5 calendar days in a same calendar month;

6.1.4.2. Take up with TNPDCL for installing smart energy meters at all 37 Pumping Stations, if not installed already, at the own cost and expenses of TWAD prior to Actual COD;

6.1.4.3. Ensure that the change in billing cycle for all 37 Pumping Stations by TNPDCL is completed prior to the Actual COD.

6.1.4.4. In case there is a delay, the same shall be accounted as delay by TWAD and TWAD agrees to compensate the Concessionaire for the delay at the rate of 0.1% (zero point one percent) of the Performance Security amount per day, payable on a weekly basis.

6.1.4.5. Such compensation for delay shall be applicable only to the extent of 10% of the Performance Security, beyond which the same shall be dealt as Event of Default by the Authority and the Concession Agreement shall be liable for Termination.

6.1.5. TWAD agrees to provide support to the Concessionaire and undertakes to observe, comply with and perform, subject to and in accordance with the provisions of this Agreement and Applicable Laws, the following:

(d) upon written request from the Concessionaire, and subject to the Concessionaire complying with Applicable Laws, provide recommendation in the name of the Concessionaire in achieving Financial Close for the Project and in procuring Applicable Permits required from any Government agency for implementation of the Project;

(e) upon written request from the Concessionaire, on a best effort basis provide reasonable assistance to the Concessionaire in obtaining access to all necessary infrastructure facilities within the Project Site(s) and provide recommendation in the name of the Concessionaire for obtaining separate access (apart from TWAD's access) to necessary utilities, as may be required for performing the Scope of Work during, the Implementation Period and the Operations Period;

(f) procure that the performance of the Project shall not be obstructed by any Government agency or persons claiming through or under it, except for reasons of Emergency or as mandated by law;

(g) Subject to and in accordance with Applicable Laws, grant to the Concessionaire rights to regulate use of the Project Facilities;

(h) Not do or omit to do any act, deed or thing which may in any manner is in violation of any of the provisions of this Agreement; and

(i) support, cooperate with and facilitate the Concessionaire in the operation and maintenance of the Project Facilities and the TWAD Facilities and operation of the Project in accordance with the provisions of this Agreement.

(j) TWAD shall handover / ensure handover of the Project Facilities to the Concessionaire in the Project Site(s)without encumbrance on and from the COD, either Partial COD or Actual COD whichever occurs earlier.

(k) TWAD shall ensure that all contracts between TWAD / other third-party agencies and Concessionaires in respect of the Project Facilities in the Project Site(s)shall be terminated / replaced as mutually agreed between the Parties on or prior to the COD, either Partial COD or Actual COD whichever occurs earlier.

(l) give prompt written notice to the Concessionaire of:

(aa) the commencement of any dispute or proceeding between TWAD and/or any person which, if determined adversely to TWAD, as the case may be, could reasonably be expected to have a material adverse effect on TWAD's operations and/or financial condition or the performance by TWAD of its obligations hereunder,

(bb) the occurrence of any event of default in connection with any agreement of TWAD, or any event which, upon a lapse of time or the giving of notice or both, would become an event of default under any such agreement, and

(cc) the occurrence of any other event which has or could reasonably be expected to have a material adverse effect on TWAD's operations and/or financial condition, the performance by each Party of its obligations hereunder.

(iv) give notice to the Concessionaire of any major defect, damage or alteration to any of the equipment, machinery or assets being part of or associated with the Project Facilities.

6.2 Obligations of the Authority towards handing over of the Project Site(s)

(i) TWAD shall designate a senior officer as its transition coordinator (the **"Transition Coordinator"**) at the time of transition and takeover of the Project Facilities along with the TWAD Facilities by the Concessionaire15 (fifteen) days prior to the COD, either Partial COD or Actual COD whichever occurs earlier.

(ii) The Transition Coordinator shall be the single point of contact for the Concessionaire. TWAD shall notify the Concessionaire of the identity and contact details for the Transition Coordinator 15 (fifteen) days prior to the COD, either Partial COD or Actual COD whichever occurs earlier.

(iii) TWAD will notify the Concessionaire in accordance with this Agreement, the changes to the identity or contact details of the Transition Coordinator, if any prior to the Takeover Date.

ARTICLE-7: REPRESENTATIONS AND WARRANTIES

7.1. Representations and warranties of the Concessionaire

The Concessionaire represents and warrants to TWAD that:

(a) It is duly organized and validly existing under the laws of India, and has full power and authority to execute and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;

(b) it has taken all necessary corporate and other actions under Applicable Laws to authorise the execution and delivery of this Agreement and to validly exercise its rights and perform its obligations under this Agreement;

(c) the Concessionaire/ JV/ Consortium Members and its/their Associates have the financial standing and resources to fund the required share and to raise the debt, if necessary, for undertaking and implementing the Project in accordance with this Agreement;

(d) this Agreement constitutes its legal, valid and binding obligation, enforceable against it in accordance with the terms hereof, and its obligations under this Agreement will be legally valid, binding and enforceable obligations against it in accordance with the terms hereof;

(e) it is subject to the laws of India, and hereby expressly and irrevocably waives any immunity in any jurisdiction in respect of this Agreement or matters arising thereunder including any obligation, liability or responsibility hereunder;

(f) The information furnished in the Bid and as updated on or before the date of this Agreement is true and accurate in all respects as on the date of this Agreement;

(g) the execution, delivery and performance of this Agreement will not conflict with, result in the breach of, constitute a default under, or accelerate performance required by any of the terms of its constitution or any Applicable Laws or any covenant, contract, agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;

(h) there are no actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it at law or in share before any court or before any other judicial, quasi-judicial or other authority, the outcome of which may result in the breach of this Agreement or which individually or in the aggregate may result in any material impairment of its ability to perform any of its obligations under this Agreement;

(i) it has no knowledge of any violation or default with respect to any order, writ, injunction or decree of any court or government instrumentality which may result in any material adverse effect on its ability to perform its obligations under this Agreement and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its obligations under this Agreement;

(j) it has complied with Applicable Laws in all material respects and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have a material adverse effect on its ability to perform its obligations under this Agreement;

(k) it shall at no time undertake or permit any Change in Ownership except in accordance with the provisions of Clause 5.6;

(l) the Concessionaire/ each JV/ Consortium Member is duly organized and validly existing under the laws of the jurisdiction of its incorporation or registration, as the case may be, and has requested the Authority to enter into this Agreement with {itself/the Lead Member} pursuant to the Letter of Award, and has agreed to and unconditionally accepted the terms and conditions set forth in this Agreement;

(m) all its rights and interests in the Project shall pass to and vest in TWAD on the Transfer Date free and clear of all liens, claims and Encumbrances, without any further act or deed on its part or that of the Authority, and that none of the Project Facilities shall be acquired by it subject to any agreement under which a security interest or other lien or Encumbrance is retained by any person, save and except as expressly provided in this Agreement;

(n) no representation or warranty by it contained herein or in any other document furnished by it to the Authority or to any Government agency in relation to Applicable Permits contains or will contain any untrue or misleading statement of material fact or omits or will omit to state a material fact necessary to make such representation or warranty not misleading;

(o) no sums, in cash or kind, have been paid or will be paid, by it or on its behalf, to any person by way of fees, commission or otherwise for securing the Concession or entering into this Agreement or for influencing or attempting to influence any officer or employee of TWAD in connection therewith;

(p) all information provided by the Concessionaire/ JV/ Consortium Members in response to the Request for Proposal or otherwise, is to the best of its knowledge and belief, true and accurate in all material respects; and

(q) All undertakings and obligations of the Concessionaire arising from the Request for Proposal or otherwise shall be binding on the Concessionaire as if they form part of this Agreement.

7.2. Representations and warranties of the Authority

TWAD represents and warrants to the Concessionaire that:

(a) it has full capacity, power and authority to execute, deliver and perform its contractual and financial obligations under this Agreement and to carry out the transactions contemplated herein and that it has taken all actions necessary to execute this Agreement, exercise its rights and perform its obligations, under this Agreement;

(b) it has taken all necessary actions under Applicable Laws to authorize the execution, delivery and performance of this Agreement;

(c) This Agreement constitutes a legal, valid and binding obligation enforceable against it in accordance with the terms hereof.

7.3. Disclosure

In the event that any occurrence or circumstance comes to the attention of either Party that renders any of its aforesaid representations or warranties untrue or incorrect, such Party shall immediately notify the other Party of the same. Such notification shall not have the effect of remedying any breach of the representation or warranty that has been found to be untrue or incorrect nor shall it adversely affect or waive any right, remedy or obligation of either Party under this Agreement.

ARTICLE-8: DISCLAIMER

8.1. Disclaimer

8.1.1. The Concessionaire acknowledges that prior to the execution of this Agreement, the Concessionaire shall, conduct a complete and careful examination, made and shall further make an independent evaluation of the Request for Proposal, Scope of the Project, Project Site(s), the BOQ, local conditions and all information provided by the Authority or obtained, procured or gathered otherwise, and determine 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. The Authority makes 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 Concessionaire confirms that it shall have no claim whatsoever against the Authority in this regard.

8.1.2. The Concessionaire acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth in Clause 8.1.1 above and hereby acknowledges and agrees that the Authority shall not be liable for the same in any manner whatsoever to the Concessionaire, the JV/ Consortium Members and their Associates or any person claiming through or under any of them.

8.1.3. The Parties agree that any mistake or error in or relating to any of the matters set forth in Clause 8.1.1 above shall not vitiate this Agreement, or render it voidable.

8.1.4. In the event that either Party becomes aware of any mistake or error relating to any of the matters set forth in Clause 8.1.1 above, that Party shall immediately notify the other Party, specifying the mistake or error; provided, however, that a failure on part of the Authority to give any notice pursuant to this Clause 8.1.4 shall not prejudice the disclaimer of the Authority contained in Clause 8.1.1 and shall not in any manner shift to the Authority any risks assumed by the Concessionaire pursuant to this Agreement.

8.1.5. Except as otherwise provided in this Agreement, all risks relating to the Project shall be borne by the Concessionaire and the Authority shall not be liable in any manner for such risks or the consequences thereof.

ARTICLE-9: PERFORMANCE SECURITY

9.1. Performance Security

9.1.1. The Concessionaire shall, for the performance of its obligations during the Study Period and the Implementation Period, provide to the Authority no later than 28 (twenty-eight) days from the date of issue of LOA, an irrevocable and unconditional guarantee from a Bank for a sum of **Rs. 3.00 Crore (Rupees three Crore only)**in the form set forth in Schedule-5 of this Agreement(the **"Performance Security"**). The Performance Security shall be valid till 3 (three) months after the expiry of Concession Period. Until such time the Performance Security is provided by the Concessionaire pursuant hereto and the same comes into effect, the Bid Security shall remain in force and effect, and upon such provision of the Performance Security pursuant hereto, the Authority shall release the Bid Security to the Concessionaire.

9.1.2. Notwithstanding anything to the contrary contained in this Agreement, in the event Performance Security is not provided by the Concessionaire within a period of 28 (twenty-eight) days from the date of issue of the LOA, TWAD may encash the Bid Security and appropriate the proceeds thereof as Damages.

9.2. Appropriation of Performance Security

9.2.1. Upon occurrence of a Concessionaire Event of Default, TWAD shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to encash and appropriate from the Performance Security as the case may be, the amounts due to it for and in respect of such Concessionaire Event of Default.

9.3. Release of Performance Security

9.3.1. The Performance Security shall be released within 3 (three) months after the expiry of the Concession Period, provided the Concessionaire is not in breach of this Agreement.

ARTICLE-10: RIGHT OF ACCESS AND RIGHT OF WAY

10.1. The Project Site(s)

The site shall comprise of the area where the Project Facilities are located and shall include all such areas in which the Project Facilities are to be retrofitted as per this Agreement (the **"Project Site(s)"**) as per the list of pumping stations provided in this tender document. The Concessionaire shall be provided and granted the Right of Way by TWAD to the Project Site(s) as a licensee under and in accordance with this Agreement.

10.2. License, Access and Right of Way

10.2.1. The Authority hereby grants to the Concessionaire access (the **"Right of Access"**) to the Project Site(s) within 3 (three) days from the Agreement Date for carrying out any surveys, investigations that the Concessionaire may require during the Study Period, it being expressly agreed and understood that the Authority shall have no liability whatsoever in respect of survey, investigations and tests carried out or work undertaken by the Concessionaire on or about the Project Site(s) pursuant hereto in the event of Termination or otherwise.

10.2.2. In consideration of the covenants and warranties on the part of the Concessionaire herein contained, the Authority, in accordance with the terms and conditions set forth herein, hereby grants to the Concessionaire, during the Concession Period, Right of Way, leave and license rights in respect of all the land (along with any buildings, constructions or immovable assets, if any, thereon) comprising the Project Site(s) hereto, on an "as is where is" basis, free of any encumbrances, to execute the Project, together with all and singular rights, liberties, privileges, easements and appurtenances whatsoever, for the purposes permitted under this Agreement, and for no other purpose whatsoever.

10.2.3. The license, access and Right of Way granted by this Agreement to the Concessionaire shall always be subject to the existing right of way of the Authority till the Actual COD and the Concessionaire shall perform its obligations during the Implementation Period as per the Implementation Plan approved by the Authority, in a manner that the Pumping Stations are operational at all times during the Implementation Period without any disruption, except with prior notification to the Authority, if not approved as part of the Implementation Plan.

10.2.4. It is expressly agreed that the license granted hereunder shall terminate automatically and forthwith, without the need for any action to be taken by the Authority to terminate the license, upon the Termination of this Agreement for any reason whatsoever. For the avoidance of doubt, the Parties expressly agree that notwithstanding any temporary or permanent structures erected on the Project Site(s)

by the Concessionaire or its sub-licensees, the license in respect of the Project Site(s) shall automatically terminate, without any further act of the Parties, upon Termination of this Agreement.

10.2.5. It is expressly agreed that the trees on the Project Site(s) are property of TWAD except that the Concessionaire shall be entitled to exercise usufructuary rights thereon during the Concession Period.

10.3. Protection of Project Site(s)from Encumbrances

During the Operations Period of the Concession, the Concessionaire shall secure the Project Site(s) by deploying adequate security personnel round the clock and shall protect the Project Site(s)from any and all occupations, encroachments or Encumbrances, and shall not place or create nor permit any Concessionaire or other person claiming through or under the Concessionaire to place or create any Encumbrance or security interest over all or any part of the Project Site(s)or the Project Assets, or on any rights of the Concessionaire therein or under this Agreement, save and except as otherwise expressly set forth in this Agreement.

10.4. Access to TWAD

The license, Right of Access, Right of Way and right to the Project Site(s)granted to the Concessionaire hereunder shall always be subject to the right of access of the Authority and their employees for inspection, viewing and exercise of their rights and performance of their obligations under this Agreement.

ARTICLE-11: UTILITIES

DELETED

ARTICLE-12:

DELETED

ARTICLE-13: MONITORING AND SUPERVISION OF IMPLEMENTATION OF ENERGY SAVING MEASURES

13.1 Bi-monthly Progress Reports

During the Implementation Period, the Concessionaire shall, no later than 7 (seven) days after the close of each bi-monthly period, furnish to the Authority a report (the **"Bi-monthly Progress Report"**) on the progress of the supply, installation, commissioning, and operationalization of the Project, including energy-efficient Pumpsets, capacitor banks, harmonic filters, transformers and the allied equipment.

13.2 Compliance Reports

During the Implementation Period, the Authority shall inspect the project at least once in every two months and submit a Compliance Report (the **"Compliance Report"**) detailing defects, deficiencies, or non-compliance, if any, with reference to the Implementation Schedule, the standards and technical specifications. The report shall be sent by the Authority to the Concessionaire within 7 (seven) days of the inspection. The Concessionaire shall be responsible for rectifying and remedying all defects or deficiencies as identified in the Inspection Report within 15 (fifteen) days on receipt of the Compliance Report.

13.3 Quality of Materials and Workmanship

The Concessionaire shall ensure that all equipment, materials, and workmanship comply with the technical specifications, relevant industry standards and Good Industry Practice. The use of substandard materials or deviation from the agreed standards and technical specifications provided under **Schedule-12** shall be strictly prohibited.

13.4. Inspection and Technical Audit by the Authority

The Authority may inspect and audit the installation and commissioning process, ensuring compliance with the Agreement. If any deficiencies are found, the Concessionaire shall be responsible for corrective actions as directed by the Authority.

13.5. Inspection of Project Records

TWAD shall have full access to the records, testing reports, and performance data maintained with respect to the Project Facilities by the Concessionaire.

13.6. Test Certificates

The Concessionaire shall submit the test certificates as follows:

i. Certificates of calibration with its accuracy and uncertainty.
ii. Certificates of standards and classification.

iii. Energy Efficient Pumpsets and its accessories including its communication Protocol systems shall be installed as per the instructions of the respective Original Equipment Manufacturer of these meters and verification of various process parameters including behaviour of equipment in abnormal conditions be demonstrated.
iv. The Concessionaire shall submit third party factory inspection test before despatching the Pumpsets from the factory.
v. The Concessionaire shall submit required copies of instructions and maintenance manuals of the Energy Efficient Pumpsets and its accessories including communication devices, Remote Transmitting Units / Data Loggers in English on operation, preventive and regular maintenance and repair.
vi. On completion of work, the Concessionaire will have to submit design and drawings indicating whole system.
vii. The tenderer shall provide technical catalogue & any reference for standards along with his tender documents. The tenderer shall also mention detail model No. of instrument or software with its types and sub types along with its accessories, if any.

13.7. Examination prior to Commissioning

Before final commissioning, 10 days prior to Actual COD, the Concessionaire shall notify the Authority in writing for a joint inspection of the installed Project Facilities. TWAD shall agree upon the date for joint inspection and communicate the same in writing to the Concessionaire.

13.8. Rejection and Rectification

If any equipment or installation does not meet the agreed technical specifications and standards, the Authority shall reject the defective item and notify the Concessionaire. The Concessionaire shall replace or rectify the defects within a cure period of 14 (fourteen) days from the notification. Failure to comply may lead to delay in issuing the Completion Certificate by the Authority.

13.9. Remedial Work

The Authority may direct the Concessionaire to undertake remedial work, including: (a) Replacement of non-compliant equipment; (b) Re-installation of any substandard work; and (c) Emergency work if any necessary for operational safety.

If the Concessionaire fails to comply with, the Authority may engage a third party to perform the necessary work within 21 (twenty-one) days from the notification at the Concessionaire’s expense.

13.10. Delays and Non-Compliance

If the Concessionaire fails to comply with any of its obligations specified in this Agreement during the Implementation Period or delays are anticipated, the Authority shall issue a notice requiring an action plan to expedite completion. The Concessionaire shall submit a revised Implementation Schedule within 15 (fifteen) days.

13.11. Suspension of Unsafe Work

If the Authority finds that ongoing work poses safety risks, the Authority may suspend the work on the Project Site(s) until remedial actions are taken. The Concessionaire shall undertake corrective measures within 14 (fourteen) days from the notification of unsafe work and seek approval for resumption of the work.

ARTICLE-14: COMPLETION CERTIFICATE

14.1. Completion Certificate

14.1.1. Upon completion of all the works envisaged as part of the Implementation Plan and as per the Implementation Schedule, or such revised Implementation Schedule submitted by the Concessionaire as specified under Clause 13.9, the Concessionaire shall notify the Authority in writing for a joint inspection of the installed Project Facilities, at least 15 days prior to the Scheduled COD or the Actual COD, whichever is earlier.

14.1.2. Upon receiving such written request for joint inspection from the Concessionaire, the Authority shall take up joint inspection of the Project Facilities installed at the Project Site(s) and perform a trial run of the Project Facilities connected to the TWAD Facilities and be satisfied with respect to its operations. The joint inspection shall be taken up by the Authority and the Concessionaire on a date mutually agreed by the Parties, in any case not later than the Takeover Date.

Upon completion of the joint inspection of the Project Facilities installed by the Concessionaire and the Authority determining the successful completion of the same, it shall forthwith issue to the Concessionaire a certificate in the form set forth in **Schedule-10** (the **"Completion Certificate"**).

14.2. Withholding of Completion Certificate

14.2.1. At any point of time during the Implementation Period, if the Authority determines that the Project Facilities or any part thereof does not conform to the provisions of this Agreement and cannot be safely and reliably placed in commercial operation, it shall forthwith make a report in this behalf and send it to the Concessionaire. The report shall notify the Concessionaire of the defects and deficiencies in the Project Facilities and the Authority shall withhold the issuance of the Completion Certificate. Upon receipt of such notice, the Concessionaire shall rectify such defects or deficiencies and notify the same to the Authority. Such procedure shall be repeated as necessary until the defects or deficiencies are rectified to the satisfaction of the Authority.

ARTICLE-15: COMMERCIAL OPERATIONS

15.1. Partial COD

15.1.1. Upon completion of all the works envisaged as part of the Implementation Plan in advance, any time prior to 1 month of the Scheduled COD, with respect to a particular Pumping Station or a set of Pumping Stations, the Concessionaire shall notify the Authority in writing for a joint inspection of the installed Project Facilities.

15.1.2. Upon receiving such written request for joint inspection from the Concessionaire, the Authority shall take up joint inspection of the Project Facilities installed at the Project Site(s) and perform a trial run of the Project Facilities connected to the TWAD Facilities and be satisfied with respect to its operations. The joint inspection shall be taken up by the Authority and the Concessionaire on a date mutually agreed by the Parties, in any case not later than 7 days of the receipt of the invitation for joint inspection by the Authority.

15.1.3. Upon completion of the joint inspection of the Project Facilities installed by the Concessionaire and the Authority determining the successful completion of the same, with respect to one Pumping Station or with respect to each of the Pumping Stations in which the joint inspection has been carried out, it shall forthwith communicate in writing to the Concessionaire the date of Partial COD for the respective Pumping Station (the **"Partial COD"**).

15.2. Commercial Operation Date

The installation of the Project Facilities shall be deemed to be complete when the Completion Certificate, is issued under the provisions of Article 14, and accordingly the commercial operation date of the Project shall be the date on which such Completion Certificate is issued (the **"COD"** or the **"Actual COD"**).

15.3. Damages for delay

Subject to the provisions of Clause 5.3, if COD does not occur by the Scheduled COD, unless the delay is on account of reasons attributable to TWAD or due to Force Majeure, the Concessionaire shall pay Damages to TWAD at the rate of 0.1% (zero point one percent) of the Performance Security amount per day, payable on a weekly basis until COD.

Such compensation for delay shall be applicable only to the extent of 10% of the Performance Security amount, beyond which it shall amount to an Event of Default by the Concessionaire and the Concession Agreement shall be liable for Termination.

ARTICLE-16: CHANGE OF SCOPE

16.1. Change of Scope

16.1.1. TWAD may, notwithstanding anything to the contrary contained in this Agreement, require the provision of additional works and services over and above the originally agreed scope or reduction of the works/facilities due to a change in:

i. The allied electrical/mechanical infrastructure included in the Scope of the Project.

Any such modification shall be considered a revision of the Scope of the Project as contemplated by this Agreement (the **"Change of Scope"**). Any Change of Scope shall be treated in accordance with the provisions of this Article 16, and the costs thereof shall be borne by either the Concessionaire or TWAD Board, with reimbursement or adjustment as per Clause 16.3 or Clause 16.4, as applicable.

16.1.2. If the Concessionaire determines that a Change of Scope is necessary to enhance energy savings, ensure safer and more efficient operations, or meet regulatory requirements, it shall notify TWAD in writing. TWAD shall, within 15 (fifteen) days of receipt of such notice:

- Accept the Change of Scope with or without modifications and initiate proceedings under this Article 16, or
- Inform the Concessionaire in writing of its reasons for rejecting the proposed Change of Scope. TWAD's decision shall be final and binding on the Concessionaire.

16.1.3. Any additional works or services provided under this Article 16 shall form part of the Project Scope, and all provisions of this Agreement shall apply mutatis mutandis to such works or services.

16.2. Procedure for Change of Scope

16.2.1. If TWAD determines that a Change of Scope is necessary or if there is a reduction in works/facilities as per Article 16.1.1, it shall issue a notice to the Concessionaire detailing the required modifications ("Change of Scope Notice").

16.2.2. Upon receipt of the Change of Scope Notice, the Concessionaire shall, with due diligence, submit to TWAD:

a) The impact of the Change of Scope on the **Implementation Schedule**, particularly if the works or services are required during the Implementation Period.

(b) Implementation options and their corresponding effects on cost and time, including a detailed cost breakdown by work classifications specifying material and labor costs based on the rates used for similar works by TWAD. Any reasonable cost incurred by the Concessionaire in preparing this information shall be reimbursed by TWAD, subject to certification by TWAD.

16.2.3. Upon review, if TWAD decides to proceed with the Change of Scope, it shall communicate its preferred implementation option to the Concessionaire and specify the revised time and cost implications. TWAD shall then issue a formal order ("Change of Scope Order") requiring the Concessionaire to execute the revised scope.

16.2.4. The provisions of this Agreement related to supply, installation, commissioning, and O&M shall apply mutatis mutandis to the works performed under this Article 16.

16.3. Payment for Additional Scope of Work

The Concessionaire shall, after commencing work, submit **bills for payment** in respect of completed work or work-in-progress, supported by necessary documents for verification.

- Within **30 (thirty) days**, TWAD shall disburse payments for the certified amounts with respect to clause no. 16.1.1. (i), after deducting **5% retention money**, which shall be released **one year after completion of works or COD (whichever is later)**.
- Within **30 (thirty) days**, TWAD shall disburse payments for the certified amounts with respect to clause no. 16.1.1. (ii) to (iv).
- In case of disputes regarding payments, adjustments shall be resolved by the Dispute Redressal Committee. .
- The billing break-up for additional scope shall be agreed upon while approving the Change of Scope.

16.4. Reduction in the Scope of Work

16.4.1. If any part of the project scope (e.g., reduction in the number of Pumping Stations, Energy Efficient Pumpsets, Transformers or other components) is not implemented due to Force Majeure or reasons solely attributable to TWAD, resulting in shortfall in the aggregate Earmarked Quantity of water pumped during the Concession Period, the Authority shall extend the Concession Period (the Extended Concession Period) on a pro-rata basis with respect to the reduction in the quantum of Earmarked Quantity of water stipulated for 10 years.

16.5. Power of TWAD to Undertake Works

If the Parties fail to reach an agreement on the proposed Change of Scope Order, TWAD may, after due notice to the Concessionaire:

- **Award the works/services to a third party** through open competitive bidding.
- If the work is awarded to another entity, the Concessionaire shall provide necessary assistance and cooperation but shall **not be responsible** for defects or maintenance of the third-party works.

ARTICLE-17:PROCEDURE FOR IMPLEMENTATION OF THE PROJECT

17.1. General

The Concessionaire shall be responsible for the implementation of Energy Saving Measures by Supply, Installation, Commissioning of 137 Energy Efficient Pumpsets, Capacitor Bank, Harmonics Filter, Transformer and Operation & Maintenance of 37 Pumping Stations in 10 Water Supply Schemes in Coimbatore region. The implementation period for this project shall be 8months, followed by an operation period of 10 years.

17.2. Design and Planning

The Concessionaire shall prepare a comprehensive project implementation plan, including a detailed design, scheduling, and resource allocation for the execution of the project within the stipulated timeframe. The plan shall ensure the energy efficiency measures align with the existing water supply infrastructure requirements.

17.3. Procurement and Installation

The Concessionaire shall procure and install 137 energy efficient Pumpsets, 35 numbers of capacitor banks, 17 numbers of harmonic filters, and 1 number of transformer in compliance with the prescribed technical specifications. The installation shall be carried out without disrupting the water supply and shall conform to all applicable national and international energy efficiency standards.

17.4. Testing and Commissioning

Post installation, the Concessionaire shall conduct comprehensive testing and commissioning of all installed equipment to ensure optimal energy efficiency and performance. The results of such testing shall be documented and submitted to TWAD for verification.

17.5. Guarantee for Energy Savings

The Concessionaire shall guarantee the energy savings as per the agreed terms in Concession Agreement. The energy consumption levels before and after implementation shall be measured and verified as per the KPI provided in this Concession Agreement.

17.6. Operation & Maintenance (O&M)

The Concessionaire shall be responsible for the operation and maintenance of the installed Pumpsets and its allied systems for a period of 10 years. This includes routine maintenance, troubleshooting, replacements, and ensuring continuous

efficiency of the installed components. However, during implementation period the Operation & Maintenance of the pumping stations shall be the responsibility of TWAD until COD.

17.7. Monitoring and Reporting

The Concessionaire shall establish a real-time monitoring system to track the performance of the installed energy-efficient measures. Periodic reports on energy savings, system efficiency, and maintenance activities shall be submitted to TWAD as per the agreed reporting schedule.

17.8. Compliance and Safety

The Concessionaire shall ensure compliance with all relevant safety regulations, environmental norms, and statutory requirements. All activities shall be carried out in adherence to industry best practices to minimize risks and ensure the safety of workers and the public.

17.9. Completion and Handover

Upon completion of the Operation Period, the Concessionaire shall provide the following prior to 15 (fifteen) days before the Transfer Date;

a. Fully functional and optimized pumping stations to TWAD
b. Handover report including present conditions and efficiency of the Pumpsets, log book, history register and other operation & maintenance records.

A final energy audit shall be conducted by TWAD to verify the achieved energy savings and system performance before concluding the Operation Period.

ARTICLE-18: SAFETY REQUIREMENTS

18.1. Safety Requirements

18.1.1. The Concessionaire shall comply with the provisions of this Agreement, Applicable Laws and Applicable Permits and conform to Good Industry Practice for securing the safe operation of the Project Facilities. In particular, the Concessionaire shall comply with the safety requirements set forth in **Schedule-6**(the **"Safety Requirements"**).

18.1.2. The Authority shall carry out safety audit of the Project once in a every year in accordance with the Safety Requirements and shall take all other actions necessary for securing compliance with the Safety Requirements.

ARTICLE-19: MONITORING OF OPERATIONS AND MAINTENANCE

During the Operation Period, the Concessionaire shall operate and maintain the Project Facilities in accordance with this Agreement and in compliance with the provisions of this Agreement, Applicable Laws and Applicable Permits and conform to the Standards and Technical Specifications and Good Industry Practice.

During the Operations Period, the Concessionaire shall be fully responsible for all costs associated with Minor Maintenance activities of the 37 Pumping Stations, including the Project Facilities and the TWAD Facilities. Any proposal for Major Maintenance with respect to the TWAD Facilities may be considered by the Authority.

19.1. General Obligations of the Concessionaire

Notwithstanding its specific obligations during the Study Period and the Implementation Period of this Agreement, the Concessionaire shall have the following general obligations as they may be applicable during the Operations Period:

(a) to operate the Project Facilities and the TWAD Facilities and pump the Earmarked Quantity of Water in accordance with this Agreement, and carry out its obligations with all due diligence, efficiency, and economy, in accordance with generally accepted professional techniques and Good Industry Practices, and shall observe sound management practices, and employ appropriate technology and safe methods;

(b) to carry out day-to-day management and operation of the 37 Pumping Stations;

(c) to be responsible for maintaining all Applicable Permits to operate the Project Facilities along with the TWAD Facilities and pump the Earmarked Quantity of water specified under **Schedule-2** of this Agreement;

(d) to ensure that all materials and workmanship used in the operation and maintenance of the Project Facilities and TWAD Facilities shall be in accordance with relevant standards of Bureau of Indian Standards (BIS) and in the absence of which to the relevant standards of International Standards Organisation (ISO);

(e) to permit the Authority or a person delegated to do so by the Authority to conduct half-yearly inspections and annual audits to regularly review the performance of the Concessionaire under the Agreement from the Actual COD till the end of the Concession Period, and shall fully cooperate with the Authority in the conduct of such audit and review exercises and checks as may be required under this Agreement;

19.2. Overriding Powers of the Authority

19.2.1. If in the reasonable opinion of the Authority, the Concessionaire is in material breach of its obligations under this Agreement and in particular the Maintenance Requirements and the O&M Plan, and such breach is causing or likely to cause hardship to the Users, the Authority may, without prejudice to any of its rights under this Agreement including Termination thereof, by notice require the Concessionaire to take reasonable measures immediately for rectifying or removing such hardship, as the case may be.

19.2.2. In the event that the Concessionaire, upon notice under Clause 19.2.1, fails to rectify or remove any hardship within a reasonable period, the Authority may exercise overriding powers under this Clause 19.2.2 and take over the performance of any or all the obligations of the Concessionaire to the extent deemed necessary by it for rectifying or removing such hardship or danger; provided that the exercise of such overriding powers by the Authority shall be of no greater scope and of no longer duration than is reasonably required hereunder; provided further that any costs and expenses incurred by the Authority in discharge of its obligations the Authority shall be entitled to recover them from the Concessionaire.

19.2.3. In the event of a national emergency, civil commotion or any other act of Force Majeure, the Authority may take over the performance of any or all the obligations of the Concessionaire to the extent deemed necessary by it, and exercise such control over the Project Facilities or give such directions to the Concessionaire as may be deemed necessary; provided that the exercise of such overriding powers by the Authority shall be of no greater scope and of no longer duration than is reasonably required in the circumstances which caused the exercise of such overriding power by the Authority.

19.3. Half-yearly Progress Reports

During the Operations Period, the Concessionaire shall, no later than 7 (seven) days after the close of each half-yearly period, furnish to the Authority a report (the **"Half-yearly Progress Report"**)regarding the operations of the 37 Pumping Stations, including the operations and maintenance work carried out by the Concessionaire with respect to the Project Facilities and the TWAD Facilities.

The Half-yearly Progress Reports shall include

i. Bi-monthly energy consumption data compiled across the 37 Pumping Stations;
ii. Energy Efficiency of the 137 Pumpsets; and
iii. Fault analysis and rectification, if any with respect the allied equipment.

19.4. O&M Inspection Reports

During the Operations Period, the Authority shall inspect the project at least once in every six months and submit an O&M Inspection Report (the **"O&M Inspection Report"**) detailing the defects, deficiencies, or non-compliance, if any, with reference to the Implementation Schedule, the standards and technical specifications. The report shall be sent by the Authority to the Concessionaire within 7 (seven) days of the inspection. The Concessionaire shall be responsible for rectifying and remedying all defects or deficiencies as identified in the Inspection Report within 15 (fifteen) days on receipt of the O&M Inspection Report.

In addition to the procedure specified under this Article-19 towards monitoring of Operations and Maintenance of the Project, the guidelines provided under Schedule-14 shall be followed for successful Operations and Maintenance of the Project by the Concessionaire during the Operations Period.

ARTICLE-20:INDEPENDENT ENGINEER

NOT APPLICABLE

ARTICLE-21: FINANCIAL CLOSE

21.1. Financial Close

21.1.1. The Concessionaire may at its discretion avail project financing for the Project. In the event the Concessionaire decides to avail financing for the Project it hereby agrees and undertakes that it shall achieve Financial Close within 120 (hundred and twenty) days from the Agreement Date.

21.1.2. In the event of delay in achieving the Financial Close, the Concessionaire shall be entitled to a further period not exceeding 30 (thirty) days, subject to payment of Damages to TWAD in a sum calculated at the rate of 0.05% (zero point zero five per cent)of the Performance Security for each day of delay, provided that the Damages specified herein shall be payable every week in advance and the period beyond the said 90 (Ninety) days shall be granted only to the extent of Damages so paid. In the event of delay in achieving the Financial Close beyond 120 (one hundred and twenty) days from the Agreement Date, the Concessionaire shall be entitled to payment of Damages to TWAD in a sum calculated at the rate of 0.1% (zero point one per cent) of the Performance Security for each day of delay, provided that the Damages specified herein shall be payable every week in advance and the period beyond the said 150 (one hundred and fifty) days shall be granted only to the extent of Damages so paid; provided further that no Damages shall be payable if such delay in Financial Close has occurred due to Force Majeure.

21.1.3. The Concessionaire shall, upon occurrence of Financial Close, notify TWAD forthwith, and shall have provided to TWAD, at least 2 (two) days prior to the Financial Close, 3 (three) true copies of the Financial Package and the Financial Model, duly attested by a Director of the Concessionaire, along with 3 (three) soft copies of the Financial Model in MS Excel version or any substitute thereof, which is acceptable to the Lenders.

21.2. Termination due to failure to achieve Financial Close

21.2.1. Notwithstanding anything to the contrary contained in this Agreement, but subject to Clause 26.3, in the event that Financial Close does not occur, for any reason whatsoever, within the period set forth in Clause 21.1.1 or the extended period provided thereunder, all rights, privileges, claims and entitlements of the Concessionaire under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Concessionaire, and the Concession Agreement shall be deemed to have been terminated by mutual agreement of the Parties.

21.2.2. Upon Termination under Clause 21.2.1, TWAD shall be entitled to encash the Performance Security, as the case may be, and appropriate the proceeds thereof

as Damages; provided, however, that if Financial Close has not occurred due to Force Majeure, it shall, upon Termination, release the Performance Security, as the case may be.

ARTICLE-22 PAYMENTS

22.1. Payments to the Concessionaire

Payment to the Concessionaire shall be computed with respect to the Key Performance Indicators (KPIs) specified under Schedule-7of this Agreement, as mentioned below:

I. The Shared Savings at each of the 37 Pumping Stations for the bi-monthly period under consideration shall be computed as per the formulae specified under Schedule-16 of this Agreement. Subsequently, the Shared Savings for all the 37 Pumping Stations put together for the bi-monthly period shall be arrived.

II. Upon Actual COD till expiry of the Concession Period, the Concessionaire shall raise a single invoice for a particular bi-monthly period, based on the Shared Savings for the 37 Pumping Stations.

III. The invoice for the bi-monthly period shall be submitted by the Concessionaire within 10 calendar days of the succeeding month to the office of the Chief Engineer, Coimbatore Region, TWAD.

IV. Payment of 70% of the invoice amount shall be released by the Chief Engineer, TWAD, Coimbatore, within 5 working days from the submission of invoice by the Concessionaire and the remaining 30% shall be released upon scrutiny and approval of the invoice by the Chief Engineer, TWAD, Coimbatore, not later than 15 working days after adjustment of Penalty or Incentive, as may be applicable.

V. The Pumped Quantity of water in each of the 37 Pumping Stations measured in Million Litres per Day (MLD) versus the Earmarked Quantity of water specified by the Authority under Schedule-2 of this Agreement shall be compared and the corresponding Penalty, if any as specified under Schedule-7 of this Agreement shall be computed.

VI. All payments to the Concessionaire shall be released through the Escrow Account by the Chief Engineer, TWAD, Coimbatore.

VII. The Concessionaire shall install smart energy meter for its reference. The Concessionaire may compare the energy meter readings between the TNPDCL and the Concessionaire on a regular basis to arrive at any differences.

VIII. If there is a difference of more than 0.1% for 3 (three) continuous bi-monthly billing cycles, the Concessionaire shall raise the issue with the Authority, which shall cause both the energy meters (of Concessionaire and of TNPDCL)to be tested and if the energy meter of TNPDCL is found to be defective, recalibration and if required replacement of the same by the Authority shall be carried out.

IX. The shortfall in the Shared Savings due to fault in the energy meter of TNPDCL, during the 3 (three) bi-monthly billing period shall be paid to the Concessionaire by the Authority.

X. Upon occurrence of Partial COD till Actual COD:

i. the Concessionaire is eligible for claiming the Shared Savings with respect to each Pumping Station, on a pro-rata basis for the number of days falling between the Partial COD and the Actual COD.

ii. The Shared Savings shall be computed with reference to the Actual Energy Savings achieved at each Pumping Station and the Shared Savings shall only accrue till Actual COD.

iii. The Concessionaire shall raise the invoice(s) with respect to the Shared Savings computed on account of Partial COD, within 5 days from the Actual COD.

iv. Payment of 100% of such invoice shall be made within 15 working days from Actual COD, after scrutiny and approval by the Chief Engineer, TWAD, Coimbatore.

v. All payments to the Concessionaire shall be released through the Escrow Account by the Chief Engineer, TWAD, Coimbatore.

XI. The Concessionaire shall not be eligible for any additional payment whatsoever for the excess quantity of water pumped beyond the Earmarked Quantity, except upon receipt of a written request from the Authority.

22.2. Penalties

The penalties imposed on the Concessionaire as specified in KPIs as per Schedule-7of this Agreement.

22.2.1. Energy Saving Penalty

If the Guaranteed Energy Saving of 25% is not achieved in any month, the Penalty shall be calculated as per the KPIs specifiedunderSchedule-7of this Agreement.

22.2.2. Penalty with respect to the Earmarked Quantity

If the Pumped quantity of water is lower than the Earmarked Quantity due to any fault attributable to the Concessionaire, the deficit will be calculated and penalty imposed as per the KPIs provided underSchedule-7of this Agreement.

Additionally, if the pumping quantity exceeds the Earmarked Quantity without the approval of the Authority, the Concessionaire shall not be entitled to claim any extra payment.

22.2.3. Repair and Rectification Penalty

All repair and rectification work related to infrastructure shall be completed within 24 hours, after which water supply must be restored. If the rectification and repair exceed 24 hours, the quantity of undelivered water shall be accounted for, and a penalty shall be levied based on the cost of specific energy.

22.2.4. Incentives

The Concessionaire shall claim the incentives according to the criteria specified under KPI present in the Schedule-7of this Agreement. The payment shall be claimed once in two months by submitting the necessary invoices in support of its claim.

22.3. Synchronisation of the Billing Cycle for the Pumping Stations

22.3.1. TWAD agrees to:

i. Take up with TNPDCL for changing the billing cycle for all the 37 Pumping Stations in a manner that it falls within the first 5 calendar days of the first month in a bi-monthly period;
ii. Take up with TNPDCL for installing smart energy meters at all 37 Pumping Stations, if not installed already, at the own cost and expenses of TWAD prior to Actual COD;
iii. On a best effort basis, TWAD and the Concessionaire shall ensure that the Actual COD falls on the first calendar day of a calendar month;
iv. Ensure that the change in billing cycle for all 37 Pumping Stations by TNPDCL is completed prior to the Actual COD.
v. Upon occurrence of Partial COD till Actual COD, for each of the Pumping Stations or all 37 Pumping Stations, as the case may be:
    a. the Concessionaire shall be eligible for claiming the Shared Savings on a pro-rata basis which will be released after Actual COD.
    b. The Shared Savings shall be computed with reference to the Actual Energy Savings achieved at each Pumping Station. Provided, the computation of combined Shared Savings across 37 Pumping Stations shall commence only upon occurrence of Actual COD.
    c. The Concessionaire shall raise the invoice(s) within 5 days from the Actual COD. Payment of 100% of the invoice amount shall be released within 15 working days from actual COD, after scrutiny and approval by the Chief Engineer, Coimbatore Region.

d. All payments to the Concessionaire shall be released through the Escrow Account by the Chief Engineer, TWAD, Coimbatore.

22.4. Computation of Energy Savings and Payment to the Concessionaire

The Concessionaire shall arrive at the Actual Energy Savings (A)and the Shared Savings (SS)as per the calculations given in the table below:

S. No.	Description	Unit	Terminology/ Computation
1.	Final Baseline Specific Energy Consumption for a particular Pumping Station (e) as provided under Schedule-21 of the Concession Agreement	kWh/ KL	e
2.	Total Pumped Quantity of water during the bi-monthly period under consideration (V)	KL	V
3.	Total energy consumed during the bi-monthly period under consideration, as per the bi-monthly energy meter reading in kWh (K)	kWh	K
4.	Specific Energy Consumption for the bi-monthly period under consideration (e1)	kWh/ KL	e1 = K /V
5.	Actual Energy Savings for the bi-monthly period under consideration (A) in kWh terms	kWh/ KL	A = e–e1
6.	Actual Energy Savings (in % terms)	%	(A/e) * 100
7.	Total Energy Savings for the Pumping Station (S)	kWh	S = A * V
8.	Prevailing TNPDCL electricity tariff (T) for the bi-monthly period under consideration in INR	INR/ kWh	T
9.	Financial Savings for the Pumping Station (F)	INR	F= S *T
10.	Quoted Share by the Concessionaire (Q)	%	Q
11.	Shared Savings for the Pumping Station (SS)	INR	SS = F * Q

ARTICLE-23: ESCROW ACCOUNT

23.1. ESCROW Account

23.1.1. The Concessionaire and TWAD, any time after the Agreement Date but within the Conditions Precedent Period, agree to open and establish an Escrow Account with a Bank (the **"Escrow Bank"**) in accordance with this Agreement read with the Escrow Agreement. The Parties agree that the Escrow Bank can be any bank Nationalised or Scheduled Bank which is operational in India.

23.1.2. The nature and scope of the Escrow Account are fully described in the agreement (the **"Escrow Agreement"**) to be entered into amongst the Concessionaire, TWAD, the Escrow Bank and the Lenders through the Lenders' Representative, which shall be substantially in the form set forth in Schedule 8.

23.1.3. TWAD Board shall maintain a minimum balance of an amount equivalent to 2 (two)bi-monthly billing period of the Shared Savings computed by assuming that the Actual Energy Savings achieved by the Concessionaires equal to the Guaranteed Energy Savings for the corresponding year at any point of time after COD in the Escrow Account (EA) during the Concession Period.

23.1.4. Any shortfall in this balance after making/ releasing payment to the Concessionaire shall be credited within 30 working days. The shortfall shall be offset by making payments to the Escrow Account by the Chief Engineer, TWAD, Coimbatore within such period and any such shortfall extending beyond 30 working days shall attract penalty of 0.1% of the Performance Security per week upto 10% of the Performance Security or shall be counted as Event of Default by the Authority.

ARTICLE-24: INSURANCE

24.1. Insurance during Concession Period

The Concessionaire shall effect and maintain the insurance coverage at its own cost to the maximum sums as may be required under Financing Agreements and Applicable Laws during the Implementation Period and the Operation Period. such insurances as may be necessary or prudent in accordance with Good Industry Practice. The Concessionaire shall also effect and maintain such insurances as may be necessary for mitigating the risks that may devolve on TWAD as a consequence of any act or omission of the Concessionaire during the Implementation Period.

24.2. Insurance Cover

Without prejudice to the provisions contained in Clause 24.1, the Concessionaire shall, during the Implementation Period and the Operation Period, procure and maintain Insurance Cover including but not limited to the following:

(a) Indemnification of the TWAD Board against all losses and claims in respect of:

Death of or injury to any person.

Loss of or damage to any property, arising out of or in consequence of the execution of this Contract. The Concessionaire shall be responsible for all claims, proceedings, damages, costs, charges, and expenses in respect thereof.

(b) Insurance in the joint names of the Concessionaire and the TWAD Board against liabilities for death or injury to any person or loss or damage to any property arising out of the performance of this Contract.

(c) Insurance coverage for the works, along with the materials and equipment, to the full replacement cost, against risks such as fire, theft, loss, and damage. The insurance shall cover Concessionaire-owned and installed energy-saving equipment, including loss due to riot, vandalism, or any other unforeseen events, until title to the equipment is transferred to the TWAD Board upon expiration of the contract term.

24.3. Notices to TWAD

No later than 45 (forty-five) days prior to commencement of the Implementation Period or the Operation Period, as the case may be, the Concessionaire shall by notice furnish to TWAD, in reasonable detail, information in respect of the insurances that it proposes to effect and maintain in accordance with this Article 24. Within 30 (thirty) days of receipt of such notice, TWAD may require the Concessionaire to effect and maintain such other insurances as may be necessary pursuant hereto, and in the event of any difference or disagreement relating to any such insurance, the Dispute Resolution Procedure shall apply.

24.4. Evidence of Insurance Cover

All insurances obtained by the Concessionaire in accordance with this Article 24 shall be maintained with insurers on terms consistent with Good Industry Practice. Within 15 (fifteen) days of obtaining any insurance cover, the Concessionaire shall furnish to TWAD, notarized true copies of the certificate(s) of insurance, copies of insurance policies and premium payment receipts in respect of such insurance, and no such insurance shall be cancelled, modified, or allowed to expire or lapse until the expiration of at least 45 (forty five) days after notice of such proposed cancellation, modification or nonrenewal has been delivered by the Concessionaire to TWAD.

24.5. Remedy for failure to insure

If the Concessionaire shall fail to effect and keep in force all insurances for which it is responsible pursuant hereto, TWAD shall have the option to either keep in force any such insurances, and pay such premium and recover the costs thereof from the Concessionaire, or in the event of computation of a Termination Payment, treat an amount equal to the Insurance Cover as deemed to have been received by the Concessionaire.

24.6. Waiver of subrogation

All insurance policies in respect of the insurance obtained by the Concessionaire pursuant to this Article 24 shall include a waiver of any and all rights of subrogation or recovery of the insurers thereunder against, inter alia, TWAD, and its assigns, successors, undertakings and their subsidiaries, affiliates, employees, insurers and underwriters, and of any right of the insurers to any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any such person insured under any such policy or in any way connected with any loss, liability or obligation covered by such policies of insurance.

24.7. Concessionaire's waiver

The Concessionaire hereby further releases, assigns and waives any and all rights of subrogation or recovery against, inter alia, TWAD and its assigns, undertakings and their subsidiaries, affiliates, employees, successors, insurers and underwriters, which the Concessionaire may otherwise have or acquire in or from or in any way connected with any loss, liability or obligation covered by policies of insurance maintained or required to be maintained by the Concessionaire pursuant to this Agreement (other than third party liability insurance policies) or because of deductible clauses in or inadequacy of limits of any such policies of insurance.

24.8. Application of insurance proceeds

The proceeds from all insurance claims, except life and injury, shall be paid to the Concessionaire by credit to the Escrow Account and it shall apply such proceeds for any necessary repair, reconstruction, reinstatement, replacement, improvement or delivery of the Project Facilities, and the balance remaining, if any, shall be applied in accordance with the provisions contained in this behalf in the Financing Agreements.

24.9. Compliance with conditions of insurance policies

The Concessionaire expressly acknowledges and undertakes to fully indemnify TWAD from and against all losses and claims arising from the Concessionaire's failure to comply with conditions imposed by the insurance policies affected in accordance with this Agreement.

ARTICLE-25: ACCOUNTS AND AUDIT

25.1. Audited accounts

25.1.1. The Concessionaire shall maintain books of accounts recording all its receipts (including all Annuities under this Agreement), income, expenditure, payments (including payments from the Escrow Account), assets and liabilities, in accordance with this Agreement, Good Industry Practice, Applicable Laws and Applicable Permits. The Concessionaire shall provide 2 (two) copies of its Balance Sheet, Cash Flow Statement and Profit and Loss Account, along with a report thereon by the Independent Auditor, by the month of September of the subsequent Accounting Year. TWAD shall have the right to inspect the records of the Concessionaire during office hours and require copies of relevant extracts of books of accounts, duly certified by the Independent Auditor.

25.1.2. On or before the thirtieth day of September each Year, the Concessionaire shall provide to TWAD, for the preceding Accounting Year, a statement duly audited by the Independent Auditor giving summarized information on the expenses incurred in the operation and maintenance of the Project Facilities, the Payments and such other information as TWAD may reasonably require

25.2. Appointment of auditors

25.2.1. The Concessionaire shall appoint, and have during the subsistence of this Agreement as the Independent Auditor, a firm chosen by it from the mutually agreed list of 10 (ten) reputable firms of chartered accountants (the "**Panel of Chartered Accountants**"), such list to be prepared substantially in accordance with the criteria set forth in Schedule [•]. All fees and expenses of the Independent Auditor shall be borne by the Concessionaire.

25.2.2. The Concessionaire may terminate the appointment of its Independent Auditors after a notice of 45 (forty-five) days to TWAD, subject to the replacement Independent Auditors being appointed from the Panel of Chartered Accountants.

25.2.3. Notwithstanding anything to the contrary contained in this Agreement, TWAD shall have the right, but not the obligation, to appoint at its cost from time to time and at any time, another firm (the "Additional Auditors") from the Panel of Chartered Accountants to audit and verify all those matters, expenses, costs, realisations and things which the Independent Auditor is required to do, undertake or certify pursuant to this Agreement.

25.3. Certification of claims by the Independent Auditor

Any claim or document provided by the Concessionaire to TWAD in connection with or relating to receipts, income, payments, costs, expenses, accounts or audit, and any matter incidental thereto shall be valid and effective only if certified by the Independent Auditor. For the avoidance of doubt, such certification shall not be required for exchange of information in the normal course of business.

25.4. Set-off

In the event any amount is due and payable by TWAD to the Concessionaire, it may set-off any sums payable to it by the Concessionaire and pay the balance remaining. Any exercise by TWAD of its rights under this Article shall be without prejudice to any other rights or remedies available to it under this Agreement or otherwise.

25.5. Dispute Redressal

In the event of there being any difference between the findings of the Additional Auditors and the certification provided by the Independent Auditor, such Auditors shall meet to resolve the differences and if they are unable to resolve the same, such Dispute shall be resolved by TWAD by recourse to the Dispute Redressal Committee.

ARTICLE-26: FORCE MAJEURE

26.1. Force Majeure

As used in this Agreement, the expression "**Force Majeure**" shall mean occurrence in India, any of Non-Political Event, Indirect Political Event and Political Event, as defined in Clause 26.2, 26.3 and 26.4 respectively, if it affects the performance of the Party claiming the benefit of Force Majeure (the "**Affected Party**") of its obligations under this Agreement and which act or event (i) is beyond the reasonable control of the Affected Party, and (ii) the Affected Party could not have prevented or overcome by exercise of due diligence and following Good Industry Practice, and (iii) has Material Adverse Effect on the Affected Party.

26.2. Non-Political Event

A Non-Political Event shall mean one or more of the following acts or events:

(a) act of God, epidemic, extremely adverse weather conditions, lightning, earthquake, landslide, cyclone, flood, volcanic eruption, chemical or radioactive contamination or ionising radiation, fire or explosion (to the extent of contamination or radiation or fire or explosion originating from a source external to the Project Site(s));

(b) strikes or boycotts (other than those involving the Concessionaire, Concessionaires or their respective employees/representatives, or attributable to any act or omission of any of them) interrupting supplies and services to the Project for a continuous period of 7 (seven) days, and not being an Indirect Political Event set forth in Clause 26.3;

(c) any failure or delay of a Concessionaire but only to the extent caused by another Non-Political Event and which does not result in any offsetting compensation being payable to the Concessionaire by or on behalf of such Concessionaire;

(d) any judgement or order of any court of competent jurisdiction or statutory authority made against the Concessionaire in any proceedings for reasons other than (i) failure of the Concessionaire to comply with any Applicable Law or Applicable Permit, or (ii) on account of breach of any Applicable Law or Applicable Permit or of any contract, or (iii) enforcement of this Agreement, or (iv) exercise of any of its rights under this Agreement by TWAD; or

(e) the discovery of geological conditions, toxic contamination or archaeological remains in any part of the Project Site(s)that could not reasonably have been expected to be discovered through a site inspection;

(f) any event or circumstances of a nature analogous to any of the foregoing.

26.3. Indirect Political Event

An Indirect Political Event shall mean one or more of the following acts or events:

(a) an act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, riot, insurrection, terrorist or military action, civil commotion or politically motivated sabotage;

(b) any political or economic upheaval, disturbance, movement, struggle or similar occurrence which could not have been anticipated or foreseen by a prudent person and which causes the operation of the Project to be financially unviable or otherwise not feasible;

(c) industry-wide or State-wide strikes or industrial action for a continuous period of 7 (seven) days;

(d) any civil commotion, boycott or political agitation which prevents the Affected Party from performing any of its obligations for an aggregate period exceeding 7 (seven) days in an Accounting Year;

(e) any failure or delay of a Concessionaire to the extent caused by any Indirect Political Event and which does not result in any offsetting compensation being payable to the Concessionaire by or on behalf of such Concessionaire;

(f) any Indirect Political Event that causes a Non-Political Event; or

(g) any event or circumstances of a nature analogous to any of the foregoing.

26.4. Political Event

A Political Event shall mean one or more of the following acts or events by or on account of any Government:

(a) Change in Law, only if consequences thereof cannot be dealt with under and in accordance with the provisions of Article 35 and its effect, in financial terms, exceeds the sum specified in Clause 35.1;

(b) compulsory acquisition in national interest or expropriation of any part of the Project Facilities or rights of the Concessionaire or of the Concessionaires;

(c) unlawful or unauthorised or without jurisdiction revocation of, or refusal to renew or grant without valid cause, any clearance, licence, permit, authorisation, no

objection certificate, consent, approval or exemption required by the Concessionaire or any of the Concessionaires to perform their respective obligations under this Agreement and the Project Agreements; provided that such delay, modification, denial, refusal or revocation did not result from the Concessionaire's or any Concessionaire's inability or failure to comply with any condition relating to grant, maintenance or renewal of such clearance, licence, authorisation, no objection certificate, exemption, consent, approval or permit; or

(d) any failure or delay of a Concessionaire but only to the extent caused by another Political Event and which does not result in any offsetting compensation being payable to the Concessionaire by or on behalf of such Concessionaire;

(e) any event or circumstances of a nature analogous to any of the foregoing.

26.5. Duty to report Force Majeure

26.5.1. Upon occurrence of a Force Majeure, the Affected Party shall by notice report such occurrence to the other Party forthwith. Any notice pursuant hereto shall include full particulars of:

(a) the nature and extent of each Force Majeure which is the subject of any claim for relief under this Article 26 with evidence in support thereof;

(b) the estimated duration and the effect or probable effect which such Force Majeure is having or will have on the Affected Party's performance of its obligations under this Agreement;

(c) the measures which the Affected Party is taking or proposes to take for alleviating the impact of such Force Majeure; and

(d) any other information relevant to the Affected Party's claim.

26.5.2. The Affected Party shall not be entitled to any relief for or in respect of a Force Majeure unless it shall have notified the other Party of the occurrence of the Force Majeure as soon as reasonably practicable, and in any event no later than 7 (seven) days after the Affected Party knew, or ought reasonably to have known, of its occurrence, and shall have given particulars of the probable material effect that the Force Majeure is likely to have on the performance of its obligations under this Agreement.

26.5.3. For so long as the Affected Party continues to claim to be materially affected by such Force Majeure, it shall provide the other Party with regular (and not less than weekly) reports containing information as required by Clause 26.5.1, and

such other information as the other Party may reasonably request the Affected Party to provide.

26.6. Effect of Force Majeure on the Concession

26.6.1. Upon the occurrence of any Force Majeure prior to the Agreement Date, the period set forth in Clause 21.1.1 for achieving Financial Close shall be extended by a period equal in length to the duration of the Force Majeure.

26.6.2. At any time after the Agreement Date, if any Force Majeureoccurs, the Concession Period and the dates set forth in the Implementation Schedule shall be extended by a period equal in length to the duration for which such Force Majeure subsists.

26.7. Allocation of costs arising out of Force Majeure

26.7.1. Upon occurrence of any Force Majeure prior to the Agreement Date, the Parties shall bear their respective costs and no Party shall be required to pay to the other Party any costs thereof.

26.7.2. Upon occurrence of a Force Majeure after the Agreement Date, the costs incurred and attributable to such event and directly relating to the Project (the "**Force Majeure Costs**") shall be allocated and paid as follows:

(a) upon occurrence of a Non-Political Event, the Parties shall bear their respective Force Majeure Costs and neither Party shall be required to pay to the other Party any costs thereof;

(b) upon occurrence of an Indirect Political Event, all Force Majeure Costs attributable to such event, and not exceeding the Insurance Cover for that event, shall be borne by the Concessionaire, and to the extent Force Majeure Costs exceed such Insurance Cover, one half of such excess amount shall be reimbursed by TWAD to the Concessionaire; and

(c) upon occurrence of a Political Event, all Force Majeure Costs attributable to such Political Event shall be reimbursed by TWAD to the Concessionaire.

For the avoidance of doubt, Force Majeure Costs may include interest payments on debt, O&M Expenses, any increase in the cost of installation of the Project Facilities on account of inflation and all other costs directly attributable to the Force Majeure, but shall not include loss of debt repayment obligations, and for determining such costs, information contained in the Financial Package may be relied upon to the extent that such information is relevant.

26.7.3. Save and except as expressly provided in this Article 26, neither Party shall be liable in any manner whatsoever to the other Party in respect of any loss, damage, cost, expense, claims, demands and proceedings relating to or arising

out of occurrence or existence of any Force Majeure or exercise of any right pursuant hereto.

26.8. Termination Notice for Force Majeure

If a Force Majeure subsists for a period of 180 (one hundred and eighty) days within a continuous period of 365 (three hundred and sixty five) days, either Party may in its discretion terminate this Agreement by issuing a Termination Notice to the other Party without being liable in any manner whatsoever, save as provided in this Article 26, and upon issue of such Termination Notice, this Agreement shall, notwithstanding anything to the contrary contained herein, stand terminated forthwith; provided that before issuing such Termination Notice, the Party intending to issue the Termination Notice shall inform the other Party of such intention and grant 15 (fifteen) days' time to make a representation, and may after the expiry of such 15 (fifteen) days period, whether or not it is in receipt of such representation, in its sole discretion issue the Termination Notice.

26.9. Termination Payment for Force Majeure

26.9.1. Upon Termination of this Agreement, prior to COD, the following Termination Payment shall be made to the Concessionaire:

(a) If Termination is on account of a Non-Political Event, TWAD shall make a Termination Payment to the Concessionaire in an amount equal to 90% (Ninety per cent) of the Debt Due less Insurance Cover.

(b) If Termination is on account of an Indirect Political Event, TWAD shall make a Termination Payment to the Concessionaire in an amount equal to:

(i) Debt Due less Insurance Cover; provided that if any insurance claims forming part of the Insurance Cover are not admitted and paid, then 80% (eighty per cent) of such unpaid claims shall be included in the computation of Debt Due; and

(c) If Termination is on account of a Political Event, TWAD shall make a Termination Payment to the Concessionaire in an amount to:

(i) Debt Due;

26.9.2. Upon Termination of this Agreement pursuant to Clause 26.8 above, after COD, the following Termination Payment shall be made to the Concessionaire:

(a) If Termination is on account of a Non-Political Event, TWAD shall make a Termination Payment to the Concessionaire in an amount equal to 90% (ninety per cent) of the Debt Due less Insurance Cover.

(b) If Termination is on account of an Indirect Political Event, TWAD shall make a Termination Payment to the Concessionaire in an amount equal to:

(i) Debt Due less Insurance Cover; provided that if any insurance claims forming part of the Insurance Cover are not admitted and paid, then 80% (eighty per cent) of such unpaid claims shall be included in the computation of Debt Due; and

(c) If Termination is on account of a Political Event, TWAD shall make a Termination Payment to the Concessionaire in an amount to:

(i) Debt Due; and
(ii) 120% (one hundred and twenty percent) of the Adjusted Equity

26.10. Dispute resolution

In the event that the Parties are unable to agree in good faith about the occurrence or existence of a Force Majeure, such Dispute shall be finally settled in accordance with the Dispute Resolution Procedure; provided that the burden of proof as to the occurrence or existence of such Force Majeure shall be upon the Party claiming relief and/or excuse on account of such Force Majeure.

26.11. Excuse from performance of obligations

If the Affected Party is rendered wholly or partially unable to perform its obligations under this Agreement because of a Force Majeure, it shall be excused from performance of such of its obligations to the extent it is unable to perform on account of such Force Majeure; provided that:

(a) the suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure;
(b) 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 and to cure the same with due diligence; and
(c) when the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party notice to that effect and shall promptly resume performance of its obligations hereunder.

ARTICLE-27: COMPENSATION FOR BREACH OF AGREEMENT

27.1. Compensation for default by the Concessionaire

Subject to the provisions of Clause 27.3, in the event of the Concessionaire being in material breach or default of this Agreement at any time after the Agreement Date , it shall pay to TWAD by way of compensation, all direct costs suffered or incurred by TWAD as a consequence of such material breach or default, within 30 (thirty) days of receipt of the demand supported by necessary particulars thereof; provided that no compensation shall be payable under this Clause 27.1 for any material breach or default in respect of which Damages are expressly specified and payable under this Agreement or for any consequential losses incurred by TWAD.

27.2. Compensation for default by TWAD

Subject to the provisions of Clause 27.3, in the event of TWAD being in material breach or default of this Agreement at any time after the Agreement Date , it shall pay to the Concessionaire by way of compensation, all direct costs suffered or incurred by the Concessionaire as a consequence of such material breach or default within 30 (thirty) days of receipt of the demand supported by necessary particulars thereof; provided that no such compensation shall be payable for any material breach or default in respect of which Damages have been expressly specified in this Agreement.

27.3. Dispute Resolution and Mitigation of Costs

(a) In the event of any dispute or difference of any kind arising between TWAD Board and the Concessionaire in connection with or arising out of this Agreement, including but not limited to its validity, existence, execution, performance, termination, abandonment, or breach, the parties shall seek to resolve the dispute through DRC.

(b) No delay or non-performance by either party caused by the occurrence of an event of Force Majeure shall constitute a default or breach of this Agreement, provided that such delay or non-performance is directly attributable to the occurrence of a Force Majeure.

(c) The Concessionaire acknowledges that compliance with this Article is a minimum obligation and shall be in addition to any other obligations specified in this Agreement. Any breach of this Article shall be deemed a breach of the Concession Agreement and shall be dealt with accordingly under the terms set forth herein.

ARTICLE-28: SUSPENSION OF CONCESSIONAIRE'S RIGHTS

28.1. Suspension upon Concessionaire Default

Upon occurrence of a Concessionaire Default which affects or is likely to affect the operation and maintenance of the Project Facilities during the Operation Period,, TWAD shall be entitled, without prejudice to its other rights and remedies under this Agreement including its rights of Termination hereunder, to (a) suspend all rights of the Concessionaire under this Agreement, and pursuant hereto, and (b) exercise such rights itself and perform the obligations hereunder or authorize any other person to exercise or perform the same on its behalf during such suspension (the "**Suspension**"). Suspension hereunder shall be effective forthwith upon issue of notice by TWAD to the Concessionaire and may extend up to a period not exceeding 90 (Ninety) days from the date of issue of such notice; provided that upon written request from the Concessionaire and the Lenders' Representative, TWAD shall extend the aforesaid period by a further period not exceeding 90 (ninety) days.

28.2. Authority's Rights and Responsibilities During Suspension

28.2.1 During the Suspension period, TWAD shall have the right to assume control of the Project Site(s), including all assets, equipment, and facilities associated with the Concessionaire's obligations under this Agreement.

28.2.2 TWAD shall ensure that all revenues generated during the Suspension period are deposited into the designated Escrow Account.

28.2.3 The Concessionaire shall continue to bear all liabilities during the period of Suspension, and any actions taken by TWAD to manage the project shall be deemed to have been taken on behalf of the Concessionaire.

28.2.4 The Concessionaire shall indemnify TWAD for all costs incurred during the Suspension, including but not limited to operation, maintenance, and legal expenses.

28.2.5 The Concessionaire, licenses and sub-licenses TWAD to use all Intellectual Property Rights related to the design, engineering, operation, and maintenance of the Project for the duration of the Suspension.

28.3. Revocation of Suspension

28.3.1. In the event that TWAD shall have rectified or removed the cause of Suspension within a period not exceeding 90 (ninety) days from the date of Suspension, it shall revoke the Suspension forthwith and restore all rights of the Concessionaire under this Agreement. For the avoidance of doubt, the Parties expressly agree that TWAD may, in its discretion, revoke the Suspension at any time, whether or not the cause of Suspension has been rectified or removed hereunder.

28.3.2. Upon the Concessionaire having cured the Concessionaire Default within a period not exceeding 90 (ninety) days from the date of Suspension, TWAD shall revoke the Suspension forthwith and restore all rights of the Concessionaire under this Agreement.

28.4. Termination

28.4.1. At any time during the period of Suspension under this Article 28, the Concessionaire may by notice require TWAD to revoke the Suspension and issue a Termination Notice. Subject to the rights of the Lenders' Representative to undertake substitution in accordance with the provisions of this Agreement and within the period specified in Clause 28.4, TWAD shall, within 15 (fifteen) days of receipt of such notice, terminate this Agreement under and in accordance with Article 29 as if it is a Concessionaire Default under Clause 29.1.

28.4.2. Notwithstanding anything to the contrary contained in this Agreement, in the event that Suspension is not revoked within 180 (one hundred and eighty) days from the date of Suspension hereunder or within the extended period, if any, set forth in Clause 28.1, the Concession Agreement shall, upon expiry of the aforesaid period, be deemed to have been terminated by mutual agreement of the Parties and all the provisions of this Agreement shall apply, mutatis mutandis, to such Termination as if a Termination Notice had been issued by TWAD upon occurrence of a Concessionaire Default.

ARTICLE-29: TERMINATION

29.1. Termination for Concessionaire's Default

29.1.1. Subject to Applicable Laws and save as otherwise provided in this Agreement, in the event that any of the defaults specified below shall have occurred, and the Concessionaire fails to cure the default within the Cure Period set forth below, or where no Cure Period is specified, then within a Cure Period of 30 (thirty) days, the Concessionaire shall be deemed to be in default of this Agreement (the **"Concessionaire Default"**), unless the default has occurred solely as a result of any breach of this Agreement by the Authority or due to Force Majeure. In addition to default events set forth elsewhere in this Agreement, the defaults referred to herein shall include the following:

(a) the Concessionaire fails to satisfy the Conditions Precedent as per provisions of Clauses 4.1.5 and 4.3 of this Agreement;

(b) failure of the Concessionaire to achieve the COD as per provision of Article-15;

(c) the Performance Security has been encashed and appropriated in accordance with Clause 9.2 and the Concessionaire fails to replenish or provide a fresh Performance Security within a Cure Period of 15 (fifteen) days;

(d) the Concessionaire abandons or manifests intention to abandon the implementation or operation of the Project without the prior written consent of the Authority;

(e) Misappropriation of advance or income from the Project or non-deposit of any cash inflow into the Escrow account;

(f) The Concessionaire is in breach of the Safety Requirements as per Article-18;

(g) the Concessionaire has failed to achieve the KPIs specified under Schedule-7 of this Agreement and continues to be in default;

(h) an Escrow Default has occurred, and the Concessionaire fails to cure the default within a Cure Period of 15 (fifteen) days.

(i) upon occurrence of a Financial Default, the Lenders' Representative has by notice required the Authority to undertake Suspension or Termination, as the case may be, in accordance with the Substitution Agreement and the Concessionaire fails to cure the default within the Cure Period specified hereinabove;

(j) a breach of any of the Project Agreements by the Concessionaire has caused a Material Adverse Effect;

(k) the Concessionaire creates any Encumbrance in breach of this Agreement;

(l) the Concessionaire repudiates this Agreement or otherwise takes any action or evidences or conveys an intention not to be bound by the Agreement;

(m) a Change in Ownership has occurred in breach of the provisions of Clause 5.6;

(n) there is a transfer, pursuant to law either of (i) the rights and/or obligations of the Concessionaire under any of the Project Agreements, or of (ii) all or part of the

assets or undertaking of the Concessionaire, and such transfer causes a Material Adverse Effect;

(o) an execution levied on any of the assets of the Concessionaire has caused a Material Adverse Effect;

(p) the Concessionaire is adjudged bankrupt or insolvent, or if a trustee or receiver is appointed for the Concessionaire or for the whole or material part of its assets that has a material bearing on the Project;

(q) the Concessionaire has been, or is in the process of being liquidated, dissolved, wound-up, amalgamated or reconstituted in a manner that would cause, in the reasonable opinion of the Authority, a Material Adverse Effect;

(r) occurrence of any Insolvency Event;

(s) the Concessionaire has been or is in the process of being amalgamated or reconstituted in a manner that would cause, in the reasonable opinion of the Authority, a Material Adverse Effect or the Concessionaire is ordered to be wound up by Court except for the purpose of amalgamation or reconstruction provided that, as part of such amalgamation or reconstruction, the entire property, assets and undertaking of the Concessionaire are transferred to the amalgamated or reconstructed entity and that the amalgamated or reconstructed entity has unconditionally assumed the obligations of the Concessionaire under this Agreement and the Project Agreements; and provided that:

i. the amalgamated or reconstructed entity has the capability and operating experience necessary for the performance of its obligations under this Agreement and the Project Agreements;

ii. the amalgamated or reconstructed entity has the financial standing to perform its obligations under this Agreement and the Project Agreements and has a credit worthiness at least as good as that of the Concessionaire as at the Appointed Date; and

iii. each of the Project Agreements remains in full force and effect;

(t) any representation or warranty of the Concessionaire herein contained which is, as of the date hereof, found to be materially false, incorrect or misleading or the Concessionaire is at any time hereafter found to be in breach thereof;

(u) the Concessionaire has failed to fulfill any obligation, for which failure Termination has been specified in this Agreement;

(v) the Concessionaire issues a Preliminary Notice of Termination or Termination Notice in violation of this Agreement; or

(w) the Concessionaire commits a default in complying with any other provision of this Agreement if such default causes a Material Adverse Effect on the Authority;

29.1.2. Without prejudice to any other rights or remedies which the Authority may have under this Agreement, upon occurrence of a Concessionaire Default, the Authority shall be entitled to terminate this Agreement by issuing a Termination Notice to the

Concessionaire; provided that before issuing the Termination Notice, the Authority shall by a notice inform the Concessionaire of its intention to issue such Termination Notice and grant 15 (fifteen) days to the Concessionaire to make a representation, and may after the expiry of such 15 (fifteen) days, whether or not it is in receipt of such representation, issue the Termination Notice, subject to the provisions of Clause 29.1.2.

29.1.3. The Authority shall, if there be Senior Lenders, send a copy of its notice of intention to issue a Termination Notice referred to in Clause 29.1.2 to inform the Lenders‟ Representative and grant 15 (fifteen) days to the Lenders‟ Representative, for making a representation on behalf of the Senior Lenders stating the intention to substitute the Concessionaire in accordance with the Substitution Agreement. In the event the Authority receives such representation on behalf of Lenders, it shall, in its discretion, either withhold Termination for a period not exceeding 180 (one hundred and eighty) days from the date of such representation or exercise its right of Suspension, as the case may be, for enabling the Lenders‟ Representative to exercise the Lenders‟ right of substitution in accordance with the Substitution Agreement.

29.1.4. Provided that the Lenders‟ Representative may, instead of exercising the Lenders‟ right of substitution, procure that the default specified in the notice is cured within the aforesaid period of 60 (sixty) days, and upon such curing thereof, the Authority shall withdraw its notice referred to above and restore all the rights of the Concessionaire.

29.1.5. Provided further that upon written request from the Lenders‟ Representative and the Concessionaire, the Authority shall extend the aforesaid period of 60 (sixty) days by such further period not exceeding 30 (thirty) days, as the Authority may deem appropriate.

29.2. Termination for Authority Default

29.2.1. In the event that any of the defaults specified below shall have occurred, and the Authority fails to cure such default within a Cure Period of 60 (sixty) days or such longer period as has been expressly provided in this Agreement, the Authority shall be deemed to be in default of this Agreement (the "**Authority Default**") unless the default has occurred as a result of any breach of this Agreement by the Concessionaire or due to Force Majeure. The defaults referred to herein shall include the following:

(a) the Authority fails to provide, within a period of 3 (three) days from the Agreement Date, the Right of Access to the Project Site(s);
(b) the Authority fails to provide, by the Takeover Date in any case not later than the COD, the Right of Way to the Project Site(s);
(c) the Authority fails to make payment of the Shared Savings or any other payments as provided under Article-22 of this Agreement;

(d) the Authority fails to maintain the requisite balance in the Escrow Account as specified under Clause 23.1.3 and continues to be in default as specified under Clause 23.1.4;

(e) the Authority repudiates this Agreement or otherwise takes any action that amounts to or manifests an irrevocable intention not to be bound by this Agreement.

29.2.2. Without prejudice to any other right or remedy which the Concessionaire may have under this Agreement, upon occurrence of an Authority Default, the Concessionaire shall, subject to the provisions of the Substitution Agreement, be entitled to terminate this Agreement by issuing a Termination Notice to the Authority; provided that before issuing the Termination Notice, the Concessionaire shall by a notice inform the Authority of its intention to issue the Termination Notice and grant 15 (fifteen) days to the Authority to make a representation, and may after the expiry of such 15 (fifteen) days, whether or not it is in receipt of such representation, issue the Termination Notice.

29.3. Termination Payments

29.3.1. Upon Termination on account of a Concessionaire Default during the Operation Period, the Authority shall pay to the Concessionaire, by way of Termination Payment, an amount equal to: 90% (ninety per cent) of the Debt Due less Insurance Cover, provided that if any insurance claims forming part of the Insurance Cover are not admitted and paid, then 80% (eighty per cent) of such unpaid claims shall be included in the computation of Debt Due. For the avoidance of doubt, the Concessionaire hereby acknowledges that no Termination Payment shall be due or payable on account of a Concessionaire Default occurring prior to COD.

29.3.2. Upon Termination on account of an Authority Default, the Authority shall pay to the Concessionaire, by way of Termination Payment, an amount equal to:

(a) Debt Due; and

(b) 120% (one hundred and twenty per cent) of the Adjusted Equity.

29.3.3. Termination Payment shall become due and payable to the Concessionaire within 30 (thirty) days of a demand being made by the Concessionaire to the Authority with the necessary particulars, and in the event of any delay, the Authority shall pay interest at a rate equal to 2% (two per cent) above the prevailing SBI MCLR on the amount of Termination Payment remaining unpaid; provided that such delay shall not exceed 90 (ninety) days. For the avoidance of doubt, it is expressly agreed that Termination Payment shall constitute full discharge by the Authority of its payment obligations in respect thereof hereunder.

29.3.4. Upon Termination on expiry of the Concession Period by efflux of time, no Termination Payment shall be due and payable to the Concessionaire. At the end of the Concession Period, all Project Assets shall be transferred to the Authority at free of cost.

29.3.5. The Concessionaire expressly agrees that Termination Payment under this Article 29 shall constitute a full and final settlement of all claims of the Concessionaire on account of Termination of this Agreement for any reason whatsoever and that the Concessionaire or any shareholder thereof shall not have any further right or claim under any law, treaty, convention, contract or otherwise.

29.4. Other rights and obligations of the Authority

Upon Termination for any reason whatsoever, the Authority shall:

(a) take possession and control of the Project forthwith;
(b) take possession and control of all materials, implements, plants and equipment, if any, on or about the Site;
(c) be entitled to restrain the Concessionaire and any person claiming through or under the Concessionaire from entering upon the Site or any part of the Project; and
(d) require the Concessionaire to comply with the Divestment Requirements set forth in Clause 30.1; and
(e) succeed upon election by the Authority, without the necessity of any further action by the Concessionaire, to the interests of the Concessionaire under such of the Project Agreements as the Authority may in its discretion deem appropriate, and shall upon such election be liable to the Contractors only for compensation accruing and becoming due and payable to them under the terms of their respective Project Agreements from and after the date the Authority elects to succeed to the interests of the Concessionaire. For the avoidance of doubt, the Concessionaire acknowledges and agrees that all sums claimed by such Contractors as being due and owing for works and services performed or accruing on account of any act, omission or event prior to such date shall constitute debt between the Concessionaire and such Contractors, and the Authority shall not in any manner be liable for such sums. It is further agreed that in the event the Authority elects to cure any outstanding defaults under such Project Agreements, the amount expended by the Authority for this purpose shall be deducted from the Termination Payment.

29.5. Survival of Rights

Notwithstanding anything to the contrary contained in this Agreement, but subject to the provisions of Clause 29.3.5, any Termination pursuant to the provisions of this Agreement shall be without prejudice to the accrued rights of either Party including its right to claim and recover money damages, insurance proceeds, security deposits, and other rights and remedies, which it may have in law or contract. All rights and obligations

of either Party under this Agreement, including Termination Payments and Divestment Requirements, shall survive the Termination to the extent such survival is necessary for giving effect to such rights and obligations.

ARTICLE-30: DIVESTMENT OF RIGHTS AND INTEREST

30.1. Divestment Requirements

30.1.1. Upon Termination, the Concessionaire shall comply with and conform to the following Divestment Requirements:

(a) notify to TWAD forthwith the location and particulars of all Project Facilities;

(b) deliver forthwith the actual or constructive possession of the Project Facilities, free and clear of all Encumbrances;

(c) cure all Project Facilities of all defects and deficiencies so that the Project Facilities are compliant with the Maintenance Requirements; provided that in the event of Termination during the Implementation Period, all the Project Facilities shall be handed over on 'as is where is' basis after bringing them to a safe condition;

(d) deliver and transfer relevant records, reports, Intellectual Property and other licenses pertaining to the Project Facilities and its design, engineering, installation, operation and maintenance, including all programmers and manuals pertaining thereto, and complete 'as built' Drawings as on the Transfer Date. For the avoidance of doubt, the Concessionaire represents and warrants that the Intellectual Property delivered hereunder shall be adequate and complete for the design, engineering, installation, operation and maintenance of the Project and shall be assigned to TWAD free of any Encumbrance;

(e) transfer and/or deliver all Applicable Permits to the extent permissible under Applicable Laws;

(f) execute such deeds of conveyance, documents and other writings as TWAD may reasonably require for conveying, divesting and assigning all the rights, title and interest of the Concessionaire in the Project Facilities, including manufacturers' warranties in respect of any plant or equipment and the right to receive outstanding insurance claims to the extent due and payable to TWAD, absolutely unto TWAD or its nominee; and

(g) Comply with all other requirements as may be prescribed or required under Applicable Laws for completing the divestment and assignment of all rights, title and interest of the Concessionaire in the Project Facilities, free from all Encumbrances, absolutely unto TWAD or to its nominee.

30.1.2. Subject to the exercise by TWAD of its rights under this Agreement to perform or procure the performance by a third party of any of the obligations of the Concessionaire, the Parties shall continue to perform their obligations under this Agreement, notwithstanding the issuance of any Termination Notice, until the Termination of this Agreement becomes effective in accordance with its terms.

30.2. Inspection and cure

Not earlier than 90 (ninety) days prior to Termination but not later than 15 (fifteen) days prior to the Agreement Date of such Termination, TWAD shall verify, after giving due notice to the Concessionaire specifying the time, date and place of such verification and/or inspection, compliance by the Concessionaire with the Maintenance Requirements, and if required, cause appropriate tests to be carried out at the Concessionaire's cost for this purpose. Defaults, if any, in the maintenance of the Project Facilities in comparison with the requirements of operation and maintenance under this Agreement, shall be cured by the Concessionaire at its cost and the provisions of Article 19 shall apply, mutatis mutandis, in relation to curing of defects or deficiencies under this Article30. Provided if the Termination occurs any time after the COD, if the Concessionaire fails to rectify any of the defaults in the maintenance of the Project Facilities, TWAD may rectify such default and adjust the costs incurred thereof, from the Operation Period Performance Guarantee.

30.3. Cooperation and assistance on transfer of Project

30.3.1. The Parties shall cooperate on a best effort basis and take all necessary measures, in good faith, to achieve a smooth transfer of the Project Facilities in accordance with the provisions of this Agreement so as to protect the safety of and avoid undue delay or inconvenience to the Users, other members of the public or the lawful occupiers of any part of the Project Site(s).

30.3.2. The Parties shall provide to each other, 9 (nine) months prior to the Transfer Date in the event of Termination by efflux of Concession Period and immediately in the event of either Party conveying to the other Party its intent to issue a Termination Notice, as the case may be, as much information and advice as is reasonably practicable regarding the proposed arrangements for operation of the Project following the Transfer Date. The Concessionaire shall further provide such reasonable advice and assistance as TWAD, its concessionaire or agent may reasonably require for operation of the Project until the expiry of 6 (six) months after the Transfer Date.

30.3.3. TWAD shall have the option to purchase or hire from the Concessionaire at a fair market value and free from any encumbrance all or any part of the plant and machinery used in connection with the Project but which does not form part of the assets specified in Clause 38.1.1 and is reasonably required in connection with

operation of the Project. For the avoidance of doubt, in the event of dispute or difference relating to fair market value, the Dispute Resolution Procedure shall apply.

30.4. Vesting Certificate

The divestment of all rights, title and interest in the Project Facilities shall be deemed to be complete on the date when all of the Divestment Requirements have been fulfilled, and TWAD shall, without unreasonable delay, thereupon issue a certificate substantially in the form set forth in Schedule 15 (the "**Vesting Certificate**"), which will have the effect of constituting evidence of divestment by the Concessionaire of all of its rights, title and interest in the Project Facilities, and their vesting in TWAD pursuant hereto. It is expressly agreed that any defect or deficiency in the Divestment Requirements shall not in any manner be construed or interpreted as restricting the exercise of any rights by TWAD or its nominee on, or in respect of, the Project Facilities on the footing that all Divestment Requirements have been complied with by the Concessionaire.

30.5. Divestment costs etc.

30.5.1. The Concessionaire shall bear and pay all costs incidental to divestment of all of the rights, title and interest of the Concessionaire in the Project Facilities in favour of TWAD upon Termination, save and except that all stamp duties payable on any deeds or Documents executed by the Concessionaire in connection with such divestment shall be borne by TWAD.

30.5.2. In the event of any dispute relating to matters covered by and under this Article 30, the Dispute Resolution Procedure shall apply.

ARTICLE-31: ASSIGNMENT AND CHARGES

NOT APPLICABLE

ARTICLE-32: LIABILITY AND INDEMNITY

32.1. General Indemnity

32.1.1. Indemnity by the CONCESSIONAIRE

The **CONCESSIONAIRE** shall indemnify, defend, and hold harmless TWAD and its officers, employees, agents, representatives, government instrumentalities, and entities owned or controlled by the government (the **"Authority Indemnified Persons"**) against all claims, losses, damages, liabilities, suits, proceedings, costs, and expenses arising from:

(a) Any **breach by the CONCESSIONAIRE** of its obligations under this Agreement or any related agreement;

(b) Any **deficiency or defect** in the provision of services by the CONCESSIONAIRE;

(c) Any **act of negligence or misconduct** by the CONCESSIONAIRE, its sub-Concessionaires, agents, or personnel; or

(d) Any **third-party claims** arising due to failure to meet safety, environmental, or regulatory requirements.

Provided, however, that the CONCESSIONAIRE shall not be liable for any claims that arise solely due to a **negligent act, omission, or default** by TWAD **Indemnified Persons**.

32.1.2. Indemnity by TWAD

TWAD shall indemnify, defend, and hold harmless the **CONCESSIONAIRE** from any claims, damages, or losses arising from:

(a) TWAD**'s material default** in fulfilling its obligations under this Agreement, resulting in a **Material Adverse Effect** on the CONCESSIONAIRE;

(b) Failure of TWAD to **make three (3) consecutive payments** due to the CONCESSIONAIRE as per this Agreement;

(c) TWAD's **repudiation or termination** of this Agreement without just cause; or

(d) Any third-party claims arising from TWAD's **breach of statutory obligations or non-compliance** with applicable laws.

Provided, however, that TWAD shall not be liable where such claims result from the CONCESSIONAIRE's negligence, breach of contract, or failure to comply with laws and regulations.

32.1.3. Indemnity by the CONCESSIONAIRE

32.1.3.1. Scope of Indemnity

Without limiting the generality of **Clause 32.1**, the CONCESSIONAIRE shall fully indemnify, defend, and hold harmless TWAD **Indemnified Persons** from any claims, liabilities, or damages arising due to:

(a) **Failure to comply** with Applicable Laws, Permits, and Regulatory Approvals;

(b) **Non-payment of taxes** owed by the CONCESSIONAIRE, its Concessionaires, or suppliers;

(c) **Failure to pay suppliers** of materials, equipment, or services under this Agreement;

(d) **Delays in project implementation**, resulting in cost overruns or financial loss to TWAD;

(e) **Failure to meet Key Performance Indicators (KPIs)**, leading to complaints or legal action by Users against TWAD;

(f) **Defaults under financing agreements**, affecting project execution;

(g) **Defects in design, engineering, or workmanship**, leading to third-party claims; and

(h) **Breach of representations and warranties** made by the CONCESSIONAIRE under this Agreement.

32.1.4. Intellectual Property Indemnity

The CONCESSIONAIRE shall indemnify and hold harmless TWAD **Indemnified Persons** from any claims, losses, or liabilities arising from:

(a) **Infringement of patents, copyrights, trademarks, or trade secrets** due to the CONCESSIONAIRE's technology, processes, or materials used in the project;
(b) Any legal action resulting in an injunction restricting TWAD from using the Project Facilities;
(c) The CONCESSIONAIRE's failure to obtain necessary licenses for proprietary technology or software; or
(d) Any third-party legal proceedings against TWAD due to intellectual property disputes.

If an injunction is granted against TWAD for patent infringement, the CONCESSIONAIRE shall take **all necessary steps to resolve the issue**, including securing licenses or replacing infringing components with non-infringing alternatives at no cost to TWAD.

32.1.5. Notice and Contest of Claims

If either Party (**Indemnified Party**) receives a claim from a third party for which indemnity is applicable, it shall:

(a) Notify the other Party (**Indemnifying Party**) **within 15 days** of receiving such claim;

(b) Not settle or pay the claim **without prior written approval** of the Indemnifying Party;

(c) Allow the Indemnifying Party to contest, defend, or negotiate the claim, provided that the Indemnified Party is **secured against any legal costs**.

If the Indemnifying Party fails to respond within the stipulated time, the Indemnified Party may proceed to settle the claim, and the Indemnifying Party shall bear all associated costs.

32.1.6. Defence of Claims

32.1.6.1. Right to Defend

The **Indemnified Party** shall have the right, but not the obligation, to contest, defend, and litigate any claim, suit, or proceeding at the expense of the **Indemnifying Party**. If the Indemnifying Party **acknowledges its liability in writing**, it shall have the right to:

(a) Assume full control over the defense;

(b) Appoint legal counsel of its choice, provided the counsel is acceptable to the Indemnified Party;

(c) Reimburse any reasonable expenses incurred by the Indemnified Party before assuming defense.

The Indemnifying Party shall **not settle or compromise** the claim without the Indemnified Party's written consent unless adequate security is provided for losses to be indemnified.

32.1.7. Right to Independent Counsel

The Indemnified Party shall have the right to appoint its own counsel at its own cost unless:

(a) The Indemnifying Party fails to appoint competent counsel within a reasonable time;
(b) A conflict of interest arises between the Parties;
(c) The claim involves specific defenses that the Indemnifying Party cannot assert; or
(d) The claim could have a material adverse effect on the Indemnified Party beyond the scope of this Agreement.

In such cases, the Indemnifying Party shall bear the reasonable legal fees and costs of the Indemnified Party.

32.1.8. Survival of Indemnity Obligations

The provisions of this **Article 32 (Liability and Indemnity) shall survive the termination** or expiration of this Agreement. Both Parties shall continue to be responsible for any liabilities, claims, or obligations that arise from their acts or omissions during the term of this Agreement.

ARTICLE-33: RIGHTS AND TITLE OVER THE PROJECT SITE(S)

33.1. Authority's Ownership of the Project Site(s)

33.1.1. TWAD retains full ownership, title, and all proprietary rights over the Project Site(s), including all land, infrastructure, and facilities within the designated project boundaries.

33.1.2. The Concessionaire acknowledges that no rights, title, or interest in the Project Site(s), other than the rights expressly granted under this Agreement, shall be transferred to it.

33.1.3. TWAD shall grant the Concessionaire a limited, non-exclusive, and revocable right of use over the Project Site(s) for the purpose of implementing, operating, and maintaining the Project Facilities, subject to compliance with the terms of this Agreement.

33.2. Rights of the Concessionaire

33.2.1. The Concessionaire shall have the right to access, develop, install, operate, maintain, and upgrade the Project Facilities within the Project Site(s) during the Concession Period, in accordance with:

(a) The approved design, specifications, and Implementation Plan;
(b) Applicable Laws and Permits; and
(c) Environmental, social, and safety regulations.

33.2.2. The Concessionaire shall have the right to restrict unauthorized access to the Project Facilities, provided such restrictions do not interfere with TWAD's rights or any legal obligations related to public access and safety.

33.2.3. The Concessionaire shall not alter, encumber, sub-license, sublease, or assign its rights over the Project Site(s) without prior written approval from TWAD.

33.3. Limitations on the Concessionaire's Rights

33.3.1. The Concessionaire shall not:

(a) Sell, lease, mortgage, pledge, or otherwise encumber any part of the Project Site(s);

(b) Undertake any development or installation outside the scope of this Agreement without TWAD's prior written consent;

(c) Allow any third-party use of the Project Site(s) except as permitted under this Agreement; or

(d) Cause any environmental damage, nuisance, or violation of land-use regulations.

33.3.2. TWAD reserves the right to:

(a) Conduct inspections to ensure compliance with this Agreement;

(b) Undertake emergency works within the Project Site(s); and

(c) Require the Concessionaire to make modifications in case of public interest or safety concerns, subject to reasonable compensation if such modifications result in increased costs for the Concessionaire.

33.4. Transfer of Rights Upon Termination

33.4.1. Upon expiration or termination of this Agreement, the Concessionaire shall:
(a) Handover the Project Site(s), including all Project Facilities, to TWAD in good working condition, subject to normal wear and tear;
(b) Remove any temporary structures or equipment that are not part of the permanent Project Facilities, at its own expense; and
(c) Ensure all liabilities, pending dues, or environmental restoration obligations are settled before the handover.

33.4.2. TWAD shall have the right to take over the operations and management of the Project Facilities without any additional payment to the Concessionaire, unless otherwise provided in this Agreement.

ARTICLE-34: USER CHARGES

NOT APPLICABLE

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ARTICLE-35: CHANGE IN LAW

35.1. Dispute Resolution

a. If either Party disputes the quantum of compensation or the methodology used for determining the financial impact, the dispute shall be resolved in accordance with the Dispute Resolution Procedure outlined in Article 37.

b. Until the dispute is resolved, both Parties shall continue to perform their obligations under this Contract to ensure uninterrupted implementation of the Project**.**

ARTICLE-36: DEFECTS LIABILITY

NOT APPLICABLE

ARTICLE-37: DISPUTE REDRESSAL

37.1. Dispute Resolution

37.1.1. Any dispute, difference, or controversy of any nature whatsoever arising under, out of, or in relation to this Agreement (including its interpretation), forfeiture of Earnest Money Deposit (EMD), or performance obligations between the Parties, and formally notified in writing by either Party to the other Party (the "Dispute"), shall initially be attempted to be resolved amicably through the conciliation procedure set forth in Clause 37.2.

37.1.2. The Parties agree to use their best efforts to resolve all Disputes promptly, equitably, and in good faith, ensuring reasonable access to all non-privileged records, information, and data relevant to the Dispute during normal business hours.

37.2. Conciliation

37.2.1. In the event of a Dispute, including those related to forfeiture of EMD due to:

i. Failure of the Concessionaire to submit the Performance Security or sign the Concession Agreement after receiving the letter of intimation of selection,
ii. Insolvency, bankruptcy, or liquidation of the Concessionaire,
iii. Non-compliance with scope of work by the Concessionaire,
iv. Involvement in fraudulent, corrupt, collusive, coercive, or obstructive practices, or wilful misrepresentation or provision of incorrect information,

either Party may request the Dispute Redressal Committee to mediate and/or conciliate the dispute in reaching an amicable settlement.

37.2.2. Upon such reference, the designated officials shall convene a meeting within seven (7) days from the date of reference to attempt an amicable resolution of the Dispute.

37.2.3. If the meeting does not take place within the stipulated seven (7) days or the Dispute remains unresolved:

i. Within fifteen (15) days of the meeting, or
ii. Within thirty (30) days from the date of the written notice of the Dispute under Clause 37.1.1,whichever is earlier, and no written settlement agreement is reached, either Party may refer the Dispute to Arbitration as per Clause 37.3.

37.3. Arbitration

37.3.1. Any Dispute which is not resolved amicably by conciliation, as provided in Clause 37.2, shall be finally decided by reference to arbitration by an arbitral tribunal constituted in accordance with Clause 37.3.2. Such arbitration shall be subject to the provisions of the Arbitration and Conciliation Act, 1996 and rules made thereunder ("**Arbitration Act**"). The place of such arbitration shall be NaniPalkhiwala Arbitration Centre in Chennai and the language of arbitration proceedings shall be English.

37.3.2. There shall be an arbitral tribunal comprising three arbitrators, of whom each party shall appoint one arbitrator and the third arbitrator shall be appointed by the two arbitrators who shall act as a presiding arbitrator. In the event of disagreement between the two arbitrators, the appointment shall be made in accordance with the Arbitration Act.

37.3.3. The arbitral tribunal shall make a reasoned award (the "Award"). Any Award made in any arbitration held pursuant to this Article37 shall be final and binding on the Parties as from the date it is made, and the Concessionaire and TWAD agree and undertake to carry out such Award with immediate effect.

37.3.4. This Agreement and the rights and obligations of the Parties shall remain in full force and effect, pending the Award in any arbitration proceedings hereunder.

ARTICLE-38: MISCELLANEOUS

38.1. Governing law and jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts in Coimbatore shall have exclusive jurisdiction over matters arising out of or relating to this Agreement.

38.2. Waiver

38.2.1. No relaxation, forbearance, delay, or indulgence by either Party in enforcing any of the terms and conditions of this Agreement, nor the granting of time by either Party to the other, shall prejudice, affect, or restrict the rights of that Party under this Agreement.

38.2.2. No waiver by either Party of any breach of this Agreement shall operate as a waiver of any subsequent or continuing breach. Any waiver of a Party's rights, powers, or remedies under this Agreement must:

(a) Be in writing, dated, and signed by an authorized representative of the Party granting such waiver; and

(b) Clearly specify the right and the extent to which it is being waived.

38.2.3. A waiver shall not affect the validity or enforceability of this Agreement and shall not be construed as a precedent for any future breaches or deviations from contractual obligations.

38.3. Liability for review of Documents and Drawings

Except to the extent expressly provided in this Agreement

(a) no review, comment or approval by TWAD of any Project Agreement, Document or Designs and Drawings submitted by the Concessionaire nor any observation or inspection of the installation, operation or maintenance of the Project nor the failure to review, approve, comment, observe or inspect hereunder shall relieve or absolve the Concessionaire from its obligations, duties and liabilities under this Agreement, Applicable Laws and Applicable Permits; and

(b) TWAD shall not be liable to the Concessionaire by reason of any review, comment, approval, observation or inspection referred to in Sub-Article (a) above.

38.4. Exclusion of implied warranties etc.

This Agreement expressly excludes any warranty, condition or other undertaking implied at law or by custom or otherwise arising out of any other agreement between the Parties or any representation by either Party not contained in a binding legal agreement executed by both Parties.

38.5. Survival

38.5.1. Termination shall:

(a) Not relieve the Concessionaire or TWAD, as the case may be, of any obligations hereunder which expressly or by implication survive Termination hereof; and

(b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, 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.

38.5.2. All obligations surviving Termination shall only survive for a period of 3 (three) years following the date of such Termination.

38.6. Entire Agreement

This Agreement and the Schedules together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof, and no amendment or modification here to shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn. For the avoidance of doubt, the Parties hereto agree that any obligations of the Concessionaire arising from the Request for Proposal or request for proposals, as the case may be, shall be deemed to form part of this Agreement and treated as such.

38.7. 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 shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as

nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to the Dispute Resolution Procedure set forth under this Agreement or otherwise.

38.8. No partnership

This Agreement shall not be interpreted or construed to create an association, joint venture or partnership between the Parties, or to impose any partnership obligation or liability upon either Party, and neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

38.9. Third parties

This Agreement is intended solely for the benefit of the Parties and their respective successors and permitted assigns, and nothing in this Agreement shall be construed to create any duty to, standard of care with reference to, or any liability to, any person not a Party to this Agreement including any Concessionaire's Concessionaire.

38.10. Successors and assigns

This Agreement shall be binding upon, and inure to the benefit of the Parties and their respective successors and permitted assigns.

38.11. Notices

Any notice or other communication to be given by any Party to the other Party under or in connection with the matters contemplated by this Agreement shall be in writing and shall:

(a) in the case of the Concessionaire, be given by facsimile or e-mail and by letter delivered by hand to the address given and marked for attention of the person set out below or to such other person as the Concessionaire may from time to time designate by notice to TWAD; provided that notices or other communications to be given to an address outside Coimbatore may, if they are subsequently confirmed by sending a copy thereof by registered acknowledgement due, air mail or by courier, be sent by facsimile or e-mail to the number as the Concessionaire may from time to time designate by notice to TWAD.

Attention:
Designation:

Address:

Fax No:
Email:

(b) in the case of TWAD, be given by facsimile or e-mail and by letter delivered by hand at the address given below and be addressed to the person named below with a copy delivered to TWAD Representative or such other person as TWAD may from time to time designate by notice to the Concessionaire.

Name:
Designation:
Address:
Fax No:
Email:

(c) any notice or communication by a Party to the other Party, given in accordance herewith, shall be deemed to have been delivered when in the normal course of post it ought to have been delivered and in all other cases, it shall be deemed to have been delivered on the actual date and time of delivery; provided that in the case of facsimile or e-mail, it shall be deemed to have been delivered on the working day following the date of its delivery.

38.12. Language

All notices required to be given by one Party to the other Party and all other communications, documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language.

38.13. Counterparts

This Agreement may be executed in two counterparts, each of which, when executed and delivered, shall constitute an original of this Agreement.

WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DAY, MONTH AND YEAR FIRST ABOVE WRITTEN. SIGNED, SEALED AND DELIVERED

For and on behalf of TWAD by:
(Signature)
(Designation)
(Name)
(Address)
(Fax No.)

(e-mail)

THE COMMON SEAL OF CONCESSIONAIRE has been affixed pursuant to the resolution passed by the Board of Directors of the Concessionaire at its meeting held on the [•] day of [•], 2016 hereunto affixed in the presence of [•] Director, who has signed these presents in token thereof and, Company Secretary /Authorized Officer who has countersigned the same in token thereof:

(Signature)
(Designation)
(Name)
(Address)
(Fax No.)
(e-mail)

SCHEDULE-1: INDICATIVE BASELINE SPECIFIC ENERGY CONSUMPTION FOR PUMPING STATIONS

Sl. No.	Name of Water Supply Scheme	Pumping Station	No. of Pumps (incl. Standby Pumps)	Baseline[4] SEC (kWh/ KL)
1	CWSS to Doddampalayam and 116 other rural habitations in sathyamangalam and Bhavanisagar Unions of Erode District - Headworks at Bhavanisagar	Head works at Bhavanisagar Treatment plant at Bhavanisagar	4	0.425
2	CWSS of Muthur, Kangayam and 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Mettukadai	9	0.555
		Kodumudi	5	0.328
		Valipanankadu	3	0.533
		Mulanur	2	0.380
		Itchipalayam 150 HP	3	0.280
		Dharapuram 100Hp	2	0.580
		Kolathupalayam	2	0.149
		Varatukarrai	2	0.561
3	CWSS to 2 Tps and 318 Rural Habitations in Namakkal District (Phase I)	OruvandurHead works	3	0.401
		Valayapatti	3	0.360
4	CWSS to Attur-Narasingapuram Municipalities, 20 Town panchayats and 1345 rural habitations in 12 unions of Salem district	CWPH Komburankadu	8	0.560
		Mettur	4	0.506
		CWPH, Vinayanagar	6	0.295
		Moolagundu	3	0.598
		CWPH, Ammapet	3	0.553

[4]*Baseline SEC is the average Specific Energy Consumption of the number of Pumps(incl. standby Pumps) in the particular Pumping Station*

Sl. No.	Name of Water Supply Scheme	Pumping Station	No. of Pumps (incl. Standby Pumps)	Baseline[4] SEC (kWh/ KL)
		CWPH, Minnampalli	6	0.322
		CWPH, Belurpirivu sump	2	0.909
5	CWSS to Chennimalai ,Perundurai, K.C.Palayam RTP, ChithodeNasiyanur RTP and 69 other habitations in Chennimalai, Perundurai Union of Erode District	CWPH, Konavaikal	3	0.526
		CWPH, Gangapuram	3	0.342
		CWPH, Vavikadai	3	0.200
6	CWSS to CLPRA	Velliangadu	8	0.247
		CWPH, Pillur	6	0.223
		Periyanayapalayam	5	0.340
		Chinnavedampatti	3	0.335
		Kalangal	2	0.450
7	CWSS to Iruppali, 236 Fluoride Affected Habitations and 1237 Wayside Habitations in Salem District	Koodakkal head works	3	0.396
		Vanniynagar WTP, Iruppali 220 HP	3	0.420
		Edanganasalai	5	0.417
		Iruppali booster station	3	0.343
8	CWSS to Kurichi, Kuniyamuthur Municipalities and Kinathukadavu Town Panchayat in Coimbatore District	Athupollachi	3	0.587
		Kinathukadavu	3	0.470
		Achipatty booster station	3	0.269
9	CWSS to Suleswaranpatti in	Zaminuthukuli	2	0.421

Sl. No.	Name of Water Supply Scheme	Pumping Station	No. of Pumps (incl. Standby Pumps)	Baseline[4] SEC (kWh/ KL)
	pollachi north, pollachi south and Kinatukadavu unions in coimbatore District.	Ambarampalayam	5	0.206
10	Nallampatti TP, PallapalaymTP,Kanjikoil TP, Pethampalayam TP and 60 Rural Habitatrions in Perundurai and Bhavani Unions of Erode District	Siraimettanpalayam	2	0.290
		CPWH, Kanjikovil	2	0.454
Total		**37 nos.**	**137 nos.**	**--**

SCHEDULE-2: EARMARKED QUANTITY OF WATER FOR PUMPING STATIONS

Sl. No.	Name of Water Supply Scheme	Pumping Station	LPM	Earmarked Quantity (m3/ hr)	Earmarked Quantity (MLD)
1	CWSS to Doddampalayam and 116 other rural habitations in Sathyamangalam and Bhavanisagar unions of Erode District - Headworks at Bhavanisagar	Head works at Bhavanisagar	3,360	201.6	**4.84**
		Treatment plant at Bhavanisagar	3,200	192	**4.61**
2	CWSS of Muthur, Kangayam and 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Mettukadai	40,088	2405.3	**57.73**
		Kodumudi	48,287	2897.2	**69.53**
		Valipanankadu	11,456	687.36	**16.50**
		Mulanur	8,600	516	**12.38**
		Itchipalayam 150 HP	16,736	1004.2	**24.10**
		Dharapuram 100Hp	2,500	150	**3.60**
		Kolathupalayam	5,880	352.8	**8.47**
		Varatukarrai	6,257	375.42	**9.01**
3	CWSS to 2 Tps and 318 Rural Habitations in Namakkal District (Phase I)	Oruvandur Head works	11,980	718.8	**17.25**
		Valayapatti	8,356	501.36	**12.03**
4	CWSS to Attur-Narasingapuram Municipalities, 20 Town panchayats and 1345 rural habitations in 12 unions of Salem district	CWPH Komburankadu	51,900	3114	**74.74**
		Mettur	31,500	1890	**45.36**
		CWPH, Vinayanagar	38,656	2319.4	**55.66**
		Moolagundu	4,282	256.92	**6.17**
		CWPH, Ammapet	12,000	720	**17.28**

Sl. No.	Name of Water Supply Scheme	Pumping Station	LPM	Earmarked Quantity (m3/ hr)	Earmarked Quantity (MLD)
		CWPH, Minnampalli	18,420	1105.2	**26.52**
		CWPH, Belurpirivu sump	2,203	132.18	**3.17**
5	CWSS to Chennimalai ,Perundurai, K.C.Palayam RTP, ChithodeNasiyanur RTP and 69 other habitations in Chennimalai, Perundurai Union of Erode District	CWPH, Konavaikal	9,412	564.72	**13.55**
		CWPH, Gangapuram	8,666	519.96	**12.48**
		CWPH, Vavikadai	7,480	448.8	**10.77**
6	CWSS to CLPRA	Velliangadu - 375 HP	99,200	5952	**142.85**
		CWPH, Pillur	96,000	5760	**138.24**
		Periyanayapalayam	12,834	770.04	**18.48**
		Chinnavedampatti	2,285	137.1	**3.29**
		Kalangal	2,486	149.16	**3.58**
7	CWSS to Iruppali, 236 Fluoride Affected Habitations and 1237 Wayside Habitations in Salem District	Koodakkal head works	38,542	2312.5	**55.50**
		Vanniynagar WTP, Iruppali 220 HP	35,700	2142	**51.41**
		Iruppali booster station	28,080	1684.8	**40.44**
8	CWSS to Kurichi, Kuniyamuthur Municipalities and Kinathukadavu Town Panchayat in Coimbatore District	Athupollachi	7,934	476.04	**11.42**
		Kinathukadavu	7,500	450	**10.80**
		Achipatty booster station	7,934	476.04	**11.42**
9	CWSS to Suleswaranpatti in	Zaminuthukuli	4,100	246	**5.90**

Sl. No.	Name of Water Supply Scheme	Pumping Station	LPM	Earmarked Quantity (m3/ hr)	Earmarked Quantity (MLD)
	pollachi north, pollachisouth and Kinatukadavu unions in coimbatore District.	Ambarampalayam 50 HP & 100 HP	11,100	666	**15.98**
10	Nallampatti TP, PallapalaymTP,Kanjikoil TP, Pethampalayam TP and 60 Rural Habitatrions in Perundurai and Bhavani Unions of Erode District	Siraimettanpalayam	5,193	311.58	**7.48**
		CPWH, Kanjikovil	2,569	154.14	**3.70**

SCHEDULE-3:GUIDELINES FOR PREPARATION OF IMPLEMENTATION PLAN AND O&M PLAN

Guidelines for Preparation of Implementation Plan

The Implementation Plan shall encompass the following key activities:

I. Supply and installation of 137 energy efficient Pumpsets.

- Replacement of old and inefficient pumps with BEE 5-Star rated Pumpsets for reduced energy consumption.
- Selection of variable frequency drives (VFDs) to optimize motor speed and reduce excess energy usage.
- Testing and commissioning as per ISO 9906 Performance Testing Standards.

II. Installation of Power Factor Correction Equipment

- Capacitor banks to improve power factor above 0.98 and reduce reactive power penalties.
- Automatic Power Factor Correction (APFC) panels for dynamic compensation.

III. Installation of Harmonic Filters and Power Quality Enhancement

- Active harmonic filters to reduce Total Harmonic Distortion (THD) below 5% as per IEEE 519 standards.
- Isolation transformers to improve voltage regulation and mitigate electrical disturbances.

IV. Advanced Monitoring and Automation System

- SCADA-based real-time monitoring of energy consumption, pump efficiency, and system performance.
- Integration of IoT-based smart meters for remote tracking of power consumption and savings.
- Cloud-based Energy Management System (EMS) for data analysis and reporting.

The Implementation Plan shall include

Implementation Schedule

The CONCESSIONAIRE shall prepare a detailed project management schedule outlining all activities to be undertaken during the 8-month Implementation Period.

- Phase 1 (Month 1-4):Study Period, CP and approval of Advance Procurement Plan.
- Phase 2 (Month 5-6): Installation of initial 50% of equipment.
- Phase 3 (Month 7-9):Installation of 100% equipment, calibration, and optimization.
- Phase 4 (Month 10-12): Final testing & commissioning of Pumpsets.

Guidelines for Operation& Maintenance Plan (O&M Plan)

1. Overview of O&M Responsibilities

1.1 The CONCESSIONAIRE shall prepare an annual operation and maintenance plan for the37 Pumping Stations, detailing:

- Routine maintenance tasks, frequency, and assigned personnel.
- Emergency response protocols.
- Energy consumption tracking and performance verification.

1.2 The objective of the O&M Plan is to:

(a) Ensure continuous and optimal operation of the energy-efficient pumping system.
(b) Maintain power quality, reduce system losses, and ensure maximum energy savings.
(c) Conduct predictive, preventive, and corrective maintenance to avoid downtime.
(d) Maintain performance in compliance with ISO 50001 Energy Management Standards.

2. Maintenance Protocols

- Preventive Maintenance (Monthly & Quarterly Checks)
- Predictive Maintenance (Vibration analysis, thermal imaging, efficiency testing)
- Corrective Maintenance (Emergency repairs and fault rectification)
- SCADA-Based Remote Monitoring

3. Energy Performance Monitoring & Verification (M&V)

- Baseline Energy Consumption Assessment at the start of the O&M period.
- Bi Monthly Energy Savings Reports.
- Annual Energy Efficiency Performance Review to ensure compliance with the Shared Savings Model.

4. Spare Parts & Inventory Management

- The CONCESSIONAIRE shall maintain an adequate stock of spare parts for critical components.
- Maintain minimum 95% availability of Pumpsets at all times.

5. Compliance & Reporting

- The CONCESSIONAIRE shall submit quarterly O&M reports to TWAD.
- Maintain an online dashboard for real-time performance tracking.

SCHEDULE-4: APPLICABLE PERMITS

The Concessionaire, to the extent applicable in respect of the Project, shall obtain and maintain the following permits:

A. **Electrical Permits and Approvals**

- Right to use temporary electrical connections during the Implementation Period from the concerned TNPDCL/ TNEB circle office.
- Approval as may be required for installing transformers, capacitor banks, and harmonic filters from the concerned TNPDCL/ TNEB circle office.
- Valid certification from TNPDCL/ TNEB for Electrical license holder.

B. **Equipment and Machinery Licenses**

- Registration and licensing of heavy machinery and Pumpsets.
- Certifications for energy efficiency compliance.

C. **Approval from the Labor Department** – Compliance with labor laws and workforce safety regulations.

D. **Calibration and Testing Certification** – Verification of energy-efficient Pumpsets and electrical components before commissioning.

SCHEDULE-5: FORMAT OF PERFORMANCE SECURITY

To

The Chief Engineer, TWAD BOARD,

WHEREAS

A. The Tamil Nadu Water Supply and Drainage Board (the "**Authority**" or the **"TWAD Board"** or the **"TWAD"**), established under the [•], having issued a Letter of Award dated _____ to _____ (the "**Selected Bidder**"), wherein the Authority has mandated implementation of energy saving measures by supply, installation and commissioning of 137 energy efficient Pumpsets, capacitor banks, harmonics filter, transformer and operation & maintenance of 37 pumping stations across 10 Water Supply Schemes in Coimbatore region on Shared Savings model under PPP mode(the "**Project**") to the Selected Bidder, subject to and in accordance with the provisions of the Draft Concession Agreement.

B. The Agreement requires the Selected Bidder to furnish a Performance Security to the Authority in a sum of Rs. [▪] (the "**Guarantee Amount**") as security for due and faithful performance of its obligations, under and in accordance with the Concession Agreement, during the Concession Period (as defined in the Concession Agreement).

C. We, _____ through our branch at _____ (the "**Bank**") have agreed to furnish this Bank Guarantee towards Performance Security.

NOW, THEREFORE, the bank hereby, unconditionally and irrevocably, guarantees and affirms as follows.

(a) The Bank hereby unconditionally and irrevocably guarantees and undertakes to pay to the Authority upon occurrence of any failure or default in due and faithful performance of all or any of the Concessionaire's obligations, under and in accordance with the provisions of the Agreement, on its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Concessionaire, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.

(b) A letter from the office, under the hand of an officer not below the rank of _____, in TWAD Board, that the Concessionaire has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to

whether the Concessionaire is in default in due and faithful performance of its obligations during the Concession Period under the Agreement and its decision that the Concessionaire is in default shall be final, and binding on the Bank, notwithstanding any differences between the Authority and the Concessionaire, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Concessionaire for any reason whatsoever.

(c) In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Concessionaire and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.

(d) It shall not be necessary, and the Bank hereby waives any necessity for the Authority to proceed against the Concessionaire before presenting to the Bank its demand under this Guarantee.

(e) The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfilment and/ or performance of all or any of the obligations of the Concessionaire contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Concessionaire, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Concessionaire or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.

(f) This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Agreement or for the fulfilment, compliance and/or performance of all or any of the obligations of the Concessionaire under the Agreement.

(g) Notwithstanding anything contained herein, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee shall be unconditional and irrevocable and will remain in force throughout the Concession Period and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee, no later than 6 (six) months from the date of expiry of this Guarantee, all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.

(h) The Performance Security shall be released within 3 (three) months after the expiry of Concession Period provided the Concessionaire is not in breach of this Agreement. Upon request made by the Concessionaire for release of the Performance Security along with the particulars required hereunder, duly certified by a statutory auditor by the Concessionaire, the Authority shall release the Performance Security forthwith.

(i) The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.

(j) Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred Branch, which shall be deemed to have been duly authorized to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive. The Bank shall also accept e-mail as a valid notice of claim by the Authority delivered to [insert e-mail id of the Bank] .

(k) This Guarantee shall come into force with immediate effect and shall remain in force and effect for the entire Concession period or until it is released earlier by the Authority pursuant to the provisions of the Agreement.

(l) The Performance Security shall be valid till 3 (three) months after the expiry of Concession Period

Signed and sealed this ……. day of ……, 20……. at ……

SIGNED AND DELIVERED

For and on behalf of

The **GUARANTOR** by

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

a) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.

b) The address, telephone number and other details of the Head Office of the Bank as well as of issuing Branch should be mentioned on the covering letter of issuing Branch.

SCHEDULE-6: SAFETY REQUIREMENTS

1. Guiding principle

1.1 The Safety Requirements aim to reduce injuries, loss of life and damage to property resulting from accidents during the implementation and operation of Energy Saving Measures, irrespective of the person(s) at fault.

1.2 Safety Requirements apply to all phases of supply, installation, commissioning, operation, and maintenance of energy efficient Pumpsets, capacitor banks, harmonic filters, transformers and other equipment, with an emphasis on identifying risk factors, implementing appropriate safety measures and ensuring compliance with regulations.

2. Obligations of the Concessionaire

The Concessionaire shall comply with the following safety measures:

(a) Applicable Laws and Applicable Permits related to electrical and mechanical safety;
(b) Relevant technical specifications for electrical and mechanical installations;
(c) Provisions of this Agreement, including fair safety and environmental compliance;
(d) Appointment of a Project Manager responsible for ensuring the implementation and adherence to all safety measures;
(e) Proper training of personnel involved in operation and maintenance of the installed systems;
(f) Provision of adequate Personal Protective Equipment (PPE) for all workers at site;
(g) Implementation of Lockout-Tagout (LOTO) procedures to prevent accidental energization during maintenance;
(h) Ensuring fire safety measures, including availability of fire extinguishers and training on firefighting procedures;
(i) Ensuring compliance with environmental and occupational health standards.

Failure to comply with these safety requirements shall result in appropriate damages incurred and charges shall be decided mutually between the parties to this contract.

3. Safety measures to be adhered

All electrical safety equipments like hand gloves, testers and other electrical needs are to be provided by the Concessionaire in the Pumping Stations as stated below:

S. No.	Name of Equipment	For	
		HT Supply	**LT Supply**
1	Safety belt with rope	2 nos	1 no.
2	Gas Mask	1 no.	1 no.
3	Shock proof hand gloves (11 KV grade gloves)	1 pair	1 pair
4	Disposable hand gloves	2 pairs	2 pairs
5	Gum boot	2 pairs	1pair
6	Electrical line tester	1 no.	1 no.
7	Earth discharge rod	1 no.	1 no-
8	First Aid Box	1 no.	1 no.
9	Emergency light	1 no.	1 no.
10	Fire Extinguisher	2no.	1no.
11.	Rubber Mat of suitable size	as per requirement	

Note: The above is only an illustrative minimum list. The Concessionaire must note that it is their responsibility to ensure the lives and safety of the workers employed by them. The premises should be maintained as per CEIG norms and requirements. If any failure/ Penalty due to non-adherence of CEIG norms will have to be borne by the Concessionaire. Towards this end, all the equipment of appropriate specifications should be procured and made available to the workers in usable conditions throughout the period of contract. Responsibility for any health problem or death will solely rest with Concessionaire.

a) Only experienced, skilled people have to be employed by the Concessionaire.

b) Safety belts, ropes, Gas mask, Torch lights, are to be provided by the Concessionaire for labourers who get into wells.

c) All personnel shall be covered by insurance under workmen compensation Act.

d) All labour act provisions have to be met with.

e) Exhibit labels of "SAFETY FIRST”

f) First Aid Box should made available within the reach of the staff in all Pump Rooms and Booster Stations.

g) No medicine beyond the expiry date should be kept in the first aid box

h) First Aid Chart should be displayed in the Pump Rooms.

SCHEDULE-7: KEY PERFORMANCE INDICATORS

The Key Performance Indicators (KPIs) for the Concessionaire stipulated by the Authority are summarized below:

I. Key Performance Indicators (KPIs) with respect to the Pumped Quantity of water

Key Performance Indicator	Value	Ascertaining Method	Timeline/ Frequency	Incentive/ Penalty
Pumped Quantity	Equal to or more than the Earmarked Quantity	Readings of Digital Flow Meter installed in each of the 37 Pumping Stations	i. Measured and data compiled on daily basis ii. Instances of excess on daily basis to be counted/ noted	No Incentive/ Penalty.
Pumped Quantity	Shortfall upto 3% of the Earmarked Quantity	Readings of Digital Flow Meter installed in each of the 37 Pumping Stations	i. Measured and data compiled on daily basis ii. Instances of shortfall on daily basis to be counted/ noted	Penalty shall be levied for the shortfall quantity at the rate of the Actual Specific Energy Consumption for the bi-monthly period under consideration multiplied by 1.50 times the prevailing TNPDCL tariff.

Key Performance Indicator	Value	Ascertaining Method	Timeline/ Frequency	Incentive/ Penalty
Pumped Quantity	Shortfall from 3% to 6% of the Earmarked Quantity	Readings of Digital Flow Meter installed in each of the 37 Pumping Stations	i. Measured and data compiled on daily basis ii. Instances of shortfall on daily basis to be counted/ noted	Penalty shall be levied for the shortfall quantity at the rate of the Actual Specific Energy Consumption for the bi-monthly period under consideration multiplied by 1.75 times the prevailing TNPDCL tariff.
Pumped Quantity	Shortfall from 6% to 10% of the Earmarked Quantity	Readings of Digital Flow Meter installed in each of the 37 Pumping Stations	i. Measured and data compiled on daily basis ii. Instances of shortfall on daily basis to be counted/ noted	Penalty shall be levied for the shortfall quantity at the rate of the Actual Specific Energy Consumption for the bi-monthly period under consideration multiplied by 2.00 times the prevailing TNPDCL tariff.
Pumped Quantity	First (1st) instance of shortfall more than 10% of the Earmarked Quantity within the bi-monthly billing period	Readings of Digital Flow Meter installed in each of the 37 Pumping Stations	i. Measured and data compiled on daily basis ii. Instances of shortfall on daily basis to be counted/ noted	Liable for Termination – Preliminary notice of termination may be issued.
Pumped Quantity	Second (2nd)instance of shortfall more than 10%	Readings of Digital Flow Meter installed in each of the 37 Pumping	i. Measured and data compiled on daily basis ii. Instances of	Liable for immediate Termination – Termination Notice shall be issued.

Key Performance Indicator	Value	Ascertaining Method	Timeline/ Frequency	Incentive/ Penalty
	of the Earmarked Quantity within the bi-monthly billing period	Stations	shortfall on daily basis to be counted/ noted	
Pumped Quantity	5 Instances of shortfall upto 10% measured on daily basis within the bi-monthly billing period	Data from the Digital Flow Meters captured and compiled at the Pumping Station level on daily basis	Instances of shortfall on daily basis to be counted/ noted.	Liable for immediate Termination – Termination Notice may be issued.
Pumped Quantity	Shortfall for 3 consecutive days upto 10% measured on daily basis.	Data from the Digital Flow Meters captured and compiled at the Pumping Station level on daily basis	Instances of shortfall on daily basis to be counted/ noted	Liable for Termination – Preliminary Notice of Termination may be issued.

Note:
If the Pumped Quantity reduces due to problems such as power shut down, source depletion or any other natural calamities, then the Concessionaire shall not be penalized by the Authority.

II. Key Performance Indicators (KPIs) with respect to the Actual Energy Savings

Key Performance Indicator	Value	Ascertaining Method	Timeline/ Frequency	Incentive/Penalty
Actual Energy Savings	The Actual Energy saving (kWh)is upto 5% over and above the Guaranteed Energy Saving	Readings from smart energy meter installed by TNPDCL in each of the 37 Pumping Stations.	i. Measured and data compiled on daily basis ii. Cumulative bi-monthly readings recorded.	An incentive of 10% on the additional energy saved over and above the Guaranteed Energy

				Savings.
Actual Energy Savings	The Actual Energy saving (kWh)is more than 5% over and above the Guaranteed Energy Saving	Readings from smart energy meter installed by TNPDCL in each of the 37 Pumping Stations.	i. Measured and data compiled on daily basis ii. Cumulative bi-monthly readings recorded.	An incentive of 15% on the additional energy saved over and above the Guaranteed Energy Savings.
Actual Energy Savings	The Actual Energy saving (kWh)is equal to Guaranteed Energy Saving	Readings from smart energy meter installed by TNPDCL in each of the 37 Pumping Stations.	i. Measured and data compiled on daily basis ii. Cumulative bi-monthly readings recorded.	No Incentive/ Penalty.
Actual Energy Savings	The Actual Energy saving (kWh)is between 20% and 25%.	Readings from smart energy meter installed by TNPDCL in each of the 37 Pumping Stations.	i. Measured and data compiled on daily basis ii. Cumulative bi-monthly readings recorded.	Penalty of 110% of the TNPDCL Electricity tariff charges will be levied as penalty on the shortfall in the savings.
Actual Energy Savings	The Actual Energy saving (kWh)is between 15% and 20%.	Readings from smart energy meter installed by TNPDCL in each of the 37 Pumping Stations.	i. Measured and data compiled on daily basis ii. Cumulative bi-monthly readings recorded.	Penalty of 150% of the TNPDCL Electricity tariff charges will be levied as penalty on the shortfall in the savings.
Actual Energy Savings	The Actual Energy saving (kWh)is between 10% and 15%	Readings from smart energy meter installed by TNPDCL in each of the 37 Pumping Stations.	i. Measured and data compiled on daily basis ii. Cumulative bi-monthly readings recorded.	Penalty of 200% of the TNPDCL Electricity tariff charges will be levied as penalty on the shortfall in the savings.
Actual Energy Savings	The Actual Energy saving (kWh)is between 0% and 10%.	Readings from smart energy meter installed by TNPDCL in each of the 37 Pumping	i. Measured and data compiled on daily basis ii. Cumulative bi-monthly readings	Penalty of 250% of the TNPDCL Electricity tariff charges will be levied as penalty on

		Stations.	recorded.	the shortfall in the savings. Liable for Termination – Preliminary Notice of Termination may be issued.
Actual Energy Savings	The Actual Energy saving (kWh)is below 0%.	Readings from smart energy meter installed by TNPDCL in each of the 37 Pumping Stations.	i. Measured and data compiled on daily basis ii. Cumulative bi-monthly readings recorded.	Liable for Immediate Termination – Termination Notice shall be issued.

III. KPI for Partial COD

Key Performance Indicator	Value	Ascertaining Method	Timeline/ Frequency	Incentive/Penalty
COD	Partial COD corresponding to each CWSS	Achieved prior to Scheduled COD	Number of Days	Shared Savings computed on a pro-rata basis (accrued) for the number of days between the occurrence of Partial COD for a Pumping Station and the Actual COD, shall be paid within 15 days from the Actual COD.
COD	Actual COD	Achieved on the Scheduled COD	Number of Days	No Incentive or Penalty
COD	Actual COD	Achieved after Scheduled COD	Number of Days	If the Concessionaire delays the completion by X number of days from the Scheduled COD, the Concessionaire cannot claim any payment towards Energy Savings for X number of days post the Actual COD

A. Illustrationson computation of Penalty with respect to the KPIs linked to the Pumped Quantity of water

Key Performance Indicator	Value	Incentive/ Penalty	Illustration
Pumped Quantity	Equal to or more than the Earmarked Quantity	No Incentive/ Penalty.	--
Pumped Quantity	Shortfall upto 3% of the Earmarked Quantity	Penalty shall be levied for the shortfall quantity at the rate of the Actual Specific Energy Consumption for the bi-monthly period under consideration multiplied by 1.50 times the prevailing TNPDCL tariff.	Say, if the actuals corresponding to the bi-monthly period under consideration are as follows: Shortfall quantity = 1,000 KL Actual Specific Energy Consumption = 0.353 Prevailing TNPDCL Tariff = INR 8 / kWh Penalty = 1,000 * 0.353 * 8 * 1.50 = INR 4,236/-
Pumped Quantity	Shortfallfrom3% to 6% of the Earmarked Quantity	Penalty shall be levied for the shortfall quantity at the rate of the Actual Specific Energy Consumption for the bi-monthly period under consideration multiplied by 1.75 times the prevailing TNPDCL tariff.	Say, if the actuals corresponding to the bi-monthly period under consideration are as follows: Shortfall quantity = 1,000 KL Actual Specific Energy Consumption = 0.353 Prevailing TNPDCL Tariff = INR 8 / kWh Penalty = 1,000 * 0.353 * 8 * 1.75 = INR 4,942/-

Key Performance Indicator	Value	Incentive/ Penalty	Illustration
Pumped Quantity	Short fall from 6% to 10% of the Earmarked Quantity	Penalty shall be levied for the shortfall quantity at the rate of the Actual Specific Energy Consumption for the bi-monthly period under consideration multiplied by2.00 times the prevailing TNPDCL tariff.	Say, if the actuals corresponding to the bi-monthly period under consideration are as follows: Shortfall quantity = 1,000 KL Actual Specific Energy Consumption = 0.353 Prevailing TNPDCL Tariff = INR 8 / kWh Penalty = 1,000 * 0.353 * 8 * 2.00 = INR 5,648/-
Pumped Quantity	First (1st) instance of shortfall of more than 10% of the Earmarked Quantity within the bi-monthly billing period	Liable for Termination – Preliminary notice of termination may be issued.	--
Pumped Quantity	Second (2nd) instance of shortfall more than 10% of the Earmarked Quantity within the bi-monthly billing period	Liable for immediate Termination– Termination Notice may be issued.	--
Pumped Quantity	5 instances of shortfall upto 10% measured on daily basis within the bi-monthly billing period	Liable for Termination – Preliminary Notice of Termination may be issued.	--
Pumped Quantity	Shortfall for 3 consecutive days upto 10% measured on daily basis.	Liable for Termination – Preliminary Notice of Termination may be issued.	--

B. Illustrationson computation of Incentive and Penalty with respect to the KPIs linked to the Actual Energy Savings

I. Computation of Incentive – Actual Energy Savings is upto 5% over and above the Guaranteed Energy Savings

Key Performance Indicator	Value	Incentive/Penalty
Actual Energy Savings for a particular Pumping Station	The Actual Energy Savings (kWh)is upto 5% over and above the Guaranteed Energy Savings	An incentive of 10% on the additional energy saved over and above the Guaranteed Energy Savings.

Computation of Incentive with illustration

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Incentive
1.	Final Baseline Specific Energy consumption per KL of water pumped (e) as per Schedule-21 of the Concession Agreement	kWh/ KL	e	0.457	Not Applicable	
2.	Total Earmarked Quantity of Water during the bi-monthly period under consideration	KL	--	10,000	10,000	
3.	Total Pumped Quantity of Water during the bi-monthly period under consideration (V)	KL	V	Not Applicable	10,000	
4.	Total energy consumed during the bi-monthly period under consideration, as per the bi-monthly energy meter reading in kWh (K)	kWh	K	4,570	3,290	

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Incentive
5.	Actual Specific Energy Consumption for the bi-monthly period under consideration (e1)	kWh/ KL	e1 =K /V	0.457	0.329	
6.	Actual Energy Savings for the bi-monthly period under consideration (A) in kWh terms	kWh	A = e – e1	0	0.128	
7.	Actual Energy Savings for the bi-monthly period under consideration (in % terms)	%	(A / e) * 100%	0	28%	
8.	Total Energy Savings for the bi-monthly period under consideration (S)	kWh	S= A * V	0	1,280	
9.	Prevailing TNPDCL electricity tariff (T) for the bi-monthly period under consideration in INR	INR / kWh	T	Not Applicable	#8.00	
10.	**Financial savings in the Pumping Station (F)**	**INR**	**F = S * T**	**0**	**10,960**	
11.	Quoted Share by the Concessionaire (Q)	%	Q	Not Applicable	#70%	
12.	**Shared Savings for the Pumping Station (SS)**	**INR**	**SS = F * Q**	**0**	**7,672**	
13.	Guaranteed Energy Savings (in %)	%	---	---	25%	
14.	Guaranteed Energy Savings (in kWh)	kWh	0.457 * 25%	---	0.114	
15.	Actual Energy Savings (in kWh) over and above the Guaranteed Energy Savings	kWh	0.128 – 0.114	---	Not Applicable	0.014
16.	Actual Energy Savings (in %) over and above the Guaranteed Energy Savings	%	28% - 25%	---	Not Applicable	3%
17.	Total Energy Savings over and above the Guaranteed Energy Savings	kWh	0.014 * V	---	Not Applicable	140

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Incentive
18.	Financial Savings over and above the Guaranteed Energy Savings	INR	140 * 8	---	Not Applicable	1,120
19.	Incentive as per the KPIs - 10% on the additional energy saved over and above the Guaranteed Energy Savings	INR	1,120 * 10%	---	Not Applicable	112
20.	**Shared Savings plus incentive for achieving higher energy efficiency over and above the Guaranteed Energy Savings**	**INR**	**SS + Incentive**	---	**INR7,784**	

 # Values assumed for illustration purpose only

II. Computation of Incentive – Actual Energy Savings is more than 5% over and above the Guaranteed Energy Savings

Key Performance Indicator	Value	Incentive/Penalty
Actual Energy Savings for a particular Pumping Station	The Actual Energy saving (kWh)is more than 5% over and above the Guaranteed Energy Saving	An incentive of 15% on the additional energy saved over and above the Guaranteed Energy Savings.

Computation of Incentive with illustration

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Incentive
1.	Final Baseline Specific Energy consumption per KL of water pumped (e) as per Schedule-21 of the Concession Agreement	kWh/ KL	e	0.457	Not Applicable	
2.	Total Earmarked Quantity of Water during the bi-monthly period under consideration	KL	--	10,000	10,000	
3.	Total Pumped Quantity of Water during the bi-monthly period under consideration (V)	KL	V	Not Applicable	10,000	
4.	Total energy consumed during the bi-monthly period under consideration, as per the bi-monthly energy meter reading in kWh (K)	kWh	K	4,570	3,070	

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Incentive
5.	Actual Specific Energy Consumption for the bi-monthly period under consideration (e1)	kWh/ KL	e1 =K /V	0.457	0.307	
6.	Actual Energy Savings for the bi-monthly period under consideration (A) in kWh terms	kWh	A = e – e1	0	0.150	
7.	Actual Energy Savings for the bi-monthly period under consideration (in % terms)	%	(A / e) * 100%	0	33%	
8.	Total Energy Savings for the bi-monthly period under consideration (S)	kWh	S= A * V	0	1500	
9.	Prevailing TNPDCL electricity tariff (T) for the bi-monthly period under consideration in INR	INR / kWh	T	Not Applicable	#8.00	
10.	**Financial savings in the Pumping Station (F)**	**INR**	**F = S * T**	**0**	**12,800**	
11.	Quoted Share by the Concessionaire (Q)	%	Q	Not Applicable	#70%	
12.	**Shared Savings for the Pumping Station (SS)**	**INR**	**SS = F * Q**	**0**	**8,960**	
13.	Guaranteed Energy Savings (in %)	%	---	---	25%	
14.	Guaranteed Energy Savings (in kWh)	kWh	0.457 * 25%	---	0.114	
15.	Actual Energy Savings (in kWh) over and above the Guaranteed Energy Savings	kWh	0.150 – 0.114	---	Not Applicable	0.036
16.	Actual Energy Savings (in %) over and above the Guaranteed Energy Savings	%	33% - 25%	---	Not Applicable	8%
17.	Total Energy Savings over and above the	kWh	0.036 * V	---	Not Applicable	360

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Incentive
	Guaranteed Energy Savings					
18.	Financial Savings over and above the Guaranteed Energy Savings	INR	360 * 8	---	Not Applicable	2,880
19.	**Incentive as per the KPIs - 15% on the additional energy saved over and above the Guaranteed Energy Savings**	**INR**	**2,880 * 15%**	**---**	**Not Applicable**	**432**
20.	**Shared Savings plus incentive for achieving higher energy efficiency over and above the Guaranteed Energy Savings**	**INR**	**SS + Incentive**	**---**	**INR 9,392**	

 # Values assumed for illustration purpose only

III. Computation of Penalty – Actual Energy Savings is between 20% and 25%

Key Performance Indicator	Value	Incentive/Penalty
Actual Energy Savings for a particular Pumping Station	The Actual Energy saving (kWh)is between 20% and 25%.	Penalty of 110% of the TNPDCL Electricity tariff charges will be levied as penalty on the shortfall in the savings.

Computation of Penalty with illustration

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Penalty
1.	Final Baseline Specific Energy consumption per KL of water pumped (e) as per Schedule-21 of the Concession Agreement	kWh/ KL	e	0.457	Not Applicable	
2.	Total Earmarked Quantity of Water during the bi-monthly period under consideration	KL	--	10,000	10,000	
3.	Total Pumped Quantity of Water during the bi-monthly period under consideration (V)	KL	V	Not Applicable	10,000	
4.	Total energy consumed during the bi-monthly period under consideration, as per the bi-monthly energy meter reading in kWh (K)	kWh	K	4,570	3,610	
5.	Actual Specific Energy Consumption for the bi-monthly period under consideration	kWh/ KL	e1 =K /V	0.457	0.361	

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Penalty
	(e1)					
6.	Actual Energy Savings for the bi-monthly period under consideration (A) in kWh terms	kWh	A = e – e1	0	0.096	
7.	Actual Energy Savings for the bi-monthly period under consideration (in % terms)	%	(A / e) * 100%	0	21%	
8.	Total Energy Savings for the bi-monthly period under consideration (S)	kWh	S= A * V	0	960	
9.	Prevailing TNPDCL electricity tariff (T) for the bi-monthly period under consideration in INR	INR / kWh	T	Not Applicable	#8.00	
10.	**Financial savings in the Pumping Station (F)**	**INR**	**F = S * T**	**0**	**7,280**	
11.	Quoted Share by the Concessionaire (Q)	%	Q	Not Applicable	#70%	
12.	**Shared Savings for the Pumping Station (SS)**	**INR**	**SS = F * Q**	**0**	**5,096**	
13.	Guaranteed Energy Savings (in %)	%	---	---	25%	
14.	Guaranteed Energy Savings (in kWh)	kWh	0.457 * 25%	---	0.114	
15.	Shortfall in the Actual Energy Savings (in kWh)from the Guaranteed Energy Savings	kWh	0.114 – 0.096	---	Not Applicable	0.018
16.	Shortfall in the Actual Energy Savings (in %)from the Guaranteed Energy Savings	%	25% - 21%	---	Not Applicable	4%
17.	Shortfall in the Total Energy Savings from the Guaranteed Energy Savings	kWh	0.018 * V	---	Not Applicable	180

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Penalty
18.	Shortfall in the Financial Savings from the Guaranteed Energy Savings	INR	180 * 8	---	Not Applicable	1,440
19.	**Penalty as per the KPIs - 110% of the TNPDCL Electricity tariff charges will be levied as penalty on the shortfall in the savings.**	**INR**	**1,440 * 110%**	**---**	**Not Applicable**	**1,584**
20.	**Shared Savings less Penalty for achieving lower energy efficiency from the Guaranteed Energy Savings**	**INR**	**SS - Penalty**	**---**	**INR 3,512**	

 # Values assumed for illustration purpose only

IV. Computation of Penalty – Actual Energy Savings is between 15% and 20%

Key Performance Indicator	Value	Incentive/Penalty
Actual Energy Savings for a particular Pumping Station	The Actual Energy saving (in kWh)is between 15% and 20%.	Penalty of 150% of the TNPDCL Electricity tariff charges will be levied as penalty on the shortfall in the savings.

Computation of Penalty with illustration

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Penalty
1.	Final Baseline Specific Energy consumption per KL of water pumped (e) as per Schedule-21 of the Concession Agreement	kWh/ KL	e	0.457	Not Applicable	
2.	Total Earmarked Quantity of Water during the bi-monthly period under consideration	KL	--	10,000	10,000	
3.	Total Pumped Quantity of Water during the bi-monthly period under consideration (V)	KL	V	Not Applicable	10,000	
4.	Total energy consumed during the bi-monthly period under consideration, as per the bi-monthly energy meter reading in kWh (K)	kWh	K	4,570	3,750	
5.	Actual Specific Energy Consumption for the bi-monthly period under consideration	kWh/ KL	e1 =K /V	0.457	0.375	

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Penalty
	(e1)					
6.	Actual Energy Savings for the bi-monthly period under consideration (A) in kWh terms	kWh	A = e – e1	0	0.082	
7.	Actual Energy Savings for the bi-monthly period under consideration (in % terms)	%	(A / e) * 100%	0	18%	
8.	Total Energy Savings for the bi-monthly period under consideration (S)	kWh	S= A * V	0	820	
9.	Prevailing TNPDCL electricity tariff (T) for the bi-monthly period under consideration in INR	INR / kWh	T	Not Applicable	#8.00	
10.	**Financial savings in the Pumping Station (F)**	**INR**	**F = S * T**	**0**	**6,560**	
11.	Quoted Share by the Concessionaire (Q)	%	Q	Not Applicable	#70%	
12.	**Shared Savings for the Pumping Station (SS)**	**INR**	**SS = F * Q**	**0**	**4,592**	
13.	Guaranteed Energy Savings (in %)	%	---	---	25%	
14.	Guaranteed Energy Savings (in kWh)	kWh	0.457 * 25%	---	0.114	
15.	Shortfall in the Actual Energy Savings (in kWh)from the Guaranteed Energy Savings	kWh	0.114 – 0.082	---	Not Applicable	0.032
16.	Shortfall in the Actual Energy Savings (in %)from the Guaranteed Energy Savings	%	25% - 18%	---	Not Applicable	7%
17.	Shortfall in the Total Energy Savings from the Guaranteed Energy Savings	kWh	0.032 * V	---	Not Applicable	320

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Penalty
18.	Shortfall in the Financial Savings from the Guaranteed Energy Savings	INR	320 * 8	---	Not Applicable	2,560
19.	**Penalty as per the KPIs - 110% of the TNPDCL Electricity tariff charges will be levied as penalty on the shortfall in the savings.**	**INR**	**2,560 * 150%**	**---**	**Not Applicable**	**3,840**
20.	**Shared Savings less Penalty for achieving lower energy efficiency from the Guaranteed Energy Savings**	**INR**	**SS - Penalty**	**---**	**INR 752**	

 # Values assumed for illustration purpose only

V. Computation of Penalty – Actual Energy Savings is between 10% and 15%

Key Performance Indicator	Value	Incentive/Penalty
Actual Energy Savings for a particular Pumping Station	The Actual Energy saving (kWh)is between 10% and 15%.	Penalty of 200% of the TNPDCL Electricity tariff charges will be levied as penalty on the shortfall in the savings.

Computation of Penalty with illustration

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Penalty
1.	Final Baseline Specific Energy consumption per KL of water pumped (e) as per Schedule-21 of the Concession Agreement	kWh/ KL	e	0.457	Not Applicable	
2.	Total Earmarked Quantity of Water during the bi-monthly period under consideration	KL	--	10,000	10,000	
3.	Total Pumped Quantity of Water during the bi-monthly period under consideration (V)	KL	V	Not Applicable	10,000	
4.	Total energy consumed during the bi-monthly period under consideration, as per the bi-monthly energy meter reading in kWh (K)	kWh	K	4,570	3,020	

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Penalty
5.	Actual Specific Energy Consumption for the bi-monthly period under consideration (e1)	kWh/ KL	e1 =K /V	0.457	0.402	
6.	Actual Energy Savings for the bi-monthly period under consideration (A) in kWh terms	kWh	A = e – e1	0	0.055	
7.	Actual Energy Savings for the bi-monthly period under consideration (in % terms)	%	(A / e) * 100%	0	12%	
8.	Total Energy Savings for the bi-monthly period under consideration (S)	kWh	S= A * V	0	550	
9.	Prevailing TNPDCL electricity tariff (T) for the bi-monthly period under consideration in INR	INR / kWh	T	Not Applicable	#8.00	
10.	**Financial savings in the Pumping Station (F)**	**INR**	**F = S * T**	**0**	**4,400**	
11.	Quoted Share by the Concessionaire (Q)	%	Q	Not Applicable	#70%	
12.	**Shared Savings for the Pumping Station (SS)**	**INR**	**SS = F * Q**	**0**	**3,080**	
13.	Guaranteed Energy Savings (in %)	%	---	---	25%	
14.	Guaranteed Energy Savings (in kWh)	kWh	0.457 * 25%	---	0.114	
15.	Shortfall in the Actual Energy Savings (in kWh)from the Guaranteed Energy Savings	kWh	0.114 – 0.055	---	Not Applicable	0.059
16.	Shortfall in the Actual Energy Savings (in %)from the Guaranteed Energy Savings	%	25% - 12%	---	Not Applicable	13%
17.	Shortfall in the Total Energy Savings from	kWh	0.059 * V	---	Not Applicable	590

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Penalty
	the Guaranteed Energy Savings					
18.	Shortfall in the Financial Savings from the Guaranteed Energy Savings	INR	590 * 8	---	Not Applicable	4,720
19.	**Penalty as per the KPIs - 110% of the TNPDCL Electricity tariff charges will be levied as penalty on the shortfall in the savings.**	**INR**	**4720 * 200%**	**---**	**Not Applicable**	**9,440**
20.	**Shared Savings less Penalty for achieving lower energy efficiency from the Guaranteed Energy Savings**	**INR**	**SS - Penalty**	**---**	**- 5,040**	

 # Values assumed for illustration purpose only

VI. Computation of Penalty – Actual Energy Savings is between 0% and 10%

Key Performance Indicator	Value	Incentive/Penalty
Actual Energy Savings for a particular Pumping Station	The Actual Energy saving (kWh)is between 0% and 10%.	Penalty of 250% of the TNPDCL Electricity tariff charges will be levied as penalty on the shortfall in the savings.

Computation of Penalty with illustration

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Penalty
1.	Final Baseline Specific Energy consumption per KL of water pumped (e) as per Schedule-21 of the Concession Agreement	kWh/ KL	e	0.457	Not Applicable	
2.	Total Earmarked Quantity of Water during the bi-monthly period under consideration	KL	--	10,000	10,000	
3.	Total Pumped Quantity of Water during the bi-monthly period under consideration (V)	KL	V	Not Applicable	10,000	
4.	Total energy consumed during the bi-monthly period under consideration, as per the bi-monthly energy meter reading in kWh (K)	kWh	K	4,570	4,250	
5.	Actual Specific Energy Consumption for the bi-monthly period under consideration	kWh/ KL	e1 =K /V	0.457	0.425	

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Penalty
	(e1)					
6.	Actual Energy Savings for the bi-monthly period under consideration (A) in kWh terms	kWh	A = e – e1	0	0.032	
7.	Actual Energy Savings for the bi-monthly period under consideration (in % terms)	%	(A / e) * 100%	0	7%	
8.	Total Energy Savings for the bi-monthly period under consideration (S)	kWh	S= A * V	0	320	
9.	Prevailing TNPDCL electricity tariff (T) for the bi-monthly period under consideration in INR	INR / kWh	T	Not Applicable	#8.00	
10.	**Financial savings in the Pumping Station (F)**	**INR**	**F = S * T**	**0**	**2,560**	
11.	Quoted Share by the Concessionaire (Q)	%	Q	Not Applicable	#70%	
12.	**Shared Savings for the Pumping Station (SS)**	**INR**	**SS = F * Q**	**0**	**1,792**	
13.	Guaranteed Energy Savings (in %)	%	---	---	25%	
14.	Guaranteed Energy Savings (in kWh)	kWh	0.457 * 25%	---	0.114	
15.	Shortfall in the Actual Energy Savings (in kWh)from the Guaranteed Energy Savings	kWh	0.114 – 0.032	---	Not Applicable	0.082
16.	Shortfall in the Actual Energy Savings (in %)from the Guaranteed Energy Savings	%	25% - 7%	---	Not Applicable	18%
17.	Shortfall in the Total Energy Savings from the Guaranteed Energy Savings	kWh	0.082 * V	---	Not Applicable	820

S. No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals	Penalty
18.	Shortfall in the Financial Savings from the Guaranteed Energy Savings	INR	820 * 8	---	Not Applicable	6,560
19.	**Penalty as per the KPIs - 110% of the TNPDCL Electricity tariff charges will be levied as penalty on the shortfall in the savings.**	**INR**	**6,560 * 250%**	**---**	**Not Applicable**	**16,400**
20.	**Shared Savings less Penalty for achieving lower energy efficiency from the Guaranteed Energy Savings**	**INR**	**SS - Penalty**	**---**	**- 14,608**	

 # Values assumed for illustration purpose only

C. Decrease in the Earmarked Quantity of water by the Authority

Say, if the total Earmarked Quantity for 10 years (3650 days) is 37,45,825 ML, which means it requires 3650 days to pump 37,45,825 ML and due to source depletion if 3,74,582.5 ML (10%) could not be pumped, then the extension to be given for the number of days required to pump 3,74,582.5 ML shall be computed as follows:

Days required to pump 37,45,825 ML	=	3,650 days
Shortfall in the Earmarked Quantity (on account of the Authority)	=	3,74,582.50 ML
Days required to pump 3,74,582.50 ML	=	365 days
Extended Concession Period	=	365 days

The computation shall be carried out 15 (fifteen) day sprior to the expiry of the Concession Period and the Concession Period shall be extended on a pro-rata basis with respect to the reduction in the quantum of Earmarked Quantity of water as indicated above.

SCHEDULE-8: ESCROW AGREEMENT

THIS ESCROW AGREEMENT is entered into on this the …….. day of ……. 20….

AMONGST

1. …… LIMITED, a company incorporated under the provisions of the Companies Act, 2013and having its registered office at ……..... (hereinafter referred to as the "**Concessionaire**" which expression shall, unless repugnant to the context or meaning thereof, include its successors, permitted assigns and substitutes);

2. ……name and particulars of Lenders" Representative and having its registered office at ……acting for and on behalf of the Lenders as their duly authorised agent with regard to matters arising out of or in relation to this Agreement (hereinafter referred to as the "**Lenders' Representative**" which expression shall, unless repugnant to the context or meaning thereof, include its successors and substitutes);

3. …….name and particulars of the Escrow Bank and having its registered office at …… (hereinafter referred to as the "**Escrow Bank**" which expression shall, unless repugnant to the context or meaning thereof, include its successors and substitutes); and

4. The TWAD Board, represented by its CE and having its office at [•] (hereinafter referred to as the "**Authority**" which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns).

WHEREAS:

(A) TWAD has entered into a Concession Agreement dated …….. with the Concessionaire (the "**Concession Agreement**") for the installation of energy efficient pumps & its allied systems, operate and maintain for 10 years (the **"Project"**) on Public Private Partnership (**"PPP"**) basis, and a copy of which is annexed hereto and marked as Annex-A to form part of this Agreement.

(B) The Lenders namely _____ and _____have agreed to finance the Project in accordance with the terms and conditions set forth in the Financing Agreements. The Lenders appointed _____ as Lenders Representative as their duly authorised agent with regard to matters relating to the Financial Arrangements.

(C) The Concession Agreement requires the Concessionaire to establish an Escrow Account, *inter alia*, on the terms and conditions stated therein.

NOW, **THEREFORE**, in consideration of the foregoing and the respective covenants and agreements set forth in this Agreement, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the Parties agree as follows:

1. DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them:

"**Agreement**" means this Escrow Agreement and any amendment thereto made in accordance with the provisions contained herein;
"**Concession Agreement**" means the Concession Agreement referred to in Recital (A) above and annexed hereto as Annex-A, and shall include all of its Recitals and Schedules and any amendments made thereto in accordance with the provisions contained in this behalf therein;
"**Cure Period**" means the period specified in this Agreement for curing any breach or default of any provision of this Agreement by the Concessionaire, and shall commence from the date on which a notice is delivered by TWAD or the Lenders‟ Representative, as the case may be, to the Concessionaire asking the latter to cure the breach or default specified in such notice;
"**Escrow Account**" means an escrow account established in terms of and under this Agreement, and shall include the Sub-Accounts;
"**Escrow Default**" shall have the meaning ascribed thereto in Clause 6.1 of Escrow Agreement;
"**Lenders' Representative**" means the person referred to as the Lenders‟ Representative in the foregoing Recitals;
"**Parties**" means the parties to this Agreement collectively and "Party" shall mean any of the Parties to this Agreement individually;
"**Payment Date**" means, in relation to any payment specified in Clause 4.2, the date(s) specified for such payment; and
"**Sub-Accounts**" means the respective Sub-Accounts of the Escrow Account, into which the monies specified in Clause 4.1 of Escrow Agreement would be credited every month and paid out if due, and if not due in a month then appropriated proportionately in such month and retained in the respective Sub Accounts and paid out therefrom on the Payment Date(s).

1.2 Interpretation

1.2.1 References to Lenders‟ Representative shall, unless repugnant to the context or meaning thereof, mean references to the Lenders‟ Representative, acting for and on behalf of Lenders.

1.2.2 The words and expressions beginning with capital letters and defined in this Agreement shall have the meaning ascribed thereto herein, and the words and expressions used in this Agreement and not defined herein but defined in the Concession Agreement shall, unless repugnant to the context, have the meaning ascribed thereto in the Concession Agreement.

1.2.3 References to Clauses are, unless stated otherwise, references to Clauses of this Agreement.

1.2.4 The rules of interpretation stated in Clauses 1.2, 1.3 and 1.4 of the Concession Agreement shall apply, mutatis mutandis, to this Escrow Agreement.

2. ESCROW ACCOUNT

2.1 Escrow Bank to act as trustee

2.1.1 The Concessionaire hereby appoints the Escrow Bank to act as trustee for TWAD, the Lenders‟ Representative and the Concessionaire in connection herewith and authorises the Escrow Bank to exercise such rights, powers, authorities and discretion as are specifically delegated to the Escrow Bank by the terms hereof together with all such rights, powers, authorities and discretion as are reasonably incidental hereto, and the Escrow Bank accepts such appointment pursuant to the terms hereof.

2.1.2 The Concessionaire hereby declares that all rights, title and interest in and to the Escrow Account shall be vested in the Escrow Bank and held in trust for TWAD, the Lenders' Representative and the Concessionaire, and applied in accordance with the terms of this Agreement. No person other than TWAD, the Lenders‟ Representative and the Concessionaire shall have any rights hereunder as the beneficiaries of, or as third-party beneficiaries under this Agreement.

2.2 Acceptance of Escrow Bank

The Escrow Bank hereby agrees to act as such and to accept all payments and other amounts to be delivered to and held by the Escrow Bank pursuant to the provisions of this Agreement. The Escrow Bank shall hold and safeguard the Escrow Account during the term of this Agreement and shall treat the amount in the Escrow Account as monies deposited by the Concessionaire, Lenders or TWAD with the Escrow Bank. In performing its functions and duties under this Agreement, the Escrow Bank shall act in trust for the benefit of, and as agent for, TWAD, the Lenders' Representative and the Concessionaire or their nominees, successors or assigns, in accordance with the provisions of this Agreement.

2.3 Establishment and operation of Escrow Account

2.3.1 Within 30 (thirty) days from the date of this Agreement, and in any case prior to the Agreement Date, the Concessionaire shall open and establish the Escrow Account

with the ……. (name of Branch) Branch of the Escrow Bank. The Escrow Account shall be denominated in Rupees.

2.3.2 The Escrow Bank shall maintain the Escrow Account in accordance with the terms of this Agreement and its usual practices and applicable regulations, and pay the maximum rate of interest payable to similar customers on the balance in the said account from time to time.

2.3.3 The Escrow Bank and the Concessionaire shall, after consultation with the Lenders' Representative, agree on the detailed mandates, terms and conditions, and operating procedures for the Escrow Account, but in the event of any conflict or inconsistency between this Agreement and such mandates, terms and conditions, or procedures, this Agreement shall prevail.

2.4 Escrow Bank's fee

The Escrow Bank shall be entitled to receive its fee and expenses in an amount, and at such times, as may be agreed between the Escrow Bank and the Concessionaire. For the avoidance of doubt, such fee and expenses shall form part of the O&M Expenses and shall be appropriated from the Escrow Account in accordance with Clause 4.1.

2.5 Rights of the parties

The rights of the Authority, the Lenders' Representative and the Concessionaire in the monies held in the Escrow Account are set forth in their entirety in this Agreement and the Authority, the Lenders' Representative and the Concessionaire shall have no other rights against or to the monies in the Escrow Account.

2.6 Substitution of the Concessionaire

The Parties hereto acknowledge and agree that upon substitution of the Concessionaire with the Nominated Company, pursuant to the Substitution Agreement, it shall be deemed for the purposes of this Agreement that the Nominated Company is a Party hereto and the Nominated Company shall accordingly be deemed to have succeeded to the rights and obligations of the Concessionaire under this Agreement on and with effect from the date of substitution of the Concessionaire with the Nominated Company.

3. DEPOSITS INTO ESCROW ACCOUNT

3.1 Deposits by the Concessionaire

3.1.1 The Concessionaire agrees and undertakes that it shall deposit into and/or credit the Escrow Account with:

a. all monies received in relation to the Project from any source, including the Lenders, lenders of Subordinated Debt and the Authority;
b. all funds received by the Concessionaire from its shareholders, in any manner or form for the Project;
c. all proceeds received pursuant to any insurance claims.

3.1.2 The Concessionaire may at any time make deposits of its other funds into the Escrow Account, provided that the provisions of this Agreement shall apply to such deposits.

3.2 Deposits by the Authority

TWAD agrees and undertakes that, as and when due and payable, it shall deposit into and/or credit the Escrow Account with:

(a) Payment disbursed by TWAD to the Concessionaire; and
(b) Termination Payments:

Provided that, notwithstanding the provisions of Clause 4.1.1 of Escrow Agreement TWAD shall be entitled to appropriate from the aforesaid amounts, any Concession Fee due and payable to it by the Concessionaire, and the balance remaining shall be deposited into the Escrow Account. In the event of a shortfall in the payment from the Escrow Account, TWAD shall upon receiving notice from the Escrow Bank transfer the shortfall amount from the Reserve Fund Account set up in accordance with the Concession Agreement.

3.3 Deposits by Lenders

The Lenders' Representative agrees, confirms and undertakes that the Lenders shall deposit into and/or credit the Escrow Account with all disbursements made by them in relation to or in respect of the Project; provided that notwithstanding anything to the contrary contained in this Agreement.

3.4 Interest on deposits

The Escrow Bank agrees and undertakes that all interest accruing on the balances of the Escrow Account shall be credited to the Escrow Account; provided that the Escrow Bank shall be entitled to appropriate therefrom the fee and expenses due to it from the Concessionaire in relation to the Escrow Account and credit the balance remaining to the Escrow Account.

4. WITHDRAWALS FROM ESCROW ACCOUNT

4.1 Withdrawals during the Implementation Period

4.1.1 At the beginning of every month, or at such shorter intervals as the Lenders' Representative and the Concessionaire may by written instructions determine, the Escrow Bank shall withdraw amounts from the Escrow Account and appropriate them in the following order by depositing such amounts in the relevant Sub-Accounts for making due payments, and if such payments are not due in any month, then retain such monies in such Sub-Accounts and pay out therefrom on the Payment Date(s):

(a) all taxes due and payable by the Concessionaire for and in relation to its obligations under the Concession Agreement;
(b) all payments, penalties and damages certified by the Authority as due and payable to it by the Concessionaire;
(c) all payments relating to installation of the Project Facilities and the implementation of the Project, subject to and in accordance with the conditions, if any, set forth in the Financing Agreements;
(d) monthly proportionate provision of Debt Service due in an Accounting Year;
(e) monthly proportionate provision of Debt Service payments due in an Accounting Year in respect of Subordinated Debt (if any);
(f) all expenses related to the Safety requirements of the Project;
(g) any reserve requirements set forth in the Financing Agreements; and
(h) balance, if any, in accordance with the joint instruction of the Concessionaire and the Authority.

4.2 Withdrawals during the Operations Period

4.2.1. At the beginning of every month, or at such shorter intervals as the Lenders' Representative and the Concessionaire may by written instructions determine, the Escrow Bank shall withdraw amounts from the Escrow Account and appropriate them in the following order by depositing such amounts in the relevant Sub-Accounts for making due payments, and if such payments are not due in any month, then retain such monies in such Sub-Accounts and pay out therefrom on the Payment Date(s):

(a) all taxes due and payable by the Concessionaire for and in relation to its obligations under the Concession Agreement;
(b) all payments, penalties and damages certified by the Authority as due and payable to it by the Concessionaire;
(c) all payments relating to the operations and maintenance of the Project Assets in accordance with the Concession Agreement;
(d) monthly proportionate provision of Debt Service due in an Accounting Year;

(e) monthly proportionate provision of debt service payments due in an Accounting Year in respect of Subordinated Debt;
(f) all expenses related to the Safety requirements of the Project;
(g) any reserve requirements set forth in the Financing Agreements; and
(h) balance, if any, in accordance with the joint instructions of the Concessionaire and the Authority.

4.2.2 No later than 60 (sixty) days prior to the commencement of each Accounting Year, the Concessionaire shall provide to the Escrow Bank, with prior written approval of the Lenders' Representative, details of the amounts likely to be required for each of the payment obligations set forth in this Clause 4.1; provided that such amounts may be subsequently modified, with prior written approval of the Lenders" Representative, if fresh information received during the course of the year makes such modification necessary.

4.3 Withdrawals upon Termination

Upon Termination of the Concession Agreement, all amounts standing to the credit of the Escrow Account shall, notwithstanding anything in this Agreement, be appropriated and dealt with in the following order:

a. all taxes due and payable by the Concessionaire for and in relation to its obligations under the Project;
b. amount of the Debt Due approved by the Authority as part of the Termination Payment, excluding Subordinated Debt;
c. all payments and Damages certified by the Authority as due and payable to it by the Concessionaire pursuant to the Concession Agreement, including claims in connection with or arising out of Termination;
d. outstanding Debt Service including the balance of Debt Due;
e. incurred and accrued Operations and Maintenance expenses;
f. outstanding Subordinated Debt;
g. any other payments required to be made under the Concession Agreement; and
h. balance, if any, in accordance with the joint instructions of the Concessionaire and the Authority. Provided that the disbursements specified in Sub-clause (i) of this Clause 4.3 shall be undertaken only after the Vesting Certificate has been issued by the Authority.

4.4 Application of insufficient funds

Funds in the Escrow Account shall be applied in the serial order of priority set forth in Clauses 4.1 and 4.2, as the case may be. If the funds available are not sufficient to meet all the requirements, the Escrow Bank shall apply such funds in the serial order of priority until exhaustion thereof.

4.5 Application of insurance proceeds

Notwithstanding anything in this Agreement, the proceeds from all insurance claims, except life and injury, shall be deposited into and/or credited to the Escrow Account and utilised for any necessary repair, reconstruction, reinstatement, replacement, improvement, delivery or installation of the Project and the balance remaining, if any, shall be applied in accordance with the provisions contained in this behalf in the Financing Agreements.

4.6 Withdrawals during Suspension

Notwithstanding anything to the contrary contained in this Agreement, TWAD may exercise all or any of the rights of the Concessionaire during the period of Suspension under Article 28 of the Concession Agreement. Any instructions given by TWAD to the Escrow Bank during such period shall be complied with as if such instructions were given by the Concessionaire under this Agreement and all actions of TWAD hereunder shall be deemed to have been taken for and on behalf of the Concessionaire.

5. OBLIGATIONS OF THE ESCROW BANK

5.1 Segregation of funds

Monies and other property received by the Escrow Bank under this Agreement shall, until used or applied in accordance with this Agreement, be held by the Escrow Bank in trust for the purposes for which they were received, and shall be segregated from other funds and property of the Escrow Bank.

5.2 Notification of balances

7 (seven) days prior to each payment date (and for this purpose the Escrow Bank shall be entitled to rely on an affirmation by the Concessionaire and/or the Lenders' Representative as to the relevant payment dates), the Escrow Bank shall notify the Lenders' Representative of the balances in the Escrow Account and Sub-Accounts as at the close of business on the immediately preceding day.

5.3 Communications and notices

In discharge of its duties and obligations hereunder, the Escrow Bank:

(a) may, in the absence of bad faith or gross negligence on its part, rely as to any matters of fact which might reasonably be expected to be within the

knowledge of the Concessionaire upon a certificate signed by or on behalf of the Concessionaire;

(b) may, in the absence of bad faith or gross negligence on its part, rely upon the authenticity of any communication or document believed by it to be authentic;

(c) shall, within 5 (five) days after receipt, deliver a copy to the Lenders' Representative of any notice or document received by it in its capacity as the Escrow Bank from the Concessionaire or any other person hereunder or in connection herewith; and

(d) shall, within 5 (five) days after receipt, deliver a copy to the Concessionaire of any notice or document received by it from the Lenders' Representative in connection herewith.

5.4 No set off

The Escrow Bank agrees not to claim or exercise any right of set off, banker's lien or other right or remedy with respect to amounts standing to the credit of the Escrow Account. For the avoidance of doubt, it is hereby acknowledged and agreed by the Escrow Bank that the monies and properties held by the Escrow Bank in the Escrow Account shall not be considered as part of the assets of the Escrow Bank and being trust property, shall in the case of bankruptcy or liquidation of the Escrow Bank, be wholly excluded from the assets of the Escrow Bank in such bankruptcy or liquidation.

5.5 Regulatory approvals

The Escrow Bank shall use its best efforts to procure, and thereafter maintain and comply with, all regulatory approvals required for it to establish and operate the Escrow Account. The Escrow Bank represents and warrants that it is not aware of any reason why such regulatory approvals will not ordinarily be granted to the Escrow Bank.

6. ESCROW DEFAULT

6.1 Escrow Default

6.1.1 Following events shall constitute an event of default by the Concessionaire (an **"Escrow Default"**) unless such event of default has occurred as a result of Force Majeure or any act or omission of TWAD or the Lenders' Representative:

(a) the Concessionaire commits breach of this Agreement by failing to deposit any receipts into the Escrow Account as provided herein and fails to cure such breach by depositing the same into the Escrow Account within 5 (five) days;

(b) the Concessionaire causes the Escrow Bank to transfer funds to any account of the Concessionaire in breach of the terms of this Agreement and fails to cure

such breach by depositing the relevant funds into the Escrow Account or any Sub-Account in which such transfer should have been made, within 5 (five) days; or

(c) the Concessionaire commits or causes any other breach of the provisions of this Agreement and fails to cure the same within 5 (five) days.

6.1.2 Upon occurrence of an Escrow Default, the consequences thereof shall be dealt with under and in accordance with the provisions of the Concession Agreement.

7. TERMINATION OF ESCROW AGREEMENT

7.1 Duration of the Escrow Agreement

This Agreement shall remain in full force and effect so long as any sum remains to be advanced or is outstanding from the Concessionaire in respect of the debt, guarantee or financial assistance received by it from the Lenders, or any of its obligations to TWAD remain to be discharged, unless terminated earlier by consent of all the Parties or otherwise in accordance with the provisions of this Agreement.

7.2 Substitution of Escrow Bank

The Concessionaire may, by not less than 45 (forty-five) days prior notice to the Escrow Bank, TWAD and the Lenders' Representative, terminate this Agreement and appoint a new Escrow Bank, provided that the new Escrow Bank is acceptable to the Lenders' Representative and arrangements are made satisfactory to the Lenders' Representative for transfer of amounts deposited in the Escrow Account to a new Escrow Account established with the successor Escrow Bank. The termination of this Agreement shall take effect only upon coming into force of an Escrow Agreement with the substitute Escrow Bank.

7.3 Closure of Escrow Account

The Escrow Bank shall, at the request of the Concessionaire and the Lenders' Representative made on or after the payment by the Concessionaire of all outstanding amounts under the Concession Agreement and the Financing Agreements including the payments specified in Clause 4.2, and upon confirmation of receipt of such payments, close the Escrow Account and Sub-Accounts and pay any amount standing to the credit thereof to the Concessionaire. Upon closure of the Escrow Account hereunder, the Escrow Agreement shall be deemed to be terminated.

8. INDEMNITY

8.1 General indemnity

8.1.1 The Concessionaire will indemnify, defend and hold TWAD, Escrow Bank and the Lenders, acting through the Lenders' Representative, harmless against any and all proceedings, actions and third-party claims for any loss, damage, cost and expense arising out of any breach by the Concessionaire of any of its obligations under this Agreement or on account of failure of the Concessionaire to comply with Applicable Laws and Applicable Permits.

8.1.2 TWAD will indemnify, defend and hold the Concessionaire harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of TWAD to fulfil any of its obligations under this Agreement materially and adversely affecting the performance of the Concessionaire's obligations under the Concession Agreement or this Agreement other than any loss, damage, cost and expense arising out of acts done in discharge of their lawful functions by TWAD, its officers, servants and agents.

8.1.3 The Escrow Bank will indemnify, defend and hold the Concessionaire harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of the Escrow Bank to fulfil its obligations under this Agreement materially and adversely affecting the performance of the Concessionaire's obligations under the Concession Agreement other than any loss, damage, cost and expense, arising out of acts done in discharge of their lawful functions by the Escrow Bank, its officers, servants and agents.

8.2 Notice and contest of claims

In the event that any Party hereto receives a claim from a third party in respect of which it is entitled to the benefit of an indemnity under Clause 8.1 of Escrow Agreement or in respect of which it is entitled to reimbursement (the "**Indemnified Party**"), it shall notify the other Party responsible for indemnifying such claim hereunder (the "**Indemnifying Party**") within 15 (fifteen) days of receipt of the claim and shall not settle or pay the claim without the prior approval of the Indemnifying Party, which approval shall not be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim, it may conduct the proceedings in the name of the Indemnified Party and shall bear all costs involved in contesting the same. The Indemnified Party shall provide all cooperation and assistance in contesting any claim and shall sign all such writings and documents as the Indemnifying Party may reasonably require.

9. DISPUTE RESOLUTION

9.1 Dispute resolution

9.1.1 Any dispute, difference or claim arising out of or in connection with this Agreement, which is not resolved amicably, shall be decided finally by reference to arbitration to a Board of Arbitrators comprising one nominee of each Party to the dispute, and where the number of such nominees is an even number, the nominees shall elect another person to such Board. Such arbitration shall be held in accordance with the Rules of Arbitration of the International Centre for Alternative Dispute Resolution, New Delhi (the "Rules") or such other rules as may be mutually agreed by the Parties, and shall be subject to the provisions of the Arbitration and Conciliation Act, 1996.

9.1.2 The Arbitrators shall issue a reasoned award and such award shall be final and binding on the Parties. The venue of arbitration shall be Chennai and the language of arbitration shall be English.

10. MISCELLANEOUS PROVISIONS

10.1 Governing law and jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the Courts at Chennai shall have jurisdiction over all matters arising out of or relating to this Agreement.

10.2 Priority of agreements

In the event of any conflict between the Concession Agreement and this Agreement, the provisions contained in the Concession Agreement shall prevail over this Agreement.

10.3 Alteration of terms

All additions, amendments, modifications and variations to this Agreement shall be effectual and binding only if in writing and signed by the duly authorised representatives of the Parties.

10.4 Waiver

10.4.1 Waiver by any Party of a default by another Party in the observance and performance of any provision of or obligations under this Agreement:

(a) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement;
(b) shall not be effective unless it is in writing and executed by a duly authorised representative of the Parties; and
(c) shall not affect the validity or enforceability of this Agreement in any manner.

10.4.2 Neither the failure by any 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 any Party to another Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

10.5 No third-party beneficiaries

This Agreement is solely for the benefit of the Parties and no other person or entity shall have any rights hereunder.

10.6 Survival

10.6.1 Termination of this Agreement:

(a) shall not relieve the Parties of any obligations hereunder which expressly or by implication survive 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.

10.6.2 All obligations surviving the cancellation, expiration or termination of this Agreement shall only survive for a period of 3 (three) years following the date of such termination or expiry of this Agreement.

10.7 Severability

If for any reason whatever 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 shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to dispute resolution under Clause 10.1 of this Agreement or otherwise.

10.8 Successors and assigns

This Agreement shall be binding on and shall inure to the benefit of the Parties and their respective successors and permitted assigns.

10.9 Notices

All notices or other communications to be given or made under this Agreement shall be in writing and shall either be delivered personally or sent by courier or registered post with an additional copy to be sent by facsimile or e-mail. The address for service of each Party, its facsimile number or e-mail are set out under its name on the signing pages hereto. A notice shall be effective upon actual receipt thereof, save that where it is received after 5.30 (five thirty) p.m. on a day, or on a day that is not a day, the notice shall be deemed to be received on the first day following the date of actual receipt. Without prejudice to the foregoing, a Party giving or making a notice or communication by facsimile or e-mail shall promptly deliver a copy thereof personally, or send it by courier or registered post to the addressee of such notice or communication. It is hereby agreed and acknowledged that any Party may by notice change the address to which such notices and communications to it are to be delivered or mailed. Such change shall be effective when all the Parties have notice of it.

10.10 Language

All notices, certificates, correspondence and proceedings under or in connection with this Agreement shall be in English.

10.11 Authorised representatives

Each of the Parties shall, by notice in writing, designate their respective authorised representatives through whom only all communications shall be made. A Party hereto shall be entitled to remove and/or substitute or make fresh appointment of such authorised representative by similar notice.

10.12 Original Document

This Agreement may be executed in four counterparts, each of which when executed and delivered shall constitute an original of this Agreement.

IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

THE COMMON SEAL OF CONCESSIONAIRE has been affixed pursuant to the resolution passed by the Board of Directors of the Concessionaire at its meeting held on the …… day of 20…… hereunto affixed in the presence of ……, Director, who has signed these presents in token thereof and ……, Company Secretary / Authorised Officer who has countersigned the same in token thereof :

SIGNED, SEALED AND DELIVERED
For and on behalf of
LENDERS by the
Lenders‟ Representative:
(Signature)
(Name)
(Designation)
(Address)
(Fax No.)
(e-mail address)

SIGNED, SEALED AND DELIVERED
For and on behalf of
ESCROW BANK by:

(Signature)

SIGNED, SEALED AND DELIVERED
For and on behalf of
TWAD Board by:

(Signature)

SCHEDULE-9: SUBSTITUTION AGREEMENT

THIS SUBSTITUTION AGREEMENT is entered into on this the……day of……..20…….

AMONGST

1 The TWAD Board, represented by and having its principal offices at …….. (Hereinafter referred to as the "Authority" which expression shall unless repugnant to the context or meaning thereof include its administrators, successors and assigns);

2 ……. Limited, a company incorporated under the provisions of the Companies Act, 2013 and having its registered office at ……. (Hereinafter referred to as **the "Concessionaire"** which expression shall unless repugnant to the context or meaning thereof include its successors and permitted assigns and substitutes);

3 …….. (insert name and particulars of Lenders' Representative) and having its registered office at……., acting for and on behalf of the Lenders as their duly authorized agent with regard to matters arising out of or in relation to this Agreement (hereinafter referred to as the "**Lenders' Representative"**, which expression shall unless repugnant to the context or meaning thereof include its successors and substitutes);

WHEREAS:

(A) TWAD has entered into a Concession Agreement dated……. With the Concessionaire (the **"Concession Agreement"**) for the installation of energy efficient pumps & its allied systems, operate and maintain for 10 years (the **"Project"**) on Public Private Partnership (**"PPP"**) basis, in accordance with the terms and conditions to be set forth in a concession agreement to be entered into.

(B) Lenders have agreed to finance the Project in accordance with the terms and conditions set forth in the Financing Agreements.

(C) Lenders have requested TWAD to enter into this Substitution Agreement for securing their interests through assignment, transfer and substitution of the Concession to a Nominated Company in accordance with the provisions of this Agreement and the Concession Agreement.

(D) In order to enable implementation of the Project including its financing, installation, operation and maintenance, TWAD has agreed and undertaken to transfer and assign the Concession to a Nominated Company in accordance with the terms and conditions set forth in this Agreement and the Concession Agreement.

NOW, THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth in this Agreement, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the Parties agree as follows:

1 DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this Substitution Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them: **"Agreement"** means this Substitution Agreement and any amendment thereto made in accordance with the provisions contained in this Agreement;

"Financial Default" means occurrence of a material breach of the terms and conditions of the Financing Agreements or a continuous default in Debt Service by the Concessionaire for a minimum period of 3 (three) months;

"Lenders' Representative" means the person referred to as the Lenders' Representative in the foregoing Recitals;

"Nominated Company" means a company, incorporated under the provisions of the Companies Act, 1956/2013, including any re-enactment or amendment thereof, selected by the Lenders' Representative, on behalf of Lenders, and proposed to TWAD for assignment/transfer of the Concession as provided in this Agreement;

"Notice of Financial Default" shall have the meaning ascribed thereto in Clause3.2.1 of Substitution Agreement; and

"Parties" means the parties to this Agreement collectively and "Party" shall mean any of the Parties to this Agreement individually.

1.2 Interpretation

1.2.1 References to Lenders' Representative shall, unless repugnant to the context or meaning thereof, mean references to the Lenders' Representative, acting for and on behalf of Lenders.
1.2.2 References to Articles are, unless stated otherwise, references to Articles of this Agreement.
1.2.3 The words and expressions beginning with capital letters and defined in this Agreement shall have the meaning ascribed thereto herein, and the words and expressions used in this Agreement and not defined herein but defined in .the Concession Agreement shall, unless repugnant to the context, have the meaning ascribed thereto in the Concession Agreement.
1.2.4 The rules of interpretation stated in Clause 1.2, 1.3 and 1.4 of the Concession Agreement shall apply, mutatis mutandis, to this Agreement.

2. ASSIGNMENT

2.1 Assignment of rights and title

The Concessionaire hereby agrees to assign the rights, title and interest in the Concession to, and in Favor of, the Lenders' Representative pursuant to and in accordance with the provisions of this Agreement and the Concession Agreement by way of security in respect of financing by the Lenders under the Financing Agreements.

3. SUBSTITUTION OF THE CONCESSIONAIRE

3.1 Rights of substitution

3.1.1 Pursuant to the rights, title and interest assigned under Clause 2.1, the Lenders' Representative shall be entitled to substitute the Concessionaire by a Nominated Company under and in accordance with the provisions of this Agreement and the Concession Agreement.

3.1.2 TWAD hereby agrees to substitute the Concessionaire by endorsement on the Concession Agreement in Favor of the Nominated Company selected by the Lenders' Representative in accordance with this Agreement. For the avoidance of doubt, the Lenders or the Lenders' Representative shall not be entitled to operate and maintain the Project as Concessionaire either individually or collectively.

3.2 Substitution upon occurrence of Financial Default

3.2.1 Upon occurrence of a Financial Default, the Lenders' Representative may issue a notice to the Concessionaire (the "Notice of Financial Default") along with particulars thereof, and send a copy to TWAD for its information and record. A Notice of Financial Default under this Article 3 shall be conclusive evidence of such Financial Default and it shall be final and binding upon the Concessionaire for the purposes of this Agreement.

3.2.2 Upon issue of a Notice of Financial Default hereunder, the Lenders' Representative may, without prejudice to any of its rights or remedies under this Agreement or the Financing Agreements, substitute the Concessionaire by a Nominated Company in accordance with the provisions of this Agreement.

3.2.3 At any time after the Lenders' Representative has issued a Notice of Financial Default, it may by notice require TWAD to suspend all the rights of the Concessionaire and undertake the operation and maintenance of the Project in accordance with the provisions of Article 30 of the Concession Agreement, and upon receipt of such notice, TWAD shall undertake Suspension under and in accordance

with the provisions of the Concession Agreement. The aforesaid Suspension shall be revoked upon substitution of the Concessionaire by a Nominated Company, and in the event of such substitution is not completed within 180 (one hundred and eighty) days from the date of such Suspension, TWAD may terminate the Concession Agreement forthwith by issuing a Termination Notice in accordance with the provisions of the Concession Agreement; provided that upon written request from the Lenders' Representative and the Concessionaire, TWAD may extend the aforesaid period of 180 (one hundred and eighty) days by a period not exceeding 90 (ninety) days. For the avoidance of doubt, TWAD expressly agrees and undertakes to terminate the Concession Agreement forthwith, upon receipt of a written request from the Lenders' Representative at any time after 240 (two hundred and forty) days from the date of Suspension hereunder.

3.3 Substitution upon occurrence of Concessionaire Default

3.3.1 Upon occurrence of a Concessionaire Default, TWAD shall by a notice inform the Lenders' Representative of its intention to issue a Termination Notice and grant 15 (fifteen) days' time to the Lenders' Representative to make a representation, stating the intention to substitute the Concessionaire by a Nominated Company.

3.3.2 In the event that the Lenders' Representative makes a representation to TWAD within the period of 15 (fifteen) days specified in Clause3.3.1 above, stating that it intends to substitute the Concessionaire by a Nominated Company, the Lenders' Representative shall be entitled to undertake and complete the substitution of the Concessionaire by a Nominated Company in accordance with the provisions of this Agreement within a period of 180 (one hundred and eighty) days from the date of such representation, and TWAD shall either withhold Termination or undertake Suspension for the aforesaid period of 180 (one hundred and eighty) days; provided that upon written request from the Lenders' Representative and the Concessionaire, TWAD shall extend the aforesaid period of 180 (one hundred and eighty) days by a period not exceeding 90 (ninety) days; provided further that the Lenders' Representative may at any time withdraw its representation hereunder and upon such withdrawal, TWAD may terminate this Agreement in accordance with the provisions hereof.

3.4 Procedure for substitution

3.4.1 TWAD and the Concessionaire hereby agree that on or after the date of Notice of Financial Default or the date of representation to TWAD under Clause3.3.2 of Substitution Agreement, as the case may be, the Lenders' Representative may, without prejudice to any of the other rights or remedies of the Lenders, invite, negotiate and procure offers, either by private negotiations or public auction or tenders for the take over and transfer of the Project including the Concession to the Nominated Company upon such Nominated Company's assumption of the liabilities

and obligations of the Concessionaire towards TWAD under the Concession Agreement and towards the Lenders under the Financing Agreements.

3.4.2 To be eligible for substitution in place of the Concessionaire, the Nominated Company shall be required to fulfil the eligibility criteria that were laid down by TWAD for shortlisting the Concessionaires for award of the Concession; provided that the Lenders' Representative may represent to TWAD that all or any of such criteria may be waived in the interest of the Project, and if TWAD determines that such waiver shall not have any material adverse effect on the Project, it may waive all or any of such eligibility criteria.

3.4.3 Upon selection of a Nominated Company, the Lenders' Representative shall request TWAD to:

(a) Accede to transfer to the Nominated Company the right to construct, operate and maintain the Project in accordance with the provisions of the Concession Agreement;
(b) Endorse and transfer the Concession to the Nominated Company, on the same terms and conditions, for the residual Concession Period; and
(c) Enter into a Substitution Agreement with the Lenders' Representative and the Nominated Company on the same terms as are contained in this Agreement.

3.4.4 If TWAD has any objection to the transfer of Concession in Favor of the Nominated Company in accordance with this Agreement, it shall within 15 (fifteen) days from the date of proposal made by the Lenders' Representative, give a reasoned order after hearing the Lenders' Representative. If no such objection is raised by TWAD, the Nominated Company shall be deemed to have been accepted. TWAD shall thereupon transfer and endorse the Concession within 15 (fifteen) days of its acceptance/deemed acceptance of the Nominated Company; provided that in the event of such objection by TWAD, the Lenders' Representative may propose another Nominated Company whereupon the procedure set forth in this Clause3.4 shall be followed for substitution of such Nominated Company in place of the Concessionaire.

3.4.5 The transfer of Concession hereunder to a Nominated Company may, notwithstanding anything to the contrary in this Agreement and the Concession Agreement, be undertaken by transfer of no less than 75% (seventy-five per cent) of the share in the JV/Consortium to the Nominated Company, and upon such transfer hereunder, the Concessionaire shall be deemed to be the Nominated Company under and in accordance with the provisions of this Agreement and the Concession Agreement.

3.5 Selection to be binding

The decision of the Lenders' Representative and TWAD in selection of the Nominated Company shall be final and binding on the Concessionaire. The Concessionaire irrevocably agrees and waives any right to challenge the actions of the

Lenders' Representative or the Lenders or TWAD taken pursuant to this Agreement including the transfer/assignment of the Concession in Favor of the Nominated Company. The Concessionaire agrees and confirms that it shall not have any right to seek revaluation of assets of the Project or the Concessionaire's shares. It is hereby acknowledged by the Parties that the rights of the Lenders' Representative are irrevocable and shall not be contested in any proceedings before any court or Authority and the Concessionaire shall have no right or remedy to prevent, obstruct or restrain TWAD or the Lenders' Representative from effecting or causing the transfer by substitution and endorsement of the Concession as requested by the Lenders' Representative.

4 PROJECT AGREEMENTS

4.1 Substitution of Nominated Company in Agreements

The Concessionaire shall ensure and procure that each agreement with Concessionaires contains provisions that entitle the Nominated Company to step into such agreement, in its discretion, in place and substitution of the Concessionaire in the event of such Nominated Company's assumption of the liabilities and obligations of the Concessionaire under the Concession Agreement.

5 TERMINATION OF CONCESSION AGREEMENT

5.1 Termination upon occurrence of Financial Default

At any time after issue of a Notice of Financial Default, the Lenders' Representative may by a notice in writing require TWAD to terminate the Concession Agreement forthwith, and upon receipt of such notice, TWAD shall undertake Termination under and in accordance with the provisions of Article 30 of the Concession Agreement.

5.2 Realization of Debt Due

TWAD and the Concessionaire hereby acknowledge and agree that, without prejudice to their any other right or remedy, the Lenders' Representative is entitled to receive from the Concessionaire, without any further reference to or consent of the Concessionaire, the Debt Due upon Termination of the Concession Agreement. For realization of the Debt Due, the Lenders' Representative shall be entitled to make its claim from the Escrow Account in accordance with the provisions of the Concession Agreement and the Escrow Agreement.

6 DURATIONS OF THE AGREEMENT

6.1 Duration of the Agreement

This Agreement shall come into force from the date hereof and shall expire at the earliest to occur of the following events:
(a) Termination of the Agreement; or
(b) No sum remains to be advanced and no sum are outstanding to the Lenders, under the Financing Agreements.

7 INDEMNITIES

7.1 General indemnity

7.1.1 The Concessionaire will indemnify, defend and hold TWAD and the Lenders' Representative harmless against any and all proceedings, actions and third-party claims for any loss, damage, cost and expense of whatever kind and nature arising out of any breach by the Concessionaire of any of its obligations under this Agreement or on account of failure of the Concessionaire to comply with Applicable Laws and Applicable Permits.

7.1.2 TWAD will indemnify, defend and hold the Concessionaire harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of TWAD to fulfil any of its obligations under this Agreement, materially and adversely affecting the performance of the Concessionaire's obligations under the Concession Agreement or this Agreement, other than any loss, damage, cost and expense, arising out of acts done in discharge of their lawful functions by TWAD, its officers, servants and agents.

7.1.3 The Lenders' Representative will indemnify, defend and hold the Concessionaire harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of the Lenders' Representative to fulfil its obligations under this Agreement, materially and adversely affecting the performance of the Concessionaire's obligations under the Concession Agreement, other than any loss, damage, cost and expense, arising out of acts done in discharge of their lawful functions by the Lenders' Representative, its officers, servants and agents.

7.2 Notice and contest of claims

In the event that any Party hereto receives a claim from a third party in respect of which it is entitled to the benefit of an indemnity under Clause7.1 above or in respect of which it is entitled to reimbursement (the "Indemnified Party"), it shall notify the other Party responsible for indemnifying such claim hereunder (the "Indemnifying

Party") within 15 (fifteen) days of receipt of the claim and shall not settle or pay the claim without the prior approval of the Indemnifying Party, such approval not to be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim, it may conduct the proceedings in the name of the Indemnified Party and shall bear all costs involved in contesting the same. The Indemnified Party shall provide all cooperation and assistance in contesting any claim and shall sign all such writings and documents as the Indemnifying Party may reasonably require.

8 DISPUTE RESOLUTION

8.1 Dispute resolution

8.1.1 Any dispute, difference or claim arising out of or in connection with this Agreement which is not resolved amicably shall be decided by reference to arbitration to a Board of Arbitrators comprising one nominee each of TWAD, Concessionaire and the Lenders' Representative. Such arbitration shall be held in accordance with the Rules of Arbitration of the International Centre for Alternative Dispute Resolution, New Delhi (the "Rules") or such other rules as may be mutually agreed by the Parties, and shall be subject to provisions of the Arbitration and Conciliation Act, 1996.

8.1.2 The Arbitrators shall issue a reasoned award and such award shall be final and binding on the Parties. The place of arbitration shall be the capital of the State and the language of arbitration shall be English.

9 MISCELLANEOUS PROVISIONS

9.1 Governing law and jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts in the Coimbatore shall have jurisdiction over all matters arising out of or relating to this Agreement.

9.2 Waiver of sovereign immunity

TWAD unconditionally and irrevocably:

(a) agrees that the execution, delivery and performance by it of this Agreement constitute commercial acts done and performed for commercial purpose;
(b) agrees that, should any proceedings be brought against it or its assets, property or revenues in any jurisdiction in relation to this Agreement or any transaction contemplated by this Agreement, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of TWAD with respect to its assets;

(c) waives any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and
(d) consents generally in respect of the enforcement of any judgment or award against it in any such proceedings to the giving of any relief or the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgment that may be made or given in connection therewith).

9.3 Priority of agreements

In the event of any conflict between the Concession Agreement and this Agreement, the provisions contained in the Concession Agreement shall prevail over this Agreement.

9.4 Alteration of terms

All additions, amendments, modifications and variations to this Agreement shall be effectual and binding only if in writing and signed by the duly authorized representatives of the Parties

9.5 Waiver

9.5.1 Waiver by any Party of a default by another Party in the observance and performance of any provision of or obligations under this Agreement:

(a) Shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement;
(b) Shall not be effective unless it is in writing and executed by a duly authorized representative of the Party; and
(c) Shall not affect the validity or enforceability of this Agreement in any manner.

9.5.2 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 another Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

9.6 No third-party beneficiaries

This Agreement is solely for the benefit of the Parties and no other person or entity shall have any rights hereunder.

9.7 Survival

9.7.1 Termination of this Agreement:

(a) Shall not relieve the Parties of any obligations hereunder which expressly or by implication survive 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.

9.7.2 All obligations surviving the cancellation, expiration or termination of this Agreement shall only survive for a period of 3 (three) years following the date of such termination or expiry of this Agreement.

9.8 Severability

If for any reason whatever 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 shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to dispute resolution under Clause8 of this Agreement or otherwise.

9.9 Successors and assigns

This Agreement shall be binding on and shall inure to the benefit of the Parties and their respective successors and permitted assigns.

9.10 Notices

All notices or other communications to be given or made under this Agreement shall be in writing, shall either be delivered personally or sent by courier or registered post with an additional copy to be sent by facsimile or e-mail. The address for service of each Party, its facsimile number and e-mail address are set out under its name on the signing pages hereto. A notice shall be effective upon actual receipt thereof, save that where it is received after 5.30 (five thirty) p.m. on any day, or on a day that is a public holiday, the notice shall be deemed to be received on the first working day following the date of actual receipt. Without prejudice to the foregoing, a Party giving or making a notice or communication by facsimile or e-mail shall promptly deliver a copy thereof personally, or send it by courier or registered post to the addressee of

such notice or communication. It is hereby agreed and acknowledged that any Party may by notice change the address to which such notices and communications to it are to be delivered or mailed. Such change shall be effective when all the Parties have notice of it.

9.11 Language

All notices, certificates, correspondence and proceedings under or in connection with this Agreement shall be in English.

9.12 Authorized representatives

Each of the Parties shall by notice in writing designate their respective authorized representatives through whom only all communications shall be made. A Party hereto shall be entitled to remove and/or substitute or make fresh appointment of such authorized representative by similar notice.

9.13 Original Document

This Agreement may be executed in three counterparts, each of which when executed and delivered shall constitute an original of this Agreement.

IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN

THE COMMON SEAL OF CONCESSIONAIRE has been affixed pursuant to the resolution passed by the Board of Directors of the Concessionaire at its meeting held on the……..day of the ……20……..here unto affixed in to the presence of……the Director, who has signed these presents in token thereof, ……Authorized Signatory who has countersigned the same in token thereof	SIGNED, SEALED AND DELIVERED For and behalf of TWAD by:

SCHEDULE-10: FORMAT OF COMPLETION CERTIFICATE

1. I/We,…….. (The Chief Engineer, TWAD, Coimbatore), under and in accordance with the Concession Agreement dated …….., to supply, install, operate and maintain 137 nos. energy efficient Pumpsets, 35 nos. Capacitor Banks, 17 nos. Harmonics Filter and 1 no. Transformer in the 37 nos. Pumping Stations on Public Private Partnership (PPP) basis, through……(Name of the Concessionaire), hereby certify that the testing and commissioning of the Project Facilities have been successfully completed as per the provisions of the Agreement, and I/We am/are satisfied that the Project can be safely and reliably placed under commercial operations.

2. It is certified that, in terms of the aforesaid Agreement, all works forming part of the Project have been completed, and the Project is hereby declared fit for entry into commercial operation on this the day of [•], 20….

SIGNED, SEALED AND DELIVERED

For and on behalf of
TWAD by:

(Signature)
(Name)
(Designation)
(Address)

SCHEDULE-11: PUMPSETS PROPOSED FOR REPLACEMENT

A. Pumpsets Proposed for replacement – Capacity, Type and Quantity

Coimbatore Region (37 Pumping Stations)			
S. No.	**Pump Capacity (HP)**	**Type of Pump**	**Quantity**
1.	50	Centrifugal	6
2.	50	Vertical Turbine	4
3.	60	Centrifugal	5
4.	60	submersible	4
5.	75	Centrifugal	8
6.	75	Submersible	2
7.	90	Centrifugal	6
8.	90	Open Well submersible Pump set	2
9.	100	Centrifugal	18
10.	100	Vertical Turbine	2
11.	120	Centrifugal	4
12.	125	Centrifugal	3
13.	150	Centrifugal	10
14.	150	Vertical Turbine	3
15.	167	HT	3
16.	170	centrifugal	6
17.	180	centrifugal	8
18.	200	Vertical Turbine	9
19.	220	Centrifugal	3
20.	270	Centrifugal	1
21.	340	Vertical Turbine	6
22.	350	Vertical Turbine	4
23.	375	Vertical Turbine	7
24.	375	Centrifugal	1
25.	380	Vertical Turbine	3
26.	400	Vertical Turbine	5
27.	425	Vertical Turbine	4
Total			**137**

B. Pumpsets proposed for replacement – CWS scheme-wise

Sl. No.	Name of Water Supply Scheme	Pumping Station	LT/HT	HP	LPM	Type of Pumps	Total No. of Pumps	Capacity in HP and Nos.
1	CWSS to Doddampalayam and 116 other rural habitations in sathyamangalam and Bhavanisagar Unions of Erode District- Headworks at Bhavanisagar	Head works at Bhavanisagar	LT	50	3,360	Vertical Turbine	2	50x2
		Treatment plant at Bhavanisagar	LT	100	3,200			
2	CWSS of Muthur, Kangayam and 5 other TPs, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Mettukadai	HT	1,045	40,088	Horizontal Split Casing	9	120x2 270x1 375x1 100x3 180x2
		Kodumudi	HT	975	48,287	Vertical Turbine	5	400x1 375x1 200x3
		Valipanankadu	HT	360	11,456	Horizontal Split Casing	3	180x3
		Mulanur	LT	150	8,600	Horizontal Split Casing	2	150x2
		Itchipalayam 150 HP	HT	300	16,736	Horizontal Split Casing	3	150x3

		Dharapuram 100Hp	LT	100	2,500	Horizontal Split Casing	2	100x2
		Kolathupalayam	LT	60	5,880	Submersible	2	60x2
		Varatukarrai	LT	75	6,257	Submersible	2	75x2
3	CWSS to 2 Tps and 318 Rural Habitations in Namakkal District (Phase I)	OruvandurHead works	HT	300	11,980	Vertical Turbine	3	150x3
		Valayapatti	HT	150	8,356	Horizontal Split Casing	3	75x3
4	CWSS to Attur-Narasingapuram Municipalities, 20 Town panchayats and 1345 rural habitations in 12 unions of Salem district	CWPH Komburankadu	HT	1,675	51,900	Vertical Turbine	8	425x4 400x4
		Mettur	HT	1,050	31,500	Vertical Turbine	4	350x4
		CWPH, Vinayanagar	HT	800	38,656	Vertical Turbine	6	200x6
		Moolagundu	HT	180	4,282	Horizontal Split Casing	3	180x3
		CWPH, Ammapet	HT	334	12,000	HT	3	167x3
		CWPH, Minnampalli	HT	360	18,420	Horizontal Split Casing	6	90x6
		CWPH, Belurpirivu sump	LT	60	2,203	Submersible	2	90x2
5	CWSS to Chennimalai ,Perundurai, K.C. Palayam RTP, ChithodeNasiyanur RTP and 69 other habitations in	CWPH, Konavaikal	HT	300	9,412	Horizontal Split Casing	3	150x3
		CWPH, Gangapuram	HT	200	8,666	Horizontal Split Casing	3	100x3

	Chennimalai, Perundurai Union of Erode District	CWPH, Vavikadai	LT	100	7,480	Horizontal Split Casing	3	50x3
6	CWSS to CLPRA	Velliangadu - 375 HP	HT			Vertical Turbine	6	375x6
		Velliangadu – 150 HP	HT	1,650	99,200	Horizontal Split Casing	2	150x2
		CWPH, Pillur	HT	1,360	96,000	Vertical Turbine	6	1,360
		Periyanayakanpalayam	HT	270	12,834	Horizontal Split Casing	5	75x3 120x2
		Chinnavedampatti	LT	50	2,285	Horizontal Split Casing	3	50x3
		Kalangal	LT	70	2,486	Horizontal Split Casing	2	100x2
7	CWSS to Iruppali, 236 Fluoride Affected Habitations and 1237 Wayside Habitations inSalem District	Koodakkal head works	HT	760	38,542	Vertical Turbine	3	380x3
		Vanniynagar WTP, Iruppali 220 HP	HT	440	35,700	Horizontal Split Casing	3	220x3
		Poosarimooppanvalavu Sump	LT			Submersible	2	60x2
		Edanganasalai	HT			Horizontal Split Casing	5	170x3 60x2
		Iruppali booster station	HT	340	28,080	Horizontal Split Casing	3	170x3

8	CWSS to Kurichi, Kuniyamuthur Municipalities and Kinathukadavu Town Panchayat in Coimbatore District	Athupollachi	HT	250	7,934	Horizontal Split Casing	3	125x3
		Kinathukadavu	HT	200	7,500	Horizontal Split Casing	3	100x3
		Achipatty booster station	LT	120	7,934	Horizontal Split Casing	3	60x3
9	CWSS to Suleswaranpatti in pollachi north, pollachi south and Kinatukadavu unions in coimbatore District.	Zaminuthukuli	HT	100	4,100	Horizontal Split Casing	2	100x2
		Ambarampalayam 100 HP	LT	150	11,100	Horizontal Split Casing	3	100x3
		Ambarampalayam 50 HP	LT			Vertical Turbine	2	50x2
10	Nallampatti TP, PallapalaymTP,Kanjikoil TP, Pethampalayam TP and 60 Rural Habitatrions in Perundurai and Bhavani Unions of Erode District	Siraimettanpalayam	LT	100	5,193	Vertical Turbine	2	100x2
		CPWH, Kanjikovil	LT	60	2,569	Horizontal Split Casing	2	75x2

C. Capacitor Banks proposed for replacement

Sl. No.	Name of CWS Scheme	Pumping Station HW/CS/BS/GS	Type of Encon	Capacity of Capacitor Bank (kVAr)
1	CWSS to Attur- Narasingapuram Municipalities, 20 Town panchayats and 1345 rural habitations in 12 unions of Salem district	CWPH, Komburankadu(425 HP)	capacitor bank	425.00
2	CWSS to Attur- Narasingapuram Municipalities, 20 Town panchayats and 1345 rural habitations in 12 unions of Salem district	CWPH, Komburankadu (400 HP)	capacitor bank	200.00
3	CWSS of Muthur, Kangayamand 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Mettukadai 375 HP	capacitor bank	350.00
4	CWSS to Attur- Narasingapuram Municipalities, 20 Town panchayats and 1345 rural habitations in 12 unions of Salem district	mettur 350hp	capacitor bank	350.00
5	CWSS to Attur- Narasingapuram Municipalities, 20 Town panchayats and 1345 rural habitations in 12 unions of Salem district	CWPH,minnampalli	capacitor bank	100.00
6	CWSS to Attur- Narasingapuram Municipalities, 20 Town panchayats and 1345 rural habitations in 12 unions of Salem district	CWPH, belurpirivu sump	capacitor bank	51.17
7	CWSS to Attur- Narasingapuram Municipalities, 20 Town panchayats and 1345 rural habitations in 12 unions of Salem district	Vanniy Nagar WTP / Iruppali 220 HP	capacitor bank	220.00

Sl. No.	Name of CWS Scheme	Pumping Station HW/CS/BS/GS	Type of Encon	Capacity of Capacitor Bank (kVAr)
8	CWSS to iruppali ,236 fluoride affected habitations and 1237 wayside habitations in edappady	Iruppali BS170HP	capacitor bank	170.00
9	CWSS to iruppali ,236 fluoride affected habitations and 1237 wayside habitations in edappady	CWPH, edanganasalaibs 60	capacitor bank	60.00
10	CWSS to chennimali,perundurai,k.c.palayamRTP,chithodenasiyanur RTP and other erode district	CWPH ,konavaikal	capacitor bank	125.00
11	CWSS to chennimali,perundurai,k.c.palayamRTP,chithodenasiyanur RTP and other erode district	CWPH,Valayakaranpalayam	capacitor bank	60.00
12	CWSS to chennimali,perundurai,k.c.palayamRTP,chithodenasiyanur RTP and other erode district	CWPH,gangapuram	capacitor bank	100.00
13	CWSS to chennimali,perundurai,k.c.palayamRTP,chithodenasiyanurrt p and other erode district	CWPH,vavikadai	capacitor bank	50.00
14	CWSS to Doddampalayam and 116 other rural habitations in Sathyamangalam and Bhavanisagar Unions of Erode District- WTP at Bhavanisagar	Treatment Plant at Bhavanisagar	capacitor bank	100.00
15	CWSS to Doddampalayam and 116 other rural habitations in Sathyamangalam and Bhavanisagar Unions	Headwork at Bhavanisagar	capacitor bank	50.00

Sl. No.	Name of CWS Scheme	Pumping Station HW/CS/BS/GS	Type of Encon	Capacity of Capacitor Bank (kVAr)
	of Erode District- WTP at Bhavanisagar			
16	CWSS of Muthur, Kangayamand 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	CWPH,kodumudi 375 HP	capacitor bank	375.00
17	CWSS of Muthur, Kangayamand 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	CWPH,Meetukadai 140 HP	capacitor bank	140.00
18	CWSS of Muthur, Kangayamand 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	CWPH,mettukadai 100 hp	capacitor bank	100.00
19	CWSS of Muthur, Kangayamand 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Kodumudi 200 HP	capacitor bank	200.00
20	CWSS of Muthur, Kangayamand 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	mettukadai 180 hp	capacitor bank	180.00
21	CWSS of Muthur, Kangayamand 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Mulanur	capacitor bank	150.00
22	CWSS of Muthur, Kangayamand 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Itchipalayam 150 HP	capacitor bank	150.00
23	CWSS of Muthur, Kangayamand 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Mettukadai 120 HP	capacitor bank	120.00
24	CWSS of Muthur, Kangayamand 5 other TPs, Vellakoil and	Mettukadai 100 HP	capacitor	100.00

Sl. No.	Name of CWS Scheme	Pumping Station HW/CS/BS/GS	Type of Encon	Capacity of Capacitor Bank (kVAr)
	Dharapuram Municipalities and 86 village panchayats		bank	
25	CWSS of Muthur, Kangayamand 5 other TPs, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Dharapuram	capacitor bank	100.00
26	CWSS of Muthur, Kangayamand 5 other TPs, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Kolathupalayam	capacitor bank	60.00
27	CWSS to CLPRA	periyanayapalayam 120 HP	capacitor bank	120.00
28	CWSS to CLPRA	Chinnavedamapatti	capacitor bank	50.00
29	Nallampatti TP, PallapalaymTP,Kanjikoil TP, Pethampalayam TP and 60 Rural Habitatrions in Perundurai and Bhavani Unions of Erode District - HeadworksSiraimettanpalayam	Ambarampalayam 100 HP	capacitor bank	100.00
30	CWSS to CLPRA	kalangal	capacitor bank	100.00
31	CWSS to Suleswaranpatti in pollachi north, pollachi south and Kinatukadavu unions in coimbatore District.	Zaminuthukuli	capacitor bank	100.00
32	CWSS to Suleswaranpatti in pollachi north, pollachi south and Kinatukadavu unions in coimbatore District.	Ambarapalaiyam 50HP	capacitor bank	50.00

Sl. No.	Name of CWS Scheme	Pumping Station HW/CS/BS/GS	Type of Encon	Capacity of Capacitor Bank (kVAr)
33	CWSS to Kurichi, Kuniyamuthur Municipalities and Kinathukadavu Town Panchayat in Coimbatore District	Athupollachi	capacitor bank	125.00
34	CWSS to Kurichi, Kuniyamuthur Municipalities and Kinathukadavu Town Panchayat in Coimbatore District	kinathukadu	capacitor bank	100.00
35	CWSS to Kurichi, Kuniyamuthur Municipalities and Kinathukadavu Town Panchayat in Coimbatore District	Achipatty Booster Station	capacitor bank	60.00

D. Harmonics Filter proposed for replacement

S No	Name of CWS scheme	Pumping Station HW/CS/BS/GS	Type of Encon	Harmonics Filter Range (A)	No of Harmonics Filter
1	CWSS to Attur- Narasingapuram Municipalities, 20 Town panchayats and 1345 rural habitations in 12 unions of Salem district	CWPH, Komburankadu (425 HP)	harmonic filter	20-600	4
2	CWSS to Attur- Narasingapuram Municipalities, 20 Town panchayats and 1345 rural habitations in 12 unions of Salem district	CWPH, Komburankadu (400 HP)	harmonic filter	20-600	4
3	CWSS of Muthur, Kangayamand 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Mettukadai 375 HP	harmonic filter	20-600	1
4	CWSS to Attur- Narasingapuram Municipalities, 20 Town panchayats and 1345 rural habitations in 12 unions of Salem district	CWPH,vinayanagar	harmonic filter	20-600	2
5	CWSS to Iruppali ,236 fluoride affected habitations and 1237 wayside habitations in Edappady	CWPH,edanganasalai	harmonic filter	20-600	1
6	CWSS to iruppali ,236 fluoride affected habitations and 1237 wayside habitations in Edappady	CWPH,vanichampatty bs 80 m head	harmonic filter	20-600	1
7	CWSS of Muthur, Kangayamand 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Mettukadi 270 HP	harmonic filter	20-600	1

S No	Name of CWS scheme	Pumping Station HW/CS/BS/GS	Type of Encon	Harmonics Filter Range (A)	No of Harmonics Filter
8	CWSS of Muthur, Kangayamand 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Valyapanankaadu 180 HP	harmonic filter	20-600	2
9	CWSS of Muthur, Kangayamand 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	CWPH,velliangadu 350 HP	harmonic filter	20-600	2
10	CWSS of Muthur, Kangayamand 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Mettukadai 120 HP	harmonic filter	20-600	2
11	CWSS of Muthur, Kangayamand 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Valipanakadu 180 HP	harmonic filter	20-600	2
12	CWSS of Muthur, Kangayamand 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	CWPH,varattukarai	harmonic filter	20-600	1
13	CWSS to CLPRA	Veliyankaadu – 375 HP	harmonic filter	20-600	3
14	CWSS to CLPRA	CWPH,Pillur	harmonic filter	20-600	6
15	CWSS to CLPRA	Veliyankaadu 150 HP	harmonic filter	20-600	2
16	CWSS to CLPRA	periyanayapalayam 120 HP	harmonic filter	20-600	2

S No	Name of CWS scheme	Pumping Station HW/CS/BS/GS	Type of Encon	Harmonics Filter Range (A)	No of Harmonics Filter
17	CWSS to Suleswaranpatti in pollachi north, pollachi south and Kinatukadavu unions in Coimbatore District.	jaminuthukuli	harmonic filter	20-600	2

E. Transformer proposed for replacement

Sl. No	Name of scheme	Location HW/CS/BS/GS
1	CWSS to Chennimalai, Perundurai, K.C.Palayam RTP, ChithodeNasiyanur RTP and other Erode district	CWPH, Konavaikal

SCHEDULE-12: STANDARDS AND TECHNICAL SPECIFICATIONS

I. HSC Centrifugal Pumps

Horizontal Split Case (HSC) centrifugal pumps are widely used in water supply systems due to their robust design, high efficiency, and ease of maintenance. Below are the detailed standards and technical specifications for energy-efficient HSC Pumpsets.

A. HORIZONTAL SPLIT CASTING CENTRIFUGAL PUMP (1500 RPM) confirming to IS 6595:1993

Horizontal split casing centrifugal pump conforming to IS 6595:1993 and as amended thereafter with CI casing and split glands, stainless steel shaft, hydraulically and dynamically balanced bronze impellers capable of discharging required quantity of water against a total head noted below due to all causes and with the accessories such as G.M air release cock, Grease cup, G.I priming funnel, M.S lifting hook, drip water G.I pipe connections, leading to the outside of pump house rubber water deflector, double flap foot valve, G.M strainer including unique tyre type coupling, common M.S fabricated base to mount pump and motor and other standard fittings etc complete. Pump shall be capable of discharging the specified quantity at the head noted at the minimum NPSH at site conditions. The shut off head shall be atleast 25% over and above the head at duty point. The pump shall be suitable for operation in AC three phase, 415 V, 50 Hz, 1500 RPM.

B. Technical Specifications of HSC Pumpsets

1. General Description

- **Type**: Horizontal Split Case Centrifugal Pump
- **Application**: Potable water supply.
- **Configuration**: Single stage / Multi-stage / Single Suction / Double suction for balanced hydraulic performance.

2. Hydraulic and Performance Specifications

- **Flow Range**: 50 m^3/h to 20,000 m^3/h (customizable as per application).
- **Head Range**: Up to 250 meters.
- **Pump Efficiency**: ≥78%
- **Suction and Delivery Nozzles**: Axially aligned for minimal hydraulic losses.
- **Pressure Rating**: PN 16/25/40 (based on system requirements).
- **NPSH availability** must be more than NPSH requirement of the Pump / system.

3. Mechanical Specifications

- **Casing**:
    - Material: Cast iron, FG 200 of IS 210:1978 stainless steel (316/CF8M) for corrosive environments.

- Split case design for easy access to internal components without disturbing pipe connections.
- Epoxy coating for enhanced corrosion resistance.
- Casing shall be robust Construction and tested to withstand hydrostatic test pressure1.5 times the maximum discharge pressure and withstand for 10 minutes.
- Casing ring and impeller ring
- Material: Bronze Grade LTB 2 of is 318:1981

- **Impeller**:

  - Type: Closed Type / Open type / Radial Flow / Mixed flow/Axial Flow type.
  - Material: Bronze, Grade LTB 2 of IS 318:1981.
  - Dynamically Grade 40 C8 of IS 1570 balanced to reduce vibration and wear.

- **Shaft**:

  - Material: Grade 40 C8 of IS 1570 Stainless steel (AISI 410/420)
  - Heat-treated to minimize deflection under load.
  - Finished to close tolerance at the coupling & Baring diameter.

- **Bearings**:

  - Heavy-duty anti-friction ball or roller bearings for smooth operation.
  - Grease-lubricated or oil-lubricated options based on application.

- **Seals**:

  - Option for mechanical seals (carbon/ceramic or silicon carbide) or gland packing based on fluid characteristics.

4. Control and Monitoring

- **Variable Frequency Drive (VFD)**:

  - For flow regulation by varying frequency and energy optimization.
  - Ensures smooth starting and stopping, reducing mechanical stress.

- **IoT-Enabled Sensors**:

  - Real-time monitoring of flow, pressure, vibration, temperature, and energy consumption.
  - Alerts for predictive maintenance and troubleshooting.
  - The concessionaire has to give login id password to TWAD for real time monitoring of data

- **SCADA Integration**:
    - Centralized control and data acquisition for multiple Pumpsets.

5. Coating and Corrosion Protection

- **Surface Coating**: Fusion-bonded epoxy or polyurethane coating for corrosion resistance.
- **Cathodic Protection**: Available for components exposed to harsh environments.

6. Operational Features

- **Noise Level**: ≤85 dB at 1 meter.
- **Temperature Range**: Suitable for fluid temperatures from -10°C to 120°C.
- **Operating Conditions**:
    - Suitable for continuous (S1) operation.
    - Capable of handling clean water, slightly contaminated water, or non-viscous liquids.

7. Maintenance Features

- Split-case design allows easy access to internal components without dismantling pipe connections.
- Replaceable wear rings and shaft sleeves reduce maintenance costs.
- Heavy-duty bearings and seals for extended operational life.

8. Standards and Certifications

- **Performance**: IS 5120/ ISO 9906 Class 2 for hydraulic testing.
- **Manufacturing**: Conforming IS 6595:1993 for clear cold water /ISO 9001 for QMS.
- **Energy Efficiency**: Compliant with Bureau of Energy Efficiency (BEE) standards.

9. Accessories and Optional Features

- **Base Frame**: Heavy-duty fabricated steel base frame with vibration dampers.
- **Strainers**: Suction strainers to prevent debris entry.
- **Control Panel**:
    - Integrated with VFD and emergency stop.
    - IoT-enabled for real-time control.
- **Cooling System**: Forced ventilation or water-cooled motors for high-capacity systems.

Media temp. range:	-10 to 60°C
Ambient temp. range	10…80°C /15…175 °F
Pressure Rating	PN 10
Protection class	IP 68

Vertical Turbine (VT) Pumps

A. VERTICAL TURBINE PUMP (WATER LUBRICATED) CONFORMING TO IS1710/1989 (REAFFIRMED 2009) 1500 RPM SUITABLE FOR VERTICAL HOLLOW SHAFT SQUIRREL CAGE

Vertical type water/Oil lubricated statically, dynamically, hydraulically balanced turbine pump capable of discharging the following duty condition as given below due to all causes with surface discharge head confirming to IS 1710 and as amended as on date with accessories as per IS 5120/1977 (Reaffirmed 2011) and as amended thereafter to suit the site condition. The speed, No. of stages, sizes of column pipes and line shaft indicated is based on site condition prevailing during investigation. The pump should be supplied with non-reversible ratchet pin housing safety clutch, suction strainer etc. The Pump Bowl assembly shall be with bronze impeller running at 1450 rpm. The pump includes suitable head shaft, suitable 1.5metre long SS line shaft required Nos. to suit the well depth, Rubber line shaft bearing of required Nos., C.I Bearing retainer of required Nos., 100 litre HDPE Pre- lubricating tank with 20mm PVC Rigid pipe connection along with GM gate valves, Suitable ERW column pipe of each 1.5m long of required Nos. to suit the well depth, Suction bell mouth of suitable size, M.S. clamps suitable for Column pipe/line shaft -2 set and Spanner - 1 set etc.

B. Technical Specifications of Vertical Turbine Pumpsets

1. General Description

- **Type**: Vertical Turbine Pump (VTP)
- **Efficiency Standards**: Must meet or exceed IE4/IE5 motor efficiency ratings as per IEC standards.

2. Hydraulic and Performance Specifications

- **Flow Range**: 50 to 20,000 cubic meters per hour (m^3/h)
- **Head Range**: Up to 300 meters (customizable as per site requirement)
- **Pump Efficiency**: ≥80% (under standard operating conditions)
- **Pump Design**:
    - Multi-stage configuration for higher head requirements.
    - Optimized impeller and diffuser design to minimize Energy losses.

3. Mechanical Specifications

Pump Bowl Assembly

- **Material**:
    - Cast iron conforming IS 210: 1978 with a bronze or stainless-steel wear ring.
    - Optional high-chrome alloy for abrasive applications.
- **Impeller**:
    - Fully enclosed or semi-open type.
    - Material: Bronze, conforming IS 318:1981.
- **Column Pipe**:
    - Material: Mild steel, ERW/Food Grade epoxy-coated for corrosion resistance or galvanized steel.
    - Column pipe couplings fitted with line shaft bearings for stability.

4. **Line shaft Bearings**

- Material: Bronze or rubber-lined for lubrication (water-lubricated or oil-lubricated options).
- **Shaft Material**: Stainless steel (AISI 410 or higher grade), heat-treated to resist deflection and wear.

5. **Discharge Head**

- **Material**: Fabricated steel or cast iron, epoxy-coated.
- **Design**: Includes flanged connections for easy attachment to the piping system.

6. Control and Monitoring

- **Control System**:
    - Integrated SCADA compatibility for centralized monitoring.
    - Programmable Logic Controller (PLC) with IoT-enabled sensors for remote diagnostics.
- **Sensors**:
    - Flow, pressure, vibration, and temperature monitoring sensors.
    - Real-time energy consumption metering.

7. Coating and Corrosion Resistance

- **Surface Coating**: Fusion-bonded epoxy coating for corrosion resistance.
- **Corrosion Protection**: Cathodic protection system for components exposed to corrosive environments.

8. Certifications and Standards

- **Compliances**:
    - ISO 9001 for manufacturing processes.
    - ISO 9906 for pump hydraulic performance testing.
    - BIS (Bureau of Indian Standards) for water compatibility.

9. Maintenance Features

- **Bearings**: Easy-to-replace line-shaft bearings.
- **Lubrication**: Dual options for oil or water lubrication.
- **Seals**: Replaceable mechanical seals with extended lifespans.

10. Accessories

- Base plates, suction strainers, motor coupling guards, and discharge pipe adapters are provided as part of the package.

II. Horizontal Squirrel Cage Induction Motor

A. HORIZONTAL SQUIRREL CAGE INDUCTION MOTOR IS 12615:2011

- Supply and delivery of AC three Phase 4 pole Horizontal squirrel cage Induction motor confirming to IS 12615:2011 and as amended thereafter with Class F insulation to suit the speed of pump and suitable for operation with continuous S1 rated, 415 V +/- 10 %, 50 HZ +/- 5%, TEFC (up to 20 HP), SPDP (above 20 HP). The motor offered should be of energy efficient motors.
- AC three Phase /415 V/ Horizontal SPDP 4 Pole Squirrel cage Induction motor for HSC Centrifugal pumps.

B. Motor and Drive Specifications

- **Motor Type**:
    - High efficiency IS 12615IE4/IE5 s as per IEC standards.
    - Suitable for direct coupling configurations.
- **Power Range**: 35 kW to 500 kW.
- **Voltage**: 415V ±10%, 3-phase, 50 Hz.
- **Protection Class**: IP55 (standard), IP65 for outdoor installations as per IS / IEC 60034-5.
- **Insulation Class**: F or H for high-temperature environments.

- **Cooling**: IC 411 in accordance with IS 6362 / IEC 600034-6
- **Coupling**:
    - Flexible coupling with alignment tolerances for smooth power transmission.
    - Duty type : S1 (Continuous duty) as per IS/IEC-60034-1
    - Dimension, Frame , Inlet and Outlet relationship conforming to IS 1231 and IS 2223 as relevant
    - Earthing: In accordance with IS 3043.

III. Vertical Squirrel Cage Induction Motor

A. VERTICAL SQUIRREL CAGE INDUCTION MOTOR IS 325/1996

- Supply and delivery of AC three Phase 4 pole Horizontal squirrel cage Induction motor confirming to IS 325/1996 and as amended thereafter with Class F insulation to suit the speed of pump and suitable for operation with continuous S1 rated, 415 V +/- 10 %, 50 HZ +/- 5%, TEFC (up to 20 HP), SPDP (above 20 HP). The motor offered should be of energy efficient motors. AC three Phase /415 V/ Horizontal SPDP 4 Pole Squirrel cage Induction motor for HSC Centrifugal pumps.
- Supply and delivery of AC three Phase 4 pole Horizontal squirrel cage HT Induction motor confirming to IS 325/1996 and as amended thereafter with Class F insulation to suit the speed of pump and suitable for operation with continuous S1 rated, 6.6 kV or 11 kV +/- 10 %, 50 HZ +/- 5%, TEFC (up to 20 HP), SPDP (above 20 HP). The motor offered should be of energy efficient motors. Three-phase HT induction motor with a synchronous speed of 2900 RPM. The motor includes Class F insulation (temperature rise within Class B limits), an IP55 protection rating for outdoor installation, and air-cooled or water-cooled options.

B. Motor and Drive Specifications

- **Type**:
    - Squirrel cage induction motor or permanent magnet synchronous motor.
    - Option to couple with a Variable Frequency Drive (VFD) for speed control.
- **Motor Efficiency**: Super-premium (IE4 or IE5).
- **Power Range**: 50 HP to 500 HP (as per the list provided).
- **Speed**: 1,450 RPM or as per the application.
- **Cooling**: Air-cooled or water-cooled options.

IV. Technical Specifications for Starter

A. FLEX COMPENSATED MAGNETIC AMPLIFIER SOFT STARTER SUITABLE FOR L.T. SQUIRREL CAGE MOTOR

- Floor mounted type FCMA Air/ Oil Cooled soft starter or VFD for energy efficiency and reduced wear during start up, suitable for the LT motor offered for operation in AC three Phase 50Hz (+/- 5%), 415V(+/-10%) including line contactors suitable for next standard higher KW rating, Over load relay, instrument panel with frequency meter, Ammeter, Voltmeter, indicating lamp 6Nos, LED ON/OFF type and Start /Stop push button.

B. FLEX COMPENSATED MAGNETIC AMPLIFIER SOFT STARTER SUITABLE FOR H.T. SQUIRREL CAGE MOTOR

- Suitable KW indoor automatic air cooled dust and vermin proof FCMA Soft Starter for the operation in 3.3 KV three Phase 50 HZ, AC supply termination with phase segregated neutral terminal box of the motor, housed in 14 SWG sheet steel enclosure, painted with epoxy or polyurethane, 230V AC 10 Amps control supply , Class B insulation, 300 mm height fabricated pedestal (to prevent water ingress for starter panel) and condensation heater with switch and thermostat, interlocking with running motor with built in facility for run mode/by pass etc. complete. The starter may be provided with contactors suitable for next standard higher KW rating, over load relay, instrument panel with frequency meter, Ammeter, Voltmeter, indicating lamp 6 Nos, LED ON/OFF type and Start /Stop push button.

V. Technical Specifications for Capacitor

1. General Information

Rated Capacity: 15 kVAr to 200 kVAr.

Rated Voltage:

Low Voltage: 400V/415V/480V.

High Voltage: 6.6kV/11kV/33kV (as required).

Rated Frequency: 50 Hz or 60 Hz (based on the country's grid frequency).

Type:

Fixed Capacitor Bank.

Automatic Power Factor Correction (APFC) Capacitor Bank.

2. Standards

Design and Testing:

- IEC 60831-1/2 (Low-voltage shunt capacitors) / IS 13340 : 2013.
- IEC 60871-1/2 (High-voltage shunt capacitors).
- IEEE 18-2012.
- Protection: IEC 60255 (relays) and IEC 60529 (enclosure).

3. Construction

Capacitor Elements:

- Dry-type or liquid-filled with non-PCB, biodegradable dielectric.
- Enclosure:
- Material: Powder-coated CRCA steel or stainless steel.
- Protection Class: IP42 (indoor use), IP54/55 (outdoor use).
- Cooling: Natural air cooling or forced ventilation.
- Mounting: Floor-mounted or wall-mounted.

4. Electrical Parameters

Rated Insulation Level:

- For LV: 3 kV peak.
- For MV: 28 kV/50 kV as applicable.
- Tolerance: ±5% on kVAr rating.
- Discharge Device: Integrated discharge resistors to reduce residual voltage to <50V within 1 minute.
- Harmonic Compatibility: Designed for operation with up to 20% harmonic distortion (THD).

5. Features

Switching Device:

- LV: Contactor or Thyristor-based switching for APFC panels.
- MV: Vacuum Circuit Breaker (VCB) or SF6 Circuit Breaker.

Control Panel:

- Microprocessor-based APFC relay.
- Automatic steps adjustment (programmable).
- LCD/LED display for voltage, current, power factor, and kVAr values.

Capacitor Protection:

- Overload protection.
- Short-circuit protection.
- Over-temperature alarm and trip.
- Neutral Connection**:** If required, neutral current transformer for unbalanced loads.

6. Environmental Conditions

- Ambient Temperature: -10°C to +50°C.
- Altitude: Up to 1000 m above sea level (derating may apply for higher altitudes).
- Relative Humidity: Up to 95% (non-condensing).

7. Accessories

- Internal/external fuses.
- Surge arrestors (for HV applications).
- Detuned reactors (for harmonic-rich environments).
- Ventilation fans (for larger kVAr ratings).

8. Testing

- Routine factory tests including:
- Capacitance measurement.
- Loss angle (tan δ).
- Voltage withstand test.
- Leakage current test.
- Harmonic withstand capability.

9. Dimensions & Weight

Vary with the kVAr and voltage level; typically, modular for ease of transportation and installation.

10. Documents

- Detailed single-line diagram (SLD).
- Operation and maintenance manual.
- Test certificates and compliance reports.

11. Optional Features

- Communication Interface: RS485, Modbus RTU for SCADA integration.
- Remote monitoring and control.

VI. Technical Specification for Harmonics filter

1. General Information

- Current Range: 20 A to 600 A.
- Rated Voltage:
- Low Voltage: 400V/415V/480V AC.
- Medium Voltage: 3.3 kV/ 6.6kV/11kV (as required).
- Rated Frequency: 50 Hz.
- Type:
- Passive Harmonic Filter.
- Active Harmonic Filter (AHF).

2. Standards

- Design and Testing:
- IEEE 519-2022 (Harmonic control standards).
- IEC 61000-3-2/4 (Harmonics emission limits).
- IEC 61439-1/2 (LV switchgear and control gear assemblies).
- IEC 60146 (power electronic systems for AHF).

3. Construction

- Material: CRCA steel, powder-coated or stainless steel.
- Protection Class: IP42 (indoor use), IP54/55 (outdoor use).
- Cooling:
- Natural air cooling or forced air cooling (for higher ratings).
- Mounting: Floor-mounted or wall-mounted design.
- Configuration:
- Modular design for easy expansion.
- Three-phase or single-phase configuration (based on application).

4. Electrical Parameters

- Rated Insulation Voltage:
- For LV: 690V AC.
- For MV: Up to 12kV.
- Total Harmonic Distortion (THD) Reduction: ≤5% THD compliance for IEEE 519 standards.
- Harmonic Order: C^{ap}abl^{e} of ^{fi}lter^{in}g 3r^{d,} 5th, 7th, 11th, 13th, and highe^{r} orders up to the 50th harmonic.
- Reactive Power Compensation: (for passive filters) Up to 0.95 power factor.

- Overload Capacity:
- Short-term overload withstands up to 150% for 1 minute.
- Response Time (Active Filters): <100 microseconds.

5. Features

- Passive Harmonic Filters:
- Tuned LC circuits (single-tuned or double-tuned filters).
- Detuned reactors for harmonic-rich environments.
- Active Harmonic Filters (AHF):
- IGBT-based inverter technology.
- Real-time harmonic cancellation.
- Dynamic compensation for fluctuating loads.
- Communication:
- RS485/Modbus, Ethernet, or Profibus for remote monitoring.
- SCADA compatibility for system integration.
- User Interface:
- LED/LCD display for system status, harmonic levels, and fault monitoring.

6. Protection Features

- Overvoltage and Under voltage Protection.
- Overcurrent Protection.
- Thermal Protection:
- Forced shutdown in case of overheating.
- Phase Loss/Imbalance Protection.
- Surge Protection: Integrated surge arrestors.

7. Environmental Conditions

- Ambient Temperature: -10°C to +50°C.
- Altitude: Up to 1000 m above sea level (derating may apply for higher altitudes).
- Relative Humidity: Up to 95% (non-condensing).

8. Efficiency

- System Efficiency: ≥97% for passive filters; ≥98% for active filters.

9. Testing

- Routine factory tests:
- Voltage withstand test.
- Harmonic attenuation performance test.
- Thermal cycling and endurance tests.

- Leakage current test.

10. Dimensions & Weight

- Varies based on current rating, harmonic mitigation levels, and system voltage.

11. Accessories

- Switching Devices: Contactor or circuit breakers for system isolation.
- Current Transformers: For sensing harmonic distortion.
- Capacitors and Reactors: For reactive power and harmonic tuning (passive filters).
- Communication Modules: For integration with monitoring systems.

12. Documents

- System drawings and single-line diagram (SLD).
- User manual and operating instructions.
- Harmonic analysis report and compliance certificate.

VII. Technical Specification for Transformer

1. General Information

- Rated Capacity: as specified.
- Type: Energy-efficient dry-type or oil-immersed transformer.
- Cooling Type: ONAN (Oil Natural Air Natural) or AN (Air Natural).
- Phase: Three-phase.
- Frequency: 50 Hz or 60 Hz (depending on regional standards).

2. Standards

- Design and Testing:
- IEC 60076 (Power transformers).
- IS 1180 (Energy-efficient distribution transformers for India) Level-II.
- IEEE C57.12 (General requirements for distribution transformers).
- Eco-design Directive (for energy efficiency compliance in Europe).

3. Electrical Parameters

- Primary Voltage:
- Common values: 11 kV or 22 kV (as per system design).
- Secondary Voltage:
- 415V (common for LT distribution networks).
- Tapping Range: ±5% in steps of ±2.5% (on-load or off-load tap changer).
- Vector Group: Dyn11 (or as specified by the user).
- Impedance: As per standards, typically around 4% to 5%.

- Efficiency:
- 99.5% or higher at 50% load.
- Designed to meet or exceed Level 2 or 3 Star energy efficiency standards (IS 1180 or equivalent).
- Losses:
- No-Load Loss: ≤400 W (varies by standard and design).
- Load Loss: ≤4000 W (at full load).

4. Construction

- Core:
- High-grade cold-rolled grain-oriented (CRGO) silicon steel.
- Low-loss amorphous core (optional for ultra-efficient transformers).
- Windings:
- High-conductivity electrolytic copper or aluminum.
- Double-layer insulation for enhanced durability.
- Tank (for Oil-immersed Transformers):
- Material: Mild steel with anti-corrosive paint.
- Hermetically sealed or conservator-type design.
- Enclosure (for Dry-type Transformers):
- Protection Class: IP23 (indoor use) or IP55 (outdoor use).
- Fire-resistant resin-encapsulated windings (for safety).

5. Cooling System

- Oil-immersed Transformers:
- Cooling medium: Mineral oil or eco-friendly ester oil.
- Fittings: Radiators, thermometer pocket, breather, and oil-level indicator.
- Dry-type Transformers:
- Air natural (AN) or air forced (AF) cooling.

6. Features

- Thermal Protection:
- Built-in temperature monitoring with PT100 sensors.
- Alarms and tripping systems for over-temperature conditions.
- Noise Level:
- ≤50 dB at 1 meter distance (as per NEMA and IEC standards).
- Energy Efficiency:
- Meets or exceeds BEE 4-star or 5-star rating (India).
- Eco-design Tier 2 compliance (Europe).
- Overload Capacity:
- Short-term overload capacity up to 125% for 30 minutes.

7. Protection

- Oil-immersed Transformers:

- Buchholz relay (gas detection).
- Pressure relief valve.
- Oil temperature indicator.
- Dry-type Transformers:
- Over-temperature alarm.
- Enclosure earthing for safety.
- Both Types:
- Overcurrent protection via circuit breakers or fuses.
- Lightning arrestors on HV side.

8. Environmental Conditions

- Ambient Temperature: -10°C to +50°C.
- Altitude: Up to 1000 m above sea level (higher altitudes may require derating).
- Humidity: Up to 95% non-condensing.

9. Accessories

- Off-load or on-load tap changer.
- HV/LV bushings (porcelain or polymer).
- Earthing terminals.
- Drain and filter valves (for oil-filled models).
- Silica gel breather (oil-filled models).

10. Testing

- Routine and Type Tests:
- Measurement of winding resistance.
- Voltage ratio and phase displacement.
- Short-circuit and open-circuit tests.
- Temperature rise test.
- Lightning impulse withstand test.
- Factory Acceptance Tests (FAT):
- Provided with detailed test reports.

11. Dimensions and Weight

- Dimensions: Vary with design and cooling type.
- Weight: Typically, 1500 to 2500 kg, depending on the construction and materials.

12. Documents

- Detailed nameplate information.
- Operation and maintenance manual.
- Factory test certificates.
- Energy efficiency compliance certificate.

The above technical specification is the minimum requirement of the Authority. But the Concessionaire may choose to use the latest proven energy efficient technologies for all the Pumpsets and allied system in order to achieve higher energy savings which is compatible to the pumping system. Any such proposal shall be communicated as part of the Technical Validation Report to be submitted by the Concessionaire and shall be duly approved by the Authority, prior to implementation of the proposal.

SCHEDULE-13:GENERAL TERMS AND CONDITIONS

GENERAL PROVISIONS

- **Ownership of Installed Equipment**

  - All Equipment and systems installed by the Concessionaire is and remains the property of the Concessionaire until the end of the Concession period. At the end of the Concession period, the ownership of all the equipment and systems shall be transferred to TWAD Board for free of cost.

- **Protection of Lien Holder's Interest**

  - TWAD recognizes that the project financing associated with the **Concessionaire's** performance under this Concession Agreement may be accomplished using third party financing, and as such, may be secured by a security interest in this Agreement and the Concessionaire's equipment or facilities referred to herein. To protect any lien holder's interest, the **Concessionaire** may be required to assign to its lenders, some or all of its rights under this contract.

    The TWAD

  - Board will consider:
    - Requests by lenders or lien holders for copies of any cure or show-cause notice issued to Concessionaire;
    - Requests by lenders or lien holders for extension of response time to cure or show cause notices;

- **Responsibility for CONCESSIONAIRE-Installed Equipment**:

  The **Concessionaire** may modify, replace, or change the systems and equipment during the Contract from that originally approved. However, any proposed modification, replacement, or change should require notification and coordination with and approval of the TWAD. Any such modification, replacement, or change of systems or equipment shall be performed by the Concessionaire at **NO COST** to the TWAD Board and shall not interfere with TWAD Board operations. The contracting officer shall give permission for such modifications in an expeditious manner so that CONCESSIONAIRE can discharge its obligations for achieving committed energy savings.

- **Project Site access**

  The TWAD Board shall provide access to the premises for CONCESSIONAIRE and its

sub-Concessionaire during regular business hours, or such other hours as may be requested by CONCESSIONAIRE and acceptable to the TWAD Board, to monitor, adjust, inspect, maintain, and repair the equipment.

- **TWAD Board Projects**

  The TWAD Board shall engage only the CONCESSIONAIRE within the Concession period including those that involve addition or removal of new energy conservation equipment, or energy consuming equipment for TWAD Board's Pumpsets needs within the Project Site(s).

- **Installation of Energy Saving Measures (ESMs)**

  - **ESM Installation Plans** - The CONCESSIONAIRE shall prepare and submit installation plans and specifications (the "Installation Plans") to the Engineer in charge.

  - **Work Schedule and–Existing Operations** - The CONCESSIONAIRE shall prepare a work schedule chart and the same shall be approved by the Engineer in charge within ten days. The CONCESSIONAIRE shall thereafter work according to the schedule. In case of any significant departure due to circumstances beyond the control of either party, amendment in the schedule shall be mutually agreed.

- **Materials and Workmanship** - Unless otherwise specifically provided for in the Installation Plans, all equipment, materials and articles incorporated in the work covered by this contract are to be new and of the best grade of its respective kind for the purpose.

  - **Superintendence -** The CONCESSIONAIRE shall provide a competent superintendent who shall have a graduate engineering degree as minimum qualifications along with CEA certification satisfactory to the TWAD Board, on the work site at all times during progress of the work with authority to act for the CONCESSIONAIRE and required Key Staff as per Form –A 3.

  - **Inspection of Work –** A TWAD Board Representative, will make daily observation of the work at the site. The CONCESSIONAIRE shall direct all inquiries, technical or administrative, to said officer during the project.

  - All materials and workmanship shall be subject to inspection at any and all times during the period of installation. The TWAD Board has the right to reject defective material and workmanship. Rejected material shall be promptly removed from the job site and satisfactorily replaced by the CONCESSIONAIRE at his own cost. Rejected workmanship shall be satisfactorily corrected by the CONCESSIONAIRE at his own cost

- **Protection of Property:**

  The CONCESSIONAIRE shall take all necessary precautions during the progress of the work to protect the water supply, from damage and injury and shall promptly repair any such damage to the satisfaction of the TWAD Board, at the Concessionaire's own cost.

- **Theft of Energy Saving Equipment**

  On completion of the implementation and during operation period and up to the time these are properly handed over to the TWAD Board, the CONCESSIONAIRE shall be responsible for prevention of any pilferage/theft of equipment installed for the ESM projects.

- **Quality Control**

  The CONCESSIONAIRE shall be responsible for quality control during installation of ESMs. The CONCESSIONAIRE shall inspect and test all work performed during ESMs installation to ensure compliance with contract performance requirements. The CONCESSIONAIRE shall maintain records of inspections and tests, including inspections and tests conducted by or for utility or other regulatory agencies. The quality control checks exercised by the CONCESSIONAIRE shall be test checked by the TWAD Board officials.

- **Utilities:**

  - **Electricity** - The CONCESSIONAIRE will be allowed to use electricity for installation purposes by the TWAD Board.
  - **Interruption of Electrical Service** - The **CONCESSIONAIRE** will schedule interruption of electrical service so as to minimize such interruption to TWAD Board operations. Interruptions shall be permitted only on days and time mutually acceptable and which does not cause any substantial service interruptions. The **CONCESSIONAIRE** shall notify the TWAD Board, in writing, at least fifteen (15) days in advance of any proposed interruption and shall obtain the approval of the TWAD Board prior to the interruption.
  - **Sanitary Facilities** - If existing sanitary facilities of the TWAD Board are close to the contract work area, the **CONCESSIONAIRE** is permitted to use same and shall maintain a sanitary condition at all times. The CONCESSIONAIRE shall make his own arrangements for living accommodation for all his workmen and staff during installation as well as the operation period. The necessary space for constructing temporary accommodation would be provided free of charges.

- **Changed or Unusual Conditions** - If an unexpected condition at the work site is encountered, TWAD may, in its discretion, issue a Modification and modify the scope of existing contract with the CONCESSIONAIRE, including such equitable adjustment as may be agreed upon between the parties.

- **Manufacturers' Warranties** - The CONCESSIONAIRE shall use its best efforts to keep in effect all manufacturers or other third-party warranties relating to the ESM equipment and ensure that any benefits due to such warranties are passed on to the TWAD Board at the time the hand over or compilation of the project.

- **Damage or Failure of Equipment**

  When CONCESSIONAIRE equipment fails or is damaged or destroyed, the CONCESSIONAIRE shall be responsible for repairs at their own cost. The TWAD Board will repair failed CONCESSIONAIRE-owned equipment or reimburse the CONCESSIONAIRE for such repairs, if the failure resulted from negligence or improper operation by CONCESSIONAIRE or if it is beyond the control of the CONCESSIONAIRE as in the case of force majeure conditions. The CONCESSIONAIRE shall provide repairs, at no expense to the TWAD Board, if the TWAD Board - owned equipment failure is a result of actions on the part of the CONCESSIONAIRE, including, but not limited to the use of any materials, equipment or workmanship which is inferior, defective, or not in accordance with the terms of this contract. The CONCESSIONAIRE shall make repairs within a reasonable period of time, or TWAD Board may repair or have the repairs made and charge the CONCESSIONAIRE for such repair costs. If any such property cannot be satisfactorily repaired or restored, the CONCESSIONAIRE shall replace it. If the CONCESSIONAIRE elects to take over repair responsibilities of TWAD Board owned equipment as part of an ESM, the ESM shall include a listing of the types of repairs that will be the CONCESSIONAIRE's responsibility. The CONCESSIONAIRE would undertake all repair and maintenance work within a reasonable time period on the basis of self-assessment or on receipt of notice from the TWAD Board.

- **Maintenance and Repair Response Time**
  - In the event of normal repairs, the maximum response time for the CONCESSIONAIRE to attend to such repairs is 48 hours from the time of intimation to the Concessionaire. In the event that CONCESSIONAIRE fails to respond as required above or in the event of an emergency, the TWAD Board may perform such repairs to CONCESSIONAIRE-owned equipment. The CONCESSIONAIRE shall hold the TWAD Board harmless in such cases where the Concessionaire fails to respond and in emergencies. TWAD Board may, at its option, (1) recover such costs of repairs by deductions from the CONCESSIONAIRE's future invoice(s), and/or (2)

demand in writing payment of cost of repair, from the Concessionaire. Such payment shall be due to the TWAD Board within forty-five (45) days of its demand received by the CONCESSIONAIRE.

- CONCESSIONAIRE shall maintain the Pump set details including the type of Pump set and its accessories installed as a part of asset management
- CONCESSIONAIRE shall furnish to the TWAD Board the list of complaints along with a short description of the nature and cause of each complaint recorded through public complaints. All complaints recorded at the Control room/Complaint Desk of the CONCESSIONAIRE and the action taken by the CONCESSIONAIRE should be rectified at once.
- The log reports for all the alert messages received from the Pumping Station are to be maintained by the CONCESSIONAIRE.
- All materials used in the Operation and Maintenance of Pumpsets including the motors, starters, fittings, cables, etc. should be ISI certified or its equivalent international standard. If ISI standards are not available for any of the components, the components should comply to relevant IEC standards.
- CONCESSIONAIRE is responsible for the maintenance of Pumpsets within the Project Site(s) as covered in the energy audit report.
- MECHANISM OF PUBLIC GRIEVANCES: For addressing public grievances, the CONCESSIONAIRE has to maintain an Office room with a control room and Call Centre with help lines and has to maintain the relevant complain log books with the action taken for the same.
- If the Pumpsets are damaged due to heavy rains, accidents, riots, etc., the same shall be replaced or repaired by the Concessionaire.
- Possession of Attendance Vehicles: Concessionaire should possess the required vehicles for transport of men and materials to attend repairs and maintenance of RC books in case of own vehicles or Lease agreement in case of hired vehicles. If the TWAD Board owns any equipment or vehicles, it may be hired by the Concessionaire. The hiring charges are to be recovered from the Concessionaire at a rate mutually agreeable to the TWAD Board and Concessionaire. The final say on hiring-out the vehicles lay with the Concessionaire.
- Concessionaire shall be responsible to replace or repair the wires running from the switch boxes to the Pumpsets/ESM Equipment at its own cost.
- CONCESSIONAIRE shall maintain the underground cable. TWAD Board shall not pay the Concessionaire for the same .
- CONCESSIONAIRE shall organize the required qualified manpower to operate and maintain the Pumpsets and ESM Equipment and Control Station
- CONCESSIONAIRE should maintain sufficient stock at site office to undertake maintenance of the Pumpsets within the stipulated time

- **Carbon Emissions Reductions (CERs)**
  - It is understood by all parties that the Energy Saving Project so implemented may be financially viable only if Carbon Credits/ Renewable Energy Certificates (RECs)/ Energy Efficiency Certificates (EECs) or any such instruments are claimed

and monetized as per the United Nations Framework for Climate Change Control (UNFCCC) protocols.

- The Concessionaire shall initiate proposals and bear any cost other than that of the third-party M&V Agency for claiming the Carbon Credits/any such Central or State Government instruments and to monetize the same.
- The revenue from such instruments, if any, shall be shared in the ratio of 50:50 between the Concessionaire and the TWAD Board for the period of Year 1 to Year 5 and in the ratio of 30:70 between the CONCESSIONAIRE and the TWAD Board for the remaining of the Concession Period, if any.

- **REPLACEMENT/ REPAIR OF OUT OF ORDER PUMP MACHINERY, TRANSFORMERS AND ELECTRIC PANELS AND OTHER ELECTRICAL EQUIPMENTS ETC DURING CONCESSION PEROD**

The Concessionaire will do the necessary repairs of pumps, motors, HT/LT transformers installed at each Pumping Station electric panels and other accessories. Concessionaire will have to replace burnt out motors, defective pumps at all the pumping stations by repaired / new tested pump set within 20 days if standby is available otherwise in a period of 24 hours after reporting of fault/defect so as to produce notified discharge.

Electric accessories in panel board going out of order shall be replaced /repaired with- in 24 hours after reporting of fault/break - down.

Repairing/ replacement of out of order and power lines shall have to be done with in a period of 24 hours after reporting of the fault/ defect.

All the charges for the repairing / replacement of defective pumps, motors, HT/LT transformers, equipment and power lines, electric panel, electrical/instrumentation accessories and other related equipment are to be borne by the Concessionaire.

During implementation Period TWAD will do the O&M of the respective pumping stations until COD along with the works of Repair, Renovation of HT/LT transformers, Switchyard equipment and power lines, electric panels and other accessories at the pumping stations.

During the Concession Period after COD, the Concessionaire shall do the repair of the civil, mechanical, electrical, instrumentation work promptly. For such repair the department shall provide them sufficient shutdown period. All repairs should be completed within 12 hours of its notice or looking to nature of job with the prior approval from TWAD. However, the system maintenance will only be considered insufficient in case the main working & stand bye system is not in a position to deliver 90% of notified flow in limitations stated above and shall call for compensation stated herein after.

Concessionaire is fully responsible for O&M of pumping Stations, pumping machinery etc. during Concession Period for which no extra payment will be made to Concessionaire by the Department.

All pumps and pumping machinery which are in operative condition at pumping stations, Concessionaire can use these pumps if required. The O&M of these Pumpsets and their repairs if needed will be borne by the Concessionaire. No extra payment will be admissible to the Concessionaire for operating these Pumpsets. If Concessionaire not required any of the pump or pumping machinery, the same have to hand over to the department.

- **Intellectual Property - Copyright**

  The copyright in all drawings, documents and other materials containing data and information furnished to TWAD Board by the Concessionaire herein shall remain vested in the Concessionaire or, if they are furnished to TWAD Board directly or through the Concessionaire by any other party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

- **Confidential Information**

  TWAD Board and the Concessionaire, shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any other party any documents, data or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following termination of the Contract. Notwithstanding the above, the Concessionaire may furnish to its such documents, data and other information it receives from the TWAD Board to the extent required for the Sub-Concessionaire to perform its work under the Contract, in which event the Concessionaire shall obtain from such Sub-Concessionaire an undertaking of confidentiality similar to that imposed on the Concessionaire.

- **The obligation of a party, however, shall not apply to that information which**
  - (a) now or hereafter enters the public domain through no fault of that party
  - (b) can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party hereto
  - (c) Otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.
- The above provisions shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Facilities or any part thereof.
- The provisions of this shall survive termination, for whatever reason, of the Contract.

- **Execution of the Facilities - Representatives**

  The Concessionaire shall appoint a Concessionaire's Representative ("Project Manager") at least a week in advance from the commencement of work, after obtaining prior approval from TWAD. All notices, instructions, information and other communications given by the Concessionaire to the TWAD Board under the Contract shall be given by the Project Manager, except as herein otherwise provided.

- **Safety**

  Concessionaire shall be responsible for ensuring security, safety of the Facilities, gate control, sanitation, medical care, and fire prevention.

- **Emergency Work**

  If, by reason of an emergency arising in connection with and during the execution of the Contract, any protective or remedial work is necessary as a matter of urgency to prevent damage to the Facilities, the Concessionaire shall immediately carry out such work.

- **Theft of Energy**

  Any such occurrence shall be brought under the notice of the Chief Engineer, TWAD without any delay by the Concessionaire. The magnitude and nature of the energy theft will be assessed by both the parties and corrective measures shall be taken accordingly along with proper documentation. The Concessionaire shall be solely responsible for loss of energy on account of theft in the Project Site(s).

- **Insurance**

  The Concessionaire shall maintain insurance in full force and effect throughout the term of this Concession period.

  - The Concessionaire shall indemnify the TWAD Board against all losses and claims in respect of:
    - death of or injury to any person or
    - loss of or damage to any property

    which may arise out of, or in consequence of the execution of this Contract and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect thereof.

  - The Concessionaire shall without limiting his or TWAD Board obligations and responsibilities, insure in the joint names of the Concessionaire and the TWAD Board, against liabilities for death of or injury to any person or loss of or damage to any property arising out of the performance of this Contract.

  - Concessionaire shall maintain insurance coverage for the works, together with the materials and equipment, to the full replacement cost, against the risk of loss, damage by fire or otherwise, or theft of Concessionaire's-owned and installed energy saving equipment, and loss due to riot and vandalism etc. until title to the equipment passes to TWAD Board upon expiration of the contract term.

  - Insurance shall be in force the first day of the term of this contract. The Concessionaire agrees to deposit with the TWAD Board, on or before the Agreement Date of this Contract, a certificate of insurance as evidence that such insurance provisions of this Contract have been complied with and to keep such insurance in

effect and the certificates thereof on deposit with the TWAD Board during the entire term of this contract.

- **Settlement of Disputes**
- **Mutual Consultation**

  If any dispute of any kind whatsoever shall arise between TWAD Board and the Concessionaire in connection with or arising out of the Contract, including without prejudice to the generality of the foregoing, any question regarding its existence, validity or termination, or the execution of the Contract—whether during the progress of the works or after their completion and whether before or after the termination, abandonment or breach of the Contract—the parties shall seek to resolve any such dispute or difference by mutual consultation by taking professional opinion from a Third Party.

- **Concessionaire's Responsibilities**

  - **Verification Phase:**

    - To receive the report from the TWAD Board
    - To study and understand the audit conducted by the Consultancy for existing energy systems in the TWAD Board Pumpsets
    - Confirm whether the baseline energy consumption has been established as per Baseline Measurement guidelines document by the Consultancy
    - To determine the total Project Assets accurately along with GIS mapping of the assets.
    - The old installed pump machinery , electrical installation, cables, all types of pipes and specials reinstalled from the pumping stations during the process of replacement and repair would be the property of the department and would be handed over to the departmental authority as per rules.

  - **Supply, Installation & Commissioning Phase:**

    - Supply the Energy Efficiency Pumpsets and Equipments.
    - Installation of the supplied Pumpsets and equipments.
    - Provide Commissioning services and bring the project to Substantial Completion

  - **Comprehensive Operation & Maintenance and Monitoring Phase:**

    - Perform routine operation and maintenance of equipment as per the agreed terms.

- Submit monthly energy saving reports as per Savings Calculation guidelines.
- Provide training for maintenance staff and other concerned personnel on routine maintenance and operation of systems, including developing the training modules and toolkits as required by TWAD Board.
- Extend all cooperation to the TWAD Board to enable monitoring, measurement and verification of performance and savings.

- **Commissioning and Operational Acceptance**

  The date of commissioning of the Facilities or any part thereof shall be taken as the date of issue of the Certificate of Substantial Completion, inspection and acceptance. The Concessionaire shall acquire all permits, approvals and/or licenses from all local, state or national government authorities or public service undertakings that are necessary for the performance of the Contract. The Concessionaire shall comply with all Indian laws in force. The Concessionaire shall indemnify and hold harmless to TWAD Board from and against any and all liabilities, damages, claims, fines, penalties and expenses of whatever nature arising or resulting from the violation of such laws by the Concessionaire or its personnel, including the Sub – Concessionaire's and their personnel.

SCHEDULE-14: GUIDELINESFOR O&M OF THE PROJECT

1. General Provisions

(i) The CONCESSIONAIRE shall inspect the inventory of all systems at all the locations and take appropriate measures by providing new equipment / modifications / reconditioning of the equipment including painting etc.

(ii) (iv) Since the Facility is a high security zone, hence the firm shall have to follow the security restrictions and the necessary verifications of the employees and persons required for the execution of the work, shall be the responsibility of the firm.

(v) No information obtained by the Concessionaire in course of execution / maintenance of any work from the Authority should be reproduced in any manner or format without obtaining prior permission from the Authority.

(vi) The firm shall provide necessary stickers / stamps on the systems covered under performance contract for easy identification and verification.

(vii) The firm shall be responsible for providing necessary measuring instruments methods for providing detailed readings documentation for the purpose of verification of Energy savings achieved due to implementation of ESMs.

(viii) Recoveries / Deductions on account of 'Work Contract Tax' and 'Income Tax i/c Surcharge' at applicable rates shall be done from all the payments made to the CONCESSIONAIRE.

(ix) Any damage done to the Building and / or to Equipment /systems of the TWAD Board will have to be made good by the CONCESSIONAIRE at his own cost, and shall be responsible for bringing the original finish as much as possible. In case the CONCESSIONAIRE fails to make good the damages so made, even after the written communication for this effect has been made by the contracting officer, TWAD Board reserve the right to get the damages repaired by means of other agency / departmental and any expenditure incurred towards that account becomes recoverable from the future invoices of the Concessionaire.

2. Compliance with Labor Regulations

The CONCESSIONAIRE and consortium partners (if any) shall abide by all existing and future labour enactments and rules made there under, regulations, notifications and bye-laws of the State or Central Government or local authority and any other labour law.

3. Responsibilities of the Concessionaire regarding O&M of Pumping Station

1) After taking over of the work for maintenance, the Concessionaire is the custodian of the work.

2) After taking over the Pumping Station by the Concessionaire, for any damages to the O&M of Pumping Station made by men, machinery, etc., the Concessionaire is solely responsible for rectification at his own risk and cost.
3) The work taken over by the Concessionaire is only for maintaining the Pumping Station and to supply the earmarked quantity to the beneficiaries. The Concessionaire should not make any alterations in the work / supplying water to any other beneficiaries/ supplying water through any other mode without the approval of the Chief Engineer in charge of the CWSS in writing.
4) Ensure that the water is supplied to beneficiaries covered under this work as per the earmarked quantity on normal condition.
5) Should inform every day before 08.00 AM about the pumping status of the scheme from 06.00 AM of previous day to 06.00 AM of present day to the AE/AEE through WhatsApp and through online entry as per the prescribed format (beneficiary supply details).
6) If Diesel Generator (DG) is available in the scope of contract it should be maintained in working condition. Test run of Genset should be carried out for a minimum of 30 minutes per week while in idle condition or as recommended by the manufacturer / directed by TWAD. The Concessionaire should make necessary arrangement for Diesel / Lube oil required for operating the generator and the related cost will be reimbursed as per actual on production of original bills.
7) In case of failure of electricity during emergency / calamity, the Concessionaire shall take immediate action to restore the electricity by approaching the TNPDCL authorities. In case of non-availability of generators, the Concessionaire shall engage generators for pumping the Earmarked quantity (MLD) as and when required under approval of the Chief Engineer and the hire charges will be paid as per the rate approved for this case.
8) The Concessionaire shall submit the operating methodology to carry out in full this contract as per the prevailing guidelines, CPHEEO guidelines and got it approved by the Engineer in charge. The Operating Staff should have the required minimum qualification as the case may be as Electrician with-C-Certificate, Electrician-grade II, Fitter grade II, Maintenance Assistant, filter bed operator, turncock, watchman as per the requirement of works to be performed. All shall read and write.
9) Must keep a copy of the relevant portions of the latest CPHEEO manual on Operation and Maintenance of Water Supply Systems at work site and carry out the O&M works in accordance to the guidelines prescribed in the Manual.
10) The Quantity of water supplied to the beneficiaries is the essence of contract, and the Concessionaire is solely responsible for the supplied quantity. The Concessionaire should ensure earmarked quantity (MLD) of supply to all the beneficiaries as per the scope. Concessionaire should maintain and furnish register showing the quantity of water delivered to each habitation
11) The Concessionaire should maintain Pumping quantity register, pump set operation register, Consumables register, Electro mechanical repair register,

preventive maintenance register, pump set panel boards repair register, valves inspection and rectification register etc. and the same shall be maintained and signed by the Concessionaire/authorized person and the same shall be furnished during the inspection of TWAD Board Officer. The format for maintaining the above registers shall be got approved from the Chief Engineer.

12) The Concessionaire should obtain the invoice / bill for electricity consumed and handover to the Chief Engineer for onward submission for making payment and the Concessionaire should make arrangements to submission of Cheque / Demand Draft to Electricity Board office without delay.
13) All the repair works whenever it occurs in the pumping machineries, Electro-mechanical items should be attended immediately under intimation to TWAD Board Engineers as all the works are included in the essence of contract.
14) All the tools and equipment required for this contract shall be arranged by the Concessionaire at his own expense.
15) Concessionaire shall maintain the water meters in good working condition. The Quantity pumped will be ascertained based on water meter reading only. However, in special circumstances, if the water meter is not functioning / available, the supply quantity will be checked using portable flow meter provided by the Concessionaire.
16) Operate and maintain capacitor and allied switch gear so as to maintain a power factor of not less than 0.90 and as prescribed by TNPDCL.
17) 4.18 The power factor will not decrease or increase suddenly and hence the Concessionaire should monitor it daily. If any decrease in the power factor is noticed, it should be informed to the Chief Engineers and rectification to be carried out by the Concessionaire which will be paid for as per the agreement. Any penalty levied by TNPDCL for non-maintenance of power factor, will be recovered from the Concessionaire.
18) Mandatory Regulations prescribed by CEIG and Inspector of Factories shall be followed without any lapse.

    a. Each station should be provided with complete set of tools and equipments required for maintenance

    b. Recording Register including starting/stopping time of the Pumpsets etc as per standard format.

    c. Checking the temperature/Noise of Running units and control panel

    d. To Provide gland packing for the pumps, sluice valve etc. whenever required to avoid leakage of water.

    e. The Concessionaire shall report any problem in the motor and pumps, electrical main boards and fixtures etc, any other damages caused to the water supply system, shall be brought to the notice of the Chief Engineer immediately and take immediate action for the rectification and restoration of

water supply within the prescribed time limit. Necessary entries shall be made in the corresponding register.

f. Any alternation/additions if needed to the existing arrangements, both in electrical and mechanical installations shall be attended only after proper approval from the Chief Engineer.

g. The Concessionaire shall obtain the license as Principal Employer from the competent authority of Labour Department in the respective District and produced to the Chief Engineer concerned before making initial payment.

h. The Concessionaire shall provide Technical Supervisor with minimum technical qualification of Diploma/Degree in Civil/Electrical/Mechanical Engineering as per the value of work mentioned.

i. The Concessionaire should also provide photo identity card to his own labour mentioning the name and category along with the name of the Concessionaire without mentioning the TWAD Board name and Logo, etc,.

j. If any labour is found to be unfit or disobedient to the instructions given by the TWAD Board officers, they shall be replaced by the Concessionaire immediately.

k. The Concessionaire shall provide required safety equipments to the labours engaged by him.

l. Operation on specified shifts / day as per labour law and ensuring that back up teams are available to take over during Sundays, Public Holidays and in the event of regular Operator's absence including watch and ward.

m. Operate and maintain pumping equipment with skilled staff with required qualifications and experience so as to safeguard the equipments against single phasing, earth fault, phase reverse etc., in power supply as well as their personal safety.

n. The Concessionaires shall be fully responsible for operating and maintaining the Pumping station in a safe & secure manner.

o. The Concessionaire shall obey all the provisions of various laws including Labour Laws as applicable to them. If the Board suffer any loss what so ever of nature, monetary or otherwise, as a result of direct or indirect action or inaction of the Concessionaire in failing to comply with or not properly complying with any law, rules, regulations, notifications, instructions, circulars, G.Os, Board Proceedings, etc. issued by the Government or Board or any other authority as applicable to them as mandated by the law or otherwise, the said laws shall be computed in terms of money and recovered from the Concessionaire.

4. Watching and Lighting

The Concessionaire/firm shall at his expense, shall provide at the site of works sufficient fencing, barricading, watching and lighting during day and night. The Concessionaire/firm shall in every respect conform to the police regulations in these matters, for which the Board will not take any responsibility. If the

Concessionaire/firm fail/neglect to do these arrangements, the same shall be carried out by the Engineer in charge and the costs thereof shall be recovered from the Concessionaire/firm and prevent entry of unauthorized persons.

5. Risk Insurance

TWAD shall not be liable for risks of loss or damage to any belongings and of personal injury and death to the persons employed by the Concessionaire for this work and the public if any during the Concession Period. Copy of such insurance shall be produced to the Chief Engineer.

6. Report in Operation period of the Works

a) Photographs showing status of each energy efficient Pumpsets at all sites of the Works;

b) Logs to show the maintenance record to all equipment;

c) Logs to show the working condition of Starters and related auxiliaries.

d) Logs to show the replacements of damage and defective components of each equipment or the whole equipment of a Plant;

e) Logs to show the attendance records of all the Maintenance staff; and

f) Comparisons between the recommendations from the Maintenance Manual with the actual maintenance, defective parts replacement records as described in (b) and (c) above.

7. Schedule of Maintenance

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
1	**Pump House:**				
1.1	Cleaning of site	□			
1.2	Cleaning of Pump House including Doors and Windows	□			
1.3	Cleaning of Panel Room, D.G. room etc.	□			
1.4	Check pump is operational	□			
1.5	Change over to stand by pumps	□			
1.6	Record hours run	□			
1.7	Check operation of air release pipe	□			

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
1.8	Lubricating of Rolling Shutters			□	
1.9	De-weeding of Pump Room premises and removal of cob websetc in the Pump Room.				□
2	**H.T. Structure, Transformer yard and Transformers:**				
2.1	Cleaning of transformer yard, removal of grass and plants	□			
2.2	Check up and water the earth pits		□		
2.3	Meggar - earth resistance check in the earth pits				□
2.4	Check and operate the AB switch in the structure for its smooth operation and replace contacts if necessary		□		
2.5	Checkup dropout fuses and H.G. fuses and replace if necessary	□			
2.6	Checkup insulators and lightning arrestor in the structure and replace if necessary			□	
2.7	Check the transformer for any leakage of oil and top up if necessary		□		
2.8	Check the temperature of transformer oil from dial thermometer and record		□		
3	**H.T. Panel:**				
3.1	Clean the panel externally and internally using blower	□			
3.2	Carryout visual check of observe over all condition of the breakers and clean the breakers thoroughly	□			
3.3	Grease/Oil joints and sliding surfaces			□	
3.4	Check the internal connections			□	
3.5	Check the operations of doors and			□	

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
	conditions of door gasket				
3.6	Check Volt Meter, Ammeter etc. in the panel for its working and replace if necessary	□			
3.7	Check all the indicator lamp and control fuses and replace if necessary	□			
3.8	Check the operation of relays			□	
4	**LT Panel :**				
4.1	Clean the panel externally and internally using blower	□			
4.2	Check all the connections for tightness			□	
4.3	Check the contacts switches for tightness and apply petroleum jelly if necessary			□	
4.4	Check Volt Meter Ammeter and respective P.T. and CTS for its working and connection	□			
4.5	Check all the indicator lamp bulbs and fuses and replace if necessary		□		
4.6	Check operation of all switches and bush buttons		□		
5	**CAPACITORS:**				
5.1	Check all the capacitors for oil leakage if any	□			
5.2	Clean the insulator with dry cloth and check the connections for tightness			□	
5.3	Check the fuses and meggar the units	□			
6	**MOTORS:**				
6.1	Clean the motor terminal box, check the cable connection to tightness	□			
6.2	Check body of the motor for firm			□	

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
	connection				
6.3	Check the foundation bolt and nut for tightness	□			
6.4	Check normal sound and vibration	□			
6.5	Check the bearing grease and replace if necessary				□
6.6	Check air cooling fan for vibration and noise				□
6.7	Check meggar test for windings and earth				□
6.8	Cleaning of motor slipring, carbon brush, contacts and replace if necessary		□		
7.0	**STARTERS AND OCB**				
7.1	Clean the starter and checkup the cable connection	□			
7.2	Check contacts and replace if necessary		□		
7.3	Check for cable connection		□		
7.4	Check for OLR and No volt coil		□		
7.5	Check the level of transformer oil in the OCB and top up if necessary			□	
8.0	**MAIN PUMPS**				
8.1	Outside Cleaning	□			
8.2	Check Bearing Temperature	□			
8.3	Check & Top up Bearing grease or replace grease		□		
8.4	Check gland for leak and add gland layer if required	□			
8.5	Replace gland packing completely				□
8.6	Check foundation nuts and bolts for tightness and rusting		□		

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
8.7	Check inspection covers and check condition of impeller				□
8.8	Check the pressure and pressure gauges on suction and delivery side	□			
8.9	Clean the pump pit and pump floor	□			
8.10	Check for coupling Bolts and nuts, coupling tyre and replace the tyre if required		□		
8.11	Check for vibration and noise of the pump	□			
8.12	Pump out leaked water from the pump pit	□			
8.13	Check the condition of bearing oil and replace if required			□	
9	**SUMP PUMP**				
9.1	Check the pump for operation	□			
9.2	Check the coupling and replace if necessary			□	
9.3	Clean the starter panel externally and internally	□			
9.4	Check the fuses and contacts, apply petroleum jelly if necessary		□		
9.5	Check the foot valve and replace if necessary	□			
10	**Diesel Generator Set, Battery and Emergency light:**				
10.1	Clean the Battery, top up, distilled water in the battery if necessary	□			
10.2	Remove the connection of battery terminals, clean thoroughly and reconnect after applying petroleum jelly		□		

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
10.3	Clean the emergency lights internally and externally	□			
10.4	Check the light, indicator lamp for its proper working and attend if necessary		□		
10.5	Check fuel level in the diesel tank of DG set and top up if necessary		□		
10.6	Check engine oil level in the D.G. set and add if necessary			□	□
11	**OHT CRANES:**				
11.1	Carry out thorough cleaning of crane including girders, trolley, platform other equipments and control panels			□	
11.2	Check all the cable connections for tightness		□		
11.3	Check contacts and fuses and replace if necessary		□		
11.4	Inspect gearbox for any leakage of oil				□
11.5	Check the connection of limit switch				□
11.6	Check panels internally and externally and apply petroleum jelly if required				□
11.7	Check the rope and apply grease if required				□
12	**SUCTION & DELIVERY VALVES AND ACTUATOR:**				
12.1	Check the condition of gland packing and tighten or replace if necessary	□			
12.2	Check actuator gear box for leakage		□		
12.3	Check the condition of limit switches			□	
12.4	Check the condition of oil and grease, replace if necessary			□	
12.5	Check the bolts and nuts for tightness			□	

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
12.6	Check cable terminals at motor terminal box of actuator			□	
12.7	Check clutch and gear arrangement for manual operation				□
12.8	Apply grease to the spindle if necessary			□	
12.9	Check for free movement			□	
13	**PIPELINE:**				
13.1	Check the pumping main, branch pumping main, feeder main for any leak /burst /damage	□			
14.0	**VALVES:**				
14.1	Check the operation of non-return valve	□			
14.2	Check the disc for its smooth opening and closing operation		□		
14.3	Check the sluice valves	□			
14.4	Check the air valves	□			
14.5	Check the scour valves				□
15	SUMP				
15.1	Check the cleaning				□

8. Equipment and tools to be made available at each pumping station

Sl. No.	Description	Set/no.
1	Ultrasonic Flow detector	1 set
2	Double end spanner (6 mm to 32 mm)	1 set
3	Screw driver (6", 8", 12")	1 set
4	Pipe wrench (14", 18", 24")	1 set
5	Cutting pliers	1 set
6	Long nose pliers	1 no.
7	Hammer (2 Kgs)	1 no.
8	Test lamp with 15m wire	1 no.
9	Megger (1000 V)	1 no.
10	Multimeter	1 no.
11	Tong tester	1 no.
12	Hacksaw frame with 3 nos. blade	1 no.
13	Spade (Manwetty)	2 nos.
14	Crow bar	1 no.
15	Sickles	2 nos.
16	Ring spanner (6mm to 32mm)	1 set
17	Caution Board (Men at work)	1 no.
18	Grass cutter	1 no.
19	Country knife	2 nos.
20	Iron chutty	2 nos.
21	Grease gun	1 no.
22	Wheel barrow	1 nos.
23	Torch light with 3 cells	2 nos.
24	Hand blower	1nos.

9. Pump Set, Panel Boards Repair Register

Sl. No.	Location and Details of Pump set	Type of repair and reasons	Whether repeated occurrence or not	Date of occurrence of Repair	Date and Time of Information to the Assistant Engineer concerned	Date of inspection Field Engineer	Instruction issued	Date of rectification		Materials used for rectification
								Start	Finish	
1	2	3	4	5		7	8	9	10	11

10. Valves inspection and rectification Register

Sl. No.	No.of sluice valves/ Air valves/ scour valves inspected	No.of minor leak in any valves	No. of minor leaks attended	No. of gland packing/ applying grease in valves	No. of defective valves still to be attended
1	2	3	4	5	6

Log Book Formats for Pump set operations, Genset Operation, etc shall be maintained by the Concessionaire.

SCHEDULE-15: INDICATIVE PROJECT MILESTONES

(Project milestones submitted by the Concessionaire and approved by the Authority shall be appended here)

Milestone	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Delivery of 40 Pumpsets and 20 Capacitor Banks and 10 Harmonics Filter at the Project Site(s)								
Installation of 40 Pumpsets and 20 Capacitor Banks and 10 Harmonics Filter								
Delivery of 50 Pumpsets and 15 Capacitor Banks and 7 Harmonics Filter and 1 Transformer at the Project Site(s)								
Installation of 50 Pumpsets and 15 Capacitor Banks and 7 Harmonics Filter and 1 Transformer								
Delivery of 47 Pumpsets at the Project Site(s)								
Installation of 47 Pumpsets								
Testing of the Project Facilities (137 Pumpsets and 35 Capacitor Banks and 17 Harmonics Filter and 1 transformer)								
Takeover of the Project Facilities along with TWAD Facilities and the O&M of 37 Pumping Stations								

SCHEDULE-16: COMPUTATION OF SHARED SAVINGS

The Concessionaire shall assess the Specific Energy Consumption, both at the Pumpset level and at the Pumping Station level by capturing and compiling data from the energy meters on a daily/ regular basis to arrive at the operating efficiency of each of the Pumpsets installed in the 37 Pumping Stations under 10 CWSS in the Coimbatore region.

The Authority shall be provided with login credentials of any real-time monitoring system the Concessionaire may install to monitor the parameters such as flow, pressure, vibration, temperature and energy consumption (both at the Pumpset level and at the Pumping Station level).

The Concessionaire shall provide the data collected/ compiled on Specific Energy Consumption for a specific period during the Operations Period, as and when the same is requested by the Authority.

A. Computation of Shared Savings at each of the 37 Pumping Stations

The table below indicates the methodology to arrive at the Actual Energy Savings and the Shared Savings with the help of a suitable formulae for better understanding. The computation given below shall be adopted by the Concessionaire, for arriving at the Actual Energy Savings (A) and Shared Savings (SS) at each of the 37 Pumping Stations under all circumstances, except where the Pumped Quantity of water is less than the Earmarked Quantity.

S.No.	Description	Unit	Terminology/ Computation
1.	Final Baseline Specific Energy Consumption for a particular Pumping Station (e) as provided under Schedule-21 of the Concession Agreement	kWh/ KL	E
2.	Total Pumped Quantity of water during the bi-monthly period under consideration (V)	KL	V
3.	Total energy consumed during the bi-monthly period under consideration, as per the bi-monthly energy meter reading in kWh (K)	kWh	K
4.	Specific Energy Consumption for the bi-monthly period under consideration (e1)	kWh/KL	e1 =K /V
5.	Actual Energy Savings for the bi-monthly period under consideration (A) in kWh terms	kWh	A = e – e1
6.	Actual Energy Savings for the bi-monthly period under consideration (in % terms)	%	(A / e) * 100%

S.No.	Description	Unit	Terminology/ Computation
7.	Total Energy Savings for the bi-monthly period under consideration (S)	kWh	S = A * V
8.	Prevailing TNPDCL electricity tariff (T) for the bi-monthly period under consideration in INR	INR/kWh	T
9.	Financial savings in the Pumping Station (F)	INR	F=S*T
10.	Quoted Share by the Concessionaire (Q)	%	Q
11.	Shared Savings for the Pumping Station (SS)	INR	SS = F * Q

B. Computation of Shared Savings at each of the 37 Pumping Stations

In the case where Pumped Quantity of water in a particular Pumping Station during a bi-monthly period/ billing cycle is less than the Earmarked Quantity of water specified for the corresponding Pumping Station, the Actual Energy Savings shall be computed as per the illustration given in the table below.

The following scenarios have been considered for the illustrations provided in the table below:

1. Actuals (Scenario 1) – Pumped Quantity **is equal to the** Earmarked Quantity for the bi-monthly period under consideration;
2. Actual (Scenario 2) – Pumped Quantity **is less than the** Earmarked Quantity for the bi-monthly period under consideration.

S.No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals (Scenario 1)	Actuals (Scenario 2)
1.	Final Baseline Specific Energy consumption per KL of water pumped (e) as per Schedule-21 of the Concession Agreement	kWh/ KL	e	0.457	Not Applicable	Not Applicable
2.	Total Earmarked Quantity of Water during the bi-monthly period under consideration	KL	--	10,000	10,000	10,000
3.	Total Pumped Quantity of Water during the bi-monthly period under consideration (V)	KL	V	Not Applicable	10,000	9,000
4.	Total energy consumed during the bi-monthly period under consideration, as per the bi-monthly energy meter reading in kWh (K)	kWh	K	4,570	3,410	3,177
5.	Actual Specific Energy Consumption for the bi-monthly period under consideration (e1)	kWh/KL	e1 =K /V	0.457	0.341	0.353

S.No.	Particulars	Unit	Terminology/ Computation	Baseline (Assumed)	Actuals (Scenario 1)	Actuals (Scenario 2)
6.	Actual Energy Savings for the bi-monthly period under consideration (A) in kWh terms	kWh	A = e – e1	0	0.116	0.104
7.	Actual Energy Savings for the bi-monthly period under consideration (in % terms)	%	(A / e) * 100%	0	25.38%	22.76%
8.	Total Energy Savings for the bi-monthly period under consideration (S)	kWh	S=A * V	0	1,160	936
9.	Prevailing TNPDCL electricity tariff (T) for the bi-monthly period under consideration in INR	INR / kWh	T	Not Applicable	#8.00	#8.00
10.	**Financial savings in the Pumping Station (F)**	**INR**	**F = S * T**	**0**	**9,280**	**7,488**
11.	Quoted Share by the Concessionaire (Q)	%	Q	Not Applicable	#70%	#70%
12.	**Shared Savings for the Pumping Station (SS)**	**INR**	**SS = F * Q**	**0**	**6,496**	**5,242**

 # Values assumed for illustration purpose only

SCHEDULE-17: EXTRACTS OF ENERGY AUDIT REPORT

Introduction

The Tamil Nadu Water Supply and Drainage Board (TWAD) is a statutory body established by the Government of Tamil Nadu in 1971 under the TWAD Act, 1970. Its primary mandate is to provide protected water supply and sewerage facilities for the entire state of Tamil Nadu, excluding the Chennai Metropolitan Area. TWADB plays a crucial role in delivering essential services related to water supply and sanitation to local bodies across Tamil Nadu, including the maintenance of combined water supply schemes and the execution of underground sewerage schemes (UGSS).

1. Background

To implement the Energy Saving Measures to achieve a minimum savings in electrical energy consumption in Water pumping system of 10 Water Supply Schemes by replacing 137 nos of inefficient Pumpsets with Energy Efficient Pumpsets, 35 Capacitor Banks, 17 Harmonics Filter and 1 Transformer with the 100% of investment by private partners and maintain the same for the defined project period of 10 years.

To improve the energy efficiency economically and environmentally, with concerns over Climate Change with reference to the baseline energy audit conducted.

2. Pumping System in Tamil Nadu:

TWAD has the responsibility of constructing and operating systems required for supply and management of potable water across the state of Tamil Nadu. TWAD Board has the responsibility of ensuring supply of designed quantity of water to various urban local bodies (ULBs) within Tamil Nadu on a regular basis. Currently TWAD Board's water management includes 586 Common Water Supply Schemes (CWSS). In the present system, the quantity of water supplied to various beneficiaries through Pumpsets in which some of the pumps are working inefficiently.

As part of its transformational project, TWAD Board has taken upon replacing all the inefficient Pumpsets with energy efficient Pumpsets in 20 schemes. In order to find the efficiency of the existing Pumpsets TWAD has appointed energy auditing company to conduct energy audit in 269 Pumpsets out of which the inefficient Pumpsets were proposed to be replaced. TWAD intends to call for proposals from Bidder/ Pump Manufacturers/ EPC Bidder/ O&M Bidders to implement the project by replacing inefficient Pumpsets with energy efficient Pumpsets through shared saving mode.

3. Energy efficiency market scenario:

The energy efficiency market has been picking up pace in the last 3 to 4 Years especially in the sectors of street lighting, buildings and water pumping with regard to urban local bodies. Several ESCO/BIDDERs have also participated in the energy efficiency market after the penetration of Energy Efficient equipment and associated control and monitoring mechanisms. While there has been an apprehension among market players to invest in long

term projects in Government bodies, they have been proactive in investments where projects have got state or central funding or guarantees to get back the financial returns early.

Perform Achieve Transfer Scheme:

The PAT scheme run by BEE is a new funding scheme where banks and financial institutions are encouraged to fund ESCO/BIDDERs to take up Energy Efficiency projects.

EESL:

EESL has actively encouraged the energy efficiency market through LED lighting, Pumping systems and has been able to raise funds for implementing projects for states are not capable of raising funds to invest in energy efficiency or where private players are weary of investing for long term period due to high risks.

Certifications:

BEE runs an accreditation program for ESCO/BIDDERs and grades the participating ESCO/BIDDERs on their ability to implement energy efficiency projects. Grade 1 to Grade 3 indicate very high to good ability to implement while grade 4 and grade 5 indicate average and poor. This has given people a good yardstick to select ESCO/BIDDERs based on their past performances and financial capacities to implement their projects.

The details of ESCO/BIDDERs are available in the website of The Ministry of Power and Bureau of Energy Efficiency (BEE).

4. ESCO Background, achievements and learning to be implemented including Energy Audit Report/ Fact sheets

4.1 Background

Energy efficiency assumes significance for the nation in the current environment of power shortage and concerns over climate change. It is a win-win situation for all – for facility owners increased energy efficiency means availability of more resources and for nations energy efficiency offers more benefits including less use of natural resources, reducing energy imports, improved balance of transfer, conservation of foreign exchange, reduced capital requirement for new energy production facilities, and reduced environmental pollution from energy use, and production. It offers enormous promise for a robust market to exist under the Energy Service Company Shared Saving Model.

4.2 Achievements

With the partnership of Companies with investment on Energy Saving Measures in water pumping system of 10 schemes in Coimbatore Region have been taken up with the scope of converting 137 Pumpsets into Energy Efficient Pumpsets, installation of 35 capacitor Banks, 17 Harmonics Filter and 1 transformer at a total estimated cost of Rs. 60.00 crore with a scope to achieving minimum 30% of savings in energy consumption with reference to the report of the energy audit conducted.

In 10 Schemes energy audit was conducted and the Energy saving details are proposed by the energy audit company.

SCHEDULE-18: VALUE OF EXISTING TWAD ASSETS

Sl. No.	Name of Water Supply Scheme	Pumping Station	List of (existing) TWAD Assets	Approx. value of (existing) TWAD Assets (in INR lakhs)
1	CWSS to Doddampalayam and 116 other rural habitations in sathyamangalam and Bhavanisagar Unions of Erode District - Headworks at Bhavanisagar	Head works at Bhavanisagar		
		Treatment plant at Bhavanisagar		
2	CWSS of Muthur, Kangayam and 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Mettukadai		
		Kodumudi		
		Valipanankadu		
		Mulanur		
		Itchipalayam 150 HP		
		Dharapuram 100Hp		
		Kolathupalayam		
		Varatukarrai		

Sl. No.	Name of Water Supply Scheme	Pumping Station	List of (existing) TWAD Assets	Approx. value of (existing) TWAD Assets (in INR lakhs)
3	CWSS to 2 Tps and 318 Rural Habitations in Namakkal District (Phase I)	Oruvandur Head works		
		Valayapatti		
4	CWSS to Attur- Narasingapuram Municipalities, 20 Town panchayats and 1345 rural habitations in 12 unions of Salem district	CWPH Komburankadu		
		Mettur		
		CWPH, Vinayanagar		
		Moolagundu		
		CWPH, Ammapet		
		CWPH, Minnampalli		
		CWPH, Belurpirivu sump		
5	CWSS to Chennimalai ,Perundurai, K.C.Palayam RTP, ChithodeNasiyanur RTP and 69 other habitations in Chennimalai, Perundurai Union of Erode District	CWPH, Konavaikal		
		CWPH, Gangapuram		
		CWPH, Vavikadai		

Sl. No.	Name of Water Supply Scheme	Pumping Station	List of (existing) TWAD Assets	Approx. value of (existing) TWAD Assets (in INR lakhs)
6	CWSS to CLPRA	Velliangadu - 375 HP		
		CWPH, Pillur		
		Periyanayapalayam		
		Chinnavedampatti		
		Kalangal		
7	CWSS to Iruppali, 236 Fluoride Affected Habitations and 1237 Wayside Habitations in Salem District	Koodakkal head works		
		Vanniynagar WTP, Iruppali 220 HP		
		Iruppali booster station		
8	CWSS to Kurichi, Kuniyamuthur Municipalities and Kinathukadavu Town Panchayat in Coimbatore District	Athupollachi		
		Kinathukadavu		
		Achipatty booster station		
9	CWSS to Suleswaranpatti in pollachi north, pollachi south and Kinatukadavu unions in coimbatore District.	Zaminuthukuli		
		Ambarampalayam 50 HP & 100 HP		

Sl. No.	Name of Water Supply Scheme	Pumping Station	List of (existing) TWAD Assets	Approx. value of (existing) TWAD Assets (in INR lakhs)
10	Nallampatti TP, PallapalaymTP,Kanjikoil TP, Pethampalayam TP and 60 Rural Habitatrions in Perundurai and Bhavani Unions of Erode District	Siraimettanpalayam		
		CPWH, Kanjikovil		

SCHEDULE-19: VALUE OF RETURNED (TWAD) ASSETS

Sl. No.	Name of Water Supply Scheme	Pumping Station	List of Returned(TWAD) Assets	Approx. value of Returned (TWAD) Assets (in INR lakhs)
1	CWSS to Doddampalayam and 116 other rural habitations in sathyamangalam and Bhavanisagar Unions of Erode District - Headworks at Bhavanisagar	Head works at Bhavanisagar		
		Treatment plant at Bhavanisagar		
2	CWSS of Muthur, Kangayam and 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Mettukadai		
		Kodumudi		
		Valipanankadu		
		Mulanur		
		Itchipalayam 150 HP		
		Dharapuram 100Hp		
		Kolathupalayam		

Sl. No.	Name of Water Supply Scheme	Pumping Station	List of Returned(TWAD) Assets	Approx. value of Returned (TWAD) Assets (in INR lakhs)
		Varatukarrai		
3	CWSS to 2 Tps and 318 Rural Habitations in Namakkal District (Phase I)	OruvandurHead works		
		Valayapatti		
4	CWSS to Attur- Narasingapuram Municipalities, 20 Town panchayats and 1345 rural habitations in 12 unions of Salem district	CWPH Komburankadu		
		Mettur		
		CWPH, Vinayanagar		
		Moolagundu		
		CWPH, Ammapet		
		CWPH, Minnampalli		
		CWPH, Belurpirivu sump		
5	CWSS to Chennimalai ,Perundurai, K.C.Palayam RTP, ChithodeNasiyanur RTP and 69 other habitations in Chennimalai,	CWPH, Konavaikal		
		CWPH, Gangapuram		

Sl. No.	Name of Water Supply Scheme	Pumping Station	List of Returned(TWAD) Assets	Approx. value of Returned (TWAD) Assets (in INR lakhs)
	Perundurai Union of Erode District	CWPH, Vavikadai		
6	CWSS to CLPRA	Velliangadu - 375 HP		
		CWPH, Pillur		
		Periyanayapalayam		
		Chinnavedampatti		
		Kalangal		
7	CWSS to Iruppali, 236 Fluoride Affected Habitations and 1237 Wayside Habitations in Salem District	Koodakkal head works		
		Vanniynagar WTP, Iruppali 220 HP		
		Iruppali booster station		
8	CWSS to Kurichi, Kuniyamuthur Municipalities and Kinathukadavu Town Panchayat in Coimbatore District	Athupollachi		
		Kinathukadavu		
		Achipatty booster station		
9	CWSS to Suleswaranpatti in pollachi	Zaminuthukuli		

Sl. No.	Name of Water Supply Scheme	Pumping Station	List of Returned(TWAD) Assets	Approx. value of Returned (TWAD) Assets (in INR lakhs)
	north, pollachi south and Kinatukadavu unions in coimbatore District.	Ambarampalayam 50 HP & 100 HP		
10	Nallampatti TP, PallapalaymTP,Kanjikoil TP, Pethampalayam TP and 60 Rural Habitatrions in Perundurai and Bhavani Unions of Erode District	Siraimettanpalayam		
		CPWH, Kanjikovil		

SCHEDULE-20: VALUE OF TWAD FACILITIES

Sl. No.	Name of Water Supply Scheme	Pumping Station	List of TWAD Facilities	Approx. value of TWAD Facilities (in INR lakhs)
1	CWSS to Doddampalayam and 116 other rural habitations in sathyamangalam and Bhavanisagar Unions of Erode District - Headworks at Bhavanisagar	Head works at Bhavanisagar		
		Treatment plant at Bhavanisagar		
2	CWSS of Muthur, Kangayam and 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Mettukadai		
		Kodumudi		
		Valipanankadu		
		Mulanur		
		Itchipalayam 150 HP		
		Dharapuram 100Hp		
		Kolathupalayam		
		Varatukarrai		

Sl. No.	Name of Water Supply Scheme	Pumping Station	List of TWAD Facilities	Approx. value of TWAD Facilities (in INR lakhs)
3	CWSS to 2 Tps and 318 Rural Habitations in Namakkal District (Phase I)	Oruvandur Head works		
		Valayapatti		
4	CWSS to Attur- Narasingapuram Municipalities, 20 Town panchayats and 1345 rural habitations in 12 unions of Salem district	CWPH Komburankadu		
		Mettur		
		CWPH, Vinayanagar		
		Moolagundu		
		CWPH, Ammapet		
		CWPH, Minnampalli		
		CWPH, Belurpirivu sump		
5	CWSS to Chennimalai ,Perundurai, K.C.Palayam RTP, ChithodeNasiyanur RTP and 69 other habitations in Chennimalai, Perundurai Union of Erode District	CWPH, Konavaikal		
		CWPH, Gangapuram		
		CWPH, Vavikadai		
6	CWSS to CLPRA	Velliangadu - 375 HP		

Sl. No.	Name of Water Supply Scheme	Pumping Station	List of TWAD Facilities	Approx. value of TWAD Facilities (in INR lakhs)
		CWPH, Pillur		
		Periyanayapalayam		
		Chinnavedampatti		
		Kalangal		
7	CWSS to Iruppali, 236 Fluoride Affected Habitations and 1237 Wayside Habitations in Salem District	Koodakkal head works		
		Vanniynagar WTP, Iruppali 220 HP		
		Iruppali booster station		
8	CWSS to Kurichi, Kuniyamuthur Municipalities and Kinathukadavu Town Panchayat in Coimbatore District	Athupollachi		
		Kinathukadavu		
		Achipatty booster station		
9	CWSS to Suleswaranpatti in pollachi north, pollachi south and Kinatukadavu unions in coimbatore District.	Zaminuthukuli		
		Ambarampalayam 50 HP & 100 HP		
10	Nallampatti TP, PallapalaymTP,Kanjikoil TP,	Siraimettanpalayam		

Sl. No.	Name of Water Supply Scheme	Pumping Station	List of TWAD Facilities	Approx. value of TWAD Facilities (in INR lakhs)
	Pethampalayam TP and 60 Rural Habitatrions in Perundurai and Bhavani Unions of Erode District	CPWH, Kanjikovil		

SCHEDULE-21: FINAL BASELINE SPECIFIC ENERGY CONSUMPTION FOR PUMPING STATIONS

Sl. No.	Name of Water Supply Scheme	Pumping Station	No. of Pumps (incl. Standby Pumps)	Baseline[5] SEC (kWh/ KL)
1	CWSS to Doddampalayam and 116 other rural habitations in sathyamangalam and Bhavanisagar Unions of Erode District - Headworks at Bhavanisagar	Head works at Bhavanisagar Treatment plant at Bhavanisagar	4	
2	CWSS of Muthur, Kangayam and 5 other TP's, Vellakoil and Dharapuram Municipalities and 86 village panchayats	Mettukadai	9	
		Kodumudi	5	
		Valipanankadu	3	
		Mulanur	2	
		Itchipalayam 150 HP	3	
		Dharapuram 100Hp	2	
		Kolathupalayam	2	
		Varatukarrai	2	
3	CWSS to 2 Tps and 318 Rural Habitations in Namakkal District (Phase I)	Oruvandur Head works	3	
		Valayapatti	3	
4	CWSS to Attur-Narasingapuram Municipalities, 20 Town panchayats and 1345 rural habitations in 12 unions of Salem district	CWPH Komburankadu	8	
		Mettur	4	
		CWPH, Vinayanagar	6	
		Moolagundu	3	
		CWPH, Ammapet	3	

[5]*Baseline SEC is the average Specific Energy Consumption of the number of Pumps (incl. standby Pumps) in the particular Pumping Station*

Sl. No.	Name of Water Supply Scheme	Pumping Station	No. of Pumps (incl. Standby Pumps)	Baseline[5] SEC (kWh/ KL)
		CWPH, Minnampalli	6	
		CWPH, Belurpirivu sump	2	
5	CWSS to Chennimalai ,Perundurai, K.C.Palayam RTP, ChithodeNasiyanur RTP and 69 other habitations in Chennimalai, Perundurai Union of Erode District	CWPH, Konavaikal	3	
		CWPH, Gangapuram	3	
		CWPH, Vavikadai	3	
6	CWSS to CLPRA	Velliangadu	8	
		CWPH, Pillur	6	
		Periyanayapalayam	5	
		Chinnavedampatti	3	
		Kalangal	2	
7	CWSS to Iruppali, 236 Fluoride Affected Habitations and 1237 Wayside Habitations in Salem District	Koodakkal head works	3	
		Vanniynagar WTP, Iruppali 220 HP	3	
		Edanganasalai	5	
		Iruppali booster station	3	
8	CWSS to Kurichi, Kuniyamuthur Municipalities and Kinathukadavu Town Panchayat in Coimbatore District	Athupollachi	3	
		Kinathukadavu	3	
		Achipatty booster station	3	
9	CWSS to Suleswaranpatti in	Zaminuthukuli	2	

Sl. No.	Name of Water Supply Scheme	Pumping Station	No. of Pumps (incl. Standby Pumps)	Baseline[5] SEC (kWh/ KL)
	pollachi north, pollachi south and Kinatukadavu unions in coimbatore District.	Ambarampalayam	5	
10	Nallampatti TP, PallapalaymTP,Kanjikoil TP, Pethampalayam TP and 60 Rural Habitatrions in Perundurai and Bhavani Unions of Erode District	Siraimettanpalayam	2	
		CPWH, Kanjikovil	2	
Total		**37 nos.**	**137 nos.**	**--**