

Agreement

Between

PASHCHIMANCHAL VIDYUT VITRAN NIGAM LIMITED



VICTORIA PARK, MEERUT

And

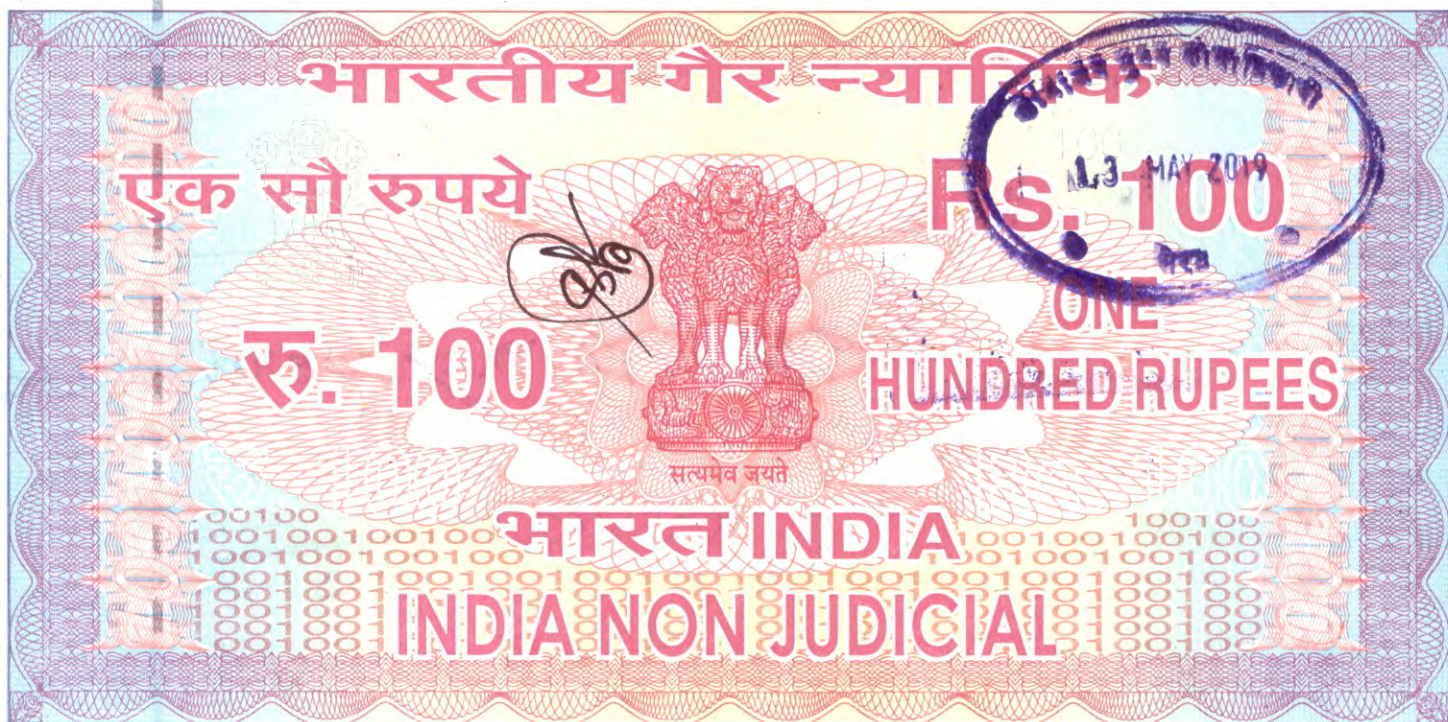
Energy Efficiency Services Ltd. (EESL)



(A JV Company of PSU's of Ministry of Power)

For

"Implementation of Smart Metering Project in P.V.V.N.L."



उत्तर प्रदेश UTTAR PRADESH

EV 295136

AGREEMENT

THIS AGREEMENT (herein after referred to as Agreement) is made and executed on the 15th day of May, 2019 ('Execution Date') and shall be effective from 26.04.2018 the date of signing of MOU for this work ('Effective Date'). This agreement shall be valid for 8 Years (3 years Built Up Phase + 5 Years O & M Phase, extendable to another 5 years) ('Cut-off Date'), unless renewed as per the terms of the present agreement.

BETWEEN,

Pashchimanchal Vidyut, Vitran Nigam Ltd., Meerut (*hereinafter referred to as the "DISCOM"*) with its office at Urja Bhawan Victoria Park Meerut acting through its Chief Engineer (Commercial) Sh Sanjay Anand Jain which expression shall, unless repugnant to the context or meaning thereof, include its successors, permitted assigns and substitutes.

AND

Energy Efficiency Services Limited (Hereafter referred to as '**EESL**'), acting through its D.G.M (Technical) Sh Adesh Saxena, joint venture company of various Public Sector Undertakings of Ministry of Power, Government of India, incorporated under the provisions of the Companies Act, 1956 and having its registered office at 4th Floor Sewa Bhawan, R.K. Puram, New Delhi and corporate office at corporate office at 4th and 5th Floor, IWAI Building A-13, Sector 1, Noida (UP) 201301 (*hereinafter referred to as the "EESL"*) represented by Sh Adesh Saxena D.G.M (Technical), EESL, which expression shall, unless repugnant to the context or meaning thereof, include its successors, permitted assigns and substitutes.

WHEREAS:

- A. Upon entering into Memorandum of Understanding dated 26.04.2018, the parties seek to undertake Implementation of Advance Metering Infrastructure (AMI) or Smart Metering Solution (Implementation of Smart Metering (AMI) Project) **on** cost plus BOOT Model in accordance with CEA prescribed 'Functional requirement of Advanced Metering Infrastructure (AMI) in India' (with upfront financing by EESL) in the identified areas



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pertaining to the DISCOM in the State of Uttar Pradesh with the objective to improve the operational and financial efficiency of the DISCOM in selected towns to enable financial turnaround of the DISCOM (hereinafter 'the Project'). The brief project note can be referred to as part of 'Schedule I' of the present agreement. All the interest and Tax benefits due to depreciation, if any, shall be passed on to DISCOMs.

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1. General:

1.1 Definitions

"Applicable Laws" mean all laws, promulgated or brought into force and effect by the Government of India and/or Government of UP including regulations and rules, notifications made thereunder, and any judgments, decrees, injunctions, writs and orders of any court of record, as may be in force and in effect during the subsistence of this Agreement.

"Applicable Permits" means all clearances, permits, authorisations, consents and approvals required to be obtained or maintained under Applicable Laws in connection with discharging Scope of Services during the subsistence of this Agreement.

"Agreement" shall mean this Agreement including its Schedules and Annexures, which shall be the entire agreement between the Parties. For the avoidance of doubt, it is expressly clarified that in the event of a conflict between this Agreement and Annexures/Schedules or the contents of the Implementation Order, the terms of this Agreement shall prevail over such Annexures/Schedules.

"Cure Period" means period of 60 (Sixty) days or such further period as may be mutually agreed between the parties in breach of this Agreement for curing the breach and shall commence from the date on which a notice is delivered by the aggrieved Party to the Party in breach asking the latter to cure the breach(s) specified in such notice.

"Effective Date" means the date of signing of this Agreement.

"Cut-off Date" means 30th September 2025

"DISCOM" means Dakshinanchal Vidyut Vitran Nigam Limited, Kanpur Electricity Supply Company Limited, Madhyanchal Vidyut Vitran Nigam Limited, Paschimanchal Vidyut Vitran Nigam Limited and Purvanchal Vidyut Vitran Nigam Limited.

"System Infrastructure"/"System" shall mean the Smart Metering (AMI) infrastructure to be provided by EESL at DISCOM locations

1.2 Interpretations

In this Agreement, unless the context otherwise requires,

- (a) the words importing singular shall include plural and vice versa;




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- (b) the headings are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement;
- (c) the words "include" and "including" are to be construed without limitation;
- (d) any reference to day, month or year shall mean a reference to a calendar day, calendar month or calendar year respectively;
- (e) In case of ambiguities or discrepancies in this Agreement, the following shall apply, unless otherwise decided by DISCOM:
 - (i) between two Articles of this Agreement, the provisions of specific Articles relevant to the issue under consideration shall prevail over those in other Articles;
 - (ii) between any value written in numerals and that in words, the latter shall prevail.

2. Project Scope

2.1 **Subject to and in accordance with the terms and conditions set forth in this Agreement, the parties shall be obligated to undertake the following in accordance with the Applicable Laws and the Applicable Permits:**

- (a) Discharge services as set forth in schedule II & Schedule III during the Contract Period;
- (b) Remit consideration as per Payment Terms of this agreement.
- (c) Perform and fulfil all of the respective obligations in accordance with this Agreement.

2.2 Scope of Services

Subject to and in accordance with the terms and conditions set forth in this Agreement, EESL accepts and agrees to provide the services as set out in Schedule II and Schedule III ("**Scope of Services**") and elsewhere envisaged under this Agreement as per timelines set out. It is specifically agreed that though the Agreement is being entered into between EESL and the DISCOM specifying the exact quantities of Meters for which Services to be provided. For the purpose of this Agreement, the contract shall always be interpreted to have been executed between EESL and DISCOM, who shall be responsible to each other for the obligations contained herein. The Implementation Order shall be on the basis of the BOQ attached as **Schedule IV**. For the avoidance of doubt, it is clarified that any grievance or complaint of consumers of DISCOM shall be routed through DISCOM to EESL. All the licenses of Software and Hardware shall be procured in the name of Madhyanchal Vidyut Vitran Nigam Limited, Lucknow, along with contractual arrangement of right to use to all contracting DISCOMs.

2.3 Change of Scope

EESL shall ensure "present delivery and mechanism as per latest available technology and should be compatible with any upgradation requirements of present Smart Metering



Projects (AMI) during the operation period”, however, DISCOM may require EESL to undertake additional works, including but not limited to additional hardware etc. and to provide services which are beyond the Scope of Services as contemplated and provided for in this Agreement ("**Additional Work**"). In the event EESL is required to carry out Additional Work, EESL shall in the first instance submit to DISCOM the details of the proposed work along with the charges that it proposes for undertaking such Additional Work along with other terms and conditions, if any. EESL shall carry out the Additional Work in accordance with the terms and conditions mutually agreed upon. For the avoidance it is clarified that, If any such change, as mentioned in the foregoing (additional work) has implication on the cost and time schedule on overall deliverables or execution of the project/contract, then, an equitable adjustment shall be made in the price or delivery schedule, or both, and Agreement shall accordingly be amended. Any claims by EESL for adjustment under this clause must be paid within thirty (30) days from the date of DISCOM's receipt of the EESL's change order or if mutually agreed such additional cost may become the part of receivables based on per meter per month cost. It is to expressly understood that the entire cost of any hardware, software or technological changes/upgradation required to provide the smart metering and data transfer functions as per the scope of work/agreement will be solely borne by EESL without any recourse to UPPCL or DISCOMs.

2.4 The quantity variation up to +20% / - 10% shall be considered during execution of project.

2.5 This Agreement shall come into effect on execution hereof and, unless terminated earlier or extended in accordance with the provisions hereof, shall be valid till the Cut Off Period ("**Contract Period**");

Provided that in the event of the Contract being extended beyond the aforesaid period in accordance with the provisions hereof, the Contract Period shall include the period/ aggregate period by which the Contract is so extended;

Provided further, that in the event of Termination, the Contract Period shall mean and be limited to the period commencing from the Agreement Date and ending on the Termination Date.

2.6 Change Management

A change identified at any stage of the assignment which requires the deliverable to deviate from the then current BOQ / agreed scope of work or the approved deliverable of the previous BOQ to be modified, will be conveyed by the DISCOM to EESL or vice-versa in the form of a Change Request document. The request for change will then be assessed by EESL to evaluate its impact on feasibility, time schedules, technical requirements in consequence of the proposed change and cost. EESL will present this assessment to the DISCOM for its approval within a reasonable time period. EESL will incorporate the change after receiving the DISCOM's written approval. In case of delay in approval by the DISCOM, the BoQ itself may undergo a change; this will mean a reassessment of the charges.




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3. Obligations of Parties

3.1 Obligations of EESL

EESL shall observe, undertake, comply with and perform, in addition to and not in derogation of its obligations elsewhere set out in this Agreement, the obligations expressly set forth in this Article:

- (a) To perform the Scope of Services as set out in clause- 2, for implementing the System and the Project;
- (b) To undertake its obligations as per Schedule V as per the Standards of Performance/ SLA's defined in **Schedule V-A**
- (c) To be responsible for compliance with Applicable Laws;
- (d) To procure, as required, the appropriate proprietary rights, licences, agreements and permissions for, inter alia, materials, methods, processes, software, operating systems, designs, trademarks, documents and systems used or incorporated into the Project ("**System IP**") in the name of DISCOMs except those items as mentioned in clause-2.2 of this agreement . For the avoidance of doubt it is clarified, that UPPCL and/or DISCOM acknowledges that in performing Services under this Agreement, EESL may use EESL's proprietary materials including without limitation any software (or any part or component thereof), tools, methodology, processes, ideas, know-how and technology that are or were developed or owned by EESL prior to or independent of the Services performed hereunder or any improvements, enhancements, modifications or customization made thereto as part of or in the course of performing the Services hereunder, ("EESL's Pre-Existing IP"). Notwithstanding anything to the contrary contained in this Agreement, EESL shall continue to retain all the ownership, the rights title and interests to all EESL's Pre-Existing IP and nothing contained herein shall be construed as preventing or restricting EESL from using Supplier Pre-Existing IP in any manner;
- (e) To transfer System Infrastructure (not the IP rights already in existence or created), provided or created during the Contract Period by EESL, to UPPCL, DISCOM and/or any of its designated agency at the end of the Contract Period in accordance with the terms of this Agreement;
- (f) To carry out its obligations hereunder with all due diligence, efficiency and economy, in accordance with the terms of the Agreement and to observe sound management practices, and employ appropriate advanced technology and safe and effective equipment, machinery, materials and methods, as per the terms of the Agreement;
- (g) A performance bank guarantee issued by a scheduled bank on Performa given at schedule VIII (In INR) equivalent to 10% of one year payable amount by DISCOM to M/S EESL would be submitted by M/S EESL.

3.2 Obligations of DISCOM

DISCOM shall observe, undertake, comply with and perform, in addition to and not in derogation of its obligations elsewhere set out in this Agreement, the obligations set forth in this Article:



- a. To undertake its scope of responsibilities as described in Schedule VI
- b. To pay the Service Charges to EESL and Ensure timely payments to EESL in accordance with and subject to the provisions of this Agreement
- c. Coordinate with EESL to secure and provide inputs as required under this Agreement, in a timely manner;
- d. To cooperate with EESL to enable it to render its services in terms of the Agreement;
- e. Provide all necessary information and inputs as may be reasonably required for implementation of the System, in a timely, efficient and effective manner to EESL.
- f. To provide necessary facilities and make necessary arrangements including space and infrastructure for training to its personnel related to the Project and make available its personnel to undergo training by EESL;
- g. To be responsible for the security of the System, while the same are in its possession and/ or custody and to bear the costs of repair or replacement of System Infrastructure, for any damage or loss that is attributed to DISCOM.

4. Personnel

4.1 EESL shall deploy such qualified and experienced personnel as may be required to carry out its Scope of Services.

4.2 It is expressly understood and agreed by EESL that no employee or worker of EESL or its sub-contractor(s) shall be considered to be an employee of DISCOM for any purpose whatsoever. EESL shall be solely responsible for all such employees and workers, their wages, statutory payments, taking out and maintaining ESIC/ other insurance etc. DISCOM shall not be liable for any payment or claim or compensation (including but not limited to compensation on account of injury or death or termination) of any nature to such employees or workers at any point of time during the currency of this Agreement or after its termination.

4.3 In the event that any of the personnel deployed by or at the behest of EESL is reasonably determined by UPPCL or UPPCL DISCOM to be incompetent, guilty of misbehaviour or misconduct or incapable in discharging the assigned responsibilities, DISCOM may request EESL, in writing with reasons, to forthwith provide a replacement of such personnel with personnel having suitable qualifications and experience for the assigned responsibilities and EESL shall deploy a suitable replacement as soon as possible.




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5. Service Charges

5.1 DISCOM shall make payment of the Service Charges to EESL, as specified in Schedule VII (DISCOM wise schedule to be prepared), for discharging the Scope of Services contemplated under the Agreement.

5.2 The Service Charges will be exclusive of GST or any other taxes or charges as may become applicable as per Applicable Law, which shall be remitted by DISCOM.

5.3 Payment for Service Charges would be released to EESL by DISCOM as per the mechanism described in Schedule VII

6. Events of Default and Termination

6.1 EESL's Events of Default

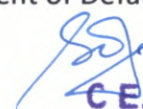
The following event(s) shall constitute an event of default of EESL (an "EESL's Event of Default") unless such EESL's Event of Default has occurred as a result of DISCOM's Event of Default or a Force Majeure Event:

- (a) EESL fails to adhere to the Standards of Performance as provided for in Schedule V-A ('SLA') hereof and that results in an event which has been termed as an EESL's Event of Default therein; or
- (b) EESL is in breach of this Agreement and such breach has a Material Adverse Effect on DISCOM; or
- (c) EESL is adjudged bankrupt or insolvent or if a trustee or receiver is appointed for EESL or for any of its property that, in the opinion of DISCOM, has a material bearing on its ability to discharge its Scope of Services as contemplated in the Agreement; or
- (d) EESL is ordered to be wound up by a court of law, except for the purpose of amalgamation or reconstruction provided that, as part of such amalgamation or reconstruction, the property, assets and undertaking of EESL are transferred to the amalgamated or reconstructed entity and that the amalgamated or reconstructed entity has unconditionally assumed the obligations of EESL under this Agreement and the amalgamated or reconstructed entity in the reasonable opinion of DISCOM has the technical capability, operating experience and financial standing necessary for the substantial performance of its obligations under this Agreement and this Agreement remains in full force and effect: or
- (e) EESL repudiates this Agreement or otherwise evidences an intention not to be bound by this Agreement.

6.2 DISCOM's Event of Default

The following event(s) shall constitute an event of default of DISCOM unless such DISCOM's Event of Default has occurred as a result of EESL's Event of Default or a Force Majeure Event:




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- (a) DISCOM is in breach of this Agreement and such breach has an Adverse Effect on EESL; or
- (b) DISCOM fails to make the payment of Service Charges to EESL, as per provisions of this Agreement; or
- (c) DISCOM repudiates this Agreement or otherwise evidences an irrevocable intention not to be bound by this Agreement.
- (d) For the avoidance of doubt, it is clarified that any default pertaining to non maintenance of payment security mechanism or renewal of payment security mechanism or any violation of terms of the agreed payment security mechanism will be a material default.

6.3 Termination Mechanism

Upon occurrence of an EESL's Event of Default (as provided in clause- 6.1) or DISCOM's Event of Default (as provided in clause -6.2), the Parties agree that DISCOM or EESL, whosoever is not in default ("Non-Defaulting Party") shall issue a termination notice with sixty days' cure period, if default or delay or non-conformity as identified in the notice period is not cured during the sixty days' period, Agreement will be terminated immediately from the end date of the notice period. Provided that before issuing the Termination Notice, Non-Defaulting Party will, by a notice in writing inform the Defaulting Party of its intention to issue the Termination Notice (the "Preliminary Notice") and shall provide the Defaulting Party fifteen days to make its representation, if any, against such intended Termination Notice and/or take corrective action, if any. After the expiry of fifteen days, if no response is provided by the defaulting party or if non defaulting party is not satisfied with the reply of defaulting party, then, Non-Defaulting Party reserves the right to issue the Termination Notice after giving due consideration to any representation made by Defaulting Party along with evidence thereof and/or corrective action taken by Defaulting Party, prior to issuing any such Termination Notice.

6.4 Termination Notice

If a Party having become entitled to do so, decides to terminate this Agreement pursuant to clause-6.3, it shall issue Termination Notice setting out:

- (a) in sufficient detail the underlying Event of Default;
- (b) the Termination Date, in accordance with clause-6.3;
- (c) the Termination Payment including the details of computation thereof; and
- (d) any other relevant information.

6.5 Obligation of Parties

Following the issue of Termination Notice by either Party, the Parties shall promptly take all such steps as may be necessary or required to ensure that:



- (a) Until Termination the Parties shall, to the fullest extent possible, discharge their respective obligations so as to maintain the continued operation of the Project;
- (b) EESL shall hand over the Project Premises and transfer the System Infrastructure (as applicable) to the DISCOM as the case may be, in accordance with this clause-6.

In case of termination of the Agreement, if so desired by DISCOM, EESL shall provide any or all the services envisaged under this Agreement for a period of 6 (six) months from the date of such Termination or till a suitably experienced agency, or any other alternate arrangement replaces EESL, whichever is earlier, or as may be mutually agreed with respect to the above two options among the Parties. Service Charges shall be duly paid to EESL in accordance with and at the rates prescribed in this Agreement by the DISCOM, as the case may be. For the avoidance of doubt it is clarified, that EESL reserves the right to suspend the service during termination period or during the period as mentioned in this clause, only in case payments by DISCOM is not made as per the payment schedule.

6.6 Withdrawal of Termination Notice

Notwithstanding anything inconsistent contained in this Agreement, if the Defaulting Party which has been served with the Termination Notice cures the underlying Event of Default to the satisfaction of the Non-defaulting Party at any time before the Termination occurs, the Termination Notice may be withdrawn by the Party which had issued the same.

6.7 Upon Termination of this Agreement for any reason whatsoever by any of the Parties:

- (a) Notwithstanding anything to the contrary contained in this Agreement, any Termination, pursuant to the provisions of this Agreement, shall be without prejudice to accrued rights of any of the Parties including Service Charges for periods prior to the effectiveness of the Termination, each Party's right to claim and recover damages and other rights and remedies which a Party may have under the Agreement or in law. All rights and obligations of each Party under this Agreement shall survive even after the Termination of this Agreement to the extent such survival is necessary for giving effect to such rights and obligations.
- (b) On Termination of this Agreement, notwithstanding anything to the contrary contained in this Agreement, DISCOMs shall be within their rights to appoint any other agency to replace EESL to implement and operate the Project and provide the services on such terms and conditions as DISCOM may decide, at its sole discretion.



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6.8 Upon Termination of this Agreement prior to the originally agreed Contract Period by DISCOM or pursuant to default by DISCOM, DISCOM shall pay EESL within 06 (Six) months or to be paid in 06 (six), monthly installments as mutually agreed of such termination, the invested value of project cost (CAPEX & OPEX) with interest cost (at actual), and PMC including the 14% (Post Tax) rate of Return on Equity. The calculation of the said amount, shall be calculated jointly by EESL and UPPCL/ DISCOMs. Upon Termination of this Agreement and payment of Termination Payment to EESL as applicable in full, the DISCOM shall:-

- (a) Take control of the Project forthwith;
- (b) Take control of all Smart meters and solution deployed under this Agreement.

7 Indemnity and Limitation of Liability

7.1 Each Party shall release, defend, indemnify, and hold harmless the other party and their respective directors, officers, agents, and employees, from and against any and all losses, claims, demands, costs, damages, liabilities (joint and several), reasonable expenses of any nature (including attorney's fees and disbursements and expenses incident to establishing the right to indemnification), judgments, fines and other amounts to the extent arising out of or related to any products, services, operations of each Party, the conduct of business or from any other activity, work, or thing done, permitted or suffered by the party under this Agreement including without limitation: (i) injury to or death of any person or persons, including employees of the party, or loss, damage, or destruction of any property, and (ii) each Party's provision of any personnel, services, and facilities under this Agreement; provided, that no such right of indemnification shall exist in any case where the act or failure to act giving rise to the claim to indemnification is finally adjudicated to have constituted wilful misconduct, negligence or recklessness on the part of the Party seeking indemnification.

7.2 A Party will be liable for default only, if the same is attributable solely to that Party, else not".

7.3 Except for the express representations and warranties contained in this agreement, EESL makes no representations or warranties, express or implied. All such representations and warranties are hereby disclaimed.

7.4 In no event either Party shall be liable, for any (a) loss of profit, loss of revenue, anticipated savings, opportunity, data, goodwill, (b) special, indirect, incidental, consequential, punitive or any other loss or damages, whatsoever, whether in contract, tort (including negligence), strict liability or otherwise, in connection with or arising out of the furnishing, performance or use of the services or deliverables provided by EESL under the terms of the Contract, even if such loss or damage was reasonably foreseeable or advised to EESL.



7.5 Notwithstanding anything contained in the Agreement, in no event shall the total aggregate liability of EESL, whether in contract, tort (including negligence), strict liability or otherwise, shall exceed the amount of the service fees paid (annuity payments or otherwise) to EESL by the DISCOM during the previous 3 (three) months immediately preceding the claim first arose.

7.6 For the avoidance of doubt it is clarified, that EESL will not be liable for any claim of the consumer of DISCOM if the same is not attributable to ESSL.

8 Force Majeure

8.1 As used in this Agreement, a Force Majeure Event shall mean occurrence, in DISCOM, any or all of the events defined in clause- 8.2 hereinafter which prevent the Party claiming Force Majeure (the "Affected Party") from performing its obligations under this Agreement and which act or event:

- (a) Is beyond the reasonable control and not arising out of the fault of the Affected Party;
- (b) The Affected Party has been unable to overcome such act or event by the exercise of due diligence and reasonable efforts, skill and care, including through expenditure of reasonable sums of money; and
- (c) Leads to a Material Adverse Effect.

8.2 Notification of Force Majeure

- a. *The affected party shall give notice to the other party of any event of force majeure as soon as reasonably practicable but not later than Seven (7) days after the date on which such party knew or reasonably have known of the commencement of the event of Force Majeure. If an event of force majeure results in breakdown of communication rendering it unreasonable to give notice within applicable time limit specified herein, then the party claiming Force Majeure shall give such notice as soon as reasonable practicable after reinstatement of Communications, but not later than one day after such reinstatement.*
- b. *Provided that such notice shall be a pre-condition to the affected party's entitlement to claim relief under this agreement. Such notice shall include full particulars of the event of Force Majeure, its effects on the part claiming relief of the remedial measures proposed. The affected party shall give the other party regular (and not less than monthly) reports on the progress of those remedial measures and such other information as the other party may reasonably request about the force majeure event.*
- c. *The affected party shall give notice to the other party of (i) the cessation of the relevant event of force majeure and (ii) the cessation of the effects of such event of force majeure on the performance of its rights and obligations under this agreement, as soon as practicable after becoming aware of each of these cessations.*



8.3 Force Majeure Events

For purposes of this Article, and subject to clause- 8.1 (a), (b) and (c) herein, Force Majeure Event(s) shall mean one or more of the following acts or events:

- (a) Acts of God or events beyond the reasonable control of the Affected Party which could not reasonably have been expected to occur, exceptionally adverse weather conditions, lightning, earthquake, cyclone, flood, volcanic eruption or fire or landslide;
- (b) Radioactive contamination or ionizing radiation;
- (c) Strikes or boycotts (other than those involving a Party or its employees or representatives or attributable to any act or omission of any of them) interrupting supplies and services of the Project for a period exceeding a continuous period of 15 (fifteen) days;
- (d) Any 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 which prevents discharging of its obligations by a Party for a period exceeding a continuous period of 15 (fifteen) days;
- (e) Any public agitation which prevents discharging of its obligations by a Party for a period exceeding a continuous period of 15 (fifteen) days.

8.4 Effect of Force Majeure Event

Upon the occurrence of any Force Majeure Event, the following shall apply:

- (a) There shall be no Termination except when a Force Majeure Event subsists for a period of 180 (one hundred eighty) days or more within a continuous period of 365 (three hundred sixty five) days DISCOM may in its sole discretion terminate this Agreement by giving Termination Notice in writing to EESL ;
- (b) DISCOM will not be liable for making payments to EESL for the period the services could not be rendered by EESL due to such Force Majeure Event;

8.5 Liability for other losses, damages etc.

Save and except as expressly provided under this clause8, no Party hereto shall be liable in any manner whatsoever to the other Parties 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 Event or exercise of any right pursuant to the clause9.

8.6 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 Event, 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 Event 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 Event;



- (b) the Affected Party shall make all reasonable efforts to mitigate or limit damage to the other Party(ies) arising out of or as a result of the existence or occurrence of such Force Majeure Event 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(ies) written notice to that effect and shall immediately and promptly resume performance of its obligations hereunder.

9 Confidentiality

All information, data, legacy information, and any other information, provided by parties to each other in discharge of their obligations, including the application provided for the System Devices, necessary for providing the Scope of Services under the Agreement or otherwise during the Contract Period, shall be treated as confidential ("Confidential Information"). Unless otherwise expressly authorized in writing by the proprietor of the information, each party shall maintain in strict confidence all Confidential Information, shall use Confidential Information only for the purpose of the Project, and shall restrict disclosure of Confidential Information to only those of its directors, officers, employees, consultants, or advisors who require access to the Confidential Information for carrying out the work relating to the Project and who are bound not to disclose the same. EESL shall ensure that the application provided for the System Devices is used solely for the purposes of the Project and none of its employees, personnel, consultants or advisors reverse engineer or tamper with the said application. The restrictions set forth in sub-clause- (a) above herein shall not apply to any part of the Confidential Information which:

- (i) is at the time of disclosure to receiving party, or thereafter, becomes part of the public domain, other than as a result of a disclosure by either party, their directors, officers or employees; or
- (ii) was, at the time of disclosure to receiving party, already in the possession of receiving party on a lawful basis; or
- (iii) is required to be disclosed by either party by judicial, administrative process, any enquiry, investigation, action, suit, proceeding or claim or otherwise by Applicable Laws or by any Governmental Agency, provided that receiving party shall advise the other party of any disclosure hereunder so as to enable UPPCL to take appropriate steps as it may so desire.

10 Dispute Resolution

10.1 Conciliation

- (a) Any dispute, difference or controversy of whatever nature howsoever arising under, out of or in relation to this Agreement and so notified in writing by any Party to the other(s)



(the "Dispute") in the first instance shall be attempted to be resolved amicably in accordance with the conciliation procedure provided in sub-clause- (b) under.

- (b) In the event of any Dispute between the Parties, such Dispute shall be referred to the Managing Director (MD) DISCOM, and the CEO/Managing Director of EESL for amicable settlement. Upon such reference, the said individuals shall meet not later than 7 (seven) days of the date of such request or such longer period as may be mutually agreed by the Parties to discuss and attempt to amicably resolve the Dispute. If such meeting does not take place within the said period or the Dispute is not amicably settled within 15 (fifteen) days of such meeting between the said individuals, any Party may refer the dispute to arbitration in accordance with the provisions of clause-10.2.
- (c) If the Dispute is not resolved as evidenced by the signing of the written terms of settlement within 30 (thirty) working days of the aforesaid notice in writing or such longer period as may be mutually agreed by the Parties then the provisions of clause-10.2 shall apply.

10.2 Arbitration

- (a) Any Dispute, which is not resolved amicably as provided in clause- 10.1, shall be finally decided by reference to sole Arbitrator, to be appointed on mutual concurrence of the Parties. In case the Parties fail to agree upon single arbitrator then, either of the party may approach a competent court for the appointment of the arbitrator in accordance with the provisions of the Arbitration and Conciliation Act, 1996. Such arbitration shall be held in accordance with the provisions of the Indian Arbitration and Conciliation Act, 1996 and any amendments thereto.
- (b) The venue of such arbitration shall be Lucknow or Delhi or as decided by arbitrator (Other DISCOM HQ won't have this facility) and language shall be English. The cost of arbitration shall be borne equally by the Parties in dispute.
- (c) The Parties undertake to carry out any decision or award of the arbitrator (the "Award") without delay. Awards relating to any Dispute shall be final and binding on the Parties as from the date they are made.
- (d) Pursuant to having exhausted the remedies, the Parties agree that an Award may be enforced against EESL and/or DISCOM, as the case may be and their respective assets wherever situated.
- (e) This Agreement and rights and obligations of the Parties shall remain in full force and effect pending the Award in any arbitration proceeding hereunder.

11 Language

All notices required to be given by one Party to the other Party(ies) and all other communications, documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language.



12 Assignment and Charges

Neither party shall neither create nor permit to subsist any encumbrance over or otherwise transfer or dispose of all or any of its rights and benefits under this Agreement except with prior consent in writing of UPPCL, which will consent UPPCL shall be entitled to decline without assigning any reason whatsoever.

EESL would not alienate or transfer any interest during the currency of this agreement and any change or transfer of right, title or interest which is not in conformity with this agreement or applicable laws shall be deemed to be void-ab-initio.

13 Governing Law and Jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India and UP and the Courts at Lucknow and Allahabad High Court alone shall have jurisdiction over all matters arising out of or relating to this Agreement.

14 Relation between Parties

Nothing contained in this Agreement shall be construed or interpreted as constituting a partnership, joint venture or agency among the Parties. No Party shall have any right or authority to represent on behalf of the other(s) nor shall any such representation to third party(ies) bind the other in any manner whatsoever. This Agreement is being entered into on a principal to principal basis. EESL shall be an independent contractor and is fully independent in performing any or all its Scope of Services. EESL shall not act or hold itself out as a servant or employee of DISCOM.

15 DISCHARGE OF LIABILITY

During the pendency of the agreement, and discharge of liabilities by DISCOM under the present agreement, DISCOM shall not work or associate with any third party and enter into any agreement, contract, joint venture, partnership or an arrangement of whatsoever nature with respect to the matters covered in the Agreement.

16 Notices

Any payment, notice or other communication to be given by one Party to the other(s) under, or in connection with the matters contemplated by this Agreement shall be in writing and shall be delivered by hand/ registered post/ courier at the address described in the recital.

Copies of all notices may also be sent by facsimile and/or email.

17 Waiver

17.1 Waiver by a Party of any default by other Party(ies) in the observance and performance of any provision of or obligations of or 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 Party; and
- (c) shall not affect the validity or enforceability of this Agreement in any manner.

17.2 Neither the failure by a Party to insist, on any occasion, upon the performance of the terms, conditions and provisions of this Agreement or any obligation there under nor time or other indulgence granted by a Party to the other Party(ies) shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

18 Survival

Termination of this Agreement:

- (a) shall not relieve any Party of its obligations hereunder which expressly or by implication survives Termination hereof, and
- (b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of any Party, shall not relieve such Party of any obligations or liabilities for loss or damage to the other Party(ies) 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.

19 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 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 this Agreement or otherwise and the invalid, illegal or unenforceable part shall stand deleted and the rest of the Contract shall be enforced.

20 Representations and Warranties

20.1 Representations and Warranties of EESL:

EESL represents and warrants that:

- (a) It is duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation;
- (b) It has full power and authority to execute, deliver and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;



- (c) It has taken all necessary corporate and other action under applicable laws and its constitutional documents to authorize the execution, delivery and performance of this Agreement;
- (d) It has the necessary capabilities essential to undertake the Project;
- (e) This Agreement constitutes its legal, valid and binding obligation enforceable against it in accordance with the terms hereof;
- (f) It is subject to civil and commercial laws of India with respect to this Agreement;
- (g) There are no actions, suits, proceedings, or investigations pending or, to EESL's knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi judicial or other authority, the probable outcome of which may result in the breach of or constitute a default of EESL under this Agreement or which individually or in the aggregate may result in any material adverse effect on its business, properties or assets or its condition, financial or otherwise, or any impairment of its ability to perform its obligations and duties under this Agreement;
- (h) It has no knowledge of any violation or default with respect to any order, writ, injunction or any decree of any court or any legally binding order of any Governmental Agency which may result in any material adverse effect or impairment of EESL's ability to perform its obligations and duties under this Agreement;
- (i) It has complied with all Applicable Laws 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 material adverse effect on its financial condition or its ability to perform its obligations and duties under this Agreement;
- (j) No representation or warranty by EESL contained herein or in any other document furnished by it to UPPCL / DISCOM in relation to Applicable Certificates, permits, permissions, licenses and other such necessary approvals and sanctions required under the Contract contains or will contain any untrue statement of material fact or omits or will omit to state a material fact necessary to make such representation or warranty not misleading;

20.2 Representations and Warranties of UPPCL / DISCOM:

DISCOM represents and warrants that:

- (a) DISCOM, through its authorized representative, has full power and authority to execute, deliver and perform its obligations under this Agreement;
- (b) DISCOM has taken all necessary action to authorise the execution, delivery and performance of this Agreement; and
- (c) This Agreement constitutes its legal, valid and binding obligation enforceable against it in accordance with the terms hereof.



20.3 Any of the Representations and Warranties herein contained, if found to be untrue shall constitute breach of this Agreement.

21 Standard Of Care

The Parties acknowledges the relationship of trust and confidence established between EESL and UPPCL / DISCOM by this Agreement. Accordingly, all acts of the parties shall be consistent with this relationship.

22 Non-Exclusive:

EESL is free to enter into similar agreements with others entities.

23 Publicity:

EESL shall be entitled to use the name (and the logo, if any, associated with the name) of UPPCL/ DISCOM, in its customer lists, any sales, marketing or promotional material or presentation, to identify the UPPCL/DISCOM as one of the EESL's customers for the products and services hereunder, and provide for a marketing reference. Other than the aforesaid, EESL shall not use any name, mark or symbol of the other party in any publicity release or advertising material or for any other purpose whatsoever nor shall publicize any information pertaining to this Agreement or the other party without securing prior written consent of the other party, which consent shall not be unreasonably withheld or delayed.

24 Entire Understanding

This Agreement with the Schedules, Annexure and Exhibits hereto and executed by the Parties hereto constitutes the entire understanding between the Parties hereto with respect to the subject matter hereto and supercedes and cancels all previous negotiations thereof. To the extent permitted by Applicable Law, a party is not liable to another party in contract or tort or in any other way for a representation or warranty that is not set out in this Agreement.

25 Sub-Contracting:

25.1 For 'Supplies' : All terms and conditions as per FORM A and Form B of DISCOMs.

25.2 For other than 'Supplies' : terms and conditions shall be as per GCC of EESL tender documents for Implementing Partners up to the extent, they are not contradictory to FORM A and Form B of DISCOMs otherwise the latter shall prevail.

25.3 The Works under the sub-contract will be executed as per specifications and terms and conditions provided in Schedules/ BOQ and Standard Specifications as per agreement. In case of any contradiction about the said Standard Specification, the BOQ specifications provided in the contract shall prevail. Decision of DISCOM in regard to measurements of the work done, interpretation of contract agreement, technical specifications, scope of work, quality & workmanship, etc. will be final & binding on EESL or any sub- contractor engaged by EESL for execution of this project.



25.4 The Tender documents, Bids and Letter of Award with terms and conditions with Meter suppliers and System Integrators or others under this project shall form part of this agreement.


26 Execution of Agreement

This Agreement may be executed in three originals, each of which when executed and delivered shall constitute an original of this Agreement.

27. Enclosures

- a. Schedule I
- b. Schedule II
- c. Schedule III
- d. Schedule IV
- e. Schedule V
- f. Schedule V A
- g. Schedule VI
- h. Schedule VII
- i. Schedule VIII

Signed
(For and on behalf of the P.V.V.N.L.)
(Date)




SANJAY ANAND JAIN
CHIEF ENGINEER (COMMERCIAL)
FOR MANAGING DIRECTOR
C E.(Comm.)
P.V.V.N.L., Meerut

Signed
(For and on behalf of the EESL)
(Date)




SH ADESH SAXENA
D.G.M (TECHNICAL)
EESL

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized representatives as of the Effective Date.

Energy Efficiency Service Limited

Name: Mohd Salman Ansari
Designation: Engineer (Tech.)
Signature: 
Date: 

DISCOM:


Name: J. K Singh
Designation: S.E (Commercial)
Signature: 
Date: **Superintending Engineer (Comm.)**
Paschimanchal Vidyut Vitran Nigam Ltd.
MEERUT

ANNEXURE '1'

Town-wise estimated quantities for PVVNL :-

SNO.	NAME OF TOWN	ESTIMATED QUANTITIES (IN LACS)
1	AMROHA	0.43
2	BULANDSHAHAR	0.50
3	GAJRAULA	0.11
4	HAPUR	0.58
5	KHURJA	0.28
6	LONI	1.54
7	MEERUT	2.71
8	MODINAGAR	0.43
9	MORADABAD	1.32
10	MURADNAGAR	0.23
11	MUZAFFARNAGAR	1.05
12	RAMPUR	0.69
13	SAHARANPUR	1.23
14	SAMBHAL	0.33
15	SIKANDRABAD	0.20
	Total	11.63




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Schedule I: Brief Project Note

The scope of this project includes, in complete conformity with subsequent sections of the specifications, site survey, planning, design, engineering, supply, manufacturing, transportation and insurance, delivery at site, unloading, handling, storage, installation, integration, configuration, testing, commissioning, integration, demonstration for acceptance, training, maintenance and documentation of the following:-

- 1) Carry out site Survey of site locations to assess the following:
 - a) Consumer Indexing
 - b) Smart Meter Installation
 - c) Provisioning of GPRS Network
 - d) Management of SIM cards pertaining to the GPRS network
- 2) Implement & commission Smart metering (AMI) system architecture capable of upgrades and scaling as per UPPCL requirements with robust System security features with due consideration of data privacy, confidentiality cyber security guidelines etc.
- 3) Replacement of old installed meters with Smart Meter along with meter seals and Meter Box. Deployment of GPRS communication service provider and integration of Smart Meter with AMI applications. Issuance of meter sealing certificate to consumers and providing advice Data of installed meters to billing system of DISCOM.
- 4) Installation, testing and commissioning of the proposed Smart Metering (AMI) solution.
- 5) Deployment of all the AMI applications on Cloud including Head End System and Meter Data Management System.
- 6) Integration with existing legacy system of DISCOMs systems including Metering, Billing and Collection Systems.
- 7) Development of Interface with mobile app and web portal/dashboard.
- 8) Interoperability at meter level. (Successful communication testing with at-least 5 meter suppliers).
- 9) O & M for the project duration.
- 10) Handing over of old removed meters from consumer premises to designated officers/stores of DISCOM.

EESL shall take up the following activities inter-alia-

- I. Supply of Smart Meters along with meter seals & Meter Boxes and engagement of System Integrator (SI) to implement the Project.




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II. **Smart Metering (AMI) Solution Roll out & Project Management**

- Establish baseline (jointly with DISCOM)
- EESL through the SI shall implement the Smart Metering (AMI) Solution within 3 years in phased manner.
- Integrate the Smart Metering (AMI) solution with existing IT legacy applications

III. **Operations Management**

- Manage the operations & maintenance activities related to Smart Metering (AMI) Solution till the O & M period of 5 years(Extendable up to another 5 years as per mutual agreement),in the project area.
- In consultation with DISCOM take up Smart Metering (AMI) Solution for New Connections.
- Identify the exception cases based upon Meter Data Management System (MDMS) data analytics in the project area and submit the report on regular basis to the DISCOM for further corrective action.

IV. **Project Management**

- Deployment of resources in project area.
- Hiring of project management consultancy.
- Hiring of Office set up etc.
- Procurement of Command Centre equipment.
- EESL establishment cost.
- Training of Field officers and staff.
- Consumer awareness programme.
- Training

V. **Exit Management**

EESL's exit scope shall include handover of Smart Metering (AMI) Solution and including handover of DISCOM data. The Smart Metering (AMI) Solution implemented along with all the System Software licenses offered in the agreement shall be handed over in such a manner that operations of UP should not be affected. However, the payment against investment and liabilities in lieu of Project cost along with interest component on project financing, RoE and PMC cost etc. of EESL shall be released / reimbursed by DISCOM as per clause 7.8 of the agreement.




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Schedule – II

Detailed Scope of Work

1. Approach towards AMI Roll-out in Select Cities in UP State

EESL will work under cost plus approach i.e. EESL will invest all CAPEX& OPEX and will be paid annuity amount in monthly Instalments by DISCOMS.

EESL shall take up the following activities *inter-alia*-

- I. Selection of Meter Manufacturer/supplier and AMI System Integrator (SI) through International / Open Competitive Bidding
- II. Smart AMI Roll out
- III. Operations Management including training of UPPCL/DISCOM officials and public awareness campaigns.
- IV. Project Management

1.1. Smart Metering (AMI)Solution Architecture

Proposed Smart AMI for the utilities shall be a system comprising of

1. Smart Meters with GPRS Module,
2. Communication networks (Cellular) Services
3. HES, MDMS and other related software.
4. Cloud Hosting Services for HES and MDMS
5. Integration of MDMS with Legacy system of Utilities for Billing and data Analytics
Mobile app through which consumer shall be able to log in through android/ios/windows based mobile to see information related to his/her energy consumption.

Smart meters installed at consumers premises would communicate with Head End System (HES) using GPRS communications module. The communications module is of pluggable-type and shall be capable of servicing GPRS technology. Meter Data Management System (MDMS) collects data from the HES and validates and processes it and integrate with other IT applications such as Billing, Customer Care, and Outage Management System etc.

IT infrastructure will manage remote meter operations such as scheduled & on demand reading, connection/disconnection, and firmware upgrade etc.

HES and MDMS shall be hosted on the cloud.

1.2. Functions of Smart AMI

The main objective of Smart AMI is to establish two way communications between Smart Meter and HES and enable remote reading, monitoring & control of smart meters. AMI helps utility to manage their resource and business process efficiently. The AMI shall adopt the regulations/guidance provided by the CEA and supports the following functionalities in conjunction with legacy system (s) (inter-alia):

- a. Meter data reading at configurable intervals
- b. Time of day (TOD)/TOU metering




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- c. Alarm/Event detection, notification and reporting
- d. Meter tampering / theft detection
- e. Load Control
- f. Remote Load Limiter and connection/ disconnection at defined/on demand conditions
- g. Pre- payment & post payment billing / Net-metering/Billing including energy audit
- h. Remote firmware upgrade
- i. Integration with other systems like billing & metering software, GIS mapping, consumer indexing.
- j. Import of legacy data from existing modules/ MDMS of RAPDRP/non-RAPDRP where ever possible

Security features to prevent unauthorized access to smart meter & meter data and to ensure authentication for all AMI elements. Smart meters certified as per IS 16444 have been considered for this project.

2. Project Details

2.1. Objective

The objective of this agreement is to establish project to have a sustainable impact by increasing DISCOM revenues through increase in the billing efficiency trajectory and reduction in O & M cost. The implementation of Smart Metering (AMI) Solution envisages a significant increase in the Billing efficiency.

EESL has agreed to an innovative business model where EESL will fund, build, operate and manage the Smart Metering (AMI) Solution implementation in the project area and will monetize its investment on per month basis.

This is a cost plus BOOT model wherein zero CAPEX is required from DISCOM and EESL will fully fund, build, operate and manage the Smart AMI in the high loss towns of DISCOMs during the "project period", improving billing efficiencies thereby reducing losses to DISCOMs.

EESL aims to recover its investment and earn a Return on Equity (RoE) of 14% (post-tax basis) after mutual agreement through mutually agreed monthly payment structure to EESL.

2.2. Benefits of Smart metering (AMI) Project

Smart Metering (AMI) Solution offers profound benefits to all stakeholders, including the DISCOM, state government & consumers, and hence the deployment should take place in a fast track mode. Following are the benefits of smart meters implementation to the DISCOM:

1. Bring in operational efficiency on a model which is impact based, aiding efforts towards achieving UDAY targets and financial improvement of DISCOM.
2. Provides real time data feeds which can be leveraged for a real time decisions and actions to strategize Demand Side management, Energy / Power Demand Forecasting.
3. The data analytics can be leveraged for better peak load management and tariff structure planning.
4. Enhancing consumer satisfaction level with better complaint management, faster restoration of outages and awareness for optimized consumption pattern.
5. Improvement of the system stability, reliability and transparency.




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6. Optimization of O&M expenses
7. Access to EESL's project management experience and that of mass procurement through a fair, competitive and transparent bidding process.

However, Benefits of Smart AMI roll-out vest with DISCOM, since EESL is paid actual costs of AMI Components, OPEX charges, PMC, Interest on debt and RoE agreed upfront with UPPCL.

2.3. Project areas

Under this approach, EESL shall rollout AMI in the identified towns across the DISCOMs covering around 4 million consumers initially with an agreed upon growth in the subsequent years. The list of towns identified for this project is mentioned below: Sr. No.	Name of DISCOM	No. of Towns
01	MVVNL	12
02	PuVVNL	11
03	PVVNL	15
04	DVVNL	9
05	KESCO	1

And any other locations suggested by UPPCL during implementation of Project.

2.4. Detailed Scope of Work

Built Up Phase (CAPEX + OPEX) – 3 Years:

1. Set up required IT Infra (HES, MDMS and Data Base hosting on Cloud) for AMI solution.
2. Provision communication service through service provider.
3. Installation of Smart meters and its integration to the AMI system.
4. Integration of AMI System to the legacy system of the UPPCL/DISCOM.
5. Implementation of AMI solution in phased manner as per this agreement.
6. O & M and other recurring services for implemented IT Infra and Smart meters during Built Up phase.
7. Mobile app for consumers.
8. Handing over removed old meters from consumer premises to designated offices/stores of DISCOM.
9. Training of DISCOM officials and consumer awareness campaigns.



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O & M Phase (05 Years):

1. Recurring services on ATS of Software, GPRS Data Usages/ Connectivity Charges and Cloud Hosting Charges.
2. Manage the operations & maintenance / Field Management services (FMS) activities related to Smart AMI till the concession period in the project area.
3. In consultation with DISCOM take up Smart AMI installation for New Connection & Faulty Meter Replacement cases as per mutually agreed terms.
4. Maintain system availability/Uptime as per agreed service level agreement.
5. Identify the exception cases based upon Meter Data Management System (MDMS) data analytics in the project area and submit the report on regular basis to the DISCOMs for further corrective action.
6. Maintain availability of meter data as per agreed service level agreement.

Project Management

- Deployment of resources in project area.
- Hiring of project management consultancy.
- Hiring of Office set up etc.
- Procurement of Command Centre equipment.
- EESL establishment cost.
- Training of UPPCL /DISCOM officials and staff.
- Consumer awareness programme.

2.5. Business Model

The business model for Smart Metering (AMI) roll out is based on Cost-plus BOOT model. Under this Model EESL shall claim per meter per month payment from Utility based on the following costs:

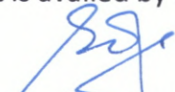
- a. Actual Cost incurred for Smart Metering (AMI) components. (Project CAPEX)
- b. Actual OPEX (O&M / FMS Expenses, Cloud Hosting Charges, ATS/AMC and GPRS charges) during project period.
- c. Project Management Cost @ 1.5 cr. per month for 3 years' implementation period and 1 Cr. per month for 5 years O & M period.
- d. The Debt: Equity ratio will be 80:20.
Interest cost (s) on project financing (Debt Interest cost on CAPEX) @ 9% per annum or as per actual.
- e. Return on Equity @ 14 % (post tax).

- The Income Tax on RoE is inbuilt in the per meter per month cost considering current prevailing corporate tax rate.
- EESL would be liable to pass on difference in MAT and Corporate Tax at the end of any financial year, in which the Company is eligible to pay MAT.

Input of GST

The OPEX cost per meter per month to be charged by EESL from UPPCL, should be calculated considering the base value (excluding GST) of all the services and supplies on which GST or any other tax for which input credit is availed by EESL.




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➤ **Average RoE**

The Return on Equity will be calculated on the average equity deployed during the month i.e. simple average of opening equity and closing equity for the month.).

- f. All the cost components are exclusive of GST and other applicable statutory taxes and shall be charged extra as per actual.

The following shall be covered in capital and operational expenditure:

Table 1

CAPEX	OPEX
1. Smart Meters and Meter Boxes along with meter seals.	1. FMS of deployed AMI solution including additional warranty cost of meters beyond 5.5 year Warranty.
2. AMI Software Cost	2. ATS Charges on Software
3. Consumer Indexing	3. Recurring Operating Cost on GPRS
4. Training	4. Cloud Hosting Charges
5. Installation, Integration and Commissioning of AMI Solution	5. Interest Cost and PMC

2.6. Indicative Project Timelines

The Built Up / Go live Phase for Implementation of Smart Metering (AMI) Solution shall be 3 years. The O & M phase shall be 5 years (Extendable up to another 5 years) after Implementation of Smart Metering (AMI) solution. The timeline may be further extended / modified as per mutual agreement of EESL and UPPCL.

DISCOM WISE DETAILS OF TOWNS AS PER ANNEXURE 1




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Schedule 3: EESL Services to UPPCL

EESL shall:

- a) Procure, install and commission 4 Million Smart Meters for identified towns under DISCOM.
- b) Provide integration of Smart metering (AMI system) with UPPCL legacy system and interface with mobile application/web portal.
- c) Provide billing data through Smart metering (AMI system) to UPPCL billing system for ensuring on-time and accurate monthly billing of UPPCL consumers.
- d) Maintain availability of meter data as per agreed service level agreement.
- e) Maintain system availability/uptime as per agreed SLAs, provide monthly SLA reports as received from System Integrator for the agreed service levels.
- f) Provide exception reports, temper analysis reports and input of consumer meter data for energy accounting that can be generated through MDM data analytics to UPPCL on a daily/monthly/quarterly basis as agreed for respective reports.
- g) Provide technical support helpdesk for ensuring support and timely ticket resolution within in the agreed SLAs.
- h) Provide incident reports along with corrective and preventive actions.
- i) EESL shall provide a mobile app through which consumer shall be able to log in through android/iOS/Window based mobile to see information related to his/her energy consumption. App shall also provide platform for implementation of peak load management functionality by providing existing tariff & incentives rates, participation options etc. This mobile app shall be part of complete system and therefore no additional cost shall be payable for upgradation / maintenance separately.

Acceptance of Deliverables

DISCOM will carry out acceptance of deliverables (for the deliverables which are subject to acceptance procedure) as per the schedule presented in the accompanying Technical Proposal. The application software (if any) will be delivered/installed for acceptance to DISCOM as and when the same is ready for delivery. The actual Acceptance Testing of the software will be the responsibility of DISCOM. DISCOM will prepare the Acceptance Test data along with the expected test results (consistent with the detailed specifications of the system and any change-request agreed in the documents) and keep it ready at least four (4) weeks in advance before the scheduled commencement of the Acceptance Testing of the software. The acceptance testing will be based on the test cases provided by DISCOMS. EESL will provide support for any clarifications during the Acceptance Testing of the system. Defects if any, observed by DISCOM, will be notified to EESL in writing not later than three (3) weeks of delivery. EESL will correct the defects that are a deviation from the baseline immediately following the acceptance, whichever is later. DISCOM will confirm acceptance in writing to EESL. The DISCOM shall not withhold or delay the issuance of acceptance certificate of any of the deliverables, if the deliverables substantially meet the specifications or on account of any minor defects which have no material effect on the functionality of the deliverables. Notwithstanding the foregoing sentence, a deliverable shall be treated as accepted by DISCOM if the DISCOM (a) fails to provide the list of non conformities within three (3) weeks of delivery, (b) fails to notify the acceptance of the deliverables in terms of this clause within the period of three (3) weeks




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from delivery, or (c) starts using the deliverable in a live production environment (other than as part of agreed review and acceptance testing procedure, such as UAT).

Reworking of defects shall be at the cost of EESL provided the defects are for reasons solely and entirely attributable to the EESL. Items reported as defects that are not deviations from the immediate previous accepted baseline will be reported again through fresh Change Request documents under the Change Management Procedure described herein. Items reported through the Change Management Procedure will be dealt with separately.




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Schedule – IV(To be prepared DISCOM wise)**Bill of Quantity(BOQ)**

S. No.	Item Particular	Qty.	Remarks
Project Built Up Phase (For 3 Years)			
AMI Equipment Cost			
1	Smart Energy Meters		
A	1-Phase whole current smart meter (10 -60 A) Class 1.0	3779497	
B	3-Phase whole current smart meter (10 -60 A) Class 1.0	206242	
C	CT operated 3-phase smart meter without CT, Class 0.5	14261	
2	Smart Meter Box		
A	For Single Phase whole current smart meter	3779497	
B	For Three Phase whole current smart meter	206242	
C	For CT operated three phase smart meter	14261	
3	Required Seals (/) as enumerated in UP electricity supply Code 2005 (amended as on date)		
A	Holographic		
B	Polycarbonate		
4	Meter Sealing Certificates		
Installation and Integration			
1	Installation and commissioning of Smart Meters and Meter Boxes.	4000000	
2	Integration (Internal and with Legacy applications of UPPCL)	Lot	
Consumer Indexing			
1	Consumer Indexing	4000000	
2	Training	Lot	
3	Consumer awareness campaigns	Lot	
AMI IT			
1	Application Software	Lot	
A	Head End System software	Lot	
B	Meter Data Management software (MDM)	Lot	
C	BI/ Analytics Software	Lot	
2	Mobile App/ Web Portal for consumers	Lot	
3	Database Software (license)	Lot	
Project O & M Phase (For 8 Years)			
1.	Field Management Services (FMS) or O & M of implemented Smart Metering System (AMI)	Lot	On Monthly basis.
2.	Recurring Services for Cloud Hosting	Lot	On Monthly basis.
3.	Recurring Services for GPRS	Lot	On Monthly basis.
4.	ATS Charges for AMI Software	Lot	On Monthly basis.
5.	Additional Warranty on Smart Meters implemented during year 1 and 2.	2.1%	On Monthly basis.
6.	Handing over of old removed meters from consumer premises to designated offices/stores to DISCOM		



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Schedule V

EESL'S OBLIGATIONS

EESL

- a) DISCOM and EESL shall conduct joint pre-audit of the data available with DISCOMs to assess AMI implementation. EESL shall identify the single point of contact and ensure readiness of facilities in time-bound manner for the project.
- b) EESL shall conduct consumer indexing and asset mapping of the legacy data provided by DISCOM.
- c) To assist and provide information to DISCOM, effective redressal to the Consumer grievances and Complaints related to Smart Metering (AMI) Solution through web based portals in accordance with the Electricity Laws.
- d) Submission of the management information system (MIS) reports periodically (Specify period) in the format to be prescribed by the DISCOMS as well as report exceptions timely.
- e) To improve/ maintain the billing efficiency so as to align it with the loss trajectory agreed by the DISCOM under UDAY scheme.
- f) Preparation of the data base and documents of Consumer indexing and Distribution Asset codes for route sequencing purpose if not already available.
- g) Establish a governance mechanism during the implementation of the project to ensure the execution progresses as planned.
- h) Shall install and integrate Smart meter with Box, if DISCOM requires, for any new connection (s) in implemented area or otherwise for an additional cost over and above the project cost on pro rata basis. DISCOMs will pay to EESL unit price basis as quoted in its financial proposal for any new connection in the project area.
- i) As per requirement of DISCOM, EESL shall procure 2x6 mm² armoured cable for replacement of old normal service cable in high loss and highly sensitive area, procurement cost of the cable shall be borne by the DISCOM on cost plus OPEX Model.
- j) EESL shall undertake Operation and Maintenance of AMI solution till the project period.
- k) EESL shall undertake replacement of all the faulty meters at the consumer premises and other faulty equipment as covered under Smart Metering Project in implemented project area during the project period.
- l) EESL shall provide training to the UPPCL/ DISCOM personnel.
- m) EESL shall adhere to the SLAs.

1.1. Project Management Services

EESL shall also provide Project Management Services, as hereafter described, in connection with the design, installation and implementation of the Project.

A. Pre-Implementation Phase

• Preliminary Steps.

- a. EESL has prepared & shared conceptual approaches to design and implementation of




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the Project in the business proposal.

b. Based on the functional requirements of Advance Metering Infrastructure (AMI) in India , EESL has outlined Specifications in the RFP floated for System Integrator.

- **Selection of System Integrator/Implementation Agency.** As selection of the Implementation agency was to be carried out by the EESL. Therefore, EESL has selected the system Integrator after conducting the open bidding process. EESL has awarded the Contract to Implementing Agency.

B. Requirements for the Implementation Order

- **Design of the Project.** DISCOM and EESL shall acknowledge and agree that the Implementation Contract shall provide for the design and Implementation of the Project on a cost plus "BOOT" basis including design / build for 8 Year period. This means that the EESL will be responsible for the design of the Project, and thereafter implement the Project in accordance with the design plans and specifications. The Project design prepared by the EESL shall be in consistent with the design concept contained in the bid package and the contents of the Acknowledgment of meter installation approval from DISCOM, signed by EESL and the System Integrator.

C. Implementation Management Phase

- **Project Schedule.** EESL shall prepare and periodically update a Project Schedule. In the Project Schedule, EESL shall coordinate and integrate DISCOM's services, with Implementation schedules, highlighting critical and long lead time items. The Project Schedule shall be included in the solicitation package and included in any Implementation contract with such modifications as may be agreed to by DISCOM, EESL and System Integrator. EESL shall also monitor the Implementation schedule, prepared by the EESL and System Integrator. The Implementation schedule shall provide for the components of the Implementation work, phasing of Implementation, times of commencement, and completion and ordering of products requiring long lead time. EESL shall promptly advise DISCOM of any deviation from the Implementation schedule.
- **Location and access : Access to DISCOMs facility including Consumer premises.**
- EESL shall determine that the work of the Implementation agency is being performed in accordance with the requirements of the Implementation Contract. EESL shall inspect the work, EESL shall have authority, upon authorization from DISCOM, to require additional inspection or testing of the work in accordance with the provisions of the Implementation Contract, whether or not such work is fabricated, installed, or completed.
- EESL shall review requests for changes, assist in negotiating Implementation agency's proposals, submit recommendations to DISCOM, and, if they are accepted, prepare Change Orders that incorporate the Implementation agency's modifications to the Documents.
- EESL shall monitor and record the progress of the Project. EESL shall submit progress reports to DISCOM. EESL's reports shall include a description of the Implementation agency's work on the site, number of workers, work accomplished, problems encountered, and other similar relevant data as DISCOM may require. EESL's reports shall be submitted Monthly basis unless a less frequent reporting interval is approved by the DISCOM.
- EESL shall track all Project expenses and shall provide DISCOM with reports that summarize the Implementation Budget, Implementation agency payments to date,




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remaining amounts due under the Implementation Contract, Change Orders and addenda, and the balance available for contingencies.

- Service cable (Supply and replacement) is not in the Scope of EESL.
- EESL shall endeavour to obtain satisfactory performance from the System Integrator. EESL shall promptly recommend courses of action to DISCOMs when requirements of the Implementation Order are not being fulfilled.

DISCOMs

- All the Project's O&M expenses on Smart Metering incurred during the implementation of the project shall be borne by EESL.
- To the best of EESL's knowledge, information, and belief, the work shall progress to the point indicated and the quality of the work would be in accordance with the Implementation Contract. The foregoing representations are subject to an evaluation of the work for conformance with the Implementation Contract upon Substantial Completion, to results of subsequent tests and inspections, to minor deviations from the Implementation Contract correctable prior to completion, and to specific qualifications expressed by EESL.
- EESL shall observe the system Integrator's final testing, operational systems, and equipment and. DISCOM and EESL shall certify that they have observed the Implementation agency's final testing and start-up of the utilities, operational systems, and equipment.
- DISCOM will issue certification after performing system audit of the components installed by the Implementation agency for successful commission.
- EESL shall coordinate the correction and completion of the work. Following issuance of a Certificate of Substantial Completion of the Work or a designated portion thereof, EESL shall evaluate the completion of the work of the Implementation agency and determine when the work is ready for final inspection. EESL and DISCOM shall conduct the final inspection.
- EESL shall secure and transmit to DISCOM warranties, lien waivers, and similar submittals required by the Implementation Contract for delivery to DISCOM and deliver all keys, manuals, record drawings, and maintenance stocks to DISCOM.




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Schedule V-A
Service Level Agreement (SLA)

SLA for EESL:

A.

S. No.	Service	Parameter	Service Level	Validation	Penalty
1	Meter to Billing Systems specific service level	Transmission of billing parameters from Meter to Billing Systems once in the month (30 days).	Every month at least 98% meters must transmit Billing Data to Billing Systems from meter	Monthly system report showing numbers/percentage of consumers data transmitted to billing system of UPPCL.	Full deduction of monthly charges of meters for which the billing parameters are not provided to the billing system and if it is above 2% (which did not transmit billing data in that month.)
2	Meter related service level	Defective meter replacement during contract period	Any defective meter shall be repaired/replaced as per supply code of UPERC.	Monthly system report highlighting the meters having defective more than 15 days	95 - 98 % : 5% of monthly O & M / FMS payment of defaulted Meter. 90-95% : 10 % of monthly O & M / FMS payment of defaulted Meter Below 90% : 15% of monthly O & M / FMS payment of defaulted Meter.

B.

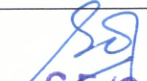
S. No.	Service	Parameter	Service level	Validation	Penalty
1	HES specific service levels	1: Offline ¹ actions between HES and MDMS	80% completed in 7 seconds and 99% within 30 seconds	Monthly SLA performance report	If 9 out of 10 HES specific SLAs achieved then no penalty will be levied, In case, same SLA is breaching for any consecutive month or only 6-8 SLAs are achieved in a given month penalty will be 10% of monthly FMS charges.
		2: On-demand actions carried out on High	(1) Action performed at 90% of meters within 1		




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S. No.	Service	Parameter	Service level	Validation	Penalty
		Priority ²	Hour;	Monthly SLA performance report	<p>In case 4-5</p> <p>SLAs are achieved in a given month 15% of monthly FMS charges will be levied as penalty. 15% of monthly FMS charges will be levied as penalty.</p> <p>In case less than or 3 SLAs are achieved 40% of monthly FMS charges will be levied as penalty.</p>
			(2) Action performed at 99% of meters within 2 hours; and		
			(3) Action performed at 99.9% of meters within 6 hours.		
		3: On demand actions carried out at Low Priority ³	95% completed within 24 hours and 99% within 72 hours.	Monthly SLA performance report	
		4: Actions carried out on predefined Schedule ⁴ date and time	90% completed within 1 hr. of scheduled date and time and 99.9% within 24 hrs. of scheduled date and time	Monthly SLA performance report	
		5: Recurring data delivery actions	95% completed within 8 hours after midnight and 99.9 % within 24 hrs.	Monthly SLA performance report	




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S. No.	Service	Parameter	Service level	Validation	Penalty
			After midnight.		
		6: Alerts and notifications	95% submitted to HES in 5 minutes of occurrence and 99.9% within 24 hours	Monthly SLA performance report	
		7: Actions for UTRN* generation and transmission (for Prepaid vending and other engineering UTRNs)	80% completed in 7 seconds (for returning UTRN code back to HES).	Monthly SLA performance report	
			SLA for UTRN transmission to the meter is as defined in Online - High		
			99% within 30 seconds (for returning UTRN code back to HES).		
			SLA for UTRN transmission to the meter is as defined in Online - High		




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S. No.	Service	Parameter	Service level	Validation	Penalty
		8A: Actions related to Firmware ⁵ upgrade or rollback activity for asset population < 10,000	95% of individual assets to be modified (updated or rollback) within 3 working days of scheduled date (update) or requested date (rollback) and 99% of individual assets to be (updated or rollback) within 5 working days of scheduled date (update) or requested date (rollback)	Monthly SLA performance report	
		8B: Actions related to Firmware ⁵ upgrade or rollback activity for asset population > 10,000 and <50,000	95% of individual assets to be modified (updated or rollback) within 10 working days of scheduled date (update) or requested date (rollback) and	Monthly SLA performance report	




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S.No.	Service	Parameter	Service level	Validation	Penalty
			99% of individual assets to be (updated or rollback) within 15 working days of scheduled date (update) or requested date (rollback)		
		8C: Actions related to Firmware ⁵ upgrade or rollback activity for asset population > 50,000	95% of individual assets to be modified (updated or rollback) within 30 working days of scheduled date (update) or requested date (rollback) and 99% of individual assets to be (updated or rollback) within 90 working days of scheduled date (update) or requested date (rollback)	Monthly SLA performance report	




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S. No.	Service	Parameter	Service level	Validation	Penalty
		9. Performance level for remote load control commands for selected consumers,	(1) Action performed at 95% of meters within 5 minutes;	Monthly SLA performance report	
			(2) Action performed at 99% of meters within 10 Minutes		
		10. Performance level for remote connect/disconnect for selected consumers,	(1) Action performed at 90% of meters within 10 minutes;	Monthly SLA performance report	
			(2) Action performed at 99% of meters within 1 hour; and		
			(3) Action performed 99.9% of meters within 2hours.		
		2	MDMS Specific service levels	Update of individual consumer data on portal/ app after receiving the data in	




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S. No.	Service	Parameter	Service level	Validation	Penalty
		MDMS	MDMS		
		Data retention in MDMS system	100% data to be retained in the system for 5 years, previous data to be archive in a recoverable format with recovery time 30 minutes	Monthly Database health and MIS report	1% of monthly FMS charge in case reports are not submitted in first 5 days of the month or any discrepancy in observed in data retention and archival policy.
3	Back-end Applications uptime	Uptime of applications such as HES, MDMS, Consumer Portal etc.	>99.5% of the time	Monthly report	2% of monthly FMS charges will be deducted for every 0.5% decrease
4	Integration Services uptime	Web Services for integrating Oracle, GIS, OMS, MDMS, Consumer Portal etc.;	>99.5% of the time	Monthly report	2% of monthly FMS charges will be deducted for every 0.5% decrease
5	Database administration services	MIS report of database scheme, disk space, storage and user role	99%	DB Report	2% of monthly FMS charges if the report is not submitted within first 5 days of the month.
6	SIM information availability	Update of SIM information in the Head End System	100% information available in HES before Meter Installation	Zero Installation issues due to unavailability of SIM information	INR 2000/- per day




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S. No.	Service	Parameter	Service level	Validation	Penalty
7	Management of DISCOM's EMS	Daily MIS of servers health check-up(utilization, disk space, memory etc.)	100%	Reports generated from EMS system	0.5% of monthly FMS charges
8	Meterkey information availability	Update of meter key files provided by the meter manufacturer in the Head End System	100% information available in HES before Meter Installation	Zero Installation issues due to unavailability of Asset files or Key files	INR 2000/- per day
9	Project Management	Submission of Monthly Project Status reports and Conducting Status meetings	100%	Minutes of Meetings	2% of monthly FMS charges in case the Monthly meeting is not conducted due to Implementing Partner's default or in case the report is not produced within first 5 days of the month
				Approval of Status reports by Engineer-in- Charge	
10	AMI Helpdesk	Resolution of ticket logged as per the Service Availability & Criticality Chart	99%	Reports Generated from ticket logging system	Greater than 99% calls resolved in a given month then no penalty. If 95%-99% calls shall be resolved in the given month then 2% penalty on the monthly FMS charges. If 90% - 95% calls resolved in the given month: 5% penalty on the monthly FMS charges. In case of below 90% calls resolved then 20% penalty on the monthly FMS charges.
11	Incident Management	Resolution of ticket logged in helpdesk	99%	Reports generated from Ticket logging System	0.5% of monthly FMS charges if incidents are not closed and incident report is not submitted.




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S. No.	Service	Parameter	Service level	Validation	Penalty
12	Problem Management	AMI Implementing Partner shall analyses all the incidents and provide a root cause report every month if there are more than 10 incidents of the same type.	100% timely submission covering all incidents logged in that month	Root cause Report. Incident Report stating problems faced by the users. Report detailing corrective and preventive actions	5% penalty on the Monthly FMS charges if the Supplier does not submit a problem report for that month. 5% penalty on the monthly FMS charges, if the Supplier does not perform the corrective action for more than one calendar month.
13	Change Management	Resolution of Change Management ticket	99%	Quarterly Reports	2% of monthly FMS charges if agreed date for requested change is not adhered
14	Release management	Release and UAT of approved software version	100%	Release on agreed date	5% of annual FMS charges if agreed software development date for final production deployment is not adhered
15	Adherence to Security policy	Bidder shall adhere to the Security policy developed in consultation with EESL.	Quarterly	100% Compliance.	No Penalty
				Non Compliance.	0.5% of the quarterly Operations & Maintenance Cost for every day's delay on an incremental basis.
16	Implementation of Audit Recommendations	Implementation of audit recommendations by UPPCL/EESL or its auditor which have been agreed by implementing partner to be implemented.	100%	Quarterly Reports	0.2% of the quarterly FMS Cost for every non compliance



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S. No.	Service	Parameter	Service level	Validation	Penalty
17	Report and Dashboard	Periodic reports to be provided to UPPCL in the prescribed format as required.	100%	Daily Reports: Critical reports shall be submitted by 10 PM every day.	Delay in reporting for daily report for more than 2 hours shall incur a penalty of 1% of Operations Cost for the Month per instance.
				Weekly Reports: Critical reports shall be submitted every Monday by 10 AM	Delay in reporting by more than 1 day for weekly reports shall incur a penalty of 2% of Operations Cost for the Month.
				Monthly Reports: Critical reports shall be submitted 5th of each month	Delay in reporting by more than 3 days for monthly reports shall incur a penalty of 5% of Operations Cost for the Month.
				Quarterly reports: Continual Improvement Reports: Bidder is expected to improve the operations on an on-going basis. Bidder is expected to provide a quarterly report of the new improvements suggested, action	Delay in providing quarterly reports shall lead to 2% of the monthly operation charges.



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S. No.	Service	Parameter	Service level	Validation	Penalty
				<p>plans, and the status of these improvements to NIC. Improvement areas could include: process changes/ training resulting in efficiency/ SLA improvement, new correlation rules to identify threat patterns etc.</p> <p>Quarterly reports need to be provided by the 5th day of each quarter beginning.</p>	
				<p>Daily Report: Provide security dashboard which shall give an online view of the all the security devices monitored online and their status.</p>	<p>Delay/inability in providing quarterly reports shall lead to 2% of the monthly operation charges.</p>




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S. No.	Service	Parameter	Service level	Validation	Penalty
				Security Dashboard shall give the details of critical/medium events reported by security tools and status on their mitigation.	Delay/inability in providing quarterly reports shall lead to 2% of the monthly operation charges.

SLA for DISCOM:

S. No.	Service	Service Level	Validation	Penalty
1.	Statutory clearances, work permits and regulatory support - Arrange/provide all statutory clearances/enter permits, work permits, regulatory support/ changes etc.	100% within 1 week of request	Monthly system report highlighting the status of each request(replacement, inspection, new connection etc.) indicating Zero issues in project implementation from statutory and regulatory perspectives	Interest cost on non-paid amount and liable for payment.
2.	Initiation of meter installation process - Issuance of authorization letter and identification cards for meter installers	100% within 1 week of request from DISCOM	Issuance of authorization letter and identification cards on agreed date	No penalty to EESL on highlighting delay



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S. No.	Service	Service Level	Validation	Penalty
3.	Installation of meters - Allowing timely and safe accessibility to all installations where AMI and supporting equipment shall be installed. Also provide electricity shutdown wherever required for meter installation.	Ensuring all issues related to inaccessibility are resolved within 72 hours from the time of issue reported in writing or through system and within 4 hours (of request made by EESL / AMI Implementing Partner) for providing electricity shutdown for meter installation.	Monthly Project Status Report and approval of the Status Reports by DISCOM Engineer-in-charge	No penalty to EESL on highlighting delay
4.	<p>Consumer and asset database –</p> <ul style="list-style-type: none"> Provide category-wise consumer details in project area (along with authenticated account ID) and other relevant details. Availability of updated database of consumers and assets - Regular updation of database of consumers (category-wise) and assets 	<ul style="list-style-type: none"> Provide category-wise consumer details to EESL within 15 days from Effective Date of the Agreement Provide updated database of consumers and assets to EESL when a change is made in the database (100% within 48 hours) 	<ul style="list-style-type: none"> Acceptance letter by EESL (for providing category-wise data) CIS Report automatically generated from the IT system of DISCOM (for providing updated database of consumers and assets when a change is made in the database) 	<ul style="list-style-type: none"> Zero date will be considered (if category-wise consumer details are not provided to EESL within 15 days from Effective Date of the Agreement) No penalty to EESL (if updated database of consumers and assets is not provided to EESL within 48 hours).



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S. No.	Service	Service Level	Validation	Penalty
5.	Disbursement of monthly Payment to EESL - Make timely payment to EESL against all invoices within 15 working days beyond the Due Date with deemed acceptance of all the reports/documentation submitted by EESL in case there is no comments from DISCOMS	15 working days of date of submission of approved invoice	Payment acceptance receipt by EESL	DISCOM to pay the interest amount after 15working days.
6.	Maintenance of IT systems - Provide access to EESL and AMI Implementing Partner for conducting system integration and maintenance of the IT systems	Approval by DISCOM within 2 hours of request made by EESL/AMI Implementing Partner for maintenance and 12 hours of request made by EESL / AMI Implementing Partner for carrying out system integration.	Confirmation Letter from DISCOM	No penalty to EESL owing to delays reported



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Schedule VI

ROLES AND RESPONSIBILITIES OF DISCOM

- a) DISCOM shall provide database of consumers and database of assets as well as periodic updation information
- b) DISCOM will cooperate with the EESL during data validation
- c) DISCOM shall participate in the periodic review meetings as per the project governance structure, and shall support with the required interventions requested. DISCOM shall assign competent manpower to the Project Team. DISCOM shall cooperate with bidder(s) for the timely implementation of the AMI; and for its successful operation during the project period.
- d) Shall Support and facilitate EESL to execute a successful consumer awareness campaign in the project area.
- e) Since EESL will build and operate the AMI system, which will require EESL to risk a significant amount of its own capital and incur expenses, DISCOMs agrees to provide financial security for the monthly payments to EESL for Services
- f) DISCOMs will assign required manpower to the Project Team and empower them with required authority to function for success. DISCOMs shall also designate an authorized "DISCOM Representative" who shall have the express authority to represent DISCOMs with respect to all matters of the AMI requiring DISCOMs' decision, approval or authorization.
- g) DISCOMs shall arrange/provide all the statutory clearance/ entry permit, work permit, regulatory support/changes as required to carry out this project. -
- h) DISCOMs shall conduct joint pre-audit with EESL of the data available with DISCOMs to assess AMI implementation.
- i) DISCOMs shall provide infrastructure and facilities such as office space, communication facilities, internet bandwidth and amenities for EESL personnel and its sub-contractor(s) working at the project site and control office during the Concession Period. EESL personnel shall comply with all applicable rules, regulations and requirements relating to visitors on the premises of DISCOMs.-
- j) DISCOM shall ensure the timely and safe accessibility to all installations where the AMI and supporting equipment shall be installed. The appropriate personnel from DISCOM shall accompany EESL personnel as and when necessary to ensure the prompt and safe shutdown of, and restoration of line and power equipment, etc. affected.
- k) DISCOM shall ensure that all Input Points are installed with Main Meters in line with the specifications as per the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time-to-time, prior to the Effective Date. - (Need to be discussed)
- l)
- m) DISCOMs / UPPCL shall provide necessary support for integration of billing system with proposed AMI System.
- n) DISCOM shall take corrective actions to remove / rectify exceptional cases (flagged by EESL) related to theft, meter tampering etc. and other administrative measures as may be required to achieve the Billing Efficiency Trajectory.
- o) Service Cable Supply and replacement is not in the scope of EESL. (Points already agreed in MoU)
- p) DISCOM shall seek assistance of EESL in consumer complaints pertaining to smart metering to the Smart metering Implementation team for resolution as per regulatory guidelines. It is




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specifically agreed between the parties that all issues pertaining to Administrative and legal aspects shall lie within the responsibility of DISCOM This includes, but not limited to issues pertaining to Billing discrepancies and revenue realization.

- q) DISCOM is responsible for obtaining all approvals, permits, and consents from, and providing any notices to, government authorities and others as may be required for performance of the Work. In addition, DISCOM will facilitate to EESL the consumer premises access to roll out the meter replacement activity and other support as required. DISCOM is also responsible for furnishing copies thereof to EESL, except for such approvals, permits, and consents that EESL has expressly agreed in writing to obtain, and such notices that EESL has expressly agreed in writing to provide.




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Schedule VII

Payment Schedule for Service, Hardware and Related Service

1 Service Charge

1.1

The per meter per month cost in proposed agreement, is being calculated considering Loan Repayment, Interest on loan, Recovery of Equity, Return on Equity, Corporate Tax on Return on Equity, Project Management Charges and Opexcostis estimated at approximately INR 85.95* (exclusive of GST) per meter per month for the entire project duration.

If cost of project/operation increases during implementation or post implementation phase due to the factors beyond EESL's control or not solely attributable to EESL, then Parties shall increase the payment of EESL, per meter per month (exclusive of GST) on the mutually agreed terms.

*The per meter per month cost shall vary on following conditions;

1. The UAT / rollout duration or the project timelines varies due to any reason (Due to the effect on Interest and RoE).
2. The proportion of different type of Meters varies; the present calculation is based on quantity of each type of Meter indicated in BoQ Table 1.
3. The actual discovered cost of Smart Meters supplied during project duration (In case EESL supplies lower cost Meters / Items / Services).
4. The total Project cost (as described in Table 2) during the project period shall be INR 1927 Cr. This cost does not include interest cost on project financing (subject to actual cost), RoE @14% (post tax) and PMC; any shortfall or excess on account of variation in Qty. and type of Meters shall be adjusted accordingly.

Note: The monthly payment shall start as mentioned below;

1. On successful commissioning and integration over GPRS of 'X' number of Meter (s) with AMI system in a particular month, as per defined SLA of Meter Billing, the monthly payment for 'X' number of meters shall be paid with effect from the 1st of next month for the entire Project Period.
2. For the avoidance of doubt it is clarified, that UPPCL will not delay or suspend EESL's payment for delay or default not solely attributable to EESL.

For Ex: If "X" number of meters are commissioned & integrated over GPRS in month of January, the monthly payment for 'X' number of meters shall be made from February to the end of Contract Period, within the time lines stipulated for payment(s).

('X' shall be in multiple of 5000).




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A. Payment(Per meter per month charges for project cost)

The per meter per month cost in proposed agreement, is being calculated considering Loan Repayment, Interest on loan, Recovery of Equity, Return on Equity, Corporate Tax on Return on Equity, Project Management Charges and Opexcostis estimated at approximately INR 85.95* (exclusive of GST)per meter per month for the entire project duration.

B. Late Payment. EESL Project Development and Implementation Management and fees for any agreed-upon and payable within Fifteen (15) working days from the date of issue of the invoice. UPPCL/ UP DISCOM shall not unreasonably withhold acceptance or payment. Payments beyond due date shall be subject to a late charge of **one and quarterpercent (1.25%)** of the invoice amount for the number of days of delay.

C. "All invoices will be raised by EESL as per the Payment Terms and will become due for payment within due date of the submission of the invoice; provided that DISCOM may withhold payment of any amounts that are disputed by DISCOM in good faith pending resolution of the dispute. In the event that DISCOM disputes, UPPCL shall notify EESL reasons in writing; for disputing any amount within seven (7) working days after receipt of applicable invoice, where upon Parties shall promptly seek to resolve the dispute by mutual discussion. If no dispute, substantiated in writing, is made by DISCOM within a period of five (7) working days of having received that invoice about any inaccuracy or any defect in the invoice, each such invoice shall be deemed to have been accepted as correct by DISCOM.

D. All payments due for beyond due date will attract a late charge of one and halfpercent (1.5%) of the invoice amount per month on the invoice amount calculated from the date the payment became due until the recovery is made in full with interest.

E. All payments are to be made by (NEFT /RTGS/Cheque)".

1.2 Payment for Service Charges would be released to EESL by DISCOM as per the following mechanism:

a. EESL shall submit invoice to DISCOM as the case may be, to the Nodal Officer Project Manager (the concerned representative of the DISCOM looking after the Project) with a copy to the Nodal Officer at UPPCL, on a monthly basis with respect to the Service Charge and other eligible payments, if any, for the previous month. The Nodal Officer shall verify the invoice amount, based on the commissioning and Integration reports by EESL, for payment, within due date of invoice ("**Due Date**").

b. Within due date of receiving invoice from the EESL, UPPCL/ UP DISCOM, as the case may be, would release the payment to EESL, as follows:

i. Total invoiced amount; or




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- ii. 90% of the invoiced amount, in case, the invoice could not be verified. Balance invoiced amount shall be released within due date from the date of receipt of verified invoice net of applicable deductions including Penalties.

2. Payment Security Mechanism

2.1.1 Letter of Credit (LC):

The DISCOM shall provide to EESL, in respect of payment of its Monthly Bills, an unconditional, revolving and irrevocable letter of credit ("Letter of Credit"), opened and maintained by the DISCOM, which EESL reserve the right to draw upon such Letter of Credit in case of default of payment terms by UPPCL, in accordance with this clause. DISCOM shall provide to EESL draft of the Letter of Credit proposed to be provided to EESL.

- 2.1.2 Not later than one (1) month before the start of billing The DISCOM shall through a scheduled bank account at Lucknow open a Letter of Credit in favour of EESL to be made operative at least 15 days prior to due date of its first Monthly Bill under this agreement.

- i) During the implementation phase, the amount of LC shall be enhanced every month based on the actual completion of work as envisaged under the contract.
- ii) The LC shall be at all times be kept valid for the entire duration of the contract for an amount of 12 installments, including the period, till the time EESL all claims are satisfied under this Agreement.

- 2.1.3 Provided that EESL shall not draw upon such Letter of Credit prior to the Due Date of the relevant Monthly Bill, and shall not make more than one drawl in a Month.

- 2.1.4 Provided further that if at any time, such Letter of Credit amount falls short of the amount specified in clause 2.1.2 due to any reason whatsoever, the UPPCL/ UP DISCOM shall restore such shortfall before the next due date.

- 2.1.5 If the amount of letter of credit falls short from actual monthly billing amount, the DISCOM shall either enhance the letter of credit amount or make the payment of shortfall amount directly to EESL, without any demur; within the timeline prescribed in clause no. 2.1.2.

- 2.1.6 The DISCOM shall cause the scheduled bank issuing the Letter of Credit to intimate EESL, in writing regarding establishing of such irrevocable Letter of Credit.

- 2.1.7 The DISCOM shall ensure that the Letter of Credit shall be renewed not later than thirty (30) days prior to its expiry.

- 2.1.8 Further, if there is delay in opening or renewing the letter of credit by the UPPCL, then EESL reserves the right to take suitable action (please define the term suitable if this clause is to be kept, else delete this) till the time default or delay is cured.

- 2.1.9 All costs relating to opening, maintenance of the Letter of Credit shall be borne by the UPPCL/ UP DISCOM.



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2.1.10 If, the DISCOM fails to pay a Monthly Bill or part thereof within and including the Due Date, then, EESL reserve the right to draw upon the Letter of Credit, and accordingly the bank shall pay (within...), an amount equal to such Monthly Bill or part thereof, by presenting to the scheduled bank issuing the Letter of Credit, the following documents:

- i) A copy of the Monthly Bill which has remained unpaid by the UPPCL/ UP DISCOM;
- ii) A certificate from EESL to the effect that the bill at item(i) above, or specified part thereof, is in accordance with the Agreement and has remained unpaid beyond the Due Date;

BoQ

Table 1

S. No.	Type of Meter	Proposed Quantity (Nos.)
1	Single Phase Meter	
2	Three Phase Whole-Current Meter	
3	Three Phase LT CT Meter	

Project Cost Details

Table 2

Sr. No.	Description	Unit of Measurement	Actual Discovered Cost (INR)	Total Cost for 40 Lakh Meters
CAPEX				
1	Smart Meter (1 ph)	Per Unit	2503.37	
2	Smart Meter (3 ph)	Per Unit	3634	
3	Smart Meter (LT CT)	Per Unit	3425	
4	Meter Box (1 Ph)	Per Unit	203	
5	Meter Box (3 Ph)	Per Unit	292	
6	Meter Box (LT CT)	Per Unit	2230.4	
Total Cost of Meters and Boxes				
7	AMI Software (HES, MDM, Database, Web portal, analytics etc.)	Lot	126.2 Cr	
8	Consumer Indexing	Per Unit	65	
9	Training	Lot	2.5 Cr	
10	Installation Cost	Per Unit	398	
11	Integration Cost	Lot	28 Cr	
Total CAPEX Cost				



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OPEX Cost for 8 years				
12	FMS cost	Lot		
13	GPRS Cost	Per Unit per month	8.5	
14	Cloud Hosting cost	Lot		
15	ATS Charges	Lot		
16	Additional Warranty Cost	%	2.1	
Total OPEX Cost				
Total CAPEX and OPEX Cost				
17	Total Interest Cost	Lot		
18	Total PMC Cost	Lot		
19	Total RoE Cost	Lot		
Total Project Cost				



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