

## Corrigendum-1

**Amendments in Tender Specification no: PVVNL/MRT/R-APDRP PART-A/05/21-22**

S. No	Reference Section	Existing Clause	Amended/New Clause							
1	Delivery, Installation & Commissioning :  Serial No - 4 Page No-4 of 5. PAYMENT TERMS	<b>Delivery, Installation &amp; Commissioning:</b> 90% payment of installed quantity – After Successful go-live 10% payment of installed quantity – After 6 months of go-live	<b>Delivery, Installation &amp; Commissioning:</b> <table><tr><td rowspan="3">Supply</td><td>60% on Supply of Material.</td></tr><tr><td>30% on installation &amp; Commissioning of Material.</td></tr><tr><td>10% after 6 Months of Installation &amp; Commissioning.</td></tr><tr><td rowspan="2">Installation, commissioning, configuration, Testing</td><td>90% on Installation &amp; Commissioning</td></tr><tr><td>10% after 6 Months of Installation &amp; Commissioning.</td></tr></table>	Supply	60% on Supply of Material.	30% on installation & Commissioning of Material.	10% after 6 Months of Installation & Commissioning.	Installation, commissioning, configuration, Testing	90% on Installation & Commissioning	10% after 6 Months of Installation & Commissioning.
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	30% on installation & Commissioning of Material.									
	10% after 6 Months of Installation & Commissioning.									
Installation, commissioning, configuration, Testing	90% on Installation & Commissioning									
	10% after 6 Months of Installation & Commissioning.									
2	<b>The Part-I (Tender Cost + EMD):</b>  Page No-1 of 2. <b>Tender Informations (Earnest Money, Tender Cost &amp; Qty.)</b>	The tender cost & EMD will have to be deposited on-line through RTGS/NEFT only in Account No. 3493639431 of SE, Head Quarter, PVVNL Meerut in Jail Chungi Branch Meerut of Central Bank of India having IFSC Code No. CBIN0282337. The Scanned copy of Pay in slip/UTR No., as a proof of depositing tender cost & EMD, must be uploaded on the e-procurement portal <a href="http://www.etender.up.nic.in">www.etender.up.nic.in</a> .	The tender cost & EMD will have to be deposited on-line through RTGS/NEFT only in Account No. 3493639431 of SE, Head Quarter, PVVNL Meerut in Jail Chungi Branch Meerut of Central Bank of India having IFSC Code No. CBIN0282337. The Scanned copy of Pay in slip/UTR No., as a proof of depositing tender cost & EMD, must be uploaded on the e-procurement portal <a href="http://www.etender.up.nic.in">www.etender.up.nic.in</a> . <b>Bidder can submit EMD in the form of Bank Guarantee from a Nationalized Bank in the favor of Managing Director, PVVNL, Meerut.</b> <b>Micro and Small industries are exempted from tender cost and EMD requirement subject to submission of sufficient evidence.</b>							
3	<b>Serial No – 1(i) Page No-1 of 7- Pre Qualifying Conditions</b>	The bidder should have successfully completed the turnkey/semi- turnkey work of the following nature in the last three financial year as prime contractor from the date of opening of bid part-1: - (i) Should have successfully erected and commissioned similar or higher rating work in a single turnkey/semi turnkey order, having minimum order value of 80% of the estimated cost of the present tender specification, or (ii) Should have successfully erected and commissioned similar or higher rating work in maximum two turnkey/semi turnkey order, having minimum order value of 50% each of the estimated cost of the present tender specification, or (iii) Should have successfully erected and commissioned similar or higher rating work in maximum three turnkey/semi turnkey order, having minimum order value of 40% each of the estimated cost of the present tender specification.	In the last 5 (five) Financial Years with aggregate project value of not less than INR [40% of the Estimated Project Cost]. However, the project cost of each Eligible Project shall not be less than INR [10% of the Estimated Project Cost];							

S. No	Reference Section	Existing Clause	Amended/New Clause
4	Serial No – 1(c) Page No-1 of 7- Pre Qualifying Conditions	The bidder should have provided the Facility Management services for HES driven pre-paid metering to at least 25,000 No. of Energy Metering nodes. Work order and completion certificates needs to be submitted by the bidder.	The bidder should have provided the Facility Management services for HES driven pre-paid metering to at least <b>10,000 No.</b> of Energy Metering nodes. Work order and completion certificates needs to be submitted by the bidder.
5	Serial No – 1(a) Page No-1 of 7- Pre Qualifying Conditions	The tenderers shall either themselves be manufacturers of the equipment offered or accredited representatives of such manufacturers in India or of their principals abroad with whom they may be having collaboration. Such accreditation should be at least of one year on date of tender.	The tenderers shall either themselves be manufacturers of the equipment offered or accredited representatives of such manufacturers in India or of their principals abroad with whom they may be having collaboration or IT System Integrators / Solution Providers with experience of executing similar projects. In case of accreditation should be at least of one year on date of tender.
6	Serial No – 24 Page No-3 of 5. Tender Specifications or Modalities of Carrying out the work	Performance Guarantee for the above project shall be 10% of contract value for the full contract period with additional 06-month claim period.	Performance Guarantee for the above project shall be <b>3%</b> of contract value for the full contract period with additional 06-month claim period.

**Bill of Quantities: -**

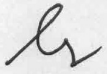
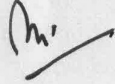
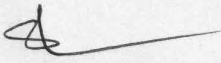
Sl. No.	BOQ Item	Description	Tendered Quantity (in Nos)
1	Supply of Co-ordination Bridge (DCU) for interfacing with Energy Meter, LT Panels.	Co-ordination bridge (CoB)/ DCU work is collect data from consumer meters. M2M gateway is connected to M2M gateway via RF network. A DCU/CoB should collect data of atleast 12 dual source dual register meters.	2500
2	Supply of Co-ordination Bridge (DCU) for interfacing with DGs.	Co-ordination bridge (CoB)/ DCU for DGs work is collect data from DG. M2M gateway is connected to M2M gateway via RF network. This DCU will also be in network with other DCU of consumer meters.	100
3	Supply of M2M Gateway for interfacing with COBs/DCUs over RF and Central HES	M2M gateway shall receive data from DCU and will send it to Backend server. One M2M gateway should at least collect data from 20 DCUs/CoBs.	150
4	Supply of RF Repeaters	RF repeaters are required where multistorey towers are situated at more than 40 to 50 meters. These are required to form a strong RF mesh network so that the entire mesh network is up all the time without any loss of data.	50
5	Supply of Intelligent 4G modem for collection of HT Energy meter data and transmission of data in real-time basis.	Intelligent 4G modem shall be installed on existing HT energy meter and modem will send this data to backend server for further processing. 4G modem shall be installed on HT meter of single point supply. This modem should be intelligent modems and should transfers the HT meters data to cloud every 90 seconds. Modem should also download full MRD once a day to provide data to PVVNL billing system for single point billing. Modem should be able for 15 minute interval energy audit to meet statutory compliance as per Hon'ble UPERC order.	50
6	Supply of Three Phase, four wire, whole current (10-60amp) Dual source dual register 2-way communicable electronic energy meter (Accuracy class - 1).	Three Phase, four wire, whole current (10-60amp) Dual source dual register 2-way communicable electronic energy meter complying to relevant IS.	25000
7	Installation, commissioning, configuration, Testing of Co-ordination Bridge for Energy Meters &		2500



Sl. No.	BOQ Item	Description	Tendered Quantity (in Nos)
	LT Panels including cables & accessories to make the installation complete in all respect.		
8	Installation, commissioning, configuration, Testing of Co-ordination Bridge for DGs including cables & accessories to make the installation complete in all respect.		100
9	Installation, commissioning, configuration, Testing of M2M gateway interfacing with Co-ordination Bridge over RF and Central HES including cables & accessories to make the installation complete in all respect.		150
10	Installation, commissioning, configuration, Testing of RF Repeaters including cables & accessories to make the installation complete in all respect.		50
11	Installation, commissioning, configuration, Testing of Intelligent 4G modem including cables & accessories to make the installation complete in all respect.		50
12	Installation & Commissioning three Phase, four wire, whole current (10-60amp) Dual source dual register 2 way communicable electronic energy meter including all accessory like cable, wires etc to make the installation complete in all respect.		25000
13	<p><b>Facility Management Services (Monthly Charges to be Quoted i.e., Per Consumer/Month)</b></p> <p>It includes day to day Maintenance of above metering system viz SIM Charges, Token generation for recharge of above prepaid meter, keeping the meters functional, sending meter data to the Billing system of PUVNL through MDAS &amp; MDMS, energy accounting &amp; auditing, generation of reports as per the requirement, all backend operations, including all licenses etc.</p>	<p>Cloud plays an important role in backend &amp; hosting of billing application.</p> <p><b>Cloud Platform: -</b></p> <p>Cloud platform should comprise of the following:</p> <ol style="list-style-type: none"> <li>1. Dual HES- one HES working to fetch Grid data, another HES to fetch DG data. Also, Dual HES releases independent command for independent disconnection/reconnection of meter in case of GRID balance/ DG balance and different load setting.</li> <li>2. Dual MDM- one for Grid data and another for DG data.</li> <li>3. Dual prepaid billing engine</li> <li>4. VCAM engine</li> <li>5. Data Ingestion platform</li> </ol>	25000



Sl. No.	BOQ Item	Description	Tendered Quantity (in Nos)
		6. Operational support services (OSS) engine and Business support services (BSS) engine. 7. VEE engine 8. AAA and data security 9. Protocol layer adaptation 10. North bound and South bound APIs  <u>Mobile App: -</u> 1. Consumer engagement 2. Realtime update 3. Energy consumption insight 4. Notification services 5. Real time balance update 6. Payment gateway integration 7. Bill download 8. Other useful information for the customers	

## Technical Specifications

This section provides the broad technical specs of different components to meet the desired functional requirement from the solution. The offered components of AMI system should meet the guaranteed technical particulars mentioned herein. In case the particulars mentioned here are not achievable in available products, the same shall be specifically brought to the notice of PVVNL for review and approval of the alternate product / particulars.

### Gateway

Monitors and collects data, from the individual Data Coordination Bridge monitoring the energy meters through appropriate communication cables (RS485/RS232/Optical Probe) interfaces, supported by desired rule engines. The gateway should directly communicate with the cloud-based backend platform using a GPRS based secured private APN.

Specification General	Details
<b>General</b>	
Communication in different configuration	RS 485/ RS232 for Neighbourhood Area Network (NAN) side and 4G fallback to 2G on WAN side for communication with DCP. NAN is a network comprising of group of meters / nodes or any other network elements or all of which that communicates in a two-way mode.
Baud Rate	Capable to communicate with the meters as per meter's standard communication baud rates.
Firmware Upgrade	Firmware Over The Air (FOTA), all the controller are FOTA enabled and there should be no requirement to physically change or upgrade the firmware
Parameter Upgrade	Over The Air. All the threshold parameters are configurable from backend over the air
Outage Detection	Able to detect power outage and issue notification to Head-End System.
RTC	Yes
GPS	Yes
Tamper	Issues immediate alert on opening of casing
Casing	A compact housing of polycarbonate / engineering plastic / Metallic enclosure having IP55 degree of protection.
Power Consumption	<= 5 Watts
Operating Voltage	90V AC to 440V AC P-P& P-N, 50 Hz with a variance of upto 5%.
Rated impulse withstand voltage / Surge	10kV

Power Backup	Internal backup for minimum 6 Hour. The device updates the backend platform about its supply with time stamp.
Operating Conditions	-20° to 70° C, Humidity: - 95% RH (Non - Condensing)
Operational Indicator	The Gateway has separate LED indications for transmit data, for receive data, AC power and Power ON, etc. to indicate Power on state and to indicate the availability of signal at the place of installation.
SIM	Supports Dual SIM (4G fallback 2G)
Management Port	Serial Port
NAN Interface Port	1COM ports
Network Security	128 Bit AES and private APN on WAN with static IP allocation on DCU
Edge Intelligence	Pre-defined exceptions to be handled at per delegated intelligence to the Gateway
Enclosure Material	Material is of unbreakable fire retardant and high-quality polycarbonate as approved by the purchaser. Resistant to action of chemical alkalis and other solvents. IP 55.
Name Plate and Marking	Name plate format and details shall be approved by client. The following data can be bar-coded/printer/sticker on the outer casing: <ul style="list-style-type: none"> <li>- Manufacturer Name</li> <li>- Serial Number</li> <li>- Manufacturing Date (mm/yyyy)</li> </ul> Property of Client
<b>4G Parameters</b>	
Operating band	Dual Band modem capable of operating at 900 and 1800 MHz
Transmission Mode	Support Data transmission. Has fall back option of GPRS & EDGE.
Power	Maximum Power Output is 2 W at 900 MHz (Class 4) and 1W at 1800 MHz (Class 1). V A Burden of the Modem should not exceed 3.5 VA during data communication.
Sensitivity	< -100 dBm
Data Features	Supports setting of modem over the air and also standard AT Command set for local settings
Antenna	External antenna is a flexible antenna with proper mounting arrangements.




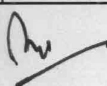
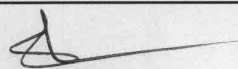
### Data Coordination Bridge (DCU)

Specification	Details
<b>General</b>	
Communication in different configuration	865 MHz wireless for Neighbourhood Area Network (NAN) side and RS485 based wired network on meter side for communication with smart meter and other smart sensor which makes non-smart meter to smart. NAN is a network comprising of group of Bridge devices. Each bridge device in turn collect data from meters attached on RS 485 bus.
Baud Rate	Capable to communicate with the meters as per meter's standard communication baud rates.
Firmware Upgrade	Firmware Over The Air (FOTA), all the controller are FOTA enabled and there should be no requirement to physically change or upgrade the firmware
Parameter Upgrade	Over The Air. All the threshold parameters (i.e load management) are configurable from backend over the air
Source sensing	Able to receive source info. And output to downside meters for correct source info (DG/GRID). Keep accounting of source at different level like associated meters with respect to current source.
RTC	Yes
GRS	NO
Number of meters	Supports aggregation of up to 12 meters
Tamper	Issues immediate alert on opening of casing
Casing	A compact housing of polycarbonate / engineering plastic / Metallic enclosure having IP55 degree of protection.
Power Consumption	<= 5 Watts
Operating Voltage	90V AC to 280V AC P-N, 50 Hz with a variance of upto 5%.
Rated impulse withstand voltage / Surge	10kV
Power Backup	No power backup
Operating Conditions	-20° to 70° C, Humidity: - 95% RH (Non - Condensing)

Specification	Details
Operational Indicator	LED for NAN communication (RF), Power and meter side communication
<b>RF Module</b>	
Management Port	RF Based UART
NAN Interface Port	RF
Network Security	128 Bit AES.
Edge Intelligence	Pre-defined exceptions to be handled at per delegated intelligence to the Bridge
Mounting Arrangement	Panel and wall mounting option
Enclosure Material	Material is of unbreakable fire retardant and high-quality polycarbonate as approved by the purchaser. Resistant to action of chemical alkalis and other solvents. IP 55.
Antenna	External antenna

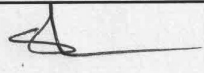
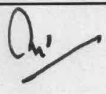
## **RF Repeater**

Specification	Details
General	RF-Repeater
Communication in different configuration	RF
Firmware Upgrade	Firmware Over The Air (FOTA), all the controller are FOTA enabled and there should be no requirement to physically change or upgrade the firmware
Operation Voltage	90V AC to 240V AC P-N, 50 Hz with a variance of upto 5%.
Rated impulse withstand voltage/surge	6.5kV
Power Backup	No backup
Operating Conditions	-20° to 70° C, Humidity: - 95% RH (Non - Condensing)
Name plate and marking	The following data is printed/sticker on the top cover of RF-Repeater: Model number/type, PO, PO date, unit serial no., Manufacturer name and address, ID. (ID is barcoded)

### DG Coordination Bridge

Specification	Details
<b>General</b>	
Communication in different configuration	Downside-DI(wired connection with DG), Upside RF(communication with coordination bridge)
Firmware Upgrade	Firmware Over The Air (FOTA), all the controller are FOTA enabled and there should be no requirement to physically change or upgrade the firmware
Operation Voltage	90V AC to 240V AC P-N, 50 Hz with a variance of upto 5%.(3 phase 4 wire for future update)
Rated impulse withstand voltage/surge	6.5kV
Operating Conditions	-20° to 70° C, Humidity: - 95% RH (Non - Condensing)
Network Security	128 Bit AES
Name plate and marking	The following data is printed/sticker on the top cover of DG-coordination bridge: Model number/type, PO, PO date, unit serial no., Manufacturer name and address, ID. (ID is barcoded)





**Reference Specification for meter vendor empanelment for 3 PHASE, 4 WIRE A.C. STATIC  
WHOLE CURRENT CLASS 1.0 ELECTRONIC ENERGY METER SUITABLE FOR DUAL  
SOURCE**

S. No.	Particulars	Required Specification
1	Maker's Name	
2	Make	
3	Type of Meter/Design designation	Three Phase Four Wire Static WC Energy Meter (Suitable for Dual Source)
4.	State the year since the design is in vogue	
5	Standard to which meters conforms	IS 13779, IS 15959 latest amendment
6	Class of accuracy	1.0
7	Rated Current (Amp)	10 Amps
8	Rated Maximum current as percentage of basic current	600% of Basic Current
9	Rated voltage (volts)	3 X 240 V – Phase to Neutral 415 V – Phase to Phase
10	Rated frequency (Hz)	50 Hz. $\pm 5\%$
11	Specified operating voltage range	0.8 to 1.1 V ref.
12	Limit voltage range of operation	0.7 to 1.2 V ref.
13	Reference temperature	27°C
14	Temperature range of operation a) Specified operation range b) Limit range of operation c) Limit range for storage and transport	As per the relevant standard
15	Relative humidity a) Annual mean b) For 30 days these days being spread in a natural manner over the years. c) Occasionally on other days	As per the relevant standard
16	Power consumption (a) Power consumption in voltage circuit at rated current a. Active in watts b. Apparent in VA. b) Power consumption in current (in VA) at rated current	Not more than 1 W Not more than 4VA  Not more than 0.5VA
17	Current that meter is capable of carrying continuously without injury to the meter (Amp.)	60 Amps
18	Short time over current capability of the meter	30 I <sub>max</sub> for one half cycles at rated frequency as per IS 13779:99

S. No.	Particulars	Required Specification																														
19	Percentage minimum current which shall start the meter and continue to run thereafter at rated voltage and unit power factor of basic current (% of basic current)	0.2% of basic current at UPF																														
20	Type of material along with its thickness or dimensions (in mm.) and details of the important components parts of the meter a) Case b) Terminals covers c) Terminals	Drawing should be submitted by the bidder																														
21	a) Size of terminals holes (in mm.) b) Whether Display Character Height, specify Height in mm.	8.5mm (minimum) 10 mm (minimum)																														
22	a) Whether carrying handle is provided. b) Arrangement to read the meter in Power Off mode.	Provision should be available																														
23	Meter constant (if any)																															
24	Tamper & Fraud Protection details	<p>Threshold for tamper events are as follows:</p> <p><b>Missing Potential</b></p> <table border="1"> <tr> <th>Event</th><th>Occurrence</th><th>Restoration</th></tr> <tr> <td>Voltage in Tampered Phase</td><td>&lt;55% Vref</td><td>&gt;55% Vref</td></tr> </table> <p><b>Over Voltage</b></p> <table border="1"> <tr> <th>Event</th><th>Occurrence</th><th>Restoration</th></tr> <tr> <td>Voltage in any Phase</td><td>115% Vref &lt; Vph &lt; 150% Vref</td><td>&lt;115% Vref (all 3 phases)</td></tr> </table> <p><b>Low Voltage</b></p> <table border="1"> <tr> <th>Event</th><th>Occurrence</th><th>Restoration</th></tr> <tr> <td>Voltage in any Phase</td><td>55% Vref &lt; Vph &lt; 75% Vref</td><td>Vph &lt; 55% OR Vph &gt; 75% Vref (all 3 phases)</td></tr> </table> <p><b>Voltage Unbalance</b></p> <table border="1"> <tr> <th>Event</th><th>Occurrence</th><th>Restoration</th></tr> <tr> <td>Diff. between phase voltages</td><td>&gt;30% of Vref</td><td>&lt;30% of Vref</td></tr> </table> <p><b>CT Reverse</b></p> <table border="1"> <tr> <th>Event</th><th>Occurrence</th><th>Restoration</th></tr> <tr> <td>Current in Tampered Phase</td><td>&gt;10% Ib (in Rev direction)</td><td>&gt;10% Ib (in forward)</td></tr> </table>	Event	Occurrence	Restoration	Voltage in Tampered Phase	<55% Vref	>55% Vref	Event	Occurrence	Restoration	Voltage in any Phase	115% Vref < Vph < 150% Vref	<115% Vref (all 3 phases)	Event	Occurrence	Restoration	Voltage in any Phase	55% Vref < Vph < 75% Vref	Vph < 55% OR Vph > 75% Vref (all 3 phases)	Event	Occurrence	Restoration	Diff. between phase voltages	>30% of Vref	<30% of Vref	Event	Occurrence	Restoration	Current in Tampered Phase	>10% Ib (in Rev direction)	>10% Ib (in forward)
Event	Occurrence	Restoration																														
Voltage in Tampered Phase	<55% Vref	>55% Vref																														
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Diff. between phase voltages	>30% of Vref	<30% of Vref																														
Event	Occurrence	Restoration																														
Current in Tampered Phase	>10% Ib (in Rev direction)	>10% Ib (in forward)																														

		direction)
Voltage in tampered Phase	>55% Vref	>55% Vref
Power Factor in tampered phase	>0.5	>0.5

#### CT Open

Event	Occurrence	Restoration
Current in Tampered Phase	<2% Ib	>2% Ib
Vector Sum	>15% Ib	OR <15% Ib
Voltage in tampered Phase	>55% Vref	>55% Vref
No Current Reversal in any Phase		

#### CT By-Pass

Event	Occurrence	Restoration
Current in All Phases	>2% of Ib	<15% Ib OR any Iph <2% of Ib
Vector Sum	>15% Ib	Ib
No Current Reversal in any Phase		

#### Current Unbalance

Event	Occurrence	Restoration
Diff. between phases current	>30% of Ib	<30% of Ib
Current at least in any phase	Ignore	>30% of Ib

#### Over Current in any Phase

Event	Occurrence	Restoration
Current in any phase	>120% of I <sub>max</sub>	<120% of I <sub>max</sub> (in all 3 phases)

#### Neutral Disturbance

Event	Occurrence	Restoration
If meter Voltage in any phase	>1.5 of times Vref	<1.5 of times Vref (in all 3 phases)

Meter log the cover open tamper event immediately once meter cover is opened.

Meter is provided as per stipulation of latest CBIP-325 for abnormal magnetic field

- 25
- a) Display type
  - b) No. of digits in display

LCD with Backlit  
7 Minimum




S. No.	Particulars	Required Specification
26	I. Display sequence in Push and Auto Mode II. Specify other parameters/qty. which may be available on display without any extra cost.	To be annexed by bidder.
27	Instantaneous and Billing parameter Display and record in meter memory.	Meter should be capable of measuring and storing the data as per DLMS
28	(a) Specify, tamper data available on the display of the meter (b) Specify tamper data available through CMRI (c) Whether optical port is compatible with different make CMRI or not	a) Type of tamper with occurrence and restoration time b) On FIFO Basis c) SANDS/ANALOGIC
29	Details of internal diagnostic available (a) On display, if any (b) On memory	
30	Sealing arrangement (specify) Whether sealing at the following has been provided :- (a) Body of the meter (b) Terminal cover of the meter (c) Sealing arrangement to be scroll push button. (d) Optical Port	2 Nos. seals Provided on meter Body Provision of 2 No. seal on Terminal Cover Not Required  Provision of 1 No. seal on meter optical port
31	Overall dimensions of the meter (with tolerance) (a) Height (mm) (b) Width (mm) (c) Depth (mm)	Drawing should be submitted by the bidder
32	Total weight of the meter (kg.) with Tolerance	

S. No.	Particulars	Required Specification																		
33	<p>State whether –</p> <p>(a) Load survey capabilities of minimum 45 days have been provided as per clause relevant technical specification.</p> <p>(b) Time of day zones</p>	<p>Load survey capabilities for KWh, KVAh, KVArh lag &amp; Lead, Avg voltage phase wise, Avg Current phase wise, Avg PF phase wise with half hour slot for both Mains &amp; DG for minimum 45 Days</p> <p>TOD Zone provided as below &amp; same are programmable</p> <table><tr><th>Time slots</th><th>Hours of Day</th></tr><tr><td>1</td><td>17-18</td></tr><tr><td>2</td><td>18-22</td></tr><tr><td>3</td><td>22-23</td></tr><tr><td>4</td><td>23-05</td></tr><tr><td>5</td><td>05-06</td></tr><tr><td>6</td><td>06-08</td></tr><tr><td>7</td><td>08-11</td></tr><tr><td>8</td><td>11-17</td></tr></table>	Time slots	Hours of Day	1	17-18	2	18-22	3	22-23	4	23-05	5	05-06	6	06-08	7	08-11	8	11-17
Time slots	Hours of Day																			
1	17-18																			
2	18-22																			
3	22-23																			
4	23-05																			
5	05-06																			
6	06-08																			
7	08-11																			
8	11-17																			
34	Whether hand held unit is able to download data to base computer software at PC end																			
35	Communication Capability	Provided Optical & RS 485																		
36	Billing Data	Data for Min. Last 12 billing resets available for both Mains & DG																		
37	MD Registration	<p>a) MD IP – 30 min</p> <p>b) MD reset available with programmable reset date</p>																		
38	Meter is provided with internal Relay for connection/disconnection for both sources (Grid/DG)	In all 3 phases																		

### **Clarifications: -**

<b>Existing Clause</b>	<b>Clarification</b>
The tenderers shall either themselves be manufacturers of the equipment offered or accredited representatives of such manufacturers in India or of their principals abroad with whom they may be having collaboration. Such accreditation should be at least of one year on date of tender.	Consortium is not allowed as per RFP.
The energy meters shall only be purchased from the vendors approved by PVVNL. Service provider must get approval of GTP of Meter & hardware and various test & type test of meter from each lot is to be carried out at one of the Third-Party Govt. Lab decided by the Discom on the cost of supplier/Service provider.	The selected Bidder have to get GTP and Vendor approved from PVVNL. Documents required for it are standard documents as technical specification, Drawing, Past supply experience, Manufacturing details, Type test reports as per IS etc.

**Note:- All other Terms and Conditions will remain same.**

  
अधीक्षण अभियन्ता (आईटीआई)

कृते प्रबन्ध निदेशक

