

S.no	Section	Page No.	Clause No.	Existing Clause	Amendment
1	Section I	10	Clause No. 1	Qualification Criteria	Bidders are requested to refer amended Qualification criteria.
2	Section-I (Request for Quotation)	11	2.0 Technical	Bidder should have NABL accredited labs.	Amended as International Bidders are allowed to submit accreditation within 6 months from Award. For any supplies prior to NABL accreditation, the bidder shall conduct testing at BSES approved NABL accredited labs.
3	Section-I (Request for Quotation)	12	2.0 Bids are invited from Smart Meter OEM's who meet the following criteria	Note : 3. Any bidder from countries sharing a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority. The Competent Authority for registration will be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIT), Political and security clearance from the Ministries of External and Home Affairs respectively will be mandatory.	Amended as 3. Sole bidder, lead bidder and Consortium members , from countries sharing a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority. The Competent Authority for registration will be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIT), Political and security clearance from the Ministries of External and Home Affairs respectively will be mandatory.
4	Section I	12	2.0 Bids are invited from Smart Meter OEM's who meet the following criteria	2. Bidder shall have maximum of 3 Months from LOI to obtain BIS certificate for the offered smart meters. However bidder shall submit sample meters along with single Type test certificate (from NABL accredited lab) with Bid.	Amended as 2. Bidder shall have maximum of 3 Months from LOI to obtain BIS certificate for the offered smart meters. However bidders not having BIS may submit sample meters with the Bid as per IS/IEC standards along with single Type test certificate.
5	SECTION-II (Instruction to Bidders)	20	10.0 EMD	BRPL – 9 Cr.	Amended as BYPL – For bidders offering both RF & Cellular - Rs 7.5 Cr. For bidder offering Cellular - Rs 5 Cr For bidder offering RF - Rs 2.5 Cr Schedule II & IV- LTCT DT, LTCT, HT meters & PLC/Hybrid, New technologies - 10 Lakh
6	Section II	21	11 Bid Price	Bidders shall quote for the entire Scope of Supply/Work with a break-up of prices for individual Items and Taxes & Duties as per price format (Section -VII)	Amended as Bidders shall quote for Scope of Supply/Work with a break-up of prices for individual Items and Taxes & Duties as per price format (Section -VII) .
7	Section II	26	26) vi Contractual	26) vi Splitting of Order on discretion	Added in as BSES reserves the right to split the tender quantity amongst techno commercially qualified bidders on account of delivery requirement in tender, quantity under procurement etc. Splitting of indicative tender quantity but not limited to, amongst prospective bidders, on condition of matching L1 price, shall be as below: In case of three bidders 60: 25:15 In case of four bidders 50: 25:15 :10 Any further preposition in this regard will be considered suitably by BSES
8	Section III	35	7	The Supplier shall, upon Delivery to the Store/Site store, be responsible for unloading, handling and storage of Goods including expediting, receiving, inspection and documentation. The Supplier shall warehouse or otherwise provide appropriate storage at Site store, if required (in accordance with manufacturers' recommendations and taking into account climatic and other relevant conditions at the warehousing Site) for all Goods/Equipment. All Goods / Equipment's shall be (i) stored at appropriate location approved in advance by Purchaser, and (i) properly tagged and identified for segregated from other goods. The Supplier shall arrange and be responsible for security of all the Goods / Equipment's to be incorporated in or forming part of the facilities and tools, tackles spares and other items, which are required to be delivered to the Purchaser under the Contract III acceptance of such items, as the case may be, by the Purchaser.	Clarified as 1. Bidder shall supply the smart meter and accessories at BRPL designated stores. 2. Bidder shall collect defective smart meters and accessories from BRPL designated stores. 3. RF & PLC solution providers will manage inventory at BRPL designated store along with other activities like transportation, storage etc. for the contract period as per scope of work mentioned in RFP (including replacement & transportation of defective meter at BRPL designated store) and SOP of BSES.
9	Section – III (General Terms and Conditions)	37	13.0 Warranty/Defects Liability Period	13.0 Warranty/Defects Liability Period :- The bidder to guarantee the Smart Meter with Box supplied against any defect / failure, which arise due to faulty materials, workmanship or design for the entire defects liability period. The Defect liability period shall be 120 months from the date of commissioning or 126 months from the last date of delivery whichever is earlier.	Clarified as The bidder to guarantee all equipment supplied such as Smart Meter with Box, gateway, routers, accessories etc. shall guarantee against any defect / failure, which arise due to faulty materials, workmanship or design for the entire defects liability period. The guarantee period shall be 120 months from the date of commissioning or 126 months from the date of supply of material.
10	Section III	40	24.2 Force Majeure	Specific Events of Force Majeure subject to the provisions of above clause, Events of Force Majeure shall include only the following to the extent that they or their consequences satisfy the above requirements : i. The following events and circumstances: a. Effect of any natural element or other acts of God, including but not limited to storm, flood, earthquake, lightning, cyclone, landslides or other natural disasters. b. Explosions or fire ii. War declared by the Government of India, iii. Dangers of navigation, perils of the sea.	Added as Electricity being the essential services, the relaxation of Pandemic , as sought , may not be considered as it is. Whereas in special circumstances relaxation can be given on need basis and upon submission of evidence to this regard.
11	Section III	45	32.1 32.0 Termination for Purchaser Convenience	32.1 The Purchaser may terminate this contract for its convenience at any time upon providing five (5) days written notice to the supplier. In such case, the supplier shall be entitled to receive as full compensation for all obligation performed under the Contract prior to the date of termination, together with all retain age withheld in accordance with this Contract.	Amended as 32.1 The Purchaser may terminate this contract for its convenience at any time upon providing Ninety (90) days written notice to the supplier. In such case, the supplier shall be entitled to receive as full compensation for all obligation performed under the Contract prior to the date of termination, together with all retain age withheld in accordance with this Contract. The bidder shall be liable for smooth operation and deliveries as per contractual scope during such notice period as per the contract. BSES reserves the right to accept or reject supply during such notice period
12	Section III	46	34.0 Documentation	34.1 The Bidder's shall procure all equipment & components of meter and associated accessories from BRPL approved sources as per attached specifications. The Bidder's shall submit 5 copies copy of Material/Type Test Certificates, O&M Manuals and GTP etc.	Amended as 34.1 The Bidder's shall procure all equipment & components of meter and associated accessories from BRPL approved sources as per attached specifications. The Bidder's shall submit soft copies/hard copies of Material/Type Test Certificates, O&M Manuals and GTP etc.

S.no	Section	Page No.	Clause No.	Existing Clause	Amendment
13	Section III	55	48	54.1 If, in the course of performance of its functions and duties as envisaged by the scope of the present GCC, the Bidder acquires or develops, any unique knowledge or information which would be covered, or, is likely to be covered within the definition of a trademark, copyright, patent, business secret, geographical indication or any other form of intellectual property right, it shall be obliged, under the terms of this present GCC, to share such knowledge or information with the BRPL. All rights, with respect to, or arising from such intellectual property, as afore mentioned, shall solely vest in BRPL.	Added as The original source code of the product software delivered by OEM/Service Provider under the agreement shall be the proprietary of the OEM/Service Provider, whereas OEM/Service Provider shall at all times be liable to provide all assistance to BSES using the said source code, without any additional cost, irrespective to the validity of the agreement. Whereas in case of change in management of OEM/Service Provider or any corporate event including the liquidation and insolvency, it shall be the responsibility of OEM/Service Provider to transfer the original source code to BSES before such corporate event and BSES shall have charge over the same in such circumstances. It is however clarified that all further development and customization after the delivery of base product by OEM/Service Provider to BSES under the agreement, which includes the code (customized code) for the customized version of the product shall be the proprietary of BSES and BSES shall be free to use the same in any manner whatsoever. The product OEMs shall also share the Product roadmap for the currency of project
14	Section V	67	5.0 Terms of Payment and Billing	--	Added as For OPTION - I BSES reserve the right to suitably consider Stand by irrevocable letter of credit incase upto 50K smart meters has been supplied & payment is pending for more then 3 months. For OPTION - II BSES at its cost will consider to open standby irrevocable letter of credit for the amount of 3 months dues. The successful bidder will also have pari passu or exclusive share on Metering assets supplied by Bidder.
15	Section – V (Special Conditions of Contract)	72	Operation and Maintenance Support Service Charges – Part C	Applicable for RF Solution only (Schedule III and Schedule IV) (i) AMC/ATS for deployed Systems on cloud DC/-R - RF Head End/Network & Management application and integration interfaces	Clarified as AMC/ATS for deployed Systems on cloud DC/DR should be read as AMC/ATS for deployed Systems on cloud and contract
16	Section VI	84	4. Detailed Scope of Work	4.1 BRP Intend for implementation of Smart metering system across the license area in phased manner over Cellular (4G/NB IOT) and RF communication technology under Hybrid deployment.	Amended as 4.1 BRPL intend for implementation of Smart metering system across the license area in phased manner as per field requirement over Cellular (4G/NB IOT) and/or RF communication technology under Hybrid deployment.
17	Section VI	85	4.1 Detailed Scope of Work	Note # 1: Cloud Infrastructure (Both DC & DR) for deployment of applications and data storage, shall be provided by BRPL	Clarified as Yes, Cloud Infrastructure (Both DC & DR) for deployment of applications and data storage, shall be provided by BRPL BRPL will provide the IT infra, however the RF solution bidder shall have to deploy the HES on cloud and integrate with back end UHES/MDMS and maintain for the contract period. Integration of RF HES/ NMS with UHES / MDMS shall be in the scope of Bidder and RF Solution provider.
18	Section VI	85	4.1 Detailed Scope of Work	BSES intend for implementation of Smart metering system across the license area in phased manner over Cellular (4G/NB IOT) and RF communication technology under Hybrid deployment	Amended as In case of cellular Communication, NIC module shall be either 4G OR NB-IOT. It will responsibility of Bidder to ensure that the offered technology (any of 4G OR NB-IOT) can be deployed effectively.
19	Section VI	88	4.4.11 Bidder's Responsibilities and Obligations	Bidder to submit it's after sale service support plan and escalation matrix in order to meet contractual obligations and performance guidelines. Bidder should have service office with testing facility preferably with complete development facility in Delhi NCR within 60 days of award of contract.	Amended as Bidder to submit it's after sale service support plan and escalation matrix in order to meet contractual obligations and performance guidelines. Bidder should have service office with testing facility preferably with complete development facility in Delhi NCR within 90 days of award of contract.
20	Section VI	88	4.4.26 Bidder's Responsibilities and Obligations	III. Handover all security keys of meters	Amended as Meter manufacturer shall ensure to have separate key & passwords for all supplied meter. Key & Password details shall be provided with factory file (In BSES prescribed format) at the time supply of meter to authorised BSES Representative
21	Section VI – Technical Specification and Scope of Work	95	6.5 Data Polling Frequency (configurable) from Different Type of Meters	Table 8 – Proposed Data Polling Frequency Instantaneous Hourly	Amended as Proposed Instantaneous data polling frequency of 15 minutes (configurable) .
22	Section VI	102	45.2.2 Technical Specification and Scope of Work	Bidder shall select most optimum locations with reliable power connection for Gateways/Routers/Access Points to ensure maximum signal strength. The entire infrastructure like poles & associated civil works required for installation & commission of equipment/devices like repeaters, routers & access points shall be in the scope of Bidder.	Amended as The entire infrastructure like poles & associated civil works required for installation & commission of equipment/devices like repeaters, routers & access points shall be excluded from the scope of Bidder.
23	Section VI	103	12.4.1 Service Level Agreement	Penalty for Firmware Support: 5% of meter cost per week beyond 30 days. Maximum penalty will not increase more than 1% of the total PO/contract value	Amended as Penalty for Firmware Support: 5% of affected meter cost per week beyond 30 days. Maximum penalty will not increase more than 1% of the total PO/contract value
24	Section VI Appendix 1	109	14.2 Communication Network Planning	14.3.2 The backend system of RF Mesh Communication Network Infrastructure (HES/NMS) shall support integration through APIs to exchange data with UHES /MDMS/ Billing system and other AMI applications, Billing, GIS, Dashboard & Reporting Applications etc. The data exchange models and interfaces shall comply with CIM/XML/ IEC 61968/62056.	Amended as 14.3.2 The backend system of RF Mesh Communication Network Infrastructure (HES/NMS) shall support integration through APIs to exchange data with UHES/MDMS. The data exchange models and interfaces shall comply with CIM/XML/ IEC 61968/62056.
25	Section VI Appendix 1	123	Clause no. 14.19	SLAs for RF/ PLC deployment	Corrected as Corrected SLAs attached as Appendix 9
26	Section VI Appendix 2 & 3	135 & 191	15.6.10 & 16.6.10 Battery	d. Bidder to inform if supercap can support RTC for minimum 1 hour in case power failure. If power failure is more than 1 hour then RTC shall be synced once the power is restored.	Amended as d. Meter should have two separate battery .One for RTC and one for back up. Incase battery voltage reduced below threshold value then need to generate alert Supercap is needed for last gasp
27	Section VI Appendix 2	139-140	15.5.2	Power Consumption: Power consumption of Smart meter should not exceed 4.5W & 9VA in voltage circuit during idle or transmission mode. Bidders with low power consumption will be preferred.	Amended as Power Consumption: Power consumption for Meter should be as per IS:16444 (with latest amendment)
28	Section VI Appendix 2	141	15.6.5 Terminal cover	f. Baffle wall shall be provided above the cable entry base wall so that access to the terminals is not possible (even with thin metallic wire) without breaking the seal.	Amended as f. Baffle wall/ Barrier plate shall be provided above the cable entry base wall so that access to the terminals is not possible (even with thin metallic wire) without breaking the seal.
29	Section VI Appendix 2	144-145	15.6.14	Performance requirement for load switching: a. Utilization category of the load switch shall be UC2 as per clause no. 4.6.6.2 of IS 15884.	Amended as Performance requirement for load switching: a. Utilization category of the load switch shall be UC1 as per clause no. 4.6.6.2 of IS 15884 and IS:16444 (Part 1)

S.no	Section	Page No.	Clause No.	Existing Clause	Amendment
30	Section VI Appendix 2	145	15.6.22	Not available in RFP	Added as e. NIC firmware version shall be available in name plate read out profile in addition to parameters mentioned in table A26 of IS:15959
31	Section VI	146	15.6.16	Communication Module Interface(NIC) : h. Meter should be communicable using battery operated Bluetooth external device whenever pre-fitted on optical.	Clause deleted
32	Section VI Appendix 2	148	15.7.6 Instantaneous Parameters:	All the parameters mentioned in table 'A1' of IS 15959 (Part 2) along with following additional parameters shall be supported by meter: a. RF Mesh/Cellular signal Strength b. Displacement PF. c. GPS coordinates (only for cellular NIC). d. Temperature in Deg C. e. kVArh f. kVAh g. Smart meter shall provide instantaneous phase wise parameters for date and time as scheduled remotely or locally. Five nos. of such reading should be stored in FIFO manner	Amended as All the parameters mentioned in table 'A1' of IS 15959 (Part 2) along with following additional parameters shall be supported by meter: a. RF Mesh/Cellular signal Strength b. Displacement PF (Fundamental PF). c. Temperature in Deg C. d. kVArh (Lag & Lead) e. kVAh f. Smart meter shall provide instantaneous phase wise parameters for date and time as scheduled remotely or locally. Five nos. of such reading should be stored in FIFO manner
33	Section VI Appendix 2	149	15.7.7	Association rights: As per clause 11.1.1, 14, 22.2of IS 15959 (Part 2). Each event shall be available to download as per following association rights. i. Public Client: No access ii. Meter Reader: Read only iii. utility Settings: Read only Push Services: Read Only for identified events as per ESWF	Amended as Utility setting - read and write only as per BSES Specification. Write command shall be executed only after proper authorization and audit trail shall be recorded with date and time stamp and shall be push back to backend
34	Section VI Appendix 2	149	15.7.13 Load Survey parameter	a. Load survey parameters shall be measured and recorded at the end of each profile capture period for last 35 Power ON days for 4 parameters. b. All the parameters mentioned in table 'A15' of IS 15959 (Part 2) shall be supported by meter	Amended as a. Load survey parameters shall be measured and recorded at the end of each profile capture period for last 35 Power ON days. b. All the parameters mentioned in table 'A2' of IS 15959 (Part 2) shall be supported by meter along with following additional parameters: I. Average Neutral Current ii. Average PF iii. Block kVArh- Q1* iv. Block kVArh- Q2* v. Block kVArh- Q3* vi. Block kVArh- Q4* Parameter mentioned on 'V' and 'VI' will be applicable in bidirectional mode only. c. Temperature: The meter should have capability to measure meter temperature and can log high temperature events if it is more than 60 deg C with date and time. d. Load survey: Load survey for min 35 days for voltage, phase and Neutral current, active, apparent energy, reactive lag and lead energy, active, apparent and reactive load, power factor, temperature. e. Power off duration in integration period Cumulative power interruption count in all history data * Meter should support these parameter for future requirement. These parameters can be configured through firmware upgrade during project duration.
35	Section VI Appendix 2	149	15.7.15	Daily load profile Daily load profile parameters shall be measured and recorded at each midnight i.e. 00.00 hrs for last 35 Power ON days. Provision for TOD parameters (8) for kWh, kVAh in both import and export mode All the parameters mentioned in table 'A16' of IS 15959 (Part 2) shall be supported by meter as Daily load profile parameters	Amended as Daily load profile parameters shall be measured and recorded at each midnight i.e. 00:00 hrs. for last 35 Power ON days. All the parameters mentioned in table 'A3' of IS 15959 (Part 2) shall be supported by meter as Daily load profile parameters along with following additional parameters: a. Cumulative kVArh- Q1* b. Cumulative kVArh- Q2* c. Cumulative kVArh- Q3* d. Cumulative kVArh- Q4* e. MD KW with date and time f. MD KVA with date and time Parameter mentioned on 'c; and 'd' will be applicable in bidirectional mode only. Provision for TOD parameters (8) for kWh, kVAh in both import and export mode Mid night data: The meter should record midnight Cumulative kWh, kVAh and Kara (lag & lead) reading for last min 35 days * Meter should support these parameter for future requirement. These parameters can be configured through firmware upgrade

S.no	Section	Page No.	Clause No.	Existing Clause	Amendment
36	Section VI Appendix 2 & 3	150 & 199	15.7.17 & 16.7.18 Push Services	a. Smart meter is able to automatically notify data, event, and b. Randomization: Data from different endpoints shall be pushed c. It shall also be possible to configure push services for all profiles i. Load survey profile data at after every 4 hours configurable ii. Mid night data at 00:00 hrs. of every day. iii. Billing profile data on occurrence of billing.	Amended as a. Smart meter is able to automatically notify data, b. Randomization: Data from different endpoints shall be pushed c. It shall also be possible to configure push services for all profiles i. Load survey profile data at after every 4 hours configurable ii. Mid night data at 00:00 hrs of every day. iii. Billing profile data on occurrence of billing. Meter shall support above push functionality and based on requirement BSES will disable or enable through HES
37	Section VI Appendix 2	151	15.7.20 Firmware upgrade	--	Added as i. Meter shall support auto resume firmware upgrade j. Incase of wrong firmware file is received, meter shall be able to identify the same and suspend FOTA activity without any loss of data k. Meter should support NIC FOTA preferably through HES l. NIC firmware file size should be less then meter Firmware file. Manufacturer shall ensure time duration for NIC FOTA shall be less then meter FOTA
38	Section VI Appendix 2	155	15.7.31	--	Added as e. Meter shall have facility for auto detection (IMEI No.) of NIC module incase of replacement for cellular NIC. f.Meter shall have a facility to auto registration of RF NIC module g. Replacement of NIC module shall be without opening terminal cover
39	Section VI – Technical Specification and Scope of Work	156	46.7	Programmable parameters 13.0 Measurement of ripple voltage	Clause deleted
40	Section VI Appendix 2	157	15.7.34 Tamper Conditions	--	Added as Meter should record energy if the neutral supply to the meter is disconnected from incoming and outgoing terminals. Phase terminal of the meter are connected to phase and neutral terminal of meter. Both neutral & phase outgoing terminals are connected with different load of the meter and earth. The min current to record energy shall be 250mA in any of terminal (P or N). In this condition meter should record energy at $V_{ref} * (I_p + I_n) * UPF$.
41	Section VI Appendix 2,3,4,5&6	160	15.7.4 Tamper Indication	--	Added as Meter shall support minimum below Tamper condition icon on display: 1 Current forward/ Reverse 2 Load relay status – connect/disconnect 3 Top Cover Open 4 Earth Load 5 Magnetic Influence 6 Neutral miss/Disturbance 7 Module cover open 8 Communication status BSES and successful bidder shall agree on the icons (based on type of meter) before manufacturing and supply of the Smart meters.
42	Section VI Appendix 2	161-162	15.8 Tampers and event	Magnetic Tamper Meter Under Magnetic Influence (Meter run at Verve, Imax, UPF)	Added as If the working of meter gets affected under the influence of external magnetic field, meter should record energy at I_{max}. Meter should not compute MD during this period. The meter shall record energy as per actual load once the magnetic field is removed
43	Section VI Appendix 2	163 -164	15.9.6 Display Mode	1 Meter Sr. No.(8 digits) 5 Sec 2 Date 5 Sec 3 Real time 5 Sec 4 Current balance in INR (for prepaid mode) 5 sec 5 Last Recharge Amount in INR 5 sec 6 Last Recharge Date 5 sec 7 Relay Status- Relay On/Relay OFF 5 sec 8 Cumulative kWh 15 Sec 9 Cumulative kVAh 15 Sec 10 Current month MD kW 10 Sec 11 Current month MD kVA 5 Sec 12 Neutral current (instantaneous value) 5 Sec 13 Instantaneous PF 5 Sec 14 Instantaneous kW 10 Sec 15 Instantaneous KVA 10 Sec 16 Temperature 5 sec 17 High Resolution value (kWh, KVAh) 5 sec 18 Error Type 5 sec 19 Signal Strength 5 sec 20 TOD active and apparent energy 5 sec 21 Top cover open date & time 5 sec 22 Mode (Prepaid/Postpaid/Net) 5 sec	Amended as 1 Meter Sr. No. 5 Sec 2 Date 5 Sec 3 Real time 5 Sec 4 Current balance in INR (for prepaid mode) 5 sec 5 Current balance Date & Time 5 sec 6 Balance at Last Recharge (In Rupees) 5 sec 7 Last Recharge Amount in INR 5 sec 8 Last Recharge Date and time 5 sec 9 Relay Status- Relay On/Relay OFF 5 sec 10 Cumulative kWh 10 sec 11 Cumulative Export Active Energy* 10 sec 12 Net Active energy* 10 Sec 13 Cumulative kVAh 10 Sec 14 Cumulative Export Apparent Energy* 10 sec 15 Net Apparent energy* 16 Current month MD kW 10 Sec 17 Current month MD kVA 5 Sec 18 Instantaneous Voltage 5 Sec 19 Instantaneous phase current 5 Sec 20 Neutral current (instantaneous value) 5 Sec 21 Instantaneous PF 5 Sec 22 Instantaneous kW 10 Sec 23 Instantaneous KVA 10 Sec 24 Temperature 5 sec 25 High Resolution value (kWh, KVAh) 5 sec. 26 High resolution Export Active Energy (kWh , KVAh)* 5 sec 27 Error Type 5 sec 28 Signal Strength in RSSI 5 sec 29 TOD active and apparent energy 5 sec 30 Top cover open date & time 5 sec 31 Mode (Prepaid/Post-paid/Net) 5 sec * When meter is configured in net metering mode then only these parameters should appear otherwise these display parameters should be disable and shall not appear on display

S.no	Section	Page No.	Clause No.	Existing Clause	Amendment
44	Section VI	166	15.10.9	Hand Held Unit Software	Amended as Mobile APP will be consider as HHU. HHU shall be able to download complete and selective data from meter and upload selective or complete data of meter to backend system when required
45	Section VI Appendix 2 & 3	168	Clause no. 15.11.1 & 16.12.1	Meter s.no shall be 8 digit and will be finalized before supply of material	Amended as Meter s.no shall support upto 10 digit and will be finalized before supply of material
46	Section VI Appendix 2 & 3	168 & 225	Clause No. - 15.11.3 & 16.13.3	Bar code shall be printed along with serial number	Amended as Name plate shall have QR code having meter information like meter s.no., month and year of manufacturing, type of meter, OEM, Rating etc.
47	Section VI Appendix 2,3,4,5&6	169, 226, 252, 271 & 288	Clause no. 15.12, 16.13, 6.0, 6.0 & 6.0	Component Specification (For all type of meters)	Added as Bidder to submit list of component along with BOM and data sheet. BSES at its own discretion shall accept or reject the component make. In case of rejection bidder shall submit alternate component for approval
48	Section VI Appendix 2 & 3	178 & 236	2.3 Parts of the box	c. Meter top cover should be hinge type.	Meter box/Enclosure cover will be hinge type
49	Section VI Appendix 3	192	16.6.14	a. Utilization category of the load switch shall be UC3 as per clause no. 5.6.6.2 of IS 15885.	Amended as Performance requirement for load switching: a. Utilization category of the load switch shall be UC1 as per clause no. 4.6.6.2 of IS 15884 and IS:16444 (Part 1)
50	Section VI Appendix 3	194	16.6.22	--	Added as e. NIC firmware version shall be available in name plate read out profile in addition to parameters mentioned in table A26 of IS:15959
51	Section VI Appendix 3	198	16.7.13 Load Survey data	a. Load survey parameters shall be measured and recorded at the end of each profile capture period for last 35 Power ON days for 4 parameters. b. Meter should provide signal strength data at an interval of 900 sec which can be configurable to 1800 Sec c. All the parameters mentioned in table 'A15' of IS 15959 (Part 2) along with following additional parameters shall be supported by meter: % THD in R phase Voltage % THD in Y Phase Voltage % THD in B Phase Voltage % THD in R phase Current % THD in Y Phase Current % THD in B Phase Current These parameters shall be configurable	Amended as a. Load survey parameters shall be measured and recorded at the end of each profile capture period for last 35 Power ON days. b. All the parameters mentioned in table 'A15' of IS 15959 (Part 2) along with following additional parameters shall be supported by meter: i. % THD in R phase Voltage* ii. % THD in Y Phase Voltage* iii. % THD in B Phase Voltage* iv. %THD in R phase Current* v. % THD in Y Phase Current* vi. % THD in B Phase Current* vii. Neutral Current viii. Average Power Factor ix. Power off Duration in integration period x. All the energies shall be measured and recorded with and without harmonics*. c. Meter should provide signal strength data at an interval of 900 sec which can be configurable to 1800 Sec * Meter should support these parameter for future requirement. These parameters can be configured through firmware upgrade
52	Section VI Appendix 2	199	16.7.16 Daily load profile	Daily load profile parameters shall be measured and recorded at each midnight i.e. 00:00 hrs. for last 35 Power On days for 4 parameters Provision for TOD parameters (8) for kWh, KVA in both import and export mode All the parameters mentioned in table 'A16' of IS 15959 (Part 2) shall be supported by meter as Daily load profile parameters	Amended as a. Daily load profile parameters shall be measured and recorded at each midnight i.e. 00:00 hrs. for last 35 Power On days. b. All the parameters mentioned in table 'A16' of IS 15959 (Part 2) shall be supported by meter as Daily load profile parameters I. Block Energy, kVar (QI)- lag* II. Block Energy, kVar (QI)- Lead* III. Block Energy, kVar (QII)* IV. Block Energy, kVar (QIV)* V. MD KW with date and time VI. MD KVA with date and time All the energies shall be measured and recorded with and without harmonics.* Provision for TOD parameters (8) for kWh, KVA in both import and export mode * Meter should support these parameter for future requirement. These parameters can be configured through firmware upgrade
53	Section VI Appendix 3	201	16.7.22 Firmware upgrade	--	Added as l. Meter shall support auto resume firmware upgrade j. In case of wrong firmware file is received, meter shall be able to identify the same and suspend FOTA activity without any loss of data k. Meter shall support NIC FOTA through HES l. NIC firmware file size should be less than meter Firmware file. Manufacturer shall ensure duration for NIC FOTA shall be less than meter FOTA m. Meter should log and store event for successful NIC Firmware upgrade
54	Section VI Appendix 3	205	16.7.33	--	Added as e. Meter shall have facility for auto detection (IMEI No.) of NIC module in case of replacement of cellular NIC F. Replacement of NIC module shall be without opening terminal cover
55	Section VI Appendix 3	211	15.7.17 & 16.7.18 Voltage related event	Over Voltage (occurrence/restoration):- Occurrence: If $V_{pn} > 10\% V_{ref}$ Restoration: If $V_{pn} \leq 10\% V_{ref}$. Threshold value shall be configurable	Clarified as Over Voltage (occurrence/restoration):- Occurrence: If $V_{pn} > 110\% V_{ref}$ Restoration: If $V_{pn} \leq 90\% V_{ref}$. Threshold value shall be configurable
56	Section VI	244,261 & 280	12.22	(4G with fallback on 2G) or NBIOT with fallback on 2G	Amended as Please read "4G with fallback on 2G or NBIOT with fallback on 2G" as "4G or NBIOT" where ever applicable in RFP
57	Section VI Appendix 4,5 & 6	245, 260 & 279	Clause No. 17, 18 & 19	Specifications of LT CT, DT and HT Meters	Corrected as Corrected Specifications attached as Appendix 4,5,6

S.no	Section	Page No.	Clause No.	Existing Clause	Amendment
58	Section VI Appendix 2,3,4,5&6	--	--	--	Added as Meter s.no shall be part of all DLMS profile such as instantaneous, billing, load survey ,event, Daily profile etc for all type of meter.
59	Section VI	--	Terminals (for all type of meters at different page)	b. Two no's Grub Phillip head screws (size M8)	Amended as a. Two no's Grub Phillip head screws (size M6) or Zinc Plated MS (M6) Slotted head screw per terminal shall be provided for Single phase smart meters. b. Two no's Grub Phillip head screws (size M8) or Zinc Plated MS (M8) Slotted head screw per terminal shall be provided for other type of smart meters.
60	Section VII	301	Schedule – I: Price Schedule for Supply of Cellular (4G /NB IOT) Smart Meters	Single Phase Whole-Current Smart Meter with Pluggable 4G / NB IoT Cellular (WAN) communication module (NIC), Current rating: 5/10-60A, Accuracy Class 1, Compliance with IS 16444 and BSES specifications and support IPV6	Amended as Both 5-60A OR 10-60A are allowed. Type test of the offered product to be submitted. If both product are offered then type test report for both offered product shall be submitted. At the time of Bid submission IS/IEC certified sample may be submitted
61	Section VII	306	--	Price Bid Criteria (Shall form part of award evaluation)	<p>Note: Price Bid Criteria (Shall form part of award evaluation) Price Bid Criteria (Shall form part of award evaluation) The Price format for Schedule – I, Schedule II and A1 to A5 of Schedule - III as defined under OPTION I and OPTION II are linked with terms of payment for OPTION I and OPTION II for Schedule –I and Schedule- II and A1 to A5 of Schedule - III, both these formats are to be mandatorily quoted for interested packages of Schedule – I, Schedule – II and A1 to A5 of Schedule - III separately. The evaluation of OPTION I and OPTION II will be done separately. Either of OPTION I or OPTION II will be awarded as per discretion of BRPL. Other conditions for Schedule – I, Schedule -II and A1 to A5 of Schedule - III (For OPTION – I and OPTION – II), balance Schedule III and Schedule IV are given as under.</p> <p>I. The main bid is divided in four schedules namely a. Schedule - I for Supply and Installation of Cellular Meters, b. Schedule – II for Supply and Installation of LT CT, DT and HT Smart Meters c. Schedule - III for Supply, Installation and Commissioning including O&M of RF Solution d. Schedule – IV for Supply, Installation and Commissioning of New Technologies Solution (such as PLC, Hybrid RF/PLC) including O&M.</p> <p>II. The quantities mentioned in the price Schedules are indicative and subject to change based on the requirement of the project with a capping of ±30%. The same will be intimated during project award stage and execution during Contract period.</p> <p>III. All Packages under different Schedules will be evaluated separately. The intended items under individual packages are mandatorily to be quoted in the different schedules.</p> <p>IV. For Schedule – I and Schedule - II, Bidder (s) shall consider either 4G or NB IOT as communication option, however post phase – 1 completion (as per clause 10 of Section V)</p> <p>V. BRPL shall decide to select either 4G or NB IOT for final roll out and accordingly, the successful bidder (s) shall supply the meters on BRPL selected cellular technology.</p> <p>VI. Award for Schedule – I and Schedule – II a. Will be placed based on L1 cost of each package separately or as total cost (Whichever is Lowest). b. Installation of meters as mentioned in Package 3 of Schedule – I and package -7 of schedule-II are optional and non-mandatory item and shall not form part of award evaluation.</p> <p>c. A -3 of Schedule – I is an optional item and shall not form part of award evaluation. VII. The schedule –III & IV will be awarded as complete package. VIII. Schedule – III shall be awarded as package in multiple of 50K to one or more bidders as per requirement of Project as per discretion of BRPL. IX. The prospective bidders might quote in all Schedules or on standalone basis. X. Bidder shall assess the Number of Gateway/ Router/ Access Point based on the solution. However, cost of any additional quantity of Gateway/ Router/ Access Points if required for coverage or meeting the performance in the project area, shall be borne and supplied by the Bidder without any additional cost to BRPL. XI. The quantities for award will depend on field conditions and cost of the solution for RF or Cellular communications. XII. It is the discretion of BRPL to award the contract as per the requirement and assessment of the execution capability of the vendor (s) by BRPL XIII. Initial firm Order for Phase -1 quantities (As defined under clause 10 of Section V) will be placed to successful Bidder (s) on pro rata basis for both Schedule – I, Schedule - II and Schedule - III. Subsequent ordering shall be based on performance of the product and AMI services as per defined SLAs under clause 12, Section VI and suitability of communication technology. XIV. Bidder shall be responsible for compliance of BRPL safety norms and scope of work as mentioned in this document and penalties in case of loss of new & old meter, seals and material etc. XV. Total price schedule – III & IV for Maintenance Support services (C) for 90 Months post implementation shall not be less than 10% of total Supply part and Installation services price (A+B) of schedule III &IV.</p>

Note :

Amendment

1. Appendix 4: Technical Specifications for DT Smart Meter
2. Appendix 5: Technical Specifications for LT CT Smart Meters
3. Appendix 6: Technical Specifications for HT Smart Meters
4. Section I: Qualification Criteria

Added

- 1 Appendix_9 Requirements from PLC/Hybrid PLC (RF+PLC) Solution providers
2. Annexure XVII