

Date: 4.12.2020

Amendment No. 2
to
Request for Proposal (RfP)
for
Selection of Smart Grid Implementation Agency (SGIA)
for
Implementation of Smart Grid
in
Rourkela Smart City, Odisha

Volume – I

Reference Clause	Existing Provision after Issuance of Amendment No.1 to RfP	Amended Provision
General	The Initial Quantity of Smart Meters may be considered as 91,034 instead of 90,801 and Total Quantity of Smart Meters over a period of 10 years may be considered as 1,21,197 instead of 1,20,964 in the entire RfP. The same has also been updated in Revised Price Bid Schedule which has been uploaded separately	
Document Checklist	Refer Annexure-1 of this Document	
Volume-I Clause 3.2.3(c)(ii) (About the Smart Grid Project)	Balance FMS cost (inclusive of balance charges towards GIS updation & monthly Cloud usage from the date of Operational Acceptance of a particular lot of Smart Meters till a period of 8 years) from the date of Operational Acceptance of a particular lot of Smart Meters till a period of 8 years for 90,801 consumers	Balance FMS cost (inclusive of balance charges towards GIS updation & monthly Cloud usage from the date of Operational Acceptance of a particular first lot of Smart Meters till a period of 8 years from the Operational Acceptance of the Project) from the date of Operational Acceptance of a particular lot of Smart Meters till a period of 8 years for 91,034 90,801 consumers
Volume-I Clause 3.2.4 (About the Smart Grid Project)	CAPEX as well as FMS funding (inclusive of charges towards GIS updation & monthly Cloud usage) for the project for additional number of consumers beyond 90,801 consumers (i.e. 1,20,964 - 90,801 = 30,163 consumers) along with GST thereof would be entirely borne by SGIA	CAPEX as well as FMS funding (inclusive of charges towards GIS updation & monthly Cloud usage from the date of Operational Acceptance of a first lot of Smart Meters till a period of 8 years from the Operational Acceptance of the Project) for the project for additional number of consumers beyond 91,034 90,801 consumers (i.e. 1,21,197 1,20,964 - 91,034 90,801 = 30,163 consumers) along with GST thereof would be entirely borne by SGIA. For 30,163 incremental number of meters, FMS period for a particular lot of those incremental number meters would commence from the date of Operational Acceptance of that lot and would continue for a period till 96 months from Operational Acceptance of the Project are completed.
Volume-I Clause 4.3.1 (Qualifying Requirement)	Refer Annexure-2 of this Document for Revised Qualifying Requirement	
Volume-I Clause 4.3.1 (Qualifying Requirement)To be eligible for the tender for appointment of Smart Grid Implementation Agency, the Bidder (or any of its consortium member) shall not have 5 (five) or more AMI projects / 20 Lakhs meters in India which are outstanding to be installed on the bid due date	...To be eligible for the tender for appointment of Smart Grid Implementation Agency, the Bidder (or any of its consortium member) Meter Manufacturer/ Supplier who is participating as a Bidder/ Consortium Member in this RfP shall not have 5 (five) or more AMI projects / 20 Lakhs AMI meters in India which are outstanding to be installed on the bid due date for submission.

	for submission.	
Volume-I Clause 4.9.3 (Clarifications)	Any such clarifications issued shall be sent to all the Bidders to whom the RFP has been issued	Any such clarifications issued shall be uploaded on PFCCL's website and MSTC's e-bidding portal as well as sent to all the Bidders who have sought clarification over the email id mentioned by them to whom the RFP has been issued
Volume-I Clause 4.15.2.1 (Financial Bid)	Meter Rent Per Consumer Per Month for each meter type which would be constant for the entire duration of the contract and its payment would commence for a particular lot of meters from the date of Operational Acceptance of that lot and would continue for a period till 96 months from that date	Meter Rent Per Consumer Per Month for each meter type which would be constant for the entire duration of the contract and its payment for initial 91,034 no. of meters would commence for a particular lot of meters from the date of Operational Acceptance of that lot and would continue for a period till 96 months from that date. However, for 30,163 incremental number of meters, Meter Rent Per Consumer Per Month for each meter type would commence for a particular lot of those incremental number meters from the date of Operational Acceptance of that lot and would continue for a period till 96 months from Operational Acceptance of the Project are completed.
Volume-I Clause 4.15.2.1.1.2 (Financial Bid)	<p>Meter Rent Per Consumer Per Month for FMS Cost Component (This would be inclusive of charges towards GIS updation & monthly Cloud usage from the date of Operational Acceptance of a particular lot of Smart Meters till a period of 8 years) – This should be based on:</p> <p>a. Year 1 FMS cost (inclusive of Year 1 charges towards GIS updation & monthly Cloud usage) less 30% of Year 1 FMS cost quoted as per clause 4.15.2.3 limited to about Rs. 1.10 crore for 90,801 consumers</p> <p>b. Balance FMS cost (inclusive of balance charges towards GIS updation & monthly Cloud usage from the date of Operational Acceptance of a particular lot of Smart Meters till a period of 8 years) from the date of Operational Acceptance of a particular lot of Smart Meters till a period of 8 years for 90,801 consumers</p> <p>c. FMS cost (inclusive of charges towards GIS updation & monthly Cloud usage) for the project for additional number of consumers beyond 90,801 consumers (i.e.</p>	<p>Meter Rent Per Consumer Per Month for FMS Cost Component (This would be inclusive of charges towards GIS updation & monthly Cloud usage from the date of Operational Acceptance of a particular lot of Smart Meters till a period of 8 years from Operational Acceptance of the Project) – This should be based on:</p> <p>a. Year 1 FMS cost (inclusive of Year 1 charges towards GIS updation & monthly Cloud usage) less 30% of Year 1 FMS cost quoted as per clause 4.15.2.3 limited to about Rs. 1.10 crore for 91,034 90,801 consumers</p> <p>b. Balance FMS cost (inclusive of balance charges towards GIS updation & monthly Cloud usage from the date of Operational Acceptance of a particular lot of Smart Meters till a period of 8 years from Operational Acceptance of the Project) from the date of Operational Acceptance of a particular lot of Smart Meters till a period of 8 years for 91,034 90,801 consumers</p> <p>c. FMS cost (inclusive of charges towards GIS updation & monthly Cloud usage) for the project for additional number of consumers beyond 91,034 90,801 consumers (i.e. 1,21,197 1,20,964 - 91,034 90,801 = 30,163 consumers) from the date of Operational Acceptance of a particular lot of those incremental number meters till 96 months from Operational Acceptance of the Project are completed.</p>

	1,20,964 - 90,801 = 30,163 consumers)	
Volume-I Clause 5.9.6 (Award of Contract)	Within fourteen (14) days of receipt of the Agreement, the successful Bidder shall sign, date, and return it to WESCO. If Agreement has not been signed within 14 days from issuance of Letter of Award, then penalty @0.35% per week or part thereof of the value of Performance Security for Project Implementation amount will be recovered from the firm by WESCO which will be calculated from due date of signing of agreement till the actual date of signing of the agreement	Within fourteen (14) days of receipt of the Agreement, the successful Bidder shall sign, date, and return it to WESCO. If Agreement has not been signed within 14 days from issuance of Letter of Award receipt of the Agreement by the successful Bidder , then penalty @0.35% per week or part thereof of the value of Performance Security for Project Implementation amount will be recovered from the firm by WESCO which will be calculated from due date of signing of agreement till the actual date of signing of the agreement
Volume-I Clause 6.8.1 (Consortium) The composition of the consortium cannot be altered The composition of the consortium cannot be altered without the prior approval of WESCO
Volume-I Clause 6.13.2 (Scope of Work)	At the time of awarding the contract, WESCO shall specify any change in the Scope of Work. Such changes may be due for instance, if the quantities of supply and Related Services are increased or decreased at the time of award	At the time of awarding the contract, WESCO shall specify any change in the Scope of Work. Such changes may be due for instance, if the quantities of supply and Related Services are increased or decreased at the time of award. Any changes in the scope of work should be accepted by the SGIA considering the same as incremental scope.
Volume-I Clause 6.19.1 (Payment Schedule)	Payment of Meter Rent Per Consumer Per Month for a particular lot of meters would commence from the date of Operational Acceptance of that lot and would continue for a period till 96 months	For initial 91,034 no. of meters, P ayment of Meter Rent Per Consumer Per Month for a particular lot of meters would commence from the date of Operational Acceptance of that lot and would continue for a period till 96 months. However, for 30,163 incremental number of meters, payment of Meter Rent Per Consumer Per Month for a particular lot of those incremental number meters would commence from the date of Operational Acceptance of that lot and would continue for a period till 96 months from Operational Acceptance of the Project are completed.
Volume-I Clause 6.19.1.1 (Payment Schedule)	While making payment of Meter Rent, FMS period for a particular lot of meters would commence from the date of Operational Acceptance of that lot and would continue for a period till 96 months	While making payment of Meter Rent, for initial 91,034 no. of meters, FMS period for a particular lot of meters would commence from the date of Operational Acceptance of that lot and would continue for a period till 96 months. However, for 30,163 incremental number of meters, FMS period for a particular lot of those incremental number meters would commence from the date of Operational Acceptance of that lot and would continue for a period till 96 months from Operational

		Acceptance of the Project are completed.
Volume-I Clause 6.19.2 (Payment Schedule)	Refer Annexure-3 of this Document for Revised Table under Payment Schedule	
Volume-I Clause 6.21.1.1 (Performance Security)	<p>Within fourteen (14) days of the notification of Contract award, provide a Performance Security to WESCO in the form of an irrevocable Bank Guarantee valid up to a period of 6 months from date of completion of eight (8) year FMS period from the date of operational acceptance of the project or extended thereafter to the tune of 10% x Total Meter Rent Per Consumer Per Month x Total number of consumers for which the Bidder has quoted Meter Rent x 96 months for the due performance of the Contract in the amounts and currencies specified in the RFP based on the format prescribed in Annexure 14. If Contract Performance Security has not been submitted within 30 days from issuance of Letter of Award, then penalty @0.35% per week or part thereof of the value of Performance Security amount will be recovered from firm which will be calculated from due date of submission of Performance Security till the actual date of submission of Performance Security</p>	<p>Within fourteen (14) days of the notification of Contract award, provide a Performance Security to WESCO in the form of an irrevocable Bank Guarantee valid up to a period of 6 months from date of completion of eight (8) year FMS period from the date of operational acceptance of the project or extended thereafter to the tune of 10% x Total Meter Rent Per Consumer Per Month x Total number of consumers for which the Bidder has quoted Meter Rent x 96 months for the due performance of the Contract in the amounts and currencies specified in the RFP based on the format prescribed in Annexure 14. If Contract Performance Security has not been submitted within 30 15 days from issuance receipt of Letter of Award by the Contractor, then penalty @0.35% per week or part thereof of the value of Performance Security amount will be recovered from firm which will be calculated from due date of submission of Performance Security till the actual date of submission of Performance Security</p>
Volume-I Clause 6.37.2 (Force Majeure)	<p>“Force Majeure” shall mean any event beyond reasonable control of Employer or of Contractor, as the case may be, and which is unavoidable notwithstanding reasonable care of the party affected, and shall include, without limitation, the following:</p> <ul style="list-style-type: none"> a) war, hostilities or warlike operations (whether war be declared or not), invasion, act of foreign enemy and civil war; b) rebellion, revolution, insurrection, mutiny, usurpation of government, conspiracy, riot 	<p>“Force Majeure” shall mean any event beyond reasonable control of Employer or of Contractor, as the case may be, and which is unavoidable notwithstanding reasonable care of the party affected, and shall include, without limitation, the following:</p> <ul style="list-style-type: none"> a) war, hostilities or warlike operations (whether war be declared or not), invasion, act of foreign enemy and civil war; b) rebellion, revolution, insurrection, mutiny, usurpation of government, conspiracy, riot and civil commotion; and c) earthquake, landslide, volcanic activity, flood or cyclone, or other inclement weather condition, nuclear and pressure waves or other natural or physical disaster; and

	and civil commotion; and c) earthquake, landslide, volcanic activity, flood or cyclone, or other inclement weather condition, nuclear and pressure waves or other natural or physical disaster	d) Pandemic which disrupts & restricts the movement of goods and people
Volume-I Annexure A (Tender Evaluation Methodology)	Refer Annexure-4 of this Document for Revised Tender Evaluation Methodology	
Volume-I Annexure E (Project Implementation Schedule)	Refer Annexure-5 of this Document for Revised Project Implementation Schedule	
Volume-I Annexure 1 (S.No. 16) (Format Bill of Covering Letter by Lead Consortium Member for Submission of Bid)	-	We undertake to comply with the Public Procurement (Preference to Make in India) order issued by Department for Industrial Promotion & Internal Trade, Ministry of Commerce & Industry, Govt. of India dated 4.6.2020 as well as the Order issued by Ministry of Power (MoP), Govt. of India dated 2.7.2020 to protect the security, integrity and reliability of the strategically important and critical Power Supply System & Network in the Country
Volume-I Annexure 1 (S.No. 17) (Format Bill of Covering Letter by Lead Consortium Member for Submission of Bid)	-	We confirm that Meter Manufacturer/ Supplier who is participating as a Bidder/ Consortium Member in this RfP does not have 5 (five) or more AMI projects / 20 Lakhs AMI meters in India which are outstanding to be installed on the bid due date for submission
Volume-I Annexure 1 (S.No. 17) (Format Bill of Covering Letter by Lead Consortium Member for Submission of Bid)	-	[Applicable for Bidder/ Consortium Member claiming Global experience] We undertake to supply the smart meters against this RfP from our manufacturing facility in India

Member for Submission of Bid)		
Volume-I Annexure 10 (Format Bill of Quantities)	Refer Annexure-6 of this Document for Revised Format Bill of Quantities	
Volume-I Annexure 11 (Format of Submission of Financial Bid) Bidders to upload the Price Bid in the form of excel sheet as per Annexure 17 as well as submit the duly signed scanned copy of the same..... Bidders to upload the (i) Price Bid in the form of excel sheet as per Annexure 17 as well as and (ii) submit the duly signed scanned copy of the same Price Bid
Volume-I Annexure 17 (Price Bid Schedule)	Refer Revised Price Bid Schedule which has been uploaded separately	

Volume – II

Reference Clause	Existing Provision after Issuance of Amendment No.1 to RfP	Amended Provision
Volume-II Clause 3.3 (Smart Meters)	Single Phase & Three Phase whole current smart meters shall comply with IS 16444 (latest version). Three Phase CT operated meter shall comply IS 16444: Part 2. The contractor has to furnish valid BIS certification at the time of bid submission.....	Single Phase & Three Phase whole current smart meters shall comply with IS 16444 (latest version). Three Phase CT operated meter shall comply IS 16444: Part 2. The contractor has to furnish valid BIS certification of either Single Phase or Three Phase Smart Whole Current Meter (of any of the required current rating as mentioned in the RfP) at the time of bid submission and the valid BIS certification of other variant meters before commencement of supply
Volume-II Clause 3.3.4.1.2 (Smart Meters – Tests - Type Tests and Test Certificates)	Type test should not be older than 3 years. Without above type test certificate the offer shall not be considered. At least 15 days before the scheduled date of supply, SGIA shall offer for inspection of each lot, 10 random samples for every 10000 numbers of meter to be selected for type testing, to the officials of WESCO and any other party(ies) as decided by WESCO and if meter during type test is found failed then either the order placed shall be cancelled with Contractor to collect all meters at its cost for the supplied meters or Contractor shall have to replace all supplied meters at their cost after manufactured and successful type test within time frame given by the Employer	Type test should not be older than 3 5 years. Without above type test certificate the offer shall not be considered. At least 15 days before the scheduled date of supply, SGIA shall offer for inspection of each lot, 10 random samples for every 5000 10000 numbers of meter to be selected for type testing, to the officials of WESCO and any other party(ies) as decided by WESCO and if meter during type test is found failed then either the order placed shall be cancelled with Contractor to collect all meters at its cost for the supplied meters or Contractor shall have to replace all supplied meters at their cost after manufactured and successful type test within time frame given by the Employer.
Volume-II Clause 3.4.3.1.3 (Data Concentrator Unit (DCU) based Communication Network - DCU Communication)	... DCU shall be able to communicate with meters either on RF mesh (Unlicensed or Licensed frequency band as permitted by WPC) or PLC...	“... DCU shall be able to communicate with meters either on RF mesh (Unlicensed or Licensed frequency band as permitted by WPC) or PLC ...”
Volume-II Clause 3.9.8(m) (GIS Implementation - Detailed Scope of Work)	SGIA will have to do GPS survey for incremental changes in Network assets	SGIA will have to do GPS survey for incremental changes in Network assets as and when required

Volume-II Clause 4.4 (Service Level Agreement)	There shall be <u>no capping</u> of Penalty in any of the Service Level Agreement (SLA) clauses i.e. Penalty would be deducted in the respective clauses without any capping.	
Volume-II Clause 9.3 (Maintenance - Maintenance Support)	Period of maintenance support shall be eight (8) years from Operational Acceptance by WESCO. The period of maintenance support shall include five (5) years Warranty (Defect Liability) period commencing from Operational Acceptance and eight (8) years thereafter. During above period, commencing from Site Acceptance, support for operation of entire system is under scope of contractor.....	Period of maintenance support shall be eight (8) years from Operational Acceptance by WESCO. The period of maintenance support shall include five (5) years Warranty (Defect Liability) period commencing from Operational Acceptance and eight (8) three (3) years thereafter during which the Contractor shall provide Annual Maintenance Support to WESCO at no extra cost. During above period, commencing from Site Acceptance, support for operation of entire system is under scope of contractor.....
Volume-II Clause 9.13.2 (Availability and FMS Charges - Payment of FMS Charges - For Data Performance - Scheduled daily meter readings (as per IS 16444/15959))	Refer Annexure-7 of this Document	
Volume-II Annexure I (9)(6) (Technical Specifications of Meter Box - Technical Specifications for Polycarbonate Meter Box for Single Phase Meter - Guaranteed Technical Particulars)	Thickness of box Base : 3mm Cover: 2.5 mm	Thickness of box Base : 3mm (on the load bearing side) Cover, other sides, door and roof: 2.5 mm
Volume-II Annexure I (9)(6) (Technical Specifications of Meter Box - Technical Specifications for Polycarbonate Meter Box for Three Phase Meter - Guaranteed Technical Particulars)	Thickness of box Base : 3mm Cover: 2.5 mm	Thickness of box Base : 3mm (on the load bearing side) Cover, other sides, door and roof: 2.5 mm

Volume-I, Document Checklist

S. No	Document	Attached? (Yes/ No)	For Official Use
1.	Tender Fee in the form of Demand Draft.		
2.	Bid Security in the form of Demand Draft or Bank Guarantee as per format prescribed in Annexure 1.		
3.	Covering Letter for Submission of Bid by Lead Consortium Member as per format prescribed in Annexure 3.		
4.	Attested copy of Certificate of Registration/ Incorporation issued by the Registrar of Companies for each Consortium Member		
5.	Attested Copy of the Goods and Services Tax (GST) Registration Certificate of the Lead Consortium Member.		
6.	Attested copy of Provident Fund Code of Lead Consortium Member.		
7.	Attested copy of PAN Card for Lead Consortium Member.		
8.	Certificate of Commencement of Business issued by the Registrar of Companies for Lead Consortium Member.		
9.	<p>In case the Bidder being Indian Company is having collaboration with the Company incorporated outside India (Foreign Company), the Bidder shall in respect of such collaboration submit duly certified/ authenticated copies of the following documents:</p> <ul style="list-style-type: none"> • Certificate of Incorporation / Registration Certificate issued by the competent authority under the law in force in the country of its incorporation; • Memorandum and Articles of Association or document constituting the company and regulating its affairs; • List of board of directors or regulating/controlling body; • Address of its place of business in India, if any; • Audited annual financial statements and financial Net-worth for the last five years only of foreign entity; • Complete copy of agreement entered into by Indian company with foreign company together with gist of major terms, validity period, demarcation of scope of work, role and responsibilities of each party to the agreement, technical, financial & management aspects of agreement; • Commitment of the foreign company to continue partnering with agreement and to discharge its role / functions under the agreement till the completion of the Project including the FMS period, if assigned by WESCO. • Any other papers or documents required by PFCCL at a later stage or in future 		
10.	Consortium Agreement Format entered amongst all Members of the Bidding Consortium as per format prescribed in Annexure 4		
11.	Power of Attorney by each Consortium Member in favor of Lead Consortium Member as per format prescribed in Annexure 5		
12.	Power of Attorney by Lead Consortium Member authorizing an Individual Designated Representative for the Consortium as per the format prescribed in Annexure 6 .		
13.	Letter of Consent by each Consortium Member reviewing each element of the Bid as per format prescribed in Annexure 7.		
14.	Company Profile document with evidence of fields of competence and office location for each Consortium Member.		
15.	<p>For Meter Manufacturing Technical Experience (Refer Clause 4.3.1.A.1):</p> <ul style="list-style-type: none"> • Contract/ Purchase Order (PO)/ Work Order (WO) indicating client name, scope of work, period of supply etc. • A valid registration certificate of manufacturing unit and details of the facility. • Valid NABL Accreditation Certificate as mentioned in Qualification Requirement. • A valid ISO and OHSAS certificate on or before the date of publication of the tender 		

S. No	Document	Attached? (Yes/ No)	For Official Use
16.	For Communications Network Experience (Refer Clause 4.3.1.B.1): <ul style="list-style-type: none"> Certificate of Incorporation and Registration certificate along with Memorandum & Articles of Association. Copy of valid Licenses (In case of RF, Valid certificate issued by Wireless Planning & Coordination (WPC) Wing of the Ministry of Communications, GOI) Contract/ Purchase Order (PO)/ Work Order (WO) indicating client name, scope of work, period of work etc. Certificate from client on successful implementation of project Signed agreements/ MoUs for integration of NIC module or Certificate of successful integration A valid ISO/CMMi certificate on or before date of issuance of RfP as mentioned in Qualification Requirement. 		
17.	For System Integration Experience (Clause 4.3.1.C) <p>a. Integration with MDM (Refer Clause 4.3.1.C.1):</p> <ul style="list-style-type: none"> Contract/ Purchase Order (PO)/ Work Order (WO) indicating client name, scope of work, period of work etc. Certificate from the client on successful implementation and operation of the project. <p>b. For Cloud Service Provider (Refer Clause 4.3.1.C.2):</p> <ul style="list-style-type: none"> Valid Empanelment certificates by MEITY (Ministry of Electronics and Information Technology) for Public cloud, Virtual Private Cloud and Community Government Cloud Self-experience certificate duly signed by the Authorized Signatory who is authorized to sign the Bid document for meeting Qualification Requirement as per clause 4.3.1.C.2 (b) to (e) Contract/ Purchase Order (PO)/ Work Order (WO) indicating client name, scope of work, period of work etc as per clause 4.3.1.C.2 (f). A valid certificate as per clause 4.3.1.C.2 (g) 		
18.	For Meter Data Management Experience (Clause 4.3.1.D) <ul style="list-style-type: none"> Contract/ Purchase Order (PO)/ Work Order (WO) indicating client name, scope of work, period of work etc Certificate from the client on successful implementation and operation of the project A valid ISO/ CMMi certificate on or before date of issuance of RfP 		
19.	For Financial Strength (Refer Clause 4.3.1.E): Audited Annual financial statements, Balance Sheet and P&L Account of all Consortium Members for respective financial years.		
19.	Record of similar work done by each Consortium Member along with copy of Letter of Award or Work Orders showing activities carried out with necessary quantities along with contract value & Certificate of Satisfactory Completion from each client as per formats prescribed in Annexure 9		
20.	Curriculum Vitae of all personnel		
22.	Project Plan as mentioned in Clause 4.14.11.		
23.	Copy of Volume-I and Volume-II of this RFP with sign and official seal on every page.		
24.	Approach & Methodology for Project Execution		
25.	Undertaking to comply with the Public Procurement (Preference to Make in India) order issued by Department for Industrial Promotion & Internal Trade, Ministry of Commerce & Industry, Govt. of India dated 4.6.2020 as well as the Order issued by Ministry of Power (MoP), Govt. of India dated 2.7.2020 to protect the security, integrity and reliability of the strategically important and critical Power Supply System & Network in the Country.		
26.	Undertaking that Meter Manufacturer/ Supplier who is participating as a Bidder/ Consortium Member in this RfP does not have 5 (five) or more AMI projects / 20 Lakhs AMI meters in India which are outstanding to be installed on the bid due date for submission.		

Volume-I, Clause 4.3.1 – Revised Qualification Requirement

A. QR for Meter Manufacturing (Meter Manufacturer/ Supplier has to be a Bidder or part of a Consortium (not necessarily as a Lead Bidder) and cannot participate as a Sub-Contractor of any other Bidder. In case of a Consortium, this requirement has to be met individually by one of the Consortium Members in its entirety. However, the Meter Manufacturer/ Supplier can participate as a Consortium Member only in one (1) Consortium)			
S.No	Description	Qualifying Criteria	Evaluation Documents Required
1	Technical Experience	a) The Bidder or any Consortium Member must have 1. Manufactured and supplied minimum 25,000 nos. (cumulative) AMI Meters and successfully integrated with its own or Third Party software and with the existing system of Indian/ Global Power Distribution Utility(ies) in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid Or Manufactured and supplied minimum 25,000 nos. (cumulative) AMR Meters along with required hardware, software & other associated accessories etc. and successfully integrated with its own or Third Party software and manufactured and supplied minimum 25,000 nos. (cumulative) Pre-payment Meters as per IS 15884 to Indian/ Global Power Distribution Utility(ies) in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid The Bidder/ Consortium Member claiming Global experience must bid through a company incorporated under Companies Act in India	i. Copies of Contract/ Purchase Order (PO)/ Work Order (WO) indicating client name, scope of work, period of supply etc. ii. The Bidder to submit a Certificate from the client on successful integration with its own or Third Party software and with the existing systems of Indian Power Distribution Utility(ies)
		b) The Bidder/ Consortium Member must have manufacturing facility in India on the date of submission of bid with and an in-house NABL accredited lab on the date of submission of bid a) on or before the date of submission of bid or (b) before completion of Evaluation of Technical bids and Opening of Financial Bids. The Bidder/ Consortium Member claiming Global experience must supply the meters against this RfP from the manufacturing facility in India	i. Valid Registration Certificate of Manufacturing Unit and details of facility ii. Valid NABL Accreditation Certificate as mentioned in this clause.
2	Quality Certification	a) The Bidder/ Consortium Member should be ISO 9001:2015 certified OR Bidder should have CMMI Level 3 (minimum) certification. b) Bidder/ Consortium Member should have ISO 14001 and OHSAS18001/ OHSAS45000 series certifications.	A valid ISO/CMMI certificate on or before the date of submission of bid. i. For S.No. 2(a) - A valid ISO 9001:2015 / CMMI Level 3 (minimum) and OHSAS certificate on or before the date of submission of bid ii. For S.No. 2(b) - A valid ISO 14001 and OHSAS18001/ OHSAS45000 series certificates on or before the date of submission of bid
B. QR for Communications Network Provider (CNP) (Any Bidder can use credentials of same CNP as a Sub-Contractor for meeting Qualifying Requirement. However, the CNP, if desires, can participate as a Consortium Member only in one (1) Consortium and in such a case, the CNP cannot be a Sub-Contractor of any other Bidder)			
S.No.	Description	Qualifying Criteria	Evaluation Documents Required

1.	Technical Experience	<p>a) The CNP's RF Mesh should have been implemented in project(s) with at least 25,000 (cumulatively) communication module/ endpoints (manufacturing, supply, installation, integration, maintenance & management) involving Radio Frequency (RF) mesh in Licensed frequency band as permitted by WPC, Ministry of Communication, Govt. of India or in Unlicensed frequency band in India or abroad in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid.</p> <p>b) The CNP must have successfully integrated their NIC/ Communication module with meters of at least 3 manufacturers in India or abroad till HES and/or MDMS.</p>	<p>i. Certificate of Incorporation and Registration certificate along with Memorandum & Articles of Association.</p> <p>ii. Copy of valid Licenses (In case of RF, Valid certificate issued by Wireless Planning & Coordination (WPC) Wing of Ministry of Communications, GOI)</p> <p>iii. Contract/ Purchase Order (PO)/ Work Order (WO) indicating client name, scope of work, period of work etc.</p> <p>iv. Certificate from client on successful implementation of project</p> <p>v. Signed agreements/ MoUs for integration of NIC module or Certificate of successful integration</p>
2	Quality Certification	<p>a) CNP should be ISO 9001:2015 certified or Bidder should have CMMI Level 3 (minimum) certification.</p> <p>b) CNP should have ISO 14001 and ISO 27001 certifications.</p> <p>b) CNP should have ISO 27001 certifications.</p> <p>c) CNP or the Original Equipment Manufacturer (OEM) should have ISO 14001 certifications.</p>	<p>A valid ISO/CMMI certificate on or before the date of submission of bid.</p> <p>i. For S.No. 2(a) - A valid ISO 9001:2015 / CMMI Level 3 (minimum) certificate on or before the date of submission of bid</p> <p>ii. For S.No. 2(b) - A valid ISO 14001 and ISO 27001 certificates (a) on or before the date of submission of bid or (b) before completion of Evaluation of Technical bids and Opening of Financial Bids.</p>
C1. QR for System Integration (SI) - Integration with MDM (Any Bidder can use credentials of same SI as a Sub-Contractor for meeting Qualifying Requirement. However, the SI, if desires, can participate as a Consortium Member only in one (1) Consortium and in such a case, the SI cannot be a Sub-Contractor of any other Bidder)			
S.No.	Description	Qualifying Criteria	Evaluation Documents Required
1	Technical Experience of Integration with MDM	<p>a) The SI must have experience of integration of HES with MDM on standard interfaces and data exchange models (CIM/XML/ IEC 61968 or any other open standard) for at least 25,000 consumers (cumulatively) in Indian/ Global Power Distribution Utility(s) in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid.</p>	<p>i. Contract/ Purchase Order (PO)/ Work Order (WO) indicating client name, scope of work, period of work etc.</p> <p>ii. Certificate from the client on successful implementation and operation of the project.</p> <p>iii. In case SI is a Power Distribution Utility which is having an in house experience, it should submit documentary evidence of such experience with self-certification from authorized signatory of System Integrator.</p>
C2. QR for Cloud Service Provider (CSP) (Any Bidder can use credentials of same CSP as a Sub-Contractor for meeting Qualifying Requirement. However, the CSP, if desires, can participate as a Consortium Member only in one (1) Consortium and in such a case, the CSP cannot be a Sub-Contractor of any other Bidder.)			
S.No.	Description	Qualifying Criteria	Evaluation Documents Required
1	Technical Experience as Cloud Service Provider	<p>a) CSP must be Empanelled Cloud Service Provider by MEITY (Ministry of Electronics and Information Technology) for Public cloud, Virtual Private Cloud and Community Government Cloud</p> <p>b) CSP Member must have at least 3 Data Centers in at least two different seismic zones in India</p> <p>c) CSP should have at least 5 different Internet Carrier Terminating</p> <p>d) CSP should be having the capability to provide Hybrid Cloud services, i.e. a combination of Private Cloud and Public Cloud infrastructure from each availability zone.</p>	<p>i. For S.No (a), Bidder should provide valid certificates</p> <p>ii. For S.No (b), (c) and (d), Bidder should submit self-experience certificate duly signed by the Authorized Signatory who is authorized to sign the Bid document</p> <p>iii. For S.No. (e), Contract/ Purchase Order (PO)/ Work Order (WO) indicating client name, scope of work, period of work etc.</p>

		e) CSP should have at least two (2) Work Orders from Central Government/ State Government/ PSU /Semi- Government of India in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid.	
	Quality Certification	f) CSP should have the following Quality Certifications: i. ISO/IEC 27001 certified for Information Security with well-planned and structured escalation procedures ii. Certified ISO/IEC 20000-1 for DC service quality and delivery iii. The data centers where cloud servers of CSP are hosted should be certified for minimum of Tier III level against TIA-942 specifications iv. Must have Government Community Cloud running audited and successfully audited by STQC.	A Valid certificates on or before the date of submission of bid.
D. QR For Meter Data Management Provider (MDMP) (Any Bidder can use credentials of same MDMP as a Sub-Contractor for meeting Qualifying Requirement. However, the MDMP, if desires, can participate as a Consortium Member only in one (1) Consortium and in such a case, the MDMP cannot be a Sub-Contractor of any other Bidder)			
S. No.	Description	Qualifying Criteria	Evaluation Documents Required
1	Data handling Capability	a) The MDMP should have successfully implemented and integrated with HES for at-least 25,000 (cumulatively) numbers of smart meter/ AMI system and AMR system (managing 15/ 30 minutes interval data) out of which at-least 10% (i.e. at least 2,500 numbers cumulatively) should be of smart meter/ AMI system in any Indian/ Global Power Distribution Utility in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid.	i. Contract/ Purchase Order (PO)/ Work Order (WO) indicating client name, scope of work, period of work etc. ii. Certificate from client on successful implementation on and operation of project.
2	Ease of integration with HES/ MDAS and Billing	a) The Proposed MDM should have been integrated with minimum 3 different Head End Systems/ MDAS system and 2 different billing system in any Indian/ Global Power Distribution Utility in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid.	i. Contract/ Purchase Order (PO)/ Work Order (WO) indicating client name, scope of work, period of work etc. ii. Client Certificate on successful implementation and operation of project.
3	Quality Certification	a) The MDMP should be a 9001:2015 or CMMI Level 3 (minimum) certified. MDMP should have CMMI Level 3 (minimum) certification. b) MDMP should have ISO 27001 certification	A valid ISO/CMMI certificate on or before the date of submission of bid. i. For S.No. 3(a) - A valid ISO 9001:2015 / CMMI Level 3 (minimum) certificate on or before the date of submission of bid ii. For S.No. 3(b) - A valid ISO 27001 certificate on or before the date of submission of bid
E. QR - Financial Criteria			
S.No.	Description	Qualifying Criteria	Evaluation Documents Required
1	Financial Requirement	a) Net Worth in best Three Financial Years out of the last five (5) years (i.e. FY 2015-16 onwards) should be positive. Net worth shall be as defined under the Companies Act, 2013. b) Minimum Average Annual Turnover (MAAT) of the bidder (Average of best Three Financial Years out of the last five (5) Financial Years i.e. FY 2015-16 onwards) should not be less than INR 100 Cr. MAAT means annual total income as incorporated in the profit & loss account except non-recurring income e.g. sale of fixed assets.	Audited Annual financial statements, Balance Sheet and P&L Account for the respective financial years.

Volume-I, Clause 6.19.2 – Revised Payment Schedule

S No	Milestone	Payment (% of (NSGM Grant towards CAPEX i.e. excluding Year 1 FMS Cost + Utility's Contribution))
1	Acceptance of Letter of Award (LoA), submission of Performance Security for project implementation as per clause 6.21.1.1, execution of Agreement between WESCO and the Contractor and approval of survey reports of the entire project area.	5%
2	i. Delivery of first lot of 5% of total initial quantity of smart meters (i.e. 5% of 91,034 no. of meters) with related hardware, software and equipment at Project site after Factory Acceptance Test (FAT) including GIS for equivalent area. ii. The quantity may vary depending upon the electrical control area to be covered under this pilot scheme to be decided in consultation with WESCO.	30% of Total Cost as per Schedule B of Price Bid
3	i. Site installation and integration of first lot of 5% of total initial quantity of smart meters (i.e. 5% of 91,034 no. of meters) with related hardware, software and equipment and successful completion of Field Installation and Integration Test (FIIT). ii. The quantity may vary depending upon the electrical control area to be covered under this pilot scheme to be decided in consultation with WESCO.	30% of Total Cost as per Schedule C of Price Bid
4	i. Delivery of smart meters along with related hardware, software and equipment etc at Project site after Factory Acceptance Test (FAT). ii. The payment shall be released on lot basis considering delivery of each of 9 8 lots of having 10000 smart meters in each lot and the balance no. of smart meters in the 40th 9th lot with related hardware, software & equipment including GIS for equivalent area. iii. However, payment against delivery of subsequent lot would be released only after successful installation, integration and completion of Field Installation and Integration Test (FIIT) of meters delivered against the previous lot site including GIS for equivalent area	40% of Total Cost as per Schedule B of Price Bid
5	i. Payment on lot basis on site installation and integration of each of 9 8 lots of having 10000 smart meters in each lot and the balance no. of smart meters in the 40th 9th lot with related hardware, software & equipment and successful completion of Field Installation and Integration Test (FIIT) of each lot.	40% of Total Cost as per Schedule C of Price Bid
6	Installation, commissioning and integration of all AMI Hardware, Software, field material in Project Area and Site Acceptance test (SAT)	15%
7	3 months of Successful operation of AMI System as per SLA/ Guaranteed Performance Test (GPT) and operational acceptance.	10%
	Total	100%
8	Charges towards 30% of Year 1 FMS Cost (i.e. NSGM Grant Component towards Year 1 FMS Cost)	On Quarterly basis for four (4) quarters after Operational Acceptance of the entire project.

Volume-I, Annexure A – Revised Tender Evaluation Methodology

S.No	Description	Qualifying Criteria	Max Score
1	Manpower Experience	Strength of the team proposed for undertaking the assignment including the qualification, experience and time proposed on field as well as on support & maintenance. (Bidders need to provide names of the team members proposed to be deployed along with their relevant experience and Curriculum Vitae signed by the respective person and counter signed by the Authorized Signatory signing the Bid. PFCCCL/ WESCO may ask for suitable substitution in place of the proposed manpower, if it is found that the manpower is not suitable as per the requirements of the assignment)	20
2	Meter Manufacturing Experience	The Bidder or any Consortium Member must have: a. Manufactured and supplied minimum 25,000 nos. (cumulative) AMI Meters and successfully integrated with its own or Third Party software and with the existing system of Indian/ Global Power Distribution Utility(ies) in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid Or Manufactured and supplied minimum 25,000 nos. (cumulative) AMR Meters along with required hardware, software & other associated accessories etc. and successfully integrated with its own or Third Party software and manufactured and supplied minimum 25,000 nos. (cumulative) Pre-payment Meters as per IS 15884 to Indian/ Global Power Distribution Utility(ies) in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid	15
3	Experience in Integration with MDM	The System Integration (SI) must have experience of integration of HES with MDM on standard interfaces and data exchange models (CIM/XML/ IEC 61968 or any other open standard) for at least 25,000 consumers (cumulatively) in Indian/ Global Power Distribution Utility(s) in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid.	10
4	Experience as Cloud Service Provider	Cloud Service Provider (CSP) should have at least two (2) work orders from Central Government / State Government/ PSU /Semi- Government of India in last 7 years (i.e. FY 2013-14 onwards) (In case the Bidder is proposing more than one CSP, then marking would be done based on experience of that CSP which has lower no. of work orders)	10
5	Experience in Communication	The Communications Network Provider's (CNP's) RF Mesh should have been implemented in project(s) with at least 25,000 (cumulatively) communication module/ endpoints (manufacturing, supply, installation, integration, maintenance & management) involving Radio Frequency (RF) mesh in Licensed frequency band as permitted by WPC, Ministry of Communication, Govt. of India or in Unlicensed frequency band in India or abroad in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid	10
6	Experience as Meter Data Management (MDM) Provider	Meter Data Management Provider (MDMP) should have successfully implemented and integrated with HES for at-least 25,000 (cumulatively) numbers of smart meter/ AMI system and AMR system (managing 15/ 30 minutes interval data) out of which at-least 10% (i.e. at least 2,500 numbers cumulatively) should be of smart meter/ AMI system in any Indian/ Global Power Distribution Utility in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid	10
7	Approach & Methodology	Bidder to submit a brief on Approach & Methodology for executing the Project	10
8	Financial Criteria	Minimum Average Annual Turnover (MAAT) of the bidder (Average of best Three Financial Years out of the Last Five Financial Years i.e. FY 2015-16 onwards) should not be less than INR 100 Cr	15
		Total	100

The technical evaluation parameters have been discussed in detail below:

1. Manpower Experience (20% of Maximum Technical Score)

This evaluates strength of the team proposed for undertaking the assignment including the qualification, experience and time proposed on field as well as on support & maintenance.

The proposed core team shall comprise of the following experts:

Requirement	Criteria	Score
Expert 1: Team Leader/ Project Manager	Expert in AMI Implementation including metering and related aspects, installation and management of smart meters, communication network, last mile connectivity, head end system and MDMS. He should have minimum 10 years of relevant experience.	5
Expert 2	Expert in System Integration covering application software, hardware and network installation, integration design and ability to manage multiple partners with different skill sets in different technology domains. He should have minimum 5 years of relevant experience.	5
Expert 3	Expert in cyber security related aspects covering planning & implementing high level system security requirements, managing data privacy & confidentiality, information flow through adequate authorizations, threat modelling & security testing. He should have minimum 5 years of relevant experience.	5
Expert 4	Expert in communication protocols and in implementing applications using different communication technologies and ensuring communication inter-operability across applications/functionalities. He should have minimum 5 years of relevant experience.	5

Above core team shall not be allowed to be replaced during project execution. In exceptional cases same may be done with prior approval.

2. Meter Manufacturing Experience (15% of Maximum Technical Score)

Requirement	Criteria	Score
Bidder or any Consortium Member must have a. Manufactured and supplied minimum 25,000 nos. (cumulative) AMI Meters and successfully integrated with its own or Third Party software and with the existing system of Indian/ Global Power Distribution Utility(ies) in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid Or Manufactured and supplied minimum 25,000 nos. (cumulative) AMR Meters along with required hardware, software & other associated accessories etc. and successfully integrated with its own or Third Party software and manufactured and supplied minimum 25,000 nos. (cumulative) Pre-payment Meters as per IS 15884 to Indian/ Global Power Distribution Utility(ies) in the last 7 years (i.e FY 2013-14 onwards) till the date of submission of bid	>=60,000	15
	>= 40,000 and <60,000	10
	>= 25,000 and <40,000	5

3. Experience as System Integrator (SI) with MDM (10% of Maximum Technical Score)

Requirement	Criteria	Score
The System Integrator (SI) must have experience of integration of HES with MDM on standard interfaces and data exchange models (CIM/XML/ IEC 61968 or any other open standard) for at least 25,000 consumers (cumulatively) in Indian/ Global Power Distribution Utility(s) in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid.	>=60,000	10
	>= 40,000 and <60,000	7
	>= 25,000 and <40,000	5

4. Experience as Cloud Service Provider (CSP) (10% of Maximum Technical Score)

Requirement	Criteria	Score
Cloud Service Provider (CSP) should have at least two (2) work orders from Central Government / State Government/ PSU /Semi-Government of India in last 7 years (i.e. FY 2013-14 onwards) (In case the Bidder is proposing more than one CSP, then marking would be done based on experience of that CSP which has lower no. of work orders)	>= 4	10
	=3	7
	=2	5

5. Experience as Communication Network Provider (CNP) (10% of Maximum Technical Score)

Requirement	Criteria	Score
The Communications Network Provider's (CNP's) RF Mesh should have been implemented in project(s) with at least 25,000 (cumulatively) communication module/ endpoints (manufacturing, supply, installation, integration, maintenance & management) involving Radio Frequency (RF) mesh in Licensed frequency band as permitted by WPC, Ministry of Communication, Govt. of India or in Unlicensed frequency band in India or abroad in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid	>=60,000	10
	>= 40,000 and <60,000	7
	>= 25,000 and <40,000	5

6. Experience as Meter Data Management Provider (MDMP) (10% of Maximum Technical Score)

Requirement	Criteria	Score
The Meter Data Management Provider (MDMP) should have successfully implemented and integrated with HES for at-least 25,000 (cumulatively) numbers of smart meter/ AMI system and AMR system (managing 15/ 30 minutes interval data) out of which at-least 10% (i.e. at least 2,500 numbers cumulatively) should be of smart meter/ AMI system in any Indian/ Global Power Distribution Utility in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid/ Global Power Distribution Utility in the last 7 years (i.e. FY 2013-14 onwards) till the date of submission of bid	>=60,000	10
	>= 40,000 and <60,000	7
	>= 25,000 and <40,000	5

7. Financial Criteria

Requirement	Criteria	Score
Minimum Average Annual Turnover (MAAT) of the bidder (Average of best Three Financial Years out of the Last Five Financial Years i.e. FY 2015-16 onwards) should not be less than INR 100 Cr. MAAT means annual total income as incorporated in the profit & loss account except non-recurring income e.g. sale of fixed assets.	>= Rs 200 Cr	15
	>= Rs 150 Cr and < Rs 200 Cr	10
	>= Rs100 Cr and < Rs 150 Cr	5

Volume-I, Annexure-E - Revised Project Implementation Schedule

The project implementation schedule for AMI system establishment and timelines for related services milestones from date of signing of contract are given below:

S. No	Milestone	Timeline (in months) from Date of Signing of Contract
1.	Submission of Baseline Study Report including “As Is” study of existing IT systems prevalent at WESCO and do a gap analysis w.r.t. AMI system to be implemented and submit “To be” report for IT system consolidation for ensuring full benefits of AMI	1
2.	Establishment of Pilot System and Technology for 1 st lot of 5% initial smart meters (i.e. 5% of 91,034 no. of meters) along with related hardware, software and equipment at Project site after Factory Acceptance Test (FAT) including GIS for equivalent area. (Installation of Smart Meters and establishment of back-end IT Infrastructure on cloud network etc.) and successful completion of Field Installation and Integration Test (FIIT)	8
3.	Laying down of Network Backhaul for data transmission from Smart Meters to the Back-End System	10
4.	Delivery of balance smart meters along with related hardware, software and equipment at Project site after Factory Acceptance Test (FAT) including GIS for equivalent area. Considering delivery, site installation and integration of 8 lots of having 10000 smart meters in each lot and the balance no. of smart meters in the 9 th lot with related hardware, software and equipment after successful completion Field Installation and Integration Test (FIIT) of each lot.	18
5.	Installation, commissioning and integration of all AMI Hardware, Software, field material in Project Area and Site Acceptance Test (SAT)	20
6.	Successful completion of 3 months of Guaranteed Performance Test (GPT) of the AMI system and Operational Acceptance.	24
7.	Warranty (Defect Liability) Period – 5 years from Operational Acceptance	84
8.	FMS Period – 8 Years from Operational Acceptance	120

Volume-I, Annexure 10 – Revised Format of Bill of Quantities

A. Supply of Items

S. No.	Particulars	Unit	Total Base Year Quantity	Total Incremental Quantity over a period of 10 years	Total Quantity over a period of 10 years
1	2	4	5A	5B	5C=5A+5B
A.	SMART METERS				
1	Single Phase SMART Meters (5-30 A) (Consumer End) with Modular RF Mesh Module (for installation with each meter)	No.s	33596	11554	45150
2	Single Phase SMART Meters (10-60 A) (Consumer End) with Modular RF Mesh Module (for installation with each meter)	No.s	50395	17332	67727
3	Three Phase SMART Meters (20-100 A) (Consumer End) with Modular RF Mesh Module (for installation with each meter)	No.s	5050	1106	6156
4	Three Phase LT-CT SMART Meters (/5A) (Consumer End) with Modular RF Mesh Module (for installation with each meter)	No.s	431	149	580
5	Single Phase SMART Meters (5-30 A) (at DT) with Modular RF Mesh Module (for installation with each meter)	No.s	283	0	283
6	HT SMART Meters (/5A) (Consumer End) with Modular RF Mesh Module (for installation with each meter)	No.s	99	22	121
7	Three Phase LT-CT SMART Meters (at DT) with Modular RF Mesh Module (for installation with each meter) (Please refer Sheet named "LT-CT SMART Meters (at DT)")	No.s	885 1115	0	885 1115
8	HT SMART Meters (/5A) (at Feeder) (11KV Feeder) with Modular RF Mesh Module (for installation with each meter)	No.s	10	0	10
9	HT SMART Meters (/1A) (at Feeder) (11KV Feeder) with Modular RF Mesh Module (for installation with each meter)	No.s	34 37	0	34 37
10	HT SMART Meters (/5A) (at Feeder) (33KV Feeder) with Modular RF Mesh Module (for installation with each meter)	No.s	4	0	4
11	HT SMART Meters (/1A) (at Feeder) (33KV Feeder) with Modular RF Mesh Module (for installation with each meter)	No.s	14	0	14
12	Box for Single Phase SMART Meters (5-30 A)	No.s	33879	11554	45433
13	Box for Single Phase SMART Meters (10-60 A)	No.s	50395	17332	67727
14	Box for Three Phase SMART Meters (20-100 A)	No.s	5050	1106	6156
15	Box for Three Phase LT-CT SMART Meters (/5A)	No.s	1316 1546	149	1465 1695
16	Box for HT SMART Meters (/5A)	No.s	113	22	135
17	Box for HT SMART Meters (/1A)	No.s	48 51	0	48 51
18	Data Concentrator Units/ Gateway/ Router for forming RF Mesh Canopy	Lumpsum		1	
19	Additional 10% Cables (Service cables and DTR cables)	Lumpsum		1	

B.	IT INFRASTRUCTURE		
1	IT Infrastructure over cloud & Connectivity, system Integration (Including application License fees) and any other hardware equipment/ software as defined in the Technical Specifications of RfP		
i.	Head End System with Integration	Lumpsum	1
ii.	Meter Data Management System	Lumpsum	1
iii.	Android &/ IOS Mobile App and web portal.	Lumpsum	1
iv.	GIS System (including relevant software) & License including Technical audit of substations and Preparation of digitized network on base map in pre-defined scale with features and attributes of data collected through survey for GIS application.	Lumpsum	1
v.	System Implementation including integration with Cloud and MDM Integration with Billing & other systems	Lumpsum	1
C.	SMART GRID CONTROL ROOM INFRASTRUCTURE (Supply & Installation)		
1	Desktops/ Workstation (with UPS, Table, Chair, OS and latest MS Office)	No.s	2
2	Network LaserJet (B/W) Photo copy, scanning and Printing	No.s	2
3	A4 Size Inkjet / Bubble Jet printer	No.s	2
4	A3 Size Inkjet Color Printer/All in one Color laser jet Printer	No.s	1
5	Work Station with Dual TFT Monitors	No.s	4
6	NMS System	No.s	1
7	Antivirus Software/ UTM application	Lumpsum	1
8	Database Software & Centralised NMS management s/w	No.s	2

B. Erections of Items

S. No.	Particulars	Unit	Total Base Year Quantity	Total Incremental Quantity over a period of 10 years	Total Quantity over a period of 10 years
1	2	3	4A	4B	4C=4A+4B
1	Single Phase SMART Meters (5-30 A) (Consumer End)	No.s	33596	11554	45150
2	Single Phase SMART Meters (10-60 A) (Consumer End)	No.s	50395	17332	67727
3	Three Phase SMART Meters (20-100 A) (Consumer End)	No.s	5050	1106	6156
4	Three Phase LT-CT SMART Meters (/5A) (Consumer End)	No.s	431	149	580
5	Single Phase SMART Meters (5-30 A) (at DT)	No.s	283	0	283
6	HT SMART Meters (/5A) (Consumer End)	No.s	99	22	121
7	Three Phase LT-CT SMART Meters (at DT)	No.s	885 1115	0	885 1115
8	HT SMART Meters (/5A) (at Feeder) (11KV Feeder)	No.s	10	0	10
9	HT SMART Meters (/1A) (at Feeder) (11KV Feeder)	No.s	34 37	0	34 37
10	HT SMART Meters (/5A) (at Feeder) (33KV Feeder)	No.s	4	0	4
11	HT SMART Meters (/1A) (at Feeder) (33KV Feeder)	No.s	14	0	14

12	Box for Single Phase SMART Meters (5-30 A)	No.s	33879	11554	45433
13	Box for Single Phase SMART Meters (10-60 A)	No.s	50395	17332	67727
14	Box for Three Phase SMART Meters (20-100 A)	No.s	5050	1106	6156
15	Box for Three Phase LT-CT SMART Meters (/5A)	No.s	1316 1546	149	1465 1695
16	Box for HT SMART Meters (/5A)	No.s	113	22	135
17	Box for HT SMART Meters (/1A)	No.s	48 51	0	48 51
18	Data Concentrator Units/ Gateway/ Router for forming RF Mesh Canopy	Lumpsum	1		

C. Year 1 FMS Cost

S. No.	Particulars	Unit	Total Base Year Quantity
1	2	3	4
1	Year 1 FMS Cost (inclusive of Year 1 charges towards GIS updation & monthly cloud usage)	Lumpsum	90801 91034

D. Details of LT-CT SMART Meters (at DT)

S.No	Transformer Rating (in KVA)	No. of Transformers	No. of Circuit	No. of LT-CT meters at DT Level	CT Ratio
1	1000	6	4	24	800/5
2	630	6	4	24	800/5
3	500	141	3	423	800/5
4	315	33	2	66	400/5
5	250	113	2	226	400/5
6	200	14	2	28	400/5
7	100	274	1	274	200/5
8	63	29	1	29	100/5
9	25	21	1	21	100/5
Total				1115	
No. of LT-CT Non-Smart Meters at DT Level already under implementation				230	
Total No. of LT-CT Smart Meters required at DT Level as per this RfP				885 1115	

Volume-II, Clause 9.13.2 – ~~Payment of FMS Charges~~ Proportionate Reduction in Meter Rent per Consumer per Month

In the event of availability below a certain level, ~~the FMS charges~~ Meter Rent per Consumer per Month would be proportionately reduced as follows

Availability of AMI System per Month	% Deduction
> 97% 99.5%	NIL
Less than 97% 99.5%	Penalty will be 1% of the FMS component of the Meter Rent per month for every 1% or part there of decrease in availability under 97%). Penalty will be calculated separately for Hardware and Software Availability. The maximum deduction shall be limited to FMS component of the Meter Rent per month paid for that particular period. 0.6% of Meter Rent per Consumer per Month as quoted by the Bidder for every 0.5% or part there of reduction in availability. There shall be <u>no capping</u> of Penalty.

The computation of Availability / Non-availability would be rounded up to 2 decimal on ~~quarterly~~ monthly basis and any deduction in the ~~FMS charges~~ Meter Rent per Consumer per Month thereof would be calculated on pro-rata basis.

For Data Performance:

The following data read performance should be met by the contractor during the FMS period. If the desired performance requirements are not met, ~~the Penalties would be levied FMS charges would be proportionately reduced~~ as described below:

Data Type	Performance Requirement
1. Scheduled daily meter readings (as per IS 16444/15959)	
Daily collection of the previous day's interval energy data and total accumulated energy	The Performance Requirement and Penalty would be as per Volume-II, Clause 4.4 (Table - S.No.2). There shall be no capping of Penalty
	From 95% of meters within 8 hours after midnight; and
	From 99.5% of meters within 24 hours after midnight. Average availability for the month will be computed
Penalty will be 1% of the FMS component of the Meter Rent per month for every 1% or part there of decrease in availability under 99.5%). Penalty will be calculated separately for Hardware and Software Availability. The maximum deduction shall be limited to FMS component of the Meter Rent paid for that particular period.	