Annexure B : Corrigendum No. I			
Sr.no.	**Tender Reference**	**Old Value (Version 1.0)**	**New Value (Version 2.0)**
1	2 SCOPE OF WORK 2.10. Model Technical specifications c) Desktop for LDMS (Local Data Monitoring System)	LDMS System shall consist single monitors & single keyboard and a cursor positioning device/mouse.	LDMS Desktop should only be from any one of the of Brand such as Dell/HP/ASUS/Acer/Lenovo.
2	2 SCOPE OF WORK 2.11. Technical Requirements for Cloud Service Providers (CSP):	SIA shall be responsible to provide the services of CSP	SIA shall be responsible to provide the services of CSP as below and as specified in Annexure 4 Added Annexure 4 :Technical Specifications for Cloud Service Provider
3	5 Conditions of contract EE. BILLING AND PAYMENT TERMS II. Certification and verification	Added :	For Billing, Bidder should provide Insurance copy, delivery challan, software installation dates, Installation & commissioning report of each equipment provided by bidder signed by MSEDCL Field Engineer, Sub Station Go-Live certificate signed by respective S.E. of the Circle office, monthly penalty calculations, Complete substation wise & Data point wise data availability report certified by respective S.E. of the Circle office, data availability report from dashboard. Bidder to submit certification from concern circle office in case of any scheduled downtime, or scheduled maintenance in details (week/days) Bidder to submit faulty equipment report from complaint and ticket management system. For support services, the concerned S.E. of circle office should certify satisfactory performance report which should be submitted along with the invoice
4	7 Annexures and forms Form # 5 Price Schedule		Please refer revised price schedule in RFP
5	5 Special Conditions of contract EE. BILLING AND PAYMENT TERMS III. Penalties and Payment: 1. Payment schedule		Please refer revised Payment schedule in RFP
6	7 Annexures and forms Form # 20 Service Level Agreement		Please refer revised SLA in RFP
7	5 General Conditions of contract A. Definitions	xxix. "Go-Live" (Commissioning) of substation means Complete Data availability for all equipment under substation is made available at control centre by bidder to MSEDCL to be considered as Go-live of that substation. The Go-live of the substation will be decided by concerned Superintending Engineer O&M of that Circle. If one computer with required software, hardware, one computer Table and one Chair per substation for all the substations under bidder's scope is not provided by the bidder then Go-live of the substation will not be declared.	xxix. "Go-Live" (Commissioning) of substation means: a) Complete data availability for all equipment under substation is made available at Central Control Centre and LDMS by bidder to MSEDCL. b) Go-live of the substation will be certified by concerned Superintending Engineer O&M of that Circle by verifying correctness and availability of complete substation data at LDMS and centralized web-based dashboard of Central Control Centre. c) If one computer with required software, hardware, one computer Table and one Chair per substation for all the substations under bidder's scope is not provided by the bidder then Go-live of the substation will not be declared.
8	5 Special Conditions of contract AA. Liquidated damages	In case of a delay in the deliverables (milestones as per below table) within the period stipulated in the agreement, the Bidder shall be liable to pay, at the discretion of the competent authority of MSEDCL, the liquidated damages to MSEDCL up to ½ % of total contract value (incl. GST) if applicable per week or part of week on the price pertaining to delayed activities, subject to a maximum ceiling of 10% reckoned on the total contract value.	a) In case of a delay in the deliverables at substation level (milestones as per below table) within the period stipulated in the agreement, the Bidder shall be liable to pay, at the discretion of the competent authority of MSEDCL, the liquidated damages to MSEDCL up to ½ % on the price pertaining to delayed substations (Incl. GST), applicable per week or part of week, subject to a maximum ceiling of 10% reckoned on the total contract value. b) In case of a delay in the deliverables at control center (milestones as per below table) within the period stipulated in the agreement, the Bidder shall be liable to pay, at the discretion of the competent authority of MSEDCL, the liquidated damages to MSEDCL up to ½ % on the price pertaining to control center (Incl. GST), applicable per week or part of week, subject to a maximum ceiling of 10% reckoned on the total contract value.
9	2. Scope of Work 2.11. Technical Requirements for Cloud Service Providers (CSP): 9.1. Functional Requirements of the CSP	The RTO of [4 hours] shall be met by infrastructure redundancy and failover. The RPO of [2 hours] shall be met by a suitable backup and replication strategy of operational data / application.	The RPO of [RPO <=15 Minutes] shall be met by infrastructure redundancy and failover. The RTO of [RTO<= 2 Hours] shall be met by a suitable backup and replication strategy of operational data / application.

Sr.no.	Tender Reference	Old Value (Version 1.0)	New Value (Version 2.0)
10	2. Scope of Work 2.10 Model technical Specification	**Part A: Mandatory** Following material / equipment is required mandatorily for the proposed solution and these equipment shall comply the minimum specifications as below :	**IT Hardware list of Mandatory components for Central Control Center are as below and quantity to be considered to achieve network redundancy .** (a)VPS-LED Based Technology (b)Layer-2 Managed Switch (c)Layer-3 Core Switch (d) Router for Control Center (e)All in One Printer (f)Next Generation Firewall (g)Network Access Controller (h)Windows Server for Management (i)Work Station for Control Center (j)UPS for Control Center (k) GPS time sync - Central Control Centre system should be sync with GPS based time system and all substation equipment should be sync with the CCC time. **IT Hardware list of Mandatory components for Substation are as below** (a)LDMS PC with software along with table and chair (b)LDMS UPS (c)Net Meter for Power Transformer HV & LV (d) Transformer Tap Position transducer e) Multi-Function Meter (MFM) / Multi Function Transducer (MFT) (MFT / MFM for each feeder, capacitor back, station transformer) f) OTI/WTI (Bidder has to decide quantity as per survey) g) DCU /WAN Router / Gateway / Modem Note : Bidder has to provide any one of the communication equipment at substation level as per solution proposed. h) DCPS (DC Power Supply) **IT Hardware list of optional components for Substation are as below** (a) RTU
11	2. Scope of Work 2.10 Model technical Specification Part A : Mandatory DC Power Supply		Added: Backup duration for the DC power supply should be at least minimum 4 hours
12	5 Special Conditions of contract EE. BILLING AND PAYMENT TERMS III. Penalties and Payment: 2. Penalty b) Payment based on availability of data in s/s:	If any parameter (such as V,I,PF, Power, energy, relay & CB status etc.) of the line items/equipment is missing/ not available for complete month due to bidder's issue then no payment shall be made to the bidder for that equipment	If any parameter (such as V,I,PF, Power, energy, relay & CB status etc.) of the line items/equipment is missing/ not available for complete month due to bidder's issue then no payment shall be made to the bidder for that substation. The penalty per substation will be calculated as Section B of price bid i.e. comprehensive support services cost quoted in Column B/ Number of Substation.
13	2 SCOPE OF WORK 2.11. Technical Requirements for Cloud Service Providers (CSP):	d. CSP should suitably address all the potential risks and issues in cloud implementation including data security and privacy, increased complexity in integration with existing environments, vendor lock-in, application portability between different platforms, exit management / Transition-Out Services etc.	d. CSP/MSP should suitably address all the potential risks and issues in cloud implementation including data security and privacy, increased complexity in integration with existing environments, vendor lock-in, application portability between different platforms, exit management / Transition-Out Services etc.
14	2 SCOPE OF WORK 2.11. Technical Requirements for Cloud Service Providers (CSP):	h. The responsibilities of CSP include migration of the data, content and any other assets to the new environment or on alternate cloud service provider's offerings and ensuring successful deployment and running of the Utility's Solution on the new infrastructure	h. The responsibilities of CSP/MSP include migration of the data, content and any other assets to the new environment or on alternate cloud service provider's offerings and ensuring successful deployment and running of the Utility's Solution on the new infrastructure
15	2 SCOPE OF WORK 2.11. Technical Requirements for Cloud Service Providers (CSP):	a. CSP must ensure that the non-production and the production environments are in separate VLANs in the cloud so that users of the two environments are separated.	a. CSP/MSP must ensure that the non-production and the production environments are in separate VLANs in the cloud so that users of the two environments are separated.
16	2 SCOPE OF WORK 2.11. Technical Requirements for Cloud Service Providers (CSP):	b. CSP should ensure that any OS provisioned as part of cloud virtual machine should be patched with latest security patch.	b. CSP/MSP should ensure that any OS provisioned as part of cloud virtual machine should be patched with latest security patch.
17	2 SCOPE OF WORK 2.11. Technical Requirements for Cloud Service Providers (CSP):	e. CSP should deploy public facing services in a zone (DMZ) different from the application services. The Database nodes (RDBMS) should be in a separate zone with higher security layer.	e. CSP/MSP should deploy public facing services in a zone (DMZ) different from the application services. The Database nodes (RDBMS) should be in a separate zone with higher security layer.
18	2 SCOPE OF WORK 2.11. Technical Requirements for Cloud Service Providers (CSP):	m. CSP should clearly define policies to handle data in transit and at rest.	m. CSP/MSP should clearly define policies to handle data in transit and at rest.
19	2. Scope of Work 2.11. Technical Requirements for Cloud Service Providers (CSP): C) Functional Requirements of the CSP IX Business Continuity Plan & Backup Services.	Media management including, but not limited to, tagging, cross-referencing, storing (both onsite and off-site), logging, testing, and vaulting in fireproof cabinets if applicable.	Deleted
20	2. Scope of Work 2.11. Technical Requirements for Cloud Service Providers (CSP): 9.2. Security i. Cloud HSM	Cloud HSM: Meet regulatory compliance requirements for data security by using dedicated Hardware Security Module (HSM) appliances within the Cloud.	Cloud HSM: Meet regulatory compliance requirements for data security by using dedicated cloud based Security Module (HSM) appliances within the Cloud.

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21	3. BIDDING PROCEDURE AND INSTRUCTION TO BIDDERS J. General Bid Instructions 4. Important Notes vii.		Added: vii. Bidder has to submit Bill of Quantities (BOQ) an in line with the solution proposed along with the quantities and specify OEM wherever applicable. viii. Bidder to submit Covering note mentioning a. Qualification Criteria b. Respective Documents specific to each QR c. Related filename along with page number. ix. Bidder to submit Covering note mentioning a. Technical Evaluation b. Respective Documents specific to each Technical Qualification. c. Related filename along with page number.
22	2. Scope of Work 2.10 Model technical Specification Part A : Mandatory J) All in One	j) All in one Printer Printing Output: Monochrome	j) All in one Printer Printing Output: Colour
23	7 Annexures and forms Annexure 5 : List of Substations		Annexure 5 added.
24	2.0 Scope of Work 2.4 Design, engineering, Supply of materials and Installation, testing, commissioning and monitoring at MSEDCL's Field location/ offices at substation	Sample single line diagram (SLD) of s/s Communication between DCU and Feeder status is on RS485	Sample single line diagram (SLD) of s/s Communication between DCU to LDMS and control center should be on IEC 60870-5-104/IEC20922 . GPS communication on TCP IP (NTP/SNTP)
25	2.0 Scope of Work 2.6. Technical and Functional Specifications	g. Hardware solution interface which is to be installed at substation must have its own RTC (real time clock) for maintaining time-stamp at data logging. Real time clock must be in sync with cloud/ central server time minimum once in a day.	g. Hardware solution interface which is to be installed at substation must have its own RTC (real time clock) for maintaining time-stamp at data logging. Real time clock must be in sync with cloud/ central server time.
26	2. Scope of Work 2.11. Technical Requirements for Cloud Service Providers (CSP): A) General Conditions		Added For Cloud environment uptime availability should be 99.99% as specified in the tender. The number of concurrent users will be approx. 4500. Storage Duration will be for the entire contract period.
27	2. Scope of Work 2.1. Brief Scope of Work	Survey and freezing of quantity: Bidder to survey all substations to finalise the bill of material required for project. Further, bidder should also provide the detail survey regarding WTI and OTI whether motorized or non-motorized	Survey and freezing of quantity: Bidder to survey all substations to finalise the bill of material required for project. Further, bidder should also provide the detail survey regarding WTI and OTI.
28	7 Annexures and forms Form # 20 Service Level Agreement G. Monitoring and Auditing	IT Team of MSEDCL will review the performance of Bidder/ System implementation agency (SIA) against the SLA parameters each month, or at any periodicity defined in the contract document. The review / audit report will form basis of any action relating to imposing penalty or breach of contract. Any such review / audit can be scheduled or unscheduled. The results will be shared with the Bidder/ System implementation agency (SIA) as soon as possible. MSEDCL reserves the right to appoint a third-party auditor to validate the SLA.	MSEDCL will review the performance of Bidder/ System implementation agency (SIA) against the SLA parameters at any periodicity defined in the contract document. The review / audit report will form basis of any action relating to imposing penalty or breach of contract. Any such review / audit can be scheduled or unscheduled. The results will be shared with the Bidder/ System implementation agency (SIA) as soon as possible. MSEDCL reserves the right to appoint a third-party auditor to validate the SLA.
29	7 Annexures and forms Form # 20 Service Level Agreement E. Breach of SLA	2.Bidder/ System implementation agency (SIA) should reply to the notice within three working days.	2. Bidder/ System implementation agency (SIA) should reply to the notice within three working days after the receipt of notice.

Sr.no.	Tender Reference	Old Value (Version 1.0)	New Value (Version 2.0)
30	2. Scope of Work 2.8 Complaints and ticket management system	. Complaint Logging : . Farmer Mobile Application . Implementing Agency Engineer . Ticket Generation and Allocation : . Ticket generation against complaint . Ticket Allocation to respective Vendor . Ticket Status Tracking : . Acknowledgement . Allocation . Assignment . Site Visit – Status update by Vendor . Resolution – Resolved Status update by Vendor . Ticket Analysis : . Time Taken to Acknowledge, Respond and Resolve a ticket . Reason and Component failure analysis	Complaint and Ticket management system should be able to create, organize, prioritize, respond and resolve complaints raised by users. The tickets can be equipment failure issues, service requests, events, incidents, alerts, and other complaints. This system should be able to notify the stage-wise status of complaint via sms, email, etc to the end users. This system should provide streamlined approach and constant monitoring to ensure faster resolutions. Complaints and ticket management system with following features to be provided by selected bidder. 1. Complaint Logging : i. Mobile Application ii. Implementing Agency Engineer 2. Ticket Generation and Allocation : i.. Ticket generation against complaint ii. Ticket Allocation to respective Vendor 3. Ticket Status Tracking : i.. Acknowledgement ii. Allocation iii. Assignment iv. Site Visit – Status update by Vendor v. Resolution – Resolved Status update by Vendor 4 Ticket Analysis : i. Time Taken to Acknowledge, Respond and Resolve a ticket ii. Reason and Component Failure Analysis
31	2. Scope of Work 2.1. Brief Scope of Work	Monitoring of RMS data of each solar-plant commissioned by solar developers under MSKVY 2.0. (as per MNRE Guidelines) at central server and LDMS at Substation level.	Monitoring of RMS data of each solar-plant commissioned by solar developers under MSKVY 2.0. (as per MNRE Guidelines) at central server.
32	4. General Conditions of Contract J. ARBITRATION		Added: vii. Arbitration fee shall be equally borne by both parties
33	2. Scope of Work 2.10 Model technical Specification Part B: Optional a) Multi-Function Meter (MFM)	Display : 11 Digit LCD Display with Symbols & Back Light Communication : Serial : RS485 (MODBUS RTU); LAN : Wi-Fi (MODBUS TCP)	2.10 Model technical Specification Part A: Mandatory s) Multi-Function Meter (MFM) Display : Minimum 8 Digit LCD Display with Symbols & Back Light Communication : Serial : RS485 (MODBUS RTU); LAN (MODBUS TCP)
34	2. Scope of Work 2.12 Reports and Dashboard Sr No. 3 page 81	Integration of HES/DAS/ MDM with MSEDCL systems. Bidder has to provide DAS/ HES/ MDM and integrate the same with MSEDCL systems (currently deployed on AWS cloud) using Web Services/ APIs.	Integration of Central Software with MSEDCL systems. Bidder has to provide central software and integrate the same with MSEDCL systems (currently deployed on AWS cloud) using Web Services/ APIs.
35	2. Scope of works page 8	Monitoring of solar generation through Net Meter install at HV and LV side of power transformer.	Monitoring of energy flow at HV and LV side of each power transformer through Net Meter.
36	2. Scope of works page 8	Added	Integration of ABT meter (installed by solar developer at substation) with central server and LDMS for monitoring of solar generation.
37	2. Scope of works 2.4 (3) page 10	Install Net Meter (Bidirectional Meter) at LV & HV side of Power Transformer for monitoring of solar generation into GRID.	Install Net Meter (Bidirectional Meter) at LV & HV side of each Power Transformer for monitoring of energy flow / solar generation into GRID.
38	2. Scope of works 2.5 (i) A) Integration with SCADA/DMS Page 13	Added	The SCADA data will be made available through webservice/API provided by SCADA SI and same will be used for Real-time visualization of the power scenario in Substation Monitoring System.
39	2. Scope of works 2.5 (i) A) Integration with SCADA/DMS Page 15	This data will be used for Real-time visualization of the power scenario along with Substation Monitoring System. Also, the Outage Management System will integrate with SCADA/OMS to derive necessary spots of outages and trigger relevant SOPs.	Deleted
40	2. Scope of works 2.5 (i) C) Integration with RMS at Solar Plant commissioned under MSKVY 2.0 Page 15	The RMS data shall also be made available in LDMS at Substation Level.	Deleted
41	2. Scope of works 2.5 ii. Command and Control Centre Dashboard Layer Page 13	Added	Data shall be available online for a period of at least 2 years.
42	2. Scope of works 2.15. Operational Support and Maintenance of the Solution page 83	Added	Bidder may select any technology stack as a part of solution offered to fulfil the scope of work of this tender. If proposed solution is on open-source software, bidder shall ensure necessary support during contract period.