Guidelines for Project formulation of DPR and project implementation RT-DAS for SAIDI/SAIFI measurement

The work shall cover mainly the following-

- Supply and installation of additional hardware (such as FRTU and associated hardware, software) in non SCADA towns of R-APDRP , IPDS alongwith central SAIDI/SAIFI system at Data centre (Union Territory & towns operated by private DISCOMs or distribution franchisee are excluded)

- The scope also covers preparation of Feeder Town S/S, DISCOM & STATE wise SAIFI /SAIDI measurement system. Consumer database linking with existing GIS Application, access to IT Infra to be provided by Utilities.

- Quantity of various IT infrastructure may be covered in the DPR as suggested below:
  - o FRTU and associated components alongwith DCPS at each S/S
  - o Server - redundant for RT-DAS,ISR,FEP , 4 workstations , if reqd LAN/WAN , RDBMS software modem /router, GPS time synch unit at DATACENTRE

- As per RAPDRP, Part-A IT technical specification (SRS), the servers installed in the Data Center & Disaster recovery Center are for managing enterprise level solution for the entire state and hence are scalable to meet the ultimate capacity. incremental up-gradation in Hardware/Server OS at Data center and DR center to cater additional towns is considered in IT system Hence , the common hardware & software at data centre shall be used such as SAN/Mass storage, Cyber security , RDBMS, Firewall, printers etc in this project

- SAIFI /SAIDI computer system will be installed at respective state Part A IT R-ADPRP data centre . Data acquisition from substation shall be done from FRTU installed at S/S

- No revenue expenditure (such as Facility Management Services, Bandwidth charges, Annual Technical Support, Annual Maintenance charges , manpower etc.) shall be considered in the DPR and shall be borne by Utility.

- Single consolidated DISCOM wise DPR for all towns by respective Utility with town wise quantity break of S/S and feeders shall be provided .

- In case of Multiple Discoms in a state, cost/BOQ of RT-DAS system at Data center shall be considered in DPR of the DISCOM with Data Center created under RAPDRP.

- RT-DAS Applications in non-RAPDRP (IPDS) towns shall be integrated with Applications at centralized Data center established or being established under Part-A (IT) of RAPDRP.

- One time project implementation cost is covered in the DPR.

- PMA charges shall be limited to 0.5% of project cost towards IT and ERP implementation. Any additional burden shall be borne by Utilities.

- Adequate size of Bandwidth are required for running of RT-DAS SAIFI SAIDI Applications in towns shall be procured by Utilities at their own cost.

- Utility has to create an IT Cell comprising of team of IT experts having relevant qualifications, experience and background in the field of system integration and IT implementation. This team shall be involved from concept to commissioning of the system and shall also be the Nodal Department/Group from the Utility for all issues related to implementation of the project.

- Utility has to ensure timely availability of any other infrastructure or facilities that are essential for implementation of the project, but are not in the scope of SSIA viz. s (Printer, SAN/ Mass storage ,Router and Switches, UPS , Firewall ,Cyber securities. etc.)

- Works in progress should not be included in the DPR

- The cost estimates should not include any departmental overhead expenses. All such expenditures should be borne by the utility.

- Utility shall ensure Necessary retrofitting if required for taking CB position & fault status of OC/EF data and analog values of 11 Kv ,22kv feeders

- Utility shall provide all possible support to MoP/ Nodal Agency (PFC) and their representatives including Third Party Concurrent Evaluation agency (TPCEA) for successful implementation and quality checks of the projects.

- The funding shall be governed as per existing IPDS guidelines and conditionality.

- Standard Model technical Spec (MTS) for SAIDI /SAIDI measurement (RT-DAS) to be followed . Utility may customize the same without deviating or diluting from the objective of the project and quality / testing requirement etc

- States under IPDS shall include the scope of SAIDI & SAIFI work with IT phase-II work for the purpose of tendering and implementation

- Main System Integrator in such cases may deploy SSIA as sub vendor with adequate domain expertise to implement

- States where IT Phase-II work has been awarded or financial bid has been opened, may separately tender the work of RT-Das and may use the QR as given in Annex 1 .

- The indicative Payment terms are: 10% interest bearing advance against 110% BG (in line with IPDS SBD) followed by Substation wise progressively linked to (supply of material after Factory Acceptance test i.e. FRTU and associated system substation and data centre software and hardware (40%) and Erection/test/commissioning (end to end test (20%)) . 20% to be paid on Go Live of Town of work town wise. 10% to be paid on town wise on operational acceptance. The % indicated is pertaining to proportionate portion of the data centre & S/S (FRTU & associated components)

Qualifying requirement

The Bidder shall be a Sole Bidder who shall meet the following:

Financial
i. Minimum Average Annual Turnover (MAAT) for best three years out of last five financial years of the bidder should not be less than Rs. ….. Crores i.e. 30% of the estimated cost of the project or 5 Cr whichever is higher. (**Proof:** Annual Audited Financial Statements for last three FY.)
ii. Net Worth for the each of the last three Financial Years should be positive. (Definition of net worth to be considered as per latest RBI guidelines) (**Proof:** Annual Audited Financial Statements for last three FY)
Technical

iii.
  a. The bidder must have implemented and completed at least one SCADA or DAS project, costing not less than the amount equal to 80% of the estimated cost, or two SCADA or DAS projects, costing not less than the amount equal to 50% of the estimated cost covering RTUs and/or FRTUs during the last seven financial years., which may include-
  1. Real time data acquisition
  2. Sequence of event recording & trending
  3. Data storage & retrieval
  4. IEC-870-5 protocol/DNP3.0/MODBUS for Power Generation /Transmission/Distribution System, Water, Oil & Gas , Transportation , for above which must be in successful operation as on date of opening of the bid
(**Proof:** (Experience certificates and/or Acceptance reports) and (Work Order and/or LoA from the owners/client for completion of work done), in support of the qualifying requirements, clearly establishing – the start and end date of the project, scope of work and worth of project, on client letterhead.

BOQ & PRICE SCHEDULE

S.No.	Equipment	Unit	Quantity	Per Unit Cost incl tax & duties	Total
				Rs.	Rs.
DATA CENTRE					
A1	**Hardware**				
1	RT-DAS server	No.	2		
2	FEP server with interface switches	No.	2		
3	ISR server	No.	2		
4	Developmental server with console	No.	1		
5	Workstation with dual TFT Monitors	No.	4		
6	**Switches**				
7	Layer II switch	No.	2		
8	Router one each for interfacing IT system & MPLS network	No.	A/R		
9	GPS Time synchronisation system	Set	2		
	Any other item to meet specification requirements				
A2	**Software**				
10	RT-DAS software	Lot	1		
11	ISR Software	Lot	1		
12	Any other item to meet specification requirements	Lot	A/R		
	Sub- Total (Hardware) A2				
	Total A				

PLEASE SUBMIT FOR EACH TOWN AND ALL TOWNS TOGETHER SEPARATE SCHEDULE

S.No.	Equipment	Unit	Quantity	Per Unit Cost incl tax & duties	Total	
				Rs.	Rs.	
B1	**FRTU**					1 Per S/S
	FRTU comprising panels, racks, sub-racks, Power Supply modules, CPU analog / digital input module as per specification interfacing equipment, required converters & all other required items/accessories including complete wiring for all modules for locations mentioned below	Set				
	MFTs	No.				1 per feeder
	CMRs	No.				1per CB, O/C & E/F
	Router/ modem	No.				1 Per S/S
	Any other hardware to meet functional /performance requirement of MTS	Lot				
	Sub-Total (Hardware)B1					
B2	**Test Equipments for FRTU**					1 per circle
	FRTU Database Configuration & Maintenance Software tool & Master Station cum RTU Simulator & Protocol analyser software tool &Laptop PC for above software tools along with interfacing hardware including Hub	No.				
	Sub-Total (Test equipment) B2					
B3	**Power Supply**					
	DC Power Supply (DCPS) system based on SMPS	No.				1 Per S/S
	Battery bank for above DCPS (VRLA Type) for minimum 4 hrs backup	No.				
	Total B					
	GRAND Total C (A+B) AWARD UNDER IPDS .					