

DEENDAYAL PORT AUTHORITY
An ISO 9001 : 2008 & ISO 14001 : 2004 Certified Port



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EXPRESSION OF INTEREST [EOI] for

“Appointment of Service Operator and Advisory Services for Distribution Business, Metering and Billing for a period of three years”

Executive Engineer (Electrical), DPA invites Expression of Interest for the work of “Appointment of Service Operator and Advisory Services for Distribution Business, Metering and Billing for a period of three years” from the reputed firms from those who have executed similar work in Government/public sectors and other leading private organizations. The Expression of Interest (EOI) documents containing details of Scope of Work and technical specifications are enclosed herewith.

The interested firms are requested to submit budgetary quotation for the said work in format enclosed at Annexure I. The completed EOI (Expression of Interest) shall be submitted to the office of the undersigned on or before 01/03/2023.

Executive Engineer (E)
Deendayal Port Authority

Annexure I

Bill of Quantities

Name of Work: Appointment of Service Operator and Advisory Services for Distribution Business, Metering and Billing for a period of three years.

Sr.No.	Description	Qty.	Unit	Rate	Amount
1	Charges towards professional services for the following as per the Scope of Work:				
A	Advisory Support	Lump sum	Complete Job		
B	Distribution Services Support				
(a)	1st Year	Lump sum	Year		
(b)	2nd Year	Lump sum	Year		
(c)	3rd Year	Lump sum	Year		
Sub Total of B					
C (a)	Energy Auditing	Lump sum	Complete Job		
(a)	1st Year for Energy Auditing	Lump sum	Year		
(b)	2nd Year for Energy Auditing	Lump sum	Year		
(c)	3rd Year for Energy Auditing	Lump sum	Year		
Sub Total of C (a)					
C (b)	Illumination Survey	Lump sum	Complete Job		
(a)	1st Year for Illumination Survey	Lump sum	Year		
(b)	2nd Year for Illumination Survey	Lump sum	Year		
(c)	3rd Year for Illumination Survey	Lump sum	Year		
Sub Total of C (b)					
Total Amount (i.e. of A+B+C(a)+C(b) Rs.:					

Note: Work related to Part-D (Supervision of Capex Planning and Implementation) shall be awarded to service operator on need basis. Service operator will be paid supervision charges for new service connections & load extension/ reductions and for Repair & Capital Works respectively as per GERC regulations.

(Grand Total In Words Rupees
.....
.....**Only)**

(NOTE: The rates should be inclusive of All Taxes, Duties, Fees, Cess etc and all incidental charges but exclusive GST. Also note that the rates for both the items should be mentioned in the BOQ table above, unfilled cell of BOQ table will not be accepted. Incomplete bid would be rejected.).

**Signature & Seal
of Contractor**

**Executive Engineer (E)
Deendayal Port Authority**

SCOPE OF WORK

Background:

Deendayal Port is a natural harbor situated in Kandla creek and is about 90 km from the Gulf of Kutch - with 10 dry cargo berths and a state-of-the-art container terminal with a capacity of 3.6 MMTPA. It is one of the major ports on the west coast of India under the Government of India, Ministry of Shipping and its main activity is to facilitate maritime trade for commercial cargo handling vessels. The license for supply of electrical energy was granted to Deendayal Port Authority by the Chief Commissioner of Kutch under the Indian Electricity Act, 1910. Consequent to the enactment of the Electricity Act, 2003, DPA has become a deemed licensee under the Act. The distribution of electricity by DPA is limited to the port area and it mainly supplies power to domestic and commercial consumers and for port operations. DPA itself carries out all major operations in the port, along with another HT consumer carrying out part of the operations. The present distribution system within DPA comprises of one 66 kV substation and fifteen 11 kV substations in the licensee area. DPA is receiving 66 kV power supply from GETCO. The distribution network of DPA's licensee area is consisting of Overhead and Underground system.

Deendayal Port Authority (DPA) is a deemed distribution licensee as per the provision of Electricity Act 2003 and Gujarat Electricity Industry (Reorganization and Regulation) Act 2003. Consequently all the provisions under the regulations notified by the Gujarat Electricity Regulatory Commission (GERC), for the Distribution Licensee are applicable to the DPA.

Objective:

DPA is currently establishing itself as a fully functional distribution licensee. With limited infrastructure, manpower shortage and experience in the distribution business, DPA intends to hire a Service Operator (SO) for its distribution services related activities including Metering and Billing and associated services to improve the quality of service and meet GERC's Standard of Performance as well as comply with all directions.

Detailed Scope of Work:

Service Operator shall undertake the work for a period of 3 years from the date of issuance of work order. The Service Operator shall deploy qualified resources to successfully execute the task specified herein.

Sr.No	Designation	Qualification	Nos.
1	Chief Manager (equivalent to SE)	B. Tech (Electrical) & MBA	1
2	Relationship Manager	MBA	1
3	Manager (Revenue and Billing)	B. Tech(Electrical)	1
4	Manager (Metering)	B. Tech (Electrical)	1
5	Manager (Power Purchase and CRM)	B. Tech (Electrical) & MBA	1
6	Executive (Billing)	Graduate Engineer (Electrical)	2
7	Executive (Metering)	Graduate Engineer (Electrical)	2
8	Executive (CRM)	Graduate Engineer(Electrical)	2

Further, the backend team would consist of the following experts deputed at Service

operator corporate office:

Sr. No.	Designation	Qualification	Nos.
1	Expert Power Market	B. Tech(Electrical) & MBA	1
2	Expert Regulatory Affairs	B. Tech(Electrical) & MBA	1
3	Expert PPA & Commercial	B. Tech (Electrical)& MBA	1
4	Expert Planning & Scheduling	B. Tech(Electrical) & MBA	1

The current status of distribution business of DPA lacks proper Business and Automation processes. DPA also has pending compliances for directives issued by GERC in tariff orders. DPA intends to comply with all such directives, comply with regulatory filings, improve business processes, proper load forecasting and network planning, alternatives for power purchase etc.

The Service operator shall provide all services which are broadly as under:

- a. Advisory services pertaining to Regulatory, Commercial etc.
- b. Handling Energy and assigning sources of power
- c. Meter Reading & Billing
- a. Support in Re-connection/ disconnection etc.
- b. Loss reduction, control of thefts, handling CGRF cases etc.
- c. Meter Replacements/ Installations, Load Extensions
- d. Demand Side Management, Load Management and Load forecasting.
- e. Energy Audit
- f. Supervision of capital expenditure, and Power procurement.

The above scope of work is divided into four (4) parts viz. Part – (A) Advisory Support and Part – (B) Distribution Services Support, Part – (C) Energy Auditing and Illumination Survey, and Part – (D) Supervision of Capex Planning.

PART A: Advisory Support

1. As-is Study of DPA Distribution Business:

This would include study of existing load, consumer metering status, feeder metering status, energy audit, energy accounting, assessment of loading on DPA's existing network (sample/ representative data to be used for assessing the voltage fluctuations, losses, load flow, reactive power etc.), review of business processes, present level of IT automation, operational structure, operational performance, review of power purchase/ sale arrangement, review of GERC directives, present loss levels etc.

2. Smart Metering and Prepaid Metering Feasibility study:

Explore the feasibility for implementation of Smart Metering and Prepaid Metering in DPA area. The scope will include following:

- 2.1 Based on the consumer, its metering location, load, consumption pattern, Service Operator shall provide options and finalize towards rolling out of SMART & Prepaid metering in DPA area
- 2.2 Design smart metering scheme, supporting modules, data flow planning, SMART Metering Control Centre Architecture, specification of smart meters and other control Centre equipment. Similarly design prepaid metering schemes etc.

Service operator shall undertake cost benefit analysis and provide specifications, warranties, procurement model etc.

2.3 Service operator shall support in selection of vendor/ contractor for procurement and installation of smart and prepaid meters. However, Service operator will have to review/ verify the installations.

3. Network Study of Entire License Area under DPA:

DPA is serving only part of the license area and rest other area is served by PGVCL/ GUVNL with prior NOC from DPA. The distribution network in this area is developed and maintained by PGVCL/ GUVNL. However, DPA is now providing power to such new consumers on its own network and has stopped giving NOCs. DPA intends to undertake feasibility study to take over the unserved license area along with financial implications. Service operator shall be doing the evaluation which shall cover following:

- 3.1 Profile of Total Distribution Network of PGVCL/ GUVNL in License area of DPA
- 3.2 Determination of category wise load/ demand in the unserved area and assessment of power purchase requirement.
- 3.3 Financial implications if assets are to be taken over by DPA vis-à-vis payment of wheeling charges for use of such assets by DPA.

4. Preparation of Distribution Master Plan for 5 years:

A Distribution Network plan (Physical and Financial) for the next 5 years shall be prepared, giving year wise Network augmentations to meet load growth for entire License area under DPA. The network rollout plan shall also take into health of existing distribution network in terms of reliability, loading, voltage regulations, losses etc. This would include following:

- 4.1 Estimate for number of new substations / Additional Power Transformers required with tentative capacity and Augmentation of existing Power Transformers
- 4.2 Estimate for number of Feeders to be augmented/ New Feeders
- 4.3 Estimate for number of Distribution Transformers (New /augmentation)
- 4.4 Synchronized evacuation plan with reference to GETCO STU plan
- 4.5 The network design parameters such as n-1, reliable and quality of power supply etc.
- 4.6 Assessment of DSM potential, preparation of DSM Plan and support for selection of DSM implementation agency

The network rollout plan shall be done for existing license area and entire license area of DPA (the area proposed to be taken over from PGVCL) separately with Capital Investment Plan. Necessary site visit will be done by service operator.

5. To Be Report for DPA Distribution Business:

Post study of existing business operations of DPA, Service operator shall submit the To-Be report on redefined Business Processes considering latest technological interventions, MIS/ Dashboards for Management of DPA, Timelines for replacement of Meters, Installation of new meters, measures for loss reduction and revenue enhancement, best industry practices etc. to be submitted.

PART B: Distribution Services Support

1. Regulatory and Commercial Support:

Service operator shall provide all type of regulatory, commercial and power sale and purchase support on day to day basis to DPA. This would include following:

- 1.1 Commercial Analysis: Developing Key Performance Indicators, regular Billing data analysis, Arrear analysis, consumption abnormalities etc.;
- 1.2 Service operator shall prepare the yearly /Multiyear tariff Petition with ARR for filing the same by DPA before GERC. Service operator shall prepare draft replies for responding to GERC on operational matters and other regulatory affairs;
- 1.3 Support for all matters related of Regulatory, Commercial and Power purchase before GERC, GUVNL, GETCO and PGVCL.
- 1.4 Service operator will also assist DPA, in drafting reply for the letter, direction received from GERC/CERC/CEA/Ministry of Power / Ministry of Shipping related to distribution business of DPA.
- 1.5 Service operator shall assist DPA in conducting detailed network study and preparation of asset register. Availability of an asset register shall assist DPA in complying with regulatory directives and computing true depreciation, to be claimed, under the ARR petitions.
- 1.6 Submission of MIS: Various statements like monthly T&D loss calculation, interruption statement, list of stopped/ defective meters/ replaced, new service connections released, list of pending applications at the end of month, consumer wise billing statement, list of consumers in arrears etc. would be made available to the DPA by Service operator.

2. Metering and Billing:

- 2.1 Service operator shall arrange monthly joint meter reading (along with DPA) and preparation of monthly energy bills as per Performa of DPA on the basis of meter reading of consumers and distribution of bills to the consumers.
- 2.2 The bill shall be prepared in accordance with the applicable tariff order passed by the regulatory commission. Time to time testing/ calibration of consumers meters and input meters installed in substation(s) shall be done.
- 2.3 Revenue collection from the consumers situated in DPA area will be done by the DPA through their existing mechanism, however details of cash listing would be required from DPA for incorporation in consumer bills.
- 2.4 Service operator will strive to increase collection efficiency in DPA area by timely disconnection of defaulting consumers.
- 2.5 Service operator shall also be suggesting best industry practices to reduce technical and commercial losses in the system and thus assisting in minimization of distribution and AT&C losses.
- 2.6 Energy Meter Survey: Under this activity service operator shall note the consumer details including consumer number, energy meter number, connected load, etc.
- 2.7 Necessary user interface shall be required from DPA for electronically pushing the meter reading and uploading the meter reading data in the billing system of DPA. Billing will be done on monthly basis based on the approved applicable tariff order of GERC.
- 2.8 Service operator shall also be assessing the existing billing mechanism of DPA and suggesting the software support to expedite the overall billing process. The cost of such software, if being procured, shall be borne by service operator.

2.9 New Service Connections, load extension/ reduction

- a. Applications received for new service connections, load extension/ reduction shall be processed by Service operator within time period and as per the procedure prescribed in Gujarat Electricity Supply Code and new connections, load extension/ reduction shall be served. Service operator shall carry out site survey and assess the requirement and submit the estimate to DPA for releasing new connection. The equipment and material for releasing new connections, load extension/ reduction i.e. metering equipment (ME), meter and control cable, etc. shall be provided by DPA to Service operator (the rental charges for ME and meter are billed to the consumers in energy bills). Service operator shall provide specifications and requirement of desired equipment; procurement of equipment shall be done by DPA.
- b. Service operator shall share the details of the new consumers and the changes related to the consumers data with the DPA so as to enable the DPA to keep its database of consumers updated.

2.10 Disconnection/ Reconnection of defaulting consumers

- a. Immediate after receiving instruction from DPA, Service operator shall serve the notices to defaulting consumers whose electricity connection is liable to be disconnected after serving a notice. After expiry of the notice period, Service operator (as per direction of DPA) will disconnect the supply to consumer premises in case payments are not made.
- b. Service operator shall remove all metering equipment from the consumer's premises and deposit them to DPA's designated stores in cases of permanent disconnection.
- c. Service operator (as per direction of DPA) shall reconnect the consumers as per the existing provisions on receipt of the outstanding amount.

2.11 Customer Services:

Service operator shall establish a customer care center for electricity related issues on 24X7 basis.

3. Power Procurement Planning and Power Scheduling & Operations:

- 3.1 Service operator shall carryout calculation and assessment of day ahead, fortnightly and monthly power requirement for DPA area. For any gap between availability of power from existing power purchase agreement and demand forecasts, appropriate actions will be suggested /initiated for procuring additional power after consent from DPA;
- 3.2 Service operator will co-ordinate with GUVNL/NTPC/PGCIL/WRLDC/ WRDC/DPA for matters related to procurement of power from bilateral sources /IEX etc. The power procurement bills will be payable by DPA to respective agencies as per their practice in vogue;
- 3.3 Service operator shall be assessing the load scheduled and drawl on actual basis and shall be suggesting appropriate load profiling to achieve cost optimization;
- 3.4 Service operator shall be reviewing the present sources of power purchase and respective agreements and provide assistance to DPA in devising their optimal power procurement strategy based on their load profile. In case of power procurement through open access, Service operator shall assist in tendering,

selection of the vender. Compliance to renewable purchase obligations shall also be a part of the suggested power procurement strategy.

- 3.5 Service operator shall provide assistance & co-ordinations for regulatory provision with regard to wheeling of power from RE projects of DPA.

PART C: Energy Auditing & Illumination Survey

1. Service operator shall carry out energy audit twice in a year on all HT & LT feeders and distribution transformers, wherever feeder meters and DT meters have been installed.
2. Illumination Survey shall be carried out once every year during the Contract Period as per Dock Safety requirement.
3. Service operator shall provide energy audit reports both for feeder/DT wise and sub division/division wise.

PART D: Supervision of Capex Planning

1. Service operator shall carry out load growth study and necessary network expansion plan will be submitted to DPA. Supervision of line erection work done by DPA or consumers in the DPA area will be done by service operator for which supervision charges as per GERC regulations will be payable to service operator.
2. The Capital expenditure for new lines, substation etc. would be arranged by DPA. Survey and estimation works would be done by service operator, for which supervision charges, as mentioned at S no. 1 above will be payable to service operator.
3. Service operator will assist DPA in preparation of tenders including evaluation for distribution business.

Exclusions to Scope of Work:

1. Payment of professional fees for any legal opinion/ advocate as per need shall be excluded from the services to be provided by Service operator. Services of consultants, wherever required, shall be availed in consultation with DPA and such charges shall be directly settled by DPA with such consultants;
2. Representation in adjudicating authorities/appellate forums viz CERC, APTEL, High Court, Supreme Court, etc. in relation to any matters pertaining to this contract and payment of fees of such institutions shall be excluded from the services to be provided by Service operator. However, necessary information support to deal with such cases shall be provided by Service operator. Fees shall be directly paid by DPA to the respective institutions;
3. Service operator shall be responsible for discharging its obligations for the period commencing from Effective Date only. The pending matters related to regulatory /statutory compliance on the Effective Date shall be outside the scope of services to be provided by Service operator;
4. Payment of any statutory fees, if required, shall be paid by DPA directly;
5. Services including weather & generation forecasting for Renewable Energy projects;
6. The Cost of new equipment, including but not limited to meter, cable, transformer, VCB, relays, panels, etc. for either new installation or replacement of failed/defective/stopped/burnt equipment shall be paid by DPA. Service operator shall provide specifications and requirement of desired equipment; procurement of equipment shall be done by DPA.

7. DPA shall pay supervision charges on the capital works as per the estimate prepared by Service operator on case to case basis.
8. Preparation/separation of Financial Accounts of DPA for power business shall be outside the scope of services to be provided by Service operator. However, the service operator shall provide all types of support as will be required for separation of accounts.
9. Representation before Courts, Forums and Tribunals etc. in the cases involving disputes between DPA and electricity consumers of Port area is excluded from the services to be provided by Service operator. However, necessary MIS and back-end support to deal with such cases shall be provided by Service operator. Professional fees of advocates and consultants in such cases shall also be directly settled by DPA with such professionals.

**Signature & Seal
of Contractor**

**Executive Engineer (E)
Deendayal Port Authority**