



# पावर फाइनेंस कॉर्पोरेशन लिमिटेड POWER FINANCE CORPORATION LTD.

(भारत सरकार का उपक्रम)

(A Govt. of India Undertaking)

(आई.एस.ओ. 9001:2015 प्रमाणित)

(ISO 9001:2015 Certified)

No:02:10:IPDS:2018:Impact Study:SR: 056337

14<sup>th</sup> May 2018

To,

All MDs/CMDs/Head Of Utilities  
(As per List enclosed)

**Sub: Appointment of Consultant appointed for Impact Assessment Study and Evaluation of Project Implementation for the RAPDRP Scheme**

Madam/Sir,

This is to intimate you that as per the direction of Ministry of Power, PFC has initiated for appointment of four regional consultants to carry out Impact Assessment Study and Evaluation of Project Implementation for the RAPDRP Scheme (subsumed under IPDS). Accordingly, **M/s ICRA Management Consulting Services Ltd.** has been appointed to undertake the assignment in Southern Region states and their representatives would visit various project areas to complete the assignment within the schedule time of 90 days, along with submission of first draft report within 45 days w.e.f. 10<sup>th</sup> May 2018.

During the process of the said assessment, agency would be collecting the required MIS data for this exercise from the selected cities/towns covered under R-APDRP scheme in your Utility. Since the assessment would be a time bound activity, it is requested that the representatives of M/s ICRA be provided with the required support and cooperation from various field Units and Head Quarter office during the period of such assessment.

You are requested to kindly sensitize the field units to provide the final executed BoQ of RAPDRP Schemes in selected sample towns and extend the required support to them, so that the work can be completed in time. Scope of work for the said assignment and tentative list of towns selected randomly in your Utility from the towns where projects sanctioned under RAPDRP have been completed, are enclosed for your reference. We seek your kind co-operation and support.

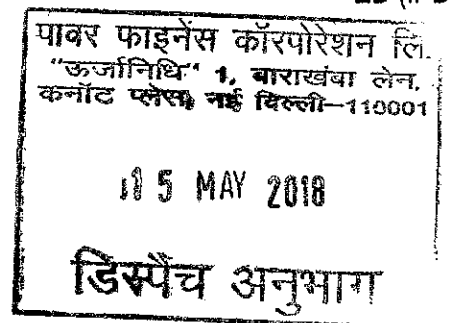
Thanking you,

Yours faithfully,

  
(Subir Saha)  
ED (IPDS)

Encl.

- 1) Scope of work
- 2) List of sample towns in SR States



**List of Discoms:**

- 1) APEPDCL
- 2) APSPDCL
- 3) TSNPDCL
- 4) TSSPDCL
- 5) KSEBL, Kerala
- 6) Bescom, Karnataka
- 7) Cescom, Karnataka
- 8) Gescom, Karnataka
- 9) Hescom, Karnataka
- 10) Mescom, Karnataka
- 11) TANGEDCO, TN

### Scope of work

The agency in each region shall be required to study the impact of project implementation on Customers, Utility and to evaluate the project implementation on the basis of parameters, as detailed below:

#### **Customer perspective**

- Ease in lodging complaint and tracking them from Centralized Customer Care Center and the effectiveness of the Utility in addressing them.
- System of feedback to consumers after addressing the complaints.
- Ease in application process for applying for New connection/Name change/Load change/category change etc. by consumers and tracking them from Centralized Customer Care Center
- Timely release of new connections within the SERC timelines.
- Easy availability of bills, past consumption pattern, payment history, due date reminders on Mobile
- Correctness of bills and error resolution process
- Enhancement in Consumer convenience through facility of Multiple Payment Options (Credit cards, debit card, net banking, Wallet, BHIM App/UPI etc.) and its effect on reducing receivables, increasing cash flows and reducing process cycle times.
- Enhancement in Consumer satisfaction because of improvement in Quality and reliability of power supply.
- Prior information to consumers through SMSs from CCC regarding power outages.
- Impact on per-capita energy consumption of Consumers.
- Enhancement in Industrial and commercial activity.

#### **Utility perspective**

- Town-wise segregation of AT & C loss by ring fencing through boundary meters.
- Identification of loss pockets through accounting of energy at Feeder and DT level.
- Impact of GIS mapping of Assets and Consumers in monitoring and updating the system in a dynamic and continuous mode.
- Profiling of Consumers for targeting the subsidies at the right set of consumers.
- Update of consumers when the new connections are released through GIS system.
- Update of Assets whenever any new Asset is added/deleted in the system
- Processing of all commercial data (metering, billing, collection) from a centralized facility (Data Center)
- Creation of Management Information System for getting information and for taking pro-active decisions and administrative measures towards reducing loss and for tariff designs.
- Quality and Reliability of power in terms of reduction in outages, improvement in voltage profile, load balancing and stability of frequency.
- Reduction in theft due to HVDS and underground & AB cable.
- Improvement in Billing and Collection efficiency through metering of unmetered connections, replacement of faulty electro-mechanical meters.

- Improvement in HT/LT ratio.
- Availability of information on the town-wise E-payment/Digital payment for targeting efforts for improving them.
- Real time monitoring and control of Sub-stations and Distribution networks through automation under SCADA for accurate load fore-casting and quick emergency response.

#### **Project implementation and adherence to Systems and Procedures**

- Adherence of timelines towards completion of the project and meeting contractual obligations.
- Mode of tendering and execution, process of award, approval hierarchy and timelines between various activities from NIT to Award in relation to actual versus scheduled.
- Quality and Inspection system procedure and documents availability, like Field Quality plan and Manufacturer Quality Plan and their adherence.
- Compliance to Type Testing requirement for major equipment (actual type test or on the basis of Type Test reports)
- Availability of Routine and Acceptance test reports, Commissioning and Electrical energisation (charging) reports for major equipment
- Availability of documentation, like Construction practices, O&M manuals, Standard operating procedures, Emergency response procedures and their availability and display at proper places.
- Physical verification of the assets installed and commissioned under the Schemes as per the stipulated procedure.
- Safety assessment of the live equipment.
- Compliance to technical specification in guidelines/sanctioned DPR/ specified in the Letter of Award.

The scope of work as detailed above is not exhaustive and may include any other parameter which may emerge during the currency of the contract and which is necessary for fulfilling the objective of the Study.

#### **Brief approach and methodology**

- i) The agency will have to collect data for the selected towns from the Data centre of the State.
  - a. Report on town-wise AT&C Loss for the period of not more than 12 months. AT&C data to be compared with the Baseline AT&C losses. The details of Consumer/Sales mix of the identified town to be collected.
  - b. Feeder-wise AT&C loss trajectory for 15% feeders in the identified town. (minimum 1 feeder where no. of feeder is less)
  - c. Feeder-wise Power factor for 15% feeders in the identified town. (minimum 1 feeder where no. of feeder is less)
  - d. Report on Outages (incl. number of outages, nature of outages, duration of outages etc.)
  - e. Report on release on new connection through R-APDRP Part A systems
  - f. Report on Consumer Care Center (CCC) covering details like
    - i. Consumer coverage by the CCC
    - ii. Average monthly complaints received and redressed by CCC.

- iii. Number of consumer registered for Web Self Service (WSS)
  - iv. Average monthly complaints received and redressed through WSS.
  - v. New connection request thru WSS
  - vi. Avg. time taken in release of New Connection (category wise)
  - vii. Average monthly usage of self-service Kiosk at CCC.
- ii) Interaction with Field officers in the selected towns to assess actions taken by the Utility to improve/ to achieve the desired objective of the scheme.
  - iii) Field Visit for physical verification of the important assets on sampling basis on the following basis:
    - a. 5% of length of Feeder works (33 KV/22KV/11KV/LT) ,subject to minimum of 2 Km.
    - b. 10% of length of ABC Cables, subject to minimum of 2 Km.
    - c. 50% New Sub-Stations, subject to minimum of 1 Sub-station.
    - d. 15% of New DTs, subject to minimum 5 DTs.
    - e. 10% of DT Meters, subject to minimum 5 DT meters.
    - f. 100% Feeder Meters/Boundary Meters.
    - g. 1% or 50 number of Consumer Meters whichever is less.
    - h. Data communication from Sub-station in SCADA control room.
    - i. Logging of Data in SCADA control room
    - j. Demonstration of remote operation and control from SCADA control room.
  - iv) Interaction with Consumers through sample surveys for collection of Primary Data on Consumer perspective.
  - v) Analysis of Data/Reports of all the towns in order to assess the qualitative as well as quantitative improvement over the baseline levels outlining the Benefits derived from the scheme, actions taken and best practices adopted by the Utility to achieve the desired objective of the scheme.

**Deliverables**

The deliverables shall be:

- Report on evaluation of project implementation and outcomes from R-APDRP Impact Assessment study covering the scope as detailed above. The benefits achieved from the scheme may be categorized into tangible and intangible. The tangible benefits may be monetized and shown in the report.
- Sample template/format for collecting the data for preparing the comprehensive report may be finalized in consultation with PFC during the course of work.

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List of Towns selected for Impact Assessment of RAPDRP Scheme in SR States

State	S.N	Town Name	Population as per census 2001	Town_Golive_Part_A	SCADA_Completion	Part_B_Completion
Kerala	1	Thiruvananthapuram	889635	Yes		Yes
	2	Kozhikode	880247	Yes		Yes
	3	Kannur	498207	Yes		Yes
	4	Thaliparamba	67507	Yes		Yes
	5	Thiruvalla urban area	56837	Yes		Yes
	6	Nedumangad	56138	Yes		Yes
	7	Arpor	35283	Yes		Yes
	8	Pappinissery	33273	Yes		Yes
	9	Chokli - peringathur	31772	Yes		Yes
TN	1	Tirunelveli	433352	Yes	Yes	Yes
	2	Vellore	386746	Yes		Yes
	3	Thoothukkudi	243415	Yes		Yes
	4	Thanjavur	215314	Yes		Yes
	5	Nagercoil	208179	Yes		Yes
	6	Dindigul	196955	Yes		Yes
	7	Pattukottai	65533	Yes		Yes
	8	Dharapuram	64984	Yes		Yes
	9	Krishnagiri	64587	Yes		Yes
	10	Dharmapuri	64496	Yes		Yes
	11	Tenkasi	63432	Yes		Yes
	12	Chengalpattu	62582	Yes		Yes
	13	Kodalkanal	32969	Yes		Yes
	14	Sirkali	32228	Yes		Yes
	15	Vedaraniyam	31627	Yes		Yes
	16	Sattur	31443	Yes		Yes
	17	Jayankondam	31268	Yes		Yes
	18	Usulampatti	30601	Yes		Yes
MESCOM	1	Chickmagalur	101251	Yes		
HESCOM	1	Bijapur	253891	Yes		Yes
	2	Gokak	67170	Yes		Yes
	3	Mudhol	42461	Yes		Yes
	4	Kumta	34499	Yes		Yes
	5	Mahalingpur	30858	Yes		Yes
GESCOM	1	Gulbarga	430265	Yes		Yes
	2	Shahabad	66550	Yes		Yes
	3	Sahapur	38907	Yes		Yes
	4	Sedam	31539	Yes		Yes
CESC	1	Mysore	799228	Yes		Yes
	2	K r nagar	30633	Yes		Yes
BESCOM	1	Davangere	364523	Yes		Yes
	2	Dod Ballapur	71606	Yes		Yes
	3	Kanakapura	47060	Yes		Yes

List of Towns selected for Impact Assessment of RAPDRP Scheme in SR States

State	S.N	Town Name	Population as per census 2001	Town_Golive_Part_A	SCADA_Completion	Part_B_Completion
	4	Gowribidanor	30537	Yes		Yes
	5	Kunigal	30343	Yes		Yes
TSNPDCL	1	Warangal	579216	Yes	Yes	Yes
	2	Mancherla	118195	Yes		Yes
	3	Mandamarri	66596	Yes		Yes
	4	Manuguru	32893	Yes		Yes
TSSPDCL	1	Mahbubnagar	139662	Yes		Yes
	2	Sangareddy	57113	Yes		Yes
	3	Sadasivpet	36334	Yes		Yes
APEPDCL	1	Visakhapatnam	1345938	Yes	Yes	Yes
	2	Narsipatnam	32623	Yes		Yes
APSPDCL	1	Vijayawada	1039518	Yes		Yes
	2	Guntur	514461	Yes		Yes
	3	Dharmavaram	103357	Yes		Yes
	4	Chilakaluripet	91656	Yes		Yes
	5	Jaggiahpet	40373	Yes		Yes
	6	Uravakonda	31856	Yes		Yes
	7	Venkatagiri	31341	Yes		Yes