

ANNEXURE-II

SCOPE OF WORK AND SERVICE LEVEL AGREEMENT

1. About TPSODL

The Tata Power Company Limited is recognized as India's largest private sector power utility company with a reputation for trustworthiness, built up over nearly nine decades. Today, it is the country's largest private player in the power sector with distribution assets in Mumbai, Delhi, Ajmer and Odisha. The company has generation capacities in Mumbai, Jojobera, Jharkhand and Karnataka.

TPSODL was incorporated on 1st January 2021 as a JV of Tata Power (51%) and Odisha Government (49%) on the Public-Private Partnership (PPP) model. TPSODL took over the licensed area of operation of the Company (erstwhile SOUTHCO) which is approx. 48,751 sq. km and covers eight revenue districts of Southern Odisha namely Ganjam, Gajapati, Boudh, Kandhamal, Koraput, Rayagada, Malkangiri and Nabarangpur with its Corporate Office located at Berhampur. The acquisition was through a competitive bidding process initiated to reform the distribution sector, Section 20 of the Electricity Act, 2003, initiated the process of sale of Utility for SOUTHCO in Odisha. The Company changed its name from Southern Electricity Supply Company Limited (SOUTHCO) to TP Southern Odisha Distribution Ltd. (TPSODL) on its day of incorporation.

2. Project Objective

TPSODL has successfully implemented the enterprise GIS system for pan TPSODL of around 48,751 sqkm comprising of 1,03,283 kms of electric network, 22.39 lakhs consumers. The GIS system is implemented by customizing over GE Smallworld Electric Office of version 5.2.8. Presently business users of PAN TPSODL are actively using the GIS system for their daily operational activities. The GIS system also has been integrated with external systems like ADMS, CYME, UDS, FAR, Mo-Bidyut, FG and Surakshya Kavach. TPSODL understands the importance of GIS updation for New/Modified network & assets and consumers as a key process to keep GIS database updated as per field conditions.

The objective of the project under this RFP is to perform GIS updation activities (i.e. capturing network incremental changes done by different departments and schemes, verifying network changes on the field, performing asset painting for newly installed assets as per TPSODL painting standard and updating those changes in the GIS database).

In view of this, Open Tenders are invited in e-tender bidding process from interested bidders for Data updation and sustenance in Enterprise Geographic Information System comprising of various activities but not limited to the given below:

- Field survey for Assets, Network and Consumers
- Digitization for Assets, Network and Consumers in GE Small word Environment.
- Asset Painting

3. BID Evaluation Criteria

The bid evaluation criteria have been finalized on basis of technical evaluation and commercial evaluation. Bidder must score minimum 20 marks for qualifying the technical evaluation of the bid.

SI No	Bid Evaluation Criteria	Weight	
A	Technical Evaluation		25
1	Project Experience	5	
2	Project Management	5	
3	Survey & Digitization	5	
4	Digitization Skill in GIS system	5	
5	Survey Skill in GIS system	5	
B	Commercial Evaluation		25

The following technical evaluation criteria.

Main Head	Description	Maximum Marks	Supporting Documents
Project Experience	Bidder has worked nos. of projects for GIS. Any successful project / pilot/GIS maintenance for any Utility. For each project 1 Mark maximum limited to 5 Marks	5	Nos of Project/pilot Completion Certificate or PO
Project Management	Explained and elaborated project management plan in details. as mentioned under section 'Project Management activities' section 0.5 mark for each document: Maximum Marks 5	5	The bidder will have to submit project plan of project execution and manpower deployment.

Survey & Digitization	<p>Survey & digitization of Electrical line length using mobile application</p> <ul style="list-style-type: none"> •Between 500 to 1000 KM = 3 •Between 1000 to 2000 KM = 4 • More than 2000 km = 5 	5	Bidder must provide PO/RO containing order quantity to support the claim.
Digitization Skill in GIS system	Demonstrate adequately digitization skills using on Payroll resources.	5	Submit the EPF & pay slip of payroll Digitizers
Survey Skill in GIS system	Demonstrate adequately the quality & accuracy of survey and painting skills using on Payroll resources.	5	Submit the EPF & pay slip of payroll Surveyor & Painters.

Project management Activities

##	Project Management Activity	Has vendor submitted detail document (Yes/No)?
1	Project Organization chart and list of stakeholders with their specific roles in the project.	
2	Proposed project plan	
3	Please let us know how you will take care of approvals that are to be required during survey and data collection.	
4	Based on proposed project plan, daily work progress tracking dashboard, delivery schedule, workflows, quality plan, prepare resource requirement (man, machine, material) for each activity for each week.	
5	Please let us know how you will arrange resources to meet schedule, quality criteria for each week also states backup plan for in case of leave and resign of any deployed resource for this project.	
6	How will you ensure that the staffs engaged in the project are adequately trained to deliver quality outputs in an efficient manner?	
7	How project performance will be monitored and controlled? Please let us know reports /dashboards that will be generated to ensure project is on schedule, meeting quality criteria's and there is continuous improvement in the metric including upcoming risk identification and mitigation?	
8	Escalation matrix	
9	Skill set matrix to resources engaged in different type of activities of the project	
10	How will you ensure safety of surveyors and painters in the field within the ambit of TPSODL safety guidelines?	

Note: -

- The bidder must provide two wheelers to the deployed surveyors to carry out survey & painting activities.
- The bidder must provide tabs (configuration of tab) to the deployed surveyors for performing redlining.
- All expenses related to the deployed surveyors and vehicles shall be borne by the vendor.

4. Experience for resources

- **Project Manager:**
 - The project manager must have more than 10 years of experience in managing electrical utility projects.
 - The project manager must have experience of managing a team of 50 to 80 people.
 - The project manager should have experience of coordinating with multiple stakeholders for meeting project objective.
 - The deployed project manager should not be changed for the first 6 months in TPSODL.
 - In any unavoidable situation if the project manager is being replaced, will be accompanied with new project manager for at least one month to enable smooth transition.
- **GIS Surveyors:**
 - The GIS surveyor must have experience of 4 to 7 years in survey activities of electric utility projects by using of mobile application.
 - The GIS surveyor must have very good knowledge for electrical assets.
 - Hands on experience on QA/QC of field surveyed data.
 - Should have hands on knowledge of GIS products like GE Smallworld, ESRI products and QGIS
- **Painter/Writer:**
 - The painter must have minimum experience of 1 to 2 years in writing Asset No on the electrical assets.
- **Digitizer:**
 - The digitizer must have minimum experience of 2 to 3 years in GE Smallworld digitization & AutoCAD.
 - The digitizer must have experience in digitizing electric network & assets.
 - Hands on experience on QA/QC of digitized network.

5. Setting up of Office:

- The bidder must setup his own office of adequate size in Berhampur within 1 km radius of TPSODL GIS office location.
- Bidder will use its own computer system for digitization team.
- All the digitizers must perform their digitization activities within bidder office which will be set up in Berhampur. In case of emergency requirement, TPSODL may arrange for digitizers to work from GIS office.
- TPSODL will facilitate access of GIS system to the bidder office in Berhampur.
- Bidder will set up his own local offices in each division for field team.
- All consumables for the project must be arranged by bidder.

6. Scope of Work

The broad scope of work to be carried out by the bidder is as follows:

Data updation in 33 KV network, PSS, 11 KV network, DSS, LV network, Consumers and landbase as per TPSODL data model along with painting of assets. However, any work even if not specifically mentioned but reasonably implied for the successful data updation and good performance of the system are deemed to be included in the scope of work. TPSODL will provide the survey & digitization document and Asset painting document to the successful bidder. (Digitization document to be prepared by TPSODL)

Sr. No.	GIS Data Updation Activities
9.1	Mapping of new network & assets
9.2	Updation of existing network assets for any changes
9.3	Mapping of new/relocated consumers in GIS
9.4	Painting of New/Unpainted assets

9.1 Mapping of new network & assets in TPSODL GIS:

Under this task, bidder should map new network assets in GIS. Bidder is required to complete the mapping of new network assets in Smallworld database as per latest survey and digitization rule.

Description of scope: -

9.1.1 Mapping of New Grid substation (GSS), Primary Substation (PSS), Distribution Substation (DSS):

Mapping of the new PSS and DSS in GIS including internal details in Smallworld EO as per the input provided by TPSODL GIS wing. The mapping of these PSS and DSS would include linkage of this new PSS/DSS to the existing network and running the network trace and QC tools on that network and clearing off all the tracing error as per TPSODL survey and digitization rule. The DT Meter/Consumer meter along with metering equipment must be mapped. Painting of all assets as per TPSODL painting document must be painted and mapped with all assets. In case of GSS only boundary and GSS capacity would be mapped in GIS.

Inputs to be referred: -The mapping of these PSS and DSS should be performed using Single Line Diagrams, handing over Document, Equipment/ Name Plate details, system alteration form or redlining from users or execution departments.

9.1.2 Mapping of new 33 KV, 11 KV & LV network:

Mapping of new 33 KV, 11 KV & LV network along with other connected equipment's such as Line isolators, boundary meters, RMUs, Auto reclosers, Sectionalizes, LT Feeder pillars, Electric poles, towers and all others assets added in TPSODL distribution system as per TPSODL survey and digitization rule. Painting of all assets as per TPSODL painting document must be painted and mapped with all assets.

Inputs to be referred: -The inputs to be referred for mapping the new networks and assets in GIS would include SLD (Single Line Diagram), Handing over reports, rough sketches, redlining, AutoCAD drawings, site engineer instructions and any other inputs received from users and execution departments.

9.1.3 Mapping of other New electrical Assets in GIS

This section covers the mapping other new electrical Assets those will be added in the system in future for strengthening the system in order to provide better consumer service in TPSODL.

9.2 Updation of existing network assets for the changes reported by relevant stakeholders in GIS Database

In this section, bidder should map the network data and assets as per the latest changes made on the field. This is an ongoing GIS activity. Bidder is required to update the existing network and land base according to the guidelines defined by TPSODL GIS department.

Description of scope: -

9.2.1 Survey & Updation of existing Primary Substation (PSS), Distribution Substation (DSS)

Updation of existing PSS and DSS in GIS would include updating of attributional and geographical information in Smallworld EO. These Updation should be as per the input sources provided by TPSODL. The Updation of these PSS and DSS would include modification/deletion of already mapped assets, mapping of some additional assets, attribute Updation and clearing off all the tracing and QC errors.

Inputs to be referred: -The updation of these existing PSS and DSS should be performed using the Single Line Diagrams, Handing Over Document, Equipment/ Name Plate details rough sketches, redlining, AutoCAD drawings, site engineer instructions and any other inputs received from users and executive departments of TPSODL.

9.2.2 Survey & Updation existing 33 KV, 11 KV & LV network:

This section would cover survey and Updation of existing 33 KV, 11 KV & LV network along with other equipment, such as such Line isolators, boundary meters, RMUs, Auto reclosers, Sectionalizers, LT Feeder pillars, Electric poles, towers and all others assets which will added/modified/deleted in the existing TPSODL distribution system.

Inputs to be referred: - The updation of these existing networks should be performed using the Single Line Diagrams, Handing Over Document, Equipment/ Name Plate details rough sketches, redlining, AutoCAD drawings, site engineer instructions and any other inputs received from users and executive departments of TPSODL.

9.3 Mapping of New/Untagged consumers in GIS.

Bidder should digitize New Meters and Metering Equipment in Smallworld, based on Geographical coordinates & pole numbers provided by TPSODL

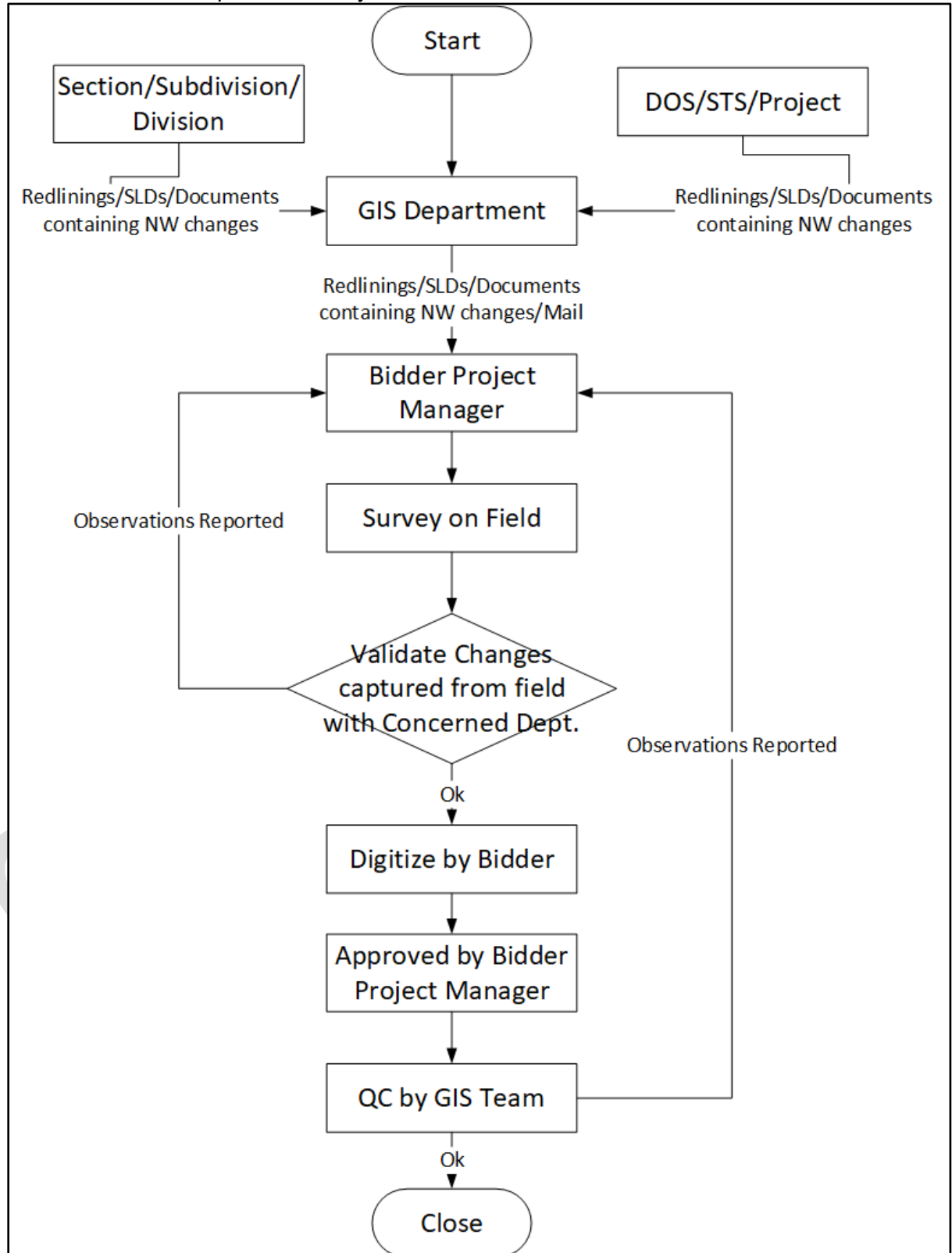
9.4 Painting of NEW/Unpainted assets

Bidder shall paint the new assets added to the system along with existing unpainted assets. Assets must be painted before digitization. Newly added assets will be mapped in

the system along with paint code. The bidder must follow TPSODL Painting guideline for painting

7. Workflow

The workflow of GIS update activity has been mentioned below.



8. Project Management:

Project of GIS Updation for PAN TPSODL involves multiple stakeholders, it is critical to apply best project management practices for the success of the project. Vendor must put industry standard project management practices for project initiation, planning, execution, monitoring, controlling, reporting and closing of the project.

- Bidder must deploy a project manager who will monitor overall project progress and report to GIS Central office.
- Bidder must deploy 6 surveyors, 1 painter and 1 GE Smallworld digitizer for each 6 Circle of PAN TPSODL.
- In case any resource of bidder will go on leave for continuously 5 working days, the bidder must deploy back-up resource before the leave of deployed resource.
- Project shall be executed within TPSODL project site and service area only.
- Project Manager and project team must be placed on TPSODL project site and service area only. Project manager cannot be released
- Vendor must provide all compliance document like EPF, ESI & HR proof of employees.
- TPSODL will provide safety training and also will share related documents to the vendor.
- Bidder must share the profiles of project manager and project team for review and approval.
- If TPSODL find any member of project team is not suitable/capable, then TPSODL may reject member of the project team without any clarification to vendor. The same resource should be replaced with a suitable resource within one week of rejection.
- The escalation matrix shall be decided during project initiation stage in consultation with TPSODL GIS team.
- Weekly, Fortnight, Monthly and Quarterly meetings shall be conducted to track the project progress. The participants of TPSODL and Vendor team of these meetings shall be decided during initiation of project.
- Bidder must co-ordinate with all the concern field officers and stakeholders for smooth execution of survey and painting activities.

9. Mobilization of Resources

Resource must be mobilized to the allocated divisions within the 10 days from award of the contract.

10. MIS Reporting

The Bidder will submit Daily/Weekly MIS report to TPSODL. The format of MIS will be provided by TPSODL after the award of contract.

11. SLA

SLA for GIS Updation activity has been mentioned below.

Table No: 09

#	Scope	Items	QC Parameters	Unit	Time Line of survey within 20 Km radius from Div. HQ	Time Line of survey beyond 20 Km radius from Div. HQ
1	Mapping of New Grid substation (GSS), Primary Substation (PSS), Distribution Substation (DSS)	Mapping of New GSS	1. Object shall be captured as per inputs provided by TPSODL GIS 2. Object Shall have geometrical and position accuracy of +/- 1M	No	3 Days	5 Days
		Mapping of New PSS		No	3 Days	5 Days
		Mapping of New DSS		No	3 Days	5 Days
2	Survey & Updation of existing Primary Substation (PSS), Distribution Substation (DSS)	updation of Existing PSS	3. Attributes of objects should be correct. 4.Data should be free from any QC and connectivity errors.	No	3 Days	5 Days
		updation of Existing DSS		No	3 Days	5 Days
3	Mapping of new 33 KV, 11 KV & LV network:	Mapping of New 33 KV network	5.Data model conformance (graphical and non-graphical) 6. Label and annotation shall be positioned correctly. 7. Accuracy of	Km	5 Days	7 Days
		Mapping of New 11 KV network		Km	5 Days	7 Days
		Mapping of New LV network		Km	3 Days	5 Days
		Mapping of other electrical assets		No	3 Days	5 Days
4	Survey & Updation existing 33 KV, 11 KV & LV network	Updation of existing 33 KV network	5.Data model conformance (graphical and non-graphical) 6. Label and annotation shall be positioned correctly. 7. Accuracy of	Km	3 Days	5 Days
		Updation of existing 11 KV network		Km	3 Days	5 Days
		Updation of existing LV network		Km	3 Days	5 Days
		Updation of existing other electrical assets		No	3 Days	5 Days
5	Mapping new land base features in GIS using satellite image	Mapping new land base features in GIS using	7. Accuracy of	sqkm	3 Days	5 Days

		satellite image and other sources	field survey +/- 1m			
6	Updation/modification of existing land base in GIS using satellite image	Updation of existing land base In GIS using satellite image and other sources	9. TPSODL will do QC check of 20% of the deliverables	Each	3 Days	5 Days
7	Mapping of new Consumers in GIS	Mapping of new/ Relocated consumers in GIS		No	3 Days	5 Days
		Updation of Meter positional Accuracy		No	3 Days	5 Days
8	Painting of NEW/Unpainted assets	Painting of New Assets		No	3 Days	5 Days
		Painting of existing unpainted Assets		No	3 Days	5 Days
9	Weekly/Monthly MIS Report	Preparation of sustenance report on weekly/Monthly basis				

- The billing will be done on monthly basis based on the activities completed and delivered. Certified digitized quantity data must be
- On submission of invoice, the successful bidder will submit HR compliance documents like Salary slip, PF and insurance documents and other statutory compliances.
- Calculation of Billing Score:
 - Total No of Incidents (Network change Requests) performed in a month = **total_incidents**
 - Total No of Incidents violated SLA = **tot_sla_violations**
 - **Billing Score % = ((total_incidents - tot_sla_violations)/total_incidents) * 100**

Table No: 10

##	Score	Invoice %
1	If Billing Score $\geq 90\%$	100 % of invoice amount of the month will be paid.
2	If Billing Score $\geq 85\%$ and $< 90\%$	95 % of invoice amount of the month will be paid.
3	If Billing Score $\geq 80\%$ and $< 85\%$	90 % of invoice amount of the month will be paid.
4	If Billing Score $< 80\%$	60 % of invoice amount of the month will be paid.

12. Termination

- TPSODL has right to cancel the project prior notice of 2 months to the bidder without any justification within project execution period.
- Contract can be terminated on non-performance of contract obligation.
- If bidder fails to achieve the SLA criteria for consecutive three months, the contract can be terminated.