



RFQ No.: 4100067644

**OPEN TENDER NOTIFICATION**

**FOR**

**SITC OF POWER PORTFOLIO MANAGEMENT (PPM) & ALARM  
MANAGEMENT & RATIONALIZATION**

**Tender RFQ No.: 4100067644**

**Due Date for Bid Submission: 20.07.2026 [15:00 Hrs.]**

**The Tata Power Company Limited  
Mumbai, Maharashtra**

**CONTENTS OF THE ENQUIRY**

<b>S. NO.</b>	<b>PARTICULARS</b>
1.	Event Information
2.	Evaluation Criteria
3.	Submission of Bid Documents
4.	Bid Opening & Evaluation process
5.	Award Decision
6.	Order of Preference/Contradiction
7.	Post Award Contract Administration
8.	Specifications and Standards
9.	General Conditions of Contract
10.	Safety
<b>Annexures</b>	
I.	Annexure I – Schedule of Items
II.	Annexure II – Technical Specifications
III.	Annexure III – Schedule of Deviations
IV.	Annexure IV – Schedule of Commercial Specifications
V.	Annexure V – Document Check List
VI.	Annexure VI – Acceptance Form for Participation in Reverse Auction Event
VII.	Annexure VII – Scope of Work & Service Level Agreement
VIII.	Annexure VIII – Inspection Test Plan
IX.	Annexure IX – General Condition of Contract
X.	Annexure X – Manufacturers Authorization Form



RFQ No.: 4100067644

## 1.0 Event Information

### 1.1 Scope of work

Open Tenders are invited in e-tender bidding process from interested Bidders for entering into Outline Agreement of 20 Months for:

S. No.	Description	EMD Amount (Rs.)	Tender Fee (Rs.)
1	SITC of Power Portfolio Management (PPM) & Alarm Management & Rationalization	2,00,000	2,000

### 1.2 Availability of Tender Documents

Non-transferable tender documents may be purchased by interested eligible bidders from address given below, on submission of written application to the under mentioned and upon payment of non-refundable Tender fee.

Chief (Corporate Contracts)  
The Tata Power Company Limited  
Smart Center of Procurement Excellence, 3rd Floor, Sahar Receiving Station  
Sahar Airport Road, Andheri East, Mumbai-400059

Tender documents may be downloaded by interested eligible bidders from TPC website [www.tatapower.com](http://www.tatapower.com) with effect from 30.06.2026. In the event detailed tender documents are downloaded from TPC website or are received through email from TPC, the Tender Fee shall be compulsorily submitted either online through NEFT/ RTGS in favor of "The Tata Power Company Limited". Any such bid submitted without this Fee shall be rejected.

Bidders are requested to visit TPC website [www.tatapower.com](http://www.tatapower.com) regularly for any modification/ clarification to the bid documents.

### 1.3 Calendar of Events

(a)	Date of availability of tender documents from TPC Website	From 30.06.2026 to 20.07.2026, 15:00 Hours
(b)	Last Date of receipt of pre-bid queries, if any	09.07.2026 up to 17:00 Hours
(c)	Last Date of Posting Consolidated replies to all the pre-bid queries as received	Will be notified prior (if required)
(d)	Date & Time of Pre-Bid Meeting (If any)	Will be notified prior (if required)
(e)	Last date and time of receipt of Bids	20.07.2026, 15:00 Hours
(f)	Date & Time of opening of Price of qualified bids	Will be notified to the successful bidders through our website / e-mail.

**Note:-** In the event of last date specified for submission of bids and date of opening of bids is declared as a closed holiday for TPC Mumbai office, the last date of submission of bids and date of opening of bids will be the following working day at appointed times.

### 1.4 Mandatory documents required along with the Bid

- 1.4.1 EMD of requisite value and validity
- 1.4.2 Tender Fee in case the tender is downloaded from website
- 1.4.3 Requisite Documents for compliance to Qualification Criteria mentioned in Clause 1.7.

**RFQ No.: 4100067644**

- 1.4.4 Drawing, Type Test details along with a sample of each item as specified at Annexure I (as applicable)
- 1.4.5 Duly signed and stamped 'Schedule of Deviations' as per Annexure III on bidder's letter head.
- 1.4.6 Duly signed and stamped 'Schedule of Commercial Specifications' as per Annexure IV on bidder's letter head.
- 1.4.7 Proper authorization letter/ Power of Attorney to sign the tender on the behalf of bidder.
- 1.4.8 Copy of PAN, GST, PF and ESI Registration (In case any of these documents is not available with the bidder, same to be explicitly mentioned in the 'Schedule of Deviations')

***Please note that in absence of any of the above documents, the bid submitted by a bidder shall be liable for rejection.***

**1.5 Deviation from Tender**

Normally, the deviations to tender terms are not admissible and the bids with deviation are liable for rejection. Hence, the bidders are advised to refrain from taking any deviations on this Tender. Still in case of any deviations, all such deviations shall be set out by the Bidders, clause by clause in the 'Annexure III - Schedule of Deviations' and same shall be submitted as a part of the Technical Bid.

**1.6 Right of Acceptance/Rejection**

Bids are liable for rejection in absence of following documents:-

- 1.6.1 EMD of requisite value and validity
- 1.6.2 Tender fee of requisite value
- 1.6.3 Price Bid as per the Price Schedule mentioned in Annexure-I
- 1.6.4 Necessary documents against compliance to Qualification Requirements mentioned at Clause 1.7 of this Tender Document.
- 1.6.5 Filled in Schedule of Deviations as per Annexure III
- 1.6.6 Filled in Schedule of Commercial Specifications as per Annexure IV
- 1.6.7 Receipt of Bid within the due date and time

TPC reserves the right to accept/reject any or all the bids without assigning any reason thereof.

**1.7 Qualification Criteria**

Parameter	Tata Power Requirement	Documents To be submitted by Bidder to ascertain meeting of Pre-qualification requirement
Design, Engineering, Manufacturing, Supply, Supervision of Installation, Testing and Commissioning	1. The bidder should have successfully implemented intelligent grid operations/grid monitoring/grid automation/ Alarm management/ Demand forecasting / Power Purchase Cost optimization model for any Indian Power Utility at least 3 projects in last 3 years using cloud-native, scalable data storage and data warehousing and analytics. Completion certificate of implementation duly signed by the Customer is to be submitted.	1) Bidder to submit List of executed Projects with all technical and Purchaser's details. 2) Necessary PO copies & commissioning reports in respect of subject tender shall be submitted along with technical bid. 3) Bidder shall submit logical architecture solutions.

RFQ No.: 4100067644

	2. The bidder should have active contract of managed services of the above-mentioned projects for at least 2 projects in utilities industry. Purchase Order of the active contracts to be submitted.	
Service	<p>1. The bidder must high level relationship partner of any of the major cloud hyper scalars.</p> <p>2. Bidder should have at least 50 personnel on roll of the bidding organization with the skill set of cloud native minimum 3 persons, Weather, Demand and Generation forecasting experts minimum of 3 persons, analytics solution minimum of 3 persons with power distribution domain expertise with experience of executing similar type of projects on past.</p>	<p>1. Partner to share Manufacturer Authorization Form (MAF) certificate from OEM.</p> <p>2. Bidder shall submit a self-certification for the same no. of working professionals.</p> <p>3. Bidder shall submit CV's of the personnel's to be deployed in the project</p>
Financial	Average Annual turnover of the bidder for last three years shall be minimum INR 25 Crores.	Bidder to submit Copy of Audited balance sheet and Profit and Loss Statement with UDIN No. certificates

### 1.8 Marketing Integrity

We have a fair and competitive marketplace. The rules for bidders are outlined in the General Condition of Contracts. Bidders must agree to these rules prior to participating. In addition to other remedies available, TPC reserves the right to exclude a bidder from participating in future markets due to the bidder's violation of any of the rules or obligations contained in the General Condition of Contracts. A bidder who violates the market place rules or engages in behavior that disrupts the fair execution of the marketplace, may result in restriction of a bidder from further participation in the marketplace for a length of time, depending upon the seriousness of the violation. Examples of violations include, but are not limited to:

- Failure to honor prices submitted to the marketplace
- Breach of terms as published in TENDER/ NIT

### 1.9 Supplier Confidentiality

All information contained in this tender is confidential and shall not be disclosed, published or advertised in any manner without written authorization from TPC. This includes all bidding information submitted to TPC. All tender documents remain the property of TPC and all suppliers are required to return these documents to TPC upon request. Suppliers who do not honor these confidentiality provisions will be excluded from participating in future bidding events.

### 2.0 Evaluation Criteria

- The bids will be evaluated technically on the compliance to tender terms and conditions.



**RFQ No.: 4100067644**

- The bids will be evaluated commercially on the overall all-inclusive lowest cost for the complete tender BOQ as calculated in Schedule of Items [Annexure I]. TPC however, reserves right to split the order line item wise and/or quantity wise among more than one Bidder. Hence all bidders are advised to quote their most competitive rates against each line item.
- Bidder has to mandatorily quote against each item of Schedule of Items [Annexure I]. Failing to do so, TPC may reject the bids.

**NOTE:** In case of a new bidder not registered, factory inspection and evaluation shall be carried out to ascertain bidder's manufacturing capability and quality procedures. However TPC reserves the right to carry out factory inspection and evaluation for any bidder prior to technical qualification. In case a bidder is found as Disqualified in the factory evaluation, their bid shall not be evaluated any further and shall be summarily rejected. The decision of TPC shall be final and binding on the bidder in this regard.

### **2.1 Price Variation Clause:**

The prices shall remain firm during the entire contract period.

## **3.0 Submission of Bid Documents**

### **3.1 Bid Submission**

Bidders are requested to submit their offer in line with this Tender document. TPC shall respond to the clarification raised by various bidders and the replies will be sent to all participating bidders through e-mail.

Bids shall be submitted in 3 (Three) parts:

**FIRST PART: "EMD"** of Rs. 2,00,000/- (Rupees Two Lakhs only) shall be submitted. The EMD shall be valid for 210 days from the due date of bid submission in the form of BG / Bankers Pay Order favoring "The Tata Power Company Limited". The EMD has to be strictly in the format as mentioned in General Condition of Contract, failing which it shall not be accepted and the bid as submitted shall be liable for rejection. A separate non-refundable tender fee of stipulated amount also needs to be transferred online through NEFT/ RTGS in case the tender document is downloaded from our website.

**TPC/ TPC Bank Details for transferring Tender Fee and EMD is as below:**

**Account Name: The Tata Power Co. Ltd.**

**Bank Name: HDFC Bank, Fort Branch, Mumbai**

**Bank Account No. : 00600110000763**

**IFSC Code: HDFC0000060**

**SECOND PART: "TECHNICAL BID"** shall contain the following documents:

- a) Documentary evidence in support of qualifying criteria
- b) Technical literature/GTP/Type test report etc. *(if applicable)*
- c) Qualified manpower available
- d) Testing facilities *(if applicable)*
- e) No Deviation Certificate as per the Annexure III – Schedule of Deviations
- f) Acceptance to Commercial Terms and Conditions viz Delivery schedule/period, payment terms etc. as per the Annexure IV – Schedule of Commercial Specifications.
- g) Quality Assurance Plan/Inspection Test Plan for supply items *(if applicable)*



RFQ No.: 4100067644

**The technical bid shall be properly indexed and is to be submitted in Soft Copy through Ariba Portal only. Hard Copy of Technical Bids need not be submitted.**

**THIRD PART: "PRICE BID"** shall contain only the price details and strictly in format as mentioned in Annexure I along with explicit break up of basic prices, Taxes & duties, Freight etc. In case any discrepancy is observed between the item description stated in Schedule of Items mentioned in the tender and the price bid submitted by the bidder, the item description as mentioned in the tender document (to the extent modified through Corrigendum issued if any) shall prevail.

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**FOR BIDS INVITED THROUGH E-PROCUREMENT PORTAL:**

The interested bidders are requested to obtain user name and password for purpose of bid submission through Ariba portal of TPC, Mumbai

**Bids have to be mandatorily submitted only through Ariba portal of TPC. Bids submitted through any other form/ route shall not be admissible**

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**The EMD in the form of BG shall be submitted in original hard copy** and then placed in sealed envelope which shall be clearly marked as below:

**EMD**

**"SITC of Power Portfolio Management (PPM) & Alarm Management & Rationalization"**

Please mention our RFQ Number:- 4100067644 on the Tender and drop the same at The Tata Power Company Limited, Smart Center of Procurement Excellence, 2nd Floor, Sahar Receiving Station, Sahar Airport Road, Andheri East, Mumbai-400059.

The envelope shall be addressed to:

**Chief (Corporate Contracts)  
The Tata Power Company Limited  
Smart Center of Procurement Excellence, 3rd Floor, Sahar Receiving Station  
Sahar Airport Road, Andheri East, Mumbai-400059**

The envelope shall also bear the Name and Address of the Bidder along with our Tender No. and subject.

**SIGNING OF BID DOCUMENTS:**

The bid must contain the name, residence and place of business of the person or persons making the bid and must be signed and sealed by the Bidder with his usual signature. The names of all persons signing should also be typed or printed below the signature.

The Bid being submitted must be signed by a person holding a Power of Attorney authorizing him to do so, certified copies of which shall be enclosed.

The Bid submitted on behalf of companies registered with the Indian Companies Act, for the time being in force, shall be signed by persons duly authorized to submit the Bid on behalf of the Company and shall be accompanied by certified true copies of the resolutions, extracts of Articles of Association, special or general Power of Attorney etc. to show clearly the title, authority and designation of persons signing the Bid on behalf of the Company. Satisfactory evidence of authority of the person signing on behalf of the Bidder shall be furnished with the bid.

A bid by a person who affixes to his signature the word 'President', 'Managing Director', 'Secretary', 'Agent' or other designation without disclosing his principal will be rejected.

The Bidder's name stated on the Proposal shall be the exact legal name of the firm.

**3.2 Contact Information**



**RFQ No.: 4100067644**

All the bidders are requested to send their pre-bid queries (if any) against this tender through e-mail within the stipulated timelines. The consolidated reply to all the queries received shall be shared on respective registered mail ID by the stipulated timelines as detailed in calendar of events.

**Communication Details:**

Lead Contracts

Name: Mr. Atharva Dhumal  
Contact No: 8369593396  
E-Mail ID: [atharva.dhumal@tatapower.com](mailto:atharva.dhumal@tatapower.com)

Group Head Contracts:

Name: Ms. Subhanjali Sanyal  
Contact No.: 022-67173927  
E-Mail ID: [subhanjali.sanyal@tatapower.com](mailto:subhanjali.sanyal@tatapower.com)

**3.3 Bid Prices**

Bidders shall quote for the entire Scope of Supply/ work with a break up of prices for individual items and Taxes & duties. The bidder shall complete the appropriate Price Schedules included herein, stating the Unit Price for each item & total price with taxes, duties & freight up to destination at various sites of TPC. The all-inclusive prices offered shall be inclusive of all costs as well as Duties, Taxes and Levies paid or payable during the execution of the supply work, breakup of price constituents.

The quantity break up shown else-where other than Price Schedule is tentative. The bidder shall ascertain himself regarding material required for completeness of the entire work. Any items not indicated in the price schedule but which are required to complete the job as per the Technical Specifications/ Scope of Work/ SLA mentioned in the tender, shall be deemed to be included in prices quoted.

**3.4 Bid Currencies**

Prices shall be quoted in Indian Rupees Only.

**3.5 Period of Validity of Bids**

Bids shall remain valid for 180 days from the due date of submission of the bid.

Notwithstanding clause above, the TPC may solicit the Bidder's consent to an extension of the Period of Bid Validity. The request and responses thereto shall be made in writing.

**3.6 Alternative Bids**

Bidders shall submit Bids, which comply with the Bidding documents. Alternative bids will not be considered. The attention of Bidders is drawn to the provisions regarding the rejection of Bids in the terms and conditions, which are not substantially responsive to the requirements of the bidding documents.

**3.7 Modifications and Withdrawal of Bids**

The bidder is not allowed to modify or withdraw its bid after the Bid's submission. The EMD as submitted along with the bid shall be liable for forfeiture in such event.

**3.8 Earnest Money Deposit (EMD)**



**RFQ No.: 4100067644**

The bidder shall furnish, as part of its bid, an EMD amounting as specified in the tender. The EMD is required to protect the TPC against the risk of bidder's conduct which would warrant forfeiture.

The EMD shall be denominated in any of the following form:

- Banker's Cheque/ Demand Draft/ Pay order drawn in favor of The Tata Power Company Limited, payable at Mumbai.
- Online transfer of requisite amount through NEFT/ RTGS.
- Bank Guarantee valid for 210 days after due date of submission.

***The EMD shall be forfeited in case of:***

a) The bidder withdraws its bid during the period of specified bid validity.

**Or**

- b) The case of a successful bidder, if the Bidder does not
- i) accept the purchase order, or
  - ii) furnish the required performance security BG

### **3.9 Type Tests (if applicable)**

As per attached Annexures

## **4.0 Bid Opening & Evaluation process**

### **4.1 Process to be confidential**

Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process. Any effort by a Bidder to influence the TPC's processing of Bids or award decisions may result in the rejection of the Bidder's Bid.

### **4.2 Technical Bid Opening**

Bids will be opened at TPC Office Mumbai as per the schedule mentioned in Calendar of Events. In case of limited tenders, the bids shall be opened internally by TPC. In case of Open Tenders, the bids shall be opened in the presence of accredited representatives of bidders who may choose to be present at the time of tender opening. Technical bid must not contain any cost information whatsoever.

First the envelope marked "EMD" will be opened. Bids without EMD/cost of tender (if applicable) of required amount/ validity in prescribed format, shall be rejected.

Next, the technical bid of the bidders who have furnished the requisite EMD will be opened, one by one. The salient particulars of the techno commercial bid will be read out at the sole discretion of TPC.

### **4.3 Preliminary Examination of Bids/Responsiveness**

TPC will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the Bids are generally in order. TPC may ask for submission of original documents in order to verify the documents submitted in support of qualification criteria.

Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total price per item that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price per item will be corrected. If there is a discrepancy between the Total Amount and the sum of the total price per item, the sum of the total price per item shall prevail and the Total Amount will be corrected.

**RFQ No.: 4100067644**

Prior to the detailed evaluation, TPC will determine the substantial responsiveness of each Bid to the Bidding Documents including production capability and acceptable quality of the Goods offered. A substantially responsive Bid is one, which conforms to all the terms and conditions of the Bidding Documents without material deviation.

Bid determined as not substantially responsive will be rejected by the TPC and/or the TPC and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

**4.4 Techno Commercial Clarifications**

Bidders need to ensure that the bids submitted by them are complete in all respects. To assist in the examination, evaluation and comparison of Bids, TPC may, at its discretion, ask the Bidder for a clarification on its Bid for any deviations with respect to the TPC specifications and attempt will be made to bring all bids on a common footing. All responses to requests for clarification shall be in writing and no change in the price or substance of the Bid shall be sought, offered or permitted owing to any clarifications sought by TPC.

**4.5 Price Bid Opening**

Price bids will be opened at the stipulated date and time. The EMD of the bidder withdrawing or substantially altering his offer at any stage after the technical bid opening will be forfeited at the sole discretion of TPC without any further correspondence in this regard.

**4.7 Reverse Auctions**

TPC reserves the right to conduct the reverse auction (instead of public opening of price bids) for the products/ services being asked for in the tender. The terms and conditions for such reverse auction events shall be as per the Acceptance Form attached as Annexure VI of this document. The bidders along with the tender document shall mandatorily submit a duly signed copy of the Acceptance Form attached as Annexure VI as a token of acceptance for the same.

**5.0 Award Decision**

TPC will award the contract to the successful bidder whose bid has been determined to be the lowest-evaluated responsive bid as per the Evaluation Criterion mentioned at Clause 2.0. The Cost for the said calculation shall be taken as the all-inclusive cost quoted by bidder in Annexure I (Schedule of Items) subject to any corrections required in line with Clause 4.3 above. The decision to place purchase order/LOI solely depends on TPC on the cost competitiveness across multiple lots, quality, delivery and bidder's capacity, in addition to other factors that TPC may deem relevant.

TPC reserves all the rights to award the contract to one or more bidders so as to meet the delivery requirement or nullify the award decision without assigning any reason thereof.

In case any supplier is found unsatisfactory during the delivery process, the award will be cancelled and TPC reserves the right to award other suppliers who are found fit.

**6.0 Order of Preference/Contradiction:**

In case of contradiction in any part of various documents in tender, following shall prevail in order of preference:

1. Schedule of Items (Annexure I)
2. Post Award Contract Administration (Clause 7.0)
3. Submission of Bid Documents (Clause 3.0)
4. Scope of Work and SLA (Annexure VII)
5. Technical Specifications (Annexure II)
6. Inspection Test Plan (Annexure VIII)



RFQ No.: 4100067644

7. Acceptance Form for Participation in Reverse Auction (Annexure VI)
8. General Conditions of Contract (Annexure IX)

## 7.0 Post Award Contract Administration

### 7.1 Special Conditions of Contract

- Rate shall remain FIRM till the validity of Rate Contract.
- TPC appreciates and welcomes the engagement/employment of persons from SC/ ST community or any other deprived section of society by their BAs.
- Any change in statutory taxes, duties and levies during the contract period shall be borne by TPC. However in case of delay in work execution owing to reasons not attributable to TPC, any increase in total liability shall be passed on the Bidder, whereas any benefits arising owing to such statutory variation in taxes and duties shall be passed on TPC.
- All the terms and conditions of TPC GTC shall be applicable.

### 7.2 Drawing Submission & Approval

As per annexure - II

### 7.3 Delivery Terms

Outline Agreement shall be valid for the period of 20 Months.

Delivery should be done on milestone basis as follows:

Business Milestones	Deliverables	Delivery Timeline
Milestone 1: Blueprinting and documentation	Requirement gathering and Business process mapping with To-Be functional architecture, Design deliverables, preparation and sign-off of Business Blueprint from Tata Power	1 Month from date of PO
Milestone 2: Configuration, Development and Testing	<ul style="list-style-type: none"> <li>• Coordinate with Tata Power infra team for setting up required cloud infrastructure</li> <li>• Development and deployment of complete solutions along with all required integrations.</li> <li>• Completion of VAPT along with mitigation of detected vulnerabilities if any</li> <li>• Deploy the solution in UAT environment (post Tata Power cyber clearance) and hand over to Tata Power for UAT</li> <li>• UAT sign off</li> </ul>	4 Months from the date of PO
Milestone 3: End to End UAT and Production roll out	<ul style="list-style-type: none"> <li>• Load/Performance Testing Report Sign Off by TP</li> <li>• Cyber Security Sign Off</li> <li>• Production Deployment Checklist and Go Live Plan</li> <li>• Setup of Application Monitoring &amp; Logging Framework in Production</li> <li>• Final Sign Off for Go Live</li> <li>• End user Training and documentation</li> </ul>	6 Months from the date of PO
Milestone 4: Hypercare support	Hypercare support for duration of 2 months after Go Live of milestone 3	8 Months from the date of PO
Milestone 5: Managed Services (Post Go live support period)	Go Live and Management of PPM and Alarm Management application support as well as cloud deployment management for One Year from Completion of all 4 Milestones. Managed services will consist of Pipelines, Cloud infra-Management for one year.	One Year from the date of Go Live of Solution (Post Go Live

RFQ No.: 4100067644

		support phase starts after the Hypercare duration of 2 months after Go Live of milestone 3)
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#### 7.4 Warranty Clause

Services should be provided till contract validity tenure.  
SLA Applicable as per Tender Scope of Work.

#### 7.5 Payment Terms

For Implementation: Payment shall be released post completion of individual milestones. Individual Tender Milestone as follows:

Business Milestone	Deliverables	Completion Timeline	Payment Terms
Milestone 1: Blueprinting and documentation	Requirement gathering and Business process mapping with To-Be functional architecture, Design deliverables, preparation and sign-off of Business Blueprint from Tata Power	1 Month from date of PO	20 % of Line item 1 in Price Schedule
Milestone 2: Configuration, Development and Testing	<ul style="list-style-type: none"> <li>• Coordinate with Tata Power infra team for setting up required cloud infrastructure</li> <li>• Development and deployment of complete solutions along with all required integrations.</li> <li>• Completion of VAPT along with mitigation of detected vulnerabilities if any</li> <li>• Deploy the solution in UAT environment (post Tata Power cyber clearance) and hand over to Tata Power for UAT</li> <li>• UAT sign off</li> </ul>	4 Months from the date of PO	50% of Line item 1 in Price Schedule
Milestone 3: End to End UAT and Production roll out	<ul style="list-style-type: none"> <li>• Load/Performance Testing Report Sign Off by TP</li> <li>• Cyber Security Sign Off</li> <li>• Production Deployment Checklist and Go Live Plan</li> <li>• Setup of Application Monitoring &amp; Logging Framework in Production</li> <li>• Final Sign Off for Go Live</li> <li>• End user Training and documentation</li> </ul>	6 Months from the date of PO	20% of Line item 1 in Price Schedule
Milestone 4: Hypercare support	Hypercare support for duration of 2 months after Go Live of milestone 3	8 Months from the date of PO	10% of Line item 1 in Price Schedule

RFQ No.: 4100067644

Business Milestone	Deliverables	Completion Timeline	Payment Terms
Milestone 5: Managed Services (Post Go live support period)	Go Live and Management of PPM and Alarm Management application support as well as cloud deployment management for One Year from Completion of all 4 Milestones. Managed services will consist of Pipelines, Cloud infra-Management for one year.	One Year from the date of Hypercare (Post Go Live & Hypercare duration of 2 months)	Quarterly in Arrears.

For Managed Services & Change Requests (as per utilization):

Invoices shall be raised on Quarterly in arrears basis.

All the Payments shall be made with a credit period of 30 days from the date of submission of error free invoices along with relevant supporting documents & as certified by Order Manager.

#### 7.6 Liquidated Damages Clause

LD deduction shall be applicable for delay in Project Go-Live at the rate of 1% of Total Contract value (Incl. of Taxes) per week of delay to a maximum of 10% of Total Contract value (Incl. of Taxes).

SLA Applicable as per Tender Scope of Work.

#### 7.7 Contract Performance Bank Guarantee (CPBG) Clause

Bidder shall submit Contract Performance Bank Guarantee (CPBG) cum Performance Bank Guarantee of 10% of the Total order value (Incl. of Taxes) within 15 days of award of contract, valid till Contract period with additional claim period of 6 months.

Tata Power reserves the right to recover the Liquidated damages due to SLA non-compliance as stated under Service Level Agreement (SLA), from the contractor's invoices due and also from the other securities and BG available with owner.

#### 7.8 Safety Retention

Safety Retention as per the Tata Power General Terms and Conditions shall be applicable and shall be released based on safety performance score after work completion.

#### 7.9 Climate Change

Significant quantities of waste are generated during the execution of project and an integrated approach for effective handling, storage, transportation and disposal of the same shall be adopted. This would ensure the minimization of environmental and social impact in order to combat the climate change.

#### 7.10 Ethics

TPC is an ethical organization and as a policy TPC lays emphasis on ethical practices across its entire domain. Bidder should ensure that they should abide by all the ethical norms and in no form either directly or indirectly be involved in unethical practice.

TPC work practices are governed by the Tata Code of Conduct which emphasizes on the following:

- We shall select our suppliers and service providers fairly and transparently.



**RFQ No.: 4100067644**

- We seek to work with suppliers and service providers who can demonstrate that they share similar values. We expect them to adopt ethical standards comparable to our own.
- Our suppliers and service providers shall represent our company only with duly authorized written permission from our company. They are expected to abide by the Code in their interactions with, and on behalf of us, including respecting the confidentiality of information shared with them.
- We shall ensure that any gifts or hospitality received from, or given to, our suppliers or service providers comply with our company's gifts and hospitality policy.
- We respect our obligations on the use of third party intellectual property and data.

Bidder is advised to refer GTC attached at Annexure VIII for more information.

Any ethical concerns with respect to this tender can be reported to the following e-mail ID: mrpatel@tatapower.com.

## **8.0 Specification and standards**

As per Annexure II.

## **9.0 General Condition of Contract**

Any condition not mentioned above shall be applicable as per GCC for Supply attached along with this tender at Annexure IX.

## **10.0 Safety**

Safety related requirements as mentioned in our safety Manual put in the Company's website which can be accessed by:

<http://www.tatapower.com>

All Associates shall strictly abide by the guidelines provided in the safety manual at all relevant stages during the contract period.



RFQ No.: 4100067644

**ANNEXURE I**  
**Schedule for Items**

**SITC of Power Portfolio Management (PPM) & Alarm Management & Rationalization**

Sr. No.	Description	Qty	UoM	Unit Price	Overall Price
1	Implementation of Power Portfolio Management (PPM) & Alarm Management Solution	1	AU		
2	Managed Services	12	MON		
3	Change Requests (in Man-Days)	200	AU		
Total Package Cost					
GST @ 18%					
Total Cost (Incl. of GST)					

**NOTE:**

- The bidders are advised to quote prices strictly in the above format and for all the line items as mentioned above. Failing to do so, bids are liable for rejection.
- The bidder must fill each and every column of the above format. **Mentioning “extra/inclusive” in any of the column may lead for rejection of the price bid.**
- No cutting / overwriting in the prices is permissible.
- The unit price to be indicated in col. No. 5 should be exclusive of taxes & duties which are to be indicated in separate columns meant for the purpose.
- All other Terms & conditions shall be as per Technical Specifications, Tata Power – GTC – Supply & Tata Power – GTC – Services.



RFQ No.: 4100067644

**ANNEXURE II**  
**Technical Specifications**

**As per Annexure No.: VII**

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RFQ No.: 4100067644

### **ANNEXURE III**

#### **Schedule of Deviations**

*Bidders are advised to refrain from taking any deviations on this TENDER. Still in case of any deviations, all such deviations from this tender document shall be set out by the Bidders, Clause by Clause in this schedule and submit the same as a part of the **Technical Bid**.*

*Unless **specifically** mentioned in this schedule, the tender shall be deemed to confirm the TPC's specifications:*

S. No.	Clause No.	Tender Clause Details	Details of deviation with justifications

*By signing this document we hereby withdraw all the deviations whatsoever taken anywhere in this bid document and comply to all the terms and conditions, technical specifications, scope of work etc. as mentioned in the standard document except those as mentioned above.*

**Seal of the Bidder:**

**Signature:**

**Name:**

**ANNEXURE IV**

**Schedule of Commercial Specifications**

*(The bidders shall mandatorily fill in this schedule and enclose it with the offer Part I: Technical Bid. In the absence of all these details, the offer may not be acceptable.)*

<b>S. No.</b>	<b>Particulars</b>	<b>Remarks</b>
1.	Prices firm or subject to variation (If variable indicate the price variation clause with the ceiling if applicable)	Firm / Variable
1a.	If variable price variation on clause given	Yes / No
1b.	Ceiling	----- %
1c.	Inclusive of Excise Duty	Yes / No (If Yes, indicate % rate)
1d.	Sales tax applicable at concessional rate	Yes / No (If Yes, indicate % rate)
1e.	Octroi payable extra	Yes / No (If Yes, indicate % rate)
1f.	Inclusive of transit insurance	Yes / No
2.	Delivery clause acceptable	Yes / No
3.	Warranty clause acceptable	Yes / No
4.	Terms of payment acceptable	Yes / No
5.	Performance Bank Guarantee acceptable	Yes / No
6.	Liquidated damages & SLA clause acceptable	Yes / No
7.	Validity (180 days) (From the date of opening of technical bid)	Yes / No
8.	Rebate for increased quantity	Yes / No (If Yes, indicate value)
9.	Change in price for reduced quantity	Yes / No (If Yes, indicate value)
10.	Inspection during stage of manufacture	Yes / No
11.	Covered under Small Scale and Ancillary Industrial Undertaking Act 1992	Yes / No (If Yes, indicate, SSI Reg'n No.)

**ANNEXURE V**

**Checklist of all the documents to be submitted with the Bid**

Bidder has to mandatorily fill in the checklist mentioned below:-

<b>S. No.</b>	<b>Documents attached</b>	<b>Yes / No / Not Applicable</b>
1	EMD of required value	
2	Tender Fee as mentioned in this RFQ	
3	Company profile/organ gram	
4	Signed copy of this RFQ as an unconditional acceptance	
5	Duly filled schedule of commercial specifications (Annexure IV)	
6	Sheet of commercial/technical deviation if any (Annexure III)	
7	Balance sheet for the last completed three financial years; mandatorily enclosing Profit & loss account statement	
8	Acknowledgement for Testing facilities if available (duly mentioned on bidder letter head)	
9	List of Machine/tools with updated calibration certificates if applicable	
10	Details of order copy (duly mentioned on bidder letter head)	
11	Order copies as a proof of quantity executed	
12	Details of Type Tests if applicable (duly mentioned on bidder letter head)	
13	All the relevant Type test certificates as per relevant IS/IEC (CPRI/ERDA/other certified agency) if applicable	
14	Project/supply Completion certificates	
15	Performance certificates	
16	Client Testimonial/Performance Certificates	
17	Credit rating/solvency certificate	
18	Undertaking regarding non blacklisting (On company letter head)	
19	List of trained/untrained Manpower	



RFQ No.: 4100067644

## **ANNEXURE VI**

### **Acceptance Form for Participation in Reverse Auction Event**

*(To be signed and stamped by the bidder)*

In a bid to make our entire procurement process more fair and transparent, TPC intends to use the reverse auctions through SAP-SRM tool as an integral part of the entire tendering process. All the bidders who are found as technically qualified based on the tender requirements shall be eligible to participate in the reverse auction event.

**The following terms and conditions are deemed as accepted by the bidder on participation in the bid event:**

1. TPC shall provide the user id and password to the authorized representative of the bidder. *(Authorization Letter in lieu of the same shall be submitted along with the signed and stamped Acceptance Form).*
2. TPC will make every effort to make the bid process transparent. However, the award decision by TPC would be final and binding on the supplier.
3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of TPC, bid process, bid technology, bid documentation and bid details.
4. The bidder is advised to understand the auto bid process to safeguard themselves against any possibility of non-participation in the auction event.
5. In case of bidding through Internet medium, bidders are further advised to ensure availability of the entire infrastructure as required at their end to participate in the auction event. Inability to bid due to telephone line glitch, internet response issues, software or hardware hangs, power failure or any other reason shall not be the responsibility of TPC.
6. In case of intranet medium, TPC shall provide the infrastructure to bidders. Further, TPC has sole discretion to extend or restart the auction event in case of any glitches in infrastructure observed which has restricted the bidders to submit the bids to ensure fair & transparent competitive bidding. In case of an auction event is restarted, the best bid as already available in the system shall become the start price for the new auction.
7. In case the bidder fails to participate in the auction event due any reason whatsoever, it shall be presumed that the bidder has no further discounts to offer and the initial bid as submitted by the bidder as a part of the tender shall be considered as the bidder's final no regret offer. Any offline price bids received from a bidder in lieu of non-participation in the auction event shall be out-rightly rejected by TPC.
8. The bidder shall be prepared with competitive price quotes on the day of the bidding event.
9. The prices as quoted by the bidder during the auction event shall be inclusive of all the applicable taxes, duties and levies and shall be FOR at TPC site.
10. The prices submitted by a bidder during the auction event shall be binding on the bidder.
11. No requests for time extension of the auction event shall be considered by TPC.
12. The original price bids of the bidders shall be reduced on pro-rata basis against each line item based on the final all inclusive prices offered during conclusion of the auction event for arriving at Contract amount.

**Signature & Seal of the Bidder**



RFQ No.: 4100067644

**ANNEXURE VII**

**Scope of Work shall be as per attached Annexure**

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Request for Proposal (RFP)  
For  
**Power Portfolio Management (PPM) & Alarm  
Management & Rationalization  
(Mumbai DISCOM)**



## Contents

1.	Introduction .....	3
2.	Purpose and objectives of the project.....	3
3.	Project Timelines .....	4
4.	Collaboration .....	4
5.	Scope of Work.....	4
5.1.	Power Portfolio Management .....	4
5.2.	Alarm Management & Rationalization .....	11
6.	Project Location .....	16
7.	Integration with other systems .....	16
8.	Deliverables .....	16
9.	Project Approach and Planning .....	16
10.	Testing Deliverables.....	17
11.	Cloud Infrastructure Management.....	18
12.	Cyber Security Requirements: .....	18
13.	Qualifying Criteria .....	21
14.	Evaluation Criteria .....	21
15.	Milestone and Payment Terms.....	21
16.	Project Team Structure.....	22
17.	Risk management: .....	23
18.	Onsite and Offshore Resource Requirements .....	23
19.	Price Schedule.....	24
20.	Documentation Requirement.....	24
21.	Managed Services & Change Requests Requirements.....	25
22.	SLA Table for Managed Services.....	27
23.	Penalty Clause for Post Go Live Support .....	29
24.	Proposal Submission Check List.....	30

## 1. Introduction

Tata Power is one of the largest Integrated power companies in India. Energizing the complete power value chain, Renewable Energy Generation, Conventional Energy Generation, Transmission, Distribution, Power Trading, EV (Electric Vehicle) Charging Infrastructure, Solar Rooftop, Solar Panel Manufacturing, and EPC (Engineering, Procurement, and Construction) large projects with a vision of “*Empower a billion lives through sustainable, affordable, and innovative energy solutions.*”

Tata Power is a pioneer credited with steering the energy sector on technology, processes, and platform. Powering emerging technologies for the 'smart' customer, Tata Power's latest business integrated solutions, focusing on mobility and lifestyle, is poised for multi-fold growth.

Since its inception in 1915, Tata Power now has over a century of expertise in technology leadership, project execution excellence, world-class safety processes, customer care and driving green initiatives. Tata Power is committed to '**Lighting up lives**' for generations to come.

## 2. Purpose and objectives of the project

**Power Portfolio Management:** Design an Intelligence Platform for creating, managing, and distributing enterprise intelligence. It includes tools and interfaces that enable you to do the following:

- ✓ Extract data from a variety of operational data sources on multiple platforms, and build a data warehouse and data marts that integrate the extracted data
- ✓ Store large volumes of data efficiently and in a variety of formats
- ✓ Provide for utilities to put in their desired strategies, optimization goals and other factors like consumer reliability etc.
- ✓ Give business users at all levels the ability to explore data from the warehouse in a web browser, perform simple query and reporting functions, and view up-to-date results of complex analyses
- ✓ use high-end analytic techniques to provide capabilities such as predictive and descriptive modelling, forecasting, optimization, simulation, and experimental design
- ✓ centrally control the accuracy and consistency of enterprise data

**Alarm Management and Rationalization:** Design an Intelligence Solution for the SCADA and relay system alarms with these objectives:

- ✓ Reduce alarm floods during major disturbances by clustering, correlating, prioritizing and deduplicating alarms
- ✓ Improve situational awareness by highlighting the single most probable root cause.
- ✓ Increase operator effectiveness by reducing cognitive load and speeding decision-making.
- ✓ Enable consistent analysis across varying operator experience levels.
- ✓ Accelerate restoration by recommending SOP-aligned, scenario-specific actions.
- ✓ Preserve operational knowledge by mining historical logs and fault data for training and decision-support.
- ✓ Improve reliability KPIs (SAIDI/SAIFI/CAIDI) through faster fault diagnosis and response.



### 3. Project Timelines

Execution of the project must start within 4 weeks of the date of issuance of the Purchase Order. All milestones of the project must be completed in a timely manner overall 4-6 months and followed by 12 months of post-go-live support.

However, the partner will provide detail project plan and schedule for the same along with milestones. The timelines should not exceed the above-mentioned indicative values. Partner may provide reduced project timelines with optimized industry best practices.

### 4. Collaboration

All project activities should be planned and performed in collaboration with Tata Power D&IT team, Tata Power Business teams, their existing or new partners, Infrastructure network, end user device support team, and info security teams. Also need to work in liaison with all cloud services and 3rd party solutions providers, which are under the project scope. Project team should fully coordinate with 3rd party vendors for seamless integration with other platforms.

Project team should work inline to the Quality checks/audits opted by the Tata Power at each phase/deliverable/ milestone level and mandatorily fulfill quality requirements without any fail.

Partner needs to define a clear RACI Matrix in agreement with all parties involved in all phases of this project.

### 5. Scope of Work

#### 5.1. Power Portfolio Management

##### 1. Data Scrapping, integration and upload from various sources

- Day ahead planning Data
- OSI Pi/SCADA
- Generation Availability - REMC, SLDC, RLDC etc.
- DSM (Deviation Settlement Mechanism) Site
- IEX
- SCADA Meters
- MDM + GIS Hierarchy
- Network Hierarchy
- Transmission Corridor availability
- Weather APIs
- Open Access Consumer Data - Intra and Inter State
- Transmission Loss

##### 2. Contract Information Management

This module would provide a templated platform to capture all types active and inactive contracts of the discom contract in terms Long Term, short term, Bilateral, Exchange Based, Weekly, banking, OTC etc. This would be used as master so it should be designed for easy creation and editing and ability to convert all key technical and commercial conditions of the contracts.

A Master data is also required for capturing the broad strategies which would be used for optimizing. Few of the strategies would include but not limited to:

- a) Power Purchase Cost
- b) Percentage Greening
- c) Customer Reliability (Power Availability)
- d) Water Requirements (Hydro)
- e) Working Capital Management

##### 3. Forecasting



Forecast is basic and upmost requirement of any utility. Demand and Price forecast is very important for any utility or consumer.

**A) Demand forecast**

- Long Term
- Medium term,
- Short Term
- Day ahead and
- Intra Day

The solution should consider all factors affecting demand on short, medium and long-term basis. Illustrative factors are as below:

- Historical and forecasted weather parameters such as temperature, humidity, rainfall and wind speed etc.
- Demand side management activities by Utility
- Econometric parameters such as GDP, growth rate, real estate growth, industrial growth
- Population Growth
- Government & Regulatory Policies
- New connections/ Electrification
- Any special events/days
- Impact of EV charging stations
- Impact of Roof Top Solar Generation
- Impact of Battery Storage
- Distributed generation impact on demand calculated at TD interface for DSM
- Other factors which will affect demand or consumption.

B) **Price forecast** – Integration of existing developed model, also accuracy to be verified of the solution available with Vendor and can be explored if it better than the existing one.

C) **RE generation estimation / forecast** based on historical trends required for power planning.

**4. Scheduling/Actuals**

This module is required to do the schedule of power on various time frames based on the optimization output after considering multiple scenarios & also considering BESS or PSP. This would also require capturing the schedules updated at various LDCs (SLDC, RLDC and REMC)

- Module to schedule power through SLDC.
- Crawling and uploading schedule.
- Checking correctness of schedule for 96 block wise as per master database inputs.
- Revision of schedule for any demand or supply revision.

The mechanism to capture the actual data from Meters, SCADA or any other source like websites would also be a part of this module, also inputs from Exchanges would be a part of this module.

**5. Energy Storage System**

Energy storage system (ESS) refers to the device of converting electrical energy from power systems into a form that can be stored for converting back to electrical energy when needed. This module should be providing tools to capture various parameters like SoC, Depth of Charge etc and any specific condition directly from the BESS, through schedules and any API as such. This data would be used for optimization of schedules.

**6. Transmission Loss – Technical and Financial Impact**

When electricity flows through transmission lines, some energy is inevitably lost due to the **resistance** of the conductors.

- Losses increase with:
  - Longer distances
  - Higher current flow
  - Poor quality or aging infrastructure



#### Impact on Billing:

- These losses are part of AT&C (Aggregate Technical & Commercial) losses, which regulators monitor.
- Higher losses reduce efficiency and increase the cost per unit of electricity, which may be passed on to consumers through tariff hikes.

### 7. Exchange Points – Gateways of Energy Transfer

- Exchange points are metered interfaces where energy is handed over from one entity to another:
  - From transmission utilities to distribution companies
  - Between states or regions
- These points are equipped with ABT (Availability-Based Tariff) compliant meters to ensure precision.

#### Impact on Billing:

- Accurate metering at these points is essential for:
  - Energy accounting: Knowing exactly how much energy was received
  - Billing reconciliation: Matching energy received with energy billed
  - Loss calculation: Identifying where losses occur
- Errors or tampering at these points can lead to financial disputes, under-recovery, or penalties from regulators.

### 8. Loss Master – The Digital Ledger of Losses

- The Loss Master stores:
  - Standard loss percentages for each voltage level (e.g., 400kV, 220kV, 33kV, 11kV)
  - Historical loss data
  - Real-time loss estimates from SCADA or AMI systems
- It is used in energy auditing, load forecasting, and regulatory reporting.

#### Impact on Billing:

- Estimate how much energy should be billed to consumers
- Justify losses to regulatory bodies like SERCs (State Electricity Regulatory Commissions)
- Avoid penalties by staying within approved loss limits

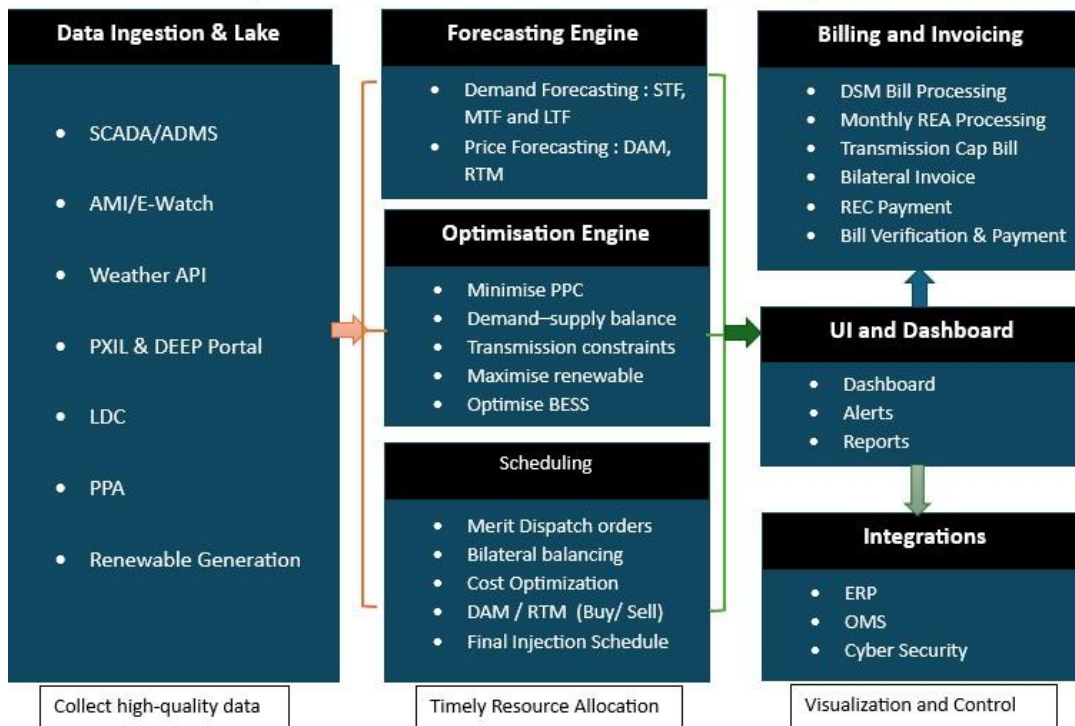
### 9. Output and Reporting

- **Hydro Planning & Requisition:** - Monthly hydro generation targets daily schedules for each plant based on day types and market conditions, ensuring optimal utilization and cost-efficiency.
- **Renewable Purchase Obligation:** - Total Renewable Energy
- **MAPE** – All types of forecasting
- **PP Dashboard** – MUs, Daily PP cost, PP Cost PU, Market Purchase, For LTA/STOA & REMC, For MTOA, Monthly PP Cost, Yearly PP Cost, MTD & YTD FAC and Estimated Power Purchase cost of AEML& BEST.
- **Optimized Portfolio:** - Output of optimization engine (after running multiple scenarios) with most suitable scenario for further analysis, reporting and permission.
- **Exchange Bid:** - Auto exchange bid preparation and submission in IEX platform for different types of portfolios i.e. Day ahead, RTM GDAM, TAM & GTAM etc. including block bids.
- **Power Purchase Cost Optimization Monitoring Dashboard:** - Monitoring of PPC for review and further actions.
- **MIS /Reports:** - Customized solution of different types of MIS as per user requirements.
- **Bill verification and Reconciliation:** - Integration required with existing system for bill processing and Automated process to fetch the data from various sources, processing the same for bill validation.

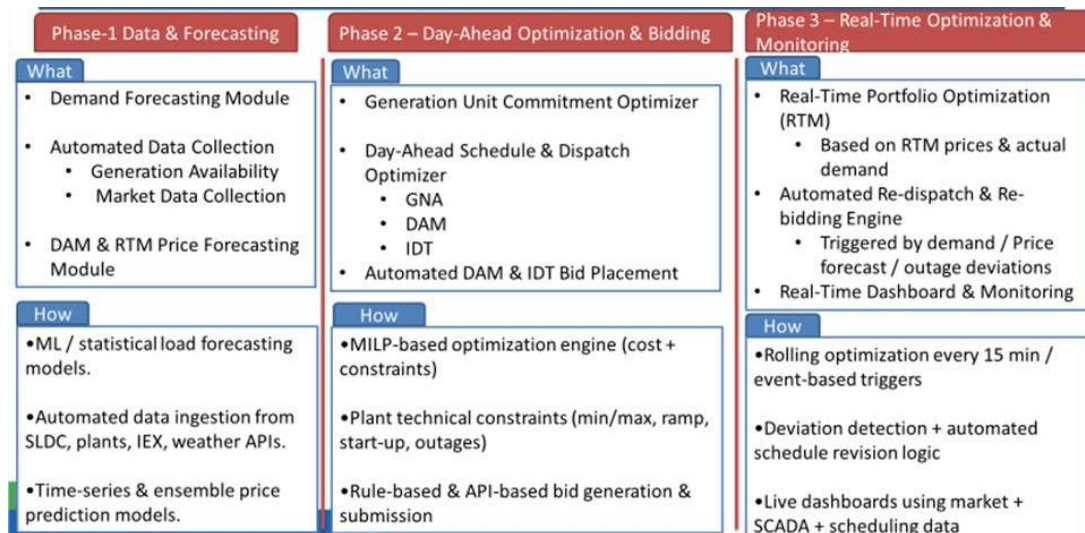
### 10. High-Level Design Diagram



Power Planner High-Level Technical Architecture



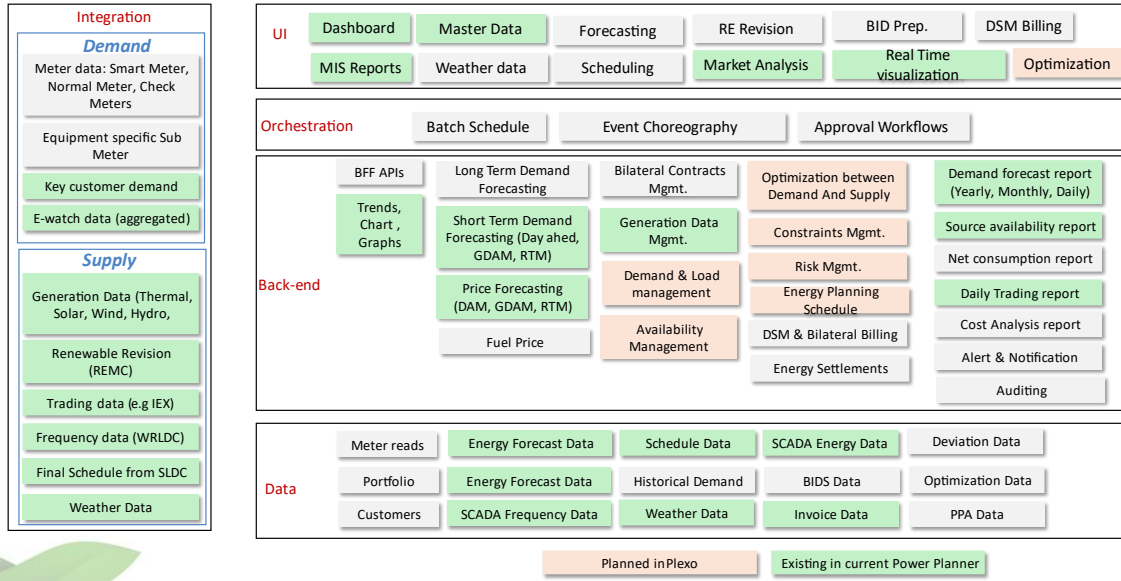
### 11. High-Level Operational Workflow



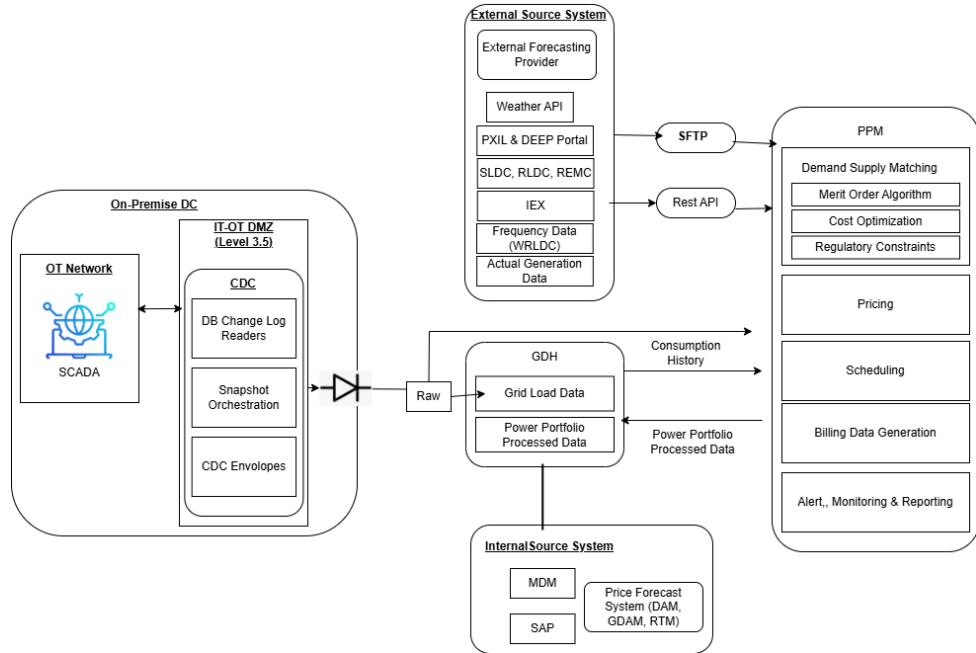
### 12. To be Business Architecture



## Logical Architecture - Mumbai



### 13. Technical Component Architecture



### 14. Key functionalities and Deliverables (Mumbai)



Capability	L1 - Processes	Remarks/Attributes	Technical Deliverables
Data Scrapping / Integrations	Generation Availability - REMC, SLDC, RLDC etc.	Generation Availability	Scrapping data through crawler, integration with SCADA, DB, etc. and data upload interfaces (30nos. approx...)
	DSM (Deviation Settlement Mechanism) Site	SLDC - Generator real time availability, DISCOM forecasted demand, Realtime schedule, revisions	
	IEX	price, bid volume, bid quantum, charges - RTM, DAM, GDAM, HPDAM	
	SCADA Meters	block wise aggregated MWh (15mins) - Change over, network sharing data with other DISCOMs	
	Weather APIs	Temp, Humidity, Rain etc (1-15mins block)	
	Oper Access Consumer Data - Intra and Inter State	NA (included in generation schedule)	
	Transmission Losses - Energy lost in wires due to resistance	Weekly POC losses (NLDC, POSOCO)	
	WBES site (for matching with DSM schedule)	SLDC - Generator Realtime availability, DISCOM forecasted demand, Realtime schedule, revisions	
	Data integration for Grid Data Hub	File or API based data extraction for above data points	
Contracts Information	Long Term Contracts (PPA)	Source, validity, availability etc.	Interface / screens to be developed to capture the required data of contracts documents
	Medium Term Contracts (Bilateral) (Green/ Brown)	Source, validity, availability etc.	
	Short Term (Bilateral) (Green/ Brown)	Source, validity, availability etc.	
	Day Ahead (DAM/GDAM/TAM) - Buy or Sell (Green/ Brown)	Based on SLDC approval (demand or surplus) NOC will be obtained from SLDC	
	Banking / Return Banking	Contract document	
	Other - Distributed generation, Roof Top, Open access etc.	Contract document	
Demand Forecasting	Short Term Forecast	<ol style="list-style-type: none"> <li>Intra-day (Real time) – block, hourly, 15 minutes &amp; 5 minutes.</li> <li>Day ahead, hourly, 15 minutes &amp; 5 minutes.</li> <li>24Hrs Forecast to Week Ahead forecast at 15-minutes/5 minutes Interval</li> </ol>	Demand Forecasting models for Short term, medium term and long-term based on the given inputs and scope or integration with third-party for Demand forecasting
	Medium Term Forecast	Hourly, 15 Minutes & 5 minutes Demand Forecast for the next 5 (five) years for MSEDCL overall.	
	Long term forecast	Hourly Demand Forecast for next 5 to 30 years for overall	
Stability / Frequency-aware	Short-term Frequency Prediction & Frequency-aware	Predict grid/system frequency in very short term (e.g. 5–60 minutes ahead) using ML/AI models (point +	Recommendations for proactively adjust generation or procurement, maintain grid



Dispatch Planning	aware Dispatch Adjustment	probabilistic forecasts). Use those predictions to anticipate supply–demand imbalances and adjust dispatch/purchase or reserve preparation to maintain frequency stability and reduce risk of over/under-generation.	stability, avoid frequency excursions, and optimize dispatch under frequency uncertainty.
Price Forecasting	Day Ahead Market	Integration of existing Price Forecasting model	Integration of the in-house developed price forecasting model and provide the visualizations
	Real Time Market		
Demand Supply Matching	Frequency Demand supply matching	Models / Rules / logics for various scenarios for power purchase cost optimization	Cost optimization models based on Scenarios, rules and algorithms. Or integration with third-party solution for cost optimization
	Merit Order Algorithm		
	Cost Optimization		
	Regulatory Constraints		
Scenario Simulation	Multi-scenario (What-if) Simulation Engine	Automatically generate 1,000+ scenarios combining variations in demand, renewable output and price forecasts for risk-aware planning.	To compare outcomes under volatility and choose best mix of internal generation, PPA allocation, and short-term power purchases.
Pricing	Price Master and calculations logic for evaluating the cost	Capacity Charges, Base Energy Charges, Fuels Price Adj, Reactive Power Charges, Taxes, Trading Margin, Transmission Charges, Operating Charges, MSLDC/RLDC Charges, DSM Charges, Transmission Losses, TGNA Charges	Interfaces for capturing the master data and calculations for evaluating the cost
		Regulatory changes, Computation of change law in Transmission and Generator contract	
Scheduling	Bilateral Scheduling	Formatted scheduled files	Deliver various schedule formats
	DAM / GDAM / RTM Exchange Trading Finalisation (Buy/ Sell)		
	Final Injection Schedule		
	Day Ahead Power Scheduling		
Bill Verification & Payment	Integration with Bill processing system	Data integration for invoice validations	Data integration for invoice validations
Monitoring and Reporting	Real Time Monitoring - Demand, Supply, market price etc.	Hydro Planning & Requisition, Renewable Purchase Obligation, MAPE, PP Dashboard, Optimized Portfolio, Exchange Bid:- Auto exchange bid preparation and submission in IEX platform for different markets, Power Purchase Cost Optimization Monitoring Dashboard, MIS /Reports and Bill verification and Reconciliation	Reports, Dashboards and outcome required for other systems
	DSM settlement report		
	Daily Reporting		



	Integrated Procurement & Dispatch View	Combine commercial market intelligence, operational constraints and demand forecasts into a single operational dashboard.	
	Control Room Dashboard for Operators	Real-time dynamic visualization of demand forecast, price forecasts, renewable projections, scenario spreads and final dispatch plan.	
	Cost Benefit & Performance Reports	Auto-generate reports on savings achieved, accuracy improvements, trading performance and dispatch optimization impact.	
	Trading bids		
Alerts & Risk Management	Risk-Based Alerts for Price Shocks & Demand Variations	Raise alerts when probabilities show potential price/demand deviations crossing defined risk thresholds.	Early warnings to secure lower-cost procurement or sell excess power profitably.

## 5.2. Alarm Management & Rationalization

The scope of this project is end-to-end delivery of Alarm Management & Rationalization solution as indicated in the 'grey' shade in Diagram 1.

### 1. Functionalities and Features requirements

Following functionalities/features need to be delivered as part of the scope for the Alarm Management & Rationalization solution:

- Establish a centralized, high-throughput Alarm Event Store to ingest and persist real-time alarm streams from Transmission SCADA and Protection relays, while consuming contextual grid data



(GIS topology, Asset master data, Network models, OMS, Customer impact etc.) from the Grid Data Hub for correlation, analytics, and decision support

- The system must implement real-time data pipeline/integration to ingest data from transmission SCADA and Protection relays
- The system must implement batch data pipeline/integration to ingest data from Grid Data Hub for reference data (contextual grid data)
- The system shall implement common alarm schema normalization by mapping all incoming alarms and events from Transmission SCADA and Protection relays to a standardized data model aligned with CIM (IEC 61970/61968)
- The system shall perform time synchronization and clock skew correction to ensure that all alarms and events ingested from heterogeneous source systems are aligned to a common, accurate time reference, enabling reliable event correlation, root cause analysis, and sequence-of-events reconstruction. This should be done at the time of ingestion to the alarm event store.
- Implement Alarm Inventory catalog for alarms coming from multiple system. Example: A SCADA system alarm catalog might contain alarm ID, SCADA tag, point type (analog/digital), asset mapping (substation/feeder/bay), current limits/deadband, current priority, message text, current ack rules, shelving rules etc.
- The system shall automatically correlate incoming alarms to identify related events, eliminate duplicate alarms, prioritize and associate cause-and-effect alarms, in order to present operators with a single consolidated incident instead of multiple individual alarms.
- The system shall support intelligent grouping of alarms into logical incidents based on root cause analysis, so that consequential and dependent alarms are linked to a primary (root) alarm.
- The system shall provide configurable rule-based mechanisms to define alarm rationalization logic, including rules for correlation, prioritization, suppression, shelving, and escalation.
- Alarm rationalization rules shall be configurable through a user interface without requiring custom development or source code changes.
- The system shall maintain audit trails of all alarm rationalization rules and changes, including rule versioning, timestamps, and user actions.
- Identify the most probable root cause (e.g., feeder trip, transformer issue) of the grouped events with confidence scores and explainable reasoning. The system should also provide alternative hypotheses, wherever applicable
- Topology-aware alarm correlation that leverages GIS, ADMS network topology, and protection relay data to accurately identify and relate dependent events across the grid.
- A real-time operational dashboard that visualizes alarm clusters, prioritize, root cause analysis (RCA) outcomes, and system-recommended corrective actions for faster decision-making.
- Alarm Performance Dashboard for KPIs. Example:
  - ✓ Top N alarms by count, duration, chattering, nuisance (ack without action), standing alarms, floods by time.
  - ✓ Per asset ranking: “noisiest RTU/feeder”
- Offer SOP-aligned restoration recommendations
- The system must record operator feedback on resolution to fine tune the root-cause and mitigation AI/ML model
  
- Generate initial outage reports aligned with regulatory requirements
- The system must serve as a unified knowledge and decision-support platform during critical events using LLM based chat interface
- Alarm history along with applied mitigation actions shall be fed back into the Grid Data Hub to support continuous AI/ML model training and refinement.
- The solution must include end-to-end monitoring and traceability layer



Primary source of Data for alarm and events:

- SCADA / ADMS – Network operational alarms and switching events.
- Protection Relays / IEDs – Fault, trip, and protection zone events

Contextual & Reference Data Sources

- Grid Data Hub: The grid data hub will provide data related to asset master, topology models, asset metadata, GIS Data, SOP Repository (Switching and restoration procedures), Past fault and outage records

Non-Functional Scope:

Performance:

- Support >200 alarms/sec ingestion
- End-to-end latency < 3–5 seconds
- Root cause and possible remediation recommendation < 30 secs

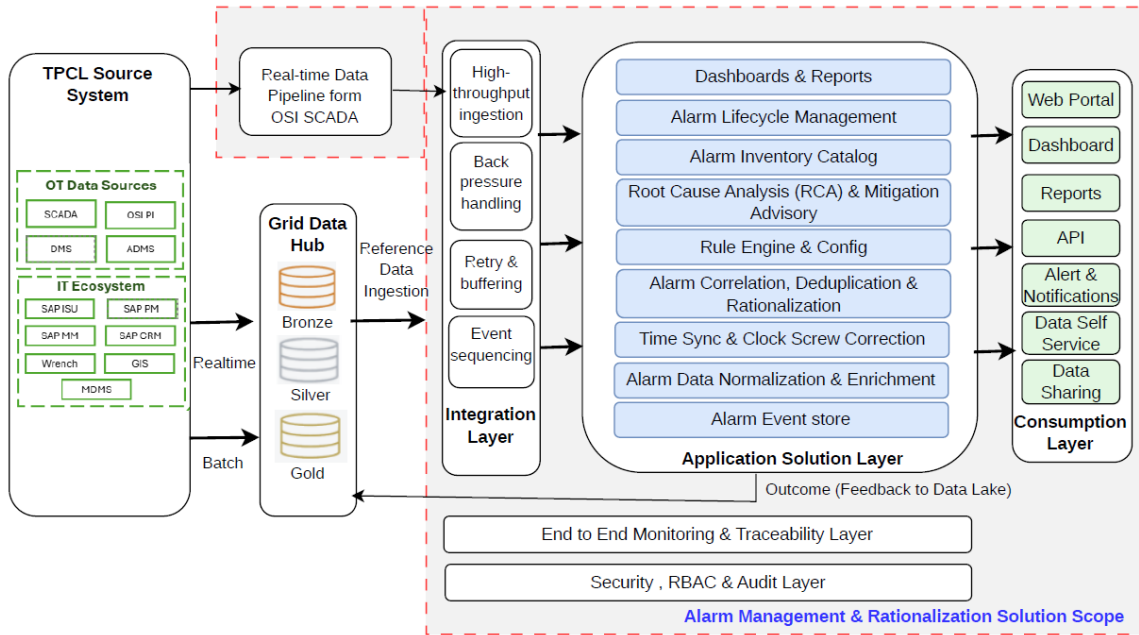
Scalability:

- Horizontally scalable architecture
- Future-ready for increased alarm volumes

Reliability:

- High availability and fault-tolerant design
- No data loss during peak events

## 2. Proposed Business Architecture



   Vendor Scope of work

Diagram 1

### 3. Functional Use cases



#	Capability	Sub Capabilities	Use Cases	Technical Deliverables
1	Capture high throughput ingestion of alarms from SCADA Protection relays and store (>200 transactions/Second, 3-5 second SLA).	Centralised and scalable streaming platform to capture data push from OT network	<ol style="list-style-type: none"> <li>1. Prepare alarm inventory based on sources, asset mapping, priority</li> <li>2. Develop canonical data model for maintain standardized taxonomy</li> <li>3. Converge stored alarms with GIS and ADMS topology</li> <li>4. Modify Grid Data Hub with ingested alarms</li> </ol>	Event Stream Processing Engine, Integration Processing Components
		CDC to pull changed data from various OT sources		
		Ensure least latency <3 seconds		
		Resiliency and scaling		
2	Rationalize and process alarms	Remove duplicity of alarms	<ol style="list-style-type: none"> <li>1. Optimize alarms and displayed to operators sorted with priority in real time for faster analysis</li> <li>2. Provide root case relationship with identified parent alarm with child alarms</li> </ol>	Event Stream Processing Engine, ML/Rule based engine for alarm processing
		Rule driven alarms based on similar timeframe, geography and asset mapping		
		Sort alarms with priority		
		Map root alarm with all child alarms		
3	Provide RCI, RCA and RCF suggestions	Develop insight from GDH based on alarm patterns, GIS and asset mapping on root cause.	<ol style="list-style-type: none"> <li>1. Provide operators support to take quick decision on issue resolution.</li> <li>2. Add feedback loop to use in further tuning pf suggestions.</li> <li>3. Contextual SOP to Operators</li> </ol>	ML and rule-based insight processing engine
		Map insights developed in GDH with current event set and suggest root cause, SLA and priority. Attach a confidence score.		
		Use rule-based issue identification		
4	Analytics & Insight	KPI calculation	<ol style="list-style-type: none"> <li>1. SAIDI/SAIFI/CAIDI calculation</li> <li>2. Corrective suggestion to operators on current issue resolution with confidence score</li> </ol>	ML and rule-based insight processing engine
		Analyse root case relationship with identified parent alarm with child alarms based on historical data and current context		
5	Visualisation	Real time Reports, Charts & Dashboard along with Ad-Hoc Reporting	<ol style="list-style-type: none"> <li>1. Alarm visualization with priority score</li> <li>2. Alarm RCA, RCF.</li> <li>3. Dashboards on historical data</li> </ol>	Reports and User Interface
		Alarms visualisation overlayed with GIS, asset topology		
		Canned reports incl. outage reports based on geo, timeframe		

#### 4. Technical Component Architecture

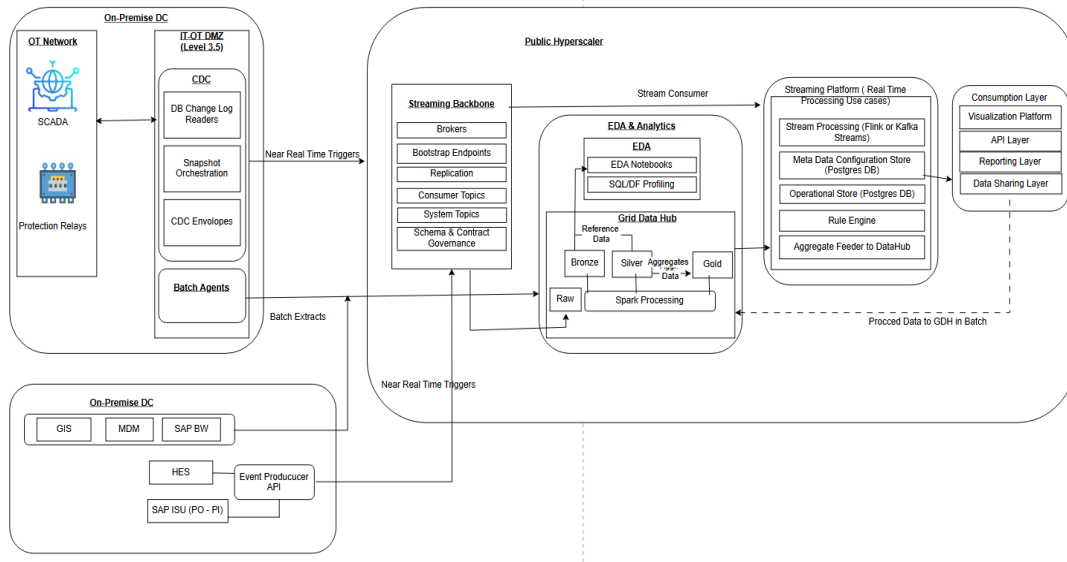


Diagram 2

## 6. Project Location

Mumbai

## 7. Integration with other systems

To be defined during the Blue Printing process (max 5 systems).

## 8. Deliverables

Partner needs to provide detailed approaches, work breakdown structure including all aspects of phase wise deliverables and activities with timelines based on each area mentioned in the scope.

Based on the agreed approach, multiple stages need to be planned. At the end of each stage a well-defined quality check needs to be followed. Test scripts and Testing Tool needs to be provided by partner.

Key Deliverables must Include and not limited to:

- Detail Project Plan
- End-to-end high level and low-level solution design
- Development, Implementation and deployment of alarm management & rationalization end -to-end solution
- Deign and Configuration of PaaS Services on hosting platform of the application solution
- Test Automation, Test Report
- Monitoring and operational strategy for the solution

## 9. Project Approach and Planning

The partner must develop a comprehensive, detailed approach and strategy for the project including, but not limited to the following (Partner may propose any alternatives, based on their strategy / methodology):

- Project Scope and Plan
- Overall implementation plan and work plan (in phases)
- Integration plan
- Comprehensive Testing plan



- Creation of Test Scripts
- Provide Testing tool
- Comprehensive Training plan
- Post Go-Live support model and plan

All developments must be compliant with security requirements, performance, ease of use for operations, administration, and management.

Implementation partner shall submit a VAPT assessment report for all Platform developments as well as Integration configurations and developments. The report shall be authenticated by a CERT-In empaneled vendor.

## 10. Testing Deliverables

Partners need to share a comprehensive testing plan, which covers all kinds of testing desired at each milestone, phase etc. This needs to be discussed at each level of the project progress and make it comprehensive acceptance at each milestone.

Partner to work with Tata Power Functional and Technical team, current AMS partner team, and business core team to identify and document the test scripts / scenarios desired for the successful progress of each phase of the project.

Additional Test Case, testing process as may be required to be identified, and the project team will work with respective counterparts to create / update Test Scripts in Tata Power and have them approved ahead of time for execution during various test cycles.

Testing shall include, but not limited to the following (Partner may propose others, based on their strategy / methodology):

- **Unit Testing:** This will be performed post completion of migration /configuration of project system and Development System by the Partner. This will include technical and functional testing to be done by partner
- **Integration Testing:** This will be performed post completion of migration/ configuration of Project system and Quality system. This will include technical and functional testing and will be executed by partner, jointly with Tata Power team, and results will be recorded.
- **Regression Testing:** This will be performed post completion of migration/ configuration of Project system and Quality system. This will include technical and functional testing and will be executed by partner, jointly with Tata Power team, and results will be recorded.
- **Performance / Volume / Load Testing:** Bulk Testing will be performed by Partner along with core business and Tata Power users and D&IT team, using migrated Production data. Mass transactions will be run by users in the new Production system to check the performance of the end-to-end processes. Partner should provide specialized tools for this testing.
- **Quality Check Observations Fixes.** Partner will be responsible for remediation / recommendation of observations identified during quality check.
- **User Acceptance Testing (UAT):** This will be performed post completion of migration / configuration of Project System and Quality systems and formal testing. During this test cycle, test scripts will be executed by the business representatives jointly with Partner. It will be based on approved test scripts and results will be formally recorded. Deviations arising from formal tests will be recorded by Tata Power for resolution by the Partner.



Partner needs to propose industry best testing tool suitable for this project and certified for and by Salesforce. The agreed testing tools are to be deployed by the Partner and all test cases and test scripts need to be prepared and finalized in the testing tool in alignment with the project requirements.

### 11. Cloud Infrastructure Management

The bidder shall attach the BoM and BoM of the cloud components that are proposed in the solution and shall also provide the hyperlink from the cost calculator from the official portal of the cloud service providers.

### 12. Cyber Security Requirements:

The bidder needs to comply with following Cyber Security practices in the overall solution discussed and finalized during blueprinting stage.

Category	Cyber Security Consideration
Web Interface/Access Control	<p>The Bidder to ensure that web interface in the product has an account lockout mechanism.</p> <p>The Bidder to ensure that web interface in the product has been tested for XSS, SQLi and CSRF/SSRF vulnerabilities</p> <p>Implement defence-in-depth design, including secure network segmentation and least-privilege access. Enforce strict Role-Based Access Control (RBAC) and Attribute-Based Access Control (ABAC) integrated with Tata Power’s central directory and Multi-Factor Authentication (MFA).</p>
Authentication/Authorization	<p>The Bidder to ensure that access requiring authentication requires strong passwords and it should be governed through Mobile app authentication/ TP consumer account authentication. The Bidder to ensure that user roles can be properly segregated in multi-user environments. The Bidder to ensure that supplied solution supports password expiration after a specific period. The Bidder to ensure the availability of options to change the default username and password. The Bidder to ensure the supplied solution complies with Tata Power Password Policy. The Bidder to share list of its personnel’s having access to data and shall review the list on quarterly basis. For any changes, the updated list shall be shared with Tata Power.</p>
Transport Encryption	<p>The Bidder to ensure all communication between system components is encrypted. The Bidder to ensure SSL/TLS implementations are up to date and properly configured</p>
Data at Rest	<p>The Bidder to ensure local data is properly protected using encryption at rest. The Bidder to share details of encryption used.</p> <p>Implement data masking and row/column-level security for sensitive data.</p>



<p>Security Configurability</p>	<p>The Bidder to ensure secure logging is available for security events. Also, logs are maintained for a period of 180 days.</p> <p>The Bidder to ensure alerts and notifications are available to the user for security events</p> <p>The Bidder to ensure integration of logs with inhouse SIEM and iNMS tool of Tata Power.</p> <p style="padding-left: 40px;">Maintain complete audit trails for user activities and data changes.</p> <p style="padding-left: 40px;">Support periodic security assessments, vulnerability scanning, and timely patching.</p>
<p>Software/ Firmware Upgrade</p>	<p>The Bidder to ensure all system devices have update capability and can be updated quickly when vulnerabilities are discovered</p> <p>The Bidder to ensure update files can be transmitted in a secure manner</p> <p>The Bidder to ensure availability of necessary service, support, upgrades and security patches during the lifecycle of the project.</p>
<p>Network Architecture</p>	<p>The Bidder to share the updated network architecture for proposed solution and review it at least once a year.</p>
<p>System Hardening</p>	<p>The Bidder to share hardening document for proposed solution.</p> <p>The Bidder to ensure only secured ports and services are used and only ports and services required for operation are enabled.</p>
<p>Disposal</p>	<p>The Bidder to work with Tata Power to destroy or erase data stored to prevent unauthorized retrieval of sensitive data.</p> <p>The Bidder to provide Undertaking on Deletion of Data or any information withheld as part of engagement post completion of project.</p>
<p>Asset Identification</p>	<p>The Bidder to share list of all the assets installed as part of the proposed solution</p>
<p>Contingency Plan</p>	<p>The Bidder to share the Disaster Recovery/Business Continuity Plan for the proposed solution</p>
<p>Vulnerability Assessment &amp; Penetration Testing</p>	<p>The Bidder to conduct VAPT (both source code and manual PT) of the supplied solution from a 3rd party CERT-In empaneled security auditor and submit necessary reports to Tata Power and subsequently conduct confirmatory testing. Closure of all VAPT observations shall be a mandatory condition for Go Live.</p> <p>The Bidder shall also extend full support in closure of vulnerabilities as part of audit/assessments conducted due to statutory &amp; regulatory requirements for compliance purpose during project life cycle.</p>
<p>Cyber Security Incident Documentation</p>	<p>The Bidder team to work with Tata Power team for capturing of necessary artefacts, forensic data, sequence of events, Root Cause Analysis, etc. related to all cyber security incidents.</p>



	The Bidder to acknowledge incident within 1 hour, provide Immediate Action within 4 hours and submit detailed incident report with Preventive Action within 48 hours.
Systems Security Management	The Bidder shall ensure implementation of security patches, cumulative service packs, releases, and version upgrades of application during the project cycle. All upgrades and patches shall be implemented at no extra cost to Tata Power.
	The Bidder to document and implement a process for the update of anti-virus and malware prevention signatures. The process must address testing and installing the signatures. The Bidder shall submit status of upgrades and patches applied on monthly basis to TP
Countries of Prior Reference	The Bidder to ensure products from Countries of prior Reference shall not be part of proposed solution.
Audit and Compliance	The Bidder to ensure proposed solution complies with ISO 27001 & CEA guideline and shall submit necessary artefacts in this regard.  Partners shall also participate with TP in providing necessary artefacts, evidence, data etc. as & when required as part of internal and external audit requirements.
Posting of data on Public Forum	The Bidder shall refrain from posting any data regarding the existing project on public forums without written consent from TP.

The selected bidder shall ensure that all components of the solution comply with Tata Power’s cybersecurity standards, applicable legal and regulatory requirements (including but not limited to CERT-In and CEA guidelines), and industry best practices (e.g., ISO/IEC 27001).

**Security Deliverables**

Security architecture document and access control matrix.

- Data protection and encryption plan.
- Yearly vulnerability and patch compliance reports.
- Incident response and audit trail documentation.



### 13. Qualifying Criteria

The qualifying requirements for the bidder are mentioned below. The bidder who meets the following requirement will only be entitled for further technical & commercial evaluation.

Parameter	Tata Power Requirement	Documents To be submitted by Bidder to ascertain meeting of Pre-qualification requirement
Design, Engineering, Manufacturing, Supply, Supervision of Installation, Testing and Commissioning	<p>1. The bidder should have successfully implemented intelligent grid operations/grid monitoring/grid automation/ Alarm management/ Demand forecasting / Power Purchase Cost optimization model for any Indian Power Utility at least 3 projects in last 3 years using cloud-native, scalable data storage and data warehousing and analytics. Completion certificate of implementation duly signed by the Customer is to be submitted.</p> <p>2. The bidder should have active contract of managed services of the above-mentioned projects for at least 2 projects in utilities industry. Purchase Order of the active contracts to be submitted.</p>	<p>1) Bidder to submit List of executed Projects with all technical and Purchaser's details.</p> <p>2) Necessary PO copies &amp; commissioning reports in respect of subject tender shall be submitted along with technical bid.</p> <p>3) Bidder shall submit logical architecture solutions.</p>
Service	<p>1. The bidder must high level relationship partner of any of the major cloud hyper scalers.</p> <p>2. Bidder should have at least 50 personnel on roll of the bidding organization with the skill set of cloud native minimum 3 persons, Weather, Demand and Generation forecasting experts minimum of 3 persons, analytics solution minimum of 3 persons with power distribution domain expertise with experience of executing similar type of projects on past.</p>	<p>1. Partner to share Manufacturer Authorization Form (MAF) certificate from OEM.</p> <p>2. Bidder shall submit a self-certification for the same no. of working professionals.</p> <p>3. Bidder shall submit CV's of the personnel's to be deployed in the project</p>
Financial	Average Annual turnover of the bidder for last three years shall be minimum INR 25 Crores.	Bidder to submit Copy of Audited balance sheet and Profit and Loss Statement with UDIN No. certificates

### 14. Evaluation Criteria

**Technical Evaluation:**

- Bids shall be evaluated based on submitted technical proposals which shall cover the justification for the parameters as given below.
- Only those bids which fulfil the prequalification requirement mentioned in “Qualifying Requirement” section above will be evaluated.

### 15. Milestone and Payment Terms



Business Milestone	Deliverables	Completion Timeline	Payment Terms
Milestone 1: Blueprinting and documentation	Requirement gathering and Business process mapping with To-Be functional architecture, Design deliverables, preparation and sign-off of Business Blueprint from Tata Power	1 Month from date of PO	20 % of Line item 1 in Price Schedule
Milestone 2: Configuration, Development and Testing	<ul style="list-style-type: none"> <li>Coordinate with Tata Power infra team for setting up required cloud infrastructure</li> <li>Development and deployment of complete solutions along with all required integrations.</li> <li>Completion of VAPT along with mitigation of detected vulnerabilities if any</li> <li>Deploy the solution in UAT environment (post Tata Power cyber clearance) and hand over to Tata Power for UAT</li> <li>UAT sign off</li> </ul>	4 Months from the date of PO	50% of Line item 1 in Price Schedule
Milestone 3: End to End UAT and Production roll out	<ul style="list-style-type: none"> <li>Load/Performance Testing Report Sign Off by TP</li> <li>Cyber Security Sign Off</li> <li>Production Deployment Checklist and Go Live Plan</li> <li>Setup of Application Monitoring &amp; Logging Framework in Production</li> <li>Final Sign Off for Go Live</li> <li>End user Training and documentation</li> </ul>	6 Months from the date of PO	20% of Line item 1 in Price Schedule
Milestone 4: Hypercare support	Hypercare support for duration of 2 months after Go Live of milestone 3	8 Months from the date of PO	10% of Line item 1 in Price Schedule
Milestone 5: Managed Services (Post Go live support period)	Go Live and Management of PPM and Alarm Management application support as well as cloud deployment management for One Year from Completion of all 4 Milestones. Managed services will consist of Pipelines, Cloud infra-Management for one year.	One Year from the date of Go Live of Solution (Post Go Live support phase starts after the Hypercare duration of 2 months after Go Live of milestone 3)	Quarterly in Arrears.

## 16. Project Team Structure



The project organization will consist of a steering committee, a core project team from Tata Power (Business and D&IT), supporting partner team of Tata Power, and the Partner's project team.

It is expected to have a senior official with diversified ability heading the project team. Project management will include the following, but not limited:

Proposal to indicate following regarding resources:

- Project Team Organizational Structure along with roles and responsibilities
- CVs of each member who will be part of the Project Team
- The core team required from Tata Power
- Progress Review Mechanism
- Timely problem resolution and escalation matrix

The primary and secondary people should be identified, and CVs of both the persons should be submitted along with the proposal.

Tata Power Project Director / Project Manager will approve each team member from the selected Partner based on individual CVs to be submitted before engaging them on the project. The Partner cannot bring personnel as understudy or otherwise without the consent of Tata Power. Partner must not withdraw the personnel during the tenure of the project.

## 17. Risk management:

Continuous risk management requires that risks be found throughout the project, not as a one-time activity only during the project's planning.

Partner will analyze risks on an ongoing basis to deal with changing conditions and priorities on the project. As new risks are found, strategies and plans to deal with them to be developed. Risk register should be discussed in all meetings without failing as a mandatory agenda point.

## 18. Onsite and Offshore Resource Requirements

- **Onsite Deployment**
  - Selected bidder to enable deployment of dedicated resources at Tata Power Project office for face-to-face interactions.
  - Onsite resources to participate in finalization of design, workshops, reviews, and critical decision-making activities.
  - Bidder shall maintain a comprehensive Decision Register at each stage of the project, documenting all key decisions, approvals, and rationale for traceability and audit purposes.
  - Bidder shall maintain a comprehensive Decision Register at each stage of the project, documenting all key decisions, approvals, and rationale for traceability and audit purposes.
  - Expenses for Onsite resources shall be borne by the bidder.
- **Offshore Development Centre**
  - Offshore development centre can be managed by the bidder/partner.
  - Bidder responsible for onboarding all onshore / offshore resources with necessary laptops, software, and access provisions.



➤ **Data Security & Compliance:**

- All resources (onsite and offshore) must comply with Tata Power’s data leakage guidelines.
- No data from Tata Power’s environment is to be copied, transferred, or taken out of the environment under any circumstances.
- Laptops and devices used by bidder resources must meet Tata Power’s security, access, and encryption standards.
- All laptops and devices must be installed with information security (InfoSec) provided software.

➤ **Access & Environment Management:**

- Ensure proper environment access, accounts, and permissions for each resource.
- Compliance with platform-specific security policies for AWS, Databricks, and related systems.

19. **Price Schedule**

S. No	Line-Item Description	Qty	UoM	Price in Lakhs (Before Taxes)	App. Taxes	Price in Lakhs (Inclusive of Taxes)
1	Implementation of all Milestones from 1 to 4	1	EA			
2	Managed Services Cost for the entire implementation – 12 Months from End of Hypercare	12	Monthly			
	Total Price					
Miscellaneous Price						
3	Change Request Cost	200	Man Days			

20. **Documentation Requirement**

During the **Delivery Phase**, the bidder shall provide the following set of documents to ensure transparency, traceability, and completeness of the implemented solution. These documents must be **version-managed**, with each iteration reflecting updates, approvals, and change history. The documents listed below cover the full lifecycle of solution delivery, including architecture, design, data pipeline, data modelling, governance, deployment, and operations.

The bidder must adhere to standard documentation practices, including:

- Maintaining a **Document Version History** (Version, Date, Author, Reviewer, Change Summary).
- Providing **Approval and Sign-off** sections for key stakeholders.
- Ensuring **consistency in terminology, formatting, and structure** across all documents.

The required documents are summarized in the table below:

<b>Project Planning &amp; Execution</b>	Project charter, Detailed plan, Business Process Blueprint Document (As-is, To-be), Functional & Technical documentation including configuration of the system	
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Architecture	SAD (Solution Architecture Document)	High-level solution overview, business alignment, functional & non-functional requirements, deployment model
	TAD (Technical Architecture Document)	Detailed technical architecture – infra, network, APIs, cloud/on-prem topology, integrations
Design	HLD (High-Level Design)	Logical design of modules, components, interfaces, and major data flows
	LLD (Low-Level Design)	Detailed design – DB schema, APIs, transformations, pseudo-code, data mappings
	SLD (System/Software Level Design)	Component-level specifications, control flows, module internals
Data-Specific	Data Pipeline Design Document	Source-to-target mapping, ingestion methods, orchestration, lineage, error handling
	Data Modelling Document	Conceptual, logical, physical models; ERDs; fact & dimension tables; naming conventions
	Data Dictionary / Metadata Document	Business + technical definitions, field-level metadata, PII classification
	Data Governance Document	Data ownership, stewardship, masking rules, retention & archival policies
Supporting	Requirements Traceability Matrix (RTM)	Links business requirements → design → test cases
	Security & Compliance Document	IAM, RBAC, encryption, compliance standards, audit trails
	Deployment Guide	CI/CD, environment configs, release process
	Operations / Runbook	Monitoring, alerting, incident response, support procedures
	Testing Strategy Document	Unit, SIT, UAT, performance, regression test strategy
Training Modules	Video/ PDF Manual, 1. Overview of GDH 2. User Manual 3. Maintenance manual 4. Creation of new reports/dashboards	To help user for self-learning from the documents

## 21. Managed Services & Change Requests Requirements

After successful deployment and handover of the projects, the selected bidder shall provide **Managed Services** for the entire solution scope of PPM and Alarm Management. The services shall ensure **continuous availability, optimal performance, governance, and end-user support** across all systems and applications implemented under the scope of this RFP. Vendor must reserve X number of man days effort for Change Request, during 12 months managed support effort.

The services must align with **Tata Power’s operations framework** and comply with enterprise **cloud, security, and data governance policies**, ensuring seamless operations, high data quality, and reliable access for all authorized stakeholders.

### A. Platform Monitoring & Administration

- a. Platform Monitoring: Continuous health check of clusters, workspaces, jobs, and endpoints.



- b.** Job Monitoring & Failure Management: Proactive monitoring and troubleshooting of scheduled and ad-hoc ETL/ELT jobs.
  - c.** Performance Tuning: Optimization of queries, cluster configurations, and job parameters for cost-efficiency and speed.
  - d.** Cost Management: Monthly report on cloud / PaaS usage tagged by business unit and function. Allocation of run cost based on Tata Power's tagging schema and distribution rules. Like this Managed Support should be bifurcated business unit and function wise.
  - e.** Observability Dashboards: Maintenance and updates to dashboards providing real-time insights into jobs, usage, data freshness, and KPIs.
  - f.** Centralized Command Centre: Continuous L1/L2 alert triage, ticket lifecycle management, and SLA tracking
  - g.** Automated Remediation: Execution of auto-restart and alert-driven scripts for failed jobs or pipelines
  - h.** Delta/Storage Maintenance: Governance of Delta tables including retention, optimize/vacuum cadence, partition repair, and stats refresh
- B. Security, Access, and Compliance**
- a.** User Lifecycle Management:
    - i. Provisioning/de-provisioning of users.
    - ii. Management of RBAC and ABAC policies in Databricks and associated applications.
  - b.** Data Security and Governance:
    - i. Ongoing enforcement of data masking, row-level security, and column-level security via Unity Catalog.
    - ii. Regular audits of access logs, usage, and security compliance.
  - c.** Compliance & Policy Enforcement:
    - i. Ensure compliance with Tata Power's cybersecurity, legal, and regulatory policies.
    - ii. Maintain audit trails and encryption practices.
  - d.** Periodic Permission Reviews & Access Attestation: Quarterly review of user and role permissions to ensure least-privilege enforcement.
  - e.** Secret & Key Management: Rotation and auditing of KMS, Secrets Manager, and Databricks Secrets.
  - f.** Governance Enforcement: Maintain consistent naming, tagging, and catalogue hygiene
- C. Data Operations & Maintenance**
- a.** Realtime and near-realtime Pipeline Support:
    - i. Daily monitoring and resolution of pipeline failures.
    - ii. Enhancement and fine-tuning of existing pipelines.
    - iii. SLA-based resolution for business-critical data delays or data quality issues.
  - b.** Historical and Delta Load Management:
    - i. Periodic review of delta mechanisms and refresh strategies.
    - ii. Optimization of SCD (Slowly Changing Dimensions), CDC (Change Data Capture), and batch jobs.
    - iii. Maintain IL/DL folder structures for historical and delta loads; ensure proper lifecycle management.
  - c.** Data Quality Monitoring:
    - i. Implementation and maintenance of data validation rules.
    - ii. Notifications on anomalies and failures.
    - iii. Monitor for schema drift in ingestion pipelines and alert per SOP
    - iv. Update ingestion runbooks/SOPs after incidents or configuration changes
- D. Data Model & KPI Store Management**
- a.** KPI Store Administration:
    - i. Ongoing update of KPI metadata, UOMs, mapping logic, and organization structures.
    - ii. Monitoring KPI applicability and fiscal controls.
    - iii. Performance Monitoring: Monitor KPI store query performance and recommend optimizations.
  - b.** Audit Trail Maintenance:
    - i. Ensure completeness and integrity of audit logs for KPI changes and data processing.
- E. Change Management & Enhancements**
- a.** Change Request Management:



- i. Time-bound commitment and delivery of CRs as agreed between successful bidder and Tata Power Company Ltd.
    - ii. Evaluation of impact & addressal on existing systems and processes.
    - iii. Post-CR Validation: Validate impact on SLAs, performance, and runbooks after CR implementation.
  - b. CI/CD Support:**
    - i. Maintenance of pipelines in Git repositories as per Tata Power framework
    - ii. Deployment through standardized CI/CD processes.
- F. Documentation & Knowledge Management**
  - a. Runbook Maintenance:
    - i. Update SOPs and runbooks as systems evolve.
    - ii. Maintain version-controlled SOPs and runbooks for all operations.
  - b. Knowledge Base Updates:
    - i. Document resolutions, tips, and training material in a centralized repository.
    - ii. Document dashboards, monitoring configurations, and KPIs.
  - c. Training & Enablement:
    - i. Periodic knowledge transfer sessions with Tata Power's business and technical teams.
- G. Coordination**
  - a. Coordinate and Implement cloud Infrastructure and cyber management solution for environment, capacity, performance and business continuity approach
  - b. Overall coordination across multiple teams to deploy the fix in production
- H. SLA & Reporting**
  - a. Service Level Agreements:
    - i. Define and adhere to incident response and resolution timelines.
    - ii. Categorize issues (P1 to P4) with associated TATs.
    - iii. Conduct Root Cause Analysis (RCA) for P0/P1 incidents and track remediation.
  - b. Monthly Service Review Reports (MSR):
    - i. Performance summary.
    - ii. Incident & Change summary.
    - iii. Platform usage & cost analytics.
    - iv. Improvement recommendations.
    - v. Conduct quarterly security and cost posture reviews with actionable recommendations.
- I. Scalability & Futureproofing**
  - a. Capacity Planning:
    - i. Forecasting and recommendation of scale-up/down for clusters, storage, and jobs.
    - ii. Prepare platform and pipelines for future cloud account consolidation and automation readiness.
  - b. Advisory Services:
    - i. Recommendations for new use cases, tools, and platform enhancements.

## 22. SLA Table for Managed Services



Priority	Description	Examples
P1 – Critical	Complete service outage or data unavailability with business impact; no workaround available; business unit/s affected.	<ul style="list-style-type: none"> <li>• Cloud platform / Pipeline down</li> <li>• Data Ingestion Services down</li> <li>• Data Visualization Services down</li> <li>• Integration System down</li> <li>• Cyber Security Incident or Breach</li> <li>• Critical KPI store not accessible</li> <li>• Data Source sync failure causing outage</li> <li>• All system functionality unusable across multiple business units</li> <li>• Major business-critical workflows completely halted</li> <li>• Security/compliance breach impacting critical operations</li> </ul>
P2 – High	Major functional impact but partial availability or viable workaround exists; major impact to a single business unit or critical operation; workaround may allow restricted processing	<ul style="list-style-type: none"> <li>• Multiple job failures</li> <li>• Data quality issue in critical pipeline</li> <li>• Web app workflow errors</li> <li>• Business process partially inoperative</li> <li>• Partial platform outage affecting a single business unit</li> <li>• Major functional degradation of dashboards or reports</li> </ul>
P3 – Medium	Moderate impact on operations; workaround available or affects non-critical business functions; affects a single workgroup/functional group; system impaired but major functionality still usable	<ul style="list-style-type: none"> <li>• Delay in non-critical reports</li> <li>• User provisioning issue</li> <li>• Minor KPI logic mismatch</li> <li>• Non-critical ETL job delays</li> <li>• Minor data sync delays within a single team</li> <li>• Dashboard refresh delayed but core reporting available</li> </ul>
P4 – Low	No operational impact; cosmetic issues, documentation updates, minor enhancements; affects only a single user	<ul style="list-style-type: none"> <li>• UI glitch</li> <li>• KPI metadata update request</li> <li>• Dashboard formatting change</li> <li>• Minor visual/formatting inconsistencies</li> <li>• Documentation or SOP updates</li> <li>• Non-urgent configuration changes</li> </ul>



### 23. Penalty Clause for Post Go Live Support

SLA will be measured on quarterly basis. Total No. of cases reported in different categories as per the scenario mentioned above will be entitled for measurement and accordingly, the following would be calculated:

- A) Total No. of Hours where resolution goes beyond the given limit as per category in a month
- B) Total No. of Hours of operations in a month (It would be 30\* 24 Hours)

SLA Compliance = [(B-A)/B] %age

SLA compliance % age will be calculated on monthly basis (rounded off). Penalty for the achieved SLA compliance will attract penalty as per following matrix.

S. No.	SLA compliance %age	Penalty Rates
1	98% to 100%	No Penalty
2	96% to 97%	20% of Quarterly invoice amount
3	94% to 95%	50% of Quarterly invoice amount
4	Less than equal to 93%	100% of Quarterly invoice amount



## **24. Proposal Submission Check List**

1. Proposed approach and project plan
2. Project Management Team/Composition
3. Risk Identification and mitigation plan
4. Letter/documents supporting qualifying criteria
5. UAT strategy document
6. Training Plan



**TATA POWER**

RFQ No.: 4100067644

**ANNEXURE VIII**

**Inspection Test Plan**

**NA**

CONFIDENTIAL



RFQ No.: 4100067644

**Annexure IX**  
**General Conditions of Contract**

**Attached as Annexure to this document**

CONFIDENTIAL



RFQ No.: 4100067644

**Annexure X**  
**Manufacturers Authorization Form**

Date: .....

Tender Enquiry No.: .....

To,  
Chief (Procurement & Stores)  
Tata Power Company Limited, Mumbai

Dear Associate,

Whereas M/s. [name of OEM], who are official manufacturers of..... having factories at [Address of OEM] do hereby authorize M/s [name of bidder] to submit a Bid in relation to the Invitation for Bids indicated above, the purpose of which is to provide the following Goods, manufactured by us ..... and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with the Special Conditions of Contract or as mentioned elsewhere in the Tender Document, with respect to the Goods offered by the above firm in reply to this Invitation for Bids.

We hereby confirm that in case, the channel partner fails to provide the necessary services as per the Tender Document referred above, M/s [name of OEM] shall provide standard warranty on the materials supplied against the contract. The warranty period and inclusion / exclusion of parts in the warranty shall remain same as defined in the contract issued to their channel partner against this tender enquiry

Yours Sincerely,

For .....

Authorized Signatory

The Tata Power Company Limited is hereunder referred to as the "Owner" or "Company". The person, firm or company offering the services, the subject of this order is referred to as "Contractor". The subject of this order is hereinafter referred to as the "Work".

"Sub-Contractor" means any person named in the Contract as a Sub-contractor, sub-vendor, manufacturer or supplier for a part of the Works or any person to whom a part of the Works has been subcontracted and the legal successors in title to such Person, but not any assignee of such Person.

The Contract shall mean the contract as derived from the following:

1. Work Order (with 'Commercial Notes' and Annexures to the Work Order referred thereon)
2. Scope of Work.
3. General Terms & Conditions - Service

The documents including all reference document (s) and Annexures forming the Contract are to be read together as a whole and are to be taken as mutually explanatory, provided however, in the event of any inconsistency or discrepancy between the aforementioned documents, the order of precedence in interpretation of the documents shall be as set out above. For the avoidance of doubt, it is clarified that the terms set forth in the Work Order (with 'Commercial Notes' and Annexures to the Work Order referred thereon) shall take precedence over the terms set out in the Scope of Work, which shall in turn take precedence of the terms set out in the General Terms & Conditions – Service.

#### **1. Contractor's obligation:**

- 1.1 Contractor warrants that it is a competent, qualified and experienced contractor, equipped, organised and financed to perform and complete the services in the operating area in an efficient and professional manner and capable of meeting all the requirements of the Contract.
- 1.2 The Contractor has the overall responsibility of executing the contract, conducting Planning, Job Scheduling, Maintenance Planning, Maintenance Job Scheduling, executing the Work and maintenance jobs as per the Scope of work & schedule.
- 1.3 Except to the extent that it may be legally or physically impossible or create a hazard to safety, the Contractor shall comply with the Owner's representative(s) instructions and directions on all matters relating to the Work.
- 1.4 Contractor shall at all times have full responsibility for control of the Equipment and for the direction and supervision of operations being carried out under the Contract.
- 1.5 In the performance of the Work, Contractor shall be and act as an independent Contractor fully responsible and accountable for the proper execution of its responsibilities, obligations and

liabilities under this Contract and for its own acts and the acts of its Sub-Contractors and the Personnel. Owner's supervision, examination or inspection of the (performance of the) Work or omission to carry out the same shall not be construed in any manner whatsoever as relieving Contractor from its responsibilities, obligations or liabilities under this Contract.

- 1.6 Contractor shall submit list of tools & tackles with details of make, year of manufacturing, valid certification to the Project Manager/ User for their approval.

Project Manager may during the execution of project inspect & verify that the tools & tackles are as per the qualification requirements approved by him and will have right to seek replacements in case of any discrepancies. The Contractor shall always comply with such directives.

- 1.7 Contractor shall engage Tata Power Skill Development Institute (TPSDI) certified labour force at the site for execution of the job. Requirement & fees for TPSDI certification shall be as per Company Policy.
- 1.8 Contractor shall take full responsibility for the protection and security of Owner's materials and equipment while such materials and equipment are temporarily stored in Contractor's facility or otherwise in Contractor's custody.
- 1.9 All notices, instructions, information, and other communications given by the Contractor to Owner under the Contract shall be given to the Order Manager/ Owner's representative, except as otherwise provided for in this Contract.
- 1.10 The Contractor shall make its own arrangements for movement of personnel and equipment, within and outside the sites / units / offices at the various locations covered by the Contract.
- 1.11 The Contractor shall acquire in its name all permits, approvals, and/or licenses from all local, state, or national government and other statutory authorities and/or public service undertakings that are necessary for the performance of the Contract.
- 1.12 Neither the Contractor nor its personnel shall during the term of this Contract, engage in any business or professional activities in India/abroad which would conflict with the activities assigned to them under this Contract.

#### **2. Service Warranties:**

Contractor warrants that all services performed for or on behalf of Owner will be performed in a competent,

workmanlike manner and shall be free from faults and defects. Said warranties shall be in addition to any warranties of additional scope given by Contractor to Owner. None of said warranties and no other implied or express warranties shall be deemed is claimed or excluded unless evidenced by a change notice or revision issued and signed by Owner's authorized representative.

### **3. Compliance of Local Laws:**

Contractor shall be responsible and shall comply with the provision of all the Statutory Acts Applicable. Special attention of the Contractor is drawn towards the compliance of provision of the following statues: (along with the latest amendments/additions, as applicable):

- a) The Child Labour (Prohibition and Regulation) ACT, 1986.
- b) The Contract Labour (Regulation and Abolition) ACT, 1970.
- c) The Employee's Pension Scheme, 1995.
- d) The Employee's Provident Funds and miscellaneous provisions Act, 1952.
- e) The Employees State Insurance Act, 1948.
- f) The Equal Remuneration Act, 1976.
- g) The Industrial Disputes Act, 1947.
- h) The Maternity Benefit Act, 1961.
- i) The Minimum Wages Act, 1948.
- j) The Payment of Bonus Act, 1965
- k) The Payment of Gratuity Act, 1972.
- l) The Payment of Wages Act, 1936.
- m) The Shops & Establishment Act, 1954.
- n) The Workmen's Compensation Act, 1923.
- o) The Employer's Liability Act, 1938.
- p) and any other applicable statutory act

Site Specific requirements shall be as Annexure at I. The compliance to these Site Specific requirements shall not absolve the Contractor of its obligation to comply with the Owner's Contractor Safety Management Policy.

### **4. Owner's Obligation:**

- 4.1 The order manager (As specified in the 'Commercial Notes') shall have the authority to represent Owner on all day-to-day matters relating to the Contract or arising from the Contract. All notices, instructions, orders, certificates, approvals, and all other communications under the Contract shall be given by the order manager, except as otherwise provided for in this Contract. The order manager may appoint the Engineer-In-Charges for different areas for monitoring the work progress, inspections and signing of bills.

- 4.2 Owner shall ensure the availability of site access, all information and/or data to be arranged/ supplied by Owner to the Contractor for execution of the Work . The terms on which the Contractor shall be allowed access to the site shall be specified by the Owner prior to commencement of the execution of the Work and thereafter shall be governed in accordance with such policies as the Owner may provide in writing to the Contractor from time to time.

### **5. Contractor's/ Sub-contractor's employees:**

- 5.1 The Contractor shall engage appropriately qualified persons to provide the services with the prior approval of Owner. Owner may withhold such approval for any reason whatsoever.

- 5.2 The Contractor hereby represents and warrants that:

- i) the personnel are duly qualified, and are, and will remain, sufficiently qualified, careful, skilful, diligent and efficient to provide the services to Owner; and
- ii) the Services will be rendered carefully, skilfully, diligently and efficiently, and to the professional standard reasonably expected by Owner of a contractor qualified and experienced in providing services substantially the same as the Services.

- 5.3 The Contractor must ensure that the Contractor's personnel conduct themselves in a proper manner and comply with the procedures and all policies, regulations and directives of Owner including any occupational, health and safety policies and the relevant prevailing laws and regulations in the Country of operations and specifically in the area where Work is being executed.

- 5.4 Owner may inform the Contractor to immediately remove Contractor's personnel from the relevant premises in the event of misconduct or incompetence on the part of the Personnel. The Contractor shall at all times remain liable for all acts and/or omissions of its Personnel.

- 5.5 It is made clear that no relationship of Owner and employee is created between Owner and the Contractor's resident engineers, employees and no claim for employment of any such personnel shall be tenable or entertained.

### **6. Title of Property:**

- 6.1 Unless otherwise provided in this order or agreed to in writing, property of every description including but not limited to all tooling, tools, equipment and material furnished or made available to Contractor, title to which is

in Owner, and any replacement thereof shall be and remain the property of Owner. Such property other than material shall not be modified without the written consent of Owner. Such property shall be plainly marked or otherwise adequately identified by Contractor as being owned by Owner and shall be safely stored separately and apart from Contractor's property.

6.2 Contractor shall not use such property except for performance of work hereunder or as authorized in writing by Owner. Such property while in Contractor's possession or control shall be listed in writing and kept in good condition, shall be held at Contractor's risk, and shall be kept insured by Contractor, at its expense, in an amount equal to the replacement cost with loss payable to Owner. To the extent such property is not material consumed in the performance of this order, it shall be subject to inspection and removal by Owner and Owner shall have the right of entry for such purposes without any additional liability whatsoever to Contractor. As and when directed by Owner, Contractor shall disclose the location of such property, prepare it for shipment and ship it to Owner in as good condition as originally received by Contractor, reasonable wear and tear excepted.

**7. Work Completion schedule:**

Contractor shall plan and execute the Work in accordance with a detailed schedule mutually agreed upon by the Parties (Owner and Contractor).

**8. Contract Price and Payment:**

8.1 The Contract Price shall be a firm & fixed Contract Value for the Work inclusive of all the taxes, levies & duties and shall remain firm till the validity of this contract.

8.2 Unless Specifically stated elsewhere in the contract, the Contractor is solely liable for payment of , and warrants that it will pay, or ensure the payment of all taxes imposed, assessment made in relation to the Work.

8.3 An amount as stated in the table below shall be retained towards Contractor's safety performance against every RA bill:

Contract Value	Retention Amount (%)
Upto Rs. 10 lakhs	2.5
Above Rs. 10 lakhs and below Rs. 50 lakhs	2
Above 50 lakhs and upto Rs. 10 Crores	1.5
Above Rs. 10 Crores	1

Rev. date: 25 Jul 2017

The above mentioned safety retention shall be over and above any other retentions/ deferred payments as may have been specifically agreed in the Contract.

8.4 For Contract Price Rs. 1 crores or above and Contract Completion Schedule 12 months or more, the above safety retention will be released half yearly against the Safety Performance Score (methodology for evaluation enumerated in the Safety Terms & Conditions attached as Appendix to this General Terms & Condition) which will be evaluated by the Order Manager every month. For all other contracts, the above said safety retention shall be released along with the final settlement only at the end of the contract period.

8.5 The Owner shall have the right to stop any work which in its opinion is not meeting the safety standards/ guidelines of the Owner and good engineering practice. The Contractor shall not be eligible for and shall not be granted any extension in Completion Schedule due to such stoppage of work by the Owner.

8.6 The above retention towards safety shall not absolve the Contractor of its liabilities including statutory liabilities towards safety violations, injury or death (whether by accident or otherwise). An amount between Rs. 5 to 50 lakhs as deemed appropriate by Owner's appointed Committee for incident investigation and/ or as determined by statutory authorities (whichever higher), will be payable by the Contractor in case of such severe incidents of injury leading to loss of property or partial/ permanent disablement (e.g. loss of limb/s, vision etc.) or death.

8.7 Notwithstanding anything else stated in the Contract, the Contractor shall be liable for termination without any notice and without recourse to Owner in case of three (3) or more severe safety violations. There shall be no termination fees/ compensation payable to Contractor for such termination.

8.8 In case the Contractor achieves 100% on the Safety Performance Score, the Contractor shall be awarded a discretionary bonus of 1% of invoiced value subject to a maximum of Rs. 50 lakhs towards Safety Performance.

8.9 Payment shall be released within 60 days of submission of error free invoice with supporting documents duly certified by the Order Manager/ Engineer-in-Charge after deducting taxes at source as prescribed under the applicable law, income – tax or other deductions under the state value added tax laws . If such payment release

day falls on a holiday of Owner, payment will be released on the next working day. Against deduction of statutory taxes, tax deduction certificates where ever applicable shall be issued as per the applicable provisions of the statute. The Order Manager may recover any amount wrongly paid in excess in any previous bills certified by him.

8.10 *Mode of Payment:* All payments shall be made direct to the Contractor or his authorized representative in the shape of RTGS or Electronics Transfer method, on certification of the Order Manager/Engineer-in-Charge and on compliance of contractual terms & conditions.

#### 9. **Taxes and Duties:**

9.1 The Contract Price shall be inclusive of all taxes, duties, including but not limited to Customs duty, GST or any local taxes, levies imposed by State/Central/Local governments.

9.2 Taxes as mentioned in the Contract Price or Price Schedule shall be paid to the contractor subject to the Contractor complying with all the statutory requirements and furnishing the relevant documents including error free invoices containing detailed break up of the taxes.

9.3 The tax invoices should contain the details to comply with the GST Law. The supplier shall:

- i) Furnish (electronically) and communicate to the Owner, the details of Goods or Services supplied by the 10th of the month succeeding the said tax period,
- ii) Upon discovery of any discrepancy, rectify it and shall pay the tax and interest thereof,
- iii) Furnish the returns (electronically), for the inward and outward supplies of Goods and/or Services, before the specified dates as per the GST Law,
- iv) Communicate the tax paid, credits etc. as and when credited.
- v) The Invoice should clearly state the description of the goods, quantity, sale price, tax %, and tax amount;
- vi) The Invoice should be signed by an Authorized Signatory.

Bills/Invoices in the name of The Tata Power Company Ltd. with packing lists in triplicate shall be forwarded along with the equipment.

Contractor to furnish GST Registration no. in all invoices as well as Purchaser's (Tata Power's) GST no.

9.4 However the payment of tax shall be restricted to the total amount as indicated in the price schedule.

9.5 Any statutory variation in duties, levies or taxes if applicable and specified in this Contract till the scheduled date for completion of Work and limited to direct invoices of the Contractor shall be to the account of Owner. The Contractor shall have the obligation to provide the necessary documentary evidence / supporting by way of gazetted notifications etc. to prove the change in such levies or taxes between the due date of submission of the Bid and the scheduled date of completion of work to claim the difference.

9.6 The Contractor shall pass on to the Owner all the benefits of either reduction in tax rates, exemptions, concessions, rebate, set off, credits etc. or introduction of new tax rates exemptions, concessions, rebate, set off, credits etc. pertaining to all taxes, duties, imposts, fees and levies in respect of the supplies of Goods or performance of obligations under the contract. This would specifically include reduction of tax rates as a result of statutory changes or judicial rulings.

9.7 Any other taxes, levies and duties not mentioned in Contract Price or Price Schedule but applicable as per any statute (s) or introduction (omission) of new taxes, levies and duties shall be deemed to be included in the Contract Price and shall be to the account of the Contractor.

9.8 For facilitating availment of a credit, set-off, rebate, drawback or like benefit available to the Owner, the Contractor will facilitate the Owner by providing the necessary documentary and/or procedural support. In any process of assessment or re-assessment, of taxes payable by the Owner,

9.9 The Contractor shall bear and pay all the costs, liabilities, levies, interest, penalties in respect of non-compliances of any legal requirements as per various statutory provisions. The contractor shall keep the owner indemnified at all times from any tax liability, interest, penalties or assessments that may be imposed by the statutory authorities for non-compliances or non-observation of any statutory requirements by the Contractor.

9.10 All formalities required under statutes, for availing any concessions under relevant tax laws shall be adhered to by the Contractor.

9.11 Deduction at source: Recovery at source towards income tax calculated at the rate prescribed from time to time under the Income Tax Act 1961 and other relevant sections of Income Tax Act shall be made from the bills of the Contractor and the amount so recovered shall be

deposited with the Income Tax Department. Necessary TDS certificate to this effect will be issued to the Contractor in the prescribed proforma.

- 9.12 If any other taxes / duties / cess etc are to be recovered at source as per government regulations / Legislation from time to time, the same shall be recovered from the bills payable to the Contractor. Necessary receipt to this effect will be issued to the Contractor in this regard as per the applicable legislation.

#### **10. Contract Performance Guarantees (If applicable)**

The Contractor shall within 15 days of issuance of this Order/Contract furnish an unconditional irrevocable bank guarantee duly stamped, strictly as per the prescribed format of Owner from any nationalized bank or any scheduled bank having a branch in Mumbai and approved by the Owner for a sum equivalent to 10% of the Total Contract Price valid for the Contract Period and with a claim period of not less than 6 months from the completion of Contract Period. The issuing bank should be advised to send a direct confirmation of issue of bank guarantee to Owner.

In case the Contractor fails to furnish the requisite Bank Guarantee as stipulated above, then the Owner shall have the option to cancel the Contract besides other contractual remedies.

#### **11. Price Reduction:**

- 11.1 In case the Contractor fails to deliver the service/ Complete the work as per the agreed Completion Schedule including intermediate milestones (if applicable), the Owner shall recover from Contractor, as ascertained and agreed Liquidated Damages, and not by way of penalty, a sum equivalent to 1% of the Contract Value per week of delay. The Liquidated Damages referred above may be recovered by the Owner as set off against any amounts payable by the Owner to the Contractor or in any other manner in accordance with applicable laws.
- 11.2 The overall cap on liquidated damages shall be limited to 10% of the Contract Price.

#### **12. Insurance**

- 12.1 The Contractor agrees to indemnify and protect Owner against all liability, claims or demands for injuries or damages to any person or property growing out of the performance of this order/ Contract.
- 12.2 The Contractor further agrees to furnish evidence of insurance showing that Contractor has and will maintain adequate insurance coverage during the life of this Contract/ order in the opinion of Owner, including but not

limited to comprehensive general liability insurance. Such evidence of insurance must set forth the name of the insurer, policy number, expiration date, and limits of liability. Compliance by Contractor with insurance requirements does not in any way affect Contractor's indemnification of Owner under Indemnification clause

#### **13. Indemnification:**

The Contractor shall indemnify, save harmless and defend the Owner and keep the Owner indemnified from and against any and all claims, costs, liabilities (financial), litigations, compensations, judgments, expenses or damages (including attorney's fees and other related expenses) arising out of any breach or alleged breach of any of the conditions of this Contract including compliance to statutory laws of provisioned under clause 3, performance of the obligations hereunder, or any representation or misrepresentation made by the Contractor or by any third party in respect of death or bodily injury or in respect to loss or damage to any property with regard to the subject of this Contract.

#### **14. Indemnity against IPR:**

The equipment, system, drawings, and other materials that shall be supplied against the Contract will become the Owner's property. Without limitation of any liability of whatsoever nature, the Owner shall be indemnified and kept indemnified against any claim for infringement or breach of any of the statues, rules & regulations by the use of or sale of any article or material supplied by the Contractor. The indemnity shall include any infringement of patent, trade mark, design, copyright or other property rights whether in Country of Origin, or elsewhere resulting from the Contractor's design, manufacture, use, supply or re-supply & would also cover use or sale of any article or material supplied by the Contractor to the Owner under the Contract. The Indemnity shall cover any claim/action taken by a third party either directly against the Owner or any claim/action made against the Contractor & where under the Purchaser is made liable. The Indemnity shall be for losses, damages, and costs including litigation costs, attorney fees etc incurred by the Owner in relation to the Contract.

#### **15. Free Issue Material:**

Wherever contracts envisage supply of Free Issue Material (FIM) by the Owner to the contractor for fabrication/ use in service performance, such Free Issue Material shall be safeguarded by an insurance policy to be provided by the Contractor at his own cost for the full value of such materials and the insurance policy shall cover the following risks specifically and shall be valid for six months beyond the Contract Validity date :

RISKS TO BE COVERED: Any loss or damage to the Owner's materials due to fire, theft, riot, burglary,

strike, civil commotion, terrorist act, natural calamities etc. and any loss or damage arising out of any other causes such as other materials falling on Owner's materials.

The amount for which insurance policy is to be furnished shall be indicated in the respective Contract.

Free Issue material (FIM) will be issued to the Contractor only after receipt of the Insurance Policy from the Contractor. The contractor shall arrange collection of the FIM from the Owner's premises and safe transportation of the same to his premises at his risk and cost. Notwithstanding the insurance cover taken out by the Contractor as above, the Contractor shall indemnify the Owner and keep the Owner indemnified to the extent of the value of free issue materials to be issued till such time the entire contract is executed and proper account for the free issue materials is rendered and the left over/surplus and scrap items are returned to the Owner. The contractor shall not utilize the Owner's free issue materials for any job other than the one contracted out in this case and also not indulge in any act, commission or negligence which will cause/result in any loss/damage to the Owner and in which case, the Contractor shall be liable to the Owner to pay compensation to the full extent of damage/loss. The Contractor, shall be responsible for the safety of the free issue materials after these are received by them and all through the period during which the materials remain in their possession/control/custody. The Free issue materials on receipt at the Contractor's works shall be inspected by them for ensuring safe and correct receipt of the material. The contractor shall report the discrepancies, if any, to the Owner within 5 days from the date of receipt of the material. The contractor shall take all necessary precautions against any loss, deterioration, damage or destruction of the FIMs from whatever cause arising while the said materials remain in their possession/custody or control. The free issue materials shall be inspected periodically at regular intervals by the Contractor for ensuring safe preservation and storage, the Contractor, shall also not mix up the materials in question with any other goods and shall render true and proper account of the materials actually used and return balance remaining unused material on hand and scrap along with the final product and if it is not possible within a period of one month from the date of delivery of the final product/ completion of Service covered by this Contract. The Contractor shall also indemnify the Owner to compensate the difference in cost between the actual cost of the free issue material lost/damaged and the claim settled to the Owner by the insurance company.

#### **16. Relation between parties:**

The Contract shall be entered into on a principal-to-principal basis only. The Contract shall not be construed as a partnership or an association of persons. There is no agent and principal relationship between the parties. Each party shall be responsible for its own conduct. The Contractor shall ensure at all times that all the work carried out under this contract

either by its own person or through any of its sub-Vendors shall be always done under its own direct supervision.

#### **17. Safety:**

Contractor shall comply with all legal and statutory provisions including all rules and regulations pertaining to Safety, Health and the Environment and will be responsible for all legal liabilities arising due to any of their acts or of their personnel.

The Contractor shall comply with the Owner's Contractor Safety Policy and Safety Terms and Conditions. Any misconduct and/ or violation with respect to the Owner's Contractor Safety Policy and Safety Terms and Conditions or any other legal and statutory provisions pertaining to Safety, Health and Environment shall be dealt with as per the Safety Terms and Conditions.

Prior to commencement of any work at site Contractor shall submit an undertaking in writing to adhere to and comply with all the provisions of Owner's Contractor Safety Code of Conduct.

The Contractor shall have a valid ISO 14001/ OHSAS certification. In absence of the same, the Contractor shall obtain the same within 6 months from the date of the Effective Date of Contract.

#### **18. Suspension of Work**

Owner may instruct Contractor at any time to suspend performance of the Work or any part thereof with a notice of 7 days for whatever reason. Provided Contractor is not in default under this Contract subject to Articles 1 and 5 inclusive, the Contractor shall be paid a mutually agreed fee, if any, necessarily incurred by Contractor as a direct consequence thereof of suspension and the Project Completion Schedule may be revised accordingly.

Without prejudice to any other rights Owner may have under this Contract or at law if Contractor is in default under this Contract, Owner may instruct Contractor to suspend performance of the Work or any part thereof by giving 7 days notice till such default has been corrected to the satisfaction of Owner. Also Liquidated Damages in accordance with Clause 11 shall continue to be applicable during such period until the default is cured. The costs incurred by the Contractor for such correction shall be to the Contractor's account, and furthermore no payment shall become due to the Contractor. Any cost incurred due to non - performance of the Contractor by the Owner shall be charged to the Contractor.

#### **19. Change Management:**

Owner shall have the right at any time to order any change in the Work in accordance with the following procedure. Contractor shall furnish to Owner upon request as soon as reasonably possible but no later

than five (5) days following the request, a written statement specifying:

- (a) the increase or decrease, as the case may be, in the costs of the Work which will result from a change in the Work as requested by Owner,
- (b) any effect such change in the Work may have on any other provision of this Contract originating from either parties, and
- (c) such other details as Owner may require.

Any change in costs shall be reasonably related to the proportional change in the Work and any other costs incurred by Contractor. If Owner agrees to Contractor's statement Owner shall notify Contractor thereof in writing in the form of a change order, whereupon the change in the Work shall be incorporated in the Work and immediately implemented. In the event that the change relates to a reduction in Work, the work in question shall not be undertaken pending the issue of an appropriate Change Order.

## 20. Governing Laws

This Contract shall be construed in accordance with and governed by the Laws of India without giving effect to any principle of conflict of law.

## 21. Jurisdiction

This Contract and the transaction contemplated herein shall be subject to the exclusive jurisdiction of the competent Courts in Mumbai only.

## 22. Dispute settlement:

Dispute or differences arising out or relating to this Order shall be resolved amicably by the parties. Failing such amicable resolution of dispute / differences either party may refer the matter to arbitration of a Sole Arbitrator to be appointed jointly by both the parties. The award of the Arbitrator shall be final, binding and conclusive on the parties. The venue for arbitration shall be Mumbai. The Arbitration proceedings will be governed and regulated by the provisions of Indian Arbitration and Conciliation Act, 1996 as amended from time to time and the rules framed there under.

## 23. Force majeure:

23.1 In the event of either party being rendered unable by force majeure to perform any obligation required to be performed by it under this Contract the relative obligation of the party affected by such force majeure shall, after notice under this articles be suspended for the period during which such cause lasts. The term 'Force Majeure' as employed herein shall mean acts of God, wars (declared or undeclared), riots or civil commotion, fire, floods, and acts and regulations of the Government of India or State Government or any of the statutory agencies. Both the party

shall pay to the other party, the amount payable upon the date of the occurrence of such force majeure.

23.2 Upon the occurrence of such cause and upon its termination, the party alleging that it has been rendered unable as aforesaid, thereby shall notify the other party in writing immediately but not later than twenty four (24) hours of the alleged beginning and ending thereof giving full particulars and satisfactory evidence in support of the claims.

23.3 During the period, the obligations of the parties are suspended by force majeure; the contractor shall not be entitled to payment of any rate.

23.4 In the event of the force majeure conditions continuing or reasonably expected to continue for a period more than thirty (30) days, Owner shall have the option of terminating the contract by giving seven (7) days notice thereof to the contractor.

## 24. Sub letting and Assignment

The contractor shall not, without prior consent in writing of the Owner, sublet, transfer or assign the contract or any part thereof or interest therein or benefit or advantage thereof in any manner whatsoever, provided nevertheless that any such consent shall not relieve the contractor from any obligation, duty or responsibility under the contract.

## 25. Limitation of Liability:

Notwithstanding anything contained in the Contract, the Contractor's aggregate liability under this Contract shall be limited 100% of the Total Contract value. This shall exclude liability arising pursuant to clause 3- Compliance to Local Laws, clause 9.10, clause 14- Indemnity against IPR, clause 13- Indemnity, clause 26 – Confidentiality, liability arising due to loss of or damage to the Free Issue Material (FIM) issued by Owner to Contractor for completion of the Work and liability arising due to wilful misconduct, gross negligence, third party claims and corrupt acts attributable to the Contractor.

## 26. Confidentiality:

The Contractor shall use the Confidential Information of the Owner only in furtherance of this Contract and shall not transfer or otherwise disclose the Confidential Information to any third party. The Contractor shall (i) give access to such Confidential Information solely to those employees with a need to have access thereto; and (ii) take the same security precautions to protect against disclosure or unauthorized use of such Confidential Information that the party takes with its own confidential information but, in no event, shall a party apply less than a reasonable standard of care to prevent such disclosure or unauthorized use.

**27. Termination:**

27.1 The Contract shall be deemed to be terminated on completion of the Contract period.

27.2 Termination of default by Contractor:  
Owner may terminate the contract at any time if the Contractor fails to carry out any of his obligations under this Contract. Prior to termination, the Contractor shall be advised in writing of the causes of unsatisfactory performance to be improved upon 15 days of the receipt of notice. In case, if the Contractor fails to bring about the improvement to the satisfaction of the Owner, then the Contract shall be terminated.

27.3 Without prejudice to the rights and remedies available to Owner, Owner may terminate the Contract or part thereof with immediate effect with written notice to the Contractor if:

27.3.1 The Contractor becomes bankrupt or goes into liquidation.

27.3.2 The Contractor makes a general assignment for the benefit of creditors.

27.3.3 A receiver is appointed for any substantial property owned by the Contractor.

27.3.4 The Contractor is in breach of any representation or warranty made to the Owner by the Contractor.

The Contractor shall not be entitled to any further payment under the Contract if the Contract is terminated. If the order is terminated under clause 27.2 and 27.3, the Contractor shall not be entitled to any further payment, except that, if Owner completes the Work and the costs of completion are less than the Contract Price, the Owner shall pay Contractor an amount properly allocable to services fully performed by Contractor prior to termination for which payment was not made to Contractor. In case, the cost of completion of Work exceeds the Contract Price, the additional cost incurred by Owner for such completion shall be paid by the Contractor.

27.4 Owner shall be entitled to terminate the Contract at its convenience, at any time by giving thirty (30) Days prior notice to the Contractor. Such notice of termination shall specify that termination is for Companies convenience and the date upon which such termination becomes effective. Upon receipt of such notice, the Contractor shall proceed as follows:

27.4.1 cease all further work, except for such work as may be necessary and instructed by the Owner/ Owner's representative for the purpose of preserving and protecting Work already in progress and protect

materials, facilities and equipment on the Work Site or in transit;

27.4.2 stop all further sub-contracting or purchasing activity, and terminate Sub-contracts;

27.4.3 handover all Documents, equipment, materials and spares relating to the portion of Work already executed by the Contractor or procured from other sources up to the date of termination for which the Contractor has received payment equivalent to the value thereof; and

27.4.4 handover those parts of the supplies manufactured/ work executed by the Contractor up to the date of termination.

Upon termination pursuant to clause 27.4, the Contractor shall be entitled to be paid (a) all sums properly due to the Contractor under the Contract up to the date of termination; and (b) any direct and substantiated charges already incurred or committed for cancellation of the procurement of third party goods or services which were to have been supplied by the Contractor in connection with this Contract provided that the Contractor shall use its best endeavours to minimise such charges

25.5 The Contractor shall not be released from any of his obligations or liabilities accrued under the Contract on termination. For the avoidance of doubt, the termination of the Contract in accordance with this clause shall neither relieve the Contractor of his accrued obligations for Warranty or his accrued liability to pay (liquidated) damages for Delay nor shall entitle him to reduce the value of Performance Security.

**28. Consequential Damages:**

Unless otherwise specified, neither Party shall be responsible for and nor shall be liable to the other Party for indirect/consequential losses and damages suffered by such Party including for loss of use, loss of profit whether such liability or claims are based upon any negligence on the part of the other Party or its employees in connection with the performance of the Contract.

**29. Environment / ISO 14001 Certification:**

The Contractor to confirm whether their organization is ISO 14001 certified. If not, the Contractor must certify that the handling, use and disposal of their product / by-products conform to practices consistent with sound environmental management and local statutes. The Contractor shall ensure that all the wastes are disposed in environmental friendly way with strict compliance to applicable laws including adherence to MoEF guidelines with respect to disposal of batteries, lead waste, copper cables, ash, waste oil, e-waste etc which shall be disposed through MoEF approved

parties only. The Contractor shall also be responsible to collect and recycle all the e-waste generated at the end of the product life cycle at its own costs and risks as per the MoEF guidelines/orders.

### 30. Non-Exclusive Agreement

This Contract is non-exclusive and Owner reserves the right to engage other contractors to perform similar or identical work. Contractor shall accord such other contractors adequate opportunity to carry out their contracts and shall accomplish the Work in co-operation with those contractors and with Owner, in accordance with such instructions as may be issued by the Owner from time to time.

### 31. Severability

In the event that any of the provisions, or portions or applications thereof, of this Contract are held to be unenforceable or invalid by any court or arbitration panel of competent jurisdiction, Contractor and Owner shall negotiate an equitable adjustment to the provisions of the Contract with a view towards effecting the purpose of the Contract and the validity and enforceability of the remaining provisions, or portions or applications thereof, shall not be affected thereby.

### 32. Housekeeping & Removal of scrap:

The Contractor shall be responsible for keeping the areas of his work at site, neat and tidy throughout the period of his work. All excess material/ spares/ consumables taken by Contractor, as well as the scrapped items and wooden logs/ crates/ planks shall be returned, from time to time, to the Stores, and transported/ unloaded by Contractor's personnel at the place shown by Order Manager/Engineer-in charge.

The Contractor shall so arrange that all the scrap generated during the progress of his work, is separated into two categories, viz.

- i) Saleable scrap like steel, copper or other metals, etc., and,
- ii) Others, which have nil or negligible resale value, like insulation material, jute, debris, etc. (or as directed by the Order Manager/Engineer-in charge).

The saleable scrap shall be shifted to and unloaded at a central place as per directions of the Stores-in charge, while the other scraps shall be shifted to other locations as per directions from Order Manager/Engineer-in Charge, or as per terms of the order.

The Contractor shall arrange to remove the scrap on regular basis, or even on daily basis, depending upon the requirement, to keep the area around his workplace neat and tidy. In case, it is observed that the

Contractor is not carrying out regular cleaning of his areas of work, or, is not returning the excess materials/ scrap, etc., to the Stores, Owner reserves the right to arrange the same through other sources, and back-charge the Contractor the cost of doing so, along-with overheads, by deducting the amount from Contractor's bills.

Contractor's final bill will be cleared by Owner only after confirming that proper clearing of his areas of work has been completed by the Contractor, and same is certified by the Order Manager/ Engineer in-charge

### 33. Tata Code of Conduct

The Owner abides by the Tata Code of Conduct in all its dealing with stake holders and the same shall be binding on the Owner and the Contractor for dealings under this Order/ Contract. A copy of the Tata Code of Conduct is available at our website: <http://www.tatapower.com/aboutus/code-of-conduct.aspx>. The Contractor is requested to bring any concerns regarding this to the notice of our Chief Ethics Officer on the e-mail ID: [cecounsellor@tatapower.com](mailto:cecounsellor@tatapower.com).

### 34. Responsible Supply Chain Management:

The Owner is committed for a cleaner environment and respect of Human rights through its Responsible Supply Chain Management policy. The Contractor is required to comply with all the environment & Human rights related laws, including emission norms, Labour and environmental regulations. The Owner encourages its Vendors/ Contractors/ Business partners to pay more attention to green design, green supply, green production, green logistics and green packaging in performing their business obligations.

The Contractor is required to abide by the Tata Power Corporate Environment policy, Energy Conservation and Corporate Sustainability Policy.

A copy of the Responsible Supply Chain Policy along with Environment policy, Energy Conservation policy, Sustainability policy, Health & Safety policy and Human Rights policy is available at website: <http://www.tatapower.com/sustainability/policies.aspx>.

Contractor/Bidder is required to completely fill the attached "Supplier Sustainability Questionnaire" in support of their Green Supply Chain Management initiatives and submit the same with their offer.

The Owner recognizes that diversity in the workplace positively impacts business. The Owner is committed to help people from SC/ST background either by helping them to become entrepreneurs or by engaging workforce from SC/ST community under the contracts agreed herein. To encourage engaging SC/ST community, the owner may consider on the merit to incentivize the Contractor by paying additional 1% of

the service contract portion if the number of SC/ST workforce engaged in the contract exceeds 30% of the total deployed strength and 2%, if the strength goes beyond 50%. While the Contractor will assist the workforce so engaged to become self-reliant in meeting the work expectation, the Owner may also volunteer its training resources to the extent possible to improve their employability. The Contractor shall maintain the proper documentation of such category of the workforce engaged and the owner may consider to pay the incentive after its verification.

The Owner may also consider extending price preference of 5% in the bid evaluation for an order value up to Rs.50 Lacs, provided the company is owned by a person from SC/ST community having minimum 50% holding in the company.

**35. Vendor rating:**

You are requested to ensure compliance to the terms of the individual orders with regards to timely delivery, provision of all applicable documents / challans / test certificate, quality of the material etc. Your performance with respect to the said factors will be taken into consideration for future business.

**36. Vendor Feedback:**

34.1 In this dealing Vendors feedback is important for the purchaser to improve its processes. If Contractor have to report any grievance, problem or require any clarification, information, Contractor is requested to contact purchaser at email ID: [CC\\_CUSTOMERFEEDBACK@tatapower.com](mailto:CC_CUSTOMERFEEDBACK@tatapower.com)

34.2 Contractor is requested to ensure compliance to the terms of the individual orders with regards to timely delivery, provision of all applicable documents / challans / test certificate, quality of the material etc. Contractor performance with respect to the said factors will be taken into consideration for future business.

**37. Non-Waiver:**

Failure of Owner or its representatives to insist upon adherence to any of the terms or conditions incorporated in the Contract or failure or delay to exercise any right or remedies herein or by law accruing, or failure to promptly notify the Contractor in the event of breach or the acceptance of or the payment of any Material(s) hereunder or approval of any design or Material(s) shall not release the Contractor and shall not be deemed a waiver of any right of Owner to insist upon the strict performance thereof or of any of its rights or remedies as to any

such Material(s) regardless of when the Material(s) are shipped, received or accepted not shall any purported oral modification or revisions of the Contract by Owner or its representative(s) act as waiver of the terms hereof.

# **ESG FRAMEWORK FOR BUSINESS ASSOCIATES**

Tata Power's Sustainability philosophy sits at the core of its Business Strategy. Tata Power Sustainability Model has an overarching objective of 'Leadership with care' with key elements of 'Care for the Environment'; 'Care for the Community'; 'Care for our Customers / Partners' and 'Care for our People'. These sustainability objectives encompass the Environmental, Social and Governance objectives driven as integrated elements.

Tata Power, together with its stakeholders is determined to achieve sustainable growth while creating shared value for all.

As a part of future ready roadmap, Tata Power has targeted following as our Environment, Social and Governance priorities:

- Being Carbon Net Zero before 2045
- Growing Clean capacity (80% by 2030)
- Customer centricity
- Becoming water neutral before 2030
- Achieving zero waste to landfill before 2030
- No net loss of biodiversity before 2030
- Positively impacting 80 million lives by 2027

In order to create a sustainable business ecosystem, Tata Power expects that all its Business Associates (BA) which includes its suppliers, vendors, consultants and service providers to align to its ESG and sustainability commitments.

Tata Power encourages improved efficiencies and scaling up of green initiatives through technology and innovation taking us farther on the journey of reducing carbon emissions and preparing the entire eco-system towards products and services that would have net positive impact on the environment and communities that we operate in.

The Vendors/ bidders wishing to associate with Tata Power are expected to share their own sustainability and ESG journey. We at Tata Power promote all Business Associates to have a sustainable procurement policy for their supplier and service providers to contribute to our integrated approach in achieving a sustainable supply chain. The BA is encouraged to carry out the assessment of their sub-contractors and sub-vendors on sustainability readiness so that they are aware of the expectation/ business requirement.

The Vendor/ Bidder shall fill-in the 'Environment, Social and Governance Compliance Screening Questionnaire for Business Associates' attached at Annexure-I and submit the same along with the Bid in Ariba online platform.

### **Responsible Supply Chain Management:**

Tata Power is committed for a cleaner environment and respect of Human rights through its Responsible Supply Chain Management policy.

Tata Power Business Associate (BA) shall comply with all the environment & Human rights related laws, including emission norms, Labour and environmental regulations.

Tata Power encourages its BA to focus on green design, green supply, green production, green logistics and green packaging in performing their business obligations. The BA is expected to abide by the Tata Power Corporate Environment policy, Energy Conservation and Corporate Sustainability Policy (enclosed with this document as Annexure-II).

The BA is expected to:

- Strive towards Conservation of Energy, Water, Resources and optimize transportation of Men & Materials to minimize environmental impact and reduce carbon footprint.
- Carry out the assessment of materials used for construction, operation & maintenance, consumables and accordingly phase out those materials which are environmentally hazardous.
- Be cognizant that diversity in the workplace positively impacts business.
- Promote affirmative action by supporting people from SC/ ST background by engaging workforce from SC/ ST community under the contracts agreed herein.
- Share the commitment of 'No child labour', 'No forced labour', Non-discrimination on the basis of caste, colour, religion, gender, disability, maternity or pregnancy or any other factor unrelated to the requirements of the job
- Pay the wages or remuneration to the workforce, personnel deployed in compliance to all applicable laws and regulations.
- Provide its employees/ deployed labor with an employment environment that is free of physical or psychological harassment.
- Carry out the assessment of their Sub-contractors on their Sustainability Readiness so that they are aware of the above expectation/ standards
- To ensure usage of suitable package material which is more environmentally sustainable. Further the packing material shall be recycled to the extent possible. The material used for packing is expected to suit the mode of transport and to ensure its safe receipt at point of delivery.

#### **Waste Disposal:**

The BA is expected to follow best practices for disposal of waste, few of which are listed below:

- Have a detailed project plan that includes the waste management, segregation of all designated waste material (Recyclable/ Non-Recyclable), collecting, storing, disposing and transferring the same to pre-arranged facility/ destination in timely and safe manner as per environmental legislations. The project plan shall also include the innovative construction practice to eliminate or minimize waste, protect surface/ground water, control dust and other emissions to air and control noise.
- Have purchase policy to encourage the procurement of material with recycled and minimum packaging of goods during delivery and appropriate means for site-to-site transportation of materials to avoid damage and litter generation.
- Ensure that the residents living near the site are kept informed about proposed working schedule and timings/ duration of any abnormal noise full activity that is likely to happen.
- Ensure the regular maintenance and monitoring of vehicles and equipment for efficient fuel use so that emissions and noise are within acceptable limits to avoid air pollution.

#### **Water Management:**

The BA is expected to follow best practices for water management, few of which include a management and monitoring system for water withdrawals and consumption, procedures to reduce water usage or reuse/recycle water, and pretreatment of wastewater before disposal.

**Compliance to Law:**

The BA shall adhere to responsible business practices and comply with the provision of all the Statutory Acts Applicable. Special attention of the BA is drawn towards the compliance of provision of the following statues: (along with the latest amendments/additions, as applicable):

- The Child Labour (Prohibition and Regulation) ACT, 1986.
- The Contract Labour (Regulation and Abolition) ACT, 1970.
- The Employee's Pension Scheme, 1995.
- The Employee's Provident Funds and miscellaneous provisions Act, 1952.
- The Employees State Insurance Act, 1948.
- The Equal Remuneration Act, 1976.
- The Industrial Disputes Act, 1947.
- The Maternity Benefit Act, 1961.
- The Minimum Wages Act, 1948.
- The Payment of Bonus Act, 1965
- The Payment of Gratuity Act, 1972.
- The Payment of Wages Act, 1936.
- The Shops & Establishment Act, 1954.
- The Workmen's Compensation Act, 1923.
- The Employer's Liability Act, 1938.
- and any other applicable statutory act

**Social Accountability (SA 8000):**

Tata Power expects its BAs to follow guidelines of SA 8000:2014 on the following aspects

- Child Labour
- Forced or Compulsory Labour
- Health & Safety
- Freedom of Association & Right to Collective Bargaining
- Discrimination
- Disciplinary Practices
- Working Hours
- Remuneration
- Management System

**Health and Safety**

The BA is expected to ensure the health and safety of his and his Sub-contractor's staff and labour. The BA shall, in collaboration with and according to the requirements of the local health authorities, ensure that medical staff, first aid facilities, sick bay and ambulance service are available at the accommodation and on the Site at all times, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics. The BA shall maintain records and make reports concerning health, safety and welfare of persons deployed, and damage to property, as the Owner's Representative may reasonably require. The BA shall be responsible for the medical treatment / hospitalization of his and his Sub-contractor's staff/ labour.

The BA shall appoint a qualified Safety officer at the Site to be responsible for maintaining the safety, and protection against accidents, of all personnel on the Site. Such Safety officer shall have the authority to issue instructions and take protective measures to prevent accidents.

The BA shall comply in toto with the Tata Power's Contractor Safety Terms & Conditions, Health Safety & Environment Manual while working on Tata Power Site/ Services/ Contracts.

### **Grievance Mechanism**

The BA is expected to have grievance procedures that allow stakeholders to anonymously bring environmental and/or work-related violations and/or concerns to the attention of management. In addition, the BA is expected to have procedures for examining reports of environmental and/or work-related violations or concerns and/or privacy complaints.

### **Data Protection**

The BA is expected to have a formal process to address data security or privacy issues.

## **ANNEXURE-I**



Sr. No.	Question Description	Response (Y/N)	Remarks
<b>Organization</b>			
1	Does your Company have Sustainability Policy at Organization Level? If Yes, Please attach		
2	Do you have sustainable procurement policy in place for your own suppliers? If Yes, Please attach		
3	Does your company do regular assessment of its suppliers on ESG parameters?		
4	Are there ESG risks, or negative impacts identified in your supply chain		
<b>Governance</b>			
1	Is diversity taken into consideration when appointing board members/ senior management? Do you have an independent director/s?		
2	Has your company taken initiatives to ensure ethical practices at workplace? Please share the details, Policies etc.		
3	Does your company have a formal process to address data security or privacy issues? Please share the details, Policies etc.		
4	Does your company have grievance mechanism for stakeholder issues and track resolution?		
<b>Environment/ Planet</b>			
1	Does your company have Environmental Policy? If Yes, Please attach		
2	Do you have a formal process for waste management including solid wastes, liquid wastes and hazardous waste?		
3	Does your company track greenhouse gas emission? Also, what percentage of own consumption comes from the renewable energy?		
4	Does your company have a formal process for water management including monitoring of water consumption and withdrawals, and if applicable, pretreatment of wastewater?		
<b>Green Technology/ Innovation</b>			
1	Are your facility/ Product/ Services provided by you is based on green design, green production, green packaging or green logistics considerations? Please elaborate.		
2	Do your products or services have any environmental or social features or benefits (e.g. environmental/energy certification, ecolabels, fair trade certification, etc.)?		
<b>Social/ People</b>			
1	Does you facility/ Company have written personnel policies in place Are you an equal opportunity employer?		
2	Please describe any formal programme / campaign in place to promote company involvement with the community (volunteering, etc.). What is the percentage of profit spend on community activities?		
3	Does your company have a written Health & Safety Policy or Program? If Yes, Please attach		
<b>Certifications: Does your company have following certifications (valid till date-please mention validity)</b>			
1	ISO9001 accreditation		
2	SA8000 or equivalent		
3	ISO 14001 certification		
4	ISO 18001/45001 or equivalent		
5	ISO/IEC 27001 or equivalent		
6	Any Other (Please specify)		

Signature

Business Associate Name

## **ANNEXURE-II**

## CORPORATE SUSTAINABILITY POLICY

At Tata Power, our Sustainability Policy integrates economic progress, social responsibility and environmental concerns with the objective of improving quality of life. We believe in integrating our business values and operations to meet the expectations of our customers, employees, partners, investors, communities and public at large

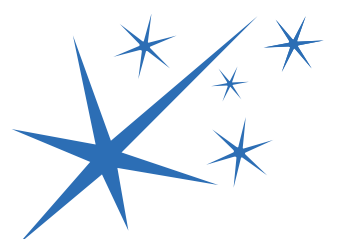
- We will uphold the values of honesty, partnership and fairness in our relationship with stakeholders
- We shall provide and maintain a clean, healthy and safe working environment for employees, customers, partners and the community
- We will strive to consistently enhance our value proposition to the customers and adhere to our promised standards of service delivery
- We will respect the universal declaration of human rights, International Labour Organization's fundamental conventions on core labour standards and operate as an equal opportunities employer
- We shall encourage and support our partners to adopt responsible business policies, Business Ethics and our Code of Conduct Standards
- We will continue to serve our communities:
  - By implementing sustainable Community Development Programmes including through public/private partnerships in and around our area of operations
  - By constantly protecting ecology, maintaining and renewing bio-diversity and wherever necessary conserving and protecting wild life, particularly endangered species
  - By encouraging our employees to serve communities by volunteering and by sharing their skills and expertise
  - By striving to deploy sustainable technologies and processes in all our operations and use scarce natural resources efficiently in our facilities
  - We will also help communities that are affected by natural calamities or untoward incidence, or that are physically challenged in line with the Tata Group's efforts

The management will commit all the necessary resources required to meet the goals of Corporate Sustainability.



(Praveer Sinha)  
CEO & Managing Director

Date: 15<sup>th</sup> June, 2018



## **Supplier Code of Conduct**

Tata Power follows the Tata Code of Conduct (TCoC) and the Whistle blower Policy and expect all its Suppliers to adhere to the same principles. “Supplier” here means any business, company, corporation, person or other entity that provides, sells or seeks to sell, any kind of goods or services to Tata Power, including the Supplier’s employees, agents and other representatives.

**Tata Code of Conduct- (TCoC):** <https://www.tatapower.com/pdf/aboutus/Tata-Code-of-Conduct.pdf>

**Whistle Blower Policy:** <https://www.tatapower.com/pdf/aboutus/whistle-blower-policy-and-vigil-mechanism.pdf>

**Anti-Bribery & Anti-Corruption Policy:** <https://www.tatapower.com/pdf/aboutus/abac-policy.pdf>

The suppliers are expected to adhere to the following Do’s and Don’ts:

### **Do’s**

1. The Suppliers shall be committed to supplying products and services of high quality that meet all applicable standards and laws, including product packaging, labelling and after-sales service obligations.
2. Comply with all applicable laws and regulations, both in letter and in spirit, in all the territories in which it operates.
3. Strive to provide a safe, healthy and clean working environment for its employees.
4. Strive for environmental sustainability, particularly with regard to the emission of greenhouse gases, consumption of water and energy and the management of waste and hazardous materials.
5. The Supplier shall represent our company (including Tata brand) only with duly authorised written permission from our company.
6. Safeguard the confidentiality on the use of intellectual property, information and data of the Company.
7. Gifts and hospitality given or received should be modest in value and appropriate as per Company Policy.
8. The assets of Tata Power shall be employed primarily and judiciously for the purpose of conducting the business for which they are duly authorised.
9. All actual or potential conflicts due to financial or any other relationship with a Tata Power employee shall be disclosed.

### **Don’ts**

1. The Supplier shall not make unfair or misleading statements about the products and services of competitors.
2. Children shall not be employed at workplaces.
3. Forced labour shall not be used in any form.
4. The Suppliers shall neither receive nor offer or make, directly or indirectly, any illegal payments, remunerations, gifts, donations or comparable benefits that are intended, or perceived, to obtain uncompetitive favours for the conduct of its business with Tata Power.

### **Reporting Violations**

The Supplier shall notify the Company regarding any known or suspected improper behaviour of other suppliers or employees relating to its dealings with Tata Power, by email to: [cecounsellor@tatapower.com](mailto:cecounsellor@tatapower.com). The same can also be raised through our 3<sup>rd</sup> party ethics helpline facility:

<b>Toll-free Number</b>	1800 267 4065
<b>Email</b>	<a href="mailto:tatapower@tip-offs.in">tatapower@tip-offs.in</a>
<b>Website &amp; Chatbot</b>	<a href="http://www.tatapower.tip-offs.in">www.tatapower.tip-offs.in</a>
<b>Postal address</b>	Attn to: Mr. Puneet Arora, Deloitte Touch Tohmtsu India LLP, 6 floor, AIPL Business, Sector 62, Gurugram, Haryana 122102