



एन एच पी सी लिमिटेड
(भारत सरकार का उद्यम)
NHPC Limited
(A Govt. of India Enterprise)



Wind Power Project Jaisalmer
150, Indira Colony, Jaisalmer
(Rajasthan) 345001
TEL No. +91 2992 294004

पत्र संख्या:- एनएच/डब्ल्यूपीपीजे/2023/112

दिनांक: 27/05/2023

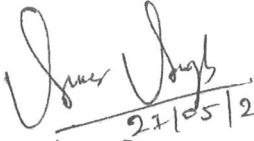
मैसर्स मणिकरण एनालिटिक्स लिमिटेड
302, 3rd फ्लोर, D-21
कॉर्पोरेट पार्क, सेक्टर-21, द्वारका
नई दिल्ली- 110075

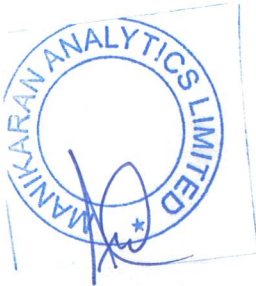
विषय:- Letter of Award (LOA) for Hiring of Qualified Coordinating Agency (QCA) Services for 50 MW Wind Power Project of NHPC Limited at Jaisalmer, Rajasthan.

उपरोक्त विषयानुसार LOA संख्या: NH/WPPJ/2023/178, दिनांक: 27.05.2023, इस पत्र के साथ आपकी सूचना एवं आगे की कार्यवाही हेतु संलग्न है।

सादर,

संलग्न: एलओए।


27/05/23
उप प्रबंधक (विधयुक्त)



Regd. Office : NHPC OFFICE COMPLEX, SECTOR-33, FAIDABAD-121003(HARYANA)
Project Office : PLOT NO. 150, INDIRA COLONY, JAISALMER - 345001 (RAJASTHAN) -



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TEL No. +91 2992 294004

LOA No: NH/WPPJ/2023/178

Date: 27/05/2023

M/s. Manikaran Analytics Ltd.,
302, 3rd Floor, D-21
Corporate Park, Sector – 21,
Dwarka, New Delhi- 110075.

Sub: Letter of Award (LOA) for Hiring of Qualified Coordinating Agency (QCA) Services for 50 MW Wind Power Project of NHPC Limited at Jaisalmer, Rajasthan.

Ref: Your Proposal vide letter no. nil, dated 17.04.2023

Sir,

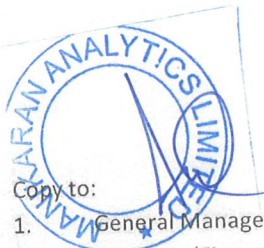
In reference of above, we are pleased to issue this Letter of Award (LOA) to you for Hiring of Qualified Coordinating Agency (QCA) Services for Forecasting & Scheduling, settlement of deviation and commercial issues & coordination with SLDC as per RERC Regulation 2017 along with latest amendments, for 50 MW Wind Power Project of NHPC Limited in Village- Lakhmana, Tehsil- Fatehgarh, Dist.- Jaisalmer, Rajasthan, for a period of Two (02) years w.e.f. 01.06.2023 to 31.05.2025 at an estimated total contract value of Rs. 9,77,040/- (Indian Rupees Nine Lakh Seventy-Seven Thousand Forty only) inclusive of all taxes, duties and levies.

The detail cost breakup for the above services is as under:

Description	Amount (Rs.)
Forecasting & Scheduling Charges per MW/Month:	570.00
Other charges (DSM, Coordination with SLDC) per MW/Month:	120.00
Total Charges per MW/Month:	690.00
Monthly charges for 50 MW Wind Power Station	34,500.00
Total service charges for 2 years (24 months) contract	8,28,000.00
GST @18 %	1,49,040
Total Contract Value for 02 Years (24 Months) inclusive of GST	9,77,040.00

Scope of Work and Terms & conditions: As per Annexure-A

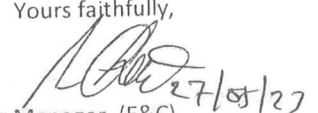
Thanking you,



Copy to:

1. General Manager (RE) HOP.
2. Manager (Finance), WPPJ.

Yours faithfully,


Senior Manager, (E&C)
(Ramavtar Chouhan)

Regd. Office :
Project Office :

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Annexure-A

SCOPE OF WORK TO ACT AS COORDINATING AGENCY:

The scope of work broadly includes the following points considering the forecasting and scheduling of power from WTGs, and performing the role of Coordinating Agency as applicable. Our offer includes, collecting weather data, organizing the forecasting of power, scheduling of power and submission of schedules to Rajasthan SLDC.

1. Forecasting:

- i. Collecting SCADA data on MAL central ftp server for each and individual turbine from the turbine manufacturer/developer with suitable recommendation and appropriate uptime with data security for each individual generator/IPP.
- ii. Collecting weather data from the reputed agency.
- iii. Organizing the generation of Forecast based on the weather data from one or more agencies / weather forecasters.
- iv. **Note:** Our O&M service providers shall provide all data related to the wind farms under consideration like:
 - a) SCADA data (real time as well as historical for each WTG (for last one year).
 - b) Static information of each WTG along with technical spec's and year of manufacture.
 - c) Day to day turbine availability & planned maintenance schedule.
 - d) DAS to capture real time generation at pooling sub-station level.

2. Scheduling & 24*7 Operations with monitoring:

- i. Collecting Forecasting data from own forecasting engine or from external forecast service Providers.
- ii. Collecting turbines availability data (under maintenance or under breakdown) from Wind Farm Generator/ their identified agency.
- iii. Incorporating turbines availability data and grid availability data in the scheduling engine.
- iv. On the basis of forecast received from Forecasting Service Provider (FSP), generating day ahead and revised schedules based on various variable factors and submitting the forecasted power/scheduled power to SLDC in the prescribed format of (96 time blocks).
- v. Submission of the revised schedule to SLDC as per the required timelines referring to Rajasthan Electricity Regulatory Commission (RERC's) final regulation along with all latest amendments and



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sharing the copy of schedules/revised schedules sent to SLDC with Generator on real time basis. The intra-day schedules are submitted as defined in RERC regulation and in coordination with SLDC for implementation of the revised schedule.

- vi. Collecting the SCADA data of different turbines and creating a single Power Generation Data.
- vii. Comparison of the scheduled data accepted by the SLDC with actual generation for each 15 (fifteen) minute time block and checking the over/under generation thus calculating the generation above/below prescribed limits and finally calculating the Deviation charges (for each particular 15 (fifteen) minute time block).
- viii. Collecting the metered data of actual power production through DAS from pooling station. However, DAS shall be provided by the Generator.
- ix. Providing detailed analysis on monthly basis of the results highlighting the forecasting accuracies, variances, Deviation charges, other energy accounting issues etc.
- x. Coordination with SLDC, DISCOM or any other agencies for the scope specified above.
- xi. Central operations and monitoring facility operating 24 x 7 to monitor real time observations from site and to achieve better accuracy.
- xii. Providing user access for Web based Wind Scheduling tool to monitor & download data of the actual generation, Forecasted/Scheduled power submitted to SLDC and performance of turbines for the wind farm of WTG's owned by an individual Generator only.

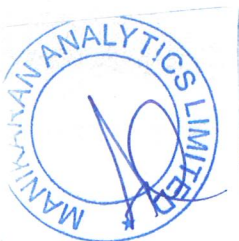
3. Hardware & Software:

- i. M/s MAL will maintain the hardware and software to manage incoming data from SCADA & other relevant data from generators or developers, inflow/outflow of data to/from weather forecaster to maintain forecasting and scheduling.
- ii. The viewing access to Wind Scheduling Software will also be provided to the developer/generator for their own respective turbines. The performance of the turbines and the status of power generation, availability of turbines, capping of turbines if any etc. can be viewed. (Respect to availability of SCADA in prescribed format).

4. Deviation charges accounting & De-pooling of charges:

(The scope defined under this head and payment in this account will be applicable only whenever the commercial mechanism is in place.)

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- i. Energy Comparison & Commercial settlement (As per Calculations of deviations) as per terminology Calculations of deviations & charges beyond 15% of available capacity (AVC) as highlighted under specified regulations.
- ii. Apportioning of deviation charges among all the generators connected at respective pooling station, as highlighted in the regulation or by the means of consensus of generators.
- iii. Settlement of deviations beyond 15% as defined in the extant regulation or is modified from time to time in accordance with the energy accounts issued by UI/DSM Pool account. However, forecasting & scheduling should be accurate to extant possible to keep the deviations if any within the defined limit.
- iv. Specific to site, if required, Undertake De-pooling of payments received on behalf of the generators from the state UI/DSM pool account and settling them with the individual generators connected to the pooling station.
- v. Ensuring that the deviation charges are settled on a weekly/monthly basis by the individual generators based on their actual generation or as mutually agreed by all connected to a particular pooling station as per the forecasting & scheduling procedure/regulation.

5. ADDITIONAL SCOPE OF WORK:

a. Energy Comparison

- i. Consolidated report for the entire month comparing the scheduled data with actual generation based on the calculation for each 15 Minute time block shall be provided showing the generation above/below the prescribed limits of RERC.

b. Post Analysis Work

- i. Pooling station wise performance analysis report of turbines in operation, including performance curve, post analysis of power generation with respect to wind speed and other factors available within the SCADA Data.
- ii. Any discrepancies if observed at a wind farm site or at turbine level can be intimated along with relevant Data. Reports on the SCADA time blocks missing for a day for each particular turbine for every site shall be provided only if the said data is available in the SCADA being provided by client.



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6. SECURITY DEPOSIT

A sum of 10% from the running bills/invoice shall be deducted as Security Deposit, which will be released at the end of each year as envisaged under the scope of work.

7. SHORT CLOSEUP OF THE CONTRACT IN CASE OF ANY CHANGES IN THE CERC ORDER ON RRF/DSM MECHANISM

In case of any changes in the CERC regulation like, "the responsibility of RRF/DSM mechanism compliance, shifted to the concerned SLDC, who in turn may charge certain amount per MW on all generators connected to the pooling substation as a part of statutory dues" & the generators are relieved of their responsibility of appointing the Coordinating Agency to the pooling substation the contract can be short closed within one week of serving notice to the Contractor.

8. Payment Terms

- The charges shall be payable by Generator on a monthly basis for the services provided by the Consulting Company commence from 1st June 2023 at mutually agreed rates.
- For forecasting & Scheduling, the QCA will raise an invoice at the end of every month. The client (Generator) shall make the payment for the services within 21 days of receipt of invoice.
- Service charges towards DSM Settlement shall be released by generator within 10 days from receipt of invoice from the consulting company after clearance from SLDC about payments made by MAL for DSM charges.
- Payment towards deviation charges, penalties etc. imposed by the SLDC, RPC, RLDC and NLDC or by any other agency of the Government etc. shall be made as per extant Regulation.

This LOA is being sent to you in duplicate. You are requested to return it without delay, one copy of the LOA duly signed and stamped as token of your acknowledgement and acceptance of this LOA.



Yours Faithfully,


(Ramavtar Chouhan)
Senior Manager (E&C)
27/05/23

Regd. Office :
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