

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No.286/MP/2023

- Subject : Petition under Section 79 of the Electricity Act, 2003 read with appropriate provisions of applicable law *inter-alia* seeking extension of time to comply with the directions of the Respondent No. 2 to install the required reactive power compensation device for the Petitioner's 300 MW solar power project situated at Village: Sonanda, Shekhasar, Bandhari, and Kesarpura, Tehsil Bap, District Jodhpur, Rajasthan; and consequently, restrain the Respondent No. 2 from taking coercive action against the Petitioner till such time.
- Date of Hearing : **25.10.2023**
- Coram : Shri Jishnu Barua, Chairperson
Shri Arun Goyal, Member
Shri P. K. Singh, Member
- Petitioner : Azure Power Maple Private Limited (APMPL)
- Respondents : Northern Regional Load Despatch Centre (NRLDC) and 2 Ors.
- Parties Present : Shri Aniket Prasoon, Advocate, APMPL
Shri Aman Sheikh, Advocate, APMPL
Ms. Priya Dhankar, Advocate, APMPL
Shri Sanjeev S. Thakur, Advocate, APMPL
Shri Rishabh Bhardwaj, Advocate, APMPL
Shri Paritosh Bisen, Advocate, APMPL
Shri Sunil Kanaujiya, NRLDC
Ms. Suruchi Jain, NRLDC
Shri Asit, NRLDC
Shri Alok Kumar, NRLDC
Shri Alok Mishra, NRLDC
Shri Prashant Garg, NRLDC
Shri Swapnil Verma, CTUIL
Shri Lashit Sharma, CTUIL
Shri R. S. Rajput, CTUIL
Shri Yatin Sharma, CTUIL

Record of Proceedings

Learned counsel for the Petitioner submitted that during the course of the hearing on 9.10.2023, the representative of the CEA had stated that the Petitioner may be directed to approach the CEA with its request regarding compliance with the CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007 and that the CEA would consider the Petitioner's request appropriate. Accordingly, the Commission, by order dated 10.10.2023 in IA No. 73/2023, directed the Petitioner to approach the CEA, and the CEA was requested to convene a meeting within three days of the date of the order. It was expected that the consultation process involving CTUIL, NRLDC, Petitioner and other similarly placed generators would result in a resolution of the issue

in the interest of the sector at large. Learned counsel submitted that pursuant to the said order, a meeting under the Chairmanship of Chairperson, CEA was convened on 13.10.2023. Learned counsel further referred to the Minutes of the said Meeting and mainly submitted as under:

(a) By way of the Minutes of the said Meeting (MoM), CEA has taken a decision to curtail or suspend the quantum of the capacity of non-compliance of 20 RE Plants whom provisional/conditional FTC was issued based on the CEA's MoM dated 5.5.2023 and 22.5.2023 including the Petitioner's Project. Perusal of the said MoM clearly demonstrates that the said Meeting has not served the purpose as this Commission envisaged in its order dated 10.10.2023 i.e. resolution of the issue in the interest of the sector at large.

(b) Despite the technical details [relating to lesser generation of power in view of lesser irradiation until March 2024, the plant with the current set of inverters is capable of providing reactive power support for 270 MW up to 40 degree Celsius with the temperature likely to remain as capped during the winters in Rajasthan] which sufficiently demonstrated that there is no requirement for any curtailment or suspension of power from the Project. The CEA has, in a mechanical manner, therefore suggested the curtailment or suspension of power.

(c) Entire MoM is predicated on the premise that there was absolute clarity regarding the parameters on the basis of which dynamic reactive power compensation device(s) were to be installed by the Petitioner and other similarly placed RE generators. It simply refers to the requirement of the installation of dynamic reactive power compensation devices as an "existing requirement" of the "existing regulations". It does not deal with the aspects of new requirements that have been introduced by virtue of the Working Group Report (WGR, 2022), under the garb of clarification, such as dynamically varying reactive power support at the Point of Interconnection at least up to the V curve, rated output at PoI, and ambient temperature criteria.

(d) The said MoM does not deal with as to how the other generators (at least in the Northern Region) have complied with the requirement of supplying dynamic reactive power. No details whatsoever with regard to the installation of dynamic reactive power compensation devices by TP Surya Pvt. Ltd. and SBSR Cleantech Pvt. Ltd., as referred to therein, are clarified. It also acknowledges that a 'total 17 of RE plants with a capacity around 3700 MW have either complied or partially complied' with but fails to appreciate that even the Petitioner has partially complied with the said requirement by installing the 24 MW inverters, and for installing the STATCOM, it needs certain clarification, which is yet to be provided by the CEA itself.

(e) Pertinently, FTC clearances are being given to new/upcoming RE projects without them complying with the installation of reactive power compensation devices as on the date of commissioning and giving a window of six months to install such devices. This itself indicates that the stance of CEA and other stakeholders that the grid is under imminent threat on account of the non-installation of reactive power compensation devices by the Petitioner and other similarly placed RE generators by 30.9.2023 may not be correct.

(f) Contrary to what has been indicated in the MoM, no representation or acceptance was conveyed by the Petitioner that it has not planned to fully address the requirement to install a dynamic reactive power compensation device during the said meeting. Paragraphs 8 & 10 of the MoM incorrectly and arbitrarily record

one sided view of the CEA without giving any credence to the actual facts and dilute the intent of the Petitioner in its efforts to comply with the CEA Regulations despite the ambiguities with respect to the Projects' capability of supplying reactive power considering active power of full plant capacity at Pol at 50 degrees Celcius.

(g) Undertaking dated 17.9.2021 was issued prior to the issuance of WGR, 2022 and was limited to compliance with the requirements of the CEA Regulations. However, by way of the WGR, 2022, several new additional requirements/compliances were issued which were never there prior to its issuance.

(h) Although the CEA (Technical Standards for Construction of Electric Plants and Electric Lines) Regulations, 2010 prescribed an ambient temperature requirement of 50 degrees Celcius, the said requirement was only applicable to thermal power projects. The new requirement with respect to the applicability of ambient temperature for the RE generating station was issued only in terms of the WGR, 2022. In a meeting held on 10.1.2023, it was categorically recorded that ambient temperature criteria for renewable energy projects were required to be standardized and would be incorporated in the forthcoming CEA Regulations, which are yet to be issued.

(i) At the time when the undertaking dated 28.3.2023 was given by the Petitioner to comply with the requirement to install the reactive power compensation devices, it had envisaged installing and commissioning an additional 55 MVAR inverter capacity by 15.6.2023. However, as per the WGR, 2022, the RE generators were required to adopt the appropriate measures for enabling dynamic reactive response, which was possible through power apparatus such as STATCOM and SVC. Accordingly, the Petitioner decided to install an additional 130 Nos. of inverters of 24 MW and 80 MVAR STATCOMs.

(j) For the installation of additional inverters, the Petitioner also executed the Supply Order dated 27.4.2023. However, the supply of the inverters thereunder was delayed for reasons such as supply chain disruption due to the impact of Covid 19, shortage in supply of IGBT, shortage of freight carriers, etc. which are beyond the reasonable control of the Petitioner. The said difficulties were duly informed to GCIL/NRLDC by the Petitioner. Insofar as the STATCOM is concerned, in the absence of clarity with regard to the ambient temperature criteria for RE projects, the Petitioner is not able to place an order for the supply of such STATCOM.

2. The representative of the Respondent, NRLDC mainly submitted as under:

(a) During the course of the hearing on 9.10.2023, NRLDC had not raised any objection to the maintainability of the Petition, and only CTUIL had raised such an objection.

(b) By its undertaking dated 28.3.2023, the Petitioner had undertaken to comply with the requirement to install the reactive compensation devices by 30.6.2023 by installing the additional 55 MVAR capacity inverters and had also attached a copy of the PO in this regard. However, subsequently, the Petitioner, on its own, chose to opt for the installation of the STATCOM in order to meet the reactive power requirements. The Petitioner could have very well met the requirements of dynamically varying reactive power support by installing the inverters. This also indicates that the earlier PO furnished by the Petitioner for the supply of inverters had no sanctity.

(c) The CEA (Technical Standards for Connectivity to Grid) Amendment Regulations, 2013 already provided that the RE generating station shall be capable of supplying “*dynamically varying reactive power support*” so as to maintain the power factor within the limits of 0.95 lagging to 0.95 leadings.

(d) Moreover, the CEA Regulations also required that the effects of ‘*temperature extremes*’ be factored into the design and operation of the connected facilities. The methodology indicating the margin of 1 degree Celsius to the ambient temperature in the WGR, 2022, is not being insisted upon/applied to in the case of the Petitioner herein. Insofar as the ambient temperature of 50 degrees Celsius is concerned, the study report submitted by the Petitioner at the time of commissioning the Project itself indicated the ambient temperature at 50 degrees Celsius. Also, in a meeting held on 23.9.2021 under the CEA, it was discussed and deliberated that the ambient temperature needs to be considered at 50 degrees Celsius. There is no confusion with regard to the consideration of the ambient temperature of 50 degrees Celsius as sought to contend by the Petitioner in its case. The ongoing discussions to further optimise the ambient temperature, if need be, cannot be a ground to put off the requirement of installing the reactive compensation devices.

(e) In its letter dated 26.9.2023, the Petitioner had stated that if its Plant is not able to provide the required reactive power, NRLDC can limit the active power generation to the extent required instead of curtailing the entire plant. Thus, the decision of the CEA in MoM is as per what had been suggested by the Petitioner itself. Now, there has been a complete shift in the stand of the Petitioner.

(f) In terms of the MoM dated 13.10.2023, all 20 RE plants to whom the provisions/conditional FTC were issued based on the CEA MoM dated 5.3.2023 and 22.5.2023 have been asked to submit a compliance report mentioning the quantum of the capacity of non-compliance, and it is certainly not the case that the Petitioner’s Plant has been singled out.

(g) As on date, there is no disconnection notice that has been issued to the Petitioner.

3. The representative of CTUIL submitted that CTUIL has raised an objection to the maintainability of the Petition and the Commission may take an appropriate view on that aspect.

4. After hearing the learned counsel for the Petitioner and the representative of the Respondents, the Commission directed Grid India to submit the following information on an affidavit within two weeks:

(a) What are the requirements for a RE generator to meet the criteria for the supply of dynamic reactive power support as per the CEA (Technical Standard and Connectivity to the Grid) Regulations, 2013?

(b) The list of RE generators, which have declared COD after the effectiveness of the CEA (Technical Standard and Connectivity to the Grid) Regulations, 2013, along with the following details:

| Name of generating station | Installed capacity (in MW) | Date of COD | Quantum of reactive power compensation required as per CEA Connectivity Standards, 2013 (in MVAR) | Quantum of reactive power compensation installed (in MVAR) | Quantum of reactive power compensation under the following | |
|----------------------------|----------------------------|-------------|---|--|--|-----------------------------|
| | | | | | Static compensation (MVAR) | Dynamic compensation (MVAR) |
| | | | | | | |

(c) Action taken by Grid India against each of the generating stations as per the above table where the availability of the reactive compensation device is less than the requirement as per the CEA Connectivity Standards, 2013.

(d) The details of all 20 numbers of RE plants which have either fully complied with or partially complied with the criteria for supply of dynamic reactive power support, as per the MoM dated 13.10.2023 held in the CEA. What equipment has been installed by the RE Generators which have fully complied with the criteria for the supply of dynamic reactive power support as per the CEA (Technical Standard and Connectivity to the Grid) Regulations, 2013?

5. The Commission directed the Petitioner to file the information on an affidavit within two weeks as to whether the Petitioner has complied with the criteria for the supply of dynamic reactive power support as per the provisions of the CEA (technical standards for Connectivity to the Grid) Regulations 2013. If not, provide the relevant details along with the respective regulations that have not been complied with.

6. The Commission directed CTUIL to file its submissions on an affidavit within two weeks on the maintainability of the Petition, with a copy to the Petitioner who may file its response thereon, within two weeks thereafter.

7. The Petition will be listed for hearing on its maintainability and merits on **13.12.2023**.

By order of the Commission
Sd/-
(T.D. Pant)
Joint Chief (Law)