

**IN THE APPELLATE TRIBUNAL FOR ELECTRICITY  
(Appellate Jurisdiction)**

**APPEAL NO. 302 OF 2024 &  
IA Nos. 703 & 1970 of 2024**

**Dated: 23<sup>rd</sup> April, 2025**

**Present: Hon'ble Mr. Justice Ramesh Ranganathan, Chairperson  
Hon'ble Smt. Seema Gupta, Technical Member (Electricity)**

**In the matter of:**

**M/S GREENYANA SOLAR PRIVATE LIMITED**

*Through its Director,*

401 A, Shree Guru Harikrishana Bhavan,

Dr. Charat Singh Colony, A.K. Road,

Andheri East, Mumbai- 400093

... Appellant(s)

***VERSUS***

**1. HARYANA ELECTRICITY REGULATORY COMMISSION**

*Through its Secretary,*

Bays 33-36, Sector 4, Panchkula – 134112

... Respondent No.1

**2. HARYANA POWER PURCHASE CENTRE**

*Through Chairman-cum-MD of UHBVN,*

4<sup>th</sup> Floor, Plot No. IP 3&4,

Sector-14, Panchkula – 134113

... Respondent No.2

**3. HARYANA RENEWABLE ENERGY DEVELOPMENT AGENCY**

*Through its Director,*

Akshay Urja Bhawan, Plot No.1,

Sector 17, Opp. Agarwal Bhavan,

Panchkula, Haryana – 134109

... Respondent No.3

Counsel on record for the Appellant(s)

: Vishrov Mukerjee  
Janmali Gopal Rao Manikala  
Yashaswi Kant  
Girik Bhalla  
Pratyush Singh  
Damodar Solanki  
Priyanka Vyas  
Raghav Malhotra

Anamika Rana  
Juhi Senguttuvan  
Shreya Sundaraman  
Ashabari Basu Thakur for App. 1

Counsel on record for the Respondent(s) : Shlok Chandra for Res. 1

Poorva Saigal  
Shubham Arya  
Pallavi Saigal  
Reeha Singh  
Anumeha Smiti  
Devyanshu Sharma for Res. 2

Anil Kumar Yadav  
Apoorv Yadav  
Urvashi Yadav  
Aekansh Yadav  
Jivish Yadav for Res.3

## **JUDGMENT**

**(PER HON'BLE MRS. SEEMA GUPTA, TECHNICAL MEMBER,  
ELECTRICITY)**

1. The Appellant, M/s Greenyana Solar Private Ltd ("**GSPL**"), has preferred the instant appeal aggrieved by the order dated 29.01.2024 passed by the Haryana Electricity Regulatory Commission ("**State Commission/HERC**") in Petition No. 33 of 2023, which was filed for determination of tariff for supply of power under the PPA dated 20.02.2023. The Appellant has also filed IAs No. 703 of 2024 and 1970 of 2024 seeking stay of the Impugned Order and payment of tariff of Rs 2.75/kwh for supply of power and for recovery of differential amount

between Interim Tariff of Rs 2.75/kWh and tariff of Rs 2.35/kWh as per Impugned Order, till final adjudication of the Appeal.

2. Heard Mr. Vishrov Mukherjee, learned counsel for the Appellant, and Mr Shubham Arya, learned counsel for the Respondent No.2, Haryana Power Purchase Centre (“**HPPC**”). During the course of hearing of the IAs, learned counsel for the Appellant filed a memo mentioning that there are three issues which will arise for consideration in the Appeal, however its submissions are confined to one issue, this Tribunal vide its order dated 04.04.2025 passed an order as reproduced hereunder:

*“A Memo is filed on behalf of the Appellant stating that, with respect to all the three issues which arise for consideration in the Appeal, the Appellant’s submissions are confined only to issue-A; the Appellant does not impugn the principle of deduction of amounts from the Capital Cost under issue-B (as to already recovered or to be claimed in future); and with respect to issue-C, the Appellant seeks liberty to seek rectification in computation (other than on account of Ground B above).*”

*Issues A, B & C as detailed in the Memo, read thus:*

*“(a) ISSUE A: Determination of Capital Cost by Ld. HERC considering installed capacity on the basis of AC:DC ratio of 1:1.*

*(b) ISSUE B: Deduction of amounts already recovered/ to be recovered in the future by GSPL from HPPC prior to 20.02.2023 (i.e., date of signing of the PPA) from the Capital Cost of the Project.*

*(c) Issue C: Incorrect computation of levelized tariff by Ld. HERC in the Impugned Order.”*

*Mr. Shubham Arya, Learned Counsel for the 2<sup>nd</sup> Respondent, would submit that their only objection to the Memo is that, with respect to Issue-C, this Tribunal may make it clear that the liberty, if any, which this Tribunal may consider granting, may be confined only to the computation in terms of Annexure-A to the impugned order, and not beyond.*

*Mr. Pratyush Singh, Learned Counsel for the Appellant, would fairly agree for such an order to be passed.*

*Learned Counsel on either side agree that this Tribunal, if it so consider it appropriate, may dispose of the main appeal itself instead of passing an order in the IA.”*

3. Accordingly, in terms of the undertaking recorded here-in-above, the arguments of the learned counsels are confined to Issue A only. Learned counsel for the Appellant submitted that the HERC in the Impugned Order has determined the project-specific levelised tariff for supply of power from its 10.72 MW (AC) Solar PV project to HPPC, in which instead of considering the actual installed DC capacity of 14.90 MWp corresponding to 10.72 MW AC, has erroneously restricted the DC capacity to 10.72 MWp by applying AC:DC ratio of 1:1, and thereby the capital cost pertaining only to 10.72 MWp DC modules was allowed, resulting in a reduced tariff of Rs. 2.35/kWh. Learned counsel for the Appellant, referring to the judgment of this Tribunal in “**Amplus Sun Solutions Pvt. Ltd. v. HERC & Ors**” in **Appeal No.326 & 149 of 2021**. (“**Amplus Judgement**”), submitted that the issue of disallowance of the cost of additional DC modules by restricting the AC:DC ratio of 1:1 stands conclusively decided; wherein this Tribunal held that the AC:DC ratio, associated capital cost, and the resultant CUF are interlinked, and that the HERC has erred in disallowing the cost of additional DC capacity (25 MWp) against the AC capacity of 50 MW, while simultaneously approving a CUF that could only be achieved with a higher AC:DC ratio; considering AC:DC ratio of 1:1, the CUF would only be 17.3% whereas the approved CUF of 19% is achievable only with AC:DC ratio of 1:1.11 and accordingly the matter was remanded to the HERC for reconsideration.

4. Learned Counsel for the Appellant, referring to another judgment of this Tribunal in “**Nisagra Renewable Energy Pvt. Ltd. v. MERC & Anr.**” **2021 SCC OnLine APTEL 81**, submitted that this Tribunal has categorically held that DC overloading is a widely accepted industry practice for solar projects, and in the absence of any restriction in the PPA regarding the DC capacity to be installed, generators are at liberty to set up projects with higher DC capacity, and it was further held that the solar generators who had installed DC capacity up to 145%–146% of the AC capacity were entitled to Change in Law compensation for the entire installed DC capacity, and such compensation could not be restricted to the AC capacity alone. Learned Counsel for the Appellant further submitted that in the present case, the State Commission while approving a CUF of 21%, has erroneously restricted the admissible DC capacity to 10.72 MWp by applying an AC:DC ratio of 1:1, and consequently allowed capital cost only for 10.72 MWp of DC modules and disallowed the capital cost of remaining 4.18 MWp of DC modules, along with the cost of associated civil works.

5. Learned counsel for the Appellant contended that the CUF is the ratio or percentage of electrical output over installed capacity of a generating station, however, the State Commission have erroneously conflated the concepts of Capacity Factor (CF) and CUF. Since CUF is inherently a function of the electrical output, CUF of 21% prescribed under Regulation 48 of the HERC (Terms and Conditions for Determination of Tariff from Renewable Energy Sources, RPO and REC) Regulations, 2021 ("**HERC RE Regulations 2021**"), relates to AC CUF.

6. Learned counsel for the Appellant further submitted that this Tribunal, in *Amplus judgment* (supra), has categorically held that with an AC:DC ratio of 1:1, only a CUF of 17.3% can be achieved. In view thereof,

subject to prudence check, the cost of entire DC capacity set up to achieve AC CUF of 21% ought to have been allowed and the CUF of 21% prescribed under Regulation 48 of the HERC RE Regulations 2021 should have been interpreted as AC CUF.

7. Learned counsel for the Appellant has prayed that this Tribunal may pass an order similar to that passed in *Amplus Judgment* and accordingly remand the matter to the State Commission/HERC with a specific direction to ascertain only the DC capacity required for generation and supply of Contracted Capacity of 10.72 MW AC with AC CUF of 21% from GSPL's Project; and also prayed for an award of provisional tariff of Rs. 2.75/kWh (the ceiling tariff) till passing of order by State Commission in remand proceedings.

8. Per contra, learned counsel for the Respondent No.2, Haryana Power Purchase Centre (“**HPPC**”) submitted that *Amplus Judgment* is not applicable to the present case inasmuch as the State Commission has rightly restricted the CUF to 21%, by virtue of Regulation 48 of the HERC RE Regulations, 2021, which the Appellant was mandatorily required to achieve, irrespective of whether additional DC capacity is installed or not, therefore no additional tariff can be granted for DC capacity installed over and above the AC capacity merely to achieve the prescribed CUF. In the said case the CUF permitted by the State Commission was significantly higher than the prescribed mandatory normative CUF of 21% stipulated under the said Regulations.

9. Learned counsel for Respondent No. 2 further referred to the Statement of Reasons dated 07.07.2020 issued by the Central Commission in relation to the CERC RE Regulations, 2020, wherein, after taking into consideration the submissions put forth by various solar developers, the Central Commission observed that “*the prevailing market*

*trend of CUF has been in the range of 21% and above and with advancement of technology in the solar sector, the project developer can easily attain the minimum CUF of 21%".* Accordingly, the State Commission, relying on prevailing market trends, has rightly applied the normative CUF of 21% as per the HERC RE Regulations, 2021, instead of accepting Appellant's declared CUF of 17.01%, allowing the same, would have adversely impacted the consumers. Thus, Appellant's contention is inconsistent with the applicable regulatory framework. In support of his contention, learned counsel for Respondent No. 2 has placed reliance on the Judgment of the Hon'ble Supreme Court in "***PTC India Ltd. v. CERC***", (2010) 4 SCC 603, and submitted that the said Judgment has also been followed by this Tribunal in its Judgment dated 30.08.2024 in Appeal No. 308 of 2024 (***UPPCL & Ors. v. UPERC & Ors.***) holding that no additional tariff ought to be allowed.

10. Learned counsel for the Respondent No.2, without prejudice to above, pointed out that the Appellant has computed a tariff of Rs 2.81 per unit based on a DC capacity of 13.24 MWp as against the AC capacity of 10.72 MWp, with an AC CUF of 21%, reflecting an AC:DC ratio of 1:1.235, and contended that this computation of tariff at Rs 2.81 per unit is flawed, since the same has been done considering that Appellant's Project can only achieve CUF of 17.01% if AC:DC ratio of 1:1 is adopted. This assumption which was made by the Appellant that only a DC CUF of 17.01% and a corresponding AC CUF of 24.08% (based on an AC:DC ratio of 1:1.39) is achievable as per the PVSYST simulations, has been rejected by the State Commission, and in fact, the said CUF of 17.01% (corresponding AC CUF of 24.08 with an AC:DC ratio of 1:1.39) determined by GSPL was after adjusting for system unavailability (1.94%) and grid downtime (0.67%) and significantly, this finding has not been challenged by the Appellant in the present Appeal. If the said adjustments

are added back to the CUF, then the achievable AC CUF would be 26.69% and the corresponding DC CUF would be 19.215%. In such a scenario, only an additional DC capacity of 0.9958 MW (resulting in an AC:DC ratio of 1:1.0928) would be required to meet the normative CUF of 21% and not 2.52 MW being claimed by the Appellant. Therefore, no additional capital cost is required to be allowed for achieving 21% CUF, even otherwise, the Appellant would only be entitled to a tariff much lower than the capped tariff of Rs. 2.75 per unit.

11. On going through the contentions put forth by learned counsel for Appellant and learned counsel for Respondent No.2, it emerges that the dispute in the present appeal is confined to the required AC: DC ratio to achieve CUF of 21% for Appellant's Solar PV Project with allowance of cost for corresponding DC Modules besides computational issues in Annexure A. In the Impugned order, the State Commission while working out the project specific tariff for Appellant's 10.72 MW (AC) project has allowed cost of DC module corresponding to AC: DC ration of 1:1, and the Appellant has contended that with an AC: DC ration of 1:1, CUF of only 17.01 is achievable and accordingly claimed cost of DC modules for 14.92 MWp resulting in AC: DC ratio of 1:1.389.

12. There is no dispute that the issue in the present case is governed by the Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable purchase obligation, and Renewable Energy Certificate) Regulation 2021 ("**HERC Regulations 2021**"), the relevant extracts are reproduced hereunder:

***"48. Capacity Utilisation Factor - The Commission shall approve capacity utilization factor for project specific tariff determination.***

*Provided that the minimum capacity utilisation factor for Solar PV project including floating solar project shall be 21%.*

*Provided that the minimum capacity utilisation factor for Solar Thermal project shall be 23%.”*

13. Learned counsel for Respondent made a reference to the Statement of Objects and Reasons issued by CERC for CERC RE Regulations 2020, wherein rationale for keeping 21 % CUF is stated that as per advancement of solar technology the CUF of 21% is achievable, and made submissions that such 21% CUF ought to be achieved with AC: DC Ratio of 1:1. As such, the Statement of Objects and Reasons (SOR) can be referred to while interpreting subordinate legislation, as it provides insights into the legislative intent behind the enactment of the law. Courts and regulatory bodies often use it as a tool to understand the purpose and objectives of the legislation/Subordinate legislation, especially when there is ambiguity in the interpretation of specific provisions.

14. We are, however, unable to appreciate and find merit in the submissions made by Respondent HPPC for the following reasons: firstly, in the present *lis*, we are concerned with the HERC Regulations 2021, however no reference has been made to its SOR, and reference is made to the SOR of the CERC RE Regulations 2020, which is not the reference regulation for the present *lis*; and secondly, or more significantly, we do not find any ambiguity in the provisions of the applicable HERC Regulations 2021, as it does not specify the AC:DC ratio while specifying that the minimum capacity utilization factor (“**CUF**”) for Solar PV project should be 21% and in such a situation, in our view, prudence check is required to be undertaken by the State Commission for the required AC:DC ratio to achieve the specified CUF while undertaking project

specific tariff determination. The State commission in the Impugned Order, citing RE Regulations, has determined project-specific tariff reckoning with AC capacity only and stated that installation of DC capacity is left to the discretion of project developer, and restricted the cost of DC module considering ratio of AC:DC as 1:1.

15. In our considered view, the project-specific tariff determination under Section 62 of the Electricity Act is to arrive at a tariff that is uniquely tailored to the economic and operational realities of a particular project, while being subject to stringent checks for transparency, fairness, and policy consistency; such an approach not only helps secure return on investment but also ensures that tariff levels remain in line with consumer protection goals and broader market efficiency. The project specific tariff reflects actual costs incurred subject to prudence check.

16. It is trite that the ratio of AC:DC module, the associated capital cost and the resultant CUF are interlinked, as held in “**Amplus Sun Solutions Pvt. Ltd. v. HERC & Ors**” in **Appeal No.326 & 149 of 2021**”. In our view, in the absence of any stipulation with regard to an AC:DC ratio for achieving specified CUF in the HERC Regulations 2021, it is important for the State Commission to make prudence check of required AC:DC ratio for achieving the specific CUF while undertaking project specific Tariff determination in Appellant’s Solar PV Project. Since such an exercise has not been carried out by the State Commission in the present case, we are inclined to remand the matter to the State Commission for carrying out such prudence check and it is made clear that we have not expressed any opinion on the rival contentions made herein. We would like to further state that as pointed out by Respondent No.2 that adjustment made by Appellant on account of system unavailability and grid downtime in CUF

calculations has been rejected by the State Commission in the Impugned Order and has not been challenged by the Appellant in the present Appeal. It is, therefore, not open for deliberation when the matter is considered by State Commission upon remand.

17. The Appellant has sought a Tariff of Rs 2.75/Kwh in the interregnum, however, we are conscious of the fact that this is the ceiling tariff which the Appellant would be entitled to in the event all the contentions raised in the Appeal are allowed. Allowing such a tariff of Rs 2.75/Kwh at the Interim stage, would, in effect, amount to granting the final relief sought, without affording the State Commission an opportunity to reconsider the matter upon remand. Considering the contention of the Appellant that with AC: DC ratio as 1:1, a CUF of only about 17 % is achievable and as held above that adjustment for system unavailability (1.94%) and grid downtime (0.67%) is now not open for deliberation and accordingly if same is added back, *prima-facie* the resultant tariff shall be about Rs 2.50/Kwh. We also take note that in terms of Article 4.3 of the PPA dated 20.02.2023 signed by the Appellant and Respondent HHPC, all delivered energy is to be paid @ Rs 2.50/kwh in case project attains COD before determination of Tariff by the State Commission. Based on these consideration, a tariff of Rs 2.50/Kwh is allowed during the interim period, till the matter is decided by the State Commission upon remand, making it clear that it is open to the State Commission consequent on remand to determine the applicable Tariff, uninfluenced by the aforesaid *prima facie* findings.

18. In view of above deliberations, we set aside the Impugned Order to the limited extent and remand the matter to the State Commission to make prudence check on the required AC:DC ratio and corresponding capital cost of DC modules to achieve specified CUF, as well as to address the

computational issue while working out the levelised tariff, in terms of Annexure A of the Impugned Order. In the interregnum, the Appellant is allowed a tariff of Rs 2.50/kwh from the date of this order, which shall remain in force until the matter is finally decided by the State Commission upon remand, which may be decided as expeditiously as possible by State Commission. The subject appeal and associated IAs are disposed of in the above mentioned terms.

**Pronounced in open court on this 23<sup>rd</sup> Day of April, 2025**

**(Seema Gupta)  
Technical Member (Electricity)**

**(Justice Ramesh Ranganathan)  
Chairperson**

**Reportable / Non-Reportable**

*ts/dk/ag*