

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

APL No. 326 OF 2021 & IA No. 1357 OF 2024
&
APL No. 149 OF 2021

Dated: **25.10.2024**

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

In the matter of:

APL No. 326 OF 2021 & IA No. 1357 OF 2024

AMPLUS SUN SOLUTIONS PRIVATE LIMITED,

Through its Authorized Signatory

6th Floor, The Palm Square,
Golf Course Extension Road,
Sector – 66, Gurugram – 122102,
Haryana.

... Appellant(s)

VERSUS

1. HARYANA ELECTRICITY REGULATORY COMMISSION

Through its Secretary,

Bays 33-36, Sector 4,
Panchkula – 134112,
Haryana.

... Respondent No.1

2. HARYANA POWER PURCHASE CENTER

Through its Chief Engineer,

2nd Floor, Shakti Bhawan,
Sector -6, Panchkula – 134109
Haryana.

... Respondent No.2

3. HAREDA

Through its Director,

Akshay Urja Bhawan,
Institutional Plot No.1, Sector – 17,
Panchkula -134109, Haryana
Vidyut Sadan, Plot No.C16, Sector – 6,
Panchkula -134109, Haryana

... Respondent No.3

Counsel on record for the Appellant(s) : Amit Kapur
Vishrov Mukerjee for App. 1

Counsel on record for the Respondent(s) : Nalin Kohli for Res. 1

Poorva Saigal
Shubham Arya
Tanya Sareen
Srishti Khindaria
Ravi Nair for Res. 2

Aditya Grover
Arjun Grover
Pooja R. Sharma for Res. 3

In the matter of:

APL No. 149 OF 2021

HARYANA POWER PURCHASE CENTRE,

Through its Chief Engineer,
Sector – 6, Shakti Bhawan,
Panchkula, Haryana – 134109.

... Appellant(s)

VERSUS

1. M/S. AMPLUS SUN SOLUTIONS PVT. LTD.

Through its Company Secretary,
6th Floor, The Palm Square,
Golf Course Extension Road,
Sector – 66, Gurgaon – 122102
Haryana.

... Respondent No.1

2. HARYANA ELECTRICITY REGULATORY COMMISSION

Through its Secretary,
Bays No.33-36, Sector- 4,
Panchkula – 134109

... Respondent No.2

3. HARYANA RENEWABLE ENERGY DEVELOPMENT AGENCY

Through its Director General,
Akshay Urja Bhawan,
Plot No.1, Sector 17,
Panchkula, Haryana – 134109

... Respondent No.3

Counsel on record for the Appellant(s) : Ranjitha Ramachandran
Poorva Saigal
Shubham Arya
Tanya Sareen
Arvind Kumar Dubey for App. 1

Counsel on record for the Respondent(s) : Amit Kapur for Res. 1

Nalin Kohli for Res. 2

Aditya Grover
Arjun Grover
Pooja R. Sharma for Res. 3

JUDGMENT

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

1. Appeal No. 326 of 2021 and Appeal No. 149 of 2021 are filed by the Appellant- Amplus Sun Solutions Private Ltd & Haryana Power Purchase Centre respectively, challenging the order dated 18.01.2021 passed by the Haryana Electricity Regulatory Commission in Petition No. HERC/PRO 59 of 2020.

2. Since both these are cross-appeals, they are being disposed of with this common judgment. For the sake of convenience, the Appellant "**Amplus Sun Solutions Private Limited**", in Appeal No. 326 of 2021, who is Respondent in Appeal No. 149 of 2021 will be referred to as "**Amplus**" and the Appellant "**Haryana Power Purchase Centre**" in Appeal No. 149 of 2021, who is Respondent in Appeal No. 326 of 2021 will be referred to as "**HPPC**". The facts in both the appeals are:

Facts in Appeal No. 326 of 2021

The Appellant-Amplus Sun Solutions Private Limited is a part of Amplus Solar group of companies and is a generating company in terms of Section 2(8) of the Electricity Act 2003 and has established a 50 MW solar power project at Khanak, Bhiwani, Haryana (**“Project”**).

3. The Respondent No. 1 is the Haryana Electricity Regulatory Commission (hereinafter referred to as (**“State Commission/HERC”**)). The Respondent No. 2 is Haryana Power Purchase Centre (hereinafter referred to as (**“HPPC”**)), which is a joint forum created and owned by the State Distribution Licensees, viz., Uttar Haryana Bijli Vitran Nigam Limited and Dakshin Haryana Bijli Vitran Nigam Limited (**“Haryana Discoms”**) with a mandate to arrange/procure economical, reliable and cost-effective power including renewable and non-conventional sources for the Haryana Utilities in order to meet the universal service obligations of providing electricity to their consumers. The Respondent No. 3 is Haryana Renewable Energy Development Agency (**“HAREDA”**), which is primarily responsible for formulation and implementation of the schemes vis-a-vis the development of Non-Conventional Sources of Energy in the State of Haryana.

4. On 24.07.2018, the HERC (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2017 (hereinafter referred to as (**“HERC RE Regulations 2017”**)) were notified, which provided for Project Specific Regulation Tariff under 6(1)(h) and 7 of the Regulations 2017.

5. In the year 2019, the “Amplus” had started implementing a 50 MW Solar power project in the State of Haryana at Bhiwani. The project was originally envisaged as a group captive/third party sale project. By the first quarter of FY 2020-21, the Project was almost ready for commissioning except for certain technical issues like evacuation of power from the Project, installation of meters which required approvals from State Utilities of Haryana. However, refusal by HVPNL to sign and execute the Connection Agreement, commissioning of the Project was delayed. Due to the delay in grant of final connectivity and execution of Connection Agreement by State Utilities of Haryana including HVPNL, “Amplus” on 02.05.2020, filed a Petition bearing No. PRO 25 of 2020 before HERC. However, during the pendency of the said Petition, in view of the HERC observation in interim order dated 24.08.2020 in the petition PRO 25 of 2020 and other similar petition that *“it would be a positive development if this long pending issue could be resolved amicably through mutual consultations because the ultimate aim of all stakeholders is to achieve the national target of 100 GW Solar Power by 2022”* the parties tried for settlement of the issue. Thereafter, pursuant to the discussions between the Appellant (“**Amplus**”) and Respondent No 2 (“**HPPC**”), “Amplus” without prejudice to its rights and contentions, consented for sale of power from its Project to Haryana Discoms including determination of project specific tariff for the Project under the applicable regulations, subject to fulfilment of conditions and necessary regulatory approval by the State Commission, and initialed the Draft Power Purchase Agreement (**PPA**) provided by HPPC.

6. On 09.09.2020, the Respondent No 2 (“HPPC”) filed a Petition bearing PRO No. 45 of 2020 before the State Commission seeking approval *“to approve source power and draft PPA to be executed with the Appellant*

for purchase of 50 MW Solar Power from grid interactive solar PV based power project located at Village, Khanak, Tehsil, Tosham, District Bhiwani at a tariff determined by the Commission under Section 62 of the Electricity Act, 2003 in terms of HERC Regulations in vogue “.

7. The HERC, on 14.09.2020, passed the order approving the procurement of power from the Amplus Project as well as the Draft PPA initialed by the Appellant with a direction to the Generator i.e Amplus to file separate Petition under Section 62 of the Electricity Act 2003 for determination of tariff for the Project.

8. On 13.10.2020, the Appellant “Amplus” filed a petition No PRO 59 of 2020 before HERC under Sections 62 of the Act read with Regulation 6(1) of the HERC RE Regulations, 2017 for determination of Tariff for its 50 MW Power Project located at village, Khanak, Tehsil, Tosham, District Bhiwani

9. The HERC invited objections from general public through notice in newspapers. On 17.12.2020, the Appellant filed objections to the various comments/objections filed by the Stakeholders. On 22.12.2020, the Appellant had also filed an additional affidavit to place on record additional information regarding the summary of capital cost already incurred under different heads along with the proof of the same. On 18.01.2021, the HERC passed the Impugned Order restricting the claim of the Appellant for a levelized tariff of Rs. 3.86/Kwh for 25 years to Rs. 2.48/Kwh. Aggrieved by the said order, the Appellant “Amplus” has preferred the present appeal.

Facts in Appeal No. 149 of 2021

The Appellant-Haryana Power Purchase Centre (HPPC) is the Nodal agency for procurement of power on behalf of the distribution licensees in the State of Haryana, namely, Uttar Haryana Bijli Vitaran Nigam Limited and Dakshin Haryana Bijli Vitaran Nigam Limited.

10. The Respondent No. 1, M/s Amplus Sun Solutions Private Limited (**“Amplus”**) is a company incorporated under the provisions of Companies Act and has set up a 50 MW [AC] Solar Power project at Village Khanak, Thensil Tosham, District Bhiwani, Haryana. The Respondent No. 2, Haryana Electricity Regulatory Commission is the Regulatory Commission for the State of Haryana (**“State Commission/HERC”**). The Respondent No. 3, Haryana Renewable Energy Development Agency (**“HREDA”**) is primarily responsible for formulation and implementation of the scheme’s vis-a-vis the development of Non-Conventional Sources of Energy in the State of Haryana.

11. On 24.07.2018, **“HERC RE Regulations 2017”** were notified, providing various parameters for determination of tariff for projects commissioned/to be commissioned during the control period of the said Regulations i.e. FY 2017-18 to FY 2020-21.

12. According to the Appellant, “HPPC”, in some other matter, State Commission while determining the generic tariff for small solar power project for farmers under Kisan Urja Suraksha Evam Utthaan Mahaabhiyan (**“KUSUM scheme”**) stated that the same is for the smaller capacity i.e. upto 2 MW and the costs for large scale Megawatt projects

(such as that of Amplus, the Respondent No. 1 herein) would be lower in view of economies of scale as compared to costs considered for KUSUM scheme.

13. Subsequent to approval of State Commission, vide its order dated 14.09.2020, to source power from Amplus project and also of Draft Power Purchase Agreement, the HPPC entered into a Power Purchase Agreement dated 28.09.2020 (“PPA”) whereby HPPC had agreed to procure 50 MW power from the solar power project of Respondent No. 1, i.e Amplus.

14. On 16.10.2020, on the Petition (HERC/PRO No 59 of 2020) filed by Respondent No. 1 i.e., Amplus before the State Commission seeking determination of tariff in respect of its solar power project, HPPC raised various issues on the capital cost, the CUF, Operation and Maintenance expenses etc. Respondent No. 1, i.e., Amplus, commissioned the power project on 12.01.2021 and State Commission, vide its Order dated 18.01.2021, determined the tariff for the power project of the Respondent No. 1, i.e. Amplus and HPPC, aggrieved by the Tariff so determined, the HPPC has preferred the present appeal.

Submissions of “Amplus’, The Appellant in APL 326 of 2021

15. Learned counsel for the Amplus submitted that the Appellant is aggrieved by the Impugned Order, as it has disallowed over 35% of Amplus claim of tariff of Rs. 3.86 per kWh, and determined levelized tariff as Rs. 2.48 per kWh; this disallowance was effected on various counts like:

(a) **Capital Cost:** The Appellant has claimed a capital cost of Rs 275.40 Crore for 50 MW project which included DC capacity of 75 MW and contracted AC Capacity of 50 MW. HERC while determining the Project Specific Tariff of the Appellant has erroneously disallowed the module cost and cost of civil works to the extent of Rs 44 Crore (allowed Rs 88 Crore against claim of Rs 132 Crore) and Rs 6.81 crore (allowed 13.60 Crore against claim of 20.41 Crore) respectively relatable to 25 MW DC capacity. HERC has wrongly considered DC capacity of 50 MW whereas the installed capacity is 75 MW (DC) (corresponding to 50 MW AC capacity). Such disallowance is contrary to accepted industry practice, where generators optimise installed Alternate Current (“AC”) capacity by installing Solar panels of higher Direct Current (“DC”) without exceeding the contracted capacity. 75 MW (DC) was essential in order to maintain the requisite CUF of 25.91% approved by HERC. On one hand, the benefit of higher CUF has been passed on to the procurers but the capital cost incurred for such CUF has been disallowed. This is contrary to settled tariff determination principles.

(b) **Interest on Term Loan and Working Capital:** It was considered at 9%, disallowing Amplus' claim of 9.91%, which results in a financial impact of Rs. 56.54 Crs. over the project life of 25 years;

(c) Interest During Construction (“IDC”) amounting to Rs. 9.59 Crs. was disallowed, contrary to the actual financing required to fund the Project;

(d) O&M Expenses were significantly slashed by Rs. 149.55 Crs. over the project life of 25 years, with the escalation rate of 5.72% per annum/year on year benchmarked with BHEL Ltd.'s price quotes for NTPC's 50 MW Solar Plant in Andhra Pradesh, rather than accepting the lowest competitive price-quote claimed by Amplus;

(e) Project Management Expenses of Rs. 23.75 Crs. were disallowed without prudence check and in disregard to the Internal Auditor's Report; and

(f) denial of the carrying cost.

16. The Impugned Order fails to reflect a proper prudence check on several of the disallowances made by the HERC. In order to avoid multiplicity of proceedings and piecemeal tariff revisions, learned counsel prays for setting aside the Impugned Order and remand of both the appeals for fresh determination by the HERC within time bound manner. Learned Counsel for the Appellant 'Amplus' in Appeal No. 326 of 2021, would submit that in case the issue of excess DC capacity and connected issues are remanded to the Commission for its consideration afresh, the Appellant would not press for adjudication of the issues relating to Interest on Term Loan and Working Capital, Interest during Construction (IDC) and O&M Expenses. Learned Counsel further submitted that the issue of Project Management Expenses, which was denied by the Commission, is integrally connected with the issue of capital cost; and this Tribunal may consider directing the Commission, in case the matter was to be remanded, to consider the issue of Project Management Expenses along with the issue of capital cost.

17. It is further prayed that till the disposal of the remand petition by the HERC, to allow a revised pro-term tariff of Rs. 3.03 per kWh from the commencement of supply, which shall be subject to the final re-determination of tariff by the HERC.

Written Submissions of HPPC

18. Learned counsel for the HPPC submitted that State Commission in the impugned order has considered DC capacity of 50 MW corresponding

to contracted AC capacity of 50 MW and rightly rejected the claim of Amplus for excess DC capacity of 25 MW.

19. The proposal from Amplus to supply power, acceptance by HPPC and the State Commission order dated 14.09.2020, refers to a 50MW grid-interactive Solar project. The PPA dated 14.09.2020, specifically Clauses 2.1.6 and 2.1.9, only refer to AC capacity; Clause 4.7 of PPA permits Amplus to undertake expansion/repowering without any extra cost implication on HPPC. Similarly, the norms set out in the HERC RE Regulation, 2017, only relate to AC capacity. The Central Electricity Regulatory Commission in its Order dated 23.03.2016 had dealt with the contention of solar power developers seeking capital cost for excess DC capacity of 25 MW DC and has held that additional modules deployed by developers to optimise performance leading to generation of additional units, resulting in higher earnings of feed-in-tariff, do not warrant additional capital costs, since the increased generation covers such expenses through higher feed-in-tariff earnings.

20. Learned counsel for HPPC further submitted that the reliance placed by Amplus on the MNRE Notification dated 05.11.2019 is misplaced. The above notification is an enabling provision, allowing generators to upgrade or install new machines to enhance performance, but it does not impose liability on procurers with respect to excess DC capacity. Similarly, the reliance on this Tribunal judgment dated 16.11.2021 in Appeal No. 163 of 2020, "***Nisagra Renewable Energy Private Limited Versus Maharashtra Electricity Regulatory Commission & Anr.***", 2021 SCC OnLine APTEL 81 is misplaced, as judgement pertains to procurement under Section 63 of the Electricity Act, 2003, and dealt with change in law claims. Moreover, Amplus's claim for 150% overloading is excessive compared to the case of L R Energy Pvt.

Ltd., where DC overloading was limited to 120%. As noted in the CERC Order dated 23.03.2016, Tata Power Solar also sought overloading only to the extent of 120%. Learned counsel for the HPPC further submitted that the State Commission has approved the capital cost of Rs. 191.25 Cr, even after holding that the Amplus's capital cost is comparatively higher. This approval was granted after deducting Rs. 50.81 Cr for 25MW DC capacity, Rs. 23.75 Cr for project management expenses, and Rs. 9.59 Cr for IDC. Barring the above, the State Commission has not disallowed any other part of the capital cost, on the basis that HPPC is benefitting from higher CUF of 25.91%. However, no such claim was made by Amplus, nor was any substantiation provided by the State Commission for this conclusion. Additionally, a substantial part of the plant, machinery, and civil costs amounting to Rs. 49.43 Cr, was yet to be incurred by Amplus at the time of the passing of the Impugned Order, which has been allowed by the State Commission without any prudence check.

21. Learned counsel for HPPC submitted that Amplus has sought approval of Capital cost of Rs 275 Crore for 50 MW project (including 75 MW DC modules corresponding to 50 MW AC) meaning thereby, a cost of Rs 5.75 Crore per MW, which is very high as compare to per MW capital cost approved by other State Commissions and MNRE at the relevant time, as given hereunder:

- a. Order dated 20.12.2019 of State Commission in petition PRO-57 of 2019 for capacity less than 2 MW (PM – KUSUM scheme); Capital cost approved is Rs. 3.40 Crore per MW (inclusive of land cost).
- b. Order dated 07.06.2019 – (*suo-moto*) Petition No. 18 of 2019 passed by Uttarakhand Commission, it considered capital cost of

Rs. 3.56 Crore per MW (out of which Rs. 50 lacs have been considered as the land cost) for projects up to 1 MW.

- c. Order dated 01.08.2019 passed by Karnataka Commission; it had adopted capital cost of Rs. 3.40 Crore per MW (including land cost of Rs. 0.25Cr) projects of capacity less than 5 MW.
- d. MNRE *vide* OM dated 21.07.2020 has also notified benchmarking cost for Grid connected Rooftop Solar Photo voltaic systems ranging from 100 kW to 500 kW for the FY 2020-21 as Rs. 3.6 Crore per MW (exclusive of land cost/lease rentals).

The State Commission, despite acknowledging the Uttarakhand Commission's Order dated 07.06.2019, observed that Amplus chose a higher cost at its own wisdom; the plant was intended for third-party sale is immaterial but nonetheless, allowed a substantially higher capital cost.

22. Learned counsel for the HPPC further contended that the State Commission has erroneously considered a CUF of 25.91% without addressing the following submissions made by HPPC and has accepted the claim of Amplus:

- a. The Detailed Project Report (DPR) of M/s LR Energy Pvt. Ltd., for its 20 AC/24 DC MW solar PV generation plant located at Bhiwani, envisaged specific generation per kWh as 1646 units (based on the PVSYST report); which translates to a DC CUF of 18.80%, which in turn corresponds to an AC CUF of 28.2%, assuming a DC:AC capacity ratio of 1.50, similar to the project of Amplus.
- b. The CUF should have been calculated as 27.17%, as indicated in the PPA dated 23.07.2020 between Amplus and Sandhar Technologies Limited for the sale of 9.40 MW (DC Capacity)

generated from the same project, post the source approval Order dated 14.09.2020. In the said agreement, Amplus itself provided a generation schedule, estimating an annual generation of 14,573,100 units at the substation of the Haryana State Transmission Utility against a contracted capacity of 9.42 MW (DC). After adjusting for transmission losses at 2.5%, the generation at the interconnection point/pooling substation totals 14,947,427 units. Based on this figure, the CUF works out to 27.17% AC and 18.11% DC.

23. Learned counsel also contended that the State Commission has erroneously considered a degradation of 0.5% in the CUF, when the capital cost ought to have already included the monetized value attributed to the degradation of solar panels; the State Commission has not considered the Order dated 07.06.2019 passed by the Uttarakhand Commission concerning the review of benchmark costs for solar power plants for FY 2019-20 and onwards, wherein the net present value cost associated with the degradation of solar panels was specifically determined to be Rs. 8.84 lakhs/MW. In case the degradation cost is not included in the capital cost of Amplus, the benchmark costs to be considered should be lower.

24. The HERC RE Regulations, 2017, do not contemplate or provide for any degradation in the CUF. Amplus has not submitted any justification or documentary evidence, such as guarantees from the PV Module Suppliers, to substantiate the application of 0.5% degradation; Amplus has failed to provide necessary documentary evidence, including bills and the date of import concerning the cost of modules.

25. Learned counsel for HPPC also contended that the escalation rate of 5.72% per annum allowed without adhering to the Proviso to Regulation

6(2) of the HERC RE Regulations, 2017, which explicitly prescribes the norms as ceiling norms. By the time the Impugned Order was passed, the draft RE Regulation, 2020, had already been notified by the State Commission, proposing an O&M escalation rate of 3.84% per annum, consistent with the RE Regulations, 2020, as notified by the Central Commission.

26. Learned counsel for HPPC also submitted that the State Commission has rightly disallowed Rs. 23.75 Crore as Project Management Expenses, as same has been paid by Amplus to its group companies/related parties, i.e., M/s Amplus KN One Power Pvt. Ltd. and M/s Amplus Management Services Pvt. Ltd. No additional project management compensation can be claimed beyond the admissible tariff without valid justification, particularly when Amplus already owns and manages a portfolio of over 800 MWp of operational and under-construction solar assets across 24 states with projects at more than 400 locations. Regarding the interest on the term loan and working capital, the State Commission appropriately applied the interest rate of 9% as per Regulation 13 of the RE Regulation, 2017. Amplus cannot claim relaxation due to the alleged COVID-19 period, as Regulation 13 stipulates the lending rate (MCLR) of SBI plus a margin of up to 200 basis points i.e., 2%. In so far as the period July 2020 to 15.10.2021 is concerned Amplus has sought to contend that the interest rates were low, it is submitted that the lending rate (MCLR) (one-year tenor) of SBI till date has remained 7%. Further, as regards interest during construction (IDC), the PPA between the Appellant and HPPC was signed on 28.09.2020, and the project attained commercial operation on 12.01.2021, just three and a half months later. The extensive IDC claimed by Appellant, which was largely attributed to decisions made prior to the signing of the PPA,

cannot be considered as pass through to consumers, as it would be against the interest of consumers at large.

27. Mr. Shubham Arya, learned Counsel for HPPC also submitted that all the issues in the referred petitions, except escalation of cost, are integrally connected with the issue of Excess DC Capacity; and in case this Tribunal is inclined to remand both the Appeals to state Commission, all these issues can be examined by the Commission afresh along with the issue of Excess Capacity; including on the entitlement of the Appellants in both the Appeals to carrying cost, if any, however, the issue relating to escalation of O&M expenses necessitates adjudication in this Appeal.

Analysis and Discussion

28. Heard learned counsel on both sides mainly on the issue of Capital Cost and corresponding CUF. Main contention urged on behalf of the Amplus is that the State commission, though has disallowed cost for 25 MW DC module (over and above 50 MW DC module), has considered higher CUF of 25.91% which is achievable only if for AC of 50 MW, DC module of 75 MW are considered; it is not possible to achieve 25.91% CUF with 50 MW DC module with 50 MW AC. In the past, the State commission has allowed CUF of 17% with AC: DC module ratio of 1:1. On the other hand, the contention urged on behalf of HPPC is that in spite of acknowledging higher per MW cost of Amplus project, without prudence check of the cost, proportionate cost of 50 MW DC modules for 50 MW AC project has been allowed, and as such, the CUF considered should be higher i.e. 27.17% against the allowed CUF of 25.91%, as claimed by Amplus.

29. The Petition No. PRO 59 of 2020 was filed by Amplus before the State commission for determination of project specific tariff for supply of power from its 50 MW Solar Power Project at Bhiwani, Haryana under Section 62 of the Electricity Act read along with “HERC RE Regulations 2017”. Thus, the distinction needs to be made between tariff determination under Section 62, Benchmark cost / cost discovered by other regulatory commission vis-à-vis project specific tariff determination by HERC. On the objection submitted by various objectors and citing the cost discovered/benchmarked by other Commissions/ MNRE, the State Commission in the impugned order has stated that **“provision for competitive bidding (Section 63 of the Act) does not take away the powers of the Commission under section 62 of the Act. The commission exercises prudence check before admitting capital cost to remove padding of CAPAX, if any, including disallowing Capital cost that is not permissible under the Regulations in vogue. Further the Tariff discovered through competitive route depends upon various factors including location and size of the project. Hence at most a trend can be discerned from the various rates discovered. However, they cannot be considered as a ‘cap’ while determining project specific tariff as in present case”**; which is a settled law. Amplus has claimed a capital cost of Rs 275.4 Crore which includes 75 MW DC module Cost against contracted AC capacity of 50 MW and claimed an AC CUF of 25.91% and after adjustment of 0.5% of plant availability and 1% grid availability the final CUF of the project is claimed as AC CUF of 25.52%.

30. The State Commission, in the impugned order, has disallowed Rs 44 Crore on account of additional 25 MW DC module (claimed Rs 132 Crore for 75 MW DC module, allowed Rs 88 Crore for 50 MW DC module) and about Rs 6.81 crore associated civil work cost (claimed Rs 20.41 Crore for 75 MW DC module, allowed Rs 13.61 Crore for 50 MW DC module); besides

disallowed certain other costs like Interest during construction (Rs 9.59 Crore), Project Management Expenses (Rs 23.75 Crore), and overall approved capital cost of Rs 191.25 Crore against the claim of Amplus for capital cost of Rs 275.4 Crore. The State Commission has further observed that approved capital cost of Rs 191.25 crore for 50 MW project works out to Rs 3.85 Crore per MW which is comparatively higher comparing it with benchmark cost of Rs 3.56 Crore per MW; in our view given the benefit of higher CUF of 25.91% proposed by Amplus, the capital cost need to consider the DC modules cost corresponding to higher CUF, subject to prudence check. We, however, refrain from expressing a conclusive view on this aspect as these are matters for the commission to consider in accordance with law. In the impugned order, the Commission approved CUF of 25.91%, as proposed with annual degradation of 0.5% and worked out levelized tariff of Rs 2.48 per unit.

31. Learned counsel for Amplus submitted that disallowance by the State commission have an impact of Rs 1.38/kWh and, on annual basis, it will have an impact of approximately Rs 14.77 Crore based on actual generation of the said project and revenue loss has aggregated to an amount of Rs 51.71 Crores till 30.06.2024 and they are facing difficulty in drawing down balance term loan facilities amounting to Rs 81 crores due to inadequate cash flow to service its debt obligations.

32. As per broad guiding factors under Regulation 48 of the HERC RE Regulation 2017, Capacity Utilisation factor (CUF) has been specified as 19% as reproduced below:

*“48 **Capacity Utilisation Factor** – the capacity utilization factor for Solar project shall be 19%. Provided that the commission may*

deviate from above norm in case of project specific tariff determination.”

33. In our view, it implies that ordinarily the CUF for solar projects to be taken as 19% while determining per unit cost, as CUF percentage have direct impact on the resultant tariff, but the commission can deviate from these norms for project specific tariff supported by specific reasons. In the impugned order, the State commission disallowed proportionate cost corresponding to additional 25 MW DC module, allowing cost for 50 MW DC module for 50 MW AC contracted capacity. Learned counsel for the Amplus submitted that the HERC RE Regulations 2017 allows determination of project specific tariff based on prevalent market trend, and the State commission has ignored the accepted industry practice of DC overloading i.e. to overload DC module capacity to increase generation during non-peak hours using the same AC infrastructure, which optimize overall performance leading to lower cost of energy.

34. Reliance has been placed by the State commission as well as HPPC on the CERC Order dated 23.03.2016, wherein the CERC has decided that capital cost has to be reckoned with AC capacity and not on DC capacity, as additional modules are deployed by some developers to optimize the performance of the plant, especially the inverters and additional units of electricity are generated with the extra module capacity, resulting in higher earnings from feed-in-tariff; the remuneration due to additional units generated sufficiently covers additional costs in such a case. In our view, CERC order applies to feed in Tariff and thus justifies disallowance of additional cost of DC module to generate extra energy as extra cost incurred can be compensated with sale of additional energy so generated at the feed in tariff. It is also a known fact that for working out

Feed in tariff, a normative CUF with some factor of DC: AC modules is considered as per prevailing market trend, and in case, some developer deploys additional DC module to further optimise its performance and increases its CUF, then it is able to sell extra energy at the Feed in tariff so worked out at lower CUF, which may compensate extra cost incurred by the developer. However, in the present case, on one hand, extra cost on account of additional DC module has been disallowed but on the other hand CUF of 25.91% as proposed by Amplus, which, as claimed by them is possible with 75 DC module capacity for 50 MW AC capacity, has been considered for working out per unit cost, which, in our opinion, is not rational. The guidelines in the HERC RE Regulations also consider a CUF of 19% and as informed by Amplus, in some other case, CUF of 17% has been approved by State Commission. In the present case, the entire energy at the tariff so determined by using CUF of 25.91%, is being sold to HPPC, and there is no scope/provision for Amplus to earn extra revenue by sale of extra energy so generated by having higher CUF, to compensate for the extra cost deployed in DC module. In fact, in the impugned order, the benefit of higher CUF so achievable by overloading of DC used in determination of Tariff, with cost of additional DC modules being disallowed, also needs reconsideration.

35. On a query by this Tribunal, learned counsel for Amplus has submitted that considering AC: DC module ratio as 1:1 for their project, the CUF shall be only 17.3% and resultant levelized tariff would be Rs 3.71 per Kwh on the approved capital cost of Rs 191.25 Crore and other parameters as per Impugned order; and CUF of 19 % is achievable only with AC:DC ratio of 1:1.11, requiring about Rs 11.95 Crores of additional cost, then the resultant levelized tariff works out to Rs 3.55/Kwh with capital cost of Rs 203.20 Crore (Rs 191.25 + Rs 11.95 Crore) and other parameters same as that of the impugned order.

36. Learned counsel for HPPC has also claimed that prudence check on the CUF and other costs submitted by Amplus has not been carried out by the State commission, which resulted in allowing higher cost and lower CUF to Amplus.

37. In our view, the ratio of AC: DC module, associated capital cost and resultant CUF are interlinked and the State Commission has erred by disallowing the Capital Cost on higher DC module but at the same time considered the higher CUF, which can possibly be achieved with higher DC: AC ratio; and, had also not carried out prudence check of the capital cost and associated CUF while determining tariff under section 62, therefore it needs reconsideration.

38. Considering the fact that the Appellant Amplus has sought a levelized tariff of Rs 3.86/Kwh and levelized tariff in the range of Rs 3.71/Kwh is worked out with CUF of 17.3% so claimed to be achievable with 1:1 AC: DC modules and approved cost, and Amplus has now sought a levelized tariff of only Rs 3.03/Kwh in the interregnum, till the matter is decided by State Commission, we are inclined to accept their request as an interim arrangement.

39. However, as submitted by learned counsels for Amplus and HPPC, all the issues raised in the Petitions are interlinked to Capital cost except escalation factor allowed in O&M. Regarding contention of Learned counsel of HPPC regarding higher escalation factor of 5.72% allowed in O&M in the impugned order, we are not inclined to interfere with the same since it is as per prevailing Regulation, as also admitted by the learned counsel of HPPC.

40. In view of the above deliberations, we set aside the Impugned order to the limited extent and remand the matter in both the appeals (APL 326

of 2021 & APL 149 of 202) to State commission for redetermination of tariff after prudence check of Capital cost including related issues raised and considering the feasible CUF corresponding to the capital cost of AC: DC module allowed. We make it clear that the issues with regard to Interest on term loan and working capital, Interest During Construction and O& M expenses shall not be open for reconsideration as admitted by learned counsel of Amplus. In the interregnum, Amplus is allowed a tariff of Rs 3.03/Kwh from the date of their order till the matter is finally decided by the State Commission upon remand, which needs to be decided expeditiously by State Commission. Both the appeals and associated IAs are disposed of in view of the above-mentioned terms.

Pronounced in open court on this 25th Day of October, 2024

(Seema Gupta)
Technical Member (Electricity)

(Justice Ramesh Ranganathan)
Chairperson

Reportable / ~~Non-Reportable~~

ts/ag/dk