

**BEFORE THE HIMACHAL PRADESH ELECTRICITY REGULATORY
COMMISSION SHIMLA**

Petition No: 17 of 2023
Instituted on: 12.12.2022
Heard on: 22.03.2023
Decided on: 20.05.2023

CORAM

DEVENDRA KUMAR SHARMA
CHAIRMAN

YASHWANT SINGH CHOGAL
MEMBER (Law)

SHASHI KANT JOSHI
MEMBER

In the matter of :

The HP State Electricity Board Limited,
Vidyut Bhawan, Shimla-171004.

Petitioner

Versus

1. The Managing Director, HPPTCL, HP.
2. The Managing Director, HPPCL, HP.
3. The Chief Executive Officer, HIMURJA, SDA Complex,
Kasumpti, Shimla-171009.
4. The President/Secretary, BBNIA, EPIP-Jharmajri Road,
Phase-I Baddi, Distt. Solan, HP-174103.
5. The President/Secretary, Confederation of Indian
Industry (CII), HP Council, Sector 31-A,
Chandigarh-160047.
6. The President, Chamber of Commerce and Industry
Paonta Sahib, New Shimla, Himachal Pradesh.
7. Parwanoo Industries Association, HPCED Building,
Deptt. of Industries Association, Sector-01, Parwanoo,
Distt. Solan, HP.

8. The President/Secretary, Kala-Amb Chamber of Commerce and Industries (KACCI), Trilokpur Road Kala-Amb, Distt. Sirmour, H. P.
9. Sh. Kameshwar Singh Dhaulta,(Consumer Representative), R/o NH A-62, Phase-1, Sector 2, Main Road, New Shimla-171009.
- 10 The President/Secretary, Nalagarh Industrial, Association, Distt. Solan, HP-174101.

Respondents

Petition for the approval of the 250 MW Solar Power procurement through Tariff Based Competitive Bidding Process from Grid Connected Solar PV power projects located within Himachal Pradesh under the provisions of Section 86 (1) (b) & Section 63 of the Electricity Act, 2003, read with the Himachal Pradesh Electricity Regulatory Commission (Conduct of Business) Regulations, 2005.

Present:

- For the Petitioner: Ms. Vandana Thakur, Ld. Counsel.
For the Respondent No. 1: Sh. Vijay Thakur, GM (Project).
For the Respondent No. 2: Sh. Rohit Sharda, General Manager (Gen.).
For the Respondent No. 3: Ms. Kamlesh Shandil, Ld. Counsel.
For the Respondent No. 4: Sh. Shanti Swaroop, Ld. Legal Consultant.
None for other Respondents.

ORDER

This Petition has been filed by the Petitioner for the approval of the procurement of 250 MW Solar Power procurement through Tariff Based Competitive Bidding process from Grid Connected Solar PV power projects located within Himachal Pradesh under the provisions of Section 86 (1) (b) & Section 63 of the Electricity Act, 2003, read with the Himachal

Pradesh Electricity Regulatory Commission (Conduct of Business) Regulations, 2005.

2. As per the Petitioner, Himachal Pradesh State Electricity Board Limited (HPSEBL for short) has long term power purchase agreement from various sources i.e. Hydro Generations (88%), thermal/gas generation (9%), solar generation (2%) and nuclear generation (1%). The generation during Summer/Monsoon months from Hydro Projects is 100% to 110% whereas the same dips to 20% during Winters and, thus, HPSEBL is power surplus during Summer/Monsoon months which add to pooled power purchase but in order to meet the winter power deficits and to tackle the power market prices volatility across the country, the HPSEBL has been undertaking the energy banking arrangements with other utilities for the summer energy surpluses and receiving back the banked energy with premium from other utilities during winter months.

3. As per the Petitioner, the Petitioner had filed a Petition bearing No. 2/2022 on 30.11.2021 for determination of Annual Revenue Requirement for FY 2022-2023 in which total availability of power at Discom periphery was stated to be 112390.71 MUs and anticipated demand of the State at Discom periphery was stated to be 10837.89 MUs and net surplus at the Discom periphery was shown to be 401.82 MUs whereas surpluses at STU periphery were projected to be 404.48 MUs. Further that any

surpluses in power availability over & above firm banking energy arrangements are sold outside the State through power exchange.

4. Further averred that during the period of March 2022 on real time system operations analysis of the power demand within the State and based on day to day power scenario assessment, 6-8 % rise in the power demand was noticed within the State vis-à-vis power availability from various sources from the month of Dec. 2021 onwards and anticipated power supply position for FY 2022-2023 was discussed in the Management of HPSEBL and it was felt that if the present trends of power demand within State persist for the ensuing year, the anticipated power supply position of FY2022-23 require modification qua disposal of summer surpluses and arrangements for winter shortages and accordingly, Anticipated Power Supply Position (APSP) had been prepared, the abstract whereof is as under:

Description	Summer Monsoon	/ Winter	Total
Total Availability	7852	3415	11267
Requirement	6050	5953	12003
Gross Surplus (+) /Deficit (-) (approx.)	1800	-2537	-737

5. It is also mentioned that in order to meet the anticipated winter months power shortages of 737MUs of FY2022-23, the HPSEBL has studied the power market trends in India based on the Day Ahead Market (DAM) rates in Indian Energy Exchange (IEX for short) and it was

observed that the average rates per kWh for the period September 2021 to March 2022 were as under:

	Sep. 2021	Oct. 2021	Nov. 2021	Dec. 2021	Jan. 2022	Feb. 2022	Mar. 2022
Average rate at IEX Rs./kWh	4.40	8.01	3.08	3.54	3.39	4.44	7.27
Average Rate at HP periphery Rs. /kWh)	4.63	8.37	3.28	3.77	3.62	4.70	7.59

Based on the above trends, it was anticipated that the rates in IEX - Day Ahead Market will be high in the winter months (November to March) of FY2022-23.

6. Further averred that the HPSEBL also explored the procurement of power from the market and had floated tenders for the procurement of power to the tune of 927.24 MU RTC normal power through DEEP e-bidding portal to mitigate power deficits for the period April 2022, and November 2022 to March 2023. Tenders for procurement of normal power were sent to PFC Consulting Ltd. on 18.01.2022 to upload on DEEP e-bidding portal. The following four traders have participated in the aforementioned tendering process:

- a. M/s TPTCL,
- b. M/s PTC India Ltd.
- c. M/s NVVN,
- d. M/s GMR ETL.

After conducting e-Reverse Auction (e-RA) on DEEP e-bidding portal, the rates in the range of Rs. 4.09 to 4.94 and the average rate at Seller State Periphery of Rs. 4.50 per kWh against 900 MUs were discovered & power to be supplied was from thermal sources. In addition, Interstate Grid Losses in the range of 3.5 to 4% as applicable were to be loaded & STU charges for the Buyer (HP) State Periphery were also payable. Therefore, it was decided not to go for the purchase of RTC normal power for which HPSEBL had received bids of average rate Rs. 4.50 per kWh at Seller State Periphery. Further mentioned that the power purchase from the market through DEEP e-bidding portal of States such as Haryana (HPPC), Punjab (PSPCL), Delhi (BSES) were also studied. The following market discovered rates were noticed for the said States:

S. No.	Utility	Through Bid Discovered price (Rs./kWh)
1	Haryana	4.81 to 7.50
2	Punjab	4.92 to 6.25
3	Delhi	5.98 to 14.99

7. As per the Petitioner, in order to mitigate the overall power shortage of 737 MUs in FY2022-23, the HPSEBL has tied up for the additional power procurement from HPPCL projects i.e. Kashang HEP & Sawra Kuddu HEP. The matter of additional power procurement from HPPCL projects on short term basis during FY2022-23 was brought before the Commission through Joint Petition No. 20/2022 and the

Commission has approved the bilateral PPA vide Order dated 19.04.2022, between HPPCL & HPSEBL.

8. Also averred that the HPSEBL had exercised the option by open tendering process for sale of 150 MUs Renewable Energy (RE for short) (night power) outside the State and the rates received were in the range of Rs 3.70 to Rs. 4.56 per kWh. However, these rates were lower in comparison to the short term power purchase rates from the market and the average price available in the IEX G-DAM. Therefore it was not prudent to go in for the short term sale of power outside the State under RE tag. However, in the day to day system operations, the HPSEBL was to explore the possibility of selling RE power in IEX G-DAM but due to rise in demand within the State during the months of May 2022 to September 2022, the HPSEBL has not sold power under RE tag.

9. As per the Petitioner, the HPSEBL had made arrangement for FY2022-23 to meet the winter deficits by way of disposal of Summer surpluses under firm banking energy arrangement which is to the tune of 2232.43 MUs and return of banked energy with premium is to the tune of 2580.08 MUs (with premium of 347.65 MUs) with the provision in the bilateral banking agreements to alter the schedule of banking energy upto 10% with mutual consent. During the real time system operation, the energy requirement within the State was observed to be on the rise in the months of May 2022 to September 2022, hence, the HPSEBL in

pursuance of the bilateral banking agreements, altered the schedule of outside banking energy upto 10%, which has resulted less energy banking outside the State to the tune of 107.21 MUs (2232.43-2125.22) & less return to the tune of 122.53 MUs as per the following details:

Month	Bilateral Energy Banking Arrangement Outside the State by HPSEBL on Firm basis	Month	Return of Banked Energy to HPSEBL on Firm basis
Apr. 2022	0	April 2022	0
May 2022	140.50	May 2022	0
June 2022	473.90	June 2022	0
July 2022	597.80	July 2022	0
Aug 2022	612.82	Aug 2022	0
Sept 2022	354.53	Sept 2022	0
Oct 2022	52.88	Oct 2022	155.06
Nov 2022	0	Nov 2022	365.36
Dec. 2022	0	Dec. 2022	531.83
Jan. 2023	0	Jan. 2023	629.61
Feb. 2023	0	Feb. 2023	508.01
Mar.2023	0	Mar.2023	390.21
Total	2232.43	Total	2580.08

Month	Actual Energy Banking Outside the State by HPSEBL on Firm basis		Return Schedule of Banked Energy to HPSEBL on Firm basis
Apr. 2022	0	April 2022	0
May 2022	140.50	May 2022	0
June 2022	432.83	June 2022	0
July 2022	542.30	July 2022	0

Aug 2022	603.73	Aug 2022	0
Sept 2022	353.46	Sept 2022	0
Oct 2022	52.4	Oct 2022	148.56
Nov 2022	0	Nov 2022	351.05
Dec. 2022	0	Dec. 2022	505.51
Jan. 2023	0	Jan. 2023	599.95
Feb. 2023	0	Feb. 2023	483.31
Mar.2023	0	Mar.2023	369.16
Total	2125.22	Total	2457.55

10. It is averred that in the ARR Order dated 29.03.2022, the power availability from new commissioning projects from RAPS Unit 7 (NPCIL) with energy availability of 71.24 MUs was projected and considered from July 2022 for FY2022-23, however, this project has not been commissioned till date. Similarly, the Waste to Energy Projects & IPP owned Intra Solar projects have also not been commissioned during this year as anticipated.

11. It is averred that in order to make Himachal Pradesh a Green Energy State, as envisaged in HP's Energy Policy 2021, the HPSEBL need to replace the existing thermal/gas share of energy with RE. Accordingly, the HPSEBL has surrendered the costly share in Central Generating Stations (CGS for short) i.e. NTPC Gas/Thermal Stations (Anta GPS, Auraiya GPS, Dadri GPS & Unchahar I TPS totaling 69 MW) in the beginning of FY2022-23 and against surrendered share in CGS, the HPSEBL has considered total energy availability of 120 MUs for FY2022-

23 in the Tariff Order dated 29.03.2022. Therefore, the HPSEBL is also required to manage this deficit on account of surrendered Gas/Thermal power share from other sources in the current tariff year & ensuing period.

12. Further averred that the HPSEBL has long term PPAs for solar power procurement i.e.15 MW Singrauli Solar PV Power from NTPC & 20 MW Solar PV Power from M/s Solar Energy Corporation of India (SECI). In addition, the HPSEBL is purchasing solar power from Intra State Solar Power Producers to the tune of 38.10 MW(as on November 2022) and has signed solar PPAs for 7.50 MW with Intra State Solar Power Producers which are going to be operational ending March 2023. The Rooftop solar power generation within the State is 13.6 MW. Thus, the total solar power availability with HPSEBL is going to be around 94.20 MW only ending March 2023.

13. As per the Petitioner, the HPSEBL has planned for procurement of 250 MW Solar Power through Tariff Based Competitive Bidding Process from Grid Connected Solar Photovoltaic (PV) Power projects located within Himachal Pradesh with the prior approval of the Commission. This procurement of 250 MW solar power by the HPSEBL (438 MUs per annum at 20% Capacity Utilization Factor) would help towards achieving the status of Green Energy State in line with the principal objective of HP Energy Policy 2021 and will encourage Solar Power Generation as RE Generation within the State. This will also add to the day power availability

of the State and will be a step towards exploring possibility by the HPSEBL of replacing/reducing the long-term thermal power procurement with the solar power procurement as envisaged in the guidelines issued by the Ministry of Power, Govt. of India. Further, this solar power availability during winter months will help the HPSEBL to manage power deficits during day time especially off-peak hours.

14. Notice of the Petition was issued to the Stakeholders but no Stakeholders appeared before the Commission. However, the Himachal Pradesh Power Corporation Ltd. has filed a short reply that it has also been entrusted with execution of 200 MW Solar Power Projects at various locations of H.P. to achieve Govt. of H.P. objective of adding at least 500 MW capacity of Solar Power by 2023-2024 in order to convert the State as the first Green Energy State by 2025. Further the HPPCL has requested the HPSEBL vide letter dated 04.03.2023 and 17.03.2023 'Annexure A' for procurement of Solar Power from said Projects.

15. The BBN Industries Association (Regd.) have also submitted their response to the Petition by way of letter No. BBNIA/HPERC/2023 dated 27.03.2023 that procurement of solar power should be through tariff based competitive bidding process so as to promote competition. Further, it should not be restricted to the power projects located within Himachal Pradesh only and rather, it should be on pan India basis. BBN has suggested that only those Solar Power Plants be tied up whose CUF per

annum is greater than or equal to 20%. Also, it has been proposed by BBN that the bidding of solar power purchase should be at a cost less than or equal to the average power purchase cost of the Licensee.

16. We have heard Ms. Vandana Thakur, Ld. Counsel and Sh. Anil Gautam and Sh. Mandeep Singh, Chief Engineers System Operation and Commercial respectively for the Petitioner, Sh. Vijay Thakur, GM (Project) for the Respondent No. 1, Sh. Rohit Sharda, General Manager (Gen.) for the Respondent No. 2, Ms. Kamlesh Shandil, Ld. Counsel for the Respondent No. 3, Sh. Shanti Swaroop, Ld. Legal Consultant for the Respondent No. 4 and have perused the entire file with minute care.

17. At the very outset, the Commission has analysed the power supply and demand situation within the State as submitted by the Petitioner and agrees to the view point of the Petitioner that there shall be demand supply mismatch/gap in the State in coming years and with the continuous growth in power demand, this gap is going to increase. Therefore, the HPSEBL needs to tie up for its power requirement on long term basis.

18. The comments of BBN Industries regarding procurement of solar power through competitive bidding process are also in support of the proposal of the HPSEBL so as to promote competition except that it should not be restricted to the power Projects located within the State of H.P.

19. Section 63 of the Electricity Act, 2003 provides for the determination of tariff by bidding process which is reproduced here as under:

*“Section 63. (Determination of tariff by bidding process):
Notwithstanding anything contained in section 62, the
Appropriate Commission shall adopt the tariff if such tariff has
been determined through transparent process of bidding in
accordance with the guidelines issued by the Central
Government.”*

20. Significantly, the Ministry of Power, Government of India has also notified the guidelines regarding Solar PV Power Projects having size of 5 MW and above through tariff based competitive bidding to be conducted by procurers which includes Distribution Licensees, or the Authorized Representative(s), or Intermediary procurers vide Resolution No. 23/27/2017-R&R on 3.8.2017, which have been subsequently amended by the Resolutions dated 14.6.2018, 3.1.2019, 9.7.2019, 22.10.2019 and 25.9.2020.

21. A careful perusal of the Petition shows that the HPSEBL is sourcing around 88% of power from Hydro based sources. Certainly, the HPSEBL needs to diversify its power portfolio as relying upon a single source of energy may be risky proposition in meeting the electricity demand of its Consumers. The Petition also shows that too much

dependency upon thermal based sources will not only be detrimental to the environment but is also against the Energy Policy of 2021 of the State of HP which envisages that the existing thermal/ gas share of energy needs to be replaced with renewable energy and to convert the State of HP to the Green Energy State by 2025. Not only this, the promotion of Solar Power shall be necessary to fulfil the RPP obligations, mitigating green house effects and carbon neutrality and shall also be useful in reducing the distribution losses. However, the Commission is of the view that the installation of Solar Power Generating Stations in HP should also be cost effective vis-à-vis the cost of the solar power generated elsewhere in the country. In this regard, the Commission has also analysed the tariff of solar power announced by the Solar Energy Corporation of India (SECI) in their bidding auctions which shows that the tariff for the last 2-3 years has been in the range of rupees 2.0 per unit to rupees 2.37 per unit. However, the State of H.P. has peculiar geographical, topographical and climatic conditions and, thus, the tariff should not be more than 15% over and above the aforesaid latest SECI discovered rate, on the date of opening of the financial bid, so as to compensate the HPSEBL.

22. With regard to the stand of the HPPCL regarding procurement of their Solar Power by the HPSEBL, we are of the opinion that the same can be procured by HPSEBL by the rate discovered through above competitive bidding process as mentioned above for the Solar Power

Projects having capacity more than 5 MW. For the solar projects 5 MW and below, the Commission has already announced the generic levelled tariff. Therefore, the HPPCL can enter into PPA with the HPSEBL accordingly.

23. It is thus, apparent from the aforesaid that the promotion of Solar Power is one of the best alternatives for the State in order to meet the rising power demand, reduce the dependency on the fossil fuel and for converting the State into a Green Energy State by 2025 as per the Energy Policy, 2021. Therefore, there is need to promote this renewable source of energy as mandated under Section 86(I)(e) of the Electricity Act, 2003. Thus, having analysed the Power supply and demand situation within the State and keeping overall power scenario of the State and Power available with the Discom, the Commission is of the opinion that there is a definite need to procure the proposed solar energy.

24. In view of the above discussions, the Petition succeeds and allowed. Permission is accorded to the Petitioner for procurement of 250 MW Solar Power through Tariff Based Competitive Bidding process from Grid Connected Solar PV power projects located within the State of Himachal Pradesh under Section 63 of the Electricity Act, 2003. However, the installation of Solar Power Generating Stations in HP should be cost effective vis-à-vis the cost of the solar power generated elsewhere in the country and the Petitioner shall have to specify in the bidding document

that the tariff quoted by the bidders for grid-connected solar PV power plants shall not be more than the latest tariff of SECI plus 15% over and above said tariff keeping in view the peculiar geographical, topographical and climatic conditions of the State. Further in terms of the provisions of the Section 63 of the Act, the Commission shall have to examine whether the process of procurement of Solar Energy is as per the Guidelines of the GoI and Section 63 of the Electricity Act, 2003 so as to arrive the lowest tariff and for selection of the successful bidder and the Petitioner shall have to take the approval of the Commission under Section 63 of the Electricity Act, 2003 before according Letter of Award to the prospective successful bidders.

Accordingly, the present petition stands disposed off. The file after the needful be consigned to records.

Announced
20.05.2023

-Sd- (Shashi Kant Joshi) Member **-Sd- (Yashwant Singh Chogal) Member (Law)** **-Sd- (Devendra Kumar Sharma) Chairman**