



THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION

LUCKNOW

Petition No. 2091 of 2024

QUORUM

Hon'ble Shri Arvind Kumar, Chairman

Hon'ble Shri Sanjay Kumar Singh, Member

IN THE MATTER OF

Petition under Section 63 read with Section 86(1)(b) of the Electricity Act, 2003 for approval of procurement of 500MW of Solar power in terms of the Power Sale Agreement (PSA) dated 28.12.2023 and Supplementary PSA dated 07.03.2024 on long-term basis procured by UPPCL from SECI through tariff based competitive bidding process held under the Solar Inter State Transmission System Tranche-XI Scheme.

AND

IN THE MATTER OF

Uttar Pradesh Power Corporation Ltd. (UPPCL),

Shakti Bhawan, 14-Ashok Marg, Lucknow-226001.

..... Petitioner

Versus

Solar Energy Corporation of India Ltd. (SECI),

6th Floor, Plate-B, NBCC Office Block Tower-2,

East Kidwai Nagar, New Delhi-110023

.....Respondent

FOLLOWING WERE PRESENT

1. Sh. Divyanshu Bhatt, Advocate, UPPCL
2. Sh. Savyasachi Saumitra, Advocate, UPPCL
3. Sh. Shashwat Singh, Advocate, UPPCL
4. Sh. Deepak Raizada, C.E, UPPCL
5. Ms. Aakanksha Bhola, Advocate, SECI

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ORDER

(DATE OF HEARING: 19.09.2024)

1. The Petitioner, UPPCL has filed this Petition seeking approval for procurement of 500MW Solar-PV based power under the PSA dated 28.12.2023 and SPSA dated 07.03.2024 executed between UPPCL and SECI. The prayers of the Petitioner are as follows:
 - (a) Approve the procurement of 500 MW of Solar Power on long term basis procured by UPPCL from SECI through tariff based competitive bidding process held under the Inter State Transmission System Tranche-XI Scheme
 - (b) Approve the Power Sale Agreement executed on 28.12.2023 and Supplementary Power Sale Agreement dated 07.03.2024.
 - (c) Pass any further Order(s) as this Commission may deem fit in the facts and circumstances of the case.

Brief facts as stated in the Petition.

2. Ministry of Power, Govt. of India vide Resolution dated 03.08.2017 had issued "Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV Power Projects" ("Guidelines") under Section 63 of the Act. SECI, in compliance with the aforementioned Guidelines dated 03.08.2017, had floated a Request for Selection (RfS) document dated 31.03.2023 for the selection of Solar Power Developers (SPDs) on Build Own Operate (BOO) basis for setting up of 2000 MW ISTS-connected Solar PV Power Projects in India.
3. The procurement of Solar Power from SPDs in the instant case is also an endeavour of UPPCL to fulfil its Renewable Purchase Obligation (RPO) for promoting green energy and optimising the cost of power purchase. UPPCL has given following justification for the proposed procurement of power based on the Central Electricity Authority's (CEA) report on 'Resource Adequacy Planning':
 - a) CEA has proposed the following category of capacity required up to FY 2033-34 for the State of Uttar Pradesh:

FY	Thermal (MW)	Hydro (MW)	Wind (MW)	Solar (MW)	Distributed RE (MW)	Total (MW)
2026-27	5027	250	800	8000	-	14077
2027-28	2131	250	800	8000	-	11181
2028-29	-	250	800	8000	-	9050
2029-30	-	250	1800	3624	710	6384
2030-31	-	-	800	5444	1617	7861

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2031-32	458	-	800	4895	1801	7954
2032-33	1186	-	800	4104	1808	7898
2033-34	3199	-	800	2484	1896	8379
Total	12001	1000	7400	44551	7832	72784

b) The forecasted demand and availability up to FY 2034 have been reproduced below:

Apr-Mar (Average)			
Year	Avg. Supply (MW)	Avg. Demand (MW)	Surplus/Deficit (MW)
2024-25	21596	19421	2175
2025-26	24408	20781	3627
2026-27	24592	22236	2356
2027-28	24592	23792	800
2028-29	24592	25458	-866
2029-30	25219	27240	-2021
2030-31	29126	29147	-21
2031-32	29126	31187	-2061
2032-33	29126	33370	-4244
2033-24	29126	35706	-6580

4. The CERC vide its Order dated 13.05.2024 in Petition No. 99/AT/2024 filed by SECI, has adopted the tariff. Power Sale Agreement (PSA) dated 28.12.2023 was executed between UPPCL and SECI. In terms of Article 1.1 of the said PSA, SECI shall be entitled to receive the tariff as indicated in the PPA along with a trading margin of Rs 0.07/kWh fixed for the entire term of the PSA. Thereafter, UPPCL and SECI had again entered a Supplementary PSA dated 07.03.2024 (SPSA) wherein certain clauses (i.e., Article 2.11.3 & Schedule-B) of the PSA stood amended. Schedule-B of the SPSA dated 07.03.2024 has been reproduced as under:

S. No.	SPD	Project Capacity mapped with UPPCL (MW)	Energy (MUs)				Rate (Rs./kWh)
			Declared	Min (-10)	Max (+10)	Min (-15)	
1.	Jackson Limited	100	262.98	223.53	289.28	210.38	2.60
2.	Shiva Corporation India Ltd.	100	262.98	223.53	289.28	210.38	2.60
3.	ReNew Solar Power Pvt. Ltd.	300	723.2	614.72	795.51	578.56	2.60
Total (MUs)			1249.16	1061.78	1374.07	999.32	

5. The MOP vide notification dated 20.10.2023 had mandated the power distribution companies to prepare a Renewable Purchase Obligation (RPO) roadmap and it was further stated that the RPO on discoms for FY 2024-25 shall be 29.91%. Prior to the issuance of the aforementioned notification by the MOP, UPPCL was complying with the

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UPERC (Promotion of Green Energy Through Renewable Purchase Obligation) Regulations, 2019 to fulfil its RPO and accordingly, the RPO for FY 2023-24 was 15%. However, it is evident that vide the MoP notification dated 20.10.2023, RPO of the UPPCL has doubled from 15% to 29.91% and therefore, UPPCL has no option but to substantially increase the purchase of renewable power.

6. In accordance with section 12(3) of the Energy Conservation (Amendment) Act, 2022, for non-compliance of the renewable energy consumption norms a penalty up to Rs. 10 Lakh shall be levied on the Discoms for each failure. The MNRE, vide notification 01.02.2024, has further notified that additional penalty to the tune Rs. 3.72 per unit for each unit of shortfall in meeting RE consumption norms, shall also be levied on the discoms.
7. The RPO projection analysis by UPPCL reveals a significant shortfall in the Wind and other RPO categories spanning from FY 2024-25 to FY 2033-34. Recognising 100% fungibility permitted among Wind, Hydro and other RPO categories, a strategic roadmap has been proposed below to address this deficit:

Capacity (MW) to be contracted in respective year to meet RPO (with fungibility)										
Category/ (FY)	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	Total
Solar	3000	2000	2000	1000	500	-	-	-	-	8500
Wind	-	2000	2000	1500	1000	-	-	-	-	6500
Hydro	-	4000	1000	1000	500	-	-	-	-	6500
Cumulative	3000	8000	5000	3500	2000	-	-	-	-	21500*

**Out of 21500MW as proposed, UPPCL has already contracted 3000MW RE power in FY 2023-24 and remaining 18500MW is to be contracted in upcoming years.*

8. MOP has also provided a segregated target for the different sources of power generation to meet the aforementioned obligation which are as follows:
 - a) Wind and Hydro RPO shall be met from the Wind and Hydro Power Projects (including pump storage and small hydro projects) respectively commissioned after 31.03.2024.
 - b) Distributed RE: Distributed RE RPO shall be met only from energy generated from RE projects that are less than 10MW in size.
 - c) Other RPO: Other RPO can be met by energy produced from any RE projects other than Wind, Hydro, and Distributed RPO, commissioned before 01.04.2024.

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9. Considering the trajectories notified by the MoP vide notification dated 20.10.2023, UPPCL current RPO achievement has been depicted in a tabular representation below:

	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34
Energy to be considered for RPO (MUs)	146121	156350	167294	179005	191535	204943	219289	234639	251064	268638
Wind RPO (Wind Commissioned after 31.03.2024)										
MoP RPO Target (%)	0.67%	1.45%	1.97%	2.45%	2.95%	3.48%	3.98%	4.48%	4.49%	5.48%
MoP RPO Target (MUs)	979	2267	3296	4386	5650	7132	8728	10512	12503	14721
Energy Purchased/Projections (MUs)	172	3066	9231	14487	18429	21057	21057	21057	21057	21057
Energy Purchased/Projections (%)	0.12%	1.96%	5.52%	8.09%	9.62%	10.27%	9.60%	8.97%	8.39%	7.84%
Excess/Shortfall (MUs)	-807	799	5935	10101	12779	13925	12329	10545	8554	6335
Cumulative Excess/Shortfall (MUs)	-807	-9	5926	16028	28806	42731	55060	65605	74159	80495
Other RPO (Including Solar, large Hydro, Small Hydro, Wind Commissioned before 01.04.2024 and Other RE)										
MoP RPO Target (%)	27.35%	28.24%	29.94%	31.64%	33.10%	34.02%	35.52%	37.02%	38.52%	40.02%
MoP RPO Target (MUs)	39964	44153	50088	56637	63398	69721	77891	86863	96710	107509
Energy Purchased/Projections (MUs)	29534	33554	37408	41263	43190	44153	44153	44153	44153	44153
Energy Purchased/Projections (%)	20.21%	21.46%	22.36%	23.05%	22.55%	21.54%	20.13%	18.82%	17.59%	16.44%
Excess/Shortfall (MUs)	-10430	-10599	-12680	-15375	-20208	-25568	-33738	-42710	-52556	-63356
Cumulative Excess/Shortfall (MUs)	-10430	-21030	-33710	-49084	-69293	-94861	-128599	-171309	-223865	-287221
Hydro RPO (Large Hydro Commissioned after 31.03.2024)										
MoP RPO Target (%)	0.38%	1.22%	1.34%	1.42%	1.42%	1.33%	1.53%	1.73%	1.93%	2.13%
MoP RPO Target (MUs)	555	1907	2242	2542	2720	2726	3355	4059	4846	5722
Energy Purchased/Projections (MUs)	1344	3452	21190	25570	29950	32140	32140	32140	32140	32140
Energy Purchased / Projections (%)	0.92%	2.21%	12.67%	14.28%	15.64%	15.68%	14.66%	13.70%	12.80%	11.96%
Excess/Shortfall (MUs)	789	1545	18949	23029	27231	29415	28785	28081	27295	26418
Cumulative Excess/Shortfall (MUs)	789	2333	21282	44310	71541	100956	129741	157822	185117	211536
Distributed Renewable Energy										
MoP RPO Target (%)	1.50%	1.10%	1.70%	3.30%	3.90%	4.50%	5.00%	5.50%	6.00%	6.50%
MoP RPO Target (MUs)	2191.82	1719.85	2844	5907.16	7469.87	9222.42	10964.43	12905.14	15063.81	17461.47
Energy Purchased/Projections (MUs)	4355.14	7438.66	10522.18	13605.70	16689.22	16689.22	16689.22	16689.22	16689.22	16689.22
Energy Purchased/Projections (%)	2.98%	4.76%	6.29%	7.60%	8.71%	8.14%	7.61%	7.11%	6.65%	6.21%
Excess/Shortfall (MUs)	2163	5719	7678	7699	9219	7467	5725	3784	1625	-772
Cumulative Excess/Shortfall (MUs)	2163	7882	15560	23259	32478	39945	45670	49454	51079	50307
Cumulative (Excluding Distributed RE Energy)										
MoP RPO Target (MUs)	41498	48328	55625	63565	71768	79579	89974	101434	114058	127952
Energy Purchased/Projections (MUs)	31049	40071	67829	81320	91569	97351	97351	97351	97351	97351
Excess/ Shortfall (MUs)	-10449	-8256	12204	17755	19801	17771	7376	-4084	-16708	-30602
Cumulative Excess/Shortfall (MUs)	-10449	-18705	-6501	11254	31055	48826	56202	52119	35411	4810

Records of Proceedings:

10. During the hearing dated 04.07.2024, in response to the Commission's query regarding SPSA dated 07.03.2024 and the trading margin, Sh. Raizada responded that one of the

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selected developers did not sign the PPA with the SECI and therefore, SECI, in accordance with the provisions of bidding documents, enhanced the quantum of power of Renew Solar Power from 200MW to 300MW at adopted tariff and accordingly SPSA dated 17.03.2024 was signed. Further, Sh. Raizada submitted that they would furnish the copy of the PPAs, SPPA and the justification for the agreed trading margin of Rs. 0.07/kWh under the PSA. The Commission admitted the Petition and allowed the Respondent to file its reply within two weeks' time with a copy to the Petitioner for filing rejoinder, if required. On 06.08.2024, SECI filed its reply. On 03.09.2024, UPPCL filed its additional submission. The hearing dated 05.09.2024 was adjourned on the request of SECI.

11. On the hearing dated 19.09.2024, Ms. Aakanksha Bhola, Advocate of SECI submitted that reducing trading margin below 7 paise was commercially not viable for SECI due to its increased costs. On specific query of the Commission about the increased cost, Ms. Bhola responded that administrative cost, manpower cost, legal expenses, financing cost etc. had increased on the part of SECI. Sh. Divyanshu Bhatt, Counsel of UPPCL submitted that they have already filed the copy of PPAs in the matter.

Reply of SECI

12. On 06.08.2024, SECI filed its reply and has mainly submitted the following:

- a) On 31.03.2023, SECI issued the Request for Selection (RfS) document along with draft PPA and draft PSA for setting up of 2000 MW ISTS connected Solar PV Power Projects (under Tranche-XI) as per the Guidelines dated 03.08.2017 and floated the same on ISN Electronic Tender System (ISN ETS) e-bidding portal. The RfS Document has been prepared in line with the Guidelines (and subsequent amendments dated 14.06.2018, 03.01.2019, 09.07.2019, 22.10.2019 and 25.09.2020 therein) notified by Ministry of Power, Govt. of India read with clarification dated 02.04.2018 issued by Ministry of New and Renewable Energy, Govt. of India.
- b) The key milestones in the bidding process of 2000 MW Solar Power (Tranche-XI) were as under:

Sl. No.	Milestones	Date
1.	RfS issued by SECI.	31.03.2023
2.	Pre-Bid Meeting held.	13.04.2023

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3.	Corrigendum -01 to the RfS documents	09.05.2023
4.	Corrigendum -02 to the RfS documents	24.05.2023
5.	Corrigendum -03 to the RfS documents	14.06.2023
6.	Corrigendum -04 to the RfS documents	19.06.2023
7.	Clarification -01 to the RfS documents	19.06.2023
8.	Amendment -01 to RfS documents	19.06.2023
9.	Last date of Bid Submissions.	28.06.2023
10.	Opening of Techno-Commercial Bids.	03.07.2023
11.	Opening of Financial Bids.	21.07.2023
12.	E-Reverse Auction Conducted.	21.07.2023
13.	Issuance of Letter of Award (LoA) to the Successful Bidder: 1. Eden Renewables Cadet Private Ltd.- 300MW @Rs. 2.60/kWh 2. SAEL Industries Limited - 600 MW@Rs. 2.60/kWh 3. Jakson Limited - 200 MW@Rs. 2.60/kWh 4. Shiva Corporation India Limited -100 MW@Rs. 2.60/kWh 5. ReNew Solar Power Private Ltd.- 2X300 MW@Rs. 2.60/kWh 6. Avaada Energy Private Limited - 200 MW@Rs. 2.61/kWh	28.07.2023
14.	PSA executed between SECI and UPPCL for 500MW for supply of power from 4 SPDs.	28.12.2023
15.	PSA executed between SECI and GUVNL for 600 MW.	30.12.2023
16.	PPA executed between SECI and SPVs of SAEL Industries Ltd. for 600 MW. NOTE: Entire power of 600MW from plant of SAEL Industries mapped to GUVNL.	11.01.2024
17.	CERC passed an Order in Petition No. 21/AT/2024 and adopted the Tariff for 600 MW in respect of sale of power to GUVNL.	12.02.2024
18.	PPA executed between SECI and MRS Green Energy Private Limited, a SPV of Shiva India Corporation Limited for 100 MW.	25.01.2024
19.	PPA executed between SECI and JGRJ One Solar Private Limited, a SPV of Jakson Limited for 100 MW.	29.02.2024
20.	Supplementary PSA executed between SECI and UPPCL for 500 MW revising the allocation of power from solar developers.	07.03.2024
21.	PPA executed between SECI and Renew Solar Piyush Private Limited, a SPV of ReNew Solar Private Limited for 300 MW.	23.04.2024
22.	CERC passed an Order in Petition No. 99/AT/2024 and adopted the Tariff for 500MW in respect of sale of power to UPPCL under the agreed arrangements as indicated in Schedule B of Supplementary PSA dated 07.03.2024.	13.05.2024

c) Initially, SECI and UPPCL entered PSA for supply of 500MW Solar power under Tranche-XI and UPPCL was mapped to receive power from 4 Solar Power Developers as provided under Article 1.1 of PSA, Recital F of PSA and Schedule B of PSA. Accordingly, under the PSA, UPPCL was mapped power from power plants of following Solar Power Developers:

- (a) Eden Renewables Cadet Private Limited – 100 MW
- (b) Jakson Limited – 100 MW
- (c) Shiva Corporation India Limited -100 MW
- (d) ReNew Solar Power Private Limited – 200 MW

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d) Subsequently, on non-execution of PPA between SECI and Eden Renewables Cadet Private Ltd., the parties agreed to substitute Schedule B of the PSA, which contains details about the Solar Power Developer from which power was mapped to UPPCL. This substitution was formalized through a Supplementary PSA dated 07.03.2024.

(a) Jackson Limited – 100 MW

(b) Shiva Corporation India Limited -100 MW

(c) ReNew Solar Power Private Limited – 300 MW

e) The stipulations regarding trading margin are provided in relevant documents i.e., clause 2.1.1(c)(ii)(b) of the amendment dated 22.10.2019 amending Guidelines dated 03.08.2017, Section 6 of the RfS Document, and Article 1.1 of the PSA. Accordingly, UPPCL have agreed to trading margin of Rs. 0.07/kWh and signed PSA with SECI. Considering the aforesaid, the CERC vide its Order dated 12.02.2024 in Petition No. 21/AT/2024 had approved the trading margin of Rs. 0.07/kWh to be paid by UPPCL.

13. On 03.09.2024, UPPCL filed its additional submission wherein the tabular representation of the PPAs entered between SPDs and SECI was specified as under:

S. No.	Solar Power Developer	Contracted Capacity (MW)	Tariff (Rs./kWh)	Date of PPA
1.	Jackson Limited	100	2.60	29.02.2024
2.	Shiva Corporation India Ltd.	100	2.60	25.01.2024
3.	ReNew Solar Power Pvt. Ltd.	300	2.60	23.04.2024

Analysis & Decision

14. UPPCL has filed this Petition seeking approval of procurement of 500MW Solar Power under Tariff-based Competitive Bidding on long-term basis of 25 years along with approval of PSA dated 28.12.2023 and SPSA dated 07.03.2024. This Solar power procurement shall facilitate meeting its rising power demand as well as the compliance of RPO targets of UPPCL in terms of MOP notification dated 20.10.2023.

15. The CERC vide its Order dated 13.05.2024 in Petition No. 99/AT/2024 has adopted the tariff of Rs. 2.60/kWh for the 3 SPDs with total capacity of 500MW from which power would be supplied to UPPCL. The relevant extract of the quantum of power executed under the PSA by UPPCL as observed in the CERC's Order dated 13.05.2024 are as follows:

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"13. Keeping in view that the Commission, in an order dated 12.2.2024 in Petition No. 21/AT/2024, has already observed that the selection of successful bidders and discovery of tariffs for the Solar Power Projects (under Tranche XI) have been through a transparent process of competitive bidding in accordance with the Guidelines, we do not find any need to again examine this aspect in the present case. It is further noted that Respondents have not raised any objections with regard to the bid process as already examined by the Commission under order 12.2.2024. Accordingly, we adopt the individual tariff for the Solar Power Project, as agreed to by the Successful Bidder and for which the PPA has been entered into by SECI on the basis of the PSA with the distribution licensee, which shall remain valid throughout the period covered in the PPA and PSA as under:

S. No.	Name of Successful Bidder	Project Company formed by the Successful bidder for execution of PPA	Date of PPA signing & Contracted Capacity	Applicable Tariff (INR/kWh)
1.	Shiva India Corporation Ltd	MRS Green Energy Private Limited	25.01.2024 (100 MW)	2.60
2.	Jackson Limited	JGRJ One Solar Private Limited	29.02.2024 (100 MW)	2.60
3.	ReNew Solar Private Limited	Renew Solar Piyush Private Limited	23.04.2024 (300 MW)	2.60

16. Section 63 of the Electricity Act, 2003, states that the Commission shall adopt the tariff arrived through transparent process of bidding in accordance with guidelines issued by Central Government. The said provision is reproduced below:

"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."

Commission's View

17. The Commission observes that Regulation 8(1)(d) & (f) of the CERC Trading Licensee Regulations, 2020 leaves it within the realm of the transacting parties to decide the trading margin mutually and amicably within the ceiling of 7 paise per unit, and it does not require any approval for trading margin from the Central Commission. This arrangement between Supplier and Procurer through the intermediary being on back-to-back basis, the intermediary's payment risk to the Project Developer would be severely mitigated through Payment Security Mechanism from Procurer, thus commensurate reward may reduce the burden cost of supply to the State consumers. However, the State Commission is incapacitated to take any call on interstate trading margin in face of legal dispensation as submitted by the parties. Hence, 'DURA LEX SED LEX' – The law is hard, but it is the law.

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18. In view of above, the Commission approves the power procurement of 500 MW Solar PV power at the tariff of Rs. 2.60/kWh along with trading margin of Rs.0.07/kWh. However, in case of failure by SECI to provide an Escrow arrangement or irrevocable, unconditional revolving letter of credit to the Solar Power Developers, trading margin shall be limited to Rs. 0.02/kWh in terms of Regulation 8 of the CERC Trading license Regulations, 2020. The Commission also approves the PSA dated 28.12.2023 & SPSA dated 07.03.2024 executed between UPPCL & SECI. Further, in the consumer interest, UPPCL should negotiate trading margin below 7 paise per unit for future long-term power procurement with the intermediary procurer/Trading Licensee.

The Petition stands disposed of in terms of above.

(Sanjay Kumar Singh)

Member

(Arvind Kumar)

Chairman

Place: Lucknow

Dated: 03.10.2024

