



**THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION
LUCKNOW**

Petition No. 2335 of 2026

QUORUM

Hon'ble Shri Arvind Kumar, Chairman

Hon'ble Shri Sanjay Kumar Singh, Member

IN THE MATTER OF

Petition under Section 62 read with sections 86(1)(a), (b), & (c) and other applicable provisions of the Electricity Act, 2003, read with Regulation 15 of the UPERC (Conduct of Business) Regulations, 2019, read along with Regulations 19 and 20 of the UPERC (Captive and Renewable Energy Generating Plants) Regulations, 2024 and Regulation 9 of the UPERC (Modalities of Tariff Determination) Regulations, 2023 for inter alia seeking directions to UPPCL for signing of PPA in relation to the proposed 5 MW Concentrated Solar Power Project in Unnao, Uttar Pradesh by the Petitioner and for the relaxation of the mandatory requirement of procurement of power from renewable energy sources based on new technologies in terms of the extant regulatory framework.

AND

IN THE MATTER OF

Cosmicwave Technology & Research Pvt. Ltd. (CTRPL),

Through its Director,

1/317, Vikrant Khand, Gomti Nagar, Lucknow

..... Petitioner

VERSUS

U.P. Power Corporation Limited (UPPCL),

Through its Managing Director,

14th Floor, Shakti Bhawan Extension, 14-Ashok Marg, Lucknow

..... Respondent

FOLLOWING WERE PRESENT

1. Sh. Santosh Singh, Director, CTRPL

by.





2. Sh. Yash Joshi, Advocate, CTRPL
3. Sh. Manish Dwivedi, SE-PPA, UPPCL
4. Sh. Vikash Gupta, EE-PPA, UPPCL
5. Sh. Divyanshu Bhatt, Advocate, UPPCL
6. Sh. Abhayaditya Singh, Advocate, UPPCL

ORDER

(DATE OF HEARING: 12.05.2026)

1. The Petitioner, Cosmicwave Technology & Research Pvt. Ltd. (*hereinafter referred to as CTRPL*) had filed this Petition seeking relaxation of the mandatory requirement of competitive bidding for procurement of power by UPPCL and direction to UPPCL for entering into PPA for its proposed 5 MW Concentrated Solar Power (CSP) project. The prayers of the Petitioner are as follows:
 - a) Admit the instant Petition.
 - b) Issue necessary directions and orders in terms of Regulations 19 and 20 of the UPERC (Captive and Renewable Energy Generating Plants) Regulations, 2024 to relax the mandate under Regulation 6 (VII) of the aforesaid regulations to the extent that it prescribes the tariff rate of the proposed Project to be the lower of the weighted Average Power Purchase Cost for Renewable Energy sources in the previous financial year or the mutually agreed-upon tariff rate.
 - c) Declare and hold that the proposed 5 MW Concentrated Solar Power Project in Unnao, Uttar Pradesh falls within the purview of the Proviso to Regulation 6 (VII) of the UPERC (Captive and Renewable Energy Generating Plants) Regulations, 2024.
 - d) Issue necessary directions and orders in terms of Regulation 9 of the UPERC (Modalities of Tariff Determination) Regulations, 2023 to relax the mandatory tariff-based competitive bidding requirement under Regulation 4 of the aforesaid Regulations.
 - e) Issue necessary directions and orders to permit UPPCL to enter into the Power Purchase Agreement with the Petitioner for procurement of power from the 5 MW Concentrated Solar Power Project in Unnao, Uttar Pradesh.





- f) Permit the Petitioner to approach this Commission for the determination of tariff for the proposed 5 MW Concentrated Solar Power Project in Unnao, Uttar Pradesh with the liberty to file further submissions, including actual cost data, for tariff determination under Section 62 of the Act as per the proviso to Regulation 6 (VII) of the UPERC (Captive and Renewable Energy Generating Plants) Regulations, 2024. and
- g) Pass any such Order that the Commission may deem fit.

Background of the Case:

2. CTRPL has mainly submitted following in the Petition:

- a) CTRPL is an independent power generation and trading company registered under the Companies Act, 2013 incorporated at RoC Patna. It has been set up with a mission to establish Concentrated Solar Power (CSP) plants in the renewable energy segment. CTRPL seeks to produce and supply electricity through a 5 MW generating station in Unnao, Uttar Pradesh based on CSP technology.
- b) The Ministry of Power (MoP), Government of India, had issued a notification dated 20.10.2023 vide which, the MoP had mandated the power distribution companies to prepare an RPO roadmap. Further, MoP, vide said notification dated 20.10.2023, has given the new RPO trajectory from FY 2024-25 to FY 2029-30 as tabulated below:

Year	Wind RPO	Hydro RPO	Other RE	Distributed RE	Total
2024-25	0.67%	0.38%	27.35%	1.50%	29.91%
2025-26	1.45%	1.22%	28.24%	2.10%	33.01%
2026-27	1.97%	1.34%	29.94%	2.70%	35.95%
2027-28	2.45%	1.42%	31.64%	3.30%	38.81%
2028-29	2.95%	1.42%	33.10%	3.90%	41.36%
2029-30	3.48%	1.33%	34.02%	4.50%	43.33%

- c) UPPCL prepared a strategic roadmap outlining the capacity (MW) required to be contracted to meet its RPO targets. The Commission vide its order dated 03.10.2024 in Petition No. 2091 of 2024 recognised this roadmap and requisite capacity to be contracted as showcased below:

Capacity (MW) to be contracted in respective year to meet RPO (with fungibility)									
Category/FY	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	Total
Solar	2,000	2,000	1,000	500	-	-	-	-	8,500





Wind	2,000	2,000	1,500	1000	-	-	-	-	6,500
Hydro	4,000	1,000	1,000	500	-	-	-	-	6,500
Cumulative	8,000	5,000	3,500	2,000	-	-	-	-	21,500

- d) Solar energy projects in India have hitherto used Photovoltaic (PV) systems. Notably, PV plants generate electricity only when being exposed to sunlight. CSP presents a promising alternative to this paradigm. Electricity in CSP is generated in a power block by heating a working fluid using concentrators and mirrors. Advantages of CSP technologies over PV include higher working temperatures and better system efficiencies.
- e) CSP with Thermal Energy Storage (TES) allows plants to ramp up or down electricity production based on demand. Stored heat in molten salts allows CSP power plants to generate electricity even after sunset. TES is more cost-effective than batteries etc. over the long term, with higher storage capacities and longer discharge durations, making CSP a robust solution for large-scale energy storage and continuous power supply. This flexibility and efficiency make CSP with TES a critical component in the transition to a sustainable and resilient energy grid. This adaptability helps stabilize the grid and meet fluctuating energy needs efficiently.
- f) CSP technology has received the endorsement of the MNRE as a flexible and dispatchable form of energy. Further, the Central Electricity Authority (CEA) has published the National Electricity Plan (NEP), 2022-2032 u/s 3 of the Act. This NEP has explicitly recognised CSP as a technological advancement in solar generation and CSP with TES (in molten salt form) as an advancement in energy storage system.
- g) CTRPL seeks to establish a 5 MW CSP plant in Unnao, Uttar Pradesh and submitted its proposal on 27.11.2024 to Uttar Pradesh New & Renewable Energy Development Agency (UPNEDA), the State's Nodal Authority under Uttar Pradesh Solar Power Policy 2022. On 08.03.2025, UPNEDA shared the Detailed Project Report (DPR) with the MNRE for evaluation of the proposed Project in terms of its technical feasibility, economic viability. The DPR was thereafter circulated amongst notable experts for their inputs. CTRPL was then called in for a meeting by representatives of UPNEDA for a presentation

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on setting up proposed 5 MW CSP Pilot Project. Pursuant to the presentation, CTRPL re-sent their DPR, along with the comprehensive project cost details, to UPNEDA.

h) On 13.05.2025, UPNEDA communicated to UPPCL about the proposed establishment of 5 MW CSP pilot project and requested UPPCL to take necessary action in this regard. In response, on 23.05.2025, UPPCL enquired whether CSP technology was approved by MNRE. The question was answered in affirmative by the CTRPL through supporting documents. Further, UPPCL sought more details which were answered in the following manner:

- (i) Type of Power: Renewable Energy (RE) Power
- (ii) Proposed Installed Capacity: 5 MW
- (iii) Proposed Tariff: Rs. 4.73 per unit
- (iv) Supply Hours: up to 40 MWh daily
- (v) Summer Season (April-September): Peak hours, or as per requirement
- (vi) Winter Season (October-March): Peak hours, or as per requirement

i) A meeting was convened by UPPCL with CTRPL on 30.07.2025 to discuss the commercial and technical aspects of the CSP proposal. Pursuant to the meeting, CTRPL clarified that tariff rates would remain fixed unless molten salt prices experienced an unforeseen increase and also tariffs would be subject to review in every 5 years. On 14.08.2025, UPPCL gave its in-principle consent to procure power from the proposed Project, subject to approval/determination of tariff by the Commission.

j) Regulation 6(VII) of the CRE Regulations 2024 provides that for new technologies-based pilot projects upto 5MW, the applicable tariff shall be either the Weighted Average Power Purchase Cost (APPC) for the preceding financial year or a mutually agreed rate by the parties, whichever is lower. Neither of the tariff rates provided in the foregoing provision allow for the Project to remain feasible. Tariff rate of Rs. 4.73/kWh proposed and approved in-principle by UPPCL was premised on the tentative costs that may be incurred in building the Project.

k) The proposed CSP Project is fundamentally distinct from PV-based generation, which has thus far been the only form of solar technology being employed in the State. PV technology directly converts sunlight into electricity using the photovoltaic effect. Resultantly, their power output is intermittent. This process is direct, electronic, and

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does not involve mechanical parts or thermal cycles. PV systems are modular, consisting mainly of solar panels, inverters, and mounting structures.

- l) CSP technology is a solar thermal process, using mirrors or lenses to concentrate sunlight onto a receiver. This concentrated energy heats the molten salt to very high temperatures, which then creates steam. The steam drives a turbine connected to a generator to produce electricity. Due to this thermodynamic process, a CSP plant is more complex than a PV plant, requiring vast arrays of heliostats, a receiver tower, a heat transfer medium, a steam generator, and a turbine. Such complexity leads to a significantly higher initial capital expenditure and more extensive operational and maintenance costs. TES allows plants to ramp up or down electricity production based on demand and is more cost-effective than batteries etc. over the long term.
- m) Unlike the direct conversion of PV, CSP's thermodynamic cycle involves a different set of components, necessitating higher upfront capital expenditure. Due to the relative lack of maturity of the CSP market when compared to Solar PV, the prices of a CSP plant's components have not yet been affected by economies of scale. No other CSP generation plants are currently in operation in the state of Uttar Pradesh. Furthermore, to the best of the knowledge, same is also true for the rest of the country.
- n) On account of the lack of market saturation, competition for CSP projects is insufficiently developed. Without competitive forces driving the prices down at a reasonable rate, any tariff so discovered could potentially be higher than it may need to be. Similarly, an efficient market where prices reflect all available information does not exist for the CSP sector at the moment. This is due to the absence of the requisite technical data and commercial expertise.
- o) The promotional schemes of generation through solar energy do not extend to CSP projects. A 30% capital subsidy is available for Solar PV; therefore, post-subsidy capital cost of PV is at about Rs. 2 Cr./MW compared to the proposed CSP's Rs. 5 Cr./MW. The estimated costs laid out in the DPR and Project Cost Sheet are not based on similar projects already commissioned in the country, since none such projects currently exist.

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- p) Some of the major components for the Project would have to be imported on account of their unavailability in India's domestic markets. The heliostats, which track the sun and focus intense sunlight onto a central tower receiver, would tentatively be sourced from Germany. The Zinc-Bromine Flow Batteries, responsible for storing solar energy as heat/electricity, would tentatively be procured from the United States of America. The molten salt receivers would tentatively be sourced from the United Arab Emirates. Every other component of the Project would be procured from domestic manufacturers.
- q) The proposed Project is for long-term electricity generation and does not fall within the exceptions listed in Regulation 3 of the UPERC (Modalities of Tariff Determination) Regulations, 2023. Therefore, power procured through the Project would be governed by the terms of Regulation 4 of the UPERC (Modalities of Tariff Determination) Regulations, 2023 which mandates the competitive bidding route. CTRPL, in the present case is constrained to deviate from the competitive bidding route mandated in light of the differences between CSP and PV technology markets.
- r) It was anticipated that a bidding process at this time may not see participation to the extent required to make the bidding competitive. CSP technology has not yet been affected by economies of scale, unlike PV Solar where proactive market growth and saturation of PV have brought in a measure of reliable predictability for the cost components involved.
- s) The Project could potentially revolutionise power generation through solar energy in the state and the country. CSP's unique advantages, including its higher CUF and the integration of TES allowing efficient energy storage, would help fulfil Uttar Pradesh's growing electricity demands. Renewable energy generation goals and obligations under the Nationally Determined Contributions, MNRE's target of achieving 500 GW non-fossil fuel electricity capacity, and UPPCL's RPO roadmap.
- t) The Hon'ble Supreme Court and the Hon'ble APTEL have recognised both the Regulated Tariff Mechanism under Section 62 and Tariff Based Competitive Bidding route under Section 63 of the Electricity Act are equally valid methods of tariff determination. Nothing in the scheme of the Electricity Act affords primacy Section 63 over Section 62.

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- u) As per Section 86(4) of the Electricity Act, this Commission is required to be guided by inter alia the National Electricity Plan (NEP). The indigenization of CSP Technology has been identified as a thrust area of research in the NEP. The NEP recognises the need to focus on and develop newer technologies.
- v) Regulation 19 of the CRE Regulations empowers the Commission to allow deviation from the provisions of the Regulations in line with the provisions of the Electricity Act. CTRPL is faced with two possibilities, they must either agree to the APPC for Renewable Energy in the preceding financial year, which is significantly lower than the projected rate required, or they mutually agree upon a lower tariff rate with UPPCL. In either case, proposed Project is rendered wholly untenable.
- w) This proposed tariff rate of Rs. 4.73/kWh is markedly lower than the approved APPC for non-RE sources at Rs. 5.10/kWh and the APPC for all sources at Rs. 4.94/kWh. Despite lower production costs, renewable energy can sometimes be more expensive in the market due to the need for backup power or storage solutions to manage intermittency (e.g., no sun at night, no wind on calm days). CSP technology provides a promising alternative to the environmental hazards of conventional energy sources without the pitfalls of unreliability attached to extant renewable energy sources.
- x) The Respondent herein has provided its in-principle approval to the Petitioner for power procurement from the Project, for which UPNEDA, the state's nodal authority, has already granted its deemed consent. It is therefore requested that UPPCL be directed to enter into the PPA with the Petitioner on the basis of the terms for which the in-principle consent was given.

Record of Proceedings:

3. During the hearing on 07.04.2026, Sh. Yash Joshi, Counsel of CTRPL submitted that instant matter has been filed under Section 62 read with Section 86(1)(a), (b), & (c) of the Electricity Act, 2003 seeking relaxation under UPERC CRE Regulations 2024 and UPERC (Modalities of Tariff Determination) Regulations, 2023 as well as seeking direction to UPPCL for entering into PPA for the proposed 5MW Concentrated Solar Power (CSP) project to be setup in Unnao. He further submitted that APPC for Solar PV would not suffice for this CSP project as the technology is completely different including

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its equipment/component. Sh. Joshi also stated that proposed CSP project had been approved by the MNRE as feasible.

4. The Commission enquired about any financial assistance to the CSP project by National Institute of Solar Energy (NISE) or otherwise, to which counsel of Petitioner responded that they would furnish the details. Sh. Santosh Singh on behalf of CTRPL stated that they had the financial investors who were ready to invest in this project. The Commission observed that subsidy or grants, if available for such CSP project, would help in reducing project tariff in the consumer interest therefore, this information needs to be filed by the Petitioner.
5. Sh. Divyanshu Bhatt, Counsel of UPPCL submitted that they had given in-principle consent to the project however, sought two-week time to file its reply to the Petition including comments on proposed tariff of Rs. 4.73 per unit. The Commission directed CTRPL to furnish the following information with a copy to UPPCL:
 - a) Complete copy of communication (including supporting documents/report) by the MNRE in response to the UPNEDA's letter dated 08.03.2025 for the proposed CSP project.
 - b) Details of proposed supply hours to UPPCL during solar and non-solar hours of the day.
 - c) Details of any financial assistance/grants anticipated for this 5MW CSP project from Central/State Government institutions or independent institutions.
 - d) Legible copy of the proposed tariff calculations annexed at page 167 & 168 of the Petition.
6. On the hearing dated 12.05.2026, Sh. Joshi submitted that they have filed additional submissions to the queries sought by the Commission vide Order dated 09.04.2026. He further stated that they had approached the MNRE and NISE, and it was confirmed by these bodies that no grants/subsidy was available at present for such CSP project. On specific query of the Commission regarding NISE comments of the proposed project, Sh. Santosh Singh on behalf of CTRRPL responded that their project is based on the central tower and they have considered future expansion plan in this CSP project. In

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response to the Commission's query, Sh. Bhatt submitted that they have not technically scrutinized the proposed CSP project.

7. Sh. Santosh Singh requested the Commission that fixed levelized tariff of Rs. 4.73/unit may be granted for the entire 25 years period without any additional tariff escalation. The Commission enquired whether there would be any tariff escalation over proposed tariff Rs. 4.73/unit including for molten salt price increase? Sh. Santosh Singh affirmed that there would not be any tariff escalation from the proposed Rs. 4.73/kWh. He further added that the CSP project will supply power during peak hours for eight hours daily, meeting UPPCL's peak requirements. The Commission asked CTRPL to file an affidavit in this regard and reserves the Order in the matter.

Reply of UPPCL:

8. On 08.05.2026, UPPCL filed its reply and has mainly submitted the following:
- a) The Commission, in its Suo Moto order for long-term procurement plan of UPDISCOMS for FY2028 to FY2040 dated 23.06.2023, had categorically recorded that the State of Uttar Pradesh shall face a substantial deficit in RTC power availability commencing from FY 2029-30, with the deficit progressively escalating to alarming levels in subsequent years. The said Order projects RTC deficits ranging from 885 MW in FY 2029 30 to over 29,000MW by FY 2039-40, thereby establishing beyond doubt the necessity of augmenting firm, dispatchable capacity.
- b) The Ministry of Power (MoP), Government of India, had issued notification dated 27.09.2025 vide which new Renewable Purchase Obligation (RPO/RCO) trajectory from FY 2024-25 to FY 2029-30 was provided for the Discoms as tabulated below:

Year	Wind	Hydro	Other RE	Distributed RE	Total
2024-25	0.67%	0.38%	27.35%	1.50%	29.91%
2025-26	1.45%	1.22%	28.24%	2.10%	33.01%
2026-27	1.97%	1.34%	29.94%	2.70%	35.95%
2027-28	2.45%	1.42%	31.64%	3.30%	38.81%
2028-29	2.95%	1.42%	33.10%	3.90%	41.36%
2029-30	3.48%	1.33%	34.02%	4.50%	43.33%

- c) MoP through the aforesaid notification has provided the criteria to meet the obligation against each category, however, 100% fungibility has been provided between Wind, Hydro, and Other Renewable sources under the notification. Distributed RE is to be

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treated as non-fungible for its shortfall, but its surplus may be utilized to offset other components. The criteria are being outlined below:

- i. Wind: shall be met from the Wind Power Projects commissioned after 31.03.2024.
- ii. Hydro: shall be met only from Hydro Power Projects commissioned after 31.03.2024, including through free power being provided to States or Discoms by such Projects, and also from Central Government-approved Projects located outside India.
- iii. Distributed RE: shall be met only from energy generated from RE projects that are less than 10MW in size.
- iv. Other RPO: can be met by energy produced from any RE projects other than specified under Wind, Hydro, and Distributed RE hereinabove and shall comprise energy from all WPPs and Hydro Power Projects (including free power) commissioned before 01.04.2024, and co-firing of biomass pellets and charcoal produced from Municipal Solid Waste.

d) The aforesaid MoP Notification provides that any shortfall in RPO targets will be treated as non-compliance and penalty will be imposed for each unit of shortfall in meeting the energy consumption norms as per the amended the Energy Conservation Act, 2001. The MNRE, vide its letter dated 01.02.2024, had earlier notified that additional penalty shall also be levied to the tune Rs. 3.72 per unit for each unit of shortfall in meeting RE consumption norms as per the Energy Conservation Act, 2001. As on November 2025, fuel-wise contracted capacity of UPPCL is as provided below:

Source	Contracted Capacity (MW)	Percentage
Coal	25137	69.8%
Gas	549	1.5%
Nuclear	370	1%
Biomass + Bagasse + Slop+ MSW	1498	4.2%
Hydro + Small Hydro	3948	11%
Wind	1556	4.3%
Solar	2937	8.2%
Total	35995	100%

e) The CEA furnished its Report on Resource Adequacy Plan (Generation) for UPPCL, Uttar Pradesh (2026-27 to 2035-36), as per the Resource Adequacy Guidelines dated

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28.06.2023 issued by the MoP, in April 2026. The Report noted that total project contracted capacity for the year 2035-36 shall be approx. 1,34,749 MW. Of this, 13,938 MW would be procured from Energy Storage System (ESS), comprising of 887 MW of 2-hour ESS and 13,051 MW of 4-hour ESS. The Report further noted that additional energy storage requirement could be met from power tie up from Pumped Hydro Storage Plants (PSP) or a combination of PSP and Battery Energy Storage Systems (BESS).

- f) The proposed Project, based on CSP technology, provides a promising alternative through which UPPCL may meet its projected peak hours deficiency. The prevailing methods of meeting peak hours demand is through conventional/thermal power, or through PSP/BESS energy. The proposed 5 MW pilot project would establish CSP with TES and potentially add to the methods vide which such peak deficit may be met.
- g) The average market rate (Day Ahead Market and Real Time Market including Temporary General Network Access charges and Inter State Transmission System losses) during evening peak hours (8 hours) ranged from Rs. 6.00 to Rs. 7.50 per unit during FY 24-25. Accordingly, even at the proposed tariff of Rs. 4.73 per unit by the Petitioner, UPPCL stands to realize a cost saving of approximately Rs. 2 per unit, thereby contributing to overall optimization of power procurement costs.
- h) UPPCL, vide its letter dated 14.08.2025, had granted in-principle consent for procurement of power from the proposed 5 MW CSP Project, subject to approval of the Commission and also subject to the condition that the tariff determined by the Commission remains commercially reasonable and viable. Accordingly, having regard to the commercial understanding between the parties and the nature of the proposed technology, which is functionally comparable to Renewable Energy plus Storage projects supplying firm and schedulable power, the Commission may consider approval of a fixed and levelized tariff of Rs. 4.73/kWh for the entire tenure of the PPA, subject to prudence check of the project cost and other relevant parameters.
- i) Permitting an escalating tariff structure over the tenure of the PPA may expose UPPCL and ultimately the consumers to long-term tariff uncertainty. Since projects supplying firm and dispatchable renewable power, including RE plus Storage projects, are

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generally governed by fixed tariff structures, a similar approach may appropriately be adopted in the present case in the interest of tariff certainty and prudent power procurement.

- j) Tariff determination under Section 62 of the Electricity Act, 2003 ought to balance the promotion of emerging renewable technologies with the overarching considerations of consumer interest, affordability and long-term tariff stability. In view of the foregoing projected increase in the demand for power, depending on the success of the proposed Project, UPPCL may be able to procure energy during peak hours from an RE source at a lower price than the prevailing market average.

Additional Submission:

9. On 05.05.2026, CTRPL filed its submissions on the following points:

- a) The proposed Project is based on CSP technology. CSP with TES allows plants to ramp up or down electricity production based on demand. Stored heat in molten salts allows CSP power plants to generate electricity even after sunset. The proposed project shall supply up to 40MWh energy daily during evening peak hours, i.e., 8 hours.
- b) CTRPL, had been intimated that no financial assistance was available for the proposed Project through the MNRE via email dated 12.03.2025. Further, subsequent to the Order of this Commission, CTRPL enquired about the availability of Central Financial Assistance or any other grant for the proposed Project. It was informed that no subsidy could be provided, at present, for the CSP power plant.
- c) CTRPL even contacted the NISE through its Director (Technical) regarding the availability of financial assistance/grants for the proposed Project from Central/State Government institutions or independent institutions. CTRPL was informed via telephonic conversation with the representative for NISE that, to the best of his knowledge and as believed by him, no such grants were presently available for plants based on CSP technology.
- d) CTRPL is committed to reducing the project tariff in the interest of the consumers. Accordingly, if any such grants are made available prior to the commissioning of the Project, the details shall be duly placed before the Commission for the determination of tariff under section 62 of the Act.

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Analysis & Decision

10. CTRPL, by way of instant Petition, is seeking relaxation under the UPERC (Captive and Renewable Energy Generating Plants) Regulations, 2024 and the UPERC (Modalities of Tariff Determination) Regulations, 2023 along with direction to UPPCL to enter into the PPA with the CTRPL for procurement of power from the proposed 5 MW Concentrated Solar Power Project in Unnao at fixed tariff of Rs. 4.73/kWh for the entire duration of the PPA i.e., 25 years.
11. Regulation 6(VII) of the UPERC (Captive and Renewable Energy Generating Plants) Regulations, 2024, provides that tariff, for RE based plants based on new technologies as recognized by UPNEDA, shall be Weighted Average Power Purchase Cost (APPC) of UPPCL for Renewable Energy as approved by the Commission for last Financial Year or the rate agreed between the parties in the PPA, whichever is lower. The relevant extracts of the aforementioned Regulation 6 are as follows:

"6. Tariff for Supply of Electricity to Distribution Licensee

VII. For Renewable Energy based on new technologies or new fuel, other than mentioned above in clause I of this Regulation and as recognized by the Uttar Pradesh New and Renewable Energy Development Agency for pilot project demonstration upto 5 MW capacity, applicable tariff shall be the Weighted Average Power Purchase Cost (APPC) of the Distribution Licensee for Renewable Energy as approved by the Commission for last Financial Year or the rate agreed between the parties in the PPA, whichever is lower.

Provided that such RE source-based Generating Plants may approach the Commission in case of non-agreement with the tariff as specified above and the Commission may determine the tariff for such projects after Prudence Check under Section 62 of the Electricity Act, 2003, on case-to-case basis. "

12. Further, Regulation 4 of the UPERC (Modalities of Tariff Determination) Regulations, 2023, mandate that all power procurement under long and medium-term shall be discovered through competitive bidding with the prior approval of the Commission, with certain exceptions. The relevant extracts of the Regulations have been reproduced below:

"4. Power Procurement under Section 63 of the Act: –

Tariff for all power procurement under long term, medium term not covered in Regulation 3 and HP-DAM (High Price Day Ahead Market) shall be discovered through competitive bidding route with prior approval of the Commission for the requirement of such capacity to be bid in pursuance to Section 86 (1)(b) of the Act. Further, any deviation from TBCB guidelines shall require prior approval of the Commission."

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13. It is observed that proposed CSP technology by CTRPL is a pilot project which will supply power during the peak hours of the load demand as required by UPPCL. The power supply from such CSP project with thermal storage with molten salt is akin to coal-based thermal power plant, which will have firm schedule unlike Solar PV based project. Therefore, a power project with combined feature of Renewable nature along with firm supply schedule is the need of the hour for sustainable development. Accordingly, support to such pilot project must be provided in order to integrate clean and green power into the grid for meeting the growing energy requirement. Furthermore, the success of such project would motivate multiplication or replication of similar project in the State and the Country.

14. The CTRPL has also affirmed that it has taken into account the comments of National Institute of Solar Energy on its CSP project with respect to Direct Normal Irradiance, Plant Size, land requirement, turbine capacity etc. Therefore, the Commission observes that project's technical feasibility and commercial viability at proposed tariff of Rs. 4.73 /kWh as agreed to by the CTRPL is an outcome chosen by Petitioner. Proposed tariff of Rs. 4.73/unit is based on the estimated project cost of Rs. 25 Crore as claimed by the CTRPL. The CTRPL further submitted that power supply would be done during the peak demand period of UPPCL at the fixed tariff of Rs. 4.73/unit for the entire PPA tenure. In this regard, an affidavit was filed by CTRPL on 25.05.2026. The relevant extract of the aforesaid affidavit filed is reproduced as under:

"4. I hereby say that the Petitioner agrees to fix the rate of tariff for the project at Rs. 4.73/kWh for the entire tenure of the PPA to be entered into with UPPCL. The aforesaid rate shall not be subject to subsequent revisions unless provided for under the terms of the aforementioned PPA."

15. As per UPPCL Tariff Order dated 22.11.2025, Average Power Purchase Cost of RE Solar based power for UPPCL was Rs. 3.62/kWh, while in the present case the proposed tariff is Rs. 4.73/kWh. It is an admitted fact that Concentrated Solar Power technology is not akin to Solar Photovoltaic based technology and therefore, its associated project cost including its tariff cannot be the same, in spite the same source of energy i.e., Sun.

16. In view of above discussion, the Commission is of the view that such tariff of Rs. 4.73/unit would be economical in comparison to the discovered tariff at the power exchanges, any energy storage system as well as new coal-based power plant etc.

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Further, such procurement of CSP project-based energy would also facilitate UPPCL in meeting RPO/RCO targets.

17. Regulation 19 of the UPERC (Captive and Renewable Energy Generating Plants) Regulations, 2024 regarding removal of difficulties and relaxation states as under:

"19. Power to Remove Difficulties

If any difficulty arises in giving effect to the provision of these regulations, the Commission may, by general or specific order, make such provisions not inconsistent with the provisions of the Act, as may appear to be necessary for removing the difficulty.

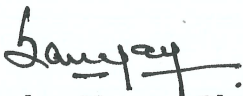
18. Regulation 10 of the UPERC (Modalities of Tariff Determination) Regulations, 2023 regarding removal of difficulties states as under:

"10. Power to Remove Difficulties

If any difficulty arises in giving effect to the provision of these regulations, the Commission may on its own motion or on an application filed by an affected party, issue such practice directions as may be necessary in furtherance of the objective of these regulations."

19. CSP is a new technology and not widely established in the State, therefore, the Commission while exercising of its power to remove difficulties under Regulation 19 of the CRE Regulations, 2024, as well as under Regulation 10 of the UPERC (Modalities of Tariff Determination) Regulations, 2023 accords its approval to CTRPL for entering PPA with UPPCL at the agreed firm tariff of Rs. 4.73/unit for the entire PPA tenure without any tariff escalation including for increase in molten price.
20. Furthermore, UPPCL shall execute PPA with CTRPL incorporating provisions as per appropriate legal framework and such signed PPA needs to be approved by the Commission under Section 86(1)(b) of the Electricity Act, 2003 and Regulation 7 of the CRE Regulations 2024.

The Petition stands disposed of in terms of above.


(Sanjay Kumar Singh)
Member




(Arvind Kumar)
Chairman

Place: Lucknow

Dated: 08.06.2026