

# CONCEPT PAPER ON TOD TARIFF FOR SOLAR AND NON-SOLAR

## HOURS

- 1) The Ministry of Power vide notification dated 14<sup>th</sup> June, 2023 has issued the Electricity (Rights of Consumers) Amendment Rules, 2023 wherein the rule for Time of Day (ToD) Tariff has been specified. The relevant provisions of the Rule has been reproduced below:-

In the principal rules, after rule 8, the following rules shall be inserted, namely:-

*“(8A) Time of Day Tariff:- The Time of Day tariff for Commercial and Industrial consumers having maximum demand more than ten Kilowatt shall be made effective from a date not later than 1<sup>st</sup> April, 2024 and for other consumers except agricultural consumers, the Time of Day tariff shall be made effective not later than 1<sup>st</sup> April, 2025 and a Time of Day tariff shall be made effective immediately after installation of smart meters, for the consumers with smart meters:*

*Provided that, the Time of Day Tariff specified by the State Commission for Commercial and Industrial consumers during peak period of the day shall not be less than 1.20 times the normal tariff and for other consumers, it shall not be less than 1.10 times the normal tariff:*

*Provided further that, tariff for solar hours of the day, specified by the State Commission shall be atleast twenty percent less than the normal tariff for that category of consumers:*

*Provided also that the Time of Day Tariff shall be applicable on energy charge component of the normal tariff:*

*Provided also that the duration of peak hours shall not be more than solar hours as notified by the State Commission or State Load Despatch Centre.*

***Explanation:-** For the purposes of this rule, the expression “solar hours” means the duration of eight hours in a day as specified by the State Commission.”*

- 2) The main features of these Rules are as under:
- a) ToD tariff for Commercial and Industrial consumers having maximum demand more than 10 kW shall be made effective from a date not later than 1<sup>st</sup> April, 2024 and for other consumers except agricultural consumers, the ToD tariff shall be made effective not later than 1<sup>st</sup> April, 2025.
  - b) ToD tariff shall be made effective immediately after installation of smart meters for the consumers.
  - c) ToD tariff, during the peak period of the day, for Commercial and Industrial consumers

shall not be less than 1.20 times the normal tariff and for other consumers it shall not be less than 1.10 times the normal tariff.

- d) Tariff for solar hours, of the day, to be specified by the State Commission shall be at least twenty percent (20%) less than the normal tariff for that category of consumers.
  - e) ToD tariff shall be applicable on energy charge component of the normal tariff.
  - f) The duration of peak hours shall not be more than solar hours as notified by the concerned State Electricity Regulatory Commission or State Load Despatch Centre and the duration of solar hours shall be eight hours in a day as specified by the State Commission.
- 3) During tariff determination exercise for ARR & Tariff for FY 2025-26, UPCL has proposed the introduction of Time-of-Day (ToD) tariffs for all consumer categories, to be implemented upon the installation of smart meters under the RDSS. In the Tariff Petition for FY 2026-27, UPCL has again submitted that ToD tariffs for all the consumer categories other than agriculture, may be introduced from FY 2027-28, once sufficient deployment of smart meters is done. Further, the stakeholders have submitted several requests such as including equalisation of peak-hour surcharge and off-peak rebate, approval of ToD tariffs for all categories as per Ministry of Power (MoP) Rules, abolish or reduction of existing peak-hour slots, alignment of peak-hour windows with industrial operating patterns, retention of current ToD charges, and enhancement of off-peak rebates.
- 4) UPCL has commenced deployment of smart meters from August 2024, with installation timelines extending to July 2025 for HT consumers and June 2026 for LT consumers. Considering the amended Electricity (Right of Consumer) Rules, 2023 and the growing penetration of rooftop solar, the Commission noted that future demand patterns may vary significantly, requiring a detailed assessment of load profiles and ToD tariff implications. Accordingly, the Commission has directed UPCL to expedite smart meter installation completing HT Industrial installations by June 2025 and LT Industrial installations by August 2025 and also to submit monthly time block wise consumption data for all metered HT and LT consumers for which the smart meters have been installed.
- 5) In the absence of adequate ToD slot-wise consumption data, the Commission had deferred approval of ToD tariffs for other consumer categories and had instructed UPCL to propose the modifications in ToD slots as well as implementation of ToD tariffs for other categories

in the Tariff Petition for FY 2026-27 based on actual consumption data upon installation of Smart Meters and its impact on revenue.

- 6) In view of the above, the Commission in its Tariff Order for FY 2025-26 had not made any change in the existing Peak and Off- Peak hours and has approved the same as per the Tariff Order dated March 28, 2024.
- 7) Regarding ToD charges, the Commission highlights that in its earlier Tariff Orders, the Commission has progressively increased the off-peak rebate from 15% to 20% then to 25% and reduced the peak-hour surcharge to 30% to incentivise demand shifting and manage the State power deficit. In Tariff Order of FY 2025-26, the Commission maintained the off-peak rebate at 25% and the peak-hour surcharge at 30%, consistent with the Electricity (Rights of Consumers) Amendment Rules, 2023.
- 8) Further, the Commission approved the peak hours in winters as 7 hours and in summers of 5 hours which are almost at par with the solar hours in line with the provision of the said MoP, GoI Rules. The relevant extract of the Tariff Order of FY 2025-26 has been reproduced below:-

#### ***“6.1.3.5 Time of Day Tariff***

*As discussed earlier the Petitioner has proposed to implement ToD tariffs for all the categories which shall be applicable to consumers once the smart meter for consumers is installed under RDSS.*

*Regarding Time-of-Day Tariff, the stakeholders requested the following:*

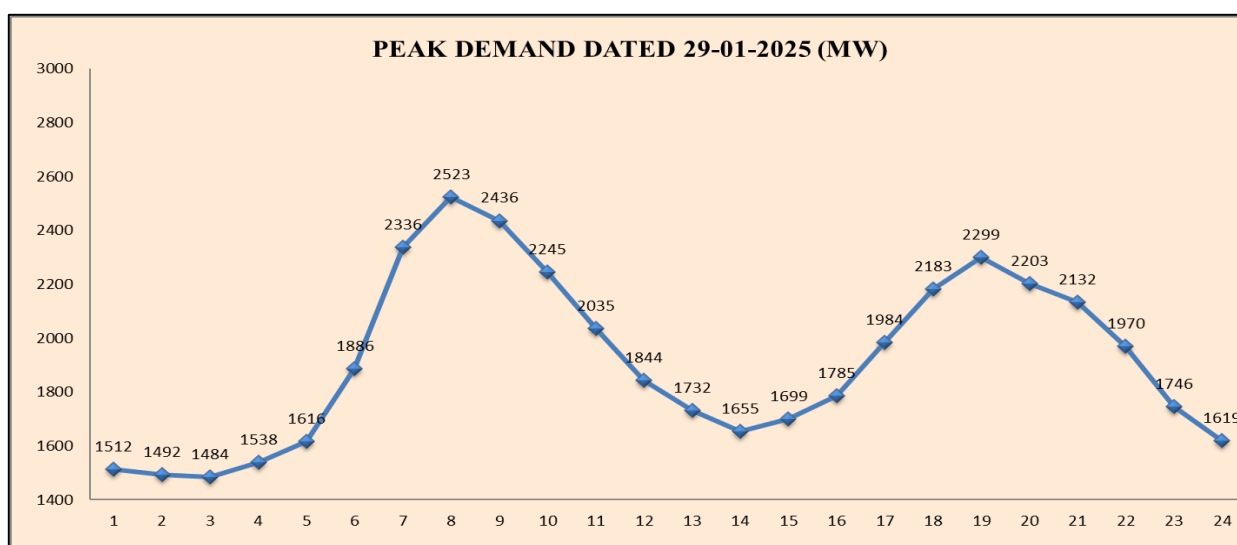
- *Surcharge during peak hour and rebate during off-peak hour should be equal.*
- *ToD Tariff should be approved for all consumer categories as per MoP Rules.*
- *Abolish the morning peak hours.*
- *Reduce the evening peak hours from 1800-2300 hrs in summer months to 1800-2200 hours.*
- *Reduce the peak hours timings in such a manner that the Single Shift Industry can operate for 8 hours with normal tariff.*
- *The ToD charges should be retained at existing levels.*
- *The rebate for consumption during off-peak hours should be increased.*

*The Commission in its Tariff Order for FY 2010-11 dated April 10, 2010 approved the peak hour rate*

as 50% higher than the normal hour rate for Industrial Category. Further, in case of HT industries, the Commission has specified the peak hour rate as 50% higher than the normal hour rate applicable for highest load factor slab, i.e. energy charge for load factor above 50% for all the HT industrial consumers. The Commission kept the rebate during off peak hours to 10% to incentivise the shift in consumption from peak hours to off peak hours. The Commission in its Tariff Order dated 21.03.2018 in order to incentivise the consumers for shifting the demand from Peak hours to Off Peak hours, increased the off-peak hour rebate from existing level of 10% to 15% in energy charges.

The Commission, in each of its tariff determination exercise, has been analysing the shift from the peak hours to normal and off-peak as well as the consumption pattern during the peak and off-peak hours in the State. The Commission has analysed the unrestricted load curves in summer as well as the winter month to assess the consumption during peak hours in these months. The load curves for the days having highest peak load in the months of summer and winter season, have been examined and the same are graphically presented below:

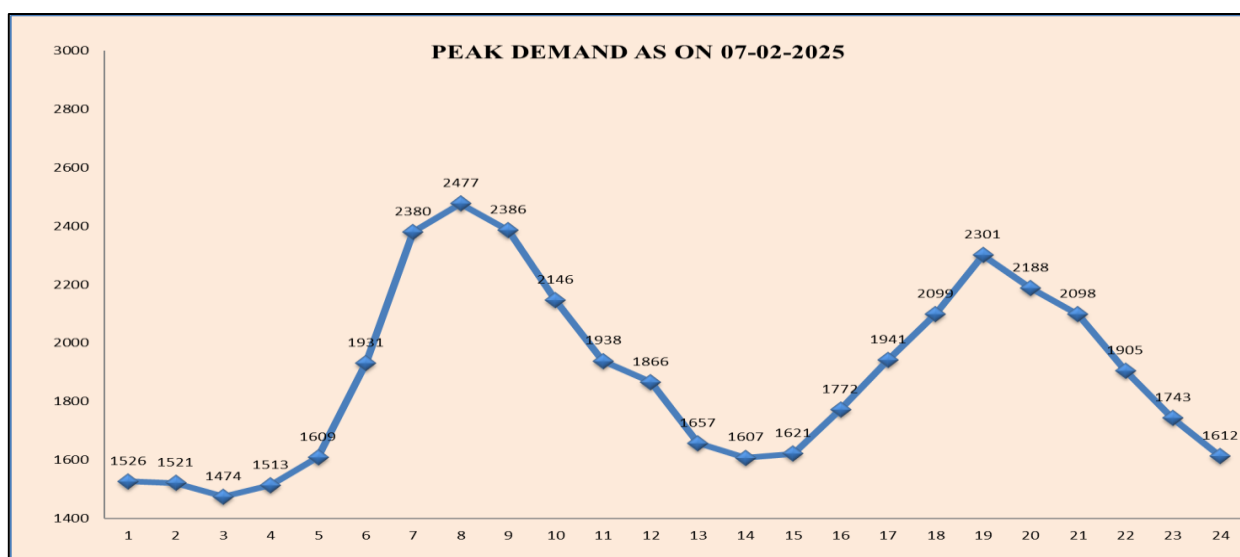
**Chart 1: Load Curve for 29<sup>th</sup> January 2025 (MW) [Winter Month]**



**Morning Peak Demand – 2523 MW at 8.00 AM**

**Evening Peak Demand – 2299 MW at 7.00 PM**

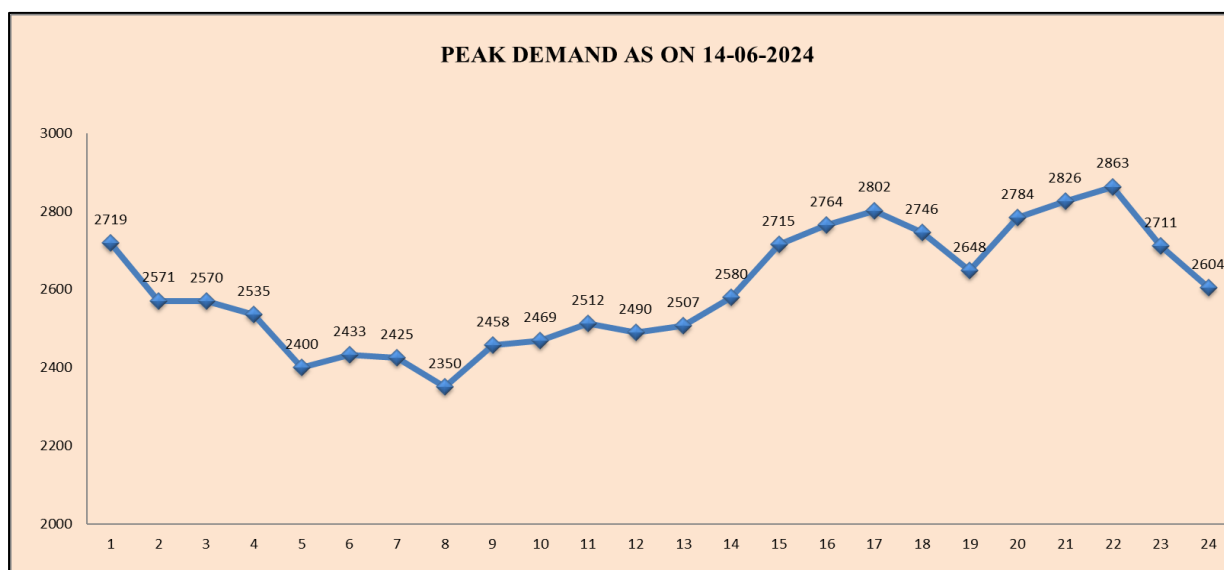
**Chart 2: Load Curve for 7<sup>th</sup> February 2025 (MW) [Winter Month]**



**Morning Peak Demand – 2477 MW at 8.00 AM**

**Evening Peak Demand - 2301 MW at 7.00 PM**

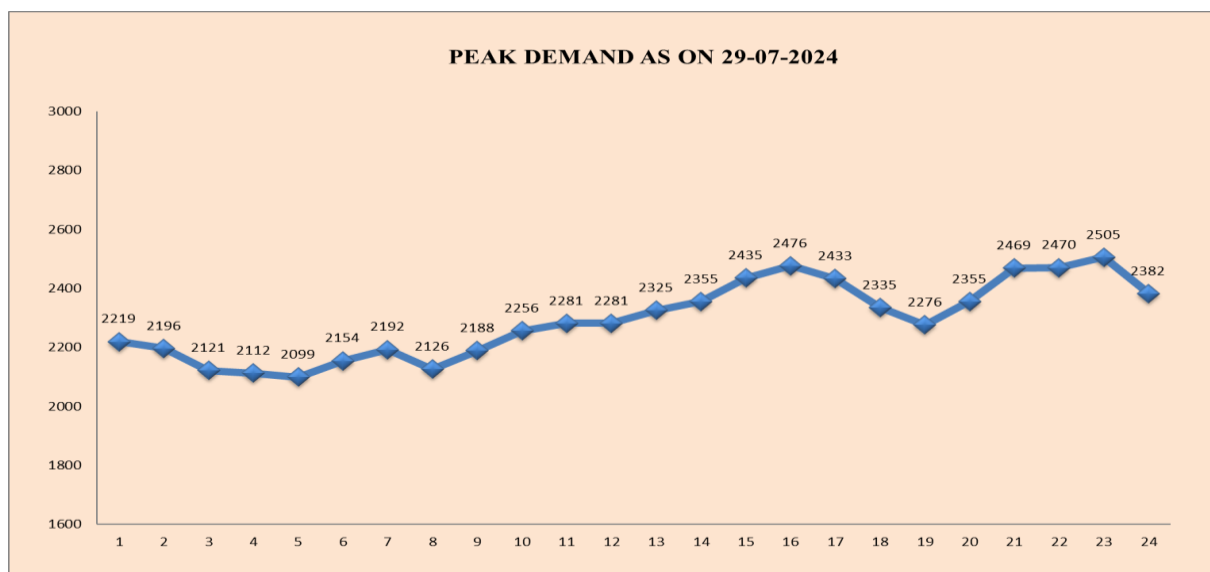
**Chart 3: Load Curve for 14<sup>th</sup> June, 2024 (MW) [Summer Month]**



**Peak Demand – 2863 MW at 10.00 PM**

**No Morning Peak**

**Chart 4: Load Curve for 29<sup>th</sup> July, 2024 (MW) [Summer Month]**



**Evening Peak Demand – 2505 MW at 11.00 PM**

**No Morning Peak**

It is observed from the above graphical presentations that during the winter season both morning as well as evening peak demand exists in the State. Infact, in the months of January and February, the morning peak demand has been found to be even more pre-dominant than the evening peak demand. From Chart 1 & 2 illustrating the load curve for January 29, 2025 and February 07, 2025 respectively, it can be observed that the demand starts rising from 6.00 a.m. till it reaches the peak at about 8.00 a.m. and then starts falling around 9.00 a.m. in the morning. Hence, the request of the stakeholders regarding abolishing the morning peak hours or change in morning peak hours cannot be accepted since it would defeat the demand side management through tariffs in vogue in the State. Besides this situation of morning peak begins from October and lasts till March, i.e. during the entire winter season. Further, in the summer months the evening peak lasts upto 1-2 am in the morning, as can be corroborated from the data of IEX when bids of power are placed at a rate as high as Rs. 10/kWh.

The Commission feels the need for DSM and having ToD tariff as a measure for ensuring curtailment of morning as well as evening peaks. Considering all these aspects, the Commission in the present Order is continuing with the morning peak hours during winter season and evening peak hours for the entire year. During the Tariff Order for FY 2019-20, some of the stakeholders requested that the peak hour slots should be modified in such a way that the General Single Shift Industry should get clear 8 hours of operations at normal tariff. The Commission in its Order dated February 27, 2019 considering the requests of the stakeholders and the load pattern during peak hours modified the Peak, Normal and Off-Peak hour duration for ToD metering slots in such a manner that the industry gets nine hours for working during normal hours and they are able to operate eight hours in General Shift with one hour

break, modified the normal hours to 0900-1800 hours in winters and 0700-1800 hours in summers.

The Commission in its Tariff Order dated March 31, 2022 considering the requests of the stakeholders modified the morning Peak Hours in winters from 0600-0800 hours. However, subsequently UPCL filed a Petition wherein it mentioned the procedural difficulties, like the possibility of breaching the meter protocols and risking the security of meters, in giving effect to the change in ToD hours approved in the Tariff Order dated March 31, 2022. The Commission in exercise of powers conferred under Regulation 103 & Regulation 104 of the MYT, Regulations 2021 directed that the modification of ToD metering slots as approved in Tariff Order dated March 31, 2022 be kept in abeyance till further orders in this regard, and the ToD metering slots as approved in the Tariff Order dated April 26, 2021 shall continue to be applicable for FY 2022-23 as well.

The Commission in its Tariff Order dated March 30, 2023 observed that since, UPCL under Revamped Distribution Sector Scheme (RDSS), will be required to replace the existing meters with smart meters, hence, it will not be practical to modify the peak hours at this moment as the same may lead to practical difficulties which may lead to consumer disputes and the Commission will take a view on the same when smart meters are installed for industries. The Commission continued with the aforementioned approach in the subsequent Tariff Order dated March 28, 2024, as UPCL had not yet commenced the installation of smart meters for industries at that time.

In fact Ministry of Power through its Electricity (Rights of Consumers) Amendment Rules, 2023 has stipulated as follows:

*“(8A) Time of Day Tariff.-The Time of Day tariff for Commercial and Industrial consumers having maximum demand more than ten Kilowatt shall be made effective from a date not later than 1st April, 2024 and for other consumers except agricultural consumers, the Time of Day tariff shall be made effective not later than 1st April, 2025 and a Time of Day tariff shall be made effective immediately after installation of smart meters, for the consumers with smart meters:*

***Provided that, the Time-of-Day Tariff specified by the State Commission for Commercial and Industrial consumers during peak period of the day shall not be less than 1.20 times the normal tariff and for other consumers, it shall not be less than 1.10 times the normal tariff:***

***Provided further that, tariff for solar hours of the day, specified by the State Commission shall be atleast twenty percent less than the normal tariff for that category of consumers:***

*Provided also that the Time of Day Tariff shall be applicable on energy charge component of the normal tariff:*

***Provided also that the duration of peak hours shall not be more than solar hours as notified***

***by the State Commission or State Load Despatch Centre."***

***(Emphasis added)***

*It is observed that UPCL, as per its smart meter deployment plan under the RDSS, began the installation of smart meters in August 2024. The plan stipulates that smart meters for HT consumers will be installed by July 2025, while installation for all LT consumers is scheduled for completion by June 2026. Further, it is to be noted that Government of India (GoI) has amended the Electricity (Right of Consumer) Rules, 2020, to expedite the installation process and simplify the establishment of Rooftop Solar PV systems for prosumers. Given the anticipated increase in solar energy integration into the State's overall energy mix, fluctuations in peak and off-peak demand patterns are expected. A detailed study is therefore, necessary, to assess the impact of these changes on load profiles and ToD tariff structuring.*

*Accordingly, the Commission directs UPCL to expedite the installation process and ensure completion of smart meters installation for HT Industrial consumers by June 2025 and for LT Industrial consumers by August 2025. In the absence of any actual ToD slot wise consumption data for other categories, the Commission has not approved the implementation of ToD tariff for other consumer categories in this Order and will take a view on the same in the next tariff proceedings.*

*The Commission directs the Petitioner to submit the complete data of time block wise consumption data on monthly basis for all the HT consumers and LT consumers, for which the Smart Metres have been installed. This will enable the Commission to analyze the requisite data and take an informed decision regarding the modification of peak and Off-peak hours under the ToD tariff regime as well as implementation of ToD Tariffs for other consumer categories.*

*The Commission also directs the Petitioner to propose the modifications in ToD slots as well as implementation of ToD tariffs for other categories in its Tariff Petition for FY 2026-27 based on actual consumption data upon installation of Smart Meters and its impact on revenue.*

*Hence, the Commission in this Order has not made any change in the existing Peak and Off-Peak hours and has approved the same as per Tariff Order dated April 26, 2021 as follows:*

**Table 6.5: Peak and Off-Peak Hours**

<b>Season/Time of day</b>	<b>Morning Peak hours</b>	<b>Normal hours</b>	<b>Evening Peak Hours</b>	<b>Off-peak Hours</b>
<i>Winters 01.10 to 31.03</i>	0600-0900 hrs	0900-1800 hrs	1800-2200 hrs	2200-0600 hrs
<i>Summers 01.04 to 30.09</i>	--	0700-1800 hrs	1800-2300 hrs	2300-0700 hrs

*As regards the peak hour surcharge and off-Peak hour rebate, the Commission in its Tariff Order dated April 26, 2021 increased the off-Peak hour rebate from 15% to 20% in order to incentivise the consumers to shift the consumption to Off-peak hours. Considering the requests of the stakeholders, the Commission in its Tariff Order dated March 31, 2022 reduced the peak hour surcharge to 30%.*

*The Commission considering the power deficit situation in the State and in order to incentivise the consumers to shift the consumption to Off-peak hours has increased the off-Peak hour rebate from 20% to 25% and has kept the peak hour surcharge as 30% in its Tariff Order dated March 28, 2024. Accordingly, the Commission, in the present Order, has maintained the off- peak hour rebate at 25% and the peak hour surcharge at 30% which is also in line with the stipulations made in the Electricity (Rights of Consumers) Amendment Rules, 2023 notified by MoP, GoI. Further, the peak hours in winters are equal to 7 hours and in summers are equal to 5 hours which are almost at par with the solar hours in line with the provision of the said MoP, GoI Rules.”*

- 9) From the above paras, it can be observed that the existing ToD tariff framework applicable to consumers of UPCL does not explicitly recognise or differentiate between Solar Hours and Non-Solar Hours. Consequently, the current tariff design does not reflect the temporal variation in solar generation availability, which is a significant consideration under the evolving regulatory framework for ToD tariffs.
- 10) Further, as clarified in the explanation to the MoP Electricity (Rights of Consumers) Amendment Rules, 2023, the Commission is mandated to clearly specify the duration of “Solar Hours”, which shall comprise eight hours in a day. This requirement necessitates an explicit differentiation of solar and non-solar time blocks within the ToD tariff structure to ensure regulatory compliance and consistency with national policy objectives.
- 11) In view of the above context and with a view to undertaking a comprehensive and informed assessment of the ToD tariff framework applicable during Solar and Non-Solar hours, the Commission has undertaken a comparative analysis of the ToD tariff structures adopted by some of the other State Electricity Regulatory Commissions (SERCs). This comparative exercise has been carried out to evaluate how other States have operationalised the concept of Solar and Non-Solar hours within their ToD tariff. The detailed comparative assessment is shown below:-

**Table 1:- Comparison for HT Industrial & Commercial Consumers**

Sr. No.	State	Solar Hours Specified (Hours)	ToD Tariff Rebate during Solar Hours /Off-Peak Hours	Peak Hours Specified (Hours)	ToD Tariff Surcharge during Peak Hours	Other ToD Tariff Rebate during Off-Peak Hours (excluding Solar Hours)
1)	Maharashtra	09:00-17:00	Rebate of 15% on Energy Charge (April to September)  Rebate of 25% on Energy Charge (October to March)	17:00-24:00	Surcharge of 25% on Energy Charge	00:00-06:00; Rebate of 10% on Energy Charge
2)	Gujarat	11:00-15:00	Rebate of Rs.0.60/kWh	07:00-11:00 & 18:00-22:00	Surcharge of Rs.0.45/kWh for Billing Demand <500 kVA  Surcharge of Rs.0.85/kWh for Billing Demand >500 kVA	-
3)	Madhya Pradesh	09:00-17:00	Rebate of 20% on Energy Charge	06:00-09:00 & 17:00-22:00	Surcharge of 20% on Energy Charge	22:00-06:00; Rebate of 10% on Energy Charge (June to September)  Rebate of 7.50% on Energy Charge (October to May)
4)	Chhattisgarh	09:00-17:00	Rebate of 20% on Energy Charge	17:00-23:00	Surcharge of 20% on Energy Charge	-
5)	Rajasthan	12:00-16:00	Rebate of 10% on Energy Charge	06:00-08:00 (Morning Peak) & 18:00-22:00 (Evening Peak)	Surcharge of 5% on Energy Charge for Morning Peak Hours  Surcharge of 10% on Energy Charge for Evening Peak Hours	-

Sr. No.	State	Solar Hours Specified (Hours)	ToD Tariff Rebate during Solar Hours /Off-Peak Hours	Peak Hours Specified (Hours)	ToD Tariff Surcharge during Peak Hours	Other ToD Tariff Rebate during Off-Peak Hours (excluding Solar Hours)
6)	Karnataka	-	-	06:00-09:00 & 18:00-22:00	Surcharge of Rs.1/kWh for Contract Demand $\geq$ 500 kVA (December to June)	22:00-06:00; Rebate of Rs.1/kWh on Energy Charge
7)	Tamil Nadu	-	-	06:00-10:00 & 18:00-22:00	Surcharge of 25% on Energy Charge	22:00-05:00; Rebate of 5% on Energy Charge
8)	Andhra Pradesh (Industrial Consumers)	-	10:00-15:00; Rebate of Rs. 0.75/kWh on Energy Charge (April to May, September to October & February to March)	06:00-10:00 & 18:00-22:00	Surcharge of Rs. 1.50/kWh on Energy Charge for High Grid Demand (April to May, September to October & February to March)  Surcharge of Rs. 1/kWh on Energy Charge for Low Grid Demand (April to May, September to October & February to March)	00:00-06:00; Rebate of Rs. 0.75/kWh on Energy Charge (April to May, September to October & February to March)
	Andhra Pradesh (Commercial Consumers)	-	-	18:00-22:00	Surcharge of Rs. 1/kWh on Energy Charge	-
9)	Telangana	-	-	06:00-10:00 & 18:00-22:00	Surcharge of Rs. 1/kWh on Energy Charge	-
10)	Uttarakhand	-	-	06:00-09:00 (Morning Peak for Winter Season) & 18:00-22:00 (Evening Peak for	Surcharge of 30% on Energy Charge for Morning Peak (October to March)  Surcharge of 30% on Energy	22:00-06:00; Rebate of 25% on Energy Charge for Winter Season  23:00-07:00; Rebate of 25% on Energy Charge

Sr. No.	State	Solar Hours Specified (Hours)	ToD Tariff Rebate during Solar Hours /Off-Peak Hours	Peak Hours Specified (Hours)	ToD Tariff Surcharge during Peak Hours	Other ToD Tariff Rebate during Off-Peak Hours (excluding Solar Hours)
				Winter Season); 18:00-23:00 (Evening Peak for Summer Season)	Charge for Evening Peak	for Summer Season
11)	Punjab	-	-	18:00-22:00	Surcharge of Rs.2/kWh on Energy Charge (16 <sup>th</sup> June to 15 <sup>th</sup> October)	22:00-06:00; Rebate of Rs.0.50/kWh on Energy Charge (1 <sup>st</sup> April to 15 <sup>th</sup> June)  22:00-06:00; Rebate of Rs.1/kWh on Energy Charge (16 <sup>th</sup> October to 31 <sup>st</sup> March)
12)	Uttar Pradesh	-	-	19:00-03:00 (Summer) & 17:00-23:00 (Winter)	Surcharge of 15% on Energy Charge for Summer Season (April to September)  Surcharge of 15% on Energy Charge for Winter Season (October to March)	05:00-10:00 (April to September); Rebate of 15% on Energy Charge for Summer Season  23:00-05:00 (October to March); Rebate of 15% on Energy Charge for Winter Season
13)	Delhi	-	-	14:00-17:00 & 22:00-01:00	Surcharge of 20% on Energy Charge	04:00-10:00; Rebate of 20% on Energy Charge
14)	Haryana	-	-	17:30-21:00	-	21:00-05:30; For incremental consumption: - HT Consumers on 11/33 kV- Rs.4.25/kVAh, HT Consumers on 66 kV & above- Rs.3.75/kVAh

Sr. No.	State	Solar Hours Specified (Hours)	ToD Tariff Rebate during Solar Hours /Off-Peak Hours	Peak Hours Specified (Hours)	ToD Tariff Surcharge during Peak Hours	Other ToD Tariff Rebate during Off-Peak Hours (excluding Solar Hours)
15)	Odisha	08:00-16:00	Rebate of Rs. 0.20/kWh on Energy Charge	18:00-24:00	Surcharge of Rs. 0.30/kWh on Energy Charge	-
16)	Jharkhand	-	-	06:00-10:00 & 18:00-22:00	Surcharge of 20% on Energy Charge	00:22-06:00; Rebate of 15% on Energy Charge
17)	Bihar	-	09:00-17:00; Rebate of 20% on Energy Charge	17:00-23:00	Surcharge of 20% on Energy Charge	-
18)	Goa	09:00-17:00	Rebate of 20% on Energy Charge	17:00-24:00	Surcharge of 25% on Energy Charge	-

**Table 2:- Comparison for LT Industrial & Commercial Consumers**

Sr. No.	State	Solar Hours Specified (Hours)	ToD Tariff Rebate during Solar Hours /Off-Peak Hours	Peak Hours Specified (Hours)	ToD Tariff Surcharge during Peak Hours	Other ToD Tariff Rebate during Off-Peak Hours (excluding Solar Hours)
1)	Maharashtra	09:00-17:00	Rebate of 15% on Energy Charge (April to September) Rebate of 25% on Energy Charge (October to March)	17:00-24:00	Surcharge of 25% on Energy Charge	00:00-06:00; Rebate of 10% on Energy Charge
2)	Gujarat	11:00-15:00	Rebate of Rs.0.60/kWh	07:00-11:00 & 18:00-22:00	Surcharge of Rs.0.45/kWh	-
3)	Madhya Pradesh	09:00-17:00	Rebate of 20% on Energy Charge	06:00-09:00 & 17:00-22:00	No Surcharge for Contract Demand upto 10 kW) Surcharge of 20% on Energy Charge for Contract	-

Sr. No.	State	Solar Hours Specified (Hours)	ToD Tariff Rebate during Solar Hours /Off-Peak Hours	Peak Hours Specified (Hours)	ToD Tariff Surcharge during Peak Hours	Other ToD Tariff Rebate during Off-Peak Hours (excluding Solar Hours)
					Demand > 10 kW	
4)	Chhattisgarh	09:00-17:00	Rebate of 5% on Energy Charge	17:00-23:00	Surcharge of 5% on Energy Charge	-
5)	Rajasthan	12:00-16:00	Rebate of 10% on Energy Charge	06:00-08:00 (Morning Peak) & 18:00-22:00 (Evening Peak)	Surcharge of 5% on Energy Charge for Morning Peak Hours  Surcharge of 10% on Energy Charge for Evening Peak Hours	-
6)	Karnataka	-	-	06:00-09:00 & 18:00-22:00	No Surcharge during July to November  Surcharge of Rs.1/kWh (December to June)	22:00 – 06:00 Rebate of Rs.1/kWh (December to June)  No Rebate during July to November
7)	Tamil Nadu	-	-	06:00-10:00 & 18:00-22:00	Surcharge of 25% on Energy Charge	22:00-05:00; Rebate of 5% on Energy Charge
8)	Andhra Pradesh (Industrial Consumers)	-	10:00-15:00;  Rebate of Rs. 0.50/kWh on Energy Charge (for connected load 15 kW - 25 kW)  Rebate of Rs. 1/kWh on Energy Charge (for connected load >25 kW)	18:00-22:00	Surcharge of Rs. 0.50/kWh on Energy Charge (for connected load 15 kW - 25 kW)  Surcharge of Rs. 1/kWh on Energy Charge (for connected load >25 kW)	
	Andhra Pradesh (Commercial Consumers)	-	10:00-15:00;	18:00-22:00	Surcharge of Rs. 0.50/kWh on Energy Charge	-

Sr. No.	State	Solar Hours Specified (Hours)	ToD Tariff Rebate during Solar Hours /Off-Peak Hours	Peak Hours Specified (Hours)	ToD Tariff Surcharge during Peak Hours	Other ToD Tariff Rebate during Off-Peak Hours (excluding Solar Hours)
			Rebate of Rs. 0.50/kWh on Energy Charge (for connected load 10 kW - 20 kW)  Rebate of Rs. 1/kWh on Energy Charge (for connected load >20 kW)		(for connected load 10 kW - 20 kW)  Surcharge of Rs. 1/kWh on Energy Charge (for connected load >20 kW)	
9)	Telangana	-	-	-	-	-
10)	Uttarakhand	-	-	06:00-09:00 (Morning Peak for Winter Season) & 18:00-22:00 (Evening Peak for Winter Season); 18:00-23:00 (Evening Peak for Summer Season)	Surcharge of 30% on Energy Charge for Morning Peak (October to March)  Surcharge of 30% on Energy Charge for Evening Peak	22:00-06:00; Rebate of 25% on Energy Charge for Winter Season  23:00-07:00; Rebate of 25% on Energy Charge for Summer Season
11)	Punjab	-	-	18:00-22:00	Surcharge of Rs.2/kWh on Energy Charge (16 <sup>th</sup> June to 15 <sup>th</sup> October)	22:00-06:00; Rebate of Rs.0.50/kWh on Energy Charge (1 <sup>st</sup> April to 15 <sup>th</sup> June)  22:00-06:00; Rebate of Rs.1/kWh on Energy Charge (16 <sup>th</sup> October to 31 <sup>st</sup> March)
12)	Uttar Pradesh	-	-	19:00-03:00 (Summer)	Surcharge of 15% on Energy Charge for	05:00-10:00 (April to September);

Sr. No.	State	Solar Hours Specified (Hours)	ToD Tariff Rebate during Solar Hours /Off-Peak Hours	Peak Hours Specified (Hours)	ToD Tariff Surcharge during Peak Hours	Other ToD Tariff Rebate during Off-Peak Hours (excluding Solar Hours)
				& 17:00-23:00 (Winter)	Summer Season (April to September)  Surcharge of 15% on Energy Charge for Winter Season (October to March)	Rebate of 15% on Energy Charge for Summer Season  23:00-05:00 (October to March); Rebate of 15% on Energy Charge for Winter Season
13)	Delhi	-	-	14:00-17:00 & 22:00-01:00	Surcharge of 20% on Energy Charge	04:00-10:00; Rebate of 20% on Energy Charge
14)	Haryana	-	-	-	-	-
15)	Odisha	08:00-16:00	Rebate of Rs. 0.20/kWh on Energy Charge	18:00-24:00	Surcharge of Rs. 0.30/kWh on Energy Charge	-
16)	Jharkhand	-	-	-	-	-
17)	Bihar	-	09:00-17:00; Rebate of 20% on Energy Charge	17:00-23:00	Surcharge of 20% on Energy Charge (for connected demand >10 kW)	-
18)	Goa	09:00-17:00	Rebate of 20% on Energy Charge	17:00-24:00	Surcharge of 25% on Energy Charge	-

12) In the backdrop of the above discussion and in exercise of the powers conferred under Sections 61, 62, 64, 86(1)(a), 86(1)(e), and 86(1)(i) of the Electricity Act, 2003, read with the Electricity (Rights of Consumers) Amendment Rules, 2023, the Commission seeks comments and suggestions from stakeholders on the following issues arising out of the Concept Paper on ToD Tariff for Solar and Non-Solar Hours:-

#### A. Specification of Solar and Non-Solar Hours

- a) In accordance with the Electricity (Rights of Consumers) Amendment Rules, 2023, Solar Hours are required to be specified as eight hours in a day.

Stakeholders are requested to suggest appropriate Solar Hour time blocks for Uttarakhand, supported by technical or operational rationale.

- b) Whether Solar Hours should be uniform throughout the year or differentiated season-wise (summer and winter), considering variations in solar generation and demand patterns.

## **B. Design of ToD Time Blocks**

- a) Whether Solar Hours should be treated as a distinct ToD block, separate from existing Peak, Normal and Off-Peak hours, with an explicit tariff signal.
- b) Suggestions are invited on modification or rationalisation of the existing Peak and Off-Peak hour structure to incorporate Solar and Non-Solar Hours, while maintaining simplicity and transparency.

## **C. Tariff Structure and Rate Design**

Comments and suggestions from stakeholders are invited:

- a) on the adequacy of the minimum 20% rebate during Solar Hours prescribed under the MoP Rules for effective demand shifting.
- b) Whether peak hour surcharge and Solar/Off-Peak rebates should be symmetrical or differentiated, and the expected impact of such design.
- c) Whether differentiated Solar and Non-Solar ToD tariff structures should be adopted across consumer categories for consumers above 10 kW.
- d) Stakeholders may also highlight implementation challenges and suggest mitigation measures for effective transitioning to a Solar and Non-Solar Hour-based ToD regime.

## **D. Alignment with Electricity (Rights of Consumers) Amendment Rules, 2023**

- a) Comments and suggestions from stakeholders are invited on ensuring full alignment of the ToD tariff framework with the provisions of the Electricity (Rights of Consumers) Amendment Rules, 2023.
- b) In case of any anticipated implementation challenges, stakeholders may suggest suitable transitional or phased approaches for compliance.

Any other comments, suggestions, or alternative approaches relevant to the subject matter of the Concept Paper may be sent to the Secretary, Uttarakhand Electricity Regulatory Commission, either in person, or by post at 'Vidyut Niyamak Bhawan', Near ISBT, PO-Majra, Dehradun-248171 or through e-mail to [secy.uerc@gov.in](mailto:secy.uerc@gov.in) by **31.01.2026**.