

## *Comments and Suggestions on draft APERC Renewable Power Purchase Obligation (Compliance by Purchase of Renewable Energy/ Renewable Energy Certificates) Regulation, 2022*

Andhra Pradesh Electricity Regulatory Commission issued draft APERC Renewable Power Purchase Obligation (Compliance by Purchase of Renewable Energy/ Renewable Energy Certificates) Regulation, 2022 on 17<sup>th</sup> March 2022 and asked for public comments by 30<sup>th</sup> March 2022.

The need for new regulations is necessitated by the changing scenario of renewable energy (RE) sector in the country and state. The proposed regulation has provided a RPO trajectory for 2022-27 and comes at the backdrop of record-low solar and wind tariffs and when the country is aggressively targeting renewable capacity addition to meet the 500 GW non-fossil fuel capacity target by 2030. Furthermore, the trading of RE power along with its green attribute has been allowed through introduction of Green Term Ahead market (GTAM) and Green Day Ahead markets (GDAM). Andhra Pradesh has and can continue to play a big role in contributing to this national goal through various initiatives, one of which is the regulation on RE purchase by the obligated entities in the state.

Our comments on the proposed regulation are detailed below.

### 1. Reconsider the classification of Solar and non-solar RPO targets

Separate solar RPO was mandated at a time when solar prices were so high (> Rs 10/kWh) that no entity would have purchased it without a mandatory separate obligation. Now the situation is quite the reverse with solar being the cheapest generation source. Ideally DISCOMs should have the full freedom to procure a mix of RE which is best suited for their load profile. This has also been reflected by the Forum of Regulators (FoR) during its 74<sup>th</sup> Meeting (held on 9<sup>th</sup> April, 2021) wherein it was agreed upon by FoR that "... a separate solar RPO is not relevant at present given the decline in the prices of solar power."<sup>1</sup>

In addition to this, [recent draft regulations by CERC on the REC mechanism](#) suggests that there will be no separate classification of "solar" and "non-solar" RECs. Hence, it is high time that the commission come out with a generic RPO targets instead of present solar/non-solar classification. Going forward, this will be beneficial for Distribution companies in planning renewable power procurement.

Apart from this, the commission should also consider energy storage targets since this will be critical to reliably integrating large share of renewables in the energy mix. A storage purchase obligation (SPO) on the lines of the RPO framework would be a very positive development for the next phase of renewable energy growth.

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<sup>1</sup> Minutes of the Meeting for 74<sup>th</sup> Meeting posted on the FoR website can be found here: <http://www.forumofregulators.gov.in/Data/Meetings/Minutes/74.pdf>

## 2. Computation of RPO targets

The proposed RPO trajectory is for five years and increases the total RPO from 17% (21-22) to 22% by 26-27 (see Table 1). This is certainly not very encouraging for the DISCOMs to actively pursue renewable energy purchase for meeting consumer demand. The reason for this is two-fold: one, the Distribution licensees are already over-achieving the RPO targets (24% as against 17% required for 21-22, see Table 2) and two, in earlier regulations, the yearly increment in RPO targets was 2%, which has been reduced to 1% in current proposed regulations (see Table 1). Considering the national target of 500 GW non-fossil capacity by 2030, low wind/solar prices and existing RE procurement, **we suggest the commission should reconsider the RPO trajectory and should come out with much higher targets for the obligated entities.** The APERC should also commission studies to give guiding/indicative long term targets for 2030/2035 for the state.

Table 1: RPO targets (existing and proposed)

Targets	Existing RPO					Proposed RPO				
Year	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
<b>Solar</b>	6.00%	7.00%	8.00%	9.00%	10.00%	10.5%	11.0%	11.5%	12.0%	12.5%
<b>Non-solar</b>	3.00%	4.00%	5.00%	6.00%	7.00%	7.5%	8.0%	8.5%	9.0%	9.5%
<b>TOTAL</b>	9.00%	11.00%	13.00%	15.00%	17.00%	18.00%	19.00%	20.00%	21.00%	22.00%

Apart from this, the commission has proposed that the obligation will be on total consumption of electricity by Obligated entity excluding consumption met from Renewable Energy Sources and hydro sources of power other than mini hydel sources of power. The commission is deviating from the norm of obligation being calculated on total consumption of electricity by obligated entity excluding the consumption met from large hydro sources. Commission had this provision in its earlier [regulation of 2017](#).

We have done a calculation based on the data provided in Retail Tariff Order for FY 2022-23 (detailed calculation attached for reference). The calculation shows that the impact of excluding RES from total consumption increases total RPO compliance by a large margin (~8%, from 24% to 32% for 2021-22). With increasing share of RE in power purchase, the difference due to the exclusion of RE power from total consumption will keep on increasing. It also shows that the state already over-achieves the RPO targets set for FY 2021-22 (24% against the target of 17%), which supports our suggestion to substantially increase the RPO targets till FY 2026-27. Excluding RES and Hydro from total consumption would mean a total RPO compliance of 31.8% for 2021-22, while proposing a target of 22% by 2026-27.

Table 2: RPO calculation for all AP DISCOMs for FY 2021-22

	Case: Obligation considering total consumption excludes only Hydro power purchase	Case: Obligation considering total consumption excludes power purchase from RES and Hydro
Net sales for RPPO (MU)	62,497	47,407
Solar energy procured (MU)	7,179	7,179
Non-solar energy procured (MU)	7,911	7,911
Total RE procurement (MU)	15,090	15,090
Solar Surplus/ deficit (MU)	2,804	3,860
Non-solar Surplus/deficit (MU)	1,661	3,170
Total surplus/ Deficit (MU)	4,465	7,030
Solar RPO achieved	11.5%	15.1%
Non-solar RPO achieved	12.7%	16.7%
Total RPO achieved	24.2%	31.8%

Hence, we suggest that the Commission keep the previous norm of total consumption excluding consumption met from large hydro sources and the RPO targets should be revised to following:

Year	2022-23	2023-24	2024-25	2025-26	2026-27
TOTAL	19.00%	22.00%	25.00%	29.00%	33.00%

### 3. RPO Compliance through GTAM and GDAM

Green power purchase through Power Exchanges is one route for RPO compliance. **We request the commission to include these options in the proposed regulations**, so as to open a new avenue for RPO fulfilment. It also holds significance since the DISCOMs have projected to procure 2,100 MUs of short term power (as per Tariff order for FY 2022-23).

### 4. Provisions related to RPO compliance process

At present, the state commission assesses RPO compliance under True-up Tariff Petition hearing. However, **it will be better to have a provision within the regulation to conduct a separate public proceeding for RPO compliance process for obligated entities (separately for DISCOMs and other obligated entities)**. This will increase the public participation in such an important process, while increasing public scrutiny on DISCOMs' power purchase strategy.

Along with this, the regulation has not put in a framework for providing timelines for data submission by obligated entities to state agency and by the state agency to the commission. Also, there is no mention of timeline for completion of RPO compliance proceedings by the commission itself. **We would suggest incorporating the timelines for both data collection (30 days for monthly collection and 45 days for annual process) and compliance proceedings (60 days from the date of data submitted to the commission).**

Also, the commission should mandate DISCOMs to share their power purchase strategy for meeting RPO compliance in advance, to check the preparedness of the DISCOM in this regard.

## 5. Incentive and Penalty provision

The commission has not considered any incentive for over-achievement of RPO targets by an obligated entity. Though the penalty provisions are present, they are linked to Forbearance prices of REC. We would like to mention here that CERC is considering doing away with the Forbearance prices in its Draft REC regulations of 2022. So, it will be worth considering some other measure to determine amount deposited in case of RPO shortfall.

The distribution companies should be encouraged to increase RE power purchase, not just for RPO compliance. In this regard, the commission can adopt a similar approach adopted by the Maharashtra Electricity Regulatory Commission (MERC) in its RPO-REC regulations of 2019.

*“12.2 Distribution Licensee shall endeavour to achieve total RPO target notified by the Central Government and for doing so it will get incentive of Rs 0.25 per kWh for RE procured above the minimum percentage specified in Regulation 7 upto the percentage notified by the Central Government as under or as may be notified from time to time:*

*...”*

A similar provision for penalty has been included in the said regulation, which reads as follows:

*“12.3 ...  
Provided that Distribution Licensee shall be subjected to reduction in Annual Revenue Requirement at a rate of Rs 0.10 per kWh for cumulative shortfall in total RE procurement target for each year;  
...”*

We would suggest that the commission should increase the RPO targets and provide provisions for incentives and penalties (linked to ARR) for better adoption of RE in the state.

## 6. Doing away with Pooled Cost of Power Purchase for REC projects.

With the tariff discovery for solar and wind projects being in range of Rs. 2.25-2.75 per unit in recent times and the pooled cost of power purchase (Rs 4.71/kWh for AP, in 2021-22 as per CERC<sup>2</sup>) being much higher than that, the DISCOMs should not be forced to buy power at pooled cost of power purchase under the REC mechanism. Also, introduction of GTAM and GDAM markets has opened new avenues for such projects to sell power in markets. Considering these sector realities, **we suggest the commission to do away with Pooled Cost of Power Purchase as a benchmark for REC projects.**

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<sup>2</sup> CERC order on calculating APPC rate at national level for FY 2021-22 can be accessed here: <https://cercind.gov.in/2021/orders/01-SM-2021.pdf>