

OERC (Procurement of Energy from Renewable Sources and its Compliance) Regulations, 2021 [Draft]

OERC notified a draft regulation for Procurement of Energy from Renewable Sources and its Compliance on 1st December, 2021 as a re-draft of the draft regulation from 27th April, 2021.

The key points of this re-drafted regulation are shown below;

Reg. No.	OERC (Procurement of Energy from Renewable Sources and its Compliance) Regulations, 2021
4.1, Provision 2	Provided further that generation from off-grid RE sources set up by Distribution Licensee/ Mini-Grid Operator (MGO)/ State Agency having installed capacity of 10 kWp/ 10 kW and above , shall be considered as generation from eligible RE sources only if suitable metering and communication arrangement exists and Distribution Licensee/ MGO communicate details of such generation on monthly basis to State Agency.
4.1, Provision 4	Provided that the quantum of electricity generated by the consumer of a distribution licensee , from the Roof-top Solar PV system irrespective of net metering or gross metering arrangements shall , if such consumer is not obligated entity, qualify towards meeting the Solar RPO of the distribution licensee or any other entity procuring power on its behalf, as the case may be.
4.7	In case of Hybrid Sources, the power procured from the hybrid project may be used for fulfillment of solar RPO and non-solar RPO in the proportion of rated capacity of solar and wind power in the hybrid plant respectively. Further, renewable power stored in any form of storage (Battery, Mechanical or Gravitational) and subsequently discharged to the grid from such storage shall be treated as renewable energy.
4.8, Provision 2	Provided further that in case, for meeting the RPO obligation, CPP has surplus power than its consumption requirement, such a CPP may sell its surplus power to the Distribution licensee or any other entity procuring power on their behalf under the prevailing arrangements or in the power exchange.
5.1, Provision 1	Provided that in the event of the Obligated Entities fulfilling the RPO by purchase of certificates, the obligation to purchase electricity from generation based on solar can be fulfilled by purchase of solar certificates only, and the obligation to purchase electricity from generation other than solar can be fulfilled by purchase of non-solar certificates. If solar certificates are not available in a particular year, additional non-solar certificates shall be purchased for fulfillment of RPO on that year and vice versa.
7.2	Distribution Licensee (or any other entity procuring power on their behalf) shall furnish the summary statement of energy procured from different Renewable Energy Sources on monthly basis to the State Agency. At the end of each financial year, each Distribution

	Licensee (or any other entity procuring power on their behalf) shall submit a detailed statement of energy procurement from various Renewable Energy Sources, duly certified by the SLDC:
8.2	Every Captive user(s) and open access consumer(s) shall have to submit necessary details regarding total consumption of electricity and purchase of energy from Renewable Energy Sources for fulfillment of RPO certified by SLDC on regular basis to the State Agency.
9.3	State Load Despatch Centre and concerned Electrical Inspector/ Chief Electrical Inspector who will be assisting the State Agency in verification of RPO compliance of Distribution Licensees (or any other entity procuring power on their behalf) and Captive Consumers, respectively, shall also register themselves on RPO Web-portal within a month.
9.5	Details of electricity consumption of Distribution Licensee (or any other entity procuring power on their behalf) shall be verified by SLDC and that of other Obligated Entities shall be verified by concerned Distribution Licensee or concerned Electrical Inspector/ Chief Electrical Inspector , whichever is applicable: Provided such verification of the web based data shall be done on quarterly basis and shall be completed within 15 days of subsequent month at the end of every quarter. Further, annual verification of such data shall be done within 30 days of completion of each Financial Year.
9.9, Provision 2	Provided further that penalty payable by Obligated Entity shall be levied by the State Agency within due date which is 30 days from the date on which bill is raised and shall be deposited in RPO Fund.
13.3	For scheduling Grid Code/ relevant Regulations framed by the Commission shall be observed.
14.1	Notwithstanding anything contained in other Regulations / Orders of the Commission, this Regulation shall have overriding effect. Any action already taken before the effective date of this Regulation under any other Orders/Regulations of the Commission shall remain valid till the date of Notification of this Regulation.

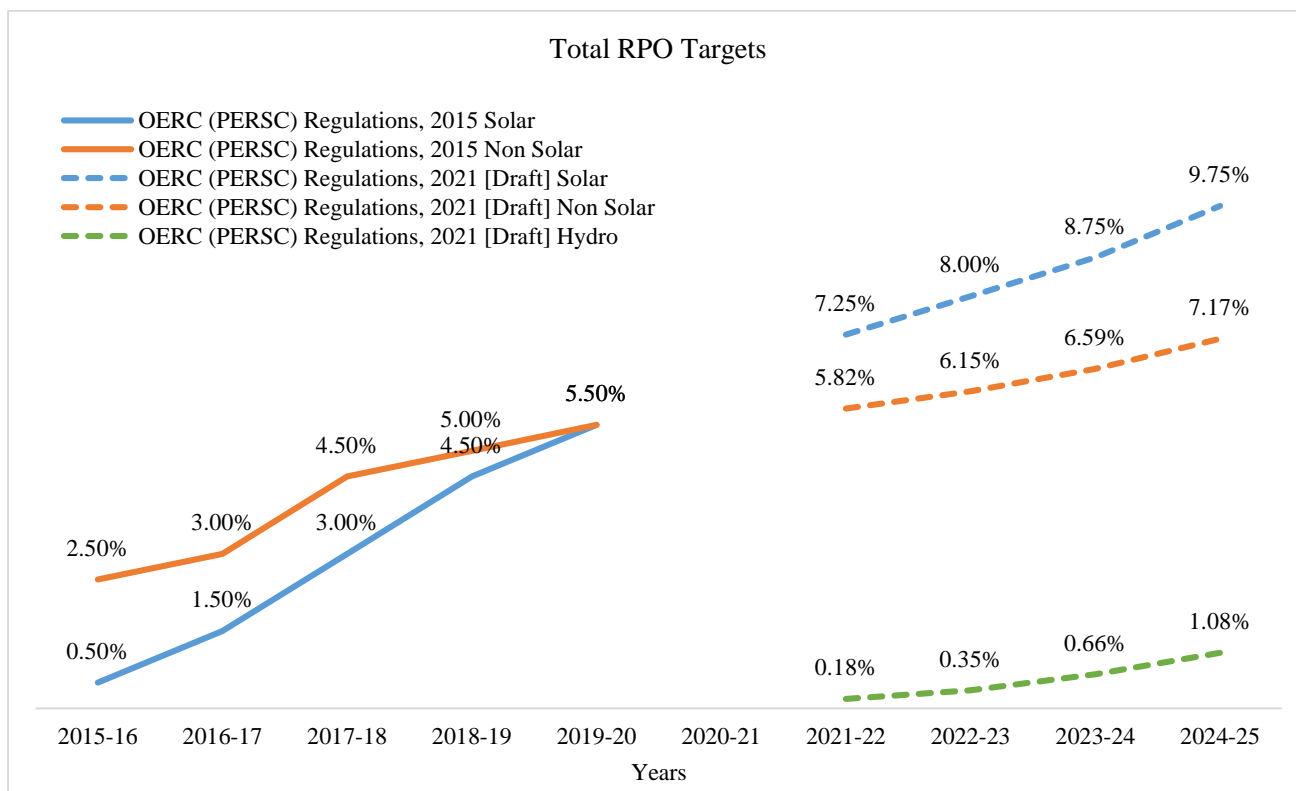


Figure: Total RPO Targets

The draft amendment can be accessed [here](#)

CER Opinion

1. **Technology Neutral RPO:** Cost of procurement from solar power plants has been on a decline, and is now even less than other RES. It would be appropriate to dispense with technology-wise RPO differentiation as solar and non-solar RPO. This would reduce the overall cost of compliance for the obligated entities¹.
2. **Purchase Obligation from Renewable Sources (Clause 4.1):** The draft regulation considers co-firing of biomass in coal-fired thermal power plants as renewable energy and which shall be eligible for non-solar RPO. It is also important to specify a framework for verification of the extent of co-firing of biomass in coal-fired thermal power plants to enable proper estimate of its contribution towards RPO.

¹ Please refer to Anoop Singh (2009), “A market for renewable energy credits in the Indian power sector”, Renewable and Sustainable Energy Reviews 13 (3), 643-652. See <https://www.researchgate.net/profile/Anoop-Singh-28>

3. **Consequences of Default (Clause 10.1):** The draft regulation states that non-compliance of RPO would result in penalty² which can be calculated by the State Agency as below:

$$\text{Penalty} = \text{Shortfall in units of RPO} * \text{Forbearance price}$$

- a) Forbearance price for the RECs are well defined, under the CERC regulation. However, forbearance price for HPO is not defined. A clarification is needed regarding the calculation of penalty for non-compliance of HPO.
- b) As HPO is categorized under non-solar RPO, it is recommended to use non-solar forbearance price in the case of HPO.
4. **Accounting of Renewable Energy from Storages (Clause 4.7):** Clarification on accounting of renewable energy from storages as stated in Clause 4.7 “*Further, renewable power stored in any form of storage (Battery, Mechanical or Gravitational) and subsequently discharged to the grid from such storage shall be treated as renewable energy*” may be required. It is suggested that in case of storages connected to solar sources, the discharge of energy from such storages should be accounted as solar energy and energy procured from such storages may be used for fulfillment of solar RPO.

Similarly in case of storages connected to non-solar sources, the discharge of energy from such storages should be accounted as non-solar energy and energy procured from such storages may be used for fulfillment of non-solar RPO.

For storages connected to hybrid sources, the discharge of energy from such storages should be accounted towards solar and non-solar energy in the proportion of generation of solar and wind power respectively in the previous month from the hybrid plant, and energy procured from such storages may be used for fulfillment of solar RPO and non-solar RPO in the same proportion.

5. **Hydro Power Obligation (HPO) Targets:** As per draft regulation, HPO targets have been incorporated in the existing RPO target structure. According to the current practice adopted by the Commission, when more technologies are incorporated in the pool of RPO in the future, the total RPO target will rise.

It is important to emphasize that the HPO targets are an add-on obligation over and above the existing RPO from Others from the Renewable Energy sources. Given that the DISCOMs are obligated to meet the existing level of RPO, it is important that a study be undertaken to assess the ability of the Odisha Grid to absorb various level of RPO in the future and fix the targets appropriately³. To ensure that the target so estimated may be further enhanced by the commission so as to promote consumption of renewable energy sources in the state of Odisha.

² Please refer to Anoop Singh (2011), “Directions for Effective Regulation for Renewable Energy: An Analysis of Renewable Energy Certificates”, India Energy Security Summit: Energy Security for a sustainable future, IPPAI. See <http://dx.doi.org/10.2139/ssrn.3440341>

³ Please refer to Anoop Singh (2009), “A market for renewable energy credits in the Indian power sector”,

In the current framework, there is a lack of scientific basis to estimate the target of RPO obligation that is fixed for the obligated entities (DISCOMs, Open Access Consumers and Captive Consumption). Therefore, it is suggested that the determination of total RPO target should be based on a scientific study², as there is a requirement for techno-economic analysis, binding to an economical limit that comes from the supply curve/ function⁴. Thus, the overall limit should not be based on number of technologies that are being incorporated, all technologies that might be incorporated in the future could be accommodated by adjusting the others so that total RPO target should remain same, unless it is enhanced by design by the Commission.

In order to ensure economic efficiency, it is important to specify an overall target for RPO and allow the obligated entities to procure renewable energy from alternate technologies based on their relative economics. Separate categorization and specification of targets for specific technologies, add rigidity in the decision making of the DISCOMs and also increase the overall cost of obligation.

- 6. Market Design:** It is important to highlight that the obligated entities other than DISCOMs, i.e., Open Access Consumers and Captive Consumers may not have access to hydropower in a similar manner especially due to the absence of a market specific for procurement of hydroelectricity. Competitive platforms like power exchanges (DAM, TAM, etc.) do not offer choice of source of electricity and hence will not help these obligated entities to procure hydroelectricity. Such entities will in-turn have to procure the hydroelectricity through bilateral arrangements or through traders which may not be as cost effective as competitive platforms. Furthermore the absence of any certificate market for hydropower currently also does not enable such entities to procure certificates to meet their HPO. It is suggested that if HPO is included as a qualifying technology for crediting RECs, the same would be available to the obligated entities to meet their obligation in a cost effective manner.