

“Regulation on Procurement of Energy from Renewable Sources and its Compliance Regulations, 2024” [Draft]

The OERC notified “**Procurement of Energy from Renewable Sources and its Compliance Regulations, 2024**”. The key highlights of this draft is mentioned below:

Objective: The draft regulation provide a framework for renewable energy procurement in Odisha. These regulations apply to all “**Obligated Entities,**” including distribution licensees and consumers with captive generating plants of 1 MW or more. Obligated Entities must meet their Renewable Purchase Obligation (RPO) through methods such as self-generation, open access procurement, and acquiring Renewable Energy Certificates (RECs). A specified percentage of total electricity consumption must come from renewable sources, increasing from 29.91% in 2024-25 to 43.33% by 2029-30. Compliance will be monitored by a designated State Nodal Agency, which will oversee reporting and publish compliance status

The document can be accessed [here](#)

1. **Definition of any other entity: Clause No. 3. 1. a** – “*Distribution licensee or any other entity procuring power on their behalf.*” (emphasis added)

Section 86 (1) (e) of the Electricity Act 2003 obligates that certain percentage of the consumption of electricity should be met from renewable energy sources. This includes the distribution licensees, the captive consumers and the open access consumers. An entity procuring power on behalf of a distribution licensee, e.g. a trader or a holding company or a nodal agency, cannot be obligated under the same. This would also raise an accounting issue for RPO compliance as the power supplied by a ‘trading licensee’ as well as that consumed by a distribution licensee would lead to double counting of consumption and hence the RPO.

Furthermore, in case of non-compliance of RPO by a distribution licensee or its procuring agency, who would be responsible for compliance and could be penalised for non-compliance?

2. **Need to Separate RPO and RGO: Clause No. 3. 1. c** – “*Coal / lignite – based thermal generating station and having the Commercial Operating Date (COD) on or after 1st April 2023.*”

The Draft regulation includes coal and lignite-based thermal generating stations in the definition of obligated entity. However, it is recommended that these entities should not encompass such generators.

To enhance clarity and regulatory efficiency, it is advisable to create two distinct obligations: the Renewable Purchase Obligations (RPO) and the Renewable Generation Obligations (RGO). This separation would help streamline compliance and reporting processes for the obligated entities. By delineating these obligations, stakeholders can better understand their

specific requirements and facilitate a smoother transition towards renewable energy targets.

Specification of RPO as well as RGO (for thermal generators) may also lead to double counting as the renewable power generated by a thermal generator would help it meet its obligation, and the same renewable power is also accounted towards the obligation of the distribution licensee.

- GRIDO as a distribution licensee?:** The draft regulation (Clause 4) suggests that green energy can be procured by a consumer either from a distribution licensee or GRIDCO. This essentially bestows electricity distribution rights to GRIDCO, whereas its license conditions does not specify so and would not be in accordance with the provisions of the Electricity Act 2003 as well as the license conditions laid down by OERC.

It appears from the figure that, if GRIDCO is deemed the obligated entity, any penalties arising from RPO shortfalls by DISCOMs would be applied to GRIDCO. This creates a significant area of uncertainty, as it raises the possibility of GRIDCO being held accountable for the same shortfall that DISCOMs are responsible for. As a result, this could lead to the risk of double counting when it comes to RPO compliance.

Furthermore, this lack of clarity in the allocation of responsibility between GRIDCO and DISCOMs not only complicates compliance tracking but may also distort the overall accountability framework for renewable energy obligations. It is crucial to address this issue to ensure that there is no overlap or misinterpretation in the enforcement of RPO penalties, and that each entity is held responsible for its respective obligation.

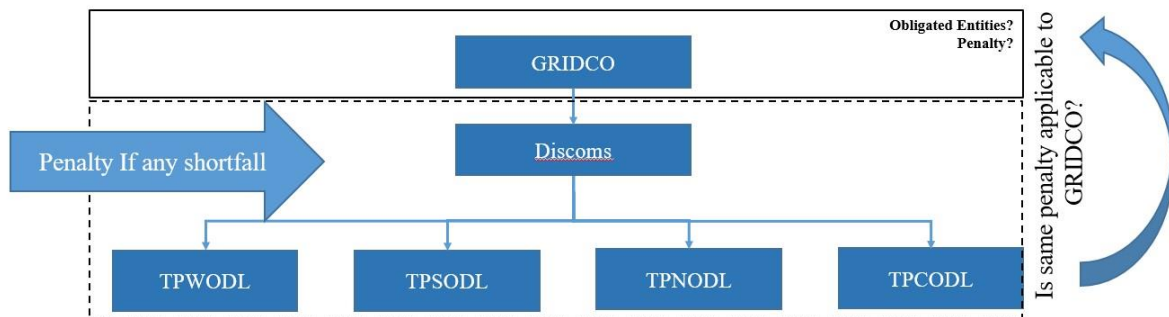


Figure 1: Representation of Obligated entities and their compliance?

- Shared RE Capacity, and RE Capacity owned by a Group of obligated entities: Clause No. 4. 1. a –** “Own Generation set up at any location in India from Renewable Energy Sources for *own* consumption. Provided that the generating plant may be set up by the entity itself or by a developer with which the entity enters into a Power Purchase Agreement (PPA).”(emphasis added)

While the current clause does not specify a capacity limit for self-consumption renewable energy plants, there is a need for clarity regarding plants with shared capacity among consumers within the same distribution licensee or across multiple licensees. Such generating assets may be owned by consumers belonging to the same business group but located in different license areas of the state. A generating unit may be owned by a group of (different) consumers, either within or across different distribution licensees within the state.

5. **Definition of Consumers: Clause No. 4. 1. c (i)** – “*Any consumer may elect to purchase Renewable Energy either upto a consumption or its entire consumption and may place requisition for this with their Distribution licensee/GRIDCO, which will procure such quantum of Renewable Energy over and above **their** obligation and supply it.*” (emphasis added)

According to the Electricity Act, 2003 the obligated entities include distribution licensees, open access consumers, and captive consumers. The draft seems to imply that all consumers are obligated entities, which is misleading.

To ensure clarity, it is important to explicitly state that the obligations lie with specific categories of consumers, particularly open access and captive consumers, rather than with all consumers broadly. This distinction is vital for defining accountability and compliance within the regulatory framework, helping to prevent misunderstandings regarding who bears the responsibility for meeting RPO targets.

6. **Quantum of Green Energy: Clause No. 4. 1. c (iv) and (v)** – “*Any requisition for procurement of Green Energy from a distribution licensee / GRIDCO shall be for a **minimum period of one year.***” (emphasis added)
“*The quantum of Green Energy shall be pre-specified for at least one year.*”

The provision outlined above may discourage green energy open access consumers from pursuing this option. Allowing consumers to obtain green energy from a distribution licensee should align with their ability to access non-green electricity, which typically does not come with such restrictions. To promote greater acceptance of green energy among end consumers, it is essential to avoid imposing these limitations from the outset, with the possibility of revisiting them later if necessary.

A consumer of electricity, does not currently specify a quantum of electricity that it would consume in a year. Behavioral and lifestyle changes, in case of domestic consumers, and change in level of activity (say, factory production) would affect the total quantum of electricity to be consumed by the consumers. Given the uncertainties associated with consumption pattern, **it is recommended that the consumers are required to specify a percentage of green energy that they wish to consume (over and above the RPO applicable for the respective distribution licensee) rather than quantum of green energy.** Pre-specification of quantum of green energy may lead to over- or under- achievement of the ‘RPO’ target of the consumer. For e.g. in case of increase in overall electricity consumption the consumer may face a shortfall that it may otherwise have targeted, say on account of a buyers need to embedded green energy it sells to its consumers.

It is also possible that the discom is not able to provide 24-hour electricity supply to a consumer, thus influencing its overall ‘RPO’ target, while the consumer is going to pay a premium for green energy for the pre-decided quantum. Another scenario where the obligated quantum may not be procured by the consumer is when it surrenders its load or the factory if shutdown due to operational or other reasons.

Furthermore, the framework should allow consumers the option to partially or fully surrender

their 'green purchase' obligation with a notice of say 2-3 months.

7. Consumers' Right to Green Attributes for Voluntary/ Excess Green Energy Purchase:

Clause No. 4. 1. c (vi) – *“The Green Energy purchased from distribution licensee/GRIDCO or from any other Renewable Energy sources in excess of its Renewable Purchase Obligation (RPO) of obligated entity shall be accounted for RPO compliance of the GRIDCO.”*

A consumer's voluntary purchase of green energy gives them the right to claim the green attributes associated with any excess green energy consumed. This additional green energy comes at a premium paid by the consumer. This right is valuable for consumers seeking to demonstrate the greenness of their production processes, particularly for export purposes. **The property rights associated with this additional green energy purchase should belong to the consumer who pays for it. Consequently, it should not be counted towards the RPO of the GRIDCO.**

A number of circumstances may arise wherein the consumer may wish to own the property right to all the green attributes. For example, a hotel chain wishing to obtain LEAD Star Rating or an exporter wishing to turn its product greener by procuring green power. The later one especially becomes relevant with the impending imposition of Clean Border Adjustment Mechanism (CBAM) that aims to place restriction on 'dirty' imports into Europe.

8. Guarantee of origin for Energy used in Green Hydrogen and Ammonia production:

Clause No. 4. 1. e – *“Purchase of Green Hydrogen (GH) or Green Ammonia (GA) or their derivatives: The obligated entity can also meet their RPO by **purchasing** GH or GA or their derivatives and the quantum of such GH or GA or their derivatives would be computed by considering the equivalence to the GH or GA or their derivatives produced from one MWh of electricity from the renewable energy sources or its multiple and norms in this regard as notified by the Central Commission.” (emphasis added)*

The provisions of the Electricity Act 2003 are applicable in the context of generation, transmission, distribution, supply and consumption of electricity. Consumption of green energy forms other than electricity does not fall within its purview. While the philosophically, promotion of green energy in all forms is advisable, the above provision broadens the applicability of the Act to energy forms other than electricity. This may well be addressed through other framework like the PAT mechanism or the proposed carbon market.

Furthermore, in the absence of a framework for ensuring guarantee of origin, it is operationally difficult to ensure its compliance. To ensure the authenticity of the energy source used for green hydrogen or green ammonia production, a mechanism for verifying the Guarantee of Origin must be established. This verification should focus on the **utilization** of green hydrogen or green ammonia, rather than merely its **purchase**. The mechanism should also verify the production, purchase, and utilization of green hydrogen or green ammonia by obligated entities to ensure their eligibility for RPO compliance. As suggested earlier, the existing Renewable Energy Certificates (RECs) mechanism¹ could be adapted to certify these

¹ Anoop Singh (2009), “A market for renewable energy credits in the Indian power sector”, Renewable and Sustainable Energy Reviews 13 (3), 643- 652. <https://www.researchgate.net/profile/AnoopSingh-28>
Anoop Singh (2011), “Directions for Effective Regulation for Renewable Energy: An Analysis of Renewable Energy

processes. Appropriate procedures, protocols, and an accounting framework should be outlined for this purpose under the relevant Central Electricity Regulatory Commission (CERC) regulations.

9. Establishing a Power Plant requires Extensive Planning: Clause No. 4.5. *“In case of Hybrid Sources, the power procured from the hybrid project may be used..... (COD) of the project after 1st April 2025 shall be required to comply with RGO of 40 % by the COD.”*

Applicability of the ‘RGO’ beginning 1st April 2025 may face difficulty in compliance. The thermal power plants already under construction and which have already entered into a PPA, would have limited room now to tie up sale of RE/‘bundled’ power without modification of the PPA. Furthermore, RE projects have a minimum construction period of 18 months (over and above the development phase). This leaves limited room for planning and construction of a RE project by April 2025.

Establishing a thermal generating plant involves extensive planning and development processes that can span several years. If a project is set to come within the stipulated COD timeframe, it likely began its planning and development stages well before the current regulations were proposed. Thus, expecting such projects to rapidly incorporate significant renewable energy capacity or procurement obligations may be unrealistic. It is suggested to implement the said provision with a transition plan allowing sufficient time for planning and setting up the RE capacity and modifying the existing PPA to incorporate sale of ‘additional’ RE power.

10. Handover Process and Data Transfer for New State Nodal Agency: Clause No. 6.7 – *“If it is observed that the State Nodal Agency is not able to discharge its functions satisfactorily, the Commission, by general or special Order recording reasons in writing, may designate any other agency to function as State Nodal Agency as it considers appropriate.”*

If the Commission deems it necessary to replace the existing State Nodal Agency due to unsatisfactory performance, a clear process for transitioning responsibilities should be established. This includes the transfer of all relevant data and documents to the new agency to ensure a seamless handover.

11. REC-Based Penalty for RPO Shortfall: Clause No. 10.1 – *“Any shortfall in Renewable Energy Consumption targets shall be treated as non-compliance and State Nodal Agency shall recommend the Commission to initiate action against such Entity under Section 142 of the Act. Provided that penalty payable by Obligated Entity shall be levied by the State Nodal Agency within 30 days from the date on which bill is raised.”*

To incentivize obligated entities to meet their RPO requirements, the penalty for RPO shortfall should be linked to the price of Renewable Energy Certificates (RECs). This would provide

Certificates”, India Energy Security Summit: Energy Security for a sustainable future, IPPAI.

<http://dx.doi.org/10.2139/ssrn.3440341>

Anoop Singh (2010), “Economics, Regulation, and Implementation Strategy for Renewable Energy Certificates in India”, India Infrastructure Report 2010, Oxford Univ. Press. <https://ssrn.com/abstract=3440253>

correct economic signal as the obligated entity would have had the alternative of buying REC to meet its RPO. The penalty rate should be slightly higher than the prevailing REC prices to effectively encourage RPO compliance.

12. Compliance Framework and RPO Compliance Rating for Obligated Entities: To ensure that the obligated entities achieve the set RPO/RGO target, the Commission should put in place a credible, transparent and effective framework for compliance. A rating/grading mechanism to highlight the degree of compliance with of RPO by the obligated entities should be introduced. This rating would account for degree of compliance vis a vis the RPO target for the respective year as suggested below:

Rating	Level of RPO compliance
A+	More than 98 %
A –	95-98 %
B+	90-95%
B –	85-90 %
C+	80-85%
C –	75-80%
D+	70-75%
D -	65-70%
	Below 65%

The Commission should publish list of all obligated entities along with their RPO compliance rating, thus improving the compliance mechanism for RPO.

13. RPO Compliance data reporting:

The obligated entities should be required to furnish RPO compliance data on a quarterly basis to the Commission along with a plan to achieve the target and address any shortfall from previous quarters. Following data format is suggested for the same.

S No.	Obligated Entity	Total Energy Consumption	Total RPO Target	RE Power (PPA)	PXs (GTAM, GDAM)	REC	DER/ Rooftop/ off-grid	Target Achieved (%)	Shortfall/ Surplus (%)	Shortfall/ surplus (MUs)
Q1										
Q2										

he above data should also include information on banking and rollover of RPO, if and when permitted under the regulation. The above data on RPO compliance should be archived and uploaded on machine readable format at the Commission’s as well as nodal agency’s website. A similar format should be utilised for RGO compliance monitoring.



14. Details of Obligated Entities: In order to assist the nodal agency to monitor RPO/RGO compliance, a list of obligated entities must be compiled and shared by the distribution licensee or the State Load Despatch Centre. Obligated entities will be required to report their RPO compliance against the (suggested) format.

15. Data Archiving and Accessibility: All the RPO compliance data submitted through the RPO Web Portal should be archived and be publicly accessible in a machine readable format. This would ensure transparency and effectiveness of the compliance framework.