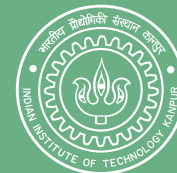




REGULATORY INSIGHTS



Renewable Energy Obligations and Compliance Mechanisms under the Energy Conservation Act

Regulatory Outlook

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Editorial

The Electricity Act, 2003 empowers the State Electricity Regulatory Commissions (SERCs) and Joint Electricity Regulatory Commissions (JERCs) to specify the obligation for the purchase of renewable energy by the obligated entities. Over the past two decades, these entities have faced varying targets and levels of compliance across different states. The harmonisation of the renewable purchase obligation (RPO) framework was envisioned to align national efforts with the India's global commitments under the updated Nationally Determined Contributions (NDC), submitted to the UNFCCC in 2022, which aim to achieve 50% share of installed electricity generation capacity from non-fossil fuel sources by 2030.

The amendments to the Energy Conservation Act, 2001, have created a parallel framework for setting non-fossil fuel targets for designated consumers. This duality of jurisdiction has bred in a lack of clarity and, has introduced new challenges for implementation. The non-congruent definitions, both in terms of the coverage of the energy basket and the identification of ‘obligated entities’ have led to gaps in the coverage of designated consumers/obligated entities. Reporting particularly that holding companies also presents implementation challenges (under the Energy Conservation Act, 2001), remains a concern.

The existence of dual frameworks for enhancing renewable energy adoption increases regulatory and policy risks for investors. Given the challenges in implementing these intertwined frameworks, alternative approaches need to be explored. One possible approach could involve separation of jurisdiction based on the type of entity, whereby distribution companies (DISCOMs) would fall under the jurisdiction of the SERCs, while captive and open-access consumers would be governed by the provisions of the Energy Conservation Act, 2001. However, this solution may still face some of the implementation challenges outlined above.

A more coherent approach would be to segregate jurisdiction by energy form assigning responsibility for non-electrical energy to the Energy Conservation Act, 2001, while the Electricity Act, 2003, continues to govern electricity-based RPO targets. Granting exclusive jurisdiction to the SERCs under the Electricity Act, 2003, for setting RPO targets could help eliminate existing and emerging complexities, thereby reducing risks for the investors and the obligated entities.

Ensuring effective compliance requires institutional capacity, clearly defined processes, and a transparent reporting mechanism. The institutional capabilities of both the Bureau of Energy Efficiency (BEE) and the SERCs must be strengthened to minimize reliance on external agencies. This will necessitate an increase in approved manpower and continuous investment in capacity building to keep pace with ongoing developments in the energy sector.

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Keywords: Renewable Consumption Obligation, Renewable Purchase Obligation, Renewable Energy Certificates, Distributed Renewable Energy, Fungibility, Compliance Framework, Enforcement.

Opinion on MoP (Gazette Notification on Renewable Consumption Obligation (RCO) under the Energy Conservation Act, 2001)

Cite

The MoP issued a draft amendment to the Gazette Notification on Renewable Consumption Obligation (RCO) under the Energy Conservation Act, 2001, issued on 5th August 2025. The key objectives of the draft are mentioned below:

Objective: The MoP has notified the RCO under Section 14 of the Energy Conservation Act, 2001, effective 1st April 2024. Designated consumers, distribution licensees, open access users, and captive power plants must meet renewable energy sources targets increasing from 29.91% in 2024-25 to 43.33% in 2029-30. The obligation is split into wind, hydro, distributed renewable energy (DRE), and other renewables, with special relaxations for hilly and North-Eastern states. Wind and hydro energy apply only to projects commissioned after March 2024, while DRE covers projects below 10 MW, including rooftop solar. Other changes include:

- Obligations under wind, hydro and other renewables are interchangeable, but DRE is non-fungible except in the case of surplus.
- Adjusted consumption excludes nuclear, fossil waste heat recovery, and part of fossil co-generation. Compliance can be achieved via direct renewable use, Renewable Energy Certificates (RECs) (including virtual PPAs), or buyout payments, with penalties for shortfalls under Section 26 of the Energy Conservation Act, 2001.
- The Bureau of Energy Efficiency (BEE) will monitor compliance, with annual reporting and certification requirements.

CER Opinion

CER Non-Congruent Definition of Obligated Entities vs Designated Consumers: In the proposed Clause 1 “*In exercise of the powers conferred by section 14 of the Energy Conservation Act, 2001, (hereafter referred as 'Act') and in supersession of the notification vide No. S.O. 4617 (E) dated 20th October, 2023, except as respects things done or omitted to be done before such supersession, the Central Government in consultation with the Bureau of Energy Efficiency, hereby specifies the minimum share of electrical energy consumption from renewable energy sources for designated consumers, who are electricity distribution licensees, open access consumers and captive users. For open access consumers and captive users, this requirement applies to electricity consumption from sources other than distribution licensee.*”

The draft notification introduces the concept of Designated Consumers (DCs), which does not appear fully congruent with the earlier regulatory understanding of Obligated Entities. As per “Notice for Submission of RCO Compliance Report¹”, DCs are limited to a specific list of industries meeting prescribed consumption thresholds, measured in metric tons of oil equivalent, pursuant to the Energy Conservation Act, 2001. However, under the framework of the Electricity Act, 2003, open access consumers, irrespective of their individual consumption thresholds were also considered obligated entities for the purpose of Renewable Purchase Obligation (RPO) compliance. By excluding the open access consumers below the notified threshold, the present draft effectively removes a number of consumers from the coverage of RCO. Such exclusion may dilute the compliance base and run contrary to the policy objective of progressively broadening the framework for renewable energy integration. It is therefore suggested that the notification clarify the treatment of open access consumers who do not qualify as DCs and specify whether they remain obligated to meet RCO in respect of consumption from sources other than the distribution licensee, in line with the earlier RPO regime. This clarification will ensure that the objectives of the mechanisms are aligned and have

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https://cer.iitk.ac.in/periodicals/regulatory_insights/Volume08_Issue02.pdf
¹https://beeindia.gov.in/sites/default/files/List%20of%20DCs%20for%20RCO_based%20on%20the%20threshold%20limit%20of%20energy%20consumption%20defined%20in%20EC%20Act%202001.pdf

uniformity in targets across entities.

CER Scope of Consumption (Electrical Energy vs. Total Energy): In the proposed Clause 2 “*The specified minimum share of electrical energy, referred to in first paragraph, from renewable energy sources as percentage of total electrical energy consumption (hereafter, in this notification, called as Renewable Consumption Obligation) for each category, shall be as per details given in the Table below:*”

Section 14(x) of the Energy Conservation Act, 2001 empowers the Government to “specify minimum share of consumption of non-fossil sources by designated consumers as energy or feedstock, provided different share of consumption may be specified for different types of non-fossil fuel sources for different designated consumers”.

The Act does not refer to 'different types of energy or feedstock', but is specific about different types of non-fossil fuel sources.

The draft notification, however, limits the RCO only to *electrical energy consumption*. It also limits the scope to *renewable energy*, which is a sub-set of non-fossil sources as mandated by the Act. This approach excludes non-electrical forms of energy and important non-fossil options such as green hydrogen, green ammonia, and biofuels. It is therefore recommended that the obligation be aligned with the Act by covering *total energy consumption* and retaining expanding the scope covering *non-fossil sources*.

CER Deemed Generation Multiplier and Need for Regional CUF-Based Approach: In the proposed Clause 2 (4) “*Provided further that in case the designated consumer is unable to provide generation data against Distributed renewable energy installations, the reported capacity shall be converted into Distributed renewable energy generation in terms of energy by a multiplier of 4 kilowatt hour/kilowatt per day (kWh/kW/day).*”

The proposed fixed multiplier of 4 kWh/kW/day for estimating deemed generation does not capture regional resource variability and may inflate RCO compliance in periods of low generation, particularly for regions with low solar insolation. It is recommended to replace this with a region-specific CUF benchmark that reflects local conditions. A penalty multiplier, of say, 0.8, be applied for persistent non-reporting of actual data for ensuring better accountability.

CER Exclusion of Nuclear Energy from Definition of Non-Fossil Fuel Sources: In the proposed Clause 4 “*For all the designated consumers, the RCO shall exclude electricity consumed from Nuclear Power sources.*”

The draft notification seeks to exclude nuclear energy from the ambit of non-fossil fuel sources. This is inconsistent with the broader spirit of the Energy Conservation Act, which seeks to promote consumption from all non-fossil fuel sources. It is being re-emphasized that the Energy Conservation Act, 2001 mandates consumption from 'non-fossil fuel sources'.

CER Definition of “Consumer's Network”: In the proposed Clause 6 “*For open access consumers specified as designated consumers, RCO shall include electrical energy consumption at the point of injection from grid into the consumer's network.*”

The draft notification uses the term 'consumer's network' (for instance, in relation to injection of energy), but this expression is not defined in the Energy Conservation Act. In practice, it may be intended to cover dedicated transmission lines of large consumers. However, the absence of a clear definition may lead to ambiguity in its interpretation and disputes in implementation. It is therefore recommended that the notification explicitly define the term 'consumer's network' (for example, whether it includes both inter- as well as intra-state networks irrespective of the metering point) to ensure clarity and consistency.

CER Clarity on the Definition of Consumption and its Applicability: In the proposed Clause 7 “*For captive users specified as designated consumers, RCO shall include electricity generated and self-consumed, excluding auxiliary consumption. The obligation shall exclude electricity generated and self-consumed from waste heat recovery process using fossil-based sources, except for electricity generated from a Waste Heat Recovery Steam Generator (WHRS)*”

² <https://indiankanoon.org/doc/840448/>

in a captive Combined Cycle Gas-Based Generating Station. The obligations shall also exclude electricity generated and self-consumed through waste energy recovery including from by-product gases, or other forms of residual energy sources associated with industrial processes. Further, the obligation shall exclude 50% (fifty percent) of the electricity generated and self-consumed from a fossil-fuel based co-generation plant.”

As per the State Electricity Duty Rules, auxiliary consumption is treated as part of consumption for the purpose of electricity duty. This position is supported by the Supreme Court in “*State of Mysore v. West Coast Paper Mills Ltd., (1975) 3 SCC 448*,” where a three-Judge Bench held that **electricity consumed for the purpose of further generation of electricity constitutes “consumption” and is, therefore, exigible to duty.**

However, the draft notification excludes auxiliary consumption from the definition of consumption for captive consumers identified as DCs. This inconsistency may lead to legal disputes, since the statutory position already considers auxiliary use as consumption.

The draft also creates ambiguity regarding self-consumed electricity. It is unclear whether consumption is to be measured at the generating busbar or at the consumer's end, in the case of a captive plant that is not co-located. For captive plants located far from consumer premises, this lack of clarity could create compliance and monitoring issues. In contrast, open access cases explicitly mention injection into the consumer's network.

Also, the draft language on Waste Heat Recovery (WHR) and cogeneration creates ambiguity and may inadvertently allow fossil fuel-based cogeneration to qualify under the RCO. Such a provision risks becoming a back door entry for fossil fuel generation, which undermines the core intent of the Energy Conservation Act, i.e., promoting non-fossil energy sources. To maintain policy integrity, it is essential to explicitly exclude fossil fuel-based cogeneration from being treated at par with renewable or non-fossil co-generation.

CER Buyout Price: Penalty vs. Compliance Mechanism: In the proposed Clause 9 “*Designated Consumers may fulfil the specified Renewable Consumption Obligation through one or more of the following methods:*

- I. *Consumption of renewable electricity, either directly or through an energy storage system:*
- II. *Purchase of Renewable Energy Certificates (RECs) issued in accordance with regulations notified by the Central Electricity Regulatory Commission (CERC)*
- III. *Payment of the buyout price specified by CERC. Provided that the sums received through the buyout mechanism provided that the sums received through the buyout mechanism shall be credited to the Central Energy Conservation Fund under a separate head, from which **fifty percent** of the amount shall be transferred to the respective State Energy Conservation Fund. Appropriate Government shall utilize these sums to support the development of **specified renewable energy sources and storage capacities.**”*

The draft rules allow the buyout price to be treated as a mechanism for 'compliance', rather than as a deterrent against non-compliance. This undermines the spirit of the Energy Conservation Act, 2001, which seeks to promote actual energy savings and renewable energy use, not to create a revenue-earning mechanism for the government. The buyout price should, therefore, be retained strictly as a penalty not as an alternative route for meeting obligations. While the underlying mechanism remains the same, the associated terminology should be appropriately reworded.

There is also confusion across documents regarding the sharing of collected penalties - whether it is **50:50 or 90:10**. The recently issued draft Energy Conservation (Compliance Enforcement) Rules, 2025 (dated 4th August 2025) under Rule³ specify that “*all penalties shall be credited into the Central Energy Conservation Fund, from which 90% shall be transferred to State Governments and 10% to the Central Government*”. This inconsistency creates ambiguity and needs clarification.

Further, if penalty proceeds are routed to the Consolidated Fund of Central Government, their utilisation will depend on annual grants, which may delay or dilute their intended application. The rules should explicitly ensure that funds

³ <https://beeindia.gov.in/sites/default/files/Draft%20Notification%20for%20Public%20comments.pdf>

are earmarked and utilized for the purpose identified in the Energy Conservation Act, 2001. It should be technology-neutral and cover all non-fossil fuel sources in line with the spirit of the Act.

CER Holding Company Level Aggregation: In the proposed Clause 10 *“The Renewable Consumption Obligation compliance for multiple designated consumers under common control, as defined in the Companies Act, 2013, may be considered on an aggregate basis at the Holding Company level.”*

Allowing compliance at the holding company level creates jurisdictional and monitoring challenges. A State Electricity Regulatory Commission (SERC) may not have the authority to seek plant-level information if the facilities are located outside its state. Moreover, the Energy Conservation Act, identifies the “designated consumer” at the plant level, not the head office. Therefore, aggregating compliance at the holding company level could dilute accountability and weaken regulatory oversight.

CER Carry Forward of Surplus Obligations: The draft does not clarify whether obligated entities can carry forward or adjust surplus renewable energy procurement from previous years. The absence of such a banking provision creates ambiguity and may discourage proactive over-compliance. Since, a rollover mechanism already exists under the REC framework, the rules should explicitly state the treatment of surplus procurement to ensure consistency and avoid potential disputes.

CER Data Reporting and Unique DC Identifier: The draft (Annexure) requires information from designated consumers, but it should be clarified that reporting must be done at the plant level rather than at the company level, to ensure accuracy and traceability. The required details should include the plant's full address (including taluka and village) and the Discom under which the plant falls. Additionally, a unique DC identifier (such as the one used in the Open Access Registry) should be incorporated to avoid duplication and ensure consistency across regulatory processes.

CER Role of SLDC in Data Verification: The draft does not clearly define how the State Load Despatch Centre (SLDC) will confirm consumption data to the designated renewable energy (DRE) authority, particularly in the case of behind-the-meter consumption. Since SLDCs typically monitor grid-interfaced transactions, their role in validating behind-the-meter data remains ambiguous. This lack of clarity may lead to gaps or inconsistencies in reporting and compliance. The rules should therefore specify the mechanism and responsibility for validation of such data, by defining SLDC's role.

CER Data Archival and Accessibility for Research: All the DC-wise RCO compliance data, including that for captive as well as open access consumers, submitted through the RCO Web Portal should be archived and made publicly accessible in a machine-readable format. This would enable further research in this emerging domain and help to develop India specific solutions.

Opinion on MoP Draft Energy Conservation (Compliance Enforcement) Rules, 2025



The MoP notified the draft on Energy Conservation (Compliance Enforcement) Rules, 2025, issued on 4th August, 2025. The main objectives of the proposed regulations are:

Objective: The draft rules provide a structured mechanism for monitoring, reporting, and enforcement of compliance under the Energy Conservation Act, 2001. These rules will come into force upon publication in the Official Gazette and will be applicable to manufacturers, importers, designated consumers, and other obligated entities as specified in the Act.

Under Sections 13A, 14, and 15 of the Energy Conservation Act, 2001, the BEE has been entrusted with the responsibility to seek information, verify compliance with prescribed norms, and submit certified reports to the Central Government. The draft rules clarify that in cases of shortfall or non-compliance, the Central Government's notified norms will take precedence over cumulative norms at the state level, thereby ensuring uniformity.

The rules also outline that all penalties payable by obligated entities for non-compliance shall be credited to the Central

Energy Conservation Fund (Section 20 of the Act), from which 90% will be transferred to the State Governments and 10% retained by the Central Government for designated purposes. In terms of reporting, the rules, that requirement of periodic submission of data by entities, with BEE responsible for verification to prevent under-reporting or misreporting.

Overall, the draft rules seek to strengthen compliance through a clear enforcement framework, defined reporting timelines, penalty mechanisms, and fund utilization provisions, thereby aligning with the larger spirit of the Energy Conservation Act, 2001, which is to promote efficient use of energy and reduce dependence on fossil fuels.

CER Opinion

CER Jurisdictional Concerns over Central vs. State Obligations: In the proposed Clause 3(2) *“In the event of any shortfall, the norms and standards provided by the Central Government under clause (x) of section 14 of said Act shall apply to the extent of such shortfall, and not cumulatively with any norms and standards provided by any State Electricity Regulatory Commission under the Electricity Act, 2003.” (emphasis added)*

The draft clause provides that in the event of any shortfall, the norms and standards notified by the Central Government under Section 14(x) of the Energy Conservation Act shall apply, and not cumulatively with those framed by the SERCs. On the face of it, this provision is intended to avoid **double counting of penalties**, thereby ensuring that designated consumers (DCs) are not subjected to overlapping obligations under the Electricity Act 2003 and the Energy Conservation Act, 2001.

The RPO obligations specified under the Electricity Act 2003 are subject to regulatory compliance and penalty mechanism thereof.

While it acknowledges the concurrency of the obligations under two different legislations, it seems to bestow a hierarchy to such norms and standards. This would particularly be desirable in case of state-level obligation being higher than the central level. This is further explained below.

DCs operating within a State are under the jurisdiction of the respective SERC. Some SERCs may prescribe higher obligations than the target specified under the Rules. For example, the state of Kerala has a RPO target trajectory higher than that specified under the Rules. As per the draft clause, the shortfall from the target would not be accounted in a cumulative manner. There is no provision to address a situation where shortfall under the EA, 2003 would be higher than that under the ECA, 2001. Furthermore, it also leaves room for legal disputes when it comes to imposition of penalty thereof. Applicability of the state-level compliance needs to be reiterated. An explicit acknowledgement that the provisions are notwithstanding the additional shortfall that may be adjudged separately by the respective SERC, would reduce scope for disputes.

A more balanced approach would be to adopt a **harmonised compliance framework**. The provision could clarify that central norms apply only to the extent necessary to prevent double penalisation. At the same time, where SERCs impose higher obligations, compliance should be enforced through SERC adjudication mechanisms, with penalties imposed once through a coordinated process between BEE and the concerned SERC. This would maintain fairness for DCs while also safeguarding the regulatory space and ambition of the States.

CER “Appropriate Commission” to Avoid Exclusion of JERCs: The term “State Electricity Regulatory Commission” should be defined to include the Joint Electricity Regulatory Commissions (JERCs) constituted under the Electricity Act, 2003. To avoid interpretational ambiguity and ensure uniform applicability, the provision may alternatively be revised to include **both SERCs and JERCs**, for example, by using the term **“Appropriate Commission”** as defined in the Electricity Act, 2003.

CER Inclusion of Detailed Compliance Parameters and Timeframe for Periodic Reports: Periodicity of reporting:

In the proposed Clause 4 “Reporting

(1) *The Bureau shall obtain the necessary information from the entities as provided in rule 2, in relation to compliance with the following provisions namely: -*

- (i) *section 13A of the said Act;*
- (ii) *clauses (c) and (d) of section 14;*
- (iii) *clauses (h), (i), (k), and (l) of section 14; and*
- (iv) *clauses (n) and (x) of section 14.*

(2) *The entities mentioned in rule 2, shall **periodically submit** reports to the Bureau.” (emphasis added)*

The provision should clearly specify the nature of compliance information to be reported under of **Section 13A**, as its subject matter (prohibition on deceptive use of the Bureau's name or mark) differs from technical or operational compliance under other sections. How would one expect someone misusing the Bureau's name to file a 'compliance report'?

Additionally, the term “periodically” should be defined with a specific reporting frequency (e.g., quarterly, annually) to ensure consistency, predictability, and enforceability in reporting obligations.

CER Linkage between Bureau's Verification Role and SERC/JERC Jurisdiction: In the Proposed Clause 6 *Jurisdiction of State Electricity Regulatory Commissions*

(1) *The following shall be competent for adjudging for fails to comply with the provisions of sections 13A, 14 and 15 of the said Act as per table given below”*

In the Draft Clause 6 assigns adjudication powers to SERCs for failures under Sections 13A, 14, and 15, while elsewhere the draft rules state that the Bureau shall verify compliance and **submit a report to the Central Government for certification**. The relationship between the Bureau's verification/certification process and the SERC/JERC's **adjudication powers is unclear**. The rules should explicitly define whether the SERC/JERC is bound by the Bureau's verification report, whether it can conduct an independent examination, and the process for **transmitting such reports/information to the adjudicating officer**. This will avoid jurisdictional overlap or procedural conflict.

If the Bureau's would forward the compliance report to the Central Government for certification, what would be the role of SERC's adjudication process? How would be outcome of the adjudication process by an SERC reflect on the 'certification' granted by the Central Government?

CER Limited Capacity and Domain Expertise of SERC/JERC: In the proposed Clause 6 “*Jurisdiction of State Electricity Regulatory Commissions*

(1) *The following shall be competent for adjudging for fails to comply with the provisions of sections 13A, 14 and 15 of the said Act as per table given below: -*

Table 1

(a) <i>Appliances, equipment and vehicles specified under clause (b) of section 14.</i>	<i>Adjudicating Officer of the State Commission where the registered head office of the manufacturer or importer is located.</i>
(b) <i>Industries specified as designated consumers under clause (e) and (n) of section 14.</i>	<i>Adjudicating Officer of the State Commission where the industry or establishment is located.</i>
(c) <i>Non-fossil consumption specified for designated consumers under clause (x) of section 14.</i>	<i>Adjudicating Officer of the State Commission where the industry or establishment of the designated consumer is located, or the registered head office in case where compliance is undertaken at the holding company level.”</i>

The draft ends up assigning adjudication responsibilities for matters concerning appliance, equipment, and vehicle **compliance matters to the adjudicating officer of the respective SERC/JERC**. However, these Commissions traditionally regulate electricity related matters and **generally do not have domain expertise** in appliance or vehicle efficiency standards, which fall under technical certification bodies and sector-specific regulators. The qualification criteria outlined for Chairpersons and Members of the ERCs (as outlined in the Electricity Act 2003) do not include some of these areas of expertise. This knowledge gap would be addressed through reliance on external technical inputs, thus raising concerns for long-term regulatory governance.

CER Fund Allocation and Utilisation (Table 2 & Related Provisions): In the proposed Clause 6 (2) “*All penalties payable by the entities mentioned under rule 2, shall be credited into the Central Energy Conservation Fund referred in section 20 of the Act, from which **ninety percent** shall be transferred to the State Government as given below, and **ten percent** to the Central Government as per table given below: -*

Table 2

(a) <i>Appliances, equipment and vehicles specified under clause (b) of section 14.</i>	<i>Consolidated Fund of each State in proportion of its share of the total sales by the manufacturer or importer of the specific appliance, equipment, or vehicle during the compliance period.</i>
(b) <i>Industries specified as designated consumers under clause (e) and (n) of section 14.</i>	<i>Consolidated Fund of the State where the industry or establishment is located.</i>
(c) <i>Non-fossil consumption specified for designated consumers under clause (x) of section 14.</i>	<i>Consolidated Fund of the State where the industry or establishment of the designated consumer is located.</i>

(3) *Any amount recovered towards compliance, **not covered** under section 26, shall be credited to the **Central Energy Conservation Fund.***”

Table 2 outlines the distribution of penalty proceeds from the Central Energy Conservation Fund (CECF) to State Governments based on the nature of the violation and the location or share of sales share of the respective appliance, equipment or vehicle. While this approach recognises jurisdictional linkages, it raises following concerns:

- There would be a significant burden of data collection for sales by appliance, equipment and vehicles across states. There are very limited sources of reliable nationwide data especially for appliances and equipment. A simpler benchmark may be devised based on aggregated data- For example, state-wise Value Added at NIC classification level representing group (3-digit), Class (4-digit) or sub-class (5-digit) classification. Value added as a measure would also be fair to states where ancillary industries may be contributing to the final output of equipment/appliance/vehicle. This can be adjusted by broader data on sales to provide better representation of actual purchase/use of the same.
- Rules should outline methodological approach for calculating share based on sales along with an audit mechanism so as to avoid any disputes regarding the same.
- **Utilisation Control** – The transfer of funds to the Consolidated Fund should be accompanied by utilisation criteria in line with the objectives of the Energy Conservation Act 2003. The rules should mandate that such funds be utilised only for the purposes listed under Section 20 of the Act.
- **Basis for Central Share** – A significant part of the compliance burden as well as overall The rationale for the allocation to the Central/State Government is not articulated. This can be based on the criteria such as administrative costs of enforcement, capacity building, research etc. while aligning it with the purposes identified under Section 20 of the Act.
- **Verification of Distribution** – For table 2(a), proportional allocation based on total sales requires a transparent methodology, credible data sources, and an audit mechanism to ensure accuracy. Without these, disputes over

computation and distribution may arise.

- **Treatment of Recoveries other than those under Section 26**– Sub-clause (3) provides that compliance-related recoveries not covered under Section 26 shall be credited to the CECF. The rules should clarify the permissible use of such amounts and whether the apportionment criteria would also apply to such amounts received as well.

CER Clarification on Inclusion of Section 13A in Applicability Clause: The enforcement scope under Section 13A of energy conservation Act 2001, is presently limited; its inclusion in the **applicability clause may not have immediate operational significance**, though it retains relevance for addressing potential future occurrences. **The Bureau should clarify the rationale for including Section 13A in the applicability list of the draft rules.**

CER Clarity on Roles of BEE and SERC in Compliance Verification and Adjudication: In the proposed Clause 7 (1) *“The Bureau on its own or through designated agencies shall verify compliance under section 26.”*

The current provision assigns compliance verification to the Bureau (or its designated agencies) and adjudication to State Commissions. While this ensures a balance between technical oversight and regulatory adjudication, it also creates the possibility of divergence of opinion **between BEE and SERC** on whether an entity is in compliance. A mechanism needs to be setup to sort out such differences, if any. An objective definition for various components of compliance including some of the suggestions made herein may help preempt these.

CER Substitute “Provided” with “Specified”: In the proposed Clause 3 *“Norms and Standards: The Bureau shall be responsible for compliance enforcements with the norms and standards **provided** by the Central Government.”* (emphasis added)

It is recommended that the term **“provided”** be substituted with **“specified”** in line with the terminology applied in such cases.

Regulatory Lexicon

Fuel and Power Purchase Adjustment Surcharge

1. **Fuel and Power Purchase Adjustment Surcharge (FPPAS):** The change in cost of power supplied to consumers due to change in fuel cost, power purchase cost, and transmission charges with reference to the cost of supply approved by the Commission.
FPPAS shall be calculated and billed to consumers automatically, without going through a regulatory approval process, on a monthly basis, according to the formula prescribed by the Commission.
2. **Average Billing Rate (ABR):** Average Billing Rate for the year as approved by the Commission (in ₹/kWh) or the average rate at which electricity is billed to the consumers over a given time period (typically a year).
3. **Incremental Average Power Purchase Cost:** The extra cost per unit that a power-distribution utility has incurred in purchasing electricity in a given month from all sources, **over and above** the cost it had expected / projected in its tariff order. This includes fuel cost changes as well.
4. **Bulk Sale:** The total quantum of power sold from all sources during a specific month (commonly the $(n-2)$ month), as reflected in the State Load Dispatch Centre (SLDC) provisional accounts.

Renewable Purchase Obligation (RPO)

5. Renewable Purchase Obligation (RPO) means the minimum percentage of total electricity consumption that a distribution licensee or other obligated entity must procure from renewable energy sources. It covers solar, wind, Hydro Purchase Obligation and Other emerging renewable technologies.

⁴https://powermin.gov.in/sites/default/files/Seeking_comments_on_Revised_Draft_Gazette_Notification_on_Renewable_Consumption_Obligation_under_the_Energy_Conservation_Act.pdf

6. Renewable Consumption Obligation (RCO) is a legally mandated obligation for certain "designated consumers" (such as electricity distribution licensees, open-access consumers, and captive power users) to ensure that a specified minimum portion of their total electricity consumption comes from non-fossil (i.e., renewable) sources.
7. **Distribution Licensees:** The RCO shall be calculated based on electrical energy supplied to consumers within the periphery of the distribution licensee. This supply shall not include the consumption of open access users from sources other than distribution licensee, and the electricity generated and self-consumed by captive users.
8. **Designated consumers:** A consumer, such as a distribution licensee, who is required to meet a RCO calculated on the basis of the electrical energy supplied to its consumers within its licensed area of supply. This calculation excludes the energy consumption of open-access users drawing electricity from sources other than the distribution licensee, and the electricity generated and self-consumed by captive users.

Designated consumers may fulfil the specified RCO through following methods:

- Consumption of renewable electricity (directly or via an energy-storage system).
- Purchase or self-generation of Renewable Energy Certificates issued under notified by CERC (including those acquired via Virtual Power Purchase Agreements).
- Payment of the buyout price specified by the CERC.

Captive generating plant (CGP)

9. A Power plant set up by any person to generate electricity primarily for his own use, and includes a power plant set up by any cooperative society or association of persons for generating electricity primarily for use of members of such cooperative society or association.

Key features and conditions:

- Any person can construct, maintain, or operate a captive generating plant and dedicated transmission lines.
- Supply of electricity from a captive generating plant through the grid is regulated in the same manner as the generating station of a generating company.
- The owner has the right to open access for transmitting power from the plant to the place where it is used.
- In case Captive generating plant, no license is required to:
- Supply electricity from a captive plant to a **licensee**, or Supply electricity to **consumers**, subject to regulations under Section 42(2).

Two categories recognised for CGP:

Single Captive User: A user who holds not less than 26% ownership in the CGP and consumes not less than 51% of the electricity generated from the CGP

Group Captive Users: Where the CGP is set up by a cooperative society or association of persons, such that the members collectively hold at least 26% of ownership and together consume at least 51% of the net electricity generated on an annual basis.

The obligation shall not apply to:

- Electricity generated and self-consumed from waste heat recovery using fossil-based sources, except when produced through a Waste Heat Recovery Steam Generator in a captive combined cycle gas-based generating station; and
- Electricity generated and self-consumed from waste energy recovery, including energy derived from by-product gases or other residual energy sources associated with industrial processes.

Regulatory Updates

Tariff



BERC approved a tariff of Rs. 6.075/kWh for the long-term procurement of power from the 2400 MW Pirpainti Thermal Power Station. The commission's decision was based on a transparent bidding process (TBCB) that was in line with the guidelines issued by the Central Government.



HERC has ordered UHBVN and HVPNL to upgrade the power evacuation system for a specific paddy-straw based power plant. The utilities must choose one of three options within one month to ensure dedicated power supply at the 132 kV level and prevent trippings. The options include constructing a new 132 kV line, installing a new 22.5 MVA step-up transformer, or isolating the plant's current line from other feeders.

HERC approved a revised true-up amount for the fiscal year 2023-24. The total true-up, including a 9.80% holding cost over 18 months, amounts to Rs. 71.50 Crore. HPGCL is now authorized to recover this full amount from the distribution companies, UHBVNL and DHBVNL.



UPERC approved UPPCL's procurement of 500 MW wind power from SECI under long-term PSAs and SPSA, based on CERC's earlier tariff adoption order. The approved tariffs are Rs. 3.31/kWh (inclusive of Rs. 0.07/kWh trading margin) for 300 MW from Apraava Energy and 200 MW from SJVN Green Energy. However, if SECI fails to provide escrow or an irrevocable revolving LC to developers, the trading margin will be capped at Rs. 0.02/kWh as per CERC Trading Licence Regulations, 2020.



WERC reviewed IPCL's FY 2019-20 APR petition under Section 114 and Order 47 Rule 1 CPC. It corrected the repayment amount to Rs. 1,285.18 lakh, confirmed the equity base at Rs. 9,737.90 lakh with ROE unchanged, and re-computed Non-Tariff Income to Rs. 578.12 lakh, allocating Rs. 42.66 lakh to generation and Rs. 1,250.75 lakh to distribution. A rebate of Rs. 142.74 lakh revised the power purchase cost to Rs. 32,103.87 lakh, with recomputed savings and UI/DSM charges of Rs. 1,605.19 lakh (adjustment Rs. 7.13 lakh). Interest on working capital and Reliability Incentive were adjusted by Rs. 17.42 lakh and Rs. 25.97 lakh respectively, resulting in a total admitted additional amount of Rs. 1,502.26 lakh.



APERC approves the O&M expenses and terminal benefits were rightly assessed as per CERC norms and provisions, and rejected claims for tower protection, slide muck excavation, and road strengthening costs. On filing fees, it partly accepted DEPL's claim and directed payment of pending fees. However, the Commission allowed incentive for FY 2025 transmission availability, based on SLDC certification, though capped at 99.75% in accordance regulations. After revisions, APERC determined a cumulative revenue surplus of Rs. 0.105 crore, to be refunded/adjusted by DEPL within six months.



CERC adopted the transmission tariff of Rs. 499.60 crore per annum, discovered through tariff-based competitive bidding for the Rajasthan REZ Phase-III, Part H1 transmission project and Rs. 526.23 crore per annum for the Rajasthan REZ Phase-III, Part H2 transmission project. Resonance Power Limited, the successful bidder, was selected to implement the project on a BOOT basis. The Commission held that the bidding process was conducted in accordance with Section 63 guidelines, and the adopted tariff shall be governed by the CERC Sharing Regulations, subject to grant of transmission licence.

CERC approved the truing up of Annual Fixed Charges for FY 2019-24 and determined tariff for FY 2024-29 for the Combined Assets under the Western Region Strengthening Scheme VI. The Commission allowed net additional capitalisation of Rs. 28.09 lakh, after adjustments, and approved capital cost of Rs. 23,926.11 lakh as on 31st March 2024. Return on Equity, O&M expenses, depreciation, and interest were trued-up as per regulations. The petition was accordingly disposed of with directions for recovery and adjustments.



MERC approved the MSEDCL's review petition on the MYT Order, correcting errors in capitalisation, power purchase cost, agricultural sales estimation, and O&M expenses. The Commission approved additional capitalisation of Rs. 55,624 crore, revised power purchase cost to Rs. 5,20,024 crore for FY 2025-30, and adopted an updated agricultural sales index of 1,537 kWh/HP/annum. The review eliminated accidental omissions and ensured alignment with regulatory provisions. The order revised ARR components and upheld consumer interest while maintaining financial viability of MSEDCL.

Regulatory Updates



KSERC approved M/s Rubber Park India Pvt. Ltd. to proceed with the implementation of a 500 kW/1 MWh grid-connected Battery Energy Storage System (BESS) using the available regulatory surplus. The Commission directed that no interest or return on equity can be claimed on this asset, and the BESS output must be used to meet RPIPL's energy supply obligations. Additionally, RPIPL must file a separate petition for the proposed 400 kWp solar PV plant in line with the Electricity Act, 2003 and KSERC Tariff Regulations, 2021.



MERC approved MSEDCL's deviations in bidding documents and adopted tariffs ranging from Rs. 5.55/kWh to Rs. 5.67/kWh for procurement of 993 MW medium-term thermal power from November 2025 to October 2030. While permitting the procurement, the Commission expressed displeasure at MSEDCL's procedural lapses of proceeding with bidding before securing approval of deviations. It directed MSEDCL to strictly comply with competitive bidding guidelines in future. The petition was partly allowed, and related interlocutory applications were disposed of.

Power Procurement



HERC approves the Power Sale Agreement (PSA) between Haryana Power Purchase Centre (HPPC) and SJVN Limited. The commission's decision allows HPPC to procure power from SJVN for a period of 25 to 35 years at a rate of Rs. 4.45/unit. This is considered beneficial because the power is affordable, will help meet Haryana's RPO, and its firm and dispatchable nature, including 90% availability during peak hours, will help address the state's projected power deficit.



UPERC approved UPPCL's procurement of 375 MW/1500 MWh BESS capacity with VGF through SJVNL under a 15-year TBCB framework, noting its benefits for renewable energy integration, peak demand management, cost optimization, and reduced interstate losses. It directed the parties to promptly initiate tariff adoption and BESPA approval for timely project implementation.

UPERC considered NPCL's petition seeking a 10-year extension of its 2015 solar PPA with GNIDA. While GNIDA sought continuation of the approved tariff of Rs. 7.06/kWh citing unrecovered project cost due to underperformance of the plant, NPCL requested a lower tariff in line with current market conditions. The Commission held that the plant's poor performance cannot burden consumers, but acknowledged that GNIDA has yet to recover its capital expenditure. Accordingly, it allowed recovery at Rs. 7.06/kWh until FY 2028-29, after which tariff will be linked to the weighted average solar tariff discovered through competitive bidding for projects of 5 MW and above, as adopted by the Commission.



KSERC approved M/s India Gateway Terminal Pvt. Ltd. (IGTPL) to source up to 2 MW power through captive mode from a proposed solar plant at Malappuram, in partnership with M/s INKEL Ltd., to meet its 2026 RE targets.

KSEBL and CoPA have been directed to facilitate open access and banking as per existing regulations. Energy adjustment will follow procedures in Annexure-1 until new RE Regulations, 2025 are notified. IGTPL must comply with Section 9 of the Electricity Act, 2003 and related rules to avail captive consumer benefits. Future compliance with Harit Sagar Green Port Guidelines, 2023 will also be required.



RERC approved extension of PPAs with M/s SML Electricals India Pvt. Ltd. (2.40 MW), Rajasthan State Mines & Minerals Ltd. (50% of 5 MW plant), and M/s Bijapur Renewable Energy India Pvt. Ltd. (1.20 MW & 0.60 MW) for five years from expiry or up to 25 years from COD, whichever is earlier. The tariff during the extended period is fixed at Rs. 2.44/kWh as mutually agreed. Parties may execute Supplementary PPAs to formalize the extension.



KSERC has ratified KSEBL's action to implement large-scale Battery Energy Storage Systems at Sreekantapuram (40 MW/160 MWh), Mulleria (15 MW/60 MWh), Areacode (30 MW/120 MWh),

Regulatory Updates

and Pothencode (40 MW/160 MWh) through tariff-based competitive bidding under the CPSU-VGF scheme of the Ministry of Power. The Commission adopted the discovered tariff under Section 63 of the Electricity Act, 2003, approved a trading margin of Rs. 0.07/kWh payable to NHPC Ltd. (the BESS Implementing Agency), and endorsed the Battery Energy Storage Sale Agreement (BESSA) signed between KSEBL and NHPC.

Renewable Energy,

RPO and REC



JSERC approved a PPA that allows DVC to procure 29 MW of hydro power from NHPC's Parbati-II Hydroelectric Project. The Commission's approval is a crucial step for DVC in meeting its RPO targets. The final tariff for the purchased power

will be determined by the CERC.

JSERC has granted a three-month extension to the SAIL, Bokaro (FY 2021-22 to 2023-24) to ensure full compliance with the RPO. The commission also clarified that for the purpose of calculating the required number of RECs under clause 5.1(a) of the JSERC RPO and its Compliance Regulations, 2016, electricity consumption from captive sources will be included.

Others



HPERC approved Om Energy Generation's petition, holding that the Industrial subsidy of Rs. 5 Crore under IDS-2017 was denied due to policy limits and cannot be adjusted in tariff.

Accordingly, the Commission approved a provisional tariff of Rs. 4.28/kWh (excluding Industrial subsidy) from project commissioning, directing execution of a supplementary PPA within 30 days. Adjustment of MNRE subsidy of Rs. 5 crore was retained as deemed availed, with liberty to revisit if balance funds are later released.



KSERC has ratified KSEBL's action to initiate bidding for a 125 MW/500 MWh Battery Energy Storage System (BESS) at Myalatti, Kasargod, supported by Rs. 135 crore VGF sanctioned by the Ministry of Power under the State component scheme. The Commission adopted the discovered tariff of Rs. 4.41 lakh/MW/month quoted by M/s JSW Neo Energy Ltd., and approved a trading margin of Rs. 0.07/kWh payable to SECI (inclusive of payment security cost). It also approved the Battery Energy Storage Sale Agreement (BESSA) between SECI and KSEBL, subject to specified amendments.

KSERC clarified that no government grant, except Rs. 550 lakh under ASIDE in 2012-13, was provided to the licensee. The total capital investment in the distribution business is Rs. 23.43 lakh, out of which Rs. 766.74 lakh collected as upfront lease premium from consumers is treated as consumer contribution. Accordingly, only Rs. 156.69 lakh is eligible for depreciation, with Rs. 543.26 lakh already allowed up to FY 2022-23. The licensee's equity capital stands at Rs. 900 lakh (KINFRA and Rubber Board in equal share), with eligible RoE on Rs. 277.03 lakh. No normative loan is admissible, and excess depreciation/interest already approved will not be clawed back.



TNERC approved TANTRANSCO's proposal to lease land at six sub-stations for setting up 501 MW/1000 MWh BESS projects under the MoP's VGF scheme at a nominal rent of Re. 1/- per project per year for 15 years. The projects aim to support renewable energy integration and grid balancing in Tamil Nadu. TANTRANSCO must conduct grid connectivity and feasibility studies and execute proper lease agreements with developers. The BESS developers are required to comply with all State and Central policies, MoP guidelines, and environmental and safety standards. Further, the projects must not hinder TANTRANSCO's transmission operations or future capacity augmentation.



Tariff Orders

State/Union Territory (SERC)	Licensee/Utility	True-up	APR	ARR	Tariff
JSERC	Steel Authority of India Limited, Bokaro	2023-24	2024-25	2025-26	2025-26
UPERC	UPPTCL	2023-24	2024-25	2025-26	2025-26
APSERC	SLDC			2025-26 to 2029-30	
UPERC	UPSLDC	2023-24	2024-25	2025-26	2025-26
GERC	TPL-D	2023-24		2025-26	2025-26
RERC	JVVNL, AVVNL, JDVVNL	2023-24			
RERC	RVUN				2025-26
PSERC	PSPCL	2023-24		2025-26	2025-26
CSERC	CSPGCL, CSPTCL, CSLDC, CSPDCL	2023-24		2025-26	2025-26

Regulations

Title	Date of Approval/ Notification
APSERC (Payments of Fees) Regulations, 2025	18 th August 2025
BERC (Renewable Purchase Obligation, its Compliance and REC Framework Implementation) Regulations, 2025	4 th September 2025
Bihar Electricity Supply Code (8 th Amendment), 2024	21 st July 2025
CERC (Connectivity and General Network Access to the inter-State Transmission System) (Third Amendment) Regulations, 2025	9 th September 2025
CERC (Sharing of Inter-State Transmission Charges and Losses) (Fourth Amendment) Regulations, 2025	2 nd July 2025
CERC (Deviation Settlement Mechanism and Related Matters) (Second Amendment) Regulations, 2025	2 nd July 2025
MoP (Draft Notification Energy Conservation (Compliance Enforcement) Rules 2025-reg	4 th August 2025
RERC (Terms and Conditions for Green Energy Open Access) Regulations, 2025	17 th July 2025
SSERC (Standards of Performance for the Distribution & Transmission Licensee) (First Amendment) Regulations, 2025	11 th August 2025
SSERC (Electricity Supply Code) (Third Amendment) Regulations, 2025	11 th August 2025
SSERC (Renewable Consumption Obligation and its Compliance) Regulations, 2025	8 th July 2025



2nd Capacity Building Programme for LDCs “Regulatory and Policy Framework in the Indian Power Sector: Load Despatchers' Perspective”



The Centre for Energy Regulation (CER), in collaboration with Grid-India, successfully conducted the 2nd Capacity Building Programme for Load Despatch Centres (LDCs) from 24th to 26th July 2025.

The three-day programme aimed to enhance the understanding of evolving regulatory and policy frameworks in the Indian power sector from the LDCs' perspective. It also provided a platform for knowledge exchange, learning about best practices, and engagement with leading experts. Key speakers included Mr. Sushil Kumar Soonee (Former and Founder CEO, POSOCO), Mr. Rohit Bajaj (Joint Managing Director, IEX), Mr. Rajiv Porwal (Director (System Operation), Grid-India), Ms. Shilpa Agarwal (Joint Chief (Engineering), CERC), Mr. Apoorva Anand (Deputy Director, CEA), Dr. K. Balaraman (Former Director General, NIWE) and Prof. Anoop Singh (Founder and Coordinator, CER and EAL, IIT Kanpur)

The programme covered key topics including the Electricity Act, 2003, National Policies, Power Market Operations, Deviation Settlement Mechanism, Grid Code implementation, Ancillary Services, Resource Adequacy, Transmission Pricing, and RE Forecasting. Participants also visited CER and EAL labs at IIT Kanpur.

The programme concluded with a Valedictory Session, graced by Mr. Samir Chandra Saxena, CMD, Grid-India, who distributed certificates and shared valuable insights on policy and regulatory trends shaping the Indian power sector.



Regulatory Certification Programme on “Power Market Economics and Operation”

CER, in collaboration with EAL, conducted the 5th Regulatory Certification Program titled "Power Market Economics and Operation" from 30th August to 17th September 2025, organized under the aegis of the Office of Outreach Activities, IIT Kanpur. This online program provides insights to the economics, operation, Power Procurement Planning, Deviation settlement Mechanism, Power system Operation, Resource Adequacy, Derivatives and More.

The inaugural session was graced by Mr. Ravinder Singh Dhillon Member (CERC), Former CMD, PFC Ltd., as the Chief Guest.

Key speakers included Dr. Sushanta Chatterjee, Mr. Sushil Kumar Soonee, Ms. Shilpa Agarwal, Mr. Dhruv Dhiman, Mr. Shathish Vasudev, Mr. Nishant Singhal, Mr. Ghanshyam Prasad, Mr. Ajay Talegaonkar, Mr. Abhishek Ranjan, Mr. Ashish Bhagtani, Dr. Srikant Nagulapalli, Mr. Rajiv Porwal, Mr. Rajat Goel, and Prof. Anoop Singh.

Mr. Manu Srivastava, Additional Chief Secretary (Department of New & Renewable Energy, Government of Madhya Pradesh) graced the valedictory function as Chief Guest, presented certificates to the participants, and highlighted the importance of informed decision-making and the advancement of regulatory frameworks in the power market Economics and operation.



Regulatory Certification Programme on “Renewable Energy: Economics, Policy and Regulation”

Registration is now open for the 3rd RCP on “Renewable Energy: Economics, Policy and Regulation” scheduled from 13th December, 2025 to 9th January, 2026. The program on Renewable Energy Regulation focuses on regulatory and policy framework for Renewable Energy (RE).



For more information and registration

The editor thanks Regulatory Insights team for their contribution in supporting the analysis, copy editing, compiling snippets of tariff orders, regulatory updates, and coordinating final production of this Issue.

Regulatory Insight Team- Himanshu, Mohit, Sandeep, Aman, Sanjit

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Other Initiatives



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Note: Additional information can be accessed through the hyperlinks provided in the online version of this periodical.