



REGULATORY INSIGHTS



Regulatory Outlook

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Editorial

Demand and supply characteristics of electricity differ not only in the physical context but also in the associated costs and prices thereof. The Electricity Act, 2003, aims to promote efficiency and incentivise the same through measures to be designed by the respective SERCs. The supply code, as well as the standards of performance for an electric utility, would also depend on the capital vintage, load concentration as well as physical terrain. The philosophical approach should be made uniform or at least coherent in terms of the broad scope of the regulatory framework while allowing flexibility in detailing the supply code and the performance standards across states. However, this legacy should not be used as an alibi to justify persistent inefficiencies.

Open access, as enshrined in the Electricity Act, 2003, aims to enhance avenues for electricity supply as well as its procurement. Metering, billing, and settlement are vital to the implementation of the open-access framework across states. Generators utilising multiple avenues for the sale of power while using the same metering interface create challenges for the respective system operator/ power committee in apportioning the injected energy across a variety of intra and inter-state contracts and for implementing the applicable charges associated with deviation from the schedule. Amendments to the TNERC open-access regulations aim to address this regulatory gap. CER suggests adequate provisions to address the emerging developments in the power sector, particularly those on account of hydro purchase obligation, energy storage and banking of energy.

Short-term power procurement is emerging as a key tool in the optimisation of power procurement costs for distribution utilities. Utilities with surplus electricity have also been capitalising on the avenues for the sale of surplus power through the available market platforms. The regulatory framework for enabling the distribution utilities to engage in optimal short-term power procurement/ sale should set broader principles for undertaking such transactions. This should guide, for example, the choice of a competitive platform as far as possible with broad guidance on the quantum and prices thereof. Landed cost of power, system security and reliability of supply should be the key criteria for short-term power procurement planning, while also considering technical constraints including transmission and ramping as well as start-up/ shutdown conditions. Based on the experience of distribution utilities in managing their power procurement/ sale of surplus power, greater flexibility should be available so that they can dynamically rebalance their portfolio between weekly vs daily procurement while considering changes in the demand-supply mix as well as market conditions across the year.

The decline in the cost of power procurement from renewable energy sources particularly solar energy has narrowed down the tariff gap across these sources. CER has long been suggesting the adoption of technology-neutral renewable purchase obligation (RPO) as well as Renewable Energy Certificates (RECs) for enhanced liquidity and competition in the renewable energy market in the country. The RE regulations should also provide clarity on the contribution of RPO from energy storage technologies that may store green as well as grey electricity.

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CEA: (Deletion & modifications of formats for furnishing of the statistics, returns or information), 2021 [Draft]

Central Electricity Authority (CEA) notified the (Furnishing of Statistics, Returns, and Information) Regulations, 2007 on 19th April, 2007 which consisted of 65 formats for furnishing of statistics, returns or information to the CEA by licensees, generating companies, person(s) generating electricity for use by CEA and person(s) engaged in the generation, transmission, distribution, trading, and utilisation of electricity.

CEA on November, 2021, by utilising the power granted under sub-regulation (2) of Regulation 9 of the said Regulations, decided for the deletion of thirteen formats among them and modify five formats (Refer Table 1). The table given below provides the suggested actions for the respective formats:

Table 1: Data formats and suggested actions

Sl. No.	Format No.	Title of the Format	Suggested Action - Proposed title of the Format
1	30	Daily Data regarding Loss of Generation on account of Shortage of Coal, Gas & Unrequisitioned Liquid Fired Capacity	Deletion
2	39	Report of Monthly Average Ash Percentage (By Weight)	Deletion
3	40	Report of Quarterly/ Annual Average Ash Percentage (By Weight)	Deletion
4	45	Fuel-oil Data	Deletion
5	46	Status of Progress of Villages Electrification and Irrigation Pump-sets Energisation	Deletion
6	47	District-wise Status of Progress of Village Electrification and Energisation of Pump-sets for the month	Deletion
7	50	Villages Electrified in Various Population Groups and the Population Covered	Deletion
8	52	Details of Failure of Distribution & Power Transformers	Deletion
9	55	Financial Turn Around of Power Distribution for The Financial Year	Deletion
10	57	Fuel Data of Fossil Fuel Based Thermal Power Stations for the month	Deletion
11	61	Monthly Peak Hours Generation Data by Coal/Lignite Based or Combined Cycle Gas Turbine (CCGT) Power Stations	Deletion
12	62	Generating Company Data for Financial Study	Deletion
13	63	Transmission Company Data for Financial Study	Deletion
14	21	Annual Data of HV/EHV Industry having Electricity Demand of 1 MW or Above	Modification - Annual Data of Captive Power Plants (CPP) (Applicable to the entities having electricity demand/CPP capacity of 0.5 MW & Above)
15	49	District-wise Monthly Progress of Energisation of Irrigation Pump-sets	Modification - Irrigation Pump-sets Energisation - Progress
16	51 (1)	Metering Status for The Month System Metering 11 kV Feeder Metering Distribution Transformer Metering Consumer Metering	Modification - Metering Status of Feeders (<i>w.r.t.</i> PSS and Area-wise) in Distribution System
17	51 (2)	Metering Status for The Month System Metering 11 kV Feeder Metering Distribution Transformer Metering Consumer Metering	Modification - Metering Status of Distribution Transformers (<i>w.r.t.</i> PSS and Feeders, Area-wise) in Distribution System
18	51 (3)	Metering Status for the Month System Metering 11 kV Feeder Metering Distribution Transformer Metering Consumer Metering	Modification - Metering Status of Consumers (PSS Wise and Area-wise - Urban/Rural) of the Circle in Distribution System
19	53	Reliability Index at Customer Level for the Month	Modification - Reliability Indices (SAIFI, SAIDI, CAIDI & MAIFI etc.) - Consumer Affected/Interrupted Basis on the Feeder
20	54	Reliability Indices (11 kV Feeders) for the Month	Modification - Reliability Indices (SAIFI, SAIDI, CAIDI & MAIFI etc.) for Urban/Rural Areas - Load Affected/ Interrupted Basis on The Feeder

CER Opinion

CER Need for Data – Tool for effective policy and regulatory design: It is important to highlight that availability of information is very crucial to design an effective policy and regulatory framework and enable various stakeholders, including researchers, to evaluate the impact of various measures and suggest improvement thereof. It is suggested to retain most of the formats proposed to be deleted. Given the changes in the sector, additional formats are also identified for inclusion.

The absence of data would create significant information asymmetry. While the cost of providing such data is not significant to the sector participants, its value to the sector is extremely high. **CEA should reconsider the proposal to drop various data formats and take necessary steps to make data being collected through various formats available through its website.**

CER Deletion of Format No. 30: The information provided through format no. 30 has a significant role in decision-making by the generators as well as by the suppliers & buyers of electricity. This may also significantly influence the market discovery of electricity prices. It is suggested that this data format should be retained to ensure that there is a proper flow of information to sector stakeholders and market participants.

CER Deletion of Format Nos. 39 and 40: Power sector and environmental regulators, policymakers, and researchers need data pertaining to format nos. 39 and 40 to understand the impact of ash content in coal and design measures to address its adverse impact. Furthermore, information on ash utilisation should be provided in detail to improve the understanding of responses of potential users of ash to various support measures. Thus, it is suggested to retain both formats.

CER Deletion of Format No. 45: The format for fuel-oil data could be simplified by excluding the details related to the source of supply, mode of transportation, etc. However, relevant information with relation to the monthly consumption of different types of fuel-oil, their calorific value, and the average cost of fuel should be retained.

CER Modification in Format No. 49: It is suggested that the modification should be made in such a way that it could provide separate details of pump-sets energised based on the solar photovoltaics (PV) by including details about the capacity of PV based pumps and PV generating capacity (including storage, if any) available to support them.

Given that the number of off-grid based electrification projects have been deployed across rural as well as remote areas based Distributed Energy Resources (DER), information about such projects and their performance should be included in format no. 49.

- Number of DER projects
- Technology (PV, Wind, SHP, hybrid with segregation etc.) and their capacity including storage, if any
- Total energy supply capacity (annual)
- Number of consumers electrified, and total connected load and total energy supplied to consumers (across domestic, Irrigation Pumping, commercial load etc.)
- The above information should be separately available for public as well as private projects including those setup by NGOs, local bodies etc.

CER Deletion of Format No. 50: The format no. 50, which currently pertains to village electrification, may not often provide reliable information as distribution companies may not have reliable data related to the number of persons residing in each village. However, given the importance of rural electrification and its impact on the life and livelihood of people, it is suggested that data regarding the following classification may be obtained across electrified villages *vis* several lifeline consumers, domestic consumers, and other consumers. It should also have separate information for newly electrified villages, new consumers and load sanctioned. Separate information regarding on-grid and off-grid based electrified villages through public as well as private projects including those setup by NGOs, local bodies etc., should also be provided.

CER Deletion of Format No. 52: The format no. 52 provides information on key performance indicators of the distribution licensee and hence this should be retained. This data is extremely important for the Electricity Regulatory Commissions (ERCs) to develop appropriate efficiency benchmarks as well as for the policymakers to help design and target programs for the improvement and maintenance of the distribution network.

CER Deletion of Format No. 55: The format no. 55 provides crucial information regarding the financial turnaround of DISCOMs. However, this format needs to be modified and expanded to take care of the alternate definitions and detailing of the various sub-components adopted and reported across distribution companies and regulated by the respective ERCs.

- CER Deletion of Format No. 57:** It is suggested to retain format no. 57 as this will provide information regarding the impact on the environment as well as the role and impact of Flue Gas Desulphurisation (FGD) investment. Moreover, it will also be able to highlight the societal benefits because of the various pollution control measures and investments undertaken, specifically FGD in the current context.
- CER Modification in Format No. 65:** It is suggested that the revised format may further elaborate ash utilisation based on the proposed applications such as cement manufacturing, brick manufacturing, road constructions etc. This would help ascertain the impact of support measures and the further support required to enhance ash utilisation by different types of usage.
- CER Deletion of Format No. 62 & 63:** These formats should be retained in their current form with all the necessary details. Tariff orders of respective SERCs do not provide adequate details and also not in a common format. Unavailability of such information would create a significant information gaps in undertaking benchmarking studies and suggesting improvements in the regulatory and policy frameworks across the sector.
- CER Deletion of Format No. 61:** The CERC (Terms and Conditions of Tariff) Regulations, 2019 provide for incentives for additional availability during peak and off-peak durations. In light of this, the data reported in this format is important to ascertain its impact on tariff and thus on final consumers, and also evaluate the efficacy of such a regulatory framework. The value of information is crucial to understanding the availability and generation of plants. This information also has an impact on market outcomes.
- CER New Data Formats:** In the context of various developments in the sector, particularly in the power system operation and market development, the following additional formats should be included:-
- Reference to Unscheduled Interchange should not be replaced with DSM across relevant data formats.
 - Generators data related to their participation in SCED as well as Ancillary Services including financial aspects thereof.
 - Biomass blending by thermal power plants, the calorific value of fuel, segregation of imported and domestic coal, transit and handling charges of fuel.
 - Metering status across the distribution network as well as consumer categories with details on the type of metering, *e.g.*, remote metering & Time of Day (TOD) metering, etc.

Draft Electricity (Rights of Consumers) Amendment Rules, 2021

Ministry of Power (MoP) has issued the Draft Electricity (Rights of Consumers) Amendment Rules, 2021 on 30th September, 2021. The key highlights of the draft are given below:

New Clauses inserted under Rule No. 10 (Reliability of Supply):-

- ❖ DISCOMs shall ensure 24x7 uninterrupted power supply to control pollution levels by avoiding usage of DG sets particularly in metros and large cities.
SERC shall provide SAIFI and SAIDI trajectories for the cities.
SERC may consider Reliability Charge for DISCOMs in case infrastructure upgradation is required for ensuring power supply reliability.
SERC shall make provisions for a penalty in case standards are not met by DISCOMs.
- ❖ Consumers for whom DG sets are essential for backup power, shall endeavour to shift to clean sources, *i.e.*, RE with battery storage etc., within 5 years from the date of publication of the amendment, or as per timelines set by SERC for such replacement based on supply reliability of the DISCOMs.
- ❖ To avoid usage of DG sets for temporary activities, electricity supply procedures for construction or for other temporary usages shall be simplified and given on an urgent basis within 48 hours of application. A prepaid meter will be used for a temporary supply.

CER Opinion

- CER** The supply code and standards of performance have been specified by the SERCs and these differ across states due to the existing state of the distribution network, consumer mix, terrain, vintage of the distribution system, etc. whereas the proposed amendments to the Rules, in general, seems to apply to all states under all conditions. Rules should provide for flexibility, *e.g.*, provision of a 48-hour limit for a temporary supply.

CER Classification of Metros and Large Cities: In Rule (10(3)), “*In view of the increasing pollution level particularly in the metros and the large cities...*”, an existing definition for urban conglomerations (metro/city, etc.) as applicable may be used for the purpose for implementation of the provision regarding the shift from DG backup.

CER Mandated 24x7 Reliability of Supply: Rule (10(3)) provides for a mandatory 24x7 power supply to all consumers. At the same time, it also provides for the specification of limits for SAIFI and SAIDI indicators of supply interruptions, *i.e.*, the ‘mandated’ 24x7 power supply condition may be ‘violated’. Furthermore, 24x7 supply to all consumers cannot be mandated due to operational constraints (controllable to a large extent) for the distribution system, as well as supply interruptions/ constraints across the power system (largely uncontrollable for the distribution utility). Criteria *w.r.t* availability of the distribution network would be more suitable.

The applicable SAIFI and SAIDI limits, to be specified by the respective SERCs, should apply to a **consumer** rather than **per consumer** (*i.e.* Average) basis. SERCs may also like to consider additional/ alternate indicators of reliability of supply (for example, Consumer Average Interruption Frequency and Duration Indices (CAIFI & CAIDI), Momentary Average Interruption Frequency Indices (MAIFI)).

CER In Rule (10(3)), “*The State Commission shall also make a provision of penalty in case the standards laid down are not met by the distribution company.*” may be rewritten as ‘The State Commission shall also make a provision of penalty in case the **specified standards for supply reliability (SAIFI, SAIDI etc.)** are not met by the distribution company.’

CER Time Limit for Temporary Supply Connection: In Rule (10(5)), the time limit of 48 hours for temporary supply connection may not be feasible in the case of need for grid extension/ required capital expenditure particularly for giving temporary connection for green-field project sites in hilly areas.

CER Rule (10(4)) seems to be a wishful statement as the words “*endeavour to*” is used for the consumers to shift to RE sources of power backup and a time limit of 5 years is provided along with it, while an option is given for the SERC to give an alternate timeline. It is recommended that the word “*endeavour to*” might be removed from the Rule and a definite timeline (5 years or as deemed appropriate) may be provided by the SERC for shifting to RE sources from DG sets as essential backup power.

TNERC (Grid connectivity and Intra-State Open Access) (Amendment) Regulations, 2014 [Draft]

TNERC notified a draft amendment to the Grid connectivity and Intra-State Open Access Regulations on 2nd December, 2021. The key points of this Regulation are provided below:

The following Regulation 19 (2) has been inserted in the prevailing Regulation:

The priority for adjustment of energy drawn by open access consumers is summarised below. This shall be implemented for each slot/ time block, upon adjustment of applicable losses.

Table 2: Priority for adjustment of energy drawn by open access consumers

(A) Non-captive	(B) Captive: Thermal predominant	(C) Captive: RE predominant
1. Thermal i. Long-term ii. Medium-term iii. Short-term inter-state open access including power exchange transactions iv. Short-term intra-state Open access 2. Renewable sources i. Solar ii. Wind iii. Bagasse based co-generation iv. Biomass generator 3. Distribution Licensee	1. Thermal- Captive 2. Renewable sources - Captive and RPO i. Biomass ii. Solar (higher applicable tariff first followed by lower tariffs) iii. Wind with banking of 1 month (higher applicable tariff first followed by lower tariffs) iv. Wind with banking of 12 months (higher applicable tariff first followed by lower tariffs) v. Bagasse based co-generation 3. Third-party power purchase (order same as in (A)) 4. Distribution Licensee	1. Captive sources i. Biomass ii. Solar (higher applicable tariff first followed by lower tariffs) iii. Wind with banking of 1 month (higher applicable tariff first followed by lower tariffs) iv. Wind with banking of 12 months (higher applicable tariff first followed by lower tariffs) v. Bagasse based co-generation vi. Thermal energy 2. Third-party power purchase (order same as in (A)) 3. Distribution Licensee

Priority of adjustment for all RE sources put together shall be based on the term of the agreement in the following order,

1. Long-term
2. Medium-term
3. Short-term inter-state open access including power exchange transactions
4. Short-term intra-state

Illustration: A consumer who purchases wind long-term, thermal long-term, solar short-term, bagasse-based co-generation long-term, the order of adjustment will be wind long-term, bagasse-based co-generation long-term, thermal long-term, solar short-term.

CER Opinion

CER Settling Multiple Contracts Through a Single Meter: The evolving nature of the power sector across states is witnessing the participation of entities in multiple contracts for the same time block. In the context of both buyers as well as sellers, energy accounting and settlement thereof have significant commercial implications including those on account of the applicable deviation settlement mechanism. In case of a variety of contracts to be ‘settled’ through the same metering point, it becomes imperative to have a mechanism to apportion the metered energy towards various contracts.

CER Regulation No. 19 (2): Definition of “*predominant*” needs to be included in these Regulations, or may be referred to in case a definition already exists.

CER Regulation No. 19 (2): To bring about clarity in differentiating the applicability of the Regulations for the captive consumers and others, the following phrase is suggested to be inserted in the draft amendment, “*These apportionment Regulations are differentiated across entities, seeking open access, based on them being a captive entity or not*”.

CER Regulation No. 19 (2) (A): The category mentioned under Non-captive Thermal as, “*Short-term inter-state open access including power exchange transactions*”, is suggested to be separated to “collective transactions through power exchange” and “short-term inter-state open access”. This will set a clear priority between the two types of transactions.

CER Regulation No. 19 (2): A priority across long-term, medium-term, and short-term contracts is used under the CERC (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-state Transmission and related matters) Regulations, 2009 in case of congestion management in the transmission network. The variety of contracts under open access (from an energy accounting perspective), involving a variety of buyers/ sellers need to define a waterfall cash-flow kind of priority not just across the nature of the contract but also across the type of fuel/ technologies. In time, a rather simpler mechanism should emerge, once we have sufficient experience post this amendment.

The priority of adjustment of energy for open access, proposed under the amendment, is based on the type of contract rather than the type of entity. Further, discussion and analysis are required to finalise overall priority based on economic as well as regulatory principles. As the priority of adjustment will also be applicable for procurement of energy from all power sources, *i.e.*, thermal as well as RE-power sources, this sub-section is suggested to be modified as follows,

Table 3: Suggested priority for adjustment of energy drawn by open access consumers

A. For the non-captive category:	B. For the Captive category Thermal predominant:	C. For the Captive category Renewable energy sources predominant:
<p>The order of preference, based on the type of energy sources will be as,</p> <ol style="list-style-type: none"> 1. Thermal 2. Renewable Sources <ol style="list-style-type: none"> i. Solar* ii. Wind* iii. Hybrid* iv. Bagasse based co-generation v. Biomass generator 3. Distribution Licensee 	<p>The order of preference, based on the type of energy sources will be as,</p> <ol style="list-style-type: none"> 1. Thermal <ol style="list-style-type: none"> i. Solar* ii. Wind* iii. Hybrid* iv. Bagasse based co-generation v. Biomass generator 2. Renewable Sources 3. Third-party power purchase 4. Distribution Licensee 	<p>The order of preference, based on the type of energy sources will be as,</p> <ol style="list-style-type: none"> 1. Renewable Sources <ol style="list-style-type: none"> i. Solar* ii. Wind* iii. Hybrid* iv. Bagasse based co-generation v. Biomass generator 2. Thermal 3. Third-party power purchase 4. Distribution Licensee

*Including embedded storage

Provided that the above would be further prioritised as per the type of contracts,

- | | |
|--|-----------------------------|
| i. Long-term inter-state | ii. Long-term intra-state |
| iii. Medium-term inter-state | iv. Medium-term intra-state |
| v. Collective Transactions through power exchanges | vi. Short-term inter-state |
| vii. Short-term intra-state | |

Note 1: Priority within the collective transactions *w.r.t.* the green power (for example under GTAM/ GDAM) *vis-à-vis* non-green power should also be specified.

Note 2: A clarification may be required regarding priority for open access for generators selling electricity under contracts discovered through the Discovery of Efficient Electricity Price (DEEP) portal.

CER Hydro Power Open Access: Since MoP has specified Hydro Power Obligation (HPO) trajectories in its order dated 29th January, 2021, it is suggested that the provisions for including HPO and subsequently hydropower purchase from open access be included in these Regulations. The priority of adjustment of energy may be set such that the hydropower is adjusted after thermal sources and before all other sources of renewable energy.

CER Banked Energy: Banked energy must be accounted for with its priority being higher than all other sources of energy irrespective of the category under consideration.

CER Stand-alone Storage: It is suggested that a provision for adjustment of electricity from stand-alone storage be included as a separate category in these Regulations to ensure that the Regulations are forward-looking in their design itself.

CER Regulation No. 19 (2) (B): The applicability and the priority mentioned herein does not clarify if the entity seeking open access has multiple RE-based captive power plants and is participating in banking energy (in case of wind) with the distribution licensee.

CER Regulation No. 19 (2) (B) (2): Under the Thermal predominant captive category, RPO-specific captive renewable energy and captive renewable energy for other purposes cannot be distinguished, as renewable energy purchase for captive consumption is also considered to qualify for RPO. Renewable energy procurement from other markets and mechanisms including those through Green Term-ahead Market (GTAM) and Green Day-ahead Market (GDAM) may not be captive but also qualify for RPO, except in case the entity plans to sell the power through RECs.

CER Regulation No. 19 (2) (B) (2): The explanatory statement for prioritising Biomass sources over other sources of renewable energy under “*Captive category Thermal predominant*” and the reverse under “*non-captive category*” is not clarified in these amendments.

CER Data Sharing and Transparency: The SLDC should maintain a proper record of the data (block-wise) for priority being accorded to the various transactions as per these Regulations. Such data should be archived and made available for ease of access through the SLDCs portal for individual transactions and the adjustments towards energy accounting thereof.

APERC (Terms and Conditions for short-term procurement/sale of power) Regulation, 2021 [Draft]

APERC issued a draft on 23rd November, 2021 regarding (Terms and Conditions for short-term procurement/sale of power) Regulation, 2021. The key attributes of these Regulations are given below:

Demand Estimation:

SLDC to carry out monthly demand estimation for each block of 15 minutes duration, based on (historical data, demand forecasts by the licensees and AI tools - Deep/ machine learning etc.). In addition to these data, weekly & day-ahead demand estimations should also be considered by SLDC.

This Regulation has separate provisions for monthly, weekly, and day-ahead power procurement plan as mentioned below:

❖ **Monthly Power Procurement Plan:**

- Licensees shall provide their 15-minute block-wise demand estimation to the SLDC by the end of the 10th of every month.
- After reviewing its demand estimation for the State, estimate provided by all the licensees, availability of power from all the approved sources, SLDC shall communicate with the licensees regarding the power required to be procured by each licensee on a short-term basis for the following month within three working days from the date of receipt of demand estimations from the licensees.
- Licensees shall file tenders on the DEEP portal for power procurement as communicated by SLDC. Licensees are required to provide details of the quantum of power and prices offered by each bidder as well as the quantum of power and the prices at which they intend to purchase the same.
- Commission shall give final decisions regarding power procurement, the quantum of power, prices and the conditions for power procurement.

❖ **Weekly Power Procurement Plan:**

SLDC shall provide details of short-term power requirements to the licensees by Wednesday of every week, for the immediately following week post demand assessment based on its forecast and availability of power from all approved sources (including power from short-term after considering maintenance schedules of generating stations, transmission constraints, generation and transmission capacities likely to be added in the next week). Licensees may procure power in Term-ahead Market (TAM).

❖ **Day-ahead Power Procurement Plan:**

SLDC shall provide the details of power requirements, every day by 10 am to the licensees for the next day based on the same details as mentioned in the weekly power procurement plan. Licensees may procure power in the day-ahead market.

Intra-day purchase: Licensees may procure power from the Real-time/ Intra-day Market, in case of any gap in between the supply and demand during intra-day.

Bilateral contracts: Licensees shall not buy power via bilateral contracts under any situation except from the sources expressly approved by the Commission.

Benchmark Price for short-term power procurement: The per-unit weighted average price determined by the Commission for a particular year shall be the benchmark price for short-term procurement for that year.

❖ **Functions of Dedicated cell:**

- To purchase energy in the Real-time Market (RTM) when the per-unit landed prices of energy in the exchanges are below the per-unit Variable Costs (VC) of energy from the approved stations in the margin under despatch.
- To sell surplus energy in RTM, Intra-day, Day-ahead/ Week-ahead Market (including surplus from wind & solar in GTAM).
- The marginal per unit VC from the approved sources under despatch will be the basis for such sale of surplus power.

❖ **Additional factors considered for Computation of landed prices of short-term procurement:**

- Reduction in the Gross Calorific Value (GCV) of coal due to storage of coal for a longer duration (because of backing down/ shutdown of approved thermal plants to accommodate market purchases).
- Additional capital expenditure on account of reduction in life of thermal stations equipment's due to frequent backing down/ shutdown of approved thermal stations.
- The impact of interest on account of the advance payments made to the Energy Exchanges towards power purchases.
- The additional financial burden on the licensees (in the form of higher fixed cost) on account of higher coal availability at thermal stations due to the backing down/ shutdown of approved thermal stations.

❖ **Furnishing of information to the Commission:**

Licensees to provide the following periodic details to the Commission pertaining to the short-term power procurement:

- The details of RTM/ Intra-day/ Day-ahead power procurements & sales (block-wise quantum of power and per unit rate) by the end of every day.
- The details of weekly power procurement and sales in TAM for the next week and power supply status for the immediately previous week by the end of Wednesday of the present week.
- The details of sales & power procurements for the next month and power supply status for the immediate previous month by the end of the 10th day of the present month.

CER Opinion

CER Short-term Demand Estimation and Procurement Plan (Regulation 3, 4, 5, 6): The draft Regulation provides provisions for demand estimation and power procurement plan for short-term at three levels, *i.e.*, monthly, weekly and daily. It is suggested that the demand estimation, as well as the power procurement plan proposed in this Regulation, should be carried out at four levels instead of three levels namely: -

- Monthly demand estimation and power procurement plan

- Weekly demand estimation and power procurement plan
- Day-ahead estimation and power procurement plan
- Demand estimation and power procurement plan for RTM, at least 8 to 10 blocks ahead before the RTM (to make final preparation for buy and sell in the RTM)

CER Monthly Power Procurement Plan (Regulation 4): As per the draft Regulation, “*the licensees shall float tenders on the national DEEP e-bidding portal to procure the power communicated by SLDC*”. However, it is suggested that power procurement from different power market platforms (example: DEEP portal, DAM, RTM *etc.*) should be based more on the competitiveness of that platform. Limited liquidity and low competitiveness, particularly for power procurement through negotiated bilateral and trading, and DEEP portal, should only be resorted through competitive tenders that do not attract barriers to entry while keeping in mind the relative price rigidity and competitiveness of power procurement. A portfolio approach should allocate power procurement through various platforms,

- Banking of power
- Competitive tendering process (that take relatively more time but allow for advance procurement that can extend up to months)
- DEEP
- Bilateral trading
- Power Exchanges

A modelling analysis can be performed to identify the relative share of various options in the portfolio based on the dynamic nature of the market and the need for power procurement.

CER Comprehensive Nature of Power Procurement Plan: The power procurement plan should be comprehensive and should provide for a framework to decide how much power the distribution licensees should procure from the DEEP portal, DAM/ RTM or through trading licensees (keeping in view the reliability margin taking into account also of the five per cent spinning reserve). The proposed power procurement plan should also include some buffer for reliability. Moreover, the power procurement plan should also account for the overall RPO commitments for the state utilities/ DISCOMs and whether they need to procure or sell power in GTAM or Renewable Energy Certificates (RECs).

CER Rephrasing the term ‘Whole State’ (Regulation 1, 4, 5): The draft Regulation uses the term “whole state” at several places in this Regulation for the state of Andhra Pradesh. It may be reworded as ‘for the consumers of the licensees’, that are to be served by them (after adjusting the captive and open access consumers). ‘Whole state’ includes all of the electricity consumption including that through captive and open access.

CER Ratification by the Commission (Regulation 5 & 6): As per the draft Regulation, “*all such weekly/ Day-ahead purchases shall be got ratified by the Commission*”. It is suggested that this Regulation should have some guidelines available regarding the quantum of power, the distribution licensees should generally procure through different market platforms and the average price or the peak price they should be willing to pay. Furthermore, it needs to be clarified whether the ratification will be done against criteria set by the Commission or will it be only paperwork. However, no such ratification is mentioned in the case of Intra-day power purchases. This should not serve as a loophole in the Regulation. Any specific reason for the exclusion may be mentioned therein for the same.

CER Role of Banking in Bilateral Contracts (Regulation 8): The draft Regulation does not provide any provision for banking. Banking is one of the ‘revenue/ cost’ neutral ‘power procurement’ offering little risk in terms of availability as well as prices thereof. It is suggested to add a provision for banking in case of bilateral contracts and may not even require ratification of the Commission if there are guidelines specified for the same. Also, note that banking increases the cost only to the extent of intra/ inter-state transmission losses and charges thereof. Guidelines can provide a framework for the economic evaluation of banking transactions so that there is an overall economic gain for the licensees and hence the final consumers.

CER Benchmark Price for Short-Term Power Procurement (Regulation 9): The draft Regulation does not define ‘Benchmark price’. A ‘benchmark price’ should be separately defined for each type of the trade (DEEP, DAM, RTM *etc.*) and the applicability of the benchmark should be clarified. It should be further clarified that the benchmark is applicable on average or as a minimum/ maximum limit. A range of benchmark prices may be separately notified by the Commission from time to time. However, the regulatory treatment if the price is below/ above the benchmark price (for sale/ buy) should be included in the regulation.

CER Ministry of Power Guidelines on Short-Term Power Procurement (Regulation 10): As per the draft Regulation, “*the distribution licensees shall scrupulously follow the guidelines of Ministry of Power, GoI while procuring short-*

term power". Since, these are the guidelines, the distribution licensees, if differing from it should identify the reasons thereof and get it approved/ ratified by the Commission as applicable.

CER Data/Information on Websites (Regulation 11): The draft Regulation provides provisions for placing the information related to monthly/ weekly/ day-ahead power requirement communicated by SLDC to the licensees and the monthly/ weekly/ day-ahead/ intra-day power procurements by the licensees on the SLDC and licensees' websites. It is suggested to add a provision to ensure ease of accessibility of the current as well as archived data/ information on the same through SLDC's as well as licensee's website through an identified webpage for the same.

CER Reserve Shutdown (Regulation 12): In order to identify generating units for backing down/ reserve shutdown, a unit commitment modelling exercise should be undertaken on weekly basis for proper decision making regarding the reserve shutdown.

CER Modelling Tools and Analysis: Short-term demand forecasting, power procurement planning and unit commitment modelling are important modelling tools that should be utilised by the distribution licensees/ SLDC to ensure that the decisions being undertaken are justified based on scientific methodologies taking into account the techno-economic aspects in an optimisation framework.

Energy Analytics Lab (EAL), IIT Kanpur has developed models for short-term power procurement as well as unit commitment models and applied the same in the case of a previous study for the state of Uttar Pradesh¹ and, for an ongoing study being undertaken for the state of Chhattisgarh.

EAL's web portal (eal.iitk.ac.in) provides access to relevant market information and insights that help state entities to make informed decisions.

CER Real-Time Data (Regulation 16): As per the draft Regulation, "*The SLDC shall make available the real-time data of generation from all the sources/ generators and demand to the dedicated monitoring cell of the licensees, and the Commission*".

The Energy Analytics Lab (EAL) at IIT Kanpur has also developed **State-level dashboards** providing a snapshot of all relevant information about the selected state. These dashboards would soon also host a tool for merit order despatch (MoD) and has taken the initiative to compile the available data and make it accessible in visualised form through its portal (eal.iitk.ac.in). This provides **near real-time data and analysis** as per availability from respective SLDCs.

HPERC (Consumer Grievances Redressal Forum and Ombudsman) (Second Amendment) Regulations, 2021 [Draft]

HPERC notified draft amendment to the (Consumer Grievances Redressal Forum and Ombudsman) Regulations, 2021 on 24th November, 2021. The key highlights of the same are mentioned below:

1. **Prosumer (Regulation 3 (1) (ia)):** Definition of 'Prosumer' to be added in the prevailing Regulation.
2. **Additional Forum (Regulation 5 (2), (3)):** Provision for the establishment of at least one additional forum for each of distribution licensee's operation circles, by the distribution licensee is to be added. The jurisdiction thereof in relation to the consumers under the respective operation circles, will be as follows:
 - a) For the consumers covered under the single-part retail tariff - All types of complaints, whether monetary or non-monetary.
 - b) For the consumers covered under the two-part retail tariff - All types of complaints whether monetary or non-monetary, where the following conditions are met:
 - the amount of dispute/ claim \leq Rs. 2 Lakh
 - the standard supply voltage \leq 22 kV
3. **Headquarters of Additional Forum (Regulation 6):** The headquarter for additional forums shall be at the headquarters of the respective operation circles.
4. **Issuance of Order by the Forum (Regulation 26 (2 a (ii)):** The rate of simple interest (to be paid by the licensee to the complainant along with the undue charges) is to be reduced from 15% to 12%.
5. **Compliance of the Order of Forum (Regulation 27 (1)):** The duration for compliance of the order of forum by the distribution licensee is to be increased from 21 days to 30 days.

¹CER's book publication on 'Regulatory Framework for Long-term Demand Forecasting and Power Procurement Planning' Exhibit 2: "Power Procurement Strategy for Uttar Pradesh Corporation Limited (UPPCL) – A Study by IIT Kanpur". https://cer.iitk.sc.in/assets/downloads/CER_Monograph.pdf

6. **Issuance of Order by the Ombudsman (Regulation 37 (5)):** The duration for the implementation of the decision of the Ombudsman is to be increased from 15 days to 30 days.

CER Opinion

CER Definition of Prosumer (Regulation 3 (1) (ia)): The draft Regulation defines ‘Prosumer’. However, the term ‘Prosumer’ is not used further in this Regulation. So, it is suggested to append the proposed definition of Prosumer by including a statement just after its definition such that wherever there is a reference to the consumer in this Regulation, it should also deem to include prosumers.

The reference to ‘Prosumer’ may increasingly appear in a variety of other Regulations and orders (for example in the case of tariffs, open access, SOPs etc.). Hence, it is suggested that this definition for Prosumer should be a part of the State’s Grid Code. The prosumer may also refer to mobile storage such as Electric Vehicles (EVs) especially when EVs inject power in the vehicle to grid mode (V2G).

CER Establishment of Additional Forum (Regulation 5(2), 5(3), and 7(1)(i)(b)): The draft Regulation has a provision for the establishment of additional Forums by the distribution licensee. It is seen that the establishment of an additional Forum is to be done by the sole order of the distribution licensee without any intimation or prior approval of the Commission, although the Commission can issue directions for defining and modifying jurisdictions of these Forums under Draft Regulation 5(3). Further, as per modified Proviso added under Draft Regulation 7(1)(i)(b), the Members of additional Forums (at operation circle, divisional/ sub-divisional level etc. as proposed at Draft Regulation 6) are designated on an ex-officio basis from serving officers of the distribution licensee, who perform their functions in addition to their normal assigned duties. This is unlike the full-time members appointed and/ or nominated for the Forum under 7(1)(i) and 7(1)(ii).

Moreover, the draft Regulation has a provision for the establishment of ‘at least one additional Forum’ for each of licensees’ operation circles, by the licensees, which also appears to be forming part of the distribution licensees’ Internal Executive Disputes Resolution Mechanism (IEDRM).

Hence, the provision of the establishment of ‘additional Forum’ at sub-division/division and circle levels appear akin to the IEDRM of the distribution licensee, already existing as indicated under Regulation 2(4) and Regulation 16 of the principal Regulations and may be part of their license condition. So, the establishment of these ‘additional consumer grievance redressal Forums’ proposed in the Draft may create duplicity of the institutions.

It is suggested to institutionalise a hierarchy structure among different levels of proposed Forums, which will help an aggrieved consumer at the sub-divisional level to approach the next level and so on rather than going directly to the Ombudsman.

Finally, we apprehend that by the establishment of these **additional Forums** having part-time ex-officio Members (as proposed in the Draft) under the statutory provisions under Section 42(5) of the Electricity Act 2003, *a right may accrue to any consumer aggrieved by an order of such an additional Forum to go directly with a representation to the Electricity Ombudsman under Section 42(6) of the Electricity Act 2003.* Due to such bypass, this is likely to reduce and/ or nullify the effectiveness of original Forums (having full-time Members and an Independent Member) in addressing the Consumer Grievance first, before the appeals/ representation there from going to the Ombudsman. This is also likely to increase the Ombudsman’s work load unnecessarily both in quantity & quality of representations, thus perhaps affecting the overall consumer grievance redressal system.

CER Issuance of Order (Regulation 37 (5)): The draft Regulation proposes to double the duration of compliance and implementation of the Ombudsman order by the licensee from 15 to 30 days. No justification is provided to support this. Further, it is highlighted that in the current era with the significant intervention of information technology with online solutions to follow up the orders, the overall compliance period should be limited. Given the various levels of redressal forums, there may be a significant delay in cumulative terms to redress a consumer concern.

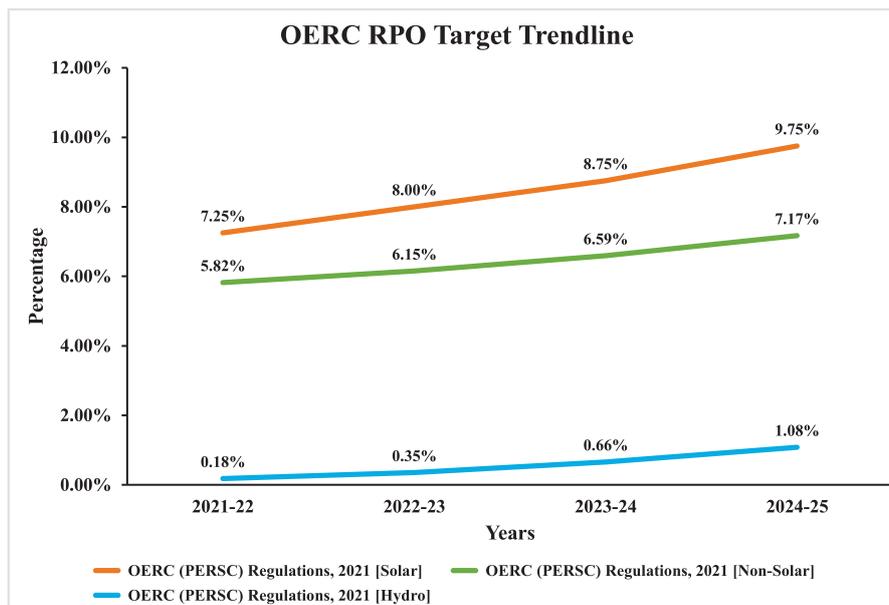
CER Compliance Monitoring: The regulations should also provide for online monitoring of the compliance of orders at the various level through the consumer redressal forum enabling the Commission to ensure that timely redressal is available to the consumers. A dedicated portal at the licensee’s website should allow one to know the status of the complaint redressal, order thereof at various levels and their compliance with timely information to the consumers through SMS/ app/ email etc. The portal should also generate a monthly report to be submitted to the Ombudsman and the Commission.

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. The key points of this regulation are shown below;

Table 4: Proposed Amendments in the draft regulations

Regulation No.	Proposed Regulations
4.1, Provision 2	Off-grid Renewable Energy Sources (RES) 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.
4.7	Power procured from the hybrid project may be used for the fulfilment of solar RPO and non-solar RPO in the proportion of rated capacity of solar and wind power in the plant respectively. Stored renewable energy in any form of storage (Battery, Mechanical or Gravitational) and subsequently discharged to the grid from such storage shall be treated as renewable energy.
9.5	Consumption details 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: Such verification of the web-based data shall be done every quarter and shall be completed within 15 days of the subsequent month at the end of every quarter. Annual verification of such data shall be done within 30 days of completion of each Financial Year.



CER Opinion

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 entities².

Purchase Obligation from RES (Clause 4.1): The draft regulation considers co-firing of biomass in coal-fired thermal power plants as renewable energy which shall be eligible for non-solar RPO. It is important to specify a framework for verification of the extent of co-firing biomass in coal-fired thermal power plants to enable a proper estimate of its contribution towards RPO.

Consequences of Default (Clause 10.1): The draft regulation states that non-compliance of RPO would result in a penalty which can be calculated by the State Agency as shown:

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

²Please 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>

- a) The forbearance prices for the RECs are well defined, under the CERC (REC) Regulations, 2010. However, the forbearance price for Hydro Power Obligation (HPO) is not defined. A clarification is needed regarding the calculation of penalty for non-compliance of HPO.
- b) As HPO is categorised under non-solar RPO, it is recommended to use non-solar forbearance price in the case of HPO.

CER 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 the 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 the fulfilment of solar RPO.

Similarly, in the 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 the fulfilment 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 the fulfilment of solar RPO and non-solar RPO in the same proportion.

CER HPO Targets: As per draft regulation, HPO targets have been incorporated into 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 re-rise.

It is important to emphasise that the HPO targets are an add-on obligation over and above the existing RPO from Others under RES. Given that DISCOMs are obligated to meet the existing levels of RPO, a study must be undertaken to assess the ability of the Odisha Grid to absorb the various level of RPO in the future and fix the targets appropriately². To ensure that the targets so estimated may be further enhanced by the Commission to promote the consumption of RES in the state of Odisha.

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 the total RPO target should be based on a scientific study³, as there is a requirement for techno-economic analysis, binding it to an economical limit that comes from the supply curve/ function⁴. Thus, the overall limit should not be based on the number of technologies that are being incorporated, as all technologies that might be incorporated in future could be accommodated by adjusting the others so that the total RPO target would remain the same, unless it is enhanced by design by the Commission.

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 categorisation and specification of targets for specific technologies, add rigidity in the decision-making of DISCOMs and increase the overall cost of obligation.

CER 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 specifically for procurement of hydroelectricity. Competitive platforms like power exchanges (DAM, TAM, *etc.*) do not offer a choice of source of electricity and hence will not help these obligated entities to procure hydroelectricity. Such entities will in turn have to procure 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 cost-effectively.

³Please 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>

⁴Please refer to Anoop Singh (2010), “Economics, Regulation, and Implementation Strategy for Renewable Energy Certificates in India”, India Infrastructure Report 2010, Oxford Univ. Press. See <https://ssrn.com/abstract=3440253>

Regulatory Updates

Tariff



APERC directed APTRANSCO & APLDCL to pay M/s. Vikram Traders, M/s. S. Kumar, M/s. Siddanga Oil Extractions Pvt. Ltd., M/s. Texmo Precision Cating, M/s. Art & Crafts Exports, M/s. Prakash Beedies Pvt. Ltd., M/s. Texmo Industries and M/s. Shreem Electric Ltd., M/s. Compucom Software Ltd. an interim tariff @ Rs. 2.43 ps. per unit from the 11th year onwards subject to the final orders that may be passed in the O.Ps.



BERC has approved a net revenue gap of Rs. 2.44 crore in truing up for FY 2009-10. The trued up revenue gap shall be carried forward into the ARR of the ensuing year.



HPERC determined the price of GoHP free power for FY 2021-22 at Rs. 2.49 per unit for purchase by HPSEBL. The Commission has further directed that this will be effective for FY 2021-22.



KERC directed Agency for New and Renewable Energy Research and Technology (ANERT) and KSEB Ltd. the following:

- (i) ANERT to file the initialled PPA as per the Daily Order dated 28th August, 2021, latest by 30th November, 2021.
- (ii) KSEB Ltd. to stop scheduling power from the 2 MW project of ANERT with effect from 1st December, 2021 onwards, if ANERT fails to comply with the above-mentioned direction. Furthermore, Commission disallowed payments made to ANERT by KSEB Ltd from 1st December, 2021.



OERC allowed additional A&G expenses of about 60% of the approved amount in the ARR of Rs. 49.20 crore for FY 2021-22 which is Rs. 29.52 crore. TPNODL was directed to produce the required justifications or such additional expenses under the head A&G expenses incurred in the truing up petition for FY 2021-22.

OERC allowed additional A&G expenses of about 60% of the approved cost of Rs. 45.13 crore in the ARR for FY 2021-22. The Commission allowed the total A&G expenses of Rs. 72.20 crore for FY 2021-22. TPNODL was directed to produce the required justifications for such additional expenses under the head A&G expenses incurred in the truing up the petition for FY 2021-22.

OERC in the last ARR for FY 2021-22 has approved a

total A&G of Rs. 63.66 crore. The Commission allowed additional A&G expenses of Rs. 39.51 crore for FY 2021-22 which is about 60% of the proposed additional expenses. TPNODL was directed to produce the required justifications of such additional expenses under the head A&G expenses incurred in the truing up the petition for FY 2021-22.



RERC directed JVVNL and AVVNL to calculate the financial impact of policy directive on the working capital requirement/ interest on working capital loan and ensure recovery of the same from the State Government. The Commission stated that the burden shall not be passed onto the consumers. The Commission allowed both Discoms to implement monthly billing on or before 31st March, 2022. Managing Directors were directed to ensure strict compliance and submit a monthly progress report on the 5th of each month to the Commission. The compliance of these directions shall be personally monitored by the Managing Director, failing which the Commission will take suitable action under Section 142 of the Electricity Act, 2003 for non-compliance of the Commission's directions including the imposition of cost on the Managing Directors.



TNERC directed Tuticorin Electricity Supply Pvt. Ltd. to maintain the record of the scheme-wise actual capital expenditure incurred and actual capitalisation done for each distribution function separately and submit the same to the Commission at the time of next tariff petition furnishing details of loan, own funding for each scheme. Commission will approve the actual capital expenditure and actual capitalisation based on this information, subject to prudence check.

TNERC approved the process of short-term power procurement for the purchase of 180 MW by the TANGEDCO during the period from 6th September, 2021 to 30th September, 2021 at the rate of Rs. 4.50 per kWh through PTC India Limited. The ratification and approval were accorded subject to the condition that no such procurement without prior approval of the Commission shall be done in future. To avoid foreseen increase in demand, TANGEDCO shall do the demand-supply exercise much more vigorously and keep it within the limits of accuracy and as far as possible.



UERC determined an additional surcharge of Rs. 1.94 per unit effective for the period 1st January, 2021 to 31st March, 2022 to meet the fixed cost of UPCL arising out of its supply obligation to open access consumers.

Regulatory Updates

Power Procurement



CSERC exempted Vandana Rolling Mills Pvt. Ltd. from having a dedicated feeder for connectivity and allowed long-term open access to Vandana Rolling Mills Pvt. Ltd. under sub-clause 5 of clause 5 of the Open Access Regulations.



KSERC directed INOX Renewables Ltd., Damodar Jagannath Malpani and KSEB to submit a detailed argument note on the issue of factoring the variations in the CUF over the normative CUF adopted for tariff determination in the draft TPPA, before the Commission, latest by 15th November, 2021.



MERC approved the revised power procurement plan of Maharashtra Airport Development Company (MADC) Limited. The Commission adopted the following Short Term Power Procurement rate for MADCO for the period from 1st November, 2021 to 31st October, 2025.

Type of Load	Name of the Bidder	Source	Price Rs/kWh
Up to 16 MW (RTC) based on load profile	Manikaran Power Limited	Sai Wardha Power Generation Private Ltd. Warora, Maharashtra	4.48



OERC approved the standard and supplementary PSAs dated 22nd July, 2021 executed between SECI and GRIDCO towards procurement of 500 MW Solar power under the manufacture linked and ISTS-connected Solar Scheme Tranche- I for the fulfilment of RPO of GRIDCO.



RERC observed that Anta Gas, Auriya Gas, FGUTPS (I) and Farakka (TPS) have completed 25 years and Dadri Gas, will complete within the next 6 months. Thus, DISCOMs were allowed to exit these PPAs aggregating to 252 MW.

RERC directed JVVNL and RUVNL to pay LPS as per PPA on the difference amount paid by Maharaja Shree Umaid Mills for the period July, 2016 to the date the amount was paid. JVVNL and RUVNL were also directed to pay the cost of proceedings. JVVNL and RUVNL were directed to file the compliance report in this regard within one month.



TNERC directed PTC India Ltd., to refund the amount deducted from the bills of Terra Energy Ltd. for a short supply of energy since the energy could not be supplied by Terra Energy due to reasons beyond its control. Regarding the payment of money for the energy supplied by Shree Ambika Sugars Ltd. on behalf of Terra Energy, the total supply of energy being 87% of the contracted quantity of energy between PTC and Terra Energy, PTC is bound by their PPA.

TNERC viewed that National Energy Trading and Services Ltd. was entitled to an extension of the limitation period and thus National Energy is entitled to the entire claim of Rs.12,42,32,460/- plus Rs.24,94,922/- on the bills from July 2012 to January 2019. However, interest on delays can be ordered only to the extent provided for in the Tariff Order. TANGEDCO was directed to settle the late payment surcharge at the rate of 12% per annum as per the relevant Tariff Order.



UERC allows the recovery of Fuel Charge Adjustment (FCA) amount to extend claimed by it from various consumer categories at the rates submitted by it. The amount of FCA under recovered shall be adjusted in the FCA charges of the third quarter of FY 2021-22. UERC directed UPCL to maintain a separate record for such recoveries and submit the details of the quarter wise FCA recovered *vis-à-vis* FCA allowed by the commission within 20 days of the end of quarter.



UPERC approved SPPA with the following directions;

- (i) PPGCL shall supply from grid-connected commissioned project compliant to applicable Regulation.
- (ii) PPGCL shall supply the alternate source power to UPPCL without any financial burden on account of transmission charges, RLDC/ SLDC charges etc. over and above PPA charges.
- (iii) Price benefits with alternate sources of power *vis-à-vis* PPA rate, if any, subject to ceiling rate as per PPA, and shall be shared with UPPCL with 50:50 ratio.
- (iv) Alternate source power supply from PPGCL shall be supplied when the availability of power station is reduced on account of a scheduled outage or unscheduled maintenance subject to normative availability of 85% as per PPA.
- (v) UPPCL can avail alternate source power from PPGCL for a maximum of 6 months in continuity or 12 months in non-continuity during the operating period.

Regulatory Updates

Renewable Energy, RPO and REC

AERC approved a tariff of Rs. 3.99 per unit of 25 MW of Solar project for region 2 for a term of 25 years.

HPERC directed HPSEBL to take necessary action for disposal of the REC inventory available with it and also to plan its renewable energy procurement in such a way that there is no deficit in RPO of any particular financial year.

KERC allowed a delay of 5 days and 8 days in the commissioning of solar power projects in Gokak Taluk, Belgaum District, and Kalaghatagi Taluk, Dharwad District respectively. Consequently, the SCOD was extended till 8th November, 2019 and 11th November, 2019 respectively.

MERC allowed MSPGCL and MSEDCL to procure 250 MW of Solar Power at the rate of Rs. 2.51/kWh from M/s TP Saurya Limited for 25 years. The Commission also approved a trading margin of Rs. 0.07/kWh. Procurement of solar power from this source was made shall be eligible towards the fulfilment of MSEDCL's solar RPO for the respective periods.

MERC approved the procurement by MSEDCL of 111 MW on a long-term basis from grid-connected solar power projects under 'Mukhyamantri Saur Krishi Vahini Yojana' and allowed it to enter into PPA with the successful bidder for 25 years. Solar power procured thus was made eligible towards the fulfilment of MSEDCL's solar RPO for the respective periods.

MERC approved to extension of the scheduled commissioning date in respect of the 10 MW solar power plant located at Kinwat, District – Nanded from 30th December, 2020 to 28th January, 2021. MSEDCL was also directed by the Commission to refund the amount of Rs. 31,11,111/- appropriated by invocation of ASPL's bank guarantee along with carrying cost.

PSERC allowed PACL to comply with its Order dated 17th March, 2020 read with Order dated 23rd October, 2020 to fulfil its RPO shortfall by procuring the requisite RECs at the earliest opportunity but not later than 31st March, 2022.

PSERC allowed PSPCL to carry forward the surplus after RPO compliance of FY 2020-21 to FY 2021-22 and the reduction of RPO targets for FY 2021-22. RPO targets for FY 2021-22 were reduced by 0.3 % for non-solar and 1.5% for solar. PSPCL has to ensure maximum RPO compliance, by endeavouring to evacuate all the RE Power made available from its various contracted

sources keeping in view their must-run status.

TNERC directed TANGEDCO to verify the claim of Rajaguru Spinning Mills Pvt. Ltd. and make a payment towards interest @ 6% per annum within one month from the receipt of its Order, after deduction of payments already made. If the payment not paid within one month, then TANGEDCO will have to pay interest @ 12% per annum, in line with the applicable tariff orders of the Commission after deducting the payments already made. Any further delay in the settlement will not be countenanced and the amount paid over, and above @ 6% interest will not be allowed as pass-through in the ARR in case of failure to pay the dues at 6% within the deadline of one month from the date of this order and in such case, TANGEDCO will have to bear the difference in the interest on its own.

UPERC directed that the Captive Generating Plant/ Captive Users shall not be required to apply for separate Open Access for availing banked power if;

- (i) The injection and withdrawal points aren't getting changed.
- (ii) The quantum of power being generated by CGP either for supply and/ or banking doesn't exceed the quantum and duration for which the Open Access has been granted.

If there is any deviation from the above, then there is a requirement for fresh open access for the same.

TSERC directed the TSTRANSCO and TSPCC to initiate a bidding process for the purchase of 2000 MW solar power through a competitive bidding route with a maximum cut off rate of Rs. 6.45 per unit on behalf of distribution companies.

WBERC directed IPCL to modify their proposed connection procedures and to ensure completion of the required software upgradation so that the net-metering and net-billing arrangement can be implemented from 1st January, 2022.

Commission also directed IPCL some additional suggestions as follows:

- (i) Detailed standardised procedure for installation and commissioning of the roof-top solar system along with formats and model agreements must be displayed prominently on their website.
- (ii) Single point contact with telephone no and office address to facilitate the consumers in the installation of the roof-top solar system from the stage of submission of application form to successful commissioning.
- (iii) Complete list of documents and applicable charges required to be furnished along with applications.

Regulatory Updates

Others

AERC has granted the SLDC and AEGCL requests:

- (i) According to AERC Regulation 4.3, open access is only available to consumers who have contract demand of 1 MW or more and the same must be followed when it comes to OA.
- (ii) If the OA consumers do not replace the defective meters within one month from the date of the notice, the OA should not be allowed to continue.
- (iii) In accordance with CERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2014, interstate transactions calculated for different states at the different periphery and an individual entity, AERC (Terms & Conditions for open access) Regulations, 2018 will be applicable.
- (iv) Take necessary action whenever the telemetry system fails to report to SLDC.
- (v) The charges may be collected as per the date of effect of the regulations of AERC.
- (vi) SLDC was advised to submit a detailed proposal of fees for states through a separate petition and may submit registration fees of RE Generators with the MYT petition with approval of the appropriate authority.
- (vii) If the deemed licensee is not supplying power to any consumers but utilising it for their own purpose, then they may be eligible for OA.

APERC provided the respondents APPCC, SPDCL, TCAPL, APSLDC options either to make payment within 2 months or to permit the petitioners Blyth Wind Park Pvt. Ltd. and Atria Wind Power Pvt. Ltd. to avail the un-utilised banked energy within the next 6 months on the expiry of 2 months in the event of non-payment.

DERC imposed a penalty of Rs. 20,000 to BYPL for violation of Reg. 61 (2) and 64 (3) of SOP Regs, 2017. Since the meter was not seized at the time of its removal on, as the seizure memo or its copies doesn't bear the signature of the consumer, and there is a delay of more than 20 days in the passing of the speaking Order, whereas as per regulation it should have been passed within 7 days from the date of meter testing. The penalty was to be paid within 30 days of the order.

HERC provided clear directions on adjusting solar power generated/ injected from its captive solar power plants between September 2019 and February 2020, refunding transmission and wheeling charges levied on power injected from its captive solar power plants, and allowing the execution of banking agreements with retrospective effect for power injected into the grid from

the date of commissioning of the captive power plants.

HERC clarified the issue regarding the determination of tariff for Special Economic Zone developed by M/s ASF Insignia SEZ Pvt. Ltd, that APPC does not include transmission charges (central and state) and inter-state / intra-state transmission losses, it is also not the bulk power purchase cost/ rate for the DISCOMs. Added to this would be the cost of distribution losses and the cost of distribution and retail supply business including return on equity. The tariff for certain categories determined by the Commission also has a cross-subsidy element within cross-subsidy surcharge limits of +/- 20% of the average cost of supply as per the limits specified by the National Tariff Policy.

HERC allowed relaxation to DHBVN for supplying electricity for EV charging to the premises already having electricity connection for another purpose of use under the following conditions:

- (i) Tariff applicable for charging of EV at premises other than charging stations shall be the same as applicable for the relevant category of connection at such premises.
- (ii) Charging of batteries at swapping facilities will be subject to the single point delivery tariff for EV charging stations, provided that such swapping facilities are only utilised for swapping batteries of e-rickshaw/ e-vehicle.
- (iii) The application must get a separate electrical connection for other related purposes such as the charging station's office, public facilities, and usage of other equipment at an electric car charging station. The applicant must confirm that a separate metering structure is in place for such activities, and the tariffs applicable to the appropriate category must be applied.
- (iv) Allow a separate connection for EV charging in Oil marketing company retail shops, Housing societies, Malls, Office complexes, Restaurants, Hotels, Metro station parking, or its grounds, and so on.
- (v) If a single point connection has been installed in the premises and a separate EV connection is requested at the LT level, the distribution licensee may use negative metering by installing separate wiring and metering for EV charging.
- (vi) Applicant must have the approval for safety and/ or fire clearance for the EV charging station such as Petroleum and Explosives Safety Organisation (PESO), fire department, etc.

HERC approved the petition to provide temporary connectivity to M/s GLS Foils and M/s GLS Polyfilms, radially through existing 132 kV Rewari - Machrauli S/C

Regulatory Updates

line to feed first phase load requirement of 6500 kW and contract demand of 5500 KVA for each consumer at 132 kV level. The Commission also mentioned that the Tripartite Agreement should not include the imposition of maintenance fees or any other condition which violates the current regulations.

OERC directed OREDA to forfeit the commitment fee of Rs. 50,00,000/- to both Prasad Bioenergy and Andhavarapu Power Projects. The forfeiture of Rs. 5,00,000/- of processing fee is justified since the matter has been processed at several levels by OREDA over a period and a go-ahead signal had been given to Prasad Bioenergy and Andhavarapu Power Projects through implementation agreement.

OERC accepted the claim of Rs. 42,34,08,91,661/- made by GRIDCO. Commission held that besides the three RIL managed DISCOMs, RIL itself is liable for settling the claim of GRIDCO.

OERC directed the Secretary to transfer Rs. 1 crore deposited by Aryan Ispat with OERC to TPWODL. TPWODL shall adjust the same in cross-subsidy surcharge bill/ electricity bill of Aryan Ispat.

OERC decided that the solar generation from the 5 MW captive solar PV power plant of Dalmia Cement situated in West Bengal shall be accounted for first and shall be used for RPO compliance of its plant in Rajgangpur for the same year starting from 2019-20 onwards. The remaining RPO shall be met by the surplus RECs available. OREDA was directed to follow the above process for calculation of RPO compliance of Dalmia Cement's plant in Rajgangpur. OREDA was further directed to verify the validity of the excess RECs. Only those RECs that are within the validity period shall be allowed to be carried forward to subsequent years.

OERC directed TPCODL to provide a dump report of the meter reading to the consumer from the billing month of May, 2018 (date of the initial supply) to September, 2020 (date of bill revision) for verification. Similarly, Shivashakti Plastwas directed to pay compensation to the consumer from 13th April, 2020 to the billing date for September, 2020 as per the direction of Ombudsman-I. The order should be complied with within one month of issuance.

OERC observed that Visa Steel has a CGP of 3x25 MW capacity having co-generation facilities. It shall be exempted from RPO when consumption from cogeneration sources is more than RPO for the respective time period. Commission observed that Visa Steel neither has any renewable power plant nor has

purchased any REC from the power exchanges during the second control period which could have been carried forward to the future years. Commission did not accept the prayer of Visa Steel to carry forward and offset the surplus cogeneration power of a year to the future years. OREDA shall compute the RPO of Visa Steel based on its total consumption and compare the same with the consumption from its co-generation sources from FY 2015-16 till FY 2020-21. Visa Steel was directed to provide the data/ information as required by OREDA for the computation of RPO. OREDA may collect the required data/ information from the offices of EIC and SLDC for verifying the compliance data provided by Visa Steel. The EIC and SLDC were directed to provide the required data for the purpose as and when sought by OREDA.

PSERC allowed procurement of 96,000 three-phase smart meters subject to the following conditions: -

- (i) Smart meter rental charge shall be the same as approved conventional meter rental charge. The difference in rental shall be met through ARR.
- (ii) Consumer with smart meter opting for pre-paid metering shall be provided by PSPCL post adequate infrastructure development.
- (iii) Priority for replacement of conventional meters with smart meters shall be given to high loss areas and the connections prone to theft.
- (iv) PSPCL shall submit a proposal for regularisation of excess load based on max demand. Till the approval of the proposal, provisions of the Supply Code, 2014 shall apply.
- (v) For disconnection/ reconnection in the case of smart meter connections, provisions of Supply Code, 2014 shall apply.

In case, operationalising of smart meters requires amendments in Supply Code, 2014, a detailed proposal shall be submitted for consideration by Review Panel.

TNERC directed TANGEDCO to approve the level of start-up power to 4.5 MW and the auxiliary consumption of 5.5% to Lanco Tanjore's plant as permitted earlier, since such marginal increase is not going to cause any technical constraint or financial loss to TANGEDCO.

UPERC directed UPPCL to settle the payment for the unutilised banked energy, if any as banking of power is commercial arrangement between Sukhbir Agro Energy Ltd. and UPPCL.

Tariff Orders

State/Union Territory (SERC)	Licensee/Utility	True-up	Annual Performance Review (APR)	Aggregate Revenue Requirement (ARR)	Tariff
Bihar (BERC)	BSHOPCL	FY 09-10			
Delhi (DERC)	IPGCL, PPCL, DTL, NDMC, BRPL, BYPL, TPDDL	FY 19-20		FY 21-22	FY 21-22
Himachal Pradesh (HPERC)	HPSEBL (Generation)	FY 11-12 to FY 13-14		FY19-20 to FY 23-24	FY19-20 to FY 23-24
Karnataka (KERC)	BESCOM	FY 21		FY 22-23 to FY 24-25	FY 23
Rajasthan (RERC)	JVVNL, AVVNL, JdVVNL			FY 20-21 to FY 23-24	FY 20-21 to FY 23-24
	RRVNL, RVUNL	FY 19-20		FY 21-22	FY 21-22
	RVUNL (DCCPP)			FY 20-21	FY 20-21
	RVUNL (KaTPP) (Units 1 & 2)	FY 14-15 to FY 19-20	FY 14-15 to FY 19-20	FY 21-22	FY 21-22
	RVUNL (CSCTPP) (Units 5 & 6)			FY 18-19 to FY 21-22	FY 18-19 to FY 21-22
West Bengal (WBERC)	WBSEDCL, WBPDC		FY 14-15	FY 20-21 to FY 22-23	FY 20-21 to FY 22-23

Regulations

Title	Date of Approval/Notification
Renewable Energy (including RPO and REC)	
TNERC (Grid Interactive Solar PV Energy Generating System) Regulations, 2021	20 th October, 2021
HERC (Terms and Conditions for setting up Charging Infrastructure Tariff and other Regulatory issues for Electric Vehicles) Regulations, 2021	23 rd December, 2021
MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy), (Revision-II), Regulations, 2021	2 nd November, 2021
Tariff	
KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2021	16 th November, 2021
MPERC (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2021	3 rd December, 2021
Others	
AERC (Standards of Performance of Distribution Licensees) Regulations, 2021	22 nd December, 2021
PSERC (Fee) Regulations (Fourth Amendment) Regulations, 2021	15 th November, 2021
HERC (Terms and Conditions for setting up Charging Infrastructure, Tariff, and other Regulatory issues for Electric Vehicles), Regulations, 2021	23 rd December, 2021
WBERC (Conduct of Business) (First Amendment) Regulations, 2021	5 th October, 2021
WBERC (Balancing and Settlement Code) Regulations, 2021	26 th November, 2021
WBERC (Deviation Settlement Mechanism and related matters) Regulations, 2021	26 th November, 2021

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Regulatory Certification Programme

Regulatory Certification Programme provides an opportunity to learn fundamentals and technical concepts of economics, finance, engineering, operations, and law to supplement regulatory research and analyse key issues in the Indian power sector. It is designed to enable rapid capacity development on regulatory aspects and power sector policy.

These programs are suitably designed for Commissioners and Officers from Electricity Regulatory Commissions (ERCs), Relevant Ministry and Government Departments, Stakeholders from Generating Companies, Energy Companies, Licensees (Transmission, Distribution, and Trading), Power Exchanges, Open Access Consumers, Load Dispatch Centers, Financial Institutions and Investors, Consultants, Faculty, Researchers and Students from Academic Institutions, Consumer Organisations, NGOs and other stakeholders who want to enhance their understanding of this multi-disciplinary area.

For further program details including key topics, registration fee and resource persons, please visit <https://cer.iitk.ac.in/olet/rcp>

The 2nd Regulatory Certification Programme (RCP) on "Power Market Economics and Operations" was commenced between 20th November, 2021 to 20th December, 2021. The program was conducted under the aegis of Centre for Continuing Education (CCE), IIT Kanpur. More than 80 working professionals from different organisations had shown interest in this program. The online sessions (about 25 hours) were taken by leading National and International experts.

Announcement of Editorial Advisory Board/ Editorial Board

CER, IIT Kanpur is pleased to announce the formation of the "Editorial Advisory Board/ Editorial Board (EAB/ EB)" for its newsletter "Regulatory Insights" for FY 2022-23. CER is delighted to introduce Prof. Jean-Michel Glachant (Director, Florence School of Regulation), Prof. Tooraj Jamasb (Director, Department of Economics, Copenhagen School of Energy (CSEI)), Prof. Ajay Pandey (Professor, Finance and Accounting, Indian Institute of Management Ahmedabad), Dr. Ankush Sharma (Associate Professor, Department of Electrical Engineering, Indian Institute of Technology Kanpur) and Dr. Anoop Singh (Professor, Department of Industrial & Management Engineering, Indian Institute of Technology Kanpur) as Members of the EAB/ EB. The guidance and suggestions of these experts would help us improve in all aspects, including the impact and reach of the newsletter.



We invite readers to register at CER's web portal to access CER's publications and resource material. This would also help us design CER's activities and deliver a more relevant output by engaging with stakeholders. We also request your inputs on the newsletter and the activities of the Centre.

Regulatory Insights Team

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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 newsletter.