



# REGULATORY INSIGHTS



## Regulatory Outlook

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## Editorial

India's response to global climate challenges, and the need to improve energy security and energy access is reflected in the country's commitment to embrace Renewable Energy (RE). The country fell short of its target to add 175 GW of RE capacity by end of 2022 primarily due to failure to add targeted solar rooftop capacity and slowdown in the wind energy sector contribution to Rooftop Solar (RTS) has lagged significantly by 37.5% against a target of 40 GW by 2022. Abysmal performance to achieve 40 GW of RTS, a rather steep target, could be attributed to a number of institutional and some techno-commercial challenges even though the economics seems to have improved over time for the end consumers.

State-specific solar policies have aimed to add significant capacity but have also struggled to translate policy into actionable outcomes. While RTS deployment helps in reducing distribution losses for the discoms, it also places financial stress on them due to loss of cross-subsidy as high paying consumers gain most from the RTS installations. Our analysis identified gaps in solar policies and, net/gross metering and net billing schemes across states, and ways to address them from time to time. A host of incentives alone can't overcome numerous implementation challenges including necessary permissions required from discoms and the ease of contracting for consumers to deploy the technology on a plug-and-play basis.

The MNRE launched the Draft on PM Surya Ghar: Muft Bijli Yojana aims to install RTS in one crore households. Numerous novel suggestions submitted in response to the same include - the Solar Rooftop Suitability Index (SRSI), Surya Adhaar (a unique ID for rooftop installations), engagement of Surya Mitras, smart metering-based monitoring of installations, standards of performance for vendors, vendor performance rating systems, and third-party assessments. Given the scale of the scheme, it is crucial to ensure that beneficiaries have a smooth experience with installation and utilization. This can be ensured only through a transparent monitoring system that holds vendors, implementing agencies, and discoms accountable for their performance. Sharing of data across all stages of implementation of the program would help timely analysis of bottlenecks and devise solutions to address them. Sharing of operational data of each RTS system - block-wise generation, consumption, and grid injection would help the discoms to significantly improve demand forecasting. Our experience has shown that discoms/vendors show laxity in data upkeep and are often unwilling to share them. Common data protocol and sharing of anonymized data would have a multiplier effect on research.

Verification of captive status of power plants faces numerous complexities on account of shareholding status, share of consumption. The current annual criteria for group captive users may not adequately account for the variability in generation and consumption observed on a quarterly or monthly basis. A hybrid approach combining quarterly and annual calculations based on shareholding in group captive plants would manage seasonal and business fluctuations, reducing adverse impacts in affected quarters/months.

**Anoop Singh (Editor)**

Founder & Coordinator, Centre for Energy Regulation

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## MNRE (Guidelines for Implementation of PM-Surya Ghar: Muft Bijli Yojana for Component to “CFA to Residential Sector”), 2024 [Draft]

The MNRE notified “**Guidelines for Implementation of PM-Surya Ghar: Muft Bijli Yojana for Component to “CFA to Residential Sector”**”, 2024” [Draft] on 16<sup>th</sup> March, 2024. The key highlights of this draft is mentioned below:

**Objective:** The objective of PM-Surya Ghar: Muft Bijli Yojana is to promote the installation of Solar Rooftop Systems (RTS) in the residential sector. The scheme aims to achieve the installation of 1 crore RTS by the end of the FY 2026 - 27. Its key goals include providing free or low-cost electricity to households, with a target of supplying up to 300 units of electricity per month. Additionally, the scheme seeks to reduce carbon emissions, develop the ecosystem for RTS projects, boost the local economy, and support India's green climate commitments. The implementation period for the scheme is set until 31<sup>st</sup> March, 2027, with a significant financial outlay for Central Financial Assistance (CFA) to residential consumers, among other components. The scheme also includes mechanisms for third-party audits, coordination with state regulatory commissions, and a focus on RTS in the government sector. The implementation is facilitated through a National Portal, and the scheme involves various stakeholders, including MNRE, NPIA, and SIAs, with a strong emphasis on monitoring and evaluation to ensure its successful execution.

### CER Opinion

The scheme proposes to address one of the key focus area for India's energy strategy while also meeting its commitments under the climate policy. However, given the substantial outlay of funds for the scheme, greater attention should be paid to the implementation strategy to ensure efficacy and efficiency in reaching out to the beneficiaries, and long-term operational performance of the RTS.

**CER Solar Rooftop Suitability Index (SRSI) - Shadow Free Area:** The scheme should adopt a SRSI based criteria for selection of appropriate rooftops for implementation of RTS have often witnessed limited assessment of site suitability. RTSPV installations have often been found in completely or significantly shadowed areas. In some cases, growth of vegetation or nearby construction have made such installations ineffective. The suggested rating system would enable only selection of suitable roofs ensuring that the program achieves its objective to reduce electricity bill effectively as this would ensure a reasonable CUF and operational performance.

Experience has shown that in order to meet targets for similar schemes, rooftop installations are sometimes also installed on sites currently with significant shadow or are likely to have significant shadow in the near future due to growth of vegetation/trees or nearby construction.

A SRSI based rating system is proposed so as to take into account the current shadow and potential shadowing of the rooftop panels based on available free shadow area. The ratings can be defined by the duration of shadow free hours during the day:

- **A:** Shadow free rooftop for more than 8 solar hours
- **B:** Shadow free rooftop for 6-8 solar hours
- **C:** Shadow free rooftop for 4-6 solar hours
- **D:** Shadow free rooftop for less than 4 solar hours

These ratings provide valuable insights into the estimated energy generation capacity and suitability of locations for RTS installations. This would also enable appropriate estimate of the solar energy generated and utilized, and reduction in carbon emissions to enable the country to meet its climate target commitments.

**CER Surya Aadhaar - Unique ID and Database:** Creation of unique identity based database for each RTS installation. The searchable national database, may be called “**Surya Aadhaar**”, would avoid leakages in the scheme and its misuse while providing for its efficient implementation. Each RTS installation, should be provided with a unique identification ID, may be called “**Surya Aadhaar**”, linking its key data. Some of these are identified below:

- Aadhaar number of the beneficiary
- Address and contact details
- Solar Rooftop Suitability Index (SRSI) (suggested above)
- Each of the solar panels and other hardware
- Size of the system
- Placement of the RTS
- Manufacturer and its make
- Vendor/installer
- Date of installation
- Name and ID of the person (or the Surya Mitra) coordinating the application process
- GIS location
- Feeder identity
- Consumer number (with Discom)
- Meter number
- Date of application
- Status of approval of RTS
- Date of approval of RTS
- Status of subsidy disbursement and, amount and date thereof
- Financial institution (for loan)
- Date of sanction of loan, and amount thereof
- Status of sanction of CFA
- Date of release of CFA
- Outstanding loan by end of the March each year
- Date of final loan repayment
- Name and ID of the personnel having verified the installation
- Status – Functional or faulty (to be tracked across time)
- Number of complaints received and status of resolution

The “Surya Aadhaar” and the associated information should be archived and updated in a searchable database at an identified national portal. This database should be accessible to the existing as well as potential beneficiaries, who can search relevant information post validation of the identification through their own Aadhaar number and the associated One time Password (OTP). Potential beneficiary as well as the implementing agencies/financial institution should be able to search if the location/ID has already been sanctioned/mapped with an installation. This will also ensure transparency and accountability in the implementation of the scheme and ownership of these systems. This will minimise leakage from the scheme and ensure that true beneficiaries avail of the benefits under the scheme. Lost/stolen assets can then also be tracked if found/sold in the secondary market. Anonymized data should be available for research and academic institutions to evaluate efficacy of the program.

**CER Tamper Proof Embedded QR code for Solar PV panels:** Solar PV panel to have tamper proof QR code, which can be embedded inside the encapsulant at the back side of the panel, embedded in the glass thus eliminating its tampering. Each of the solar PV panel should have a QR code that can be embedded at the time of panel manufacturing. This would ensure that the QR code cannot be tampered with. Such a requirement can either be **mandated for panels supplied for the scheme or the same can be included in the BIS standard for the solar PV panels.** This feature would discourage unauthorized resale of the PV panels thus improving implementation efficiency and efficacy of the scheme.

**CER Owner vs Tenant as Beneficiary of Solar PV and Relocation of the Installation:** Clarity is required if a tenant, with short-term and with long-term rental/lease agreement, can also apply under the scheme and become owner of the solar PV installation. Furthermore, if relocation of the solar PV installation (owned by tenant) would be permitted before the end of loan repayment.

Multiple instances may occur wherein the tenant, who is currently bearing the electricity bill, would like to install the solar PV installation and seek benefit under the scheme. This would, however, require consent of the house owner to avoid legal complications. Furthermore, in case the tenant is asked to vacate the premises, the relocation of the installation if feasible would be required to be permitted.

Alternatively, a mechanism needs to be evolved wherein the tenant can transfer the assets to the owner of the house after adjusting for the loan amount paid and 'value' of the assets.

A framework may need to be evolved to provide for such valuation, and transfer of the asset. The grievances section does mention 'change in ownership' (of the house) as one of the issues but the same is not clarified elsewhere.

**CER Surrender of the Electricity Service Connection:** Can a consumer surrender its electricity connection after availing benefit under the scheme?

A consumer going off-grid and making full utilization of the RTS would still contribute to the overall objective and continue to remain a beneficiary of the scheme. The scheme should ensure that such a bonafide consumer is not stopped from going off-grid and is not allowed to surrender the service connection. Clarification to that affect should be included in the guidelines.

However, this may pose some challenge to effective post installation monitoring and system functionality assurance. Another concern may be the heightened risk of unauthorized panel resale. The '**Surya Aadhaar**', proposed above, with QR code and database feature should help address this concern to some extent.

**CER Engagement of Surya Mitra:** The implementing vendors should be asked to enlist such locally available and trained manpower for implementation of the scheme. This would also ensure that benefits are shared by larger society and there is an effort towards employment creation for such trained manpower.

The Surya Mitras' can be engaged for a variety of purposes, such as:

- **Engagement by Vendors for Installation of RTS:** Surya Mitra can be involved in assisting consumers during the installation process. This could include providing technical expertise, guidance on proper installation practices, and ensuring compliance with safety standards.
- **Monitoring and Inspection:** Surya Mitra personnel can be involved in monitoring and inspecting installations to ensure they meet quality standards and specifications. They can also assist Discom representatives during inspections, providing insights into technical aspects of the installations.
- **Awareness and Outreach:** Surya Mitra can play a role in raising awareness about the benefits of RTS among consumers. This could involve conducting outreach activities, providing information on available incentives and subsidies, and facilitating consumer education programs.
- **Documentation and Reporting:** Surya Mitra personnel can assist in documentation and reporting tasks, such as collecting and verifying GPS-tagged photographs of pre-installation sites and completed installations, as well as filling out Discom reports.

**CER Smart Meter Based Monitoring of RTS through Stratified Sampling:** Growth of solar power projects would constrain discoms/SLDCs to effectively forecast and manage their schedules.

Growing behind the meter installations also pose a challenge for demand forecasting as well as Resource Adequacy planning by the distribution licensees. In the absence of monitoring of electricity generation from the behind the meter solar RTS and consumption thereof, the forecasting models would face very serious challenge to forecast both short-term as well as long-term electricity demand.

Apart from this, it would also be challenging to estimate green energy generation and consumption for accounting towards Renewable Portfolio Obligation (RPO) of the distribution licensees as well as estimation of contribution to India's climate policy commitments of reducing emission intensity. The scheme should provide for stratified sampling based remote metering installations on selected RTS to monitor solar energy generation and consumption thereof on real-time basis.

Adding a sampling-based monitoring system (through smart meters) for RTS would enhance the visibility of RTS to the distribution licensees, the system operation as well as regulators and policy makers. Use of stratified sampling across geographically spread blocks across different agro climatic areas would enhance reliability of data. The stratified sampling-based data collection rate may be set, say, at least 1-2% of small-scale projects ranging from 1 kW to 3 kW, 2-3% for 3-5 kW and 5% or 5 kW and above.

It is also important to ensure that such data is archived and be accessible to the discoms and SLDCs. Such data should also be accessible to academic/research institutions to enable research assisting better forecast of solar generation as well as electricity demand. The data would also enable effective monitoring and impact evaluation of the scheme.

**CER Standards of Performance and Grievance Redressal:** The new proposals identified herein should also be included in the grievance redressal and monitoring framework. The grievance redressal should also transparently share monthly report on complaints raised across issues across each district, name of the respective entity against whom such complaints are raised, time of resolution and outstanding complaints. In line with the Standards of Performance (SoP) for the distribution licensees specified by the respective Electricity Regulatory Commissions, similar SoP should be established for the performance of the RTS installations and the associated stages of the application/installation processes as well as for redressal of complaints with a provision for payment of compensation to the affected party to be recovered through penalty on the vendor/responsible party. For e.g. delay in rectification of technical issues with the installation means loss of electricity generated from the solar RTS and consumption thereof, thus a financial implication for the consumer. UPI based payment of such compensation should be reflected in the App based account of the consumer with information shared through SMS/WhatsApp.

**CER Vendor Performance Rating System (VPRS):** Performance of the various vendors during various stages of application processing, installation and operational maintenance, should form the basis for **VPRS**. Such a system

should include performance of the vendor with respect to the SoP and its efficiency and efficacy in addressing consumer complaints. This should be subject to verifiable data and monthly reporting of the performance. Based on the rating (say, A+, A, B+, B, C+, C and the like), which can be developed on the basis of a composite index for the identified parameters above, an award scheme can be constituted. Performance below a minimum grade (say, B) should disqualify the vendor for enrolling further consumers. A+ category vendors can be incentivised by lowering of the performance guarantee after consistent performance for 6 months.

**CER Grievance Redressal Mechanism and Role of Local Language:** Given the expanse of the scheme throughout the country, importance of the local language for communication of the complaints and redressal thereof should be emphasized.

**CER Escalation Matrix for Grievance Redressal:** The grievance redressal mechanism provides for two layers without mentioning further escalation chain and resolution with the specified '30 days'. Process of further escalation is also not specified. It is suggested that an Escalation Matrix for each of the category of issues be developed so as to ensure speedy redressal with clear responsibility, timeline, thus further empowering the consumers.

**CER Typographical Error:** The Clause no. 5 (b) (2) states that “Residential Sector (with additional RTS capacity of 1 kWp or part thereof) 40% of benchmark cost of additional kWp” There is a Contradiction in the subsidy (%) over benchmark for additional capacity. The discrepancy between the details in Annexure I (stating a subsidy amount of 30% of benchmark cost for each additional 1 kW capacity) and Clause 5 (indicating a subsidy of 40% of benchmark cost for each additional 1 kW capacity) suggests a potential typographical error that should be rectified.

**CER Third Party Assessment:** The Clause no. 11 (b) of proposed draft states that “The NPIA shall establish adequate mechanism to ensure independent third party assessment of RTS installations at time of commissioning of at least 1% of installations and post-installation inspection of at least 1% of installed systems”. The National Program Implementation Agency (NPIA) is to provide for inspection of 1% of the installations. This leaves a room for subjectivity in both the choice of the third party and the sampling for inspection of the installations. **Stratified sampling should be specified upfront wherein 1% samples are collected from each block of every district across the country.** In the absence of the same, limited sampling would often exclude some of the rural/remote installations where probability of poor implementation is likely to be much higher. **The report on the outcome of the same should be sharing through the portal of the scheme on a monthly basis.**

To ensure that the verification/inspection of the installation has been carried out in an efficiency and transparent manner, owners of each of such verified installations should be informed about the same through a message (SMS/WhatsApp) with a link to confirm that verification was done post visit to the site and that the verified details are correct. In case of any discrepancy, the beneficiary should easily able to raise a grievance against the same.

Apart from this, reputed academic institutions/ research organisations should be entrusted with the task of evaluating benefit of the scheme post its implementation. Data for the verified installations should also be shared for such research purposes.

Grievance mechanism should also allow for complaint against the agency undertaking verification of the installation. The ID of the Surya Mitra or other such person visiting the installation for verification etc. should be mapped across all sites verified to discourage misuse of their powers and identifying inefficiencies in the system. The personnel engaged for the verification purpose cannot be same who were engaged for installation in that area/block.

**CER Annexure VII (Part B) – “(Optional Value added services)**

1. GIS based design
2. Customized design as per the requirement of the consumer
3. Calculator / estimation for rooftops solar system (RTS) generation and returns/savings calculations
4. Data base maintenance for the consumers
5. On request generation data (inverter or online)
6. Module cleaning system operation methodology
7. Weather monitoring system (irradiation sensor, temperature sensor)”

Some of the services mentioned under Annexure VII should be included in the list of compulsory services. GIS based tagging of the RTS. The services of Surya Mitras should be engaged for offering such optional services such as calculations related to the RTS to take the beneficiary informed decision. Module cleaning would also be a value added service that can be offered by such trained manpower.

By mandating these value-added services, beneficiaries can benefit from increased clarity and improved competition among vendors, leading to better service delivery. Additionally, this approach will provide beneficiaries with accurate

estimates of energy generation and potential returns or savings, enabling them to make informed decisions about adopting solar energy.

App based delivery of mandatory as well as optional services would enhance user experience and would ensure seamless availability of services and monitoring thereof. Surya Mitras to be enabled with such Apps to do necessary calculations for the site including financial planning thereof.

## Revised Draft on KERC (Verification of Captive Status of Generating Plants/Consumers in the State of Karnataka) Regulation, 2024

The KERC notified “**Verification of Captive Status of Generating Plants/Consumers in the State of Karnataka**” Regulation, 2024 [Draft] on 12<sup>th</sup> March, 2024. The key highlights of this draft is mentioned below:

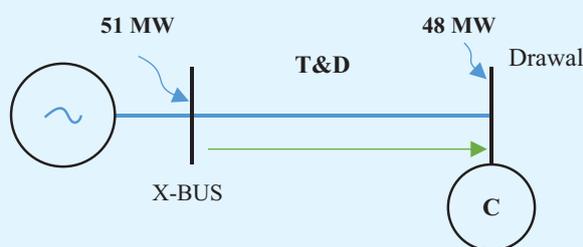
**Objective:** The revised draft regulations aim to bring regulatory control and protect the interests of stakeholders by ensuring compliance with the provisions under the Electricity Act, 2003 and Electricity Rules, 2005. The document outlines the criteria for determining captive status, including share- holding patterns, consumption details, and the process for verification of captive status. The categories of captive users covered include single captive users, cooperative societies, and group captive users, each with specific criteria for verification. It also addresses metering requirements, default consequences, dispute resolution, and the power to remove difficulties and amend regulations.

### CER Opinion

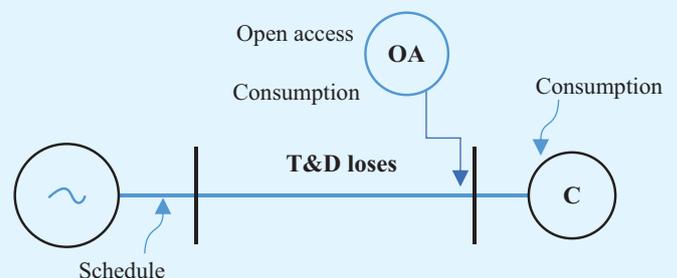
**CER Opinions Verification of End use by Captive Users:** Revised draft Clause no. 2 (c) states that “*captive user shall mean the end user of the electricity generated in a Captive Generating Plant and the term “captive use” shall be construed accordingly*”

The Electricity Rules, 2005 qualifies a user as a captive user on the basis of it being the 'end user'. A variety of cases would highlight that generation side scheduling is more appropriate than 'end use' measured at the consumer end. Differentiating impact of transmission losses may lead to different proportion of captive energy consumed by members of a group captive plant, if measured at injection end or the drawl end. To address this, **the calculation for 'end use' for a consumer should be recorded on the basis of the energy scheduled from the captive unit rather than that recorded at the end of the user, which would exclude transmission loss.**

- To ensure that pseudo schedules are not generated, analysis of block-wise data of captive plants/ units may help reveal such a behavior.
- Low Deviation Settlement Mechanism (DSM) charges applicable for the renewable energy based captive plants, may incentivise such a behavior. Gradual alignment of the applicable DSM for RE would address the same.



**Figure 1:** Verification of schedule on Bus Bar



**Figure 2:** Non-captive open access consumption

**CER Captive Consumer with Open Access Consumption (non-captive):** Verification from plant schedule

- A captive user may also import electricity through open access from non-captive sources (e.g. trading or PXs) and/or from the local distribution company using the same import meter. In such cases, apportionment of consumption to a captive source is not feasible. This further strengthens the argument in favour of use of schedule of captive plant for calculation of proportional consumption of electricity.
- Do note that in case of multiple captive users, the captive unit would report schedule with respect to each such user and can hence be apportioned accordingly.

**CER Level of Bank Guarantee and Dynamic Bank Guarantee:** In accordance with the revised draft Clause no. 4 (4.5) and 7(7.1), the following modification may be implemented to improve consequences in case of failure to meet captive status. The bank guarantee required for each captive consumer can be customized based on their individual consumption needs. It should be a minimum of 51% of their captive consumption or the total captive consumption amount, whichever is higher.

If a consumer fails to maintain their captive status, they will be liable to pay cross subsidy surcharges and any additional applicable charges based on their entire captive consumption, not just 51% of their total consumption. A captive consumer may consume well above 51% of the capacity equivalent. Thus limiting Bank Guarantee up to 51% of the capacity exposes the Discom to a risk for not able to provide adequate coverage towards cross-subsidy and additional charges, if applicable, in case a 'captive consumer' does not any more meet the criteria.

For example, if a captive user's consumption requirement is 70% of the total generation and they have obtained a bank guarantee equivalent to 51% of the total consumption, if they fail to meet captive status criteria they would be subject to cross subsidy surcharges and additional charges. After that if they also failed to reply to demand notice of the Discom for the payment, then the bank guarantee claim would only cover 51% of the captive consumption. Therefore, it is advisable to secure a bank guarantee equivalent to captive consumption to avoid potential payment shortfalls.

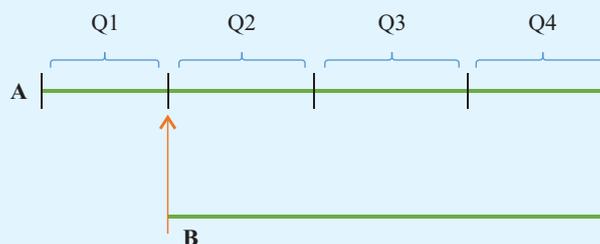
Furthermore, a consumer may increase/decrease its share in the captive capacity across time. This should be reflected in appropriate change in the bank guarantee, and thus there should be specific mention of the dynamic nature of bank guarantee.

**CER Hybrid Annual and Quarterly Criteria for Captive Status:** According to revised draft Clause no. 4.3 (i), (ii) and 4.4, the verification of captive status shall be done on annual basis.

Given the variability of the consumption and seasonality of generation including that for RES, The overall consumption (51% criteria) and the proportionality of consumption (in case of group captive users) may vary across months/quarters. **To reduce risk to the captive consumers on account of such variability, a hybrid criteria may be adopted wherein captive criteria are checked on both quarterly as well as annual basis.** In case a captive consumer qualifies the criteria on the annual consumption basis, it would be deemed to have captive status across the year (including the quarter(s) with shortfall). In case of failure to meet the criteria, for example, in one of the quarters but qualifies for the other quarters individually. It would be deemed a captive consumer across all quarters, if it achieves so on the annual basis. In case of failure to achieve captive status on the annual basis, the consumer would be liable to pay applicable charges for that quarter rather than for the year as a whole.

This approach would also help address situations, wherein addition/departure of a consumer to a group of captive users would change the proportionality of consumption/ownership. This is further explained through example below.

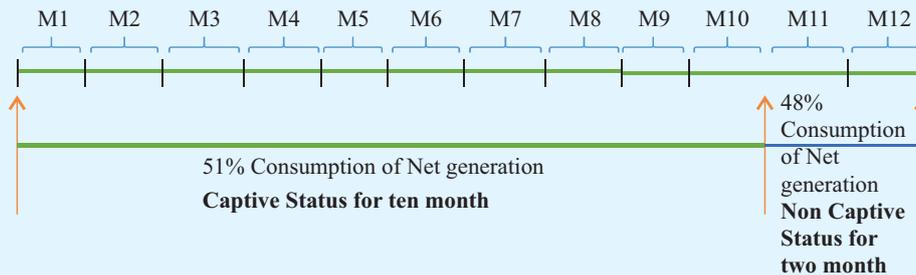
### Case 1: Verification of captive consumption on quarterly basis



*Figure 3: Timeline for quarterly captive verification*

- Let us consider a scenario where entity **A** maintains its captive consumption for the entire year across all the four quarters. Entity **B** joins at the beginning of the 2<sup>nd</sup> quarter, satisfying all criteria for the three remaining quarters but not for the full year basis as explained in **fig.3**.
- In such case, captive user **B** fails to comply with the requirements of captive status on 'annual basis' and thus becomes ineligible as a captive user.
- Since each investments are not expected to take place at the beginning of each financial year, quarterly basis for captive consumption verification would be more suitable.

### Case 2: Verification of captive consumption on monthly basis



**Figure 4:** Timeline for monthly captive verification

- Let's consider entity A has maintained captive status for all the months except two months (M11 and M12) of the financial year however, overall maintained captive status then those months should also be deemed to qualify as captive.
- Now, consider entity B has maintained captive status for all the months except two months (M11 and M12) of the financial year however, annually failed to maintain his captive status then he should be considered non captive only for the months (M11 and M12) he failed to qualify.

**CER Modification/ Suggestion for Data Metering:** Revised draft Clause no. 5 (5.1) states that “Each generating unit intended for captive use shall have a separate Special Energy Meter (SEM) with real time communication facility as specified in the Central Electricity Authority (CEA) (Installation and Operation of Meters) Regulations, 2006 (as amended from time to time) and/or the State Load Despatch Centre/distribution licensee. The generators may provide the monthly data/quarterly/15- minutes data of the energy generated (less auxiliary consumption) and other data to the SLDC/Distribution Licensee.....”

Each generating unit intended for captive use shall have a separate Special Energy Meter (SEM) with real time communication facility as specified in the Central Electricity Authority (CEA) (Installation and Operation of Meters) Regulations, 2006 (as amended from time to time) and/or the SLDC/Distribution licensee. The generators **should be mandated to provide 15 minutes data on monthly basis or 15 minutes data on monthly/quarterly basis** of the energy generated (less auxiliary consumption) and other data to the SLDC/Distribution Licensee. Aggregated monthly/quarterly data may not always enable correct apportionment of the power generated from a 'captive' plant to various contracts including for captive use as well as sale to third party or through PXs. Periodical testing of the SEM should be provided for as per the provisions of the Grid Code.

**CER Verification of Proportionate Consumption as per Shareholding in Group Captive:** In accordance to draft Clause no. 4.3 (ii), Verification of captive status for group captive users must satisfy the following conditions:

“The proportion shall be computed as follows:

Total Captive Consumption – C

Total Captive Share Holding – S

$C = \sum C_i$ , where  $C_i$  is the Consumption of the  $i^{th}$  Captive Consumer

$S = \sum S_i$ , where  $S_i$  is the weighted average Shareholding ( in Percentage) of the  $i^{th}$  Captive Shareholder

Proportional Shareholding of the  $i^{th}$  Captive Shareholder  $PS_i = (S_i/S) * 100$

Proportional Consumption of the  $i^{th}$  Captive Shareholder  $PC_i = (PS_i * C)/100$

Conditions to be satisfied for Captive Status

i.  $S \geq 26$

ii.  $C \% \geq 51$

iii.  $0.9 PC_i \leq C_i \leq 1.1 PC_i$ ”

Analysis has revealed that a discrepancy in the application of these conditions, particularly when multiple captive users deviate from their proposed consumption levels, may arise for the users who did not deviate from their own projected consumption but rest of the users did deviate. Given the seasonal nature of business, and economic cycles, determination of the proportional shareholding should be done on quarterly basis, provided that shareholding status is measured on a continuous basis across the year. **A quarterly-annual hybrid basis for calculation of proportionate consumption related to the share holding in group captive plant (similar to the one proposed above), would help address variability due to seasonal/business reasons and limit the adverse impact to the quarter affected.**

## Regulatory Updates

### Tariff



HERC has decided on petition filed by Panipat Cooperative Sugar Mills Ltd., seeking determination of tariff under section 62 read with regulation 7 of the HERC (Terms and Conditions for determination of tariff from Renewable Energy sources, Renewable Purchase Obligations and Renewable Energy Certificate) Regulations 2021, for its 100% bagasse based co-generation power plant, for purchase of upto 21 MW during crushing season out of 28 MW bagasse based co-generation power for 20 years, to be Rs 6.33/kWh as the levelized tariff which is less than the cap of Rs 6.67/kWh.



KSERC approved the proposal of Kerala State Electricity Board Ltd. dated 12-03-2024 for procurement of hydropower on short-term basis at Rs 7/kWh from 60 MW Naitwar Mori project of SJVN Ltd. for period from 10-03-2024 to 15-06-2024. KSEBL and SJVNL shall sign an undertaking to the effect that, the benefit shall be passed on to KSEB Ltd. in case the CERC determined tariff is lower than the ceiling tariff Rs 7.00/kWh.



GERC decided to approve the petition filed by the GUVNL for adoption of the tariffs discovered through the competitive bidding process for the procurement of 500 MW of wind power from grid-connected projects.

Bidder's Name	Base Capacity (MW)	Tariff (Rs/ kWh)
M/s Alfanar Power Ltd.	50	3.42
M/s Juniper Green Energy Pvt. Ltd.	90	3.44
<b>Total</b>	<b>140</b>	

GERC has considered the petition filed by GUVNL for the adoption of the tariffs discovered through the competitive bidding process. The Commission has decided to adopt the tariffs quoted by the successful bidders, M/s Gensol Engineering Ltd. and M/s IndiGrid 2 Ltd.

Rank	Name of the Bidder	Quoted Capacity (MW/MWh)	Eligible Capacity (MW/MWh)	Storage Rate (Rs MW/ Month)
L1	Gensol Engineering Ltd.	70 MW/140 MWh	70 MW/140 MWh	448996
L2	IndiGrid 2 Ltd.	250 MW/500 MWh	180 MW/360 MWh	449996
<b>Total capacity for successful bidder</b>		<b>250 MW/500 MWh</b>		



RERC approved the tariff of Rs 2.64/ kWh for 810 MW solar power project awarded to NLC Ltd. The price was discovered under scheme for flexibility in generation and scheduling of thermal/hydro power stations bundling with RE.



HPERC approved with conditions that project must not set in rural area and that the tariff for the projects to be set up in areas other than Industrial and Urban areas up to 1 MW is Rs 3.65/kWh as determined by the Commission vide order dated 04-11-2023, which shall be applicable to the Project which has been incorporated in Clause no. 6.2 of the draft PPA.



UERC have considered the revision in the MYT tariff petition filed Greenko Budhil Hydro Power Ltd. The table shows capacity charge and Energy Charge rate approved for FY 2024-25:

Particulars	Previous	Revised
Net AFC (Rs Crore)	81.30	81.30
Saleable Energy (MU)	236.43	232.43
Capacity Charges (Rs Crore) (50% of AFC)	40.65	40.65
Energy Charges (Rs /kWh) (50% of AFC)	1.72	1.75

### Power Procurement



BERC approved the petition BSP(H)CL on behalf of Discoms (NBPDCCL & SBPDCL) for procurement of 209 MW on Medium-term basis form hydro power stations in Nepal for the period from 15<sup>th</sup> June to 31<sup>st</sup> October each year on RTC (Round the clock).

BERC approved the short-term procurement of 177 MW (NTPC Barh II - 97 MW & Barh I - 80) of power allocated by the Ministry of Power from 30-03- 2024, to 30-09-2024, at rates approved by CERC, due to Bihar's power deficit caused by delays in central generating units and the need for firm allocations due to unsuccessful buy bids at power exchanges during peak hours.



DERC approved the BESS Agreement dated 22-12-2023, between the Petitioner and Respondent No. 1 for a 20MW/40MWh Battery Energy Storage Project at Kilokari Grid Sub-Station. It adopted a single-part tariff of Rs 57,59,610 per MW per year and approved minor deviations from the Ministry of Power Guidelines. The

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Commission also directed that any financial benefits from the project be passed on to consumers as a net offset in the power purchase cost within the ARR.

DERC approved the PSA dated 20-07-2021, between the BSES Yamuna Power Ltd. and SECI for the procurement of 90 MW Solar Power at a total tariff of Rs 2.44/kWh, which includes a tariff of Rs 2.37/kWh plus a trading margin of Rs 0.07/kWh. This approval aligns with the Hon'ble APTEL's judgment dated 2-07-2021. However, the trading margin of Rs 0.07/kWh will be subject to the final outcome of Civil Appeal No. 6310 of 2021, as directed by the Hon'ble Supreme Court of India on 4-05-2023.



HERC has determined the levellized tariff as Rs 6.35/kWh on petition filed by M/s. Karnal Cooperative Sugar Mills Ltd., seeking determination of tariff under section 62 read with regulation 7 of the HERC (Terms and Conditions for

determination of tariff from Renewable Energy sources, Renewable Purchase Obligations and Renewable Energy Certificate) Regulations 2021, for its 100% bagasse based co-generation power plant, for purchase of upto 13.2 MW out of 18 MW bagasse based co-generation power for 20 years.



OERC reviewed and approved the 2<sup>nd</sup> Supplementary PPA between M/s NAVA Ltd. and GRIDCO Ltd. for a 60 MW IPP, under the SHAKTI Policy, which provides coal linkage. This PPA includes a tariff discount for coal supplied under SHAKTI,

to be adjusted in monthly bills. The approval is critical for ensuring reliable power supply and efficient coal use. GRIDCO's request for M/s NAVA to use cheaper coal beyond the SHAKTI allocation was not accepted, and the OERC advised both parties to resolve such issues amicably.



GERC reviewed the petition filed by M/s Gujarat Urja Vikas Nigam Ltd. (GUVNL), the competitive bidding process, and the justifications provided by GUVNL. The Commission noted the compliance with the Ministry of Power

guidelines and the challenges cited by GUVNL. After considering the detailed submissions and the market conditions, the Commission concluded to adopt the discovered tariffs for the procurement of power from the 1125 MW Solar PV Projects at the GSECL RE Park in Khavda, as requested by the petitioner.

GERC approved the petition filed by M/s Oreva Energy Pvt. Ltd., stating that the non-availability of water in the dam due to inadequate rainfall qualifies as a Force Majeure Event under the Power Purchase Agreement

(PPA). As a result, Oreva Energy Private Ltd. is not liable for penalties imposed for not achieving the targeted generation. GUVNL has been directed to refund the penalty amount of Rs 70,31,201 along with applicable interest to Oreva Energy Private Ltd.



KSERC approved Infopark's petition for approval of the extension of the supplementary Power Purchase Agreement (PPAs) with KSEBL dated 01-07-2014, supplementary PPA dated 16-06-2017' for a further period of five

(5) years from 01-07-2022 to 30-06-2027, at Infopark Cherthala with the contract demand of 550 kVA. Also Grant approval to extend the 'Supplementary Power Purchase Agreement to the Power Purchase Agreement entered on 19-09-2014, Supplementary PPAs on 31-12-2015, 29-04-2021 between M/s Infopark and KSEBL for a further period from 19-09-2022 to 31-03-2025 at Infopark Phase-II Kakkannad with the contract demand of 2250 kVA.



MERC approved MITL's power procurement at a higher tariff, noting that the weighted average tariff is around Rs 8/kWh at 85% PLF, with the landed cost exceeding Rs 8.50/kWh after including transmission charges and losses. MITL

must analyze how to supply electricity competitively at this high cost before starting its Distribution Business. Additionally, MITL must complete registration with Maharashtra SLDC as a pool participant according to regulations and procedures before drawing power as a Distribution Licensee

MERC approved EON-I and EON-II's proposal to procure Renewable Energy (RE) on a round-the-clock (RTC) basis from FY 2025-26 to FY 2045-46 to meet their base load and RPO mandates. EON-I will procure 6 MW and EON-II will procure 4 MW through a transparent competitive bidding process for 20 years, with or without energy storage. They must seek tariff adoption from the Commission under Section 63 of the Electricity Act, 2003.



RERC in its judgement have observed that energy injected between time period of old PPA and signing of new PPA must be compensated on price fixed by parties. RERC directed RUVNL, RREC and JUVNL to compensate BG wind power and directed BG not claim REC for the energy injected during this period.



UERC have currently approved recovery of Fuel and Power Purchase Cost Adjustment (FPPCA) by UPCL for the

## Regulatory Updates

third quarter of 2023-24. UPCL can adjust cost Rs 14.21 crore in the power bill for the month of July 2024. Commission also directed UPCL to maintain the separate record of recoveries.

### Renewable Energy, RPO and REC

GERC on petition received by GUVNL seeking the adoption of tariffs discovered under a competitive bidding process for procuring power from 600 MW grid-connected solar photovoltaic power projects at Khavda without energy storage, with an additional green shoe option of up to 600 MW. The competitive bidding process, followed by an e-reverse auction, aimed to secure power for distribution through GUVNL's distribution companies to fulfill Renewable Purchase Obligations (RPO) and manage power purchase costs. The government-approved deviations from new guidelines were included in the bidding process, ensuring transparency and fairness. GUVNL received bids from five companies, resulting in successful tariffs ranging from Rs 2.54 to Rs 2.55 per kWh.

Bidder's Name	Base Capacity (MW)	Tariff (Rs/kWh)	Greenshoe Capacity (MW)	Tariff (Rs/kWh)	Total Capacity (MW)
SJVN Green Energy Ltd.	100	2.54	400	2.54	500
SAEL Industries Ltd.	200	2.55	200	2.54	400
Coal India Ltd.	300	2.55	-	-	300
<b>Total</b>	<b>600</b>		<b>600</b>		<b>1200</b>

JSERC approved SAIL BSL's co-generation plants for their effective reduction of CO, CO<sub>2</sub>, and other pollutants from gas conversion processes. By declaring Bokaro Steel Ltd's Captive Power Plant as a co-generation facility, energy generated will satisfy RPO for the steel plant over multiple fiscal years (FY 2013-14, FY 2014-15, FY 2015-16, FY 2016-17, FY 2017-18, FY 2018-19, FY 2019-20, and FY 2020-21)

CSERC observed that delay in the construction of the project is because of the internal reasons of M/s ABRel Green Energy Ltd. As per the regulations notified by the CSERC for IDRES projects are amply clear with the first 500 MW projects achieved COD after notification of the principal regulations or 27-12-2023, whichever is earlier. If the projects are commissioned after 27-12-2023, charges as specified in the DRE (Second Amendment) Regulations will be applicable.

CSERC observed the project was not completed in all respect as 132 kV bay work has not been completed by

27-12-2023 as submitted by the petitioner M/s Godawari Power & Ispat Ltd. and endorsed by respondent CSPTCL. Hence, benefits to the IDRES projects within first 500 MW or commissioned before two years from the date of notification of the first amendment Regulations i.e., 27-12-2023, may not be extended to this project.

CSERC approved the benefits to the M/s Krishna Iron Strips & Tubes Pvt. Ltd. As per regulation, all the IDRES projects for first 500 MW which have achieved COD after notifications of the Principal Regulation or projects which have achieved COD by 27-12-2023, whichever is earlier. Therefore, the Commission is of the view that in this particular case, looking to the factual position of readiness of the plant, the petitioner is entitled for consideration.

CSERC approved the benefits of Cross Subsidy Surcharge and SLDC charges to M/s Ispat India, as per regulations for first 500 MW or projects which have achieved COD by 27-12-2023, whichever is earlier as the M/s Ispat India has applied for synchronization of their solar power plant on 26-12-2023 after getting necessary permission from the State Govt. and the CEI on 09-10-2023 and 26-12-2023 respectively for construction of lines and starting the plant.

MERC option of determining project specific tariff was available with MVNPL as its plant was not based on water cooled condenser. But it has signed EPA 30-12-2014 wherein parties have agreed for generic tariff which is based on water cooled condenser. Hence, now after 10 years of commissioning of project and when only few years are remaining for expiry of EPA, MVNPL's request for separate auxiliary consumption norm for its plant based on air cooled condenser technology cannot be allowed.

RERC responded that JUVNL, RUVNL, RRVNPL are not at any fault and Umiad Mills are not entitled to any compensation. Discoms had communicated to the Umiad Mills to stop injecting power after termination of the PPA but the petitioner didn't stop and the Discoms benefitted from the energy injected by the petitioner by selling it to its consumers and claiming REC benefits.

### Others

CSERC approved the load management procedure as submitted by the petitioner CSPDCL expect for load management in Atal Jyoti feeders and HVDS pumps feeders for irrigation pumps. Load management plan is approved for the Industrial, Town/Rural Feeders, Feeders under Advanced Distribution Management System (ADMS).

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KSERC approved KDHPCL proposal for construction of the 33/11 kV substation and allied works, with a total cost of Rs 12.06 crore, also approve to retain the existing three 11 kV sources for availing supply from KSEBL in munnar and surrounding area of KDHPCL. Furthermore, commission grant permission to KSEBL to continue with the present feedback arrangements with M/s KDHPCL for providing electricity to the consumers of KSEBL in the Munnar and surrounding areas.

OERC on the dispute between Vedanta Ltd. and GRIDCO Ltd. centers on the estimation of fly ash generation and the transportation charges for the state's share of power. GRIDCO is required to reimburse Vedanta monthly for these transportation costs to avoid cash flow issues and carrying costs. The transportation cost per ton should be averaged from all generating units and calculated monthly based on power generation metrics. Vedanta must provide relevant documents for reimbursement, subject to yearly reconciliation. Vedanta is also directed to comply with government guidelines for timely fly ash disposal to prevent accumulation.

OERC has approved OPTCL's investment proposals for constructing new substations and transmission lines, as outlined in the Revised 14<sup>th</sup> Transmission Plan (FY 2022-23 to 2026-27). These projects aim to strengthen the power transmission system, reduce transmission losses, improve voltage profiles, and ensure reliable and uninterrupted power supply. OPTCL's plan includes creating two 132 kV transmission rings to enhance network reliability, supported by government funding under OTSSP-1 and RRCP schemes. The implementation is expected to be completed on time to avoid overruns, with TPWODL responsible for developing the downstream distribution network.

RERC directed the Discoms to pay the compensation to Adani Power Ltd. based on "Change in Law" following by APTEL decision. Sum of Rs 121 crore due to imposition of Evacuation Facility Charges and carrying cost of coal must be paid by discoms to APL.

UPERC decided that additional capital expenditures claimed by the M/s Uttar Pradesh Jal Vidhyut Nigam Ltd. for the control period 2019 to 2024 would be considered during the truing up exercise, subject to prudence checks. The Commission affirmed that the O&M expenses for the control period would be based on a normative escalation rate of 4.47%, and any other factors related to O&M expenses would be considered during the truing up process. The Commission acknowledged and corrected the errors in the previous order regarding O&M expenses for Belka HPS, interest on loans for Babail hydro station, and the opening loan for Khara hydro station. Commission noted the delay of 145 days was considerable and urged UPJVNL to ensure adherence to timelines in the future.

WBERC approved the investment proposal of WBSETCL for incurring Capital Expenditure to an estimated cost Rs 76,401.34 Lakh for implementation of 3 (three) different transmission scheme in terms of regulation 2.8.2.3 of the West Bengal Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2011.

WBERC accepted the WBSETCL proposal projects of 132/33/11 kV GIS at Beledurganagar and 220/132/33 KV Mahachanda incurred Capital Expenditure to an estimated cost Rs 25,146.70 Lakh for implementation of different transmission schemes while the capitalization WBSETCL will have to seek approval of the Commission for the project cost along with actual interest during construction and all actual expenditure incurred and also any actual expenditure met out of contingency. Further, is to provide the cost break-up of each scheme showing the actual vis-à-vis estimation including the total project cost as above, ensuring any proper metering arrangement in line with Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006.



## Tariff Orders

SERC/ JERC	Licensee/ Utility	True-up	APR	ARR	Tariff
JERC (M&M)	MSPDCL	2022-23	2023-24	2024-25	2024-25
JERC (M&M)	MSPCL	2022-23	2023-24	2024-25	2024-25
MSERC	MPGCL, MPTCL, MPDCL			2024-25, 2025-2026, 2026-27	
UERC	UPCL	2022-23	2023-24	2024-25	
JERC (Goa & UT)	DNH & DD	2022-23	2023-24	2024-25	2024-25
DERC	NDPL, BYPL, DMC TPDDL, BRPL	2021-22	2023-24	2024-25	2024-25
JSERC	Tata Steel Utilities and Infrastructure Services Limited	2022-23	2023-24	2024-25	2024-25
JSERC	Tata Steel Limited (TSL)	2022-23	2023-24	2024-25	2024-25
HPERC	HPSEBL	2022-23	2023-24	2024-25	2024-25
MERC	MSDCL, AEML, TPCL	2022-23	2022-23	2024-25	2024-25
PSERC	PSPCL	2022-23	2022-23	2024-25	2024-25
JSERC	Tata Power Company Limited (TPCL)	2022-23	2023-24	2024-25	2024-25
CSERC	CSPDCL	2022-23	2023-24	2024-25	2024-25
AERC	APDCL	2022-23	2023-24	2024-25	2024-25

## Regulations

Title	Date of Approval/Notification
AERC (Grid Interactive Solar PV Systems) Regulations, 2019, (First Amendment), 2024	18-06-2024
APERC (Green Energy Open Access Charges and Banking) Regulation, 2024	01-05-2024
APERC (Transmission License) Regulation, 2024	16-05-2024
APERC (Threshold Limit for the Development of Intra-State Transmission Projects under the Tariff Based Competitive Bidding) Regulation, 2024	16-05-2024
APSERC (Framework for Resource Adequacy) Regulations, 2024	07-05-2024
APSERC (Standards of Performance for the Distribution Licensee) Regulations, 2024	07-05-2024
APSERC (Power Purchase and Procurement Process of Licensee) Regulations, 2024	07-05-2024
APSERC (Terms and Conditions for Determination of Renewable Energy Tariff) (First Amendment) Regulations, 2024	16-05-2024
APSERC (Consumer grievances redressal forum and ombudsman regulations) (Second Amendment) Regulations, 2024	30-04-2024
APSERC (Terms and Conditions for Green Energy Open Access (GEOA) and Methodology for Calculation of charges) (First Amendment) Regulations, 2024	30-04-2024
CSERC (Terms and conditions for determination of generation tariff and related matters for electricity generated by plants based on renewable energy sources) (First Amendment) Regulations, 2024	28-06-2024
DERC (Compensation to Victims of Electrical Accidents) Regulations, 2024	27-06-2024
DERC (Peer to Peer Energy Transaction) Guidelines, 2024	24-06-2024
HPERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2024	20-05-2024
HPERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2024	05-06-2024
JERC (Goa and UTs) (Procurement of Renewable Energy) (Fifth Amendment) Regulations, 2024	28-05-2024
JERC (Goa and UTs) (Standard of Performance for Distribution Licensees) (First Amendment) Regulations, 2024	27-05-2024
JERC (M&M) (Electricity Supply Code) (Eighteenth Amendments) Regulation, 2024	24-05-2024
JERC (M&M) (Methodology for determination of Green Energy Open Access Charges) Regulations, 2024	09-04-2024
JSERC (Group Net Metering and Virtual Net Metering) Regulations, 2024	09-05-2024

## Regulations

JSERC (Terms and Conditions for Green Energy Open access) Regulations, 2024	09-05-2024
JSERC (Verification of Captive Generating Plants and Captive Consumers) Regulations, 2024	09-05-2024
KERC (Merit Order Despatch and Optimization of Power Purchase Cost) Regulations, 2024	24-06-2024
KERC (Procurement of Energy from Renewable Sources) (Tenth Amendment) Regulations, 2024	19-06-2024
MERC (Framework for Resource Adequacy) Regulations, 2024	21-06-2024
MPERC (Fees Fines and Charges) (Revision-II) Regulations, 2024	28-06-2024
MPERC (Security Deposit) (Revision-I) Regulations, 2009 (Third Amendment), 2024	31-05-2024
MPERC (Electricity Supply Code) 2021 (Third Amendment), Regulations, 2024	31-05-2024
MPERC (Electricity Supply Code) 2021 (Fourth Amendment), Regulations, 2024	28-06-2024
MPERC (Methodology for determination of Open Access Charges and Banking Charges for Green Energy and Open Access Consumers) Regulations, 2023 (Second Amendment), 2024	31-05-2024
MPERC (Terms and Conditions for Intra-State Open Access in Madhya Pradesh) Regulations, (Revision-I) 2021 (Fourth Amendment), 2024	31-05-2024
MPERC (Terms and Conditions for Determination of Transmission Tariff) (Revision –V) Regulations, 2024	28-06-2024
MSERC (Framework for Resource Adequacy) Regulations, 2023	09-05-2024
MSERC (Terms and Conditions of Green Energy Open Access) Regulations, 2023	09-05-2024
PSERC (Conduct of Business) (Eight Amendment) Regulations, 2024	21-05-2024
PSERC (Appointment & Service conditions of Employees) (Third Amendment) Regulations, 2023	11-06-2024
UERC (Tariff and Other Terms for Supply of Electricity from Renewable Energy Sources and non-fossil fuel based Co-generating Stations) (First Amendment) Regulations, 2024	20-06-2024



## Centre for Energy Regulation hosted a high level delegation led by Secretary, Ministry of Power



**Shri Pankaj Agarwal (IAS), Secretary, Ministry of Power, Government of India** along with team of senior officials Shri Piyush Singh (Joint Secretary, MoP), Shri Hemant Pandey (Chief Engineer, MoP) and Shri Shaswattam (Executive Director, NETRA) travelled to Kanpur for meeting with Prof. Anoop Singh (Founder and Co-ordinator, Centre for Energy Regulation (CER) and Energy Analytics Lab (EAL)) and research scholars of CER and EAL, IIT Kanpur.

**Professor Anoop Singh, Department of Management Sciences, IIT Kanpur** extended a warm welcome to the delegation for the round table discussion and gave a thorough presentation on the accomplishments and research area of CER and EAL on economic aspects and regulatory framework of the Indian power sector. Prof. Singh mentioned the initiative of Department of Management Sciences in digital education with programs like e-Masters degree program and Regulatory Certification Program. Admiring the philosophy of Dr. R S Sharma with respect to data democratization, Mr. Agarwal praised the initiatives of CER and EAL regarding the compilation of power sector's data from different sources and making it available in public domain. (for more details of CER activities and studies please visit <https://cer.iitk.ac.in/>)

Mr. Pankaj opened the discussion by providing key insights on topic covering Government of India initiatives for solar rooftop program, co-location storage and promotion of inclusive infrastructure. This sparked an in-dept conversation on current and emerging subjects in the Indian power sector including retail competition, electricity market design and development, MBED and SCED impacts on energy price, economic aspect of ISTS waiver, green trading, smart metering technologies, circular economy, climate change and incentives within power sector.

The post lunch meeting started with presentation by Department of Sustainable Energy presentation on Enroute to commercialization of Sodium-ion batteries and economical hydrogen production. The meeting was concluded with visit to Smart grid control centre, research facilities on thermal storage and battery lab at IIT Kanpur.

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



CER in collaboration with EAL, conducted the Regulatory Certification Programme titled "Renewable Energy: Economics, Policy and Regulation" from 07<sup>th</sup> June 2024 to 23<sup>rd</sup> June 2024. Hosted under the aegis of the Centre for Continuing Education at IIT Kanpur, the inaugural session was honored by the presence of Shri. Sudeep Jain (IAS), Additional Secretary, MNRE. The program aimed at building economic foundation and better understanding of evolving regulatory and policy framework for RE, along with opportunity to learn best practices from academia, leading national experts on RE related subjects. Further details about upcoming programs available here: <https://cer.iitk.ac.in/olet/RCP>

Distinguished speakers such as Mr. Indu Shekhar Chaturvedi (Former Secretary, MNRE), Mr. Satyajit Ganguly (MD & CEO, PXIL), Prof. Anoop Singh (Founder & Coordinator, CER & EAL, IIT Kanpur), Mr. Ghanshyam Prasad (Chairperson, CEA), Dr. S.S.V. Ramakumar (Former Director (R&D), IOCL), Mr. Kaustav Roy (Ex. GM, SECI), Mr. Saurabh Diddi (Director, BEE) among others facilitated enlightening lectures throughout the programme.

The valedictory session under the auspices of retired India Administrative Service officer Shri. Alok Tandon, (Chairman, JERC (Goa & UTs) marked the conclusion of the program, bringing together insights and reflections from the extensive discourse on power sector regulation.

## Young Policy Professional Programme (YPPP)

The YPPP is a unique opportunity for doctoral candidates to work on challenges present in current power market. The primary role for Young Professional is to conduct extensive research to support his/her research topic. Young Professionals will be recruited from around the world and we welcome individual with diverse educational background, experience to apply for the position. Please check the website for updates: <https://cer.iitk.ac.in/YPPP>



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 periodical 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 periodical.*