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REGULATORY INSIGHTS

Centre for Energy Regulation

Regulatory Outlook

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Editorial

The Indian power sector continues to remain on remand policy and regulatory oversight to bring it out of the financial stress. Even though the sector has witnessed improvement, particularly since the enactment of the Electricity Act 2003, poor operational and financial performance across some states remains a concern. The sector also aims to further enhance the role of renewable energy (RE), lowering its dependence on fossil-fuel based generation of electricity.

Competition remains a gold standard for power procurement. Generic tariff for RE plants has traditionally lagged behind the cost reductions and efficiency improvements harnessed in the case of projects developed on a competitive basis. The tariff framework should adopt an incentive-compatible framework that targets cost reduction and efficiency improvement over a multi-year horizon. This would also nudge the technology developers, manufacturers, EPC contractors as well as investors to attain these levels while securing a reasonable return. For project-specific tariff, to be applied sparingly, the Swiss Challenge approach may be adopted such that the projects do not suffer high project costs and operational inefficiency.

CER has been highlighting some of the key aspects of the MYT regulations that need attention. Adoption of an incentive-compatible regulatory framework for allowing recovery of various cost elements is a key element of the same. The existing approach to allow an increase in cost elements purely based on price indices should now incorporate an efficiency element with a multi-year visibility of efficiency targets. Some of the existing anomalies, identified by CER, in determining some of the key cost elements particularly return on equity as well as working capital beg the attention of the ERCs for consideration.

A phased rollout plan for the smart pre-paid meter should be adopted based on overall cost-benefit analysis while considering the loss of economic value of existing meters which are yet to serve their useful life. In place of dispersed implementation of smart pre-paid meters across the entire area of a DISCOM, it should begin with focussed implementation in identified sub-areas with developed digital ecosystem, adequately trained manpower and informed consumers.

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MoP: Implementation of Budget Initiatives for the Power and Renewable Energy Sector

Finance Ministry has recently discussed about a detail roadmap for effective implementation of the provisions related to the Power and Renewable Energy Sector in the Union Budget 2021-22. The key points of the announcements are as follows:

- A framework will be planned to promote competition among DISCOMs and give consumers options to choose from more than one distribution company.
- A reform-based result-linked power distribution sector scheme will be launched that provide assistance to improve the financial viability of DISCOMs.
- The government has announced the Production Linked Incentive (PLI) scheme for 13 key sectors to possess core competence and cutting-edge technology. For this initiative, the government has committed more than ₹1.9 lakh crore over five years.
- It is proposed to promote the comprehensive National Hydrogen Energy Mission in 2021-22 for generating hydrogen from green power sources.
- An additional capital infusion will be provided to SECI (₹1000 Cr.) and IREDA (₹1500 Cr.) to upsurge the non-conventional energy sector.
- Customs duty on solar appliances will be raised to encourage domestic production.

CER Opinion

CER The most important concern at hand is the financial viability, primarily on account of operational inefficiency and higher cost as compared to the tariffs. The budgetary provisions should aim to address the reform-linked multi-year schemes so that the benefits are transferred to the consumers in the sector. This would also enable the distribution utilities to be prepared for the impending retail supply competition by offering choice to consumers. A focussed discussion involving key stakeholders, particularly the State Electricity Regulatory Commissions (SERCs), distribution utilities, academic institutions, civil society as well as consumer bodies, would help identify the critical reform needs that may be differentiated across states.

CER The budgetary provisions for the power sector envisage the provision of a substantial amount of financial resources over the next five years. This is an opportunity to bring the sector out of the current state that continues to drain the financial resources of the states and continues to demand significant resources from the central government as well. The key question is to design schemes that are differentiated across states and are able to provide necessary incentives for the government-owned utilities. This should account for, among others, the level of operational inefficiency, cost structure as well as consumer mix. This should help improvement in the governance structure in the power sector across the states.

CER The existing experience with UDAY as well as previous schemes like APDRP has shown that all state sector utilities do not respond to incentives in a similar fashion. This is largely on account of the difference in governance structure within the power sector (particularly the distribution utilities) across the states and the role played by the SERCs. A 'single-design-fit-all' scheme may not be an effective way of implementing reform-linked scheme across the states.

CER Investment-linked schemes should address the key aspects of the distribution sector that can improve the transparency of operations, cost-effective procurement and encourage RE integration. Previous schemes particularly, APDRP and R-APDRP, have facilitated investment in feeder/DT metering. However, in spite of significant investment, there is limited visibility of the energy accounting to the consumers.

a) **Grid Transparency:** Enable Distribution System by ensuring visibility of the grid through online and real-time data of energy accounting and its disclosure through the DISCOMs' portal. This can be supported through targeted investment and incentive for reduction in losses.

An incentive may be provided to ensure that this energy accounting-based data is available in the public domain to the licensee website; this will not only enhance the transparency but also encourage distribution

utilities to take suitable measures for reduction in network losses. Also, this will significantly reduce the overall risk for the new retail supply companies/investors.

b) **Rooftop SPV:** Distribution companies face financial stress due to an increase in rooftop solar adoption by consumers. This is expected to impact the growth of rooftop SPV across the country. A special program aimed at tapered support to DISCOMs for facilitating higher penetration of rooftop SPV would help to partially bridge the financial impact due to SPV adoption.

c) **Solar Pumps for Agriculture:** Enhance support for Agricultural SPV programs, based on competitive, transparent, and cost-effective processes. This would help reduce the financial losses for the distribution companies as well.

d) **State Level GeM:** Enable transparency in all procurement by the generation, transmission, trading (holding) as well as distribution companies. Power procurement planning based procurement of power through competitive bidding/market. All asset purchase above a limit (say ₹ 1 lakh) to be compulsorily done through a fully transparent process that can be facilitated through an online platform like GeM (say UP-GeM, RAJ-GeM etc). This can be a state-specific platform but with standardised design features ensuring seamless portability/accessibility of information across the nation. Budgetary support through GoI can help set up such a platform across all states (this may be extended to all procurement in the respective state government). This would influence investment decisions but would ensure that procurement happens in a standardised fashion, reducing the cost of procurement and ensuring that data on all procurement is accessible for all stakeholders.

e) **Improvement in Grid Flexibility:** Higher RE integration in the power system across the states is limited by its flexibility on account of the inability of the generating stations to operate at lower technical minimum generation levels and achieve higher level of ramping rates. Further, incentivising investment in cost-effective storage, particularly pumped hydro generating stations (including those in the neighbouring countries), can help address some of the potent challenges for higher RE integration.

CER **Multiple Distribution Licensee vs Retail Supply Competition:** Ministry is supporting the creation of multiple distribution companies, the electricity distribution network being a natural monopoly, would ideally require a single distribution utility. In the absence of significant economies of scale available to a new entrant distribution licensee, there would be cost inefficiency for the sector as a whole, and this would be particularly of concern in distribution areas with low load density. Further, it would also lead to duplication of the distribution network to overcome the right way of urban areas across the distribution companies. Given that the budget has recognized the need to provide consumers with an alternative to existing electricity supplier, it would be desirable that appropriate policy and regulatory changes can be adopted towards the same. Due to the differences in terms of consumer mix, power purchase obligation, existing financial state and financial obligation, distribution segment across all the states may not be amenable to immediate adoption of supplier choice. However, an enabling framework under the Electricity Act is allowed to adopt a graduated path towards enhancing competition in retail supply. For example, a state may like to segregate a portion of distribution license area to be experimented with retail competition, learn from this experience before opening up other areas.

CER **Distribution Sector Reform:** The next distribution level reform needs to be identified and debated with the relevant stakeholders, including the Regulators, while considering the consumers' perspective. One such area of distribution reform would be network and energy tariff to unbundle across the Distribution Utilities. It is pertinent to note that a selected SERCs have determined separate tariffs for network and energy. Given the larger choice (same network), particularly unbundling of retail tariff measure would be identified and that can be supported with necessary incentives for the distribution sector. Improvement in the governance framework within the distribution utilities is important to ensure that the public sector entities also embrace incentives linked to various schemes as a private sector entity would do.

Furthermore, to ensure that the sector is able to embrace retail supply competition, it is important to ensure the 'visibility' of the distribution grid, particularly the energy accounting across the electricity supply chain over the distribution network starting from the interface meter, feeder, distribution transformer, consumers.

CER **Feeder Separation:** Given that the power supply position has improved across the country, and some of the states have already ensured near 24-hours of electricity supply for the agriculture sector. The techno-economic viability of feeder separation needs to be reevaluated, as such investment may have a limited number of years (due to near

surplus situation in the power sector) available to derive benefits from such investment. Further, implementation of Agriculture SPV pumps would also reduce the overall efficacy of feeder separation.

- **Capital Investment/ Infrastructure Creation:** The central sector scheme had played an important role towards encouragement of various advanced technologies, particularly in the distribution sector. It would be desirable that a significant amount of money should not be earmarked for such investments which, should now fin its economic value with the distribution companies. If this is not happening, it is likely that either such investments are not effective in bringing about the desired change or that the governance structure with the power sector does not enable the distribution utilities to identify economic value in such investments.

  Support for any investment link, be it smart metering, feeder separation etc., should be evaluated on the basis of expected benefit while considering loss of the economic life of an asset that was procured in the recent past (for example, the electronic meters).

Determination of levellised generic tariff for FY 2021-22 under Regulation 8 of the CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2020

CERC issued a proposal for the determination of levellised generic tariff for FY 2021-22 on 18th Feb, 2021. Key highlights of this proposal are given below:

- **Objective:** Procedure to determine the levellised generic tariff for small hydro projects (SHP), biomass power projects with Rankine cycle technology, non-fossil fuel-based co-generation projects, biomass gasifier-based power projects and biogas-based power projects for FY 2021-22.
- **Control Period:** RE Tariff regulations specify that the Control Period for determination of tariff for renewable energy projects (RE) shall be from 01st Jul, 2020 to 31st Mar, 2023. These regulations specify that the tariff determined for the RE projects commissioned during the control period shall remain valid for the tariff period (useful life of the project). The Commission will determine such generic tariff through a generic tariff order at least one month before the commencement of the year for each year of the control period (Clause 4).
- **Applicability:** The tariff determined will be applicable from the second year of the control period, which shall be applicable for the projects commissioned during the period from 1st Apr, 2021 till 31st Mar, 2022 (Clause 4).
- **Tariff Structure:** As per RE Tariff regulations, the tariff shall be determined by the components like Return on Equity (RoE), Interest on Loan Capital (IoL), Depreciation, Interest on Working Capital (IoWC), Operation and Maintenance (O&M) expenses.
- **Discount Factor:** The Discount Factor (DF) considers the normative debt equity ratio (70:30) and weighted average of the post-tax rates for debt and equity component (Clause 10).

  Interest Rate will be considered for the loan component (i.e., 70% of capital cost) is 9%. For equity component (i.e., 30% of capital cost), the rate of RoE is considered at post-tax rate of 14%. Further, corporate tax rate has been considered as 34.94%. Accordingly, the DF derived by this method for all technologies is 8.30% (Clause 11).

  DF = [{(9% x 0.70) x (1 – 34.94%)} + (14.0% x 0.30)]=8.30%
- **Return on Equity:** The rate of RoE is calculated by considering Minimum Alternate Tax (MAT) and corporate tax rate as 17.47% and 34.94%, respectively. The rate of return for first 20 years has been computed as 16.96% and after 20 years of useful life will be 21.52% (Clause 25).
- **Interest on Loan:** In order to evaluate the tariff, the normative interest rate of 200 basis points (bps) above the SBI's average Marginal Cost of Funds based Lending Rate (MCLR) (one-year tenor) prevalent during the last six months. Interest rate for loan component is ascertained as 9% (Clause 27).
- **Interest on Working Capital:** It is estimated as the normative interest rate of 350 bps above the average SBI MCLR (one-year tenor) which is available during the last six months (equivalent to 10.50%) (Clause 31(3)).
- **Subsidy or Incentive:** In case projects avail any subsidy, grant or incentives by state/central government including

accelerated depreciation benefit, then the corporate tax will be applicable at the rate of 34.94%. In order to compute the net depreciation benefits, depreciation will be applicable at the rate of 5.28% (Clause 55).

❖ **Technology Specific Parameters :**

Projects	Useful Life (yrs.)	Project Size (MW)	States/UTs	Capital Cost (₹ L/MW)	Depreciation Rate (%)		CUF / PLF (%)	O&M (₹ L/MW) Esn. @3.84% p.a.		AUX. (%)	SHR (kCal/kWh)	CV (kCal/kg)
					up to 15 years	16th year onwards		FY 2020-21	FY 2020-22			
SHP	40	< 5	HP, UK, WB, J&K, Ladakh, NE	1100	4.67	0.8	45	41.78	43.38	1	-	-
			Others	780	4.67	0.8	30	33.66	34.95	1	-	-
		5-25	HP, UK, WB, J&K, Ladakh, NE	1100	4.67	0.8	45	31.34	32.54	1	-	-
			Others	900	4.67	0.8	30	24.37	25.31	1	-	-
Biomass (Rankine)	25	-	All India	Other than RSJ/WCC -559 Other than RSJ/ACC - 600 RSJ/WCC-611 RSJ/ACC-652	4.67	2	80	46.42	48.20	WCC - 10 ACC - 12	4200 (Trav. Grate) 4125 (AFBC)	3100
Non-fossil fuel (co-gen.)	25	-	UP & AP	492	4.67	2	45	24.52	25.46	8.5	3600	2250
		-	TN & MH	492	4.67	2	60	24.52	25.46	8.5	3600	2250
		-	Others	492	4.67	2	53	24.52	25.46	8.5	3600	2250
Biomass (Gasifier)	25	-	All India	443	4.67	2	85	61.31	63.66	10	-	-
Biogas	25	-	All India	886	4.67	2	90	61.31	63.66	12	-	-

Note: RSJ- Rice straw and Juliflora (plantation) based project; WCC - Water cooled condenser; ACC - Air cooled condenser; Esn. - Escalation Rate; CV - Calorific Value; L - Lakhs

CER Opinion

Swiss Challenge for all Cases Involving Project-Specific Tariff: As per the current scenario, the energy market is mature enough, the solar as well as wind technologies have witnessed a significant competition. The relative success of competitive technologies further encourages competitiveness in the sector; CERC should leave it to the market forces.

The regulatory framework for developing mature RE technologies should now be largely based on the competitive discovery of tariffs. In case there are very special circumstances that may entail project-specific tariff, the Commission may like to introduce the Swiss Challenge approach post determination of tariff. Such projects, once offered for competitive bidding under the Swiss Challenge approach, which would help bring further cost reduction for procurement of power through such projects. Enabling provisions may be introduced in the existing regulation.

Rate of Interest for Estimation of Discount Factor: It is suggested that the interest rate considered for estimation of DF should be linked to a benchmark interest rate. This will allow for automatic revision of the discount rate for the subsequent years.

In line with the CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources)

CER Opinion

Regulations, 2020, the rate of interest may be set at SBI MCLR plus 200 bps, which currently translates to the same rate. However, a clear enunciation of the underlined principle for deriving the interest rate will reduce regulatory uncertainty.

CER **Tax Rate:** The specified corporate tax rate @34.94% is the maximum applicable tax rate for an Indian corporate. In the light of income tax amendments, the actual tax paid may be significantly lower, specifically for small-sized companies. Furthermore, the available revenues for reducing tax burden leads to a significantly lower effective tax rate for the corporate entities. Thus, the calculated discount factor would provide the uppermost estimation for the same.

CER **Capital Cost:** The prevailing approach to specify the capital cost for individual RE technology does not provide sufficient incentive for cost reduction, improvement in technology, and construction management practices. Furthermore, a part of capital cost is influenced by the prevailing interest rate, which influences not only the interest during construction but also influences other cost components constituting overall capital cost. The components of capital cost are given below:

a) Cost of land
b) Including plant & machinery
c) Civil work, erection and commissioning
d) Financing cost and interest during construction
e) Evacuation infrastructure

The significant difference between the competitive RE tariff and those determined through the tariff regulation highlights the over-estimation of the capital cost, among others, for the purpose of determination of RE tariff. The regulatory approach in setting capital cost benchmark for the identified RE technologies should provide necessary signals to the investors, technology developers, EPC contractors, manufacturers, vendors as well as lenders to bring about reduction in capital cost through innovation and efficient operational practices. This can be achieved by introducing progressive efficiency factor (X) across different components of capital cost. The Retail Price Index (RPI) minus X approach can be adapted suitably to provide trajectory of benchmark capital cost of these technologies under these regulations. CERC should take the initiative to set lower base benchmark on the basis of different cost components. Further, the WPI of these factors minus the X-factor should be considered for evaluation. However, it is necessary to revisit the existing benchmark; otherwise, the capital cost for subsequent years may be inflated.

It may be difficult to ascertain market trends for different technologies, which are either not widely traded or suffer from lack of information in the public domain. Further, the limited information is available only through the technology/equipment suppliers, thus leaving a moral hazard situation amidst the information asymmetry. Capital Cost should be ascertained on the basis of competitive bidding for capital procurements across the country. SERCs may also adopt the similar approach for RE projects. In the absence of dependable information, many SERCs also adopt similar capital cost for RE tariff setting. Given the importance of capital cost benchmarking for the CERC as well as the SERCs, it is suggested that the Central Electricity Authority may initiate an exercise for the same. CEA may undertake necessary studies to enable setting up benchmarks capital cost for RE projects (under Section 73 (i) of the Electricity Act, 2003).

JERC (Generation, Transmission and Distribution Multi-Year Tariff) Regulations, 2021 for the state of Goa and Union Territories [Draft]

JERC (Goa & UTs) issued a draft Generation, Transmission and Distribution Multi-Year Tariff Regulations, 2021, and will be applicable to the state of Goa and Union Territories. The key highlights of the Regulations are given below:

❖ **Capital Cost:** Any gain or loss resulting from a shift in foreign exchange rates for the loan amount up to the date of commercial operation would be offset only against the foreign debt portion of the capital cost.

If actual capital cost is less than approved capital cost, then the actual capital cost shall be considered.

Expenditures on the replacement, renovation, modernisation, or extension of the life of old fixed assets, shall be measured as follows after deducting the net value of such replaced assets from the original capital expense.

Particulars	General Principles	
	Existing	Proposed
Control Period	FY 2019-22	FY 2022-27
Mid Term Review	Tariff determination for 3rd year along with Mid Term Review	Post 2nd Year. True up for 2nd year & tariff determination for 4th year
Tariff Determination	Annual	Annual
True-Up	Based on latest available audited account	T–2 Years
Pass through of gains or losses (Uncontrollable)	As an adjustment in tariff	Same as Existing
Sharing of gains or losses (Controllable)	**Gains** – 50:50 **Losses** – to be absorbed by utilities completely (for generating companies as per prevalent CERC tariff regulations)	Same as Existing

- **Additional Capitalization:** In case of generating company or transmission licensee or distribution licensee, as the case may be, decapitalizes its assets, the original cost of the assets as of the de-capitalisation date is removed from the value of gross fixed asset, and the resulting loan and equity are deducted from outstanding loan and equity respectively, in the year de-capitalization takes place.
- **Debt to Equity:** In case of retirement or replacement, or de-capitalisation of the assets, the share capital approved shall be reduced to 30% of the original cost. For the new projects, it will be in the ratio of 70:30 of the amount of capital cost approved by the commission. If the actual equity deployed is less than 30% of the capital cost, the actual equity would be taken into account, and if real equity exceed 30% of the cap expense, the excess equity shall be considered as a normative loan.
- **Return on Equity:**

  (a) For distribution wire business, allowed on equity capital at post tax rate of return on equity (as per prevalent CERC tariff regulation for transmission system).

  (b) For retail supply business, allowed on equity capital @16% p.a.

  (c) RoE computed on average of the equity capital at the beginning and at the end of the year.
- **Interest on Loan:**

  Normative Loan = Gross Normative Loan - Cumulative Repayment

  The loan repayment shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed. Interest rate on the basis of the actual loan portfolio shall be the weighted average of interest rate. Rate of interest will be allowed at SBI MCLR plus 100 bps.
- **Depreciation:** The salvage value of the asset shall be considered as 10% and maximum depreciation shall be allowed up to 90% of the capital cost. Distribution Licensee are also entitled to Advance Against Depreciation(AAD), which is the loan repayment amount subjected to a ceiling of 1/10th of loan amount minus depreciation based on loan repayment tenure.
- **Late Payment Surcharge:** Transmission or Distribution licensee shall not consider Non-tariff Income in the delayed payment charge.
- **Working Capital:** Interest on working capital will be allowed at SBI MCLR plus 200 bps.

Distribution Wire Business	Retail Supply Business
→ O&M expense for 1 month → Maintenance spares @ 40% of R&M for one month → Receivables for two months of the projected revenue at the prevailing tariff **Less:** Any amount kept as security deposit from distribution system users under clause (b) of sub-section 47 of the Act, excluding security deposits held in the form of bank guarantees.	→ O&M expense for 1 month → Maintenance spares @ 40% of R&M for one month → Receivables for two months of the projected revenue at the prevailing tariff **Less:** → Power purchase cost for one month → Any amount kept as security deposit from distribution system users under clause (b) of sub-section 47 of the Act, excluding security deposits held in the form of bank guarantees.

CER Opinion

CER **Foreign Debt Component (Regulation 24.1):** The first proviso of Regulation 24.1(e) may be reworded as 'Provided that any gain or loss on account of foreign exchange rate variation, pertaining to the loan amount availed up to the COD shall be adjusted only against the foreign debt component of the capital cost'.

CER **Actual and Approved Capital Cost (Regulation 24.3):** The draft regulation proposes that "If actual capital cost is less than approved capital cost, then the actual capital cost shall be considered". A clarification is needed in case the actual capital cost is higher than the approved one.

CER **Return on Equity (Regulation 28):** Capital Asset Pricing Model (CAPM), often used for calculating return on equity, provides an estimate of post-tax RoE. Thus, the RoE so derived should not be grossed up by the rate of effective tax. Adoption of such an approach across the sector is erroneous and provides an excess return. This places an additional burden on the tariff paid by the consumers.

CER **Advance Against Depreciation (AAD) (Regulation 31.8):**

a) The concept of AAD should be discontinued as it discourages the regulated entities from negotiating a suitable loan repayment schedule with the lender.

b) AAD also results in front loading of ARR and thus imposes an additional burden on the consumers. While the ARR in the future years will be reduced to the amount of AAD claimed in the previous years, it would likely happen after multiple years in future. During this time, the consumers would have been burdened with the additional tariff in the earlier years.

c) Even if the Commission decides to continue with this provision, the definition of depreciation should be adequately modified to reflect debit against any AAD claimed in the previous year.

d) This AAD should only be applicable for loan repayment on accounts of capital loans. Thus, this should exclude any loan taken to meet the revenue gap.

e) The draft regulation defines AAD as follows:

"AAD = Loan (raised for capital expenditure) repayment amount based on loan repayment tenure, subject to a ceiling of $1/10^{th}$ of loan amount minus depreciation"

The above definition of AAD requires some clarifications. Hence, the definition of AAD may suitably be worded as one of the highlighted expressions mentioned below to avoid ambiguity.

$$\textbf{AAD} \leq \{\tfrac{1}{10}\textbf{(Loan amount – Depreciation)}\} \text{ or } \textbf{AAD} \leq \{(\tfrac{1}{10}\textbf{Loan amount) – Depreciation}\}$$

CER **Interest rate on working capital (Regulation 32.4):** The draft regulation prescribes the interest rate on working capital as SBI MCLR plus 200 bps. It is pointed out that working capital loans are generally unsecured and may attract higher rate of interest. The Commission may like to further explore prevailing conditions in the banking sector and the general practices of the generation companies and the licensees, and then consider relatively higher margin for the interest cost towards working capital.

CER **O&M Calculation (Regulation 42.3):** It is proposed to incorporate appropriate efficiency parameters in tariff as an incentive measure to encourage continuous improvement across cost components. For example, the current practice of approving norm-based O&M expenses adjusted by the appropriate price index should also incorporate

an efficiency factor as explained below:

$$O\&M_t = O\&M_{t-1} \times \left(1 + \frac{\text{Price Index}_t}{\text{Price Index}_{t-1}} - X_t^{O\&M}\right)$$

where,

O&M: O&M expenditure norm;

Price Index: Consumer Price Index for Industrial Workers (Base year - 2016);

$X_t^{O\&M}$: Factor representing an annual target for efficiency improvement in O&M.

a) **Determining the X-factor:** Appropriate benchmarking studies (for example, using Data Envelopment Analysis) should be conducted to set the benchmark for efficiency improvement across individual 'controllable' cost parameters across the MYT control period. Since such studies take time, it is suggested that the regulation may incorporate the above-suggested approach in principle and specify a conservative factor keeping in view the actual norms set by the other ERCs. The X-factor should be linked to a target level of identified efficiency index. Such an index may be based on availability for generation and transmission and reliability of electricity supply to consumers (Example - SAIDI/SAIFI).

An alternate approach may be adopted wherein norms for individual controllable and partially controllable cost parameters such as Employee cost, R&M and A&G. It is advisable that a trajectory for efficiency factor should ideally be provided in advance for each year of the MYT control period.

b) **Index for O&M Expenses:** The Consumer Price Index, proposed for normalization of Employee cost, should be explicitly defined as 'Consumer Price Index-Industrial Worker'.

For R&M expenses, 'Wholesale Price Index-All Commodity' may be more appropriate. In the case of A&G expenses, a composite index comprising of CPI (Urban) and CPI (IW) represents relative share of the administrative and managerial employee expenses, and expenses towards sub-contracts awarded for various activities.

Link for CPI (Urban): https://www.rbi.org.in/scripts/BS_ViewBulletin.aspx?Id=19857

Working capital (Regulation 53 & 64):

The draft regulation proposes following components of working capital:

a) O&M expenses for one month

b) Maintenance spares @ 40% of R&M expenses

O&M expenses already include R&M expenses as one of its components, thus leading to double counting. Furthermore, the O&M Expenses include salary and wages as one of the sub-component, which is paid at the end of the month and hence do not count towards working capital requirement. Similarly, A&G Expenses, which is another sub-component of O&M, includes significant part of the salary expense towards non-core operations and is also payable at the end of the month. Furthermore, payment to sub-contractors is also paid at least a couple of weeks after the invoice generation. Figure 1further explains the existing anomaly and the need for modification thereof.

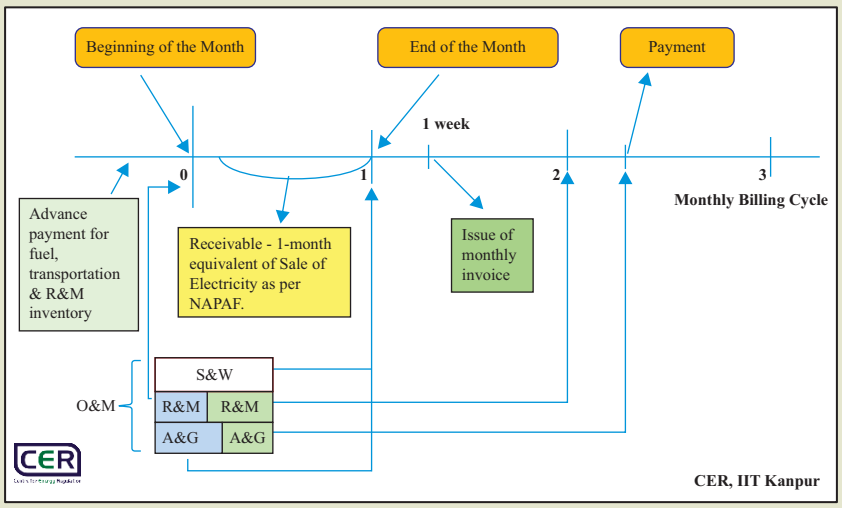


Figure 1: Cash Flow diagram for Working Capital

An additional window for early payment (with an appropriate discount, say, for payment within two weeks after the presentation of the bill) should be institutionalized to enable DISCOMs to take advantage of early payment through efficient financial planning.

TERC (Consumer Prepaid Metering) Regulations, 2021 [Draft]

TERC issued a draft for Consumer Prepaid Metering Regulations, 2021, and will apply to the Distribution and Retail Supply Licensees, including deemed licensees and franchisees. The key highlights of the Regulation are given below:

- The Regulation will cover new single-phase and three-phase LT Industrial, NDS, mobile towers and temporary connections up to a connected load of 50 kW.
- The existing or new consumers may also opt for prepaid metering supply arrangements.
- The licensee will approve the vendor for prepaid meters and arrange for the recharge of the credit in the meter through offline and online mode.
- The electricity supply will be automatically stopped once the credit gets exhausted and restored automatically on recharging, and no reconnection charges will be recovered.
- In case the consumer fails to recharge the prepaid meter and the balance runs out, the meter shall not disconnect the supply for 48 hours or till the emergency credit limit.
- The prepaid meter and the recharge coupon will have an inbuilt security mechanism to guard against any theft of the codes; if the consumer loses the coupon, it will not be functional with any other prepaid meter.
- The tariff revision for prepaid meter consumers will be done through a recharge coupon code for offline meters and through data command for the online meter.
- In case the consumer exceeds the load by 110% of their sanctioned load, the meter will give an audible warning for one minute and then the meter will automatically disconnect the supply.

CER Opinion

CER The words "prescribed" and "specified", without being defined, as used at Regulations 3(2) and 5.1 of the Draft Regulations, are defined differently under Section 2 of the Electricity Act, 2003 as follows:

(52) "prescribed" means prescribed by rules made by the Appropriate Government under this Act;

(62) "specified" means specified by Regulations made by the Appropriate Commission or the Authority, as the case may be, under this Act.

Hence, in view of the provisions of Regulation 4 of the Draft that 'The other words and expressions used herein but not specifically defined in this Regulation but defined in the Act or under any law passed by the Parliament applicable to the electricity industry in the State shall have the meaning assigned to them in the Act or such law'. The words "prescribed" and "specified" may be replaced by the suitable alternative word 'stipulated' at the places mentioned earlier in the Draft Regulations.

CER **Consumer Category (Regulation 5.5):** The Regulation should refer to the consumer category as 'The licensee may also introduce prepaid metering scheme to such other consumers **apart from those defined under Regulation 5.1'.** Further, it should be clarified that whether Regulation 5.5 allows for going beyond the connected load of 50 kW specified under Regulation 5.1.

CER **Availability of Consumption Data to Consumers (Regulation 5.7):** The licensee should provide the consumers with the details of their consumption of the previous months in line with the Rule 5.5 of Electricity (Rights of Consumers) Rules, 2020.

CER **Disconnection of Supply (Regulation 7.8 & 7.13):** The Regulation 7.8 may be rewritten as 'In case the consumer fails to recharge his prepaid meter account and his balance runs out, the meter shall not disconnect the supply of the consumer for 48 hours or till the emergency credit limit, if any, defined by the licensee for that consumer gets exhausted, ***whichever is later'*** (Regulation 7.8).

The draft Regulation uses the word **Disconnection,** which is also used in Section 56 of the Electricity Act, 2003 to mean ***Disconnection of supply in default of payment.*** However, in view of specific provisions at Regulations 5.6 of the Draft Regulations that *"It is clarified that provisions of Section 56 of the Act which apply to supply of electricity through post-payment mechanism shall not be applicable to supply through prepaid meters",* the word **Disconnection** should not be used here. As an alternative, the 'cut-off' or 'stop the supply' by the meter automatically may be used (Regulation 7.13).

Provided that, the licensee may penalise the consumers for exceeding the contracted demand/ sanctioned load in lieu of the discontinuation of supply. Also, the warning time of one minute is insufficient and should be increased to 10-15 minutes.

- **Concept of Monthly Minimum Charges (Regulation 7.10):** The concept of monthly minimum charges was introduced to safeguard against potential tampering of the meter and to ensure minimum revenue for the licensee. In case the tariff of the consumers already provides for fixed charges, furthermore, in the context of advance payment available to the licensee, the merit for using monthly minimum charges should not apply. The Commission should do away with monthly minimum charges for the prepaid meter consumers.
- **Revision of Tariff (Regulation 7.11):** The consumer shall not be responsible if the designated person from the licensee has not updated the revised tariff in offline prepaid meters through the recharge coupon code. Provided further that, if the revised tariff has been reduced in such a case, the consumer shall have the right to claim the reduced tariff later.
- **Revalidation of Recharge Coupon (Regulation 7.12):** In case the offline recharge coupon remains unused, the utility is obligated to revalidate the same for the unused amount and such revalidation should be done at no cost to the consumer.
- **Tariff Schedule (Regulation 8):** The phrase "current Tariff Order" may be replaced by 'prevailing tariff schedule'.
- **Minimum Life of the Technology (Regulation 9):** One of the preconditions for procurement of meter is that there has to be a minimum of 10 years of the technical and operational life of the technology.
- **Promotion of Prepaid Meters:** The licensee should promote the use of prepaid meters by giving appropriate dissemination through bills.

Tariff

HERC approved the levellised tariff for 50 MW Solar PV Project of Amplus Sun Solutions Private Ltd. at the rate of ₹2.48/kWh for 25 years, under Section 62 of the Electricity Act, 2003 read with Regulation 6 (1) of the HERC (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations.

HPERC filed a suo-moto for determination of generic levellised tariff for Solar PV Projects for FY 2020-21 under HPERC (Promotion of Generation from the Renewable Energy Sources and Terms and Conditions for Tariff Determination) Regulations, 2017.

The generic levellised tariff for Solar PV power projects for FY 2020-21 shall be as under:

S.NO.	Capacity	Generic Levellised Tariff (₹/kWh)
1.	Projects to be set up in other than industrial areas and urban areas	
(a)	Up to 1 MW capacity	3.41
(b)	Above 1 MW to 5 MW capacity	3.37
2.	Projects to be set up in industrial areas and urban areas	
(a)	Up to 1 MW capacity	3.48
(b)	Above 1 MW to 5 MW capacity	3.44

HPERC filed a suo-motu petition for determination of generic levellised tariff for Small Hydro Projects (SHPs) up to 100 kW (01.04.2021 to 30.09.2023) as per the 1st proviso of sub-regulation (2) of Regulation 14 of HPERC (Promotion of Generation from the Renewable Energy Sources and Terms and Conditions for Tariff Determination) Regulations, 2017.

The generic levellised tariff and technology-specific parameters for SHPs upto 100 kW for (01.04.2021 to 30.09.2023) shall be as follows:

Project	Project Size	Useful Life (yrs.)	Capital Cost (₹L/100 MW)	Depreciation Rate (%)		CUF (%)	O&M (₹L/ MW) Esn. @ 3.84 % p.a.	AUX. (%)	Generic Levellised Tariff (₹/kWh)
				1st 15 yrs.	16th yrs. on ward				
SHP	<100 kW	40	800	4.67	0.79	70	54	0.5	4.62

JSERC approved the pre-fixed levellised tariff for purchase of power by DISCOMs from decentralized Solar Power Plants and other Renewable Energy Generation Plants having a capacity of 500 kW to 2 MW under Component-A of the PM KUSUM Scheme at the rate of ₹3.09/kWh for entire life of the project.

MERC approved the tariff rate at ₹2.52/kWh on long-term basis from the Wind power project and allowed MSEDCL to enter EPA for eight years. The procured 1.25 MW of wind power would be considered to meet the non-solar RPO requirement of MSEDCL.

TNERC approved the tariff for Biomass based power plants at ₹6.78/kWh & ₹7.04/kWh for the FY 2018-19 & 2019-20 in place of ₹5.89/kWh & ₹6.11/kWh for Rice Straw and Juliflora based biomass power plants of the Biomass Power Producers Association using water-cooled condenser.

TSERC granted for including figures of Working Capital which were earlier erroneously not included in the calculation of Return on Capital Employed (RoCE) for TSNPDCL for FY 2019-20 to FY 2023-24. The final amendment order for TSNPDCL-Wheeling Charges (₹/kVA/month) is provided as:

Voltage	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
33 kV	46.04	49.10	55.01	61.63	72.29
11 kV	465.37	500.37	56.15	641.34	722.99
LT	1012.23	1085.60	1196.97	1317.86	1436.38

Power Procurement

DERC granted BSES Rajdhani Power Ltd. (BRPL) 'in principle' approval to enter into a Power Purchase Agreement (PPA) with the bidder.

However, if this Agreement is not concluded, the petitioner will have the sole responsibility of procuring power and supply to its consumers at the tariff discovered in the bidding process and additional liability, if any for this quantity of power shall not be pass through in the ARR of FY 2021-22.

Regulatory Updates

KSERC approved the supplementary PPA agreement between M/s KPUPL and KSEB Ltd., which is reduced from 18000 kVA at 110 kV to 13000 kVA at 110 kV.

KSERC has approved the following as per the provisions of the Electricity Act, 2003 and the KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2018;

1) The selection of M/s TPDDL through PTC India Ltd. (Trader) for the banking arrangement of power for the period from Mar, 2021 to Sept, 2021 as indicated in the table below:

Supply (to KSEBL) Period		
Month	Duration/MW	
	RTC	14:00 to 24:00 hrs
March 2021	50	100
April 2021	50	

Return (to TPDDL) Period			
Month	Duration/MW		MU
	00:00 to 05:00 hrs	22:00 to 24:00 hrs	
16 -30 June 2021	126	100	12.45
July 2021	180	140	36.58
August 2021	177.9	140	36.25
September 2021	100	100	21

The return quantum of power is approved as 102% and trading margin as 2.48 Paise/kWh.

KSEBL can enter into Power Procurement Arrangement with the above Utility/ Trader as approved above.

2) KSEBL to float the tenders for procurement of short-term power (100 MW RTC & 100 MW for 14.00 to 24.00 hours) through the DEEP portal to meet the maximum demand of power for Apr, & May 2021, subject to compliance with the provisions of the Act and the relevant Regulations.

MERC ordered Maharashtra State Electricity Distribution Co. Ltd. to enter into EPA/PPA through Memorandum of Understanding Route for power purchase from new Bagasse based co-generation plants. It allowed the capacity of 1350 MW for the period of 20 years at the rate of ₹4.75/kWh. Power procured from such plants shall lead towards the counting of the non-solar RPO targets of Maharashtra State Electricity Distribution Co. Ltd.

MERC adopted short-term power procurement by Jawaharlal Nehru Port Trust and approved power procurement plan for 11 months (from 1st Feb, 2021 to 31st Dec, 2021).

MERC approved the power procurement plan of Maharashtra Airport Development Company Ltd., as mentioned below:

Period	Time Slot for Peak hours		
	09:00 hrs. to 13:45 hrs.	14:00 hrs. to 16:45 hrs.	17:00 hrs. to 19:45 hrs.
Base Demand (RTC) of 6 MW			
01-03-2021 to 28-02-2022	7 MW	6 MW	5 MW
01-03-2022 to 28-02-2023	8 MW	6 MW	5 MW
01-03-2023 to 28-02-2024	9 MW	8 MW	6 MW
01-03-2024 to 28-02-2025	10 MW	8 MW	6 MW

PSERC approved the procurement of 500 MW Hybrid (Solar plus Wind) power from SECI at the tariff of ₹2.69/kWh with a trading margin of ₹0.02/kWh.

UPERC allowed a ceiling tariff of ₹3/kWh for RFP for procurement of 275 MW power from grid connected Solar PV power projects to be installed under Solar Parks and ultra-mega solar power projects scheme of MNRE, GOI through tariff-based Competitive Bidding process.

Renewable Energy, RPO and REC

HERC gave clarification on PPA between M/s. Oasis Commercial Pvt. Ltd. and HPPC under Regulation 66 & 68 of the HERC (Terms and Conditions for determination of Tariff for Renewable Energy Sources, Renewable Purchase Obligations and Renewable Energy Certificates) Regulations.

JERC approved levellised tariff for Rooftop Solar PV system (485kWp), Ground Mounted Solar Plant at Kala (900 kWp), Ground Mounted Solar Plant at Velugam and Athal S/S (3200 kWp), and Ground Mounted Solar Plant at Athal S/S (200 kWp) are as under:

S. No.	Description	COD	Approved Levellised Tariff (₹/kWh)
1.	Rooftop Solar PV System (485 kWp)	30th Sept, 2016	7.12
2.	Ground Mounted Solar Plant at Kala (900 kWp)	31st Mar, 2017	7.12
3.	Ground Mounted Solar Plant at Velugam and Athal S/S (3200 kWp)	17th Apr, 2017	6.82
4.	Ground Mounted Solar Plant at Athal S/S (200 kWp)	1st Oct, 2019	4.98

Regulatory Updates

JSERC allowed the net metering connection for Solar power plant of 1998.8 kW at 132 kV voltage supply subject to fulfilment of requirements with regard to system protection, data communication and metering of JUSNL, SLDC and JBVNL respectively as well as complying with the standard norms of CEA.

KERC approved Power Purchase Agreement (PPA) with Cambria Solar Pvt. Ltd. at the rate of ₹8.40/kWh.

KSERC provisionally approved the levellised tariff at ₹6.81/kWh without the benefit of accelerated depreciation and ₹6.31/kWh with the benefit of accelerated depreciation for the electricity generated from the 6 MW MSW plant of M/s. Malabar Waste Management Pvt Ltd. The tariff for the excess generation over the normative PLF will be at 75% of the approved levellised tariff. The project will be treated as 'Must-Run' as per Regulation 38(1) of the KSERC (Renewable Energy & Net Metering) Regulations, 2020 and will not be subjected to Merit Order Principles.

MERC directed MSEDCL to invite bids for the wind projects, and continue its efforts to fulfil its RPO including opting for procurement of REC at regular intervals.

MERC ordered the Captive Power Plants commissioned before 1st Apr, 2016 to comply with applicable RPO targets on composite basis.

TSERC approved the shortfall in RPO for FY 2018-19 to be carried forward to FY 2019-20. The Commission will review the compliance of RPO by these obligated entities while determining compliance of RPO for FY 2019-20.

The Commissions consideration of obligated entities on compliance of RPO for FY 2018-19 is delineated below:

S. No.	Compliance of RPO for FY 2018-19	Obligated Entities			
		Distribution Licensees	Captive Users	Open Access Users	Total
1.	Partially fulfilled		8+1	48+1	57
2.	Not at all fulfilled		3	9	12
	Total		11+1*	57+1*	69
* Obligated entity is both captive consumers as well as open access consumers					

UPERC allowed slop plus bagasse based power plant to inject the power into grid while considering the compliance of Environmental norms. Subjected to following norms must be follow:

1) Participate in bidding process initiated by UPPCL not above tariff ₹2.89/kWh

2) Payment shall be released by UPPCL after tariff discovery in competitive bidding.

Others

AERC decided to consider Letter of Mandate as one of the mode of payment for security deposit and ordered APDCL to accept it from Northeast Frontier Railway to accelerate the release of power supply connection in relation to electric traction. Letter of Mandate being a non-cash instrument, has to be maintained at 105% of the cash equivalent and no interest would be payable against such non-cash instruments.

APERC approved the extension of electricity supply to the agriculture sector under present NAVARATNALU programme of Govt. of Andhra Pradesh during FY 2019-20. In addition to this the Commission also approved additional supply volume and additional subsidy as prayed by APEPDCL.

BERC directed STU to incorporate the Hon'ble CERC advisory (No. ENGG-21/1/2019-CERC dated 22.06.2020) while developing the detailed guidelines enumerated in the Commission's gazette notification no. BERC-SMP-04/2019-07 dated 23.12.2019 to address contentious issues and disputes that arise during and after the implementation of TBCB for Development of Transmission Capacity in an efficient and economical manner.

DERC allowed the review petition filed under Section 142 of the Electricity Act, 2003 by BSES Yamuna Power Ltd. for the rectification of formula of carrying cost calculation as given below:

Rectified formula: Carrying cost =

[((Opening Balance + Closing Balance)/2) × Rate of Carrying Cost in (%)]

MERC clarified the petition of M/s Juniper Green Energy Private Ltd. and M/s Nisagra Renewable Energy Private Ltd. on certain observations in the Common Order dated 23rd Jul, 2020 passed by the Commission in Case No. 61 of 2020. The Commission ruled, in case generator revises CUF as per enabling provisions under

Note: *'Other Notifications' can be accessed through the online version of this issue.*

the PPA without adding any extra DC module, then such revised CUF shall be considered for calculating allowable DC module capacity for Change in Law compensation.

MERC directed MSEDCL to issue pending credit notes for wind energy injected into the grid for the period for Mar, 2017 and Apr, 2017, within a month in Case No. 150 of 2020.

MERC ordered SECI to pass on the following benefits to MSEDCL:

1) Short energy supply to be compensated during contract year post COD of the project.

2) Amount against the encashment of a bank guarantee for project delays, if the bank guarantee was encashed after the establishment of a fund for payment protection mechanisms equal to three months payments to projects commissioned under the relevant MNRE guidelines.

3) Amount of benefit accrued as a result of the project's tariff reduction as a result of the project's delay in commissioning and raising the bill at such reduced tariff rate in the future.

MERC granted the transmission license to Adani Electricity Mumbai Infra Limited (AEMIL) as per the mentioned Transmission Scheme below.

Proposed System-400 KV transmission:

S. No.	Proposed System – Transmission line	Line length in Ckt. km. (estimated)
A.	**Proposed System – 400 kV Transmission**	
1	400 kV MSETCL Kudus-AEMIL Kudus transmission line 1	1
2	400 kV MSETCL Kudus-AEMIL Kudus transmission line 1	1
B.	**Proposed System – 220 kV Transmission**	
1	220 kV AEMIL Aarey-HVDC Aarey line-1	1
2	220 kV AEMIL Aarey-HVDC Aarey line-2	1
C.	**Proposed System – HVDC Transmission lines**	
1	±320 kV HVDC cable Aarey-Kudus (route length – 80 kms)	80

Number of Bays Proposed System:

S. No.	Proposed System – Transmission Bays	No. of Bays (estimated)
A.	**Proposed System – List of EHV Substation Bays – 220 kV**	
1	220 kV Aarey EHV Station (HVDC Connectivity)	9
B.	**Proposed System – List of EHV Substation Bays – 400 kV**	
1	400 kV AEMIL-Kudus (HVDC Connectivity)	14

MERC approved the changes in the shareholding pattern as sought by the Amaravati Power Transmission Company Ltd., such that it doesn't contravene any provisions of the applicable laws/Rules/regulationsand shouldn't have any adverse tariff impact on account of the proposed transaction.

PSERC approved the overall limit of Capital expenditure i.e. ₹400 Crore during each year for the 2nd MYT from FY 2020-21 to FY 2022-23.

PSERC approved the Capital Investment for 2270 MW Goindwal Sahib Thermal Power Plant at Goindwal Sahib, Punjab of ₹243 Crore on the FGD for the control period as given in the table below:

Capital Investment provisionally allowed by the Commission (₹Cr.)

S. No.	Head	FY 2020-21	FY 2021-22	FY 2022-23
1	Plant & equipment (FGD)	0	0	243

RERC directed Jodhpur Vidyut Vitran Nigam Ltd. to credit the parallel operation charges levied on the M/s Shree Cement Ltd. from Feb, 2020 to June, 2020 in the next billing cycle positively .

TNERC directed TANGEDCO to pay the interest at the rate of 2.70% per annum on the Advance Current Consumption charges for the FY 2021-22.

TNERC directed TANGEDCO to pay the rate of Interest on Security Deposit at 4.30% per annum for FY 2020-21 in respect of HT and LT consumers.

UERC calculated the average fixed cost of the power purchased through four generating stations, namely Jhajjar Arawali, Dadri Gas, FG Unchahar-3 and FG Unchachar-4 on the basis of actual bills raised against the respective generating stations during Apr, 2020 to Sept, 2020. The Commission has taken distribution losses as 14% and Transmission losses as 1.40% for calculation of stranded power, energy received from the aforesaid four stations and open access power at the consumers' end.

UERC directed to PTCUL to grant connectivity and sign a permanent connectivity agreement with the petitioner for connectivity of 107 MW from its 214 MW gas-based combined-cycle power plant at 220 kV S/S Mahuakhedaganj.

ERC Tracker

Tariff Orders

State/Union Territory (SERC)	Licensee/Utility	True-up	Annual Performance Review (APR)	Aggregate Revenue Requirement (ARR)	Tariff
Rajasthan (RERC)	JVVNL, AVVNL, JdVVNL	FY 2018-19	-	-	-
Uttarakhand (UERC)	UJVN, UPCL	FY 2019-20	FY 2020-21	FY 2021-22	-
Jharkhand (JSERC)	SAIL	FY 2016-17 to FY 2018-19	-	-	-
Madhya Pradesh (MPERC)	MPIDC	-	-	FY 2020-21	-
Odisha (OERC)	OHPC, GRIDCO	-	-	FY 2021-22	-

Regulations

Title	Date of Approval/Notification
Tariff	
HPERC Determination of Generic Levellised Tariff for Solar PV Projetcs for FY 2020-21	15th January, 2021
JERC (Generation, Transmission and Distribution Multi-Year Tariff) Regulations, 2021	26th March, 2021
JSERC (Determination of tariff for procurement of power from biomass, biomass gasifier and non-fossil fuel-based cogeneration power project)) (First Amendment) Regulations, 2020	12th January, 2021
JSERC (Determination of Tariff for procurement of power from Small Hydro Power Projects) (First Amendment) Regulations, 2020	12th January, 2021
JSERC (Determination of Tariff for Procurement of Power from Solar PV Power Project and Solar Thermal Power Project) (First Amendment) Regulations, 2020	12th January, 2021
JSERC (Determination of Tariff for Procurement of Power from Wind, Biogas, Municipal Solid waste and Refuse Derived fuel-based Power Projects) (First Amendment) Regulations, 2020	12th January, 2021
Renewable Energy (including RPO and REC)	
JSERC (Rooftop Solar PV Grid Interactive Systems and Net/Gross Metering) Regulations, 2015) (Second Amendment) Regulations, 2020	12th January, 2021
TSERC (Net Metering Rooftop Solar PV Grid Interactive Systems) (First Amendment) Regulation, 2021	8th January, 2021
JSERC (Renewable Energy Purchase Obligation and its compliance) (First Amendment) Regulations, 2021	12th January, 2021
Codes	
RERC (Electricity Supply Code and Connected Matters) Regulations, 2021	17th February, 2021
UERC (Distribution Code) Regulations, 2018	25th February, 2021
Others	
APERC(Licensees' Standards of Performance) (3rd Amendment) Regulation, 2004	26th February, 2021
HPERC Right of Electricity Consumers	20th February, 2021
JERC (Transmission and Distribution Licensing) Regulations, 2020	17th February, 2021
JSERC (Forecasting, Scheduling, Deviation Settlement and Related Matters of Solar and Wind Generation Sources) (First Amendment) Regulations, 2021	9th February, 2021
JSERC (Terms and Conditions for Intra-State Open Access) (First Amendment) Regulations, 2021	9th February, 2021
JSERC (Conduct of Business) (First Amendment) Regulations, 2021	9th February, 2021

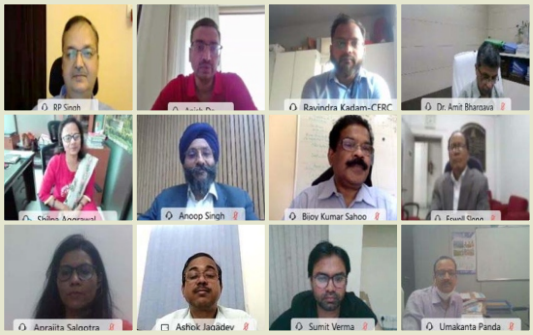
CER's 2nd Regulatory Manthan on "Relinquishment of Long-term CGS PPAs beyond Tenure: Impact on Generators, DISCOMs & Market"

Centre for Energy Regulation (CER), organized 2nd Regulatory Manthan (Online) on "Relinquishment of Long-term CGS PPAs beyond Tenure: Impact on Generators, Discoms & Market" dated January 08-09, 2021. Total one hundred ninety participants attended the event including Chairpersons, members and regulator personnel from CERC, SERCs of Andhra Pradesh, Bihar, Chhattisgarh, Delhi, Gujarat, Haryana, Jharkhand, Punjab, Rajasthan, Uttarakhand, Tamil Nadu, Tripura, West Bengal and JERC for the state of Goa and Union Territories participated in the event. In addition to this, NTPC personnel and staffs from TPDDL, IEX, KPMG India, TERI, etc., also participated in this event. Prof. Abhay Karandikar, Director, IIT Kanpur inaugurated the 2nd Regulatory Manthan and gave his opening remarks. Prof. Anoop Singh, Coordinator, CER, presented key highlights on CER's Analysis on 'Impact on Generators, DISCOMs & Consumers' thereof. The key discussion points were-reforms with respect to Relinquishment of Long-term CGS PPAs, Impact on Generators, DISCOMs & Consumers, Impact on Electricity Market and Investment in the Power Sector, State-wise Analysis, Long-term Demand Forecasting, Long-term Power Procurement Planning. The key delegates who participated in the discussions are mentioned below:

- Mr. Sutirtha Bhattacharya (Chairperson, WBERC)
- Ms. Anjuli Chandra (Member, PSERC)
- Mr. Ghanshyam Prasad (Joint Secretary, MoP, GoI)
- Mr. A. K. Gupta (Former Director (Commercial), NTPC)
- Mr. P. K. Sinha (Ex. Director (Projects), PFC)
- Mr. S. S. Barpanda (Director (Market Operations), POSOCO)
- Dr. Sushanta K. Chatterjee (Chief (Regulatory Affairs), CERC)
- Mr. Vijay Menghani (Chief (Engg.), CERC)
- Mr. Rajeev Keskar (CGM, MPPMCL)
- Mr. Ajay Kapoor (CFO & Chief (Legal & Regulatory), TPDDL)
- Mr. Buddy Ranganathan (Advocate, Supreme Court)
- Prof. Akhilesh Awasthy (Professor of Practice, NSB)

CER shared its opinion and suggestions on "Enabling the DISCOMs to either continue or exit from the PPA after completion of the term of the PPA i.e., beyond 25 years or a period specified in the PPA and allow flexibility to the Generators to sell power in any mode after State/DISCOMs exit from PPA" to MoP before the event.

14th Capacity Building Programme (CBP) for Officers of Electricity Regulatory Commissions



CER, on behalf of Forum of Regulators (FOR), organised the 14th Capacity Building Programme (Online) for Officers of Electricity Regulatory Commissions on 'Regulatory Approach to Tariff Setting in the Power Sector-Power Procurement and Renewable Energy' dated March 01-03, 2021. Nineteen officers from different State Electricity Regulatory Commissions participated in this event. The speakers include Mr. Raj Pratap Singh (Chairperson, UPERC), Mr. H. T. Gandhi (Chief Finance, Retd. - CERC), Ms. Shilpa Agarwal (Joint Chief Engg. - CERC), Dr. P. C. Maithani (Scientist G, MNRE), Mr. Ravindra Kadam (Advisor RE, CERC), Mr. Amit Goenka (Associate Director, Deloitte India), Mr. Sunil Joglekar (Chief Distribution, Tata Power), Mr. Anish De (KPMG India), Mr. Ravindra Kadam (Advisor RE, CERC), Dr. P. C. Maithani (Scientist G, MNRE), Prof. Anoop Singh (Coordinator, CER), Mr. Bijoy Sahoo (Project Executive Officer, CER). Various topics covered during different sessions of this programme are Tariff framework (Generation, Transmission and Distribution), regulatory economics and challenges, MYT regime, RTM and emerging market developments, regulatory framework for electricity distribution, recent developments in RE etc.

3rd Global Regulatory Perspectives Programme for Commissioners of Electricity Regulatory Commissions

CER, on behalf of FOR, conducted its 3rd Global Regulatory Perspectives Programme for Commissioners of ERCs from March 04-05, 2021 and March 11-12, 2021. The key speakers who participated in the discussions were Mr. Neil Chatterjee (Commissioner, FERC), Prof. Paul Joskow (MIT), Mr. Jonathan Brearley (CEO, Ofgem), Prof. JeanMichel Glachant (Director, Florence School of Regulation), Prof. Martin Cave (Chairman, Ofgem), Prof. Ignacio Pérez Arriaga (IIT Comillas), Dr. Carl Pechman (Director, NRRI) and Prof. Anoop Singh (Coordinator, CER). The programme was attended by the Chairmen and Members of fifteen SERCs. The sessions provided insights on the Regulatory Paradigm for Assimilating Smart Grid, EVs and RE, Design of Distribution and Retail Consumers Tariff, Utility regulation and experience (Ofgem, UK), Capacity Markets and Resource Adequacy for a RE rich future, wholesale power markets, etc.

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.

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