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REGULATORY INSIGHTS

Centre for Energy Regulation

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Editorial

A multi-year tariff framework should provide multi-year perspective for gradually tightening the performance targets and incentives for overachieving the same. It should also reduce regulatory uncertainty to encourage medium-term investment in improving operational efficiency. An ongoing analysis at CER highlights the need to adopt the regulatory approach that relies more on performance-related incentives than the prevailing cost-plus approach with lenient performance benchmarks. For example, it is noted that the operational norms for generation plants have remained almost constant over the MYT control periods. The required investment for performance improvement can be approved by the respective ERC based on its cost-benefit analysis over the remaining operational life of the assets, subject to compliance with the stringent targets for operational performance.

Pass through of the cost elements also depends on the nature of the underlying parameters to be controllable or uncontrollable ones. The regulatory approach should also differentiate between the cost parameters, which are uncontrollable in the short run but are controllable over the medium to long-run. Excess burden for fixed charges and high variable charges for power procurement is often a result of unreliable medium and long-term demand forecast, and signing of excess PPAs. Prior to approval of ARR and tariff order, a separate regulatory process for approval of demand forecast and power procurement is required to ensure that the licensees do not make costly mistakes that burden the consumers in the long-run.

CER's opinion on some of the key ARR cost components, particularly, definition of working capital, escalation of O&M expenses (for employee, R&M and A&G expenses), return on equity, etc. highlight the need for taking certain corrective measures to address existing anomalies and ensure that sound economic and financial principles are adopted for the upcoming MYT regulations. A number of improvements are suggested - identifying the appropriate escalation factor; modification of the escalation formula incorporating efficiency improvement targets; and the need to rectify the basis for calculation of equity base for RoE, grossing up of RoE with effective income tax, and the estimation of RoE itself.

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JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 [*Draft*]

JSERC has released draft for Terms & Conditions for the Determination of Generation Tariff Regulation, 2020. Following changes have been proposed in the draft regulation:

- Applicability - 1st April, 2021 -31st March, 2026.
- Definition for Pumped storage hydro generating station has been introduced (Clause 3.1 (48)).
- The Commission will adopt the MYT Framework for approval of ARR and determination of tariff, and ARR shall be determined for each year of the control period (Clause 6.1).
- Any financial loss on account of under performance with respect to the performance parameters will not be reviewed during the control period (Clause 6.13). A provision for APR is introduced (Clause A8).
- The tariff for existing generating stations will be determined based on the capital cost along with the additional capitalisation (Clause 10.1).
- A generating company (coal-based/lignite-fired thermal generating stations) on opting for special allowance shall be allowed at ₹9.50 lakh/MW/year for the control period (Clause 14.12).
- Additional capitalisation on account of revised emission standards has been added (Clause 14.13-14.16).
- Return on Equity shall be computed on 'post-tax' basis at the base rate of 13% for thermal generating station and run-of river hydro generating station, and at the base rate of 14% for storage type hydro generating stations including pumped hydro and run of river with pondage (Clause 15.10).
- A new clause has been added for the de-capitalization of assets under Interest on loan capital, which says *'the repayment shall be adjusted by taking into account cumulative repayment on a pro-rata basis and the adjustment should not exceed cumulative depreciation recovered up to the date of de-capitalization of such assets'* (Clause 15.16).
- In the absence of actual loan and any outstanding normative loan in a particular year, a normative rate of interest equal to bank rate plus 200 bp shall be considered (Clause 15.18).
- The net savings on interest shall be shared between the beneficiaries and GENCOs in the ratio of 50:50 (Clause 15.21).
- Rate of IoWC shall be on normative basis and shall be equal to the bank rate plus 350 bp (Clause 15.26).
- Depreciation shall not be allowed on assets funded by consumer contribution, capital subsidies and grants (Clause 15.28).

CER Opinion

1) The applicability of "Change in Law" to the domestic context may be emphasised. The "Change in Law" may be suitably reworded as "Change in Domestic Law" (Clause 13.13 (b)).
2) Additional capitalisation of the assets near to the end of their useful life should be approved on the basis of a cost benefit analysis, considering the additional fixed cost and any gains on account of variable charges. (Clause 14.12-14.16)
3) Tax on income, if any on the generating company/licensee, shall be limited to tax on the allowed return on equity, where tax rate refers to the actual tax paid by the generating company/licensee on its book profit. MAT and MAT credit should be appropriately accounted towards overall tax burden.
4) Cost of hedging towards foreign exchange component should be limited to the prevailing market conditions.
5) **Working capital:**

   a) As per Clause 15.23 (6) of draft regulation, "Receivables equivalent to 45 days of capacity charges and **energy charges for sale of electricity calculated on the normative annual plant availability factor"**. (Emphasis added) In the case of electricity shortage scenario, one would expect most of the plants to be scheduled close to their availability. However, in the prevailing circumstances, plants with higher variable cost are likely to experience significantly lower PLF. Thus, provision of one month equivalent of energy charge based on NAPAF would

overestimate the working capital requirement for such plants.

It is suggested that receivables equivalent to energy charges for the sale of electricity should be calculated on the basis of average PLF of past year instead of NAPAF.

b) The draft regulation proposes following components of working capital:

(a) O&M expenses for one month. (b) Maintenance spares @ 20% of R&M expenses.

(c) Receivable equivalent to 45 days of capacity charges and energy charges for sale of electricity calculated on the NAPAF.

O&M expenses already include R&M expenses as one of its component, thus leading to double counting.

The O&M expenses includes 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, a sub-component of O&M expenses, which includes salary expense towards non-core operations, are also payable at the end of the month. Furthermore, payment to sub-contractors is also paid at least couple of weeks after the invoice generation.

Refer Figure 1, which graphically explains above mentioned points.

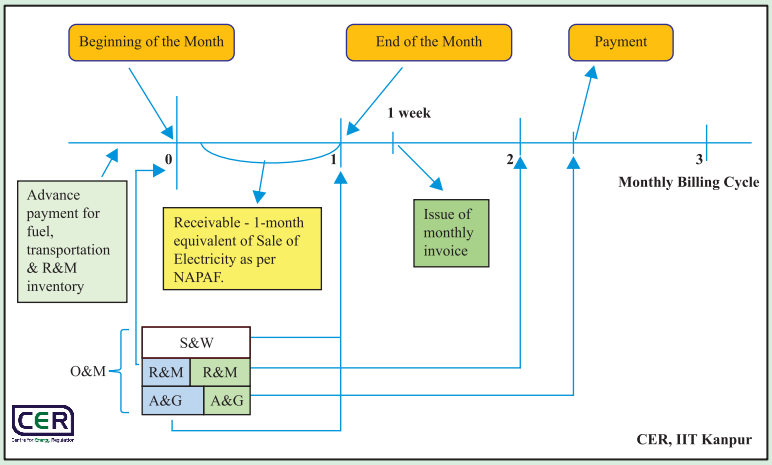

Figure 1 – Cash flow diagram for working capital

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

6) Calculation of Equity Base for RoE (Clause 15.15):

The amount of depreciation remaining post debt repayment should be used to reduce the equity base for allowable RoE as a portion of the risk capital of the investor is available as free cash flow and is no longer deployed in normal business operations. In case, such capital is reinvested in the business, and thus, replaces need for external borrowing or equity injection by other investors, appropriate return on equity on such part of equity base would be eligible for RoE.

7) Non-Tariff Income (Clause 15.49):

As assets are allowed to be depreciated only up to 90% of their original value, accounting of income from sale of scrap as non-tariff income will deprive the generating company/licensee a reasonable opportunity of recouping 10% of non-depreciated asset value. This provision should thus be excluded. If value of scrap exceeds the book value of the assets, the additional income on account of such capital should only be accounted towards non-tariff income.

8) In case of any incentive/discount made available by the fuel supplier for advance payment that should be also be adjusted towards the cost of the procurement of that fuel.

9) To enable greater penetration of renewable energy resources in the states, power system, the flexibility of the thermal stations is important for power system. The regulation should provide for adequate demonstrated ramping capability of generating stations and develop an incentive/penalty scheme for the same.

10) The regulation may provide for optional firing of biomass and hence appropriately include relevant provisions for the same as per CEA advisory regarding 'Biomass Utilization for Power Generation through Co-firing in Pulverised Coal Fired Boilers' dated 24th November, 2017.

JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020 [*Draft*]

JSERC has released draft for Terms & Conditions for the Determination of Distribution Tariff Regulation, 2020. Following changes have been proposed to the draft regulation:

- Applicability - 1st April, 2021 - 31st March, 2026.
- The Commission shall adopt the MYT Framework for approval of ARR and expected revenue from wheeling and retail supply tariffs. The ARR shall be determined for each year of the control period.
- RPO fulfilment has been added to the power procurement plan (Clause 6.11 (c)).
- The aggregate gain and net savings due to refinancing of loans by the Distribution Licensee will be shared between the licensee and the consumer in the ratio of 50:50 (Clause 6.50 & 6.53).
- The formula for O&M expense and employee expense has been modified as:

$$O\&M_n = (R\&M_n + EMP_n + A\&G_n) + \text{Terminal Liabilities};$$

$$EMP_n + A\&G_n = [(EMP_{n-1}) * G_n + A\&G_{n-1}] * (INDX_n / INDX_{n-1})$$

$$INDX_n = 0.55 * CPI_n + 0.45 * WPI_n$$

where, G_n is a growth factor for the n^{th} year

- Followings points have been added in additional capitalization (Clause 10.13):
  - Any additional works/services, which have become necessary for efficient and successful operation of the scheme, but not included in the original scheme cost;
  - Capital expenses incurred due to force majeure conditions;
  - Less: De-capitalisation of replaced/upgraded assets, and assets not put to use.
- The rate of return on equity has been reduced to 14% from 15.50% (Clause 10.19).
- Rate of interest on working capital shall be equal to the bank rate plus 350 bp. At the time of true-up, the interest rate will be adjusted as per the prevailing actual rate of the FY for which truing up exercise has been undertaken (Clause 10.31).
- Income tax on the licensed business will be limited to tax on the allowed RoE (Clause 10.50).
- Provision for target availability and recovery of ARR has been introduced (Clause10.60-10.63).
- Cross-subsidy surcharge formula has been modified (Clause 10.64).

CER Opinion

1) Efficiency factor in O&M Calculation:

It is proposed to incorporate appropriate efficiency parameters in tariff as an incentive measure to encourage continual 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 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.

Determining the X-factor:

Appropriate benchmarking studies (for example, Data Envelopment Analysis) should be conducted to set 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 norm 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 norm 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.

2) **Index for O&M Expenses:**

The draft regulation proposes the computation of employee, A&G and R&M expenses on the basis of normalized average of actual respective expenses of the previous five years. It is suggested that the latest available trued up/approved respective expenses as available (in place of 'actual') be used.

The Consumer Price Index, proposed for normalization of employee cost should be explicitly defined as 'Consumer Price Index - Industrial Worker'. Further, the applicability of 'annual average index' vs 'year-end index' should also be clarified.

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), representing the 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

Gujarat Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2021 [*Draft*]

Gujarat Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2021on 10th August, 2020. The important highlights of this regulation are given below:

❖ General principles listed in the regulation are shown below (Clause 36).

General Principle	
Control Period	1st April 2021 – 31st March 2026.
Capital Investment Plan	Approval for entire control period to be determined before start of control period.
Mid-Term Review	Post 2nd Year. alongside - True-up for 2nd year and tariffs determination for 4th.
Determination of Tariff	Annually
Truing up	Preceding year prior to commencement of next control period (T -2).
Pass Through of gains or losses on account of uncontrollable factors	Net gains/losses passed on to beneficiaries/consumers through next ARR.
Sharing of gains or losses of controllable factor	Gains – 1/2 as rebate in tariff, 1/2 utilised at discretion of utilities. Losses – 1/3rd as additional charge in tariff, 2/3rd absorbed by utilities.

❖ Generic norms, more or less remained the same as compared to existing MYT regulation. There was significant change in norms for wheeling and distribution losses. Norms set for generation, transmission and distribution business are listed in the following table (Clause 2) –

Parameters	Existing MYT Regulation	Draft MYT Regulation
NAPAF (Thermal)	Ranging from 75-85%*	Ranging from 75-85%*
Gross SHR (kcal/kWh)	Station-wise. Range from 1850-3231 kcal/kWh	Station-wise. Range from 1850-3231 kcal/kWh
Secondary Fuel Oil Consumption (ml/kWh)	Range from 0.50-3.0 ml/kWh[1]	Range from 0.50-3.50 ml/kWh[1]
Transit and Handling Losses (Generating Stations)	Pit head - 0.20% Non-pit head - 0.80%	Pit head - 0.20% Non-pit head - 0.80%
Transmission Operation Norms	No Provision	Target availability for full recovery of ATC – AC system – 98%, HVDC – 95%

Transmission Losses (TL)	Intra-state user shall pay TL determined by SLDC	Intra-state user shall pay TL determined by SLDC
Wheeling Losses	Allowed to recover as per tariff order	Allowed to recover as per tariff order
Distribution Losses	Trajectory through order Actual-Approved in true-up	Trajectory through order Actual-Approved in true-up

Note: * - All Thermal Power Stations and including Ukai (U3-5), Kutch Lignite (U4-5).
1 - All generating stations including coal and lignite fired.

- Capital cost incurred or projected to be incurred will be considered by the Commission on case-to-case basis due to:
  - Perform, Achieve and Trade (PAT) scheme
  - Revised environmental norms / statutory norms of Government of India
  - Sewage treatment plant
- Debt to equity ratio defined in draft regulation is in the order of 70:30 as on date of commercial operation. In case, equity deployed is more than 30%, excess of 30% to be treated as normative loan. Equity invested in foreign currency shall be designated in INR (Clause 36).
- While determining ARR or truing-up of any FY of the control period, if the resultant total normative outstanding loan after repayment is **negative,** equity to be reduced for that year to the same extent & thereafter RoE shall be calculated.
- Return on equity will be paid-up on equity capital at a ceiling rate of 14%, and allowed in two parts:
  - **Base RoE -** 13% for generation & transmission and 13.5% for distribution wire & retail supply. It will be calculated as follows:

    Base RoE = Rate of return @ allowable rate of equity capital + rate of return on 50% of the equity capital portion.
  - **Additional RoE –**

Generation	• For generating stations under commissioning without Restricted Governor Mode Operation (RGMO) and Free Governor Mode Operation (FGMO), the additional RoE will be reduced by 1% in RoE rate. • Additional RoE of 0.25% for every incremental ramp rate of 0.10%/min achieved over & above ramp rate of 1%/min on pro-rata basis.

Transmission	• For New Projects- 1% reduction in RoE rate, if transmission system is under commissioning without data telemetry, communication system up to load dispatch centre and protection system based on the report submitted by the SLDC.
	• RoE increased by 0.50% -
	  • For every 0.50% over-achievement in transmission availability up to 99% for AC Systems and 96.5% for HVDC bipole links & HVDC back to back station.
	  • For every 0.25% over-achievement in transmission availability above (ceiling - 1%) 99% for AC Systems and 96.5% for HVDC bi-pole links & HVDC back to back station.

Distribution Wire	• For recovery of base rate of RoE, target wire's availability should be 95%. • Wire's Availability = (1- (SAIDI / 8760)) x 100 • For every 0.50% over-achievement, additional rate of return to be increased by 0.25%, (ceiling - 0.50%).
Retail Supply	• If overall collection efficiency is greater than 99%, then RoE will increase by 0.50% • If overall collection efficiency is less than 99%, and for every 0.50% increase in collection efficiency, RoE will increase by 0.25% (ceiling - 0.50%).

- Computation of working capital for generating plants includes-
  - Cost of coal or lignite for one month (pit head) and one and half months (non-pit head), and cost of secondary fuel oil - 60 days corresponding to target availability.
  - Normative O&M expenses for one month;
  - Receivables for one month of capacity charge & energy charge equivalent to NAPAF;
  - Maintenance spares @ 1% of opening GFA.

- Interest rate for working capital will be allowed at SBI MCLR plus 150 bps.
- O&M expenses -

Existing MYT Regulation	Proposed MYT Regulation
• **O&M -** Avg. of actual O&M for the 3 years. • **Escalation rate** -5.72%	$O\&M_n = R\&M_n + EMP_n + A\&G_n$; $R\&M_n = K * GFA * (1 + Index\ Esc_n)$; $EMP_n + A\&G_n = (EMP_{n-1} + A\&G_{N-1}) * (1 + Index\ Esc_n)$; $Index\ Esc_n = WE_{CPI} * CPI_n + WE_{WPI} * WPI_n$;

- New provisions is added which mandates GENCOs to prepare and submit fuel utilization plan for the control period.
- Under DSM, no UI charges including additional UI charges will be allowed as pass through for GENCOs and normal deviation charges to be allowed as pass through to distribution licensee.
- Compensation on account of the impact on operational parameter due to backing down will be considered.

CER Opinion

1) **Capital Cost -** Without compromising the technical standard and performance targets for specific investment projects, incentives for savings on account of capital expenditure may be included. The actual (reduced) capital cost should become benchmark for future capital expenditure of similar nature (Clause 33).
2) **Depreciation -** Accumulated depreciation over and above the accumulated debt repayment (including repayment towards normative loan) should be used to reduce the equity base for allowable RoE as a portion of the risk capital of the investor is available as free cash flow and is no longer deployed in normal business operations.

   In case, such 'excess depreciation' is reinvested in the business, for example, to finance working capital. This should attract the appropriate cost of funds as approved for such respective ARR element.

   The proposed regulatory approach for reducing the equity base should be an integral part of the regulatory framework in the power sector thus, mitigating additional burden of tariff paid by the consumers (Clause 39).
3) **Additional RoE (Transmission) -** The power system operator should be the agency for certifying the ramp rate and not the regulator, and it should not be a part of regulation. The ramp rate incentive mechanism should come from the system operator (Clause 37.1). *Refer CER's Opinion for JSERC (6)*.
4) **Additional RoE (Distribution) -** In case of additional RoE for distribution licensee, various different parameters like SOP, collection efficiency, etc. should be used instead of just using one index *i.e.*, SAIDI/SAIFI. This will create interface between consumer and distribution licensee. This will also keep check and balances on various front in distribution licensee operations (Clause 37.1).
5) **O&M Expense -** K factor may be fixed for control period. Escalation index should include only CPI for employee expense; WPI for R&M individual formula for employee expense and A&G expense should be used (Clause 57). Refer CER's Opinion (5(a) & 5 (b)) on JSERC draft MYT Regulations and Figure 1 on page number 3.
6) **Fuel Utilisation Plan (FUP) -** It is advisable to create tentative FUP for first year of control period. For remaining period, FUP can be chart out later. Savings from FUP should be monetized and shared as an incentive to utility. This will make utilities to participate in FUP exercise seriously (Clause 49).
7) **UI Charges -** GERC has mentioned clearly that it will disallow additional UI charge, which is a positive step for ensuring grid stability and, bringing more accountability on the part of the DISCOMs as well as the SLDC. (Clause 65.2).
8) **Compensation to Back-down -** Compensation for backing down should be linked to the time provided for the same. In case of advance scheduling, compensation may not be ramping down in case only when generator is asked to back-down very quickly and not when generators are allowed to back-down slowly (let say 8 hours) (Clause 66.1).

Rajasthan Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2020 [*Draft*]

RERC notified Draft for Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2020 which will be applicable from 1st April, 2020 - 31st March, 2023. Highlights of the proposed regulations are as follows:

- Different norms and eligibility criteria to be specified for Non-fossil fuel based Co-generation project, MSW, RDF based power project and Small Hydro project.
- Parameters for new RE technologies such as Floating Solar Project, Renewable Hybrid Energy Project and RE Project with Storage to be specified in line with the CERC RE Tariff Regulations, 2020.
- Wind, Solar, Wind-Solar Hybrid plants and MSW based plants to be treated as 'must-run' power plants.
- Biomass, Biogas and Biomass Gasifier based power plants with installed capacity of 2 MW and above, that is commissioned after notification of these regulations, to be subjected to 'Merit Order Despatch' principles, and plants commissioned before notification of these regulations, will be treated as 'must-run' power plants.
- Increase of loan tenure to 15 years from the present 13 years for all the RE Projects.
- Depreciation rate from 5.28% for 13 years to be changed to 4.67% for 15 years and remaining depreciation to be spread during remaining useful life of the RE projects considering the salvage value of the project as 10% of project cost.
- Normative O&M expenses to be allowed during the first year of the control period at an escalation rate of 3.84% per annum.
- For payment made within five working days of presentation of bill, a rebate of 1.5% is proposed.
- Payment of bills of RE tariff is delayed beyond a period of 45 days from the date of presentation of bills, in such case LPS equivalent to base rate as on 1st April of the respective year plus 400 bp p.a. on daily basis will be levied by the GENCO.
- Following pre-conditions are proposed for repowering of wind power project:
  - Existing wind project that have completed at least 10 years of operation will be considered for repowering.
  - If the power is being procured by DISCOM through existing PPA, the energy generated corresponding to average of last three year's generation prior to repowering would continue to be procured on the terms of PPA which is in-force. The remaining additional generation may be purchased by DISCOM at tariff discovered through competitive bidding at the time of commissioning of the repowering project.
- **Use of Fossil Fuel or Solar Power:** For new biomass power projects based on Rankine cycle technology installed after notification of these regulations, use of fossil fuels or solar power will not be allowed. For existing plants, use of fossil fuels to the extent of 15% in terms of gross calorific value on annual basis or solar power within the limit of 15% on annual basis, will be allowed for the useful life of the project from the date of commercial operation.
- **Technology Specific Parameters:**

Projects	Capital Cost (₹L/MW)	CUF/PLF/ Storage Eff.(%)	O&M (₹L/MW)	AUX.	SHR (kCal/ kWh)	CV (kCal/kg)	Fuel Price (₹/MT)	SFC (kg/kWh)
Wind	Market trend	21% (JJB), 20% (Others)	Market trend	-	-	-	-	-
Solar PV	Market trend	Min. 20%	Market trend	0.75%	-	-	-	-
Solar Thermal	Market trend	Min. 23%	Market trend	6.5%	-	-	-	-
Small Hydro	Market trend	30%	Market trend	1%	-	-	-	-

Biomass (Rankine)	WCC -527.78, ACC - 561.98	80%	WCC - 46.46, ACC - 49.53; Esn. @ 3.84%	WCC - 10%, ACC - 12%	4200 (Trav. Grate), 4125 (AFBC)	3400	2958.25	-
Biogas	1156.77	90%	61.62 (1st Yr.), Esn. @ 3.84% p.a.	12%	-	-	1273.06	-
Non-fossil fuel (co-gen.)	492	53%	24.52 (1stYr.), Esn. @ 3.84% p.a	8.50%	3600	2250	2274,Esn. @ 5% p.a.	-
MSW & RDF	Project Specific	DS/AS - 65%; 2nd year onward - 75% (MSW), 80% (RDF)	Market trend	15%	4200	RDF-2500, MSW- det. by Com.	2084	-
RE Hybrid	Market trend	Min. 30%	Market trend	-	-	-	-	-
RE Storage (50% of RE Capacity)	Market trend	Solid-state batteries - 80%, Pumped storage - 75%.	Market trend	-	-	-	-	-

Note: WCC – Water Cooled Condenser, ACC – Air Cooled Condenser, DS – During Stabilization, AS – After Stabilization, Esn. – Escalation, JJB – Jaisalmer, Jodhpur and Barmer

❖ **Technology Specific Parameter for Renewable Hybrid Energy Projects :** RE projects to be recognised as hybrid projects, only if the rated capacity of one RE technology is at least 25% of the rated capacity of other renewable energy technology(ies) and operate at the same point of inter connection.

If the interconnection point of the both (RE - RE & RE - Conventional) projects are different then both projects are to be treated separately. However, if the interconnection point is the same, then the principles applicable for Renewable Hybrid Energy Projects will be applicable in such case.

CER Opinion

1) **Despatch principle for Treatment of Biomass, Biogas and Biomass Gasifier based Power Plant (Clause 14.4):** Removal of Biomass, Biogas and Biomass Gasifier based power plants from 'must-run' status and subjecting these to Merit Order Despatch principle would reduce their PLF in comparison to the one used for the calculation of tariff. Further, as tariff for such plants is of a single-part nature, these plants would face viability issue. Such plants would have to compete with conventional plants, particularly coal-based power plants, which have two-part tariff, and thus comparatively lower variable part of tariff. Unless Biomass, Biogas and Biomass Gasifier based power plant also have a two-part tariff structure, these plants should continue to have must-run status. Regulatory approach should be to tighten some of the efficiency benchmarks especially, those related to heat rate, auxiliary consumption and O&M costs.
2) **Determination of Capital Cost on the basis of Prevailing Market Trends:** It may be difficult to ascertain market trend for a number of technologies, which are not widely traded and there is limited information in the public domain. Further, the limited information is available only through the technology suppliers, thus leaving a moral hazard situation amidst the information asymmetry. Capital cost should be ascertained on the basis of competitively bid capital procurements across the country.
3) **Repowering of Wind Power Project (Clause 28):** Repowering should also include converting the plants into wind-based hybrid renewable energy project. Further, a number of such sites should be identified for competitive bidding of power generated through such repowered wind/hybrid energy plants. "(Clause - 28.1 (b))", In case of power being procured by Distribution Licensee through existing PPA, the energy generated corresponding to

average of last three year's generation prior to re-powering would continue to be procured on the terms of PPA in-force and remaining additional generation may be purchased by Distribution Licensee at a tariff discovered through competitive bidding for wind/wind-based hybrid energy plants in the State at the time of commissioning of the re-powering project.

4) **Increase of CUF for Solar PV Power Projects (Clause 30.1):** The proposed normative CUF of 20% should be increased, as Rajasthan is a solar rich state and it should set benchmarks for the sector. Further, improvement in technology and cost reduction should improve CUF of new solar plants. CERC (Terms and Conditions for Tariff determination from RE Sources) Regulation, 2020, which is applicable nationally, considers minimum CUF of 21% for solar PV Power Projects.

5) **Auxiliary Consumption for Solar PV Power Projects (Clause 32.1):** Auxiliary consumption should be less than 0.75% and it should not count the conversion losses of the inverter. It should only account for the amount of energy used for running the auxiliary equipment where the energy produced is actually being consumed.

6) **Determination of PLF:** The following text in the identified clauses (in parentheses) should be modified by replacing "fixed charges" with "fixed components of single part tariff". "The Plant Load Factor (PLF) for determining the fixed charges shall be 90%" (Clause 48.1). "The Plant Load Factor (PLF) for determining the fixed charges shall be 85%" (Clause 55.1). "The Plant Load Factor (PLF) for determining the fixed charges shall be 53%" (Clause 66.1).

7) **Use of Solar Power in Existing Biomass Power Projects based on Rankine Cycle Technology (Clause 44.2):** Provision for rooftop solar power up to 15% of the rated capacity of the biomass plant may be permitted, as this would replace use of fossil fuel in such plants. This would also attract investment for development of capacity for solar energy generation.

8) **CUF for Renewable Hybrid Energy Projects (Clause 80.1):** Draft regulation (Clause 80.1) provides for minimum CUF of 30% at the inter-connection point. It is not clear if this stipulation is for the purpose of qualifying the renewable hybrid projects or for the calculation of tariff, or both. In case of hybrid plants based on Biomass, Biogas and Biomass Gasifier based power plants, which have comparatively much higher CUF, a higher level of minimum CUF should be specified separately for technical qualification for such hybrid energy plants as well as for calculation of tariff thereof.

9) **Definition of Renewable Hybrid Energy Project (Clause 4(g)):** The present definition of hybrid plants specifying "capacity share of one technology with respect to the other technology" should be replaced with "capacity share of one technology with respect to total capacity of the hybrid energy plant".

10) **Determination of O&M for Renewable Energy with Hybrid Energy Project (Clause 79.1):** Basis of market trends for O&M, should be clearly defined. It should be the rated average of constituent's renewable energy technologies with appropriate reduction to account for efficiency gains due to scale economies in some of the cost components and, operational and cost synergies across the multiple technologies due to some of the cost energy in O&M across the renewable technologies being used.

11) **Treatment of Levelised Tariff (Clause 82.1):** Levelised tariff represent a discounted present value of tariff for each year of the contract in future. It should be clarified, if the applicable levelised tariff will remain fixed or to be allowed to be escalated. In the case of the latter, escalation factor to be used should also be identified.

Tariff

Ministry of Power has issued Guidelines for Tariff Based Competitive Bidding Process for Procurement of Round-The Clock (RTC) Power from Grid Connected Renewable Energy Power Projects, complemented with Power from Coal Based Thermal Power Projects.

CERC allowed Annual Fixed Charges for the 2019-24 tariff period for augmentation of Hosur Sub-station of 1×315 MVA, 400/220 kV Transformer and associated bays under system strengthening scheme-XIV in Southern region are given as follows: (In ₹ lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	509.02	507.39	506.80	506.65	506.34

CERC approved Annual Fixed Charges for PGCIL Tuticorin JV-Madurai 400 kV D/C (Quad Conductor) Line and extension of 400/220 kV Madurai sub-station under ATS of Tuticorin JV TPS in the Southern Region are given below: (In ₹ lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	3693	3581	3473	3366	3258

CERC approved Annual Fixed Charges for tariff period 2019-24 for the 382.5 MW UNOSUGEN Power Plant are given as follows: (In ₹ lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	9196	9199	9199	9199	9199
Interest on Loan	6352	5518	4681	3844	3007
Return on Equity	10017	10020	10020	10020	10020
Interest on Working Capital	5466	5113	5127	5143	5159
O & M Expenses	10889	11324	11781	12258	12759
Total	**41921**	**41176**	**40811**	**40466**	**40146**

CERC granted an extension to NHPC Ltd. for filing tariff petitions for FY 2019-24 period along with truing-up petitions for FY 2014-19 period due to spread of COVID-19 pandemic and the difficulties being faced by the generating companies in filing tariff petitions.

CERC allowed ECR for 1147.50MW SUGEN Power Plant based on the operational norms and weighted average rate and GCV of fuel i.e. ₹774.69/MMBTU used during three months (October, 2018 to December, 2018). CECR has been calculated as ₹5.860/kWh and allowed as follows:

Landed Price of Gas (₹/MMBTU)	774.69
Landed Price of Gas (₹/kCal)	0.003074
Normative Gross Station Heat Rate (kCal/kWh)	1853.88
Normative Auxiliary Energy Consumption	2.75%
Energy Charge Rate (₹/kWh)	5.860

APERC allowed all three licensees to file ARR & FPT applications for their Retail Supply Business on an annual basis only for FY 2021-22, as a last chance on or before 30th Nov, 2020.

DERC considering prevalent situation due to outbreak of COVID-19 had exercised its powers to address the hardships being faced by the stakeholders, therefore, fixed charges for the unutilized capacity for April 2020 and May 2020 (Contract Demand/Sanctioned Load - MDI) for eligible Industrial and Non-domestic (Commercial etc.) consumers will be billed at reduced rate of ₹125/kVA/month as against existing rate of ₹250/kVA/month and also adjust the billing cycle in two subsequent cycle for such type of consumers by distribution licensee.

HERC approves the source as well as drafted PPA with M/s. LR Energy for procurement of 10 MW solar power on short term basis initially for three months and extendable upto 31st Mar, 2021 at ₹2.70 per kWh and allow HPPC to issue LOI and sign the PPA.

HERC decides that ₹1.01/kWh will be the additional surcharge applicable from the date of this order and will be applicable to the consumers of UHBVNL and DHBVNL who avail power under the OA mechanism from any source other than the distribution licensees. The additional surcharge will continue to be effective till the same is revised / amended by the Commission.

HPERC approved Annual Revenue Requirement (ARR) for HPPTCL's 220/66 kV pooling station at Bhoktoo. In addition, Commission approved transmission charges for short term consumers of fourth control period as given below:

Particulars	FY18	FY19	FY20	FY21	FY22	FY23	FY24
ARR (₹ lakh)	601.4	605.5	644.6	628.9	612.6	596.4	580.3
Transmission Charges for Short Term consumers (Paisa/kWh)	-	-	2.11	3.02	4.88	6.88	6.77

HPERC revised tariff for domestic consumers after

modification in subsidy by Government of HP in FY 2020-21. Following revised tariff is in effect from 1st July, 2020:

Particulars	Units/ month	Approved Tariff (₹/kWh)	GoHP	Effective Tariff
			Subsidy (₹/kWh)	After subsidy (₹/kWh)
Lifeline consumers	0-60	3.30	2.30	1.00
1st Slab	0-125	3.95	2.40	1.55
2nd Slab	0-125	3.95	2.10	1.85
	126-300	4.85	0.90	3.95
3rd Slab	0-125	3.95	2.10	1.85
	126-300	4.85	0.90	3.95
	Above 300	5.45	0.45	5.00
	Prepaid consumers	4.85	0.90	3.95

HPERC approved capital cost of ₹7,189.10 lakh with 24% equity after adjusting interest free loan towards equity. Determination of tariff for short-term Open Access (OA) consumers along Kashang Bhaba line for FY 21 to FY 24 as given below:

Particulars	FY 21	FY 22	FY 23	FY 24
ARR (₹Lakh)	746.2	749.9	753.7	757.7
Energy routed through Kashang Bhaba line (50% load factor)	1,024	1,024	1,024	1,024
Transmission Charges for Short term consumers (Paisa /kWh)	9	9	9	9

JERC ordered DNHPDCL & SECI to file the affidavit regarding Trading Margin mutually agreed within 2 weeks, failing which the Commission would take an appropriate action as deemed fit.

KERC had passed the order for fixing tariff at ₹7.08 per unit in respect of the Waste to Energy (WTE) Plants projects in the state of Karnataka. Since no WTE projects have come up in the state so far and the project proposed by KPCL is in progress, the Commission hereby orders to extend the validity of the generic tariff of ₹7.08 per unit up to 31st Mar, 2021.

KSERC approves to settle the arrears till 27th Feb, 2020, settled under One Time Settlement Scheme 2019. In addition, arrears collected in Vydyuthi Adalath, which was conducted from 11th January, 2020 to 27th Feb, 2020 in two phases, will be settled as well. Total arrears collected is ₹2.21 crore. KSERC agreed to raise minimum demand charges for industries which are closed and recently revised their contract demand.

PSERC approved tariff that would be payable to Green Planet Energy (P) Ltd. (GPE) by PSPCL for a period of 13 years from the COD. The fixed cost will remain the same and the variable cost will be escalated at 5% per annum.

Levellised FC (Rs./kWh)	VC (Rs./kWh) (FY 20)	Applicable Tariff (Rs./kWh) (FY 20)	Accelerated Depreciation Benefit (Rs./kWh) (FY20)	Net Applicable Tariff (Rs./kWh) (FY 20)
2.12	5.219	7.339	0.13	7.209

RERC approves the tariff for FY 2020-21 for KaTPP units 1 & 2 as shown in the table below:

Particulars	Units	KaTPP Units 1 & 2
Fixed Charges	₹Crore	1430.82
Rate of Fixed Cost	₹/kWh	1.73
Energy Charges	₹Crore	2227.31
Rate of Energy charges	₹/kWh	2.69
Total Tariff	₹/kWh	**4.43**

RERC approved tariff for CSCTPP units 5 & 6 for FY 2020-21 will be effective from 1st Apr, 2020 and will remain in force till next order of the Commission. Following is the Provisional tariff approved by the Commission for FY 2020-21:

Particulars	Units	CSCTPP (Units 5 & 6)
Fixed Charges	₹Crore	1529.92
Rate of Fixed Cost	₹/kWh	1.66
Energy Charges	₹Crore	2003.50
Rate of Energy charges	₹/kWh	2.18
Total Tariff	₹/kWh	**3.84**

KSERC approved true-up value for M/s. TCED. Total revenue approved is ₹12,814.09 lakh and total true-up approved expenditure is ₹12,045.71 lakh.

MERC approved for 225 MW on long-term basis from grid connected Wind-Solar Hybrid power project and allowed Tata Power Company Ltd. (Distribution) to enter into Power Purchase Agreement with the successful bidder for a period of 25 years. The power procured from the above supplier will be considered for meeting the Solar and Non-Solar RPO requirement of Tata Power Company Ltd. (Distribution).

TANGENDCO is liable to pay interest at the rate of 1% per month for the delayed payment beyond 30 days of receipt of invoice. Thus, ₹11,88,760.76 with interest to be paid within three months of receipt.

OERC has given the Bulk Supply Price which is applicable for sale of power by GRIDCO Ltd. to the Distribution Utilities and also specified ₹250/kVA per month for excess drawl over the permitted by the Distribution utilities as per charges given below:

Power Procurement

DERC considered petition of NDMC for approval of differential Power Purchase Cost Adjustment Charges (PPAC) for April-June19 of FY 2019-20. DERC has cleared that, if the PPAC charged by the petitioner is more than the actual PPAC, the petitioner shall be liable to pay penal amount/interest on excess amount recovered as well as the excess amount recovered shall be adjusted against other receipts of the Petitioner and also considered the request of the petitioner to subsume the claim in the next tariff order.

GERC ordered Torrent Power Limited to meet the terms with the requirements of Clause of the Ministry of Power Guidelines for short term procurement of power and make the bids public by indicating the tariff quoted by all the bidders and the names of successful bidders and their tariff.

HERC approved the source as well as drafted PPA with M/s Amplus Sun Solutions Private Limited for purchase of 50 MW Solar Power, for 25 years, from grid interactive solar PV based power project located at Village, Khanak, District Bhiwani at a tariff to be determined by the Commission under Section 62 of the Electricity Act, 2003, on a separate petition to be filed by the Generator company.

KSERC approved EHT agreement and HT agreement between KMRC Ltd. and KSEB Ltd. In addition, Commission has allowed KMRL to retain standby supply of 33 kV at Kaloor for emergency purposes. The applicable charges for maintaining 33 kV supply at Kaloor can be levied by KSEB Ltd. onto KMRC Ltd. Details of Power Supply Agreement (PSA) and corresponding HT & EHT agreement between KMRL Ltd. and KSEB Ltd. are as follows:

Date of Agreement	Contract Demand	Point of Drawal
31st October, 2017	5.5 MVA	110 kV Muttom RSS
18th May, 2017	1 MVA	33 kV Kaloor JLN
24th July, 2019	3 MVA	110 kV Thykoodam RSS

KSERC rejected draft PPA between M/s Hydro Power, Kothamangalam and KSEB Ltd. for 50 kW (25 kW×2) Deviar Micro Hydro Electric Project. Thus, project specific interim tariff shall be determined at the rate of average cost of power purchase from other hydro sources which are not owned by KSEB.

KSERC approved swap transaction between KSEB Ltd. with BSES Rajadhani Power Ltd. (BRPL) through Manikaran Power Ltd. KSEB Ltd used 150 MW in March 2020 due to forced outage at Idukki Hydel Station (Unit-II). KSEB agreed to swap 104% of energy consumed in month of July-August 2020 at trading margin 0.86 paisa/kWh. Additional short-term power procurement was granted for KSEB Ltd. Swap transaction quantum and schedule is summarized below:

Supply to KSEB Ltd from MPL-BRPL		
Period	**Duration (hrs)**	**MW**
1st to 31st Mar, 2020	RTC	50
	14.00 to 24.00	100

Return from KSEB Ltd to MPL-BRPL			
Period	**Duration (hrs)**	**Return Percentage**	**Trading Margin**
1st July, to 31st Aug, 2020	04.00 to 18.00	104% (in a uniformly distributed pattern)	0.86 paisa/kwh

MERC adopted Short Term Power Procurement for the period of 1st Oct, 2020 to 30th Sept, 2021 by M/s Eon Kharadi Infrastructure Private Limited for its SEZ Phase-I as follows:

Type of Load	Name of the Bidder	Source	Price in ₹/kWh
Base Load 7 MW	Kreate Energy (I) Pvt. Ltd. (Formerly Known as Mittal Processors Pvt. Ltd.)	Generator / Utility in ER/WR	3.97
Peak Load 9 MW	GMR Energy Trading Limited	DB Power Limited (DBPL)	4.34

MERC has allowed the existing Short Term PPA of MADC with MSEDCL to be extended for a further period of six months from 1st Sept, 2020 to 28th Feb, 2021 at ₹4.89/ kWh which can be terminated by advance notice of 30 days or any lower period agreed mutually by parties. Further, Commission directed not to include entire power purchase expenses in the ARR. There may be disallowance to the extent of difference between ₹4.89/kWh and the rates at which power is available during the period of operation of this extended PPA.

Regulatory Updates

MERC adopted Short Term Power Procurement for the period of 1st Oct, 2020 to 30 Sept, 2021 by M/s Eon Kharadi Infrastructure Private Limited for its SEZ Phase II as follows:

Type of Load	Name of the Bidder	Source	Price offered in ₹/kWh
Base Load 3 MW	Manikaran Power Ltd.	Sai Wardha Power Generation Limited	3.97
Peak Load 3 MW	GMR Energy Trading Ltd.	DB Power Limited (DBPL)	4.34

MERC has directed MSEDCL to grant STOA to Mahindra CIE Automotive Ltd. for November 2019 and adjust the credit units in the energy bills accordingly.

OERC has specified open-access charges, wheeling charges and surcharge for the following utilities as given below:

Licensee	Cross Subsidy Surcharge (per unit)		Wheeling Charge (per unit)	Transmission Charges for Open Access Customer (for HT & EHT consumers) (₹/MW/day)	
	EHT	HT	HT only	EHT & HT	
				LTOA	STOA
TPCODL	152.4	93.44	72.31	6000	As per regulation
NESCO Utility	127.64	57.05	87.35		
WESCO Utility	123.67	71.29	57.91		
SOUTHCO Utility	202.54	137.47	88.94		

UPERC approved Supplementary Transmission Service Agreements between Obra-C Badun Transmission Limited ("OBTL"), U.P. DISCOMs and U.P. Power Transmission Corporation Ltd. This TSA will help in evacuation of power from Obra-C (2×660 MW) to 400 kV GIS Substation Badaun.

UPERC approved Supplementary Power Purchase Agreement (SPPA) between UPPCL and LPGCL dated 10th Aug, 2020 under 3rd round of "SHAKTI" policy. Additional 1.48 MTPA Grade 10 coal has been allocated to LGPCL in order to generate more electricity at PLF of 75%. Details of coal allocation are as follows:

Sr. No.	Subsidiary Name / Source/ Mode	Allocation (Tonnes per annum)	Levelized Discount value (Paisa/kWh)
Source 1	NCL/Rail Road/ Captive	14,80,700	10.00

UPERC approved PSA of 460 MW between UPPCL and SECI. Hon'ble Commission also approved PPA between Adani Renewable Energy Park (Gujarat) Ltd., Powerica Ltd. and SBESS Services projecto Two Ltd. with UPPCL for a total of 625 MW. PPA tariff ranges between ₹2.82-2.83/kWh. Details are as follows:

Wind Power Developers	PPA Dated	PPA Tariff (₹/kWh)	PPA (MW)	PSA Tariff (₹/kWh)	SCoD
Adani Renewable Energy Park (Gujarat) Ltd.	25th Oct, 2019	2.82	250	2.83 (maximum possible/ pooled) + trading margin of ₹0.07/unit	Mar 21
Powerica Ltd.	17th Oct, 2019	2.82	50.6		
SBESS Services Projecto Two Ltd.	16th Oct, 2019	2.83	324.4		

UPERC approved PPA between M/s Bijender Energy and Research Meerut and PVVNL for 1 MW generating from WTE plant owned by former party.

Renewable Energy, RPO and REC

MNRE provided administrative approval for continuation of the Renewable Energy Research and Technology Development Programme till 31st Mar, 2021 or till the date of recommendations of 15th FC comes into effect, whichever is earlier.

MNRE declared the benchmark costs for Grid-connected Rooftop Solar Photo-voltaic systems for the financial year 2020-21 as given below:

Capacity Range	General Category States/UTs	Special Category States including North-Eastern States including Sikkim, Uttarakhand, Himachal Pradesh, Jammu & Kashmir, Ladakh, Andaman & Nicobar and Lakshadweep Islands*
1 kW	47	52
>1 to 2 kW	43	47
>2 to 3 kW	42	46
>3 to 10 kW	41	45
>10 to 100 kW	38	42
> 100 to 500 kW	36	40

MNRE provided time extension in Scheduled Commissioning Date (SCoD) of Renewable Energy (RE) projects considering disruption due to lockdown due to COVID-19 from 25th Mar, 2020 to 24th Aug, 2020.

MNRE provided extension of Biomass based Co-generation Scheme namely "Scheme to Support Promotion of Biomass based Co-generation in the Sugar Mills and other industries" (up to March, 2020) beyond

Regulatory Updates

31st March, 2020 till 31st March, 2021 or till the date of recommendations of 15th FC comes into effect, whichever is earlier.

CERC directed the Yadu Sugar Limited to approach the State Agency for reaccreditation, upon the petitioner producing the certificate of re-accreditation, the Central Agency is directed to re-register the Yadu Sugar Limited and issue RECs on verification of fulfilment of other conditions for issuance of REC as per REC Regulations, 2010.

GERC ordered to adopt competitive bidding process and ordered to meet the Solar RPO target (GUVNL) initiated the competitive bidding for procurement of power from Grid connected SPV projects in Gujarat therefore GUVNL had received online bids from 3 bidders Vena Energy Clean Power Private Ltd., Juniper Green Energy Pvt. Ltd. and Tata Power Renewable Energy Ltd. thus, aggregating to 430 MW against the tendered capacity of 500 MW and they are qualified with following discovered prices ₹2.61/kWh, ₹2.63/kWh and ₹2.64/kWh respectively.

KSERC granted approval regarding competitive bidding for procuring 200 MW solar power to KSEB Ltd. Reverse e-bidding will take place with condition that 10% requisitioned quantum to plant is within Kerala. The Commission has permitted tariff ceiling of ₹3.00/unit for this reserve e-bidding as decided by KSEB Ltd.

KSERC approved capital investment of ₹37.05 Cr by M/s Techno park for electricity distribution business starting from FY 2012-13 to FY 2016-17. In addition, KSERC approved 200 kWp Rooftop Solar Power Plant for a total sum of ₹1.14 crore by using Government grants. The cost heads like depreciation, return on equity and interest on loan cannot be claimed for this investment like these where government grants are received, as per KSERC directives.

MERC provided for exemption to ONGC of Renewable Purchase Obligation in light of the latest communication issued by the GoI, MoP dated 1st Feb, 2019.

TANGENDCO is liable to pay to the KBD Sugars and Distilleries Ltd. a sum of ₹92.57 lakhs being the balance amount (due after adjusting the interest on each invoice) for power supplied from the wind generation units till 24th May, 2010.

WBERC observed that the existing Regulations on co-generation and generation of electricity published by the Commission in March 2013 are in deviation from the findings, therefore, Commission now orders that henceforth any power purchase from fossil fuel-based co-generation will not be counted for RPO compliance.

Others

Ministry of Power provided permission under Liquidity Infusion scheme to REC and PFC for extending loans to DISCOMs above limits of working capital of 25% of last year's revenues under UDAY to discharge their liabilities.

Ministry of Power has decided that no inter-state transmission charges and losses will be levied on transmission of the electricity generated by power plants for a period of 25 years from the date of commissioning of the power plants which meet the following criteria:

a) Power plants using solar and wind sources of energy, including solar-wind hybrid power plants with or without storage commissioned till 30th June, 2023 for sale to entities having a Renewable Purchase Obligation (RPO), irrespective of whether this power is within RPO or not, provided that in case of distribution licensees, the power has been procured competitively under the guidelines issued by the Central Government.

b) Solar PV power plants commissioned under "MNRE's Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme)".

Ministry of Power has issued an order to promote 'Atmanirbhar Bharat' and 'Make in India' through phased indigenization in Power Sector. All equipment/ materials/parts/items required in the power sector which are domestically manufactured with sufficient domestic capacity will necessarily be used from the domestic manufacturers only as per the extant provisions of the Public Procurement (Preference to Make in India) Orders issued by DPIIT and MoP. The equipment/ materials/parts/items wherein domestic capacity is not available and imports are inevitable, the MoP will list out all these equipment and prepare an action plan for their indigenization over a specified time frame of 2-3 years.

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

ERC Tracker

Regulatory Updates

Ministry of Power issued Guidelines for payment of compensation in regard to Right of Way (RoW) for transmission lines in urban areas. The guidelines had recommended compensation for 85% of the land value for tower footing and upto 15% of the land value for RoW of the line for transmission system of 66 kV and above voltage level.

Ministry of Power issued following directions to protect the security, integrity and reliability of the strategically important and critical power supply system & network in the country. All equipment, components, and parts imported for use in the power supply system and network shall be tested in the country to check for any kind of embedded malware/trojans/cyber threat and for adherence to Indian Standards. All such testing will be done in certified laboratories that will be designated by the Ministry of Power.

MNRE amended guidelines for implementation of Component-C of PM-KUSUM scheme on solarization of existing grid-connected agricultural pumps as:

"Implementing Agency (IA) shall invite bids empanelment of vendors through a transparent bidding process. Empanelment may be state-wise or feeder-wise, as per decision of the concerned State. To ensure quality and post-installation services, IAs shall allow either one or both of the following two categories to participate in the tender for empanelment of vendors:

I. Manufacture of the solar panels or manufacturer of solar water pumps.

II. Joint venture of manufacturer of the solar panels or manufacturer for solar water pumps with system integrators.

CEA has released report on 19th Electric Power Survey (EPS) of India (VOLUME-III) Part-II for Mega cities.

CERC allowed Meja Urja Nigam Private Ltd. to inject of infirm power into the grid for commissioning tests including full load test of Unit-II Stage-I upto 17th March, 2021 or actual date of commercial operation, whichever is earlier.

CERC allowed Unit-II of Nabinagar STPS Stage-I 3×660 MW to inject infirm power into the grid for commissioning tests including full load test of Unit-II upto 11th Feb, 2021 or actual date of commercial operation, whichever is earlier.

CERC approved the proposal of the IEX to introduce Green Term-Ahead (G-TAM) subject for compliance of the directions and also directed to incorporate appropriate provisions in its Bye laws, Rules and Business Rules with respect to introduction of G-TAM contracts and submit to the Commission for records within two weeks from the date of this order.

CERC allowed NTPC Unit-II (2×800 MW) Lara STPP to inject of infirm power into the grid for commissioning tests including full load test of Unit-II upto 13th Feb, 2021 or actual date of commercial operation, whichever is earlier.

CERC approved PoC slab rates for LTOA/MTOA and STOA DICs for injection & withdrawal, and also approved PoC slab losses for July to Sep, 2020 is as:

PoC Slab	LTOA/MTOA (₹/MW/Month)	STOA (paisa/unit)	% of Losses
I	493605	31.94	V +1.00%
II	437759	28.11	V +0.75%
III	381913	24.27	V +0.50%
IV	326067	20.43	V +0.25%
V	270221	16.59	Average Loss
VI	214375	12.76	V -0.25%
VII	158529	8.92	V -0.50%
VIII	102683	5.08	V -0.75%
IX	46838	1.25	V -1.00%

MERC ordered Indian Railways to pay the outstanding Stand-by charges amount of ₹ 27.35 Cr. along with delay payment interest of 1.25% per month computed from January, 2019 till date of payment to TPC-D.

Tariff Orders

State/Union Territory (SERC)	Licensee/Utility	True-up	Annual Performance Review (APR)	Aggregate Revenue Requirement (ARR)	Tariff
Gujarat (GERC)	DPT	FY 16-17, 17-18	-	FY 16-17 to FY 20-21	-
	GIFT PCL	FY 18-19	-	-	FY 20-21
Himachal (HPERC)	HPSEB	FY 17-18 to FY 18-19	-	-	-
Jharkhand (JSERC)	IPL	FY 18-19	-	-	-
	DVC	FY 17-18, 18-19	FY 19-20	FY 20-21	FY 20-21
	JBVNL	FY 18-19	FY 19-20	FY 20-21	FY 20-21
	JUSCO	FY 18-19	FY 19-20	FY 20-21	FY 20-21
	TPCL	FY 18-19	FY 19-20	-	-
	TSL	FY 18-19	FY 19-20	FY 20-21	FY 20-21

ERC Tracker

State/Union Territory (SERC)	Licensee/Utility	True-up	Annual Performance Review (APR)	Aggregate Revenue Requirement (ARR)	Tariff
Kerala (KSERC)	TCED	FY 18-19	-	-	-
	KPUPL	FY 16-17	-	-	-
Rajasthan (RERC)	RVUNL	-	-	FY 20-21	-
	GLPL	-	FY 18-19	FY 20-21	-
Tripura (TERC)	TSECL	FY 13-14 to FY 15-16	-	FY 16-17 to FY 20-21	FY 20-21
	TPGL	-	-	FY 16-17 to FY 20-21	FY 20-21
Uttar Pradesh (UPERC)	DVVNL	FY 19-20	-	-	-
West Bengal (WBERC)	WBSTCL	-	FY 13-14	-	-

Regulations

Title	Date of Approval/Notification
Tariff	
Amendment to TNERC (Terms and Conditions for determination of Tariff) Regulations, 2005 [*Draft*]	31st July, 2020
JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020 [*Draft*]	-
JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020 [*Draft*]	-
JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 [*Draft*]	-
BERC (Terms and Conditions for Tariff determination from Renewable Energy sources) Regulations, 2020 [*Draft*]	21st August, 2020
WBERC (Co-generation and Generation of Electricity from Renewable Sources of Energy) (First amendment) Regulations, 2020 [*Draft*]	15th August, 2020
HPERC (Promotion of Generation from the Renewable Energy Sources and Terms and Conditions for Tariff Determination) (Fourth Amendment) Regulations, 2020	8th September, 2020
Renewable Energy (including RPO and REC)	
Chhattisgarh State Electricity Regulatory Commission (Renewable Purchase Obligation and REC Framework Implementation) (First Amendment) Regulations, 2020	13th July, 2020
Removal of difficulty in CSERC (Grid Interactive Distributed Renewable Energy Sources) Regulations, 2019 related to banking of IDRES [*Draft*]	24th August, 2020
Codes	
PSERC (Electricity Supply Code and Related Matters) (Seventh Amendment) Regulations, 2020	18th September, 2020
Himachal Pradesh Electricity Supply Code (Fourth Amendment) Regulations, 2020	3rd July, 2020
Others	
Electricity (Rights of Consumers) Rules, 2020 [*Draft*]	9th September, 2020
MNRE (Guidelines for Tariff Based Competitive Bidding Process for Procurement of Round-The Clock Power from Grid Connected Renewable Energy Power Projects, complemented with Power from Coal Based Thermal Power Projects)	22th July, 2020
MoP (Guidelines for payment of compensation in regard to Right of Way (RoW) for transmission lines in urban areas)	16th July, 2020
AERC (Payment of fees Regulation)	28th July, 2020
PSERC (Deviation Settlement Mechanism and related matters) Regulations, 2020	10th September, 2020
OERC (Terms and Conditions of Intra State Open Access Regulations, 2020 [*Draft*]	20th July, 2020
HERC (Communication System for Intra-State transmission of electricity) Regulations, 2020.	8th July, 2020
Haryana Electricity Regulatory Commission (Terms and Conditions of License for Deemed Licensee) Regulations, 2020.	18th July, 2020
HERC (State Reactive Energy Pool Account Regulations, 2019 [*Draft*]	3rd September, 2020
HERC (Terms and Conditions of License for Deemed Licensee) Regulations, 2020	14th September, 2020
HERC (Guidelines for certifying or refusing to certify non-availability of transmission/distribution system or unscheduled load shedding)	25th September, 2020
HPERC (Power System Development Fund) Regulations, 2020	22nd August, 2020
HPERC (Security Deposit) (Third Amendment) Regulations, 2020	3rd July, 2020
JSERC (Guidelines for Establishment of Forum for Redressal of Grievances of the Consumers and Electricity Ombudsman) Regulations, 2020 [*Draft*]	-
UPERC (Consumer Grievance Redressal Forum & Electricity Ombudsman) Regulation,2007 (Second Amendments), 2020	27th July, 2020
UPERC Merit Order Despatch and Power Purchase Optimization Regulations, 2020 [*Draft*]	18th September, 2020

2nd Advisory Committee Meeting of 'Centre for Energy Regulation'

Centre for Energy Regulation (CER), organized the 2nd Advisory Committee Meeting (online) to present progress on CER's ongoing activities and future work plan on 11th July, 2020. The advisory committee meeting was attended by Mr. P. K. Pujari, Chairman, CERC; Mr. Anand Kumar, Chairman, GERC; Mr. Ghanshyam Prasad, Joint Secretary, Ministry of Power; Mr. Udit Mathur, Energy Advisor, FCDO; Mr. Vikas Gaba, Partner, KPMG; Dr. Anoop Singh, Professor, IIT Kanpur & Coordinator, CER. Dr. Sushanta Chatterjee, Chief (Regulatory Affairs), CERC and Ms. Adritha Subbiah, Energy and Green Growth Analyst, FCDO participated as a special invitees. The agenda of the meeting comprised of developments on CER's Database Dashboards, Online Learning & Environment Tool (OLET), Regulatory Research and Outreach. The committee also deliberated on institutional sustainability of CER, and CER's response to COVID -19.

Attendees of the 2nd Advisory Committee Meeting of CER

ERC Hub

IIT Kanpur, for Centre for Energy Regulation, has entered into a MoU with selected ERCs focussing on analysis of the key regulatory developments, thus placing a priority on engagement with these ERCs as per the MoU. A dedicated webpage of these ERCs, under the ERC hub, provides a snapshot of the power sector, and information on recent regulatory and policy developments in the respective states.

ERC hub can be accessed through the link:
https://cer.iitk.ac.in/ERC_Hub

GERC — Gujarat Electricity Regulatory Commission	HERC — Haryana Electricity Regulatory Commission
MSERC — Meghalaya State Electricity Regulatory Commission	RERC — Rajasthan Electricity Regulatory Commission
CSERC — Chhattisgarh State Electricity Regulatory Commission	DERC — Delhi Electricity Regulatory Commission
HPERC — Himachal Pradesh Electricity Regulatory Commission	JSERC — Jharkhand State Electricity Regulatory Commission

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

Regulatory Insights Team

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