Power sector investment is subject to several risks – operational, financial, environmental, political, etc. The sector witnessed a temporary policy and regulatory uncertainty with the change in law encountered in another country. The proposed rules of the ministry address the key concerns from the investors’ perspective. However, such provisions should be symmetric, especially in terms of sharing of risk between buyers and sellers arising out of gains/losses. Further, a change in law may not only impact variable charges but fixed ones as well, and hence the same need to be provided for. The rules should thus assuage investors’ as well as buyers’ concerns.

The share of renewable energy is set to rise in the future. Given the variability and the uncertainty associated with variable RE, constraints in the power system may often require RE curtailment. Any curtailment due to reasons beyond system constraints should be avoided as this not only influences return to existing investors but also adversely influences investors’ risk perception in the sector in general. The must run rules should ensure that these are neither misused by the utilities nor by the RE generators. Further, the rules would have to evolve to address power system's need with a significantly higher RE share in the future. To ensure sufficient incentive for reliable RE generation forecast, compensation for RE curtailment should be limited to the forecasted energy. Market-based instruments enabling greater participation of RE in RTM, and risk hedging instruments can address investor’s risk to a significant extent.

Multi-year Tariff (MYT) regulations across most states are due for revision as the control period for the prevailing MYT regulations comes to an end. CER’s review of the existing MYT regulations across selected states identifies a greater room for incorporating incentive schemes to recover various costs and return on equity/capital such that it also addressed inefficiency in licensees' operations. This would ensure that the consumers are not saddled with the inefficiency of the licensees. The regulatory approach should also include appropriate benchmarking of the key operational parameters for designing such an incentive framework.

Consumer-funded investment (through ARR) in the smart grid should be evaluated in line with the business plan regulations. It should ensure that a significant part of the benefits from their implementation is monetised and is reflected in improvement in operational efficiency and financial performance of the distribution licensees. Smart Grid regulations should provide a 5-10 year phased roll-out plan that provides identification, measurement and verification of the benefits. Phased-implementation should also minimise the loss to consumers in terms of stranded assets (e.g. electronic meters, existing metering data network, which are yet to compete their useful technical life), and weigh them against the additional gains due to implementation of smart grid.

Editorial

Anoop Singh

Founder & Coordinator, Centre for Energy Regulation
Electricity (Change in Law, Must-run status, and other Matters) Rules, 2020 [Draft]

Ministry of Power (MoP) issued a draft on 1st Oct, 2020 on Electricity (Change in Law, Must-run status, and other Matters) Rules, 2020. Key points of the rules are given below:

❖ **Adjustment in Tariff on Change in Law** -
  i) The appropriate Government may prescribe a formula by notification as per formula declared in the Electricity (Change in Law, Must-run status, and other Matters) Rules, 2020 by MoP, if the formula for compensation has not included in PPA/PSA agreement or bidding document.
  ii) Pass-through will come into effect automatically after 30 days of the Change in Law event. Within 30 days of the pass-through coming into effect, the Generator/Intermediary Procurer will submit the pertinent documents/calculation to the appropriate Commission for truing up the rate of pass through per unit.
  iii) The appropriate Commission will verify the calculation and do the truing up within 60 days of the pass through coming into effect after which the rates of pass-through will be adjusted, if necessary, according to the truing up.

❖ **Must-run** -
  i) The power generated from a must-run power plant may be curtailed or regulated in the event of any technical constraint or for the security of the electricity grid.
  ii) In case of the curtailment or regulation of power, the Indian Electricity Grid Code (IEGC) will be adhered.
  iii) Curtailment of supply from the must-run power plant, compensation will be payable by the procurer to the Generator at the rate specified in the PPA.
  iv) Curtailment is received by the Generating Company of such a power plant at least 24 hours in advance of the scheduled supply, it will mandatorily sell the unscheduled power on Power Exchanges (PX).
  v) The amount realized by a power plant from such sale of power on a PX, after deducting expenses, if any, in such sale, will be adjusted against the compensation payable as per PPA, on monthly basis. Excess realization during a month from sale of power in a PX, if any, will be carry forward and adjusted in the next month(s).
  vi) If the rate of compensation is not prescribed in the PPA/PSA, it will be 75% of the PPA rate per unit.

❖ **Trading licensee to procure power for distribution licensee (DL)** -
  i) Trading and DL prior coming into effect of these rules for sale of power from renewable energy suppliers selected through bidding process conducted under the guidelines issued by the Government under Section 63 of the Act.
     a) The tariff applicable will be the weighted average tariff of all the suppliers selected in the same bidding process.
     b) The appropriate Commission will adopt the weighted average tariff after hearing the parties concerned.
     c) Appropriate Commission will true up the tariff on yearly basis.
  ii) The trading licensee will be allowed to retain only the trading margin as specified in the agreements or the regulation or as determined by the Appropriate Commission.

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**CER Opinion**

1) **Change in Law:**
   Conditions for change in law should exclude (Rule – 2 (1) (b)):
   i) Change in DSM regulations itself.
   ii) Change in DSM charges.
   iii) Change in applicable frequency band.
   iv) Any other changes in the grid code.

2) **Change in Law – Perspective of Buyer (DISCOMs):**
   Current provision related to change in law only gives the perspective of seller. Change in law may also result in reduction in cost of the electricity (or transmission services) being supplied to the buyer (DISCOMs). Specific
provisions should be inserted to ensure that such benefits on account of change in law should be promptly passed on to the buyer with analogues applicability of relevant provisions mentioned therein.

3) 'Occurrence' of Change in Law – In case of varying interpretations:
The interpretation about occurrence of 'change in law' as specified in these rules sometimes may itself be a subject of disagreement. Given the provision for automatic pass through of the cost implication because of such interpretation of 'change in law', an institutional mechanism should be available with the respective regulators to assuage any concerns regarding hasty interpretations. (Rule – 3 (a))

4) Change in Law to Impact Different Components of Tariff:
A change in law may have implication on one or all the components of tariff. For example - fixed charge (escalable or non-escalable), variable charge (escalable or non-escalable), transportation charge, etc. Thus, the calculation of pass through element arising on account of change in law may need to be undertaken separately for different cost components.

Calculation of pass through only on the basis of per unit charge may sometimes lead to under-recovery for the entity selling or transmitting electricity. Rule 3 (c) and (d) should be appropriately amended to incorporate the same.

5) RE Curtailment:
a) Given the increasing share of RE across a number of states, it is likely that such states may witness predominantly RE generation during certain days of the year given a variety of technical and operational constraints faced by system operator and conventional generating stations, RE curtailment may need to be resorted. It would be advisable that a certain percentage of allowable RE curtailment (averaged over the year) may be incorporated in the respective power purchase agreement with such generators.

b) To ensure that the RE curtailment due to non-technical reasons are not camouflaged as 'system constraints', SLDCs should be separated as an independent system operator.

6) Must-run – Merit Order Among Must-run Plants:
In case of the states having high share of renewable energy, a situation may arise wherein electricity demand may be completely met through renewable energy sources (including hydro & nuclear). In such a scenario, curtailment of must-run plants based on merit order consideration within these must-run plants may need to be exercised. Thus, a specific provision providing for curtailment of the must-run plants based on merit order needs to be incorporated. (Rule – 4 (1))

7) Must-run Status to be limited to Generation originally forecasted & requested for the 'Cut-off' schedule:
RE plants, particularly variable RE (VRE) plants, are not able to provide a reliable forecast for the 96 time blocks of the following day by the time of submission of first schedule request submitted by the afternoon of the previous day. Such VRE generators can provide relatively reliable forecast about 4-6 hours prior to the time block. A provision for identifying the ‘cut-off’ schedule submitted about 4-6 hours in advance. This could be treated as a 'must run schedule', any over injection beyond this should not attract the must-run status. This would also provide incentive to prepare better forecast schedule as well.

8) Gaming for RE curtailment revenue - DSM provisions for RE:
In the absence of applicability of DSM charges for a 15% band of absolute forecasting error, as prevalent across many states, an RE generator would be incentivised to over-forecast the generation and request for its scheduling. In the case of RE curtailment, such generators would derive windfall gains for RE that would never have been generated and injected into the grid. Therefore, the must-run plants should now be subjected to progressively tighter band for forecasting error and similar DSM charges as applicable to the conventional generators.

9) Sale of 'excess' power on account of advance curtailment 24 hour in advance:
The SLDCs/RLDCs usually release their first schedule for the next day starting at 00:00 hours by early evening of the previous day. Thus, the question of advance curtailment of a renewable energy plant 24 hours or earlier (as referred to the draft rules) does not arise.

Given the uncertainty associated with the short-term forecast as well as RE forecast, the respective SLDC may be in a position to curtail the schedule of such must-run plants about 4-6 hours in advance. Rule 4 (2) thus needs to be
appropriately modified to account for the same.

10) **G-TAM as a Platform for Curtailed RE Power:**

   The curtailed RE schedule, to be sold on the PX should not adversely affect the market outcome as the marginal cost associated with the same is almost zero (for Solar and Wind Energy). Given the reduced ‘cut-off schedule’ time, the curtailed RE energy should bid in the G-TAM market (intra-day, DAC, etc.). This would also enhance the liquidity in the G-TAM market.

11) **Transaction Cost associated with sale of Curtailed RE on PXs:**

   The excess/curtailed power to be sold on PXs should be directly bid by the generator or in its behalf, avoiding cost for any other intermediary. The cost associated with the sale on PXs should only include the transaction cost directly payable for such platform, and should exclude any cost associated with managing/operationalising such transactions on PXs.

   Rate of Compensation to the respective Rule 4 (4) should be modified as “Where the rate of compensation is not laid down in the PPA/PSA, it shall be at rate of 75% of the variable component of the tariff specified in the PPA.” This is particularly important in the context of two-part tariff for biomass, WTE etc. Thus, in the case of two-part PPA, such compensation should only be limited to the variable component.

12) **Excess Realisation from Sale on PXs:**

   If the rate of compensation is limited to 75% of the VC under the respective PPA (in the absence of a rate of compensation laid down in PPA/PSA), the excess realization should also be calculated for sale of curtailed energy on PXs beyond this limit.

   A provision should also ensure that any accumulated excess realization towards the end of the PPA is paid back promptly to the buying entity.

13) **Correction in Monthly Interest Rate Calculation used in Annuity Formula:**

   Annuity formula specified in Annexure – I results in compounding of the monthly interest rate arrived at using \( (R/12*100) \). This would lead to resultant higher annual rate than the originally used rate of interest \( R \), thus placing higher interest burden on the delayed compensation payment. The following formula should be used for calculating monthly interest rate \( R_m \).

   \[
   R_m = R^{1/12} - 1
   \]

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**CSERC (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2020 [Draft]**

Chhattisgarh State Electricity Regulatory Commission released draft CSERC (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2020 on 16th Oct, 2020. The important highlights of this regulation are given below:

❖ **General principles listed in the regulation are shown below (Regulation 4 & 5):**

<table>
<thead>
<tr>
<th>General Principle</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control Period</strong></td>
<td>1st Apr, 2021 – 31st Mar, 2026</td>
</tr>
<tr>
<td><strong>Capital Investment Plan</strong></td>
<td>Approval for entire control period to be determined before start of control period</td>
</tr>
<tr>
<td><strong>Mid-Term Review</strong></td>
<td>Post 2nd Year. Alongside - True-up for 1st &amp; 2nd Year and Revised ARR &amp; tariffs for 4th and 5th year will be released with MTR.</td>
</tr>
<tr>
<td><strong>Determination of Tariff</strong></td>
<td>Each year of control period</td>
</tr>
<tr>
<td><strong>Truing up</strong></td>
<td>Preceding year prior to commencement of next control period (T-2)</td>
</tr>
<tr>
<td><strong>Pass-through of gains or losses on account of uncontrollable factors</strong></td>
<td>Net gains/losses passed on to beneficiaries/consumers through next ARR</td>
</tr>
</tbody>
</table>
Sharing of gains or losses on controllable factor: Gains/Losses: 1/2 as rebate in tariff, 1/2 at discretion of utilities for efficiency linked parameters. Gains (overachievement of energy losses target): 2/3rd for consumers, 1/3rd for utilities. Gains (Employee cost): 100% with utilities. Other: Impact of pay revision inclusive of arrears paid is passed through.

- Norms set for generation, transmission and distribution business are listed in following table (Regulation 41, 42, 53, 62 & 73) –

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Existing MYT Regulation</th>
<th>Draft MYT Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAPAF (Thermal)</td>
<td>Ranging from 83-85%*</td>
<td>Ranging from 83-85%*</td>
</tr>
<tr>
<td>Gross SHR (kcal/kWh)</td>
<td>Capacity-wise. Ranging from 2123-2430 kcal/kWh</td>
<td>Capacity-wise. Ranging from 2123-2430 kcal/kWh</td>
</tr>
<tr>
<td>Secondary Fuel Oil Consumption (ml/kWh)</td>
<td>Coal - 0.50-0.80 ml/kWh</td>
<td>Coal – 0.40 ml/kWh</td>
</tr>
<tr>
<td>Transit and Handling Losses (Generating Stations)</td>
<td>Pit head - 0.20%</td>
<td>Pit head - 0.20%</td>
</tr>
<tr>
<td></td>
<td>Non-pit head - 0.80%</td>
<td>Non-pit head - 0.80%</td>
</tr>
<tr>
<td>Transmission Operation Norms</td>
<td>No such provision</td>
<td>No such provision</td>
</tr>
<tr>
<td>Transmission Losses (TL)</td>
<td>TL determined by Commission</td>
<td>Open Access User shall pay TL determined by Commission</td>
</tr>
<tr>
<td>Wheeling Losses</td>
<td>Allowed to recover – Energy losses – Max. 6%</td>
<td>Allowed to recover – Energy losses – Max. 3%</td>
</tr>
<tr>
<td>Distribution Losses</td>
<td>Trajectory in MYT for control period reducing by 1% each year- 22% (FY 2016-17) to 18% (FY 2020-21)</td>
<td>Trajectory through order Actual-Approved in true-up</td>
</tr>
</tbody>
</table>

*All Thermal Power Stations including HTPS.

- A new definition of Integrated Mines is added (Regulation 3.37).
- In case of hydro generator, capital cost will include cost of developer’s contribution towards any scheme. In addition, for new generator, capital cost is to be calculated on pro-rata basis during the year on assets under commercial operation. Capital cost will be calculated on average asset base (Regulation 19.2 (b)).
- 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 (Regulation 18.1).
- Return on equity (RoE) to be calculated in rupee terms. Unlike, existing MYT regulation Return on Equity (RoE) is to be calculated on the average equity base with rate of return of 15% for generation and transmission utilities, and 16% for distribution utilities after grossing up the pre-tax RoE with the prevailing effective tax rate (Regulation 23.2).
- Computation of working capital for generating plants includes:
  - Coal stock for 10 days (pit head) and 20 days (non-pit head) & secondary fuel stock - 60 days, which has been reduced from 30 days (pit head) and 45 days (non-pit head) set in existing MYT Regulation;
  - O&M expenses for 1 month;
  - Receivables for 1 month of capacity charge & energy charge equivalent to NAPAF;
  - Maintenance spares @ 40% of R&M expenses (Regulation 26.1 (a)).
- Interest rate for working capital has been changed to SBI MCLR + 150 bp (Regulation 26.4).
- New provision is introduced to calculate depreciation of assets on pro-rata basis for new generating stations (Regulation 25.9).
1) Integrated Mines (Regulation 3.37):
Additional profit from merchant sale of coal, if permitted, should be accounted towards income from other business and the cost associated for the same should not be passed on to the consumers. Further, additional surplus on account of such sale should be shared in equal (50:50) proportion.

2) Calculation of equity base for RoE (Regulation 23 & Regulation 24.3):
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.

3) Return on Equity (Regulation 23.3):
As Capital Asset Pricing Model (CAPM), often used for calculating return on equity, provides an estimate of post-tax RoE that should not be grossed up by the rate of effective tax. Adoption of such approach across the sector is erroneous, and provides excess return. This places additional burden on tariff paid by the consumers.

A recent study at CER, IITK, using CAPM and multi-factor models, using the comprehensive data for over 125 infrastructure companies between 1998 and 2018, estimates the cost of equity for conventional generation sector to range between 12.86-16.52%, on a post-tax basis.

Against the estimated post-tax cost of equity of 12.86% (using CAPM) and 16.52% (using Three-Factor Model), the proposed RoE under CSERC Regulation works out to be 16.96% (after grossing up with 15% MAT plus 12% surcharge, and 4% cess) for generation and transmission, and 19.39% (post grossing) for the distribution business.

4) Pre- or Post-tax RoE?
As per Regulation 23.1 of the draft regulation, “Return on equity shall be computed on pre-tax basis in accordance with Regulation 23.2 and to be grossed up as per Regulation 23.3”. (Emphasis added)
Given that the above mentioned return is being grossed up by the effective rate of tax, it should be called a post-tax RoE instead.

5) Depreciation (Regulation 25.9):
The depreciation is proposed to be charged on 'pro-rata basis' for the new generating station or unit during the year for the asset has been declared under commercial operation.
It is suggested to clarify the temporal unit (month/week/day) and cut-off date for application of pro-rata principle.

6) Working capital (Regulation 26.1 (a) to (f)):
In case consumer security deposit exceeds the estimated working capital, the DL is not expected to borrow towards working capital requirement. The amount of interest on consumer security deposit, utilized for working capital, maybe accounted towards interest cost on working capital and the same be excluded towards allowable interest on consumer security deposit accounted towards overall interest cost elsewhere in ARR.

7) Interest on working capital (Regulation 26.4):
The draft regulation prescribes for interest rate on working capital as SBI MCLR + 150 bps, at the same rate as in the case of capital loans. It is pointed out that working capital loans are generally of unsecured nature and may attract a higher interest rate. The Commission may like to further explore prevailing condition 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.

8) Non-Tariff Income (Regulation 40.6):
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. The 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.
9) Income from Other Business - Safety Expenses (Regulation 40.7 (b)):

As per draft regulation, “Amount equal to one third of income from such other business shall be retained by generator to meet the expenditure for safety”.

The above provision seems to suggest that the generating company/licensees is expected to partially and fully fund expenditure on safety from income from other business. One should not assume that expenditure on safety may suffer in case there is no income from other business. It is suggested that income from other generation and transmission business may be deployed in undertaking studies towards improving operational efficiency, supporting research related to power sector aspects of the state and training and capacity building of the employees.

It is suggested that income from other business in the case of DL may be deployed towards compulsory training and skill development, strengthening consumer advocacy, improving consumer awareness including that for solar roof-top program.

10) O&M Expenses (Regulation 40.5.1 (b)):

The draft regulation proposed that the O&M expenses in case of new generating station shall be determined by adopting the norms of CERC (Terms and Conditions of Tariff) Regulations, 2019 after applying a reduction factor of 10%.

The control period for above mentioned CERC Regulation is applicable from 2019-24, whereas control period of draft MYT regulation of CSERC is from 2021-26, adoption of O&M expenses for CERC Regulation will result in an information gap for the last two years. The norms for determination of O&M expenses for the last two years may be defined after further efficiency related reduction in the norms over and above the norm adopted under the CERC regulation for the year 2024-26.

11) Allocation Matrix (Regulation 56):

The allocation matrix proposes segregation of expenses under R&M head in the ratio of 65:35 towards wheeling and retail supply business. Allocation of 35% expenses towards retail supply appears to be on higher side considering that this may only include maintenance with respect to energy meter, and billing and collection infrastructure/assets.

In the draft MYT regulation of GERC, a ratio of 90:10 is proposed to segregate R&M expenses towards wheeling and retail supply business.

12) Energy Banking Charges:

Recent CSERC (Gird Interactive Distributed Renewable Energy Sources) Regulation 2019 issued by CSERC provides for imposition of banking charges. Considering this, the MYT Regulation may also provide for inclusion of revenue/avoided cost on account of banking charges towards non-tariff income.

For additional comments on MYT Regulations in general, please refer to the CER Newsletter Volume 03 Issue 02 (Page No. 02 - 07) (Link: https://cer.iitk.ac.in/newsletters/regulatory_insights/Volume03_Issue02.pdf#page=2)

TSERC (Smart Grid) Regulation, 2020 [Draft]

TSERC issued draft (Smart Grid) Regulation, 2020 on 24th Nov, 2020. Highlights of this regulation are given below:

Applicability: The regulation is applicable to all generating companies, transmission & distribution licensees (including deemed DL & those who are exempted from obtaining distribution license) and consumers connected to the state grid (Regulation 1.2).

Objectives of Smart Grid:

1) To enable integration of multiple smart grid technologies and measures for efficiency improvement in generation, transmission and distribution licensee operations, effective transmission and distribution network, robust network security, integration of renewable energy and clean energy into the smart grid and microgrid (Regulation 3.1).
2) To enhance network visibility and access for optimal utilization of assets and consumer service improvement (Regulation 3.2).

Constitution of Smart Grid Cell, its roles and responsibilities:

1) Within 3 months of notification of this regulation, every transmission and distribution licensee should comprise of
Smart Grid Cell (Regulation 5.1).
2) The Smart Grid Cell should have the power and resources to execute functions assigned to it under this regulation (Regulation 5.2).
3) The onus falls on Smart Grid Cell for baseline study and data development, formulation of Smart Grid Plans, Programs and Projects and implementation of the associated programs (Regulation 5.3).

**Baseline Study and Data Development:**
1) Study should be conducted by transmission and distribution licensee to assess the potential for implementing specific technologies. Key Performance Indicators (KPI) should be defined and current baseline technical conditions should also be evaluated (Regulation 6.1 & 6.2).
2) Transmission and distribution licensee should develop Smart Grid program for its supply area on the basis of baseline study (Regulation 6.3).

**Mechanism for Cost Recovery:**
1) The net incremental costs associated with planning, design and implementation of programs should be identified by transmission and distribution licensee (Regulation 10.1).
2) Methodology for net incremental costs recovery may also be proposed by them via tariff or other mechanism (Regulation 10.2).
3) Each program must be approved prior to implementation and implemented in accordance with the approved plan, to be eligible for cost recovery (Regulation 10.3).

**Monitoring, Evaluation, Measurement and Verification of execution and performance of the Smart Grid Program:**
1) Monitoring and Evaluation of the smart grid program should be based on suitable methodology including KPIs decided by the Commission (Regulation 12.1).
2) Evaluation report to be submitted by transmission and distribution licensee to the Commission (Regulation 12.2).

**Formulation of Smart Grid Plan, Programs and Projects:**
1) Integrated Multi-Year Smart Grid Plan along with Multi Year Tariff Petition/ARR Petition to be submitted by transmission and distribution licensee for their license area to get Commission’s approval (Regulation 7.1).
2) The Commission should permit the formation of provision for R&D activities in the field of Smart Grid projects in ARR of the DL up to a limit of ₹0.01 per unit of DL sales (Regulation 7.4).
3) The Commission should also permit the formation of provision for R&D activities in the field of Smart Grid projects in ARR of the transmission licensee and SLDC up to 0.50% of the ARR of the respective year of transmission licensee and SLDC (Regulation 7.5).
4) Indicative components of Smart Grid Projects: Advanced Metering Infrastructure (AMI), Demand Response, Micro Grids, Distribution SCADA/Distribution Management, Distributed Generation, Peak Load Management, Outage Management, Asset Management, Wide Area Measurement Systems, Energy Storage Projects, Grid Integration of Renewables, Electric Vehicle including Grid to Vehicle (G2V) and Vehicle to Grid (V2G) Interactions, Smart Grid Data collection and analysis, Tariff Mechanism including interruptible and dynamic tariffs, time of use, critical peak pricing, real time pricing, etc. (Regulation 7.6).

**Safety and standards related to smart grid:**
Standards as per the regulations notified by CEA should be adopted for the System, Network & Communication and Product Standards. IEC/IEEE/ANSI standards should be followed in absence of CEA/BIS standards (Regulation 14.1-14.3).

**CER Opinion**

1) **Smart Grid Regulation:** Overall regulation provide a broad framework for smart grid rollout in the state of Telangana to accelerate the Smart Grid deployment in the state as a follow up to the GoI's Smart Grid Vision and Roadmap, and MoP's National Smart Grid Mission.

2) **Definition of Electric Energy Storage (Regulation 2.1 (j)):**
   The Draft regulation defines Electric Energy Storage as a set of technologies capable of storing previously generated energy and releasing energy later to feed electricity into grid. The phrases “A set of technologies” and
“thermal storage devices” in the definition should be replaced by “Hybrid technologies” and “thermal storage”.

3) **Baseline Study (Regulation 6.1 & 6.3):**

- The draft regulation states that “The transmission licensee, distribution licensee shall undertake baseline study for identification of targets and final outcomes for Smart Grid Projects”. It is suggested that a broad set of parameters be identified for “the baseline study”.

- The draft regulation states that “On the basis of the results of the baseline study, the transmission licensee, distribution licensee shall develop smart grid programme for its area of supply”. It should be clarified whether the licensee will provide the service to the captive consumers under its area of supply.

4) **Formulation of Smart Grid Programs (Regulation 7.3, 7.4 & 7.6):**

- The draft regulation has a proposal for Smart Grid Projects which contains Detailed Project Report (DPR). It is suggested that DPR should be available for each individual project. Interoperability should be mandatory for the projects undertaken by the technology suppliers. It is advised that the technology supplier should provide service support for a period of 5-7 years. Open protocol should be adopted by the technology supplier rather than proprietary protocols. It is also advised that the Smart Grid cell should set up portal for Data Hosting, Data Visualization and DPR.

- The Creation of provision for Research and Development (R&D) activities should be in the field of “Smart Grid” instead of “Smart Grid projects”.

- The draft regulation proposes various components of Smart Grid Projects (Regulation 7.6). It is suggested to incorporate following components in the Smart Grid projects.
  a) Behavioural analysis / Impact on consumers
  b) Study on consumer acceptance
  c) EV charging infrastructure

5) **Approval of Smart Grid Plan, Programs, Project Document (Regulation 8.3):**

- It is mentioned in the draft regulation that Commission may identify the cost proposed for the project but instead of identifying, Commission should mention about the cost approved and also clarify whether it is identifying a part of the cost or overall cost of the project.

- Incentives to be provided by the Commission to the transmission licensee and distribution licensee only the projects are implemented below the original cost, are completed on time and demonstrate benefits to the utility and the consumers.

6) **Execution of Smart Grid Programs, Projects (Regulation 9.4):**

As per the draft regulation, the transmission licensee, distribution licensee and other agencies shall ensure consumer data protection and privacy at highest priority level. It is pointed out that there is no any provision of data sharing to the Research Institutes.

The draft regulation should have a provision of data sharing to the Research Institutes through proper channel.

7) **Mechanism of Cost Recovery (Regulation 10.2):**

It is proposed that the methodology for recovery of net incremental cost should be based on Discounted Cost-Benefit ratio exceeding 1.5 over the life of project, in such case, bank rate plus MCLR, average MCLR of past one year whichever is lower, should be considered.

8) **Monitoring, Evaluation, Measurement and Verification of execution and performance of the Smart Grid Program (Regulation 12.1):**

The draft regulation states appropriate methodology including KPIs as decided by the Commission for monitoring, evaluation, measurement and verification of the Smart Grid Project. It is suggested that basic KPIs such as cost reduction, consumer safety, and demand response should be also decided by the Commission right upfront.

9) **Awareness and Capacity Building (Regulation 13.1):**

The draft regulation says that there is a need for customer education during development phase of the Smart Grid Project. It is suggested that special emphasis should be given for promoting awareness through educational programs as it will directly benefit the project.
RERC notified draft Grid Interactive Distributed Renewable Energy Generating Systems Regulations 2020 in Dec, 2020. The draft is summarized below:

❖ **Applicability (Regulation 3.2):**
1) These Regulations will be applicable to the DL and LT consumers such as domestic, agriculture and public street lighting service under Net Metering arrangements, Net Billing arrangements, and Grid Interactive Distributed Renewable Energy generating systems (REGS) that connected behind the meter and operating in parallel with the grid of DL.
2) The consumers, who have already installed Grid Interactive Distributed REGS but did not opt for Net Metering arrangement or Net Billing arrangement, are now eligible for Net Metering arrangement.
3) Co-located Renewable Energy based captive power plants up to 1MW installed capacity may opt to be setup under these Regulations. Once opted, the consumers and DL cannot change the option.

❖ **Technical Conditions for Consumers (Regulation 3.4, 3.5, 6.1, 7.2 and 7.6):**
1) The eligible consumer will be allowed to enter into Net Billing arrangement only after termination of the existing Connection Agreement under Net Metering arrangement. (Regulation 3.4)
2) The DL has the right to undertake the REGS whose capacity equal to or greater than 1 MW by alternative mechanisms. (Regulation 3.5)
3) The installed REGS capacity at consumer's premises will range between 1kW – 1MW under Net Metering or Net Billing arrangement and shall not exceed 100% of the consumer's sanctioned load/contracted demand. In case, the consumers are eligible for a REGS capacity higher than 1 MW, the terms and conditions for such arrangement shall be in accordance with the RERC (Grid Interactive Distributed Renewable Energy Generating Systems) Regulations, 2020. (Regulation 7.2 & 7.3)
4) The cumulative capacity of REGS installed at the consumer's premises will not exceed 50% of the capacity of the relevant distribution transformer, except for HT consumers (11 kV and above), who have installed their own distribution transformer (Regulation 6.1).
5) Eligible consumers may install or enhance the capacity of the REGS at different locations within the same premise, subject to the overall capacity limit (Regulation 7.6).

❖ **Promotion of RE Generation (Regulation 5.1):**
To promote RE Generation, the Net Billing arrangement shall be permitted through Renewable Energy Service Company (RESCO). The eligible consumer may lease out or rent out their Rooftop Space/ Land/ Water bodies to RESCO as per mutual commercial arrangement. In such cases, RESCO shall enter into a direct agreement with the consumer that the bill payment only after deducting the agreed amount by the consumer from tariff applicable for Net Billing Arrangement (Regulation 12.5).

❖ **Connection Agreement (Regulation 9.4 & 9.5):**
The DL and the eligible consumer shall enter into a connection agreement under Net Billing arrangement which shall remain in force for 25 years, except for those agreements entered prior to notifications of these regulations where the previously agreed tenure in the agreement(s) shall remain valid. The Agreement may be terminated at any time by mutual consent. After the termination of the Agreement, the consumer shall disconnect forthwith its REGS from the DL’s network.

❖ **Interconnection with the Grid: Standards and Safety (Regulation 10):**
1) The Consumers who have installed the REGS shall be responsible for the safe operation up to the Point of Interconnection. Beyond the Interconnection Point, the DL is responsible for safe operation.
2) The REGS connected behind the Consumer's Meter, operating in parallel with the DL’s Grid (Regulation 10.14).
3) The maximum installed capacity for the consumer shall be limited to 100% of Contract Demand as specified in these Regulations. The maximum energy consumed shall be limited to the energy corresponding to the minimum CUF/PLF plus 5% as specified in the RERC (Terms and Conditions for Tariff determination from Renewable Energy Sources).
Regulatory Outlook

Regulatory Outlook


4) In case, the consumer installs REGS without prior intimation to the DL, then the additional liabilities shall be levied at the rate of FC for one month to the consumer.

❖ Metering arrangement (Regulation 11.2):
All meters shall have Advanced Metering Infrastructure (AMI) facility with RS 485 (or higher) communication port or any other advanced communication facility.

❖ Net Billing Arrangement (Regulation 12.5):
1) The DL shall enter into Connection Agreement at the weighted average tariff of large-scale solar projects of 5 MW and more, discovered through Competitive Bidding in previous FY and adopted by the Commission, plus an incentive of 25%.
2) In case no bidding is done in previous FY, then the latest tariff discovered through competitive bidding plus an incentive of 25% shall be applicable.
3) Provided that, the above Tariff shall be applicable for the entire duration of the Agreement.
4) If the value of Renewable Energy generation in a month is more than the value of all other components of consumer bill, then the billing credit shall be provided by the DL at the end of settlement period.

❖ Net Metering Arrangement (Regulation 12.6):
If the quantum of electricity exported exceeds the quantum imported during the Billing Period, the excess quantum exported shall be purchased by the DL at the weighted average tariff of large-scale solar projects of 5 MW and more, discovered through Competitive Bidding in last FY, and adopted by the Commission. This is applicable to LT domestic consumers also having existing Net Metering installations governed as per the RERC (Connectivity and Net Metering for Rooftop and Small Solar Grid Interactive Systems) Regulations, 2015 and subsequent amendments thereof. The quantum of electricity Units imported by the Eligible Consumer during any Billing Period exceeds the quantum exported, the DL shall raise its bill for the net electricity consumption after adjusting the credited Units.

❖ Renewable Purchase Obligation (Regulation 14):
The Eligible Consumer shall qualify towards compliance of RPO for the respective DL, provided that such an Eligible Consumer is not defined as obligated entity.

❖ Applicability of other Charges (Regulation 15):
The quantum of electricity generated by consumers from REGS under Net Metering arrangement shall be exempted from banking charges, wheeling charges, cross-subsidy surcharge, and additional surcharge.

❖ Sharing of CDM Benefits (Regulation 16):
The entire CDM benefits from REGS shall be retained by DL and passed on to the consumers through the ARR in entirety.

❖ Parallel Operation Charges (Regulation 17):
The parallel operation charges after adjusting RPO benefits shall be levied on the energy generated under Net Metering systems provided that no such charges are levied on Net Billing consumers.

CER Opinion

1. Net Billing (Regulation 2 (2.1) (q)): The term “Net Billing” may perhaps be reworded to a more industry accepted term “Gross Metering” for better clarity and uniformity.

2. Connectivity of REGS (Regulation 6.2): The updation of the information on distribution transformer level capacity available for connecting REGS should be done on ‘monthly basis’ by the DL instead of on yearly basis as proposed in the draft regulation.

3. Consumer and Capacity (Regulation 7.3): The draft regulation provision of net metering arrangement for consumers having installed capacity more than 1kW – 1MW is in contradiction with the provisions of Rule 11.4 of the Electricity (Rights of Consumers) Rules, 2020 of MoP, which states that “The regulations on Grid Interactive Rooftop Solar PV system and its related matters shall provide for net metering for loads up to 10 kW and for gross
metering for loads above 10 kW”.

4. **Tariff Discovery (Regulation 12.5.2):** In case of unavailability of tariff discovered through competitive bidding for the state, the lowest SECI discovered tariff for such projects across neighboring states with similar solar insolation may be considered.

5. **Payment of Billing Credit (Regulation 12.5.4 & Regulation 12.5.5):** The third proviso of the Regulation 12.5.4 should be modified as “Provided that the billing credit at the end of the SP will be paid in cash as per above proviso. Provided further that this credit shall not be forwarded to the next Financial Year”.

   The words “leaves the system” may be reworded as “no more bonafide consumer to the licensee”.

   In case, the eligible consumer has surrendered its connection before the last month of the settlement period, no payment in the lieu of the balance credit would be paid by the DL. However, any outstanding credit balance at the end of the settlement period may be paid latest by 15th of May of the next FY, subject to that the eligible consumer has no pending billing dispute with the DL.

6. **Solar Rooftop Monitoring:** The benefit of ‘real time’ tracking and monitoring of 1kW and above Solar Photo Voltaic Rooftop System would improve ability of the DISCOMs/SLDC to forecast such generation and also implement schedule revision.

7. **Sampling Based Monitoring of Small PV Systems:** Growth of small scale solar rooftop PV systems would reduce visibility of behind-the-meter load of such consumers, and constrain DISCOMs/SLDC to effectively forecast and manage the schedule thereof. A sampling based monitoring system to monitor the generation, storage and injection systems above 1kW and up to 1 MW would enhance visibility to such small scale systems.

8. **Data Availability from Monitored PV Systems:** Data from such monitoring systems should be made available in the public domain to ensure that better forecasting systems can be developed by the academic/research community, to be paid by DL.

9. **Parallel Operation Charges (POC) (Regulation 17.1):** The RPO benefits accruing to the DL have not been defined in the regulation. Hence, the same may be defined.

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## Tariff

DERC directed BSES Rajdhani Power Ltd to levy PPAC at the same rate i.e. 7.94% till May, 2021. The expected recovery by levying the allowed % of PPAC, will depend on actual billing of DISCOMs (Fixed Charges and Energy Charges) during the period. The difference, if any, in actual PPAC & its recovery will be trued up as per provisions of the extant Regulations.

DERC directed Tata Power Delhi Distribution Ltd to levy PPAC at the rate of 7.14% till Mar, 2021 & at the rate i.e. 8.50% from 1st Apr, 2021 till 31st Oct, 2021. The expected recovery by levying the allowed % of PPAC, will depend on actual billing of DISCOMs (Fixed Charges and Energy Charges) during the period. The difference, if any, in actual PPAC & its recovery will be trued up as per provisions of the extant Regulations.

HERC granted extension of Power Purchase Agreement (PPA) dated 17th Mar, 2005 for a further period of 15 years, entered between Haryana Vidyut Prasaran Nigam Limited (HVPNL) and Nuclear Power Corporation of India Limited (NPCIL), for procurement of power from its Units- Narora Atomic Power Station (NAPS) 1 & 2 and Rajasthan Atomic Power Station (RAPS) 3 & 4 as per the allocation by the Ministry of Power, Government of India under Section 86(1)(b) of the Electricity Act, 2003.

JSERC stated that consumers with load above 5 kW should be billed based on the Contracted Load/Demand rather than on per connection basis (as in the latter case marginal consumers having load up to 5 kW will now be charged at Domestic Tariff).

JSERC approved revised O&M expenses (in ₹ Cr.) for FY 2014-15 after prudence check and are given below:

<table>
<thead>
<tr>
<th>O&amp;M Expenses</th>
<th>Approved in MYT</th>
<th>Actuals Submitted</th>
<th>Approved in True-up FY 2014-15</th>
<th>Approved (Post review)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A&amp;G Expenses</td>
<td>22</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>R&amp;M Expenses</td>
<td>108</td>
<td>53</td>
<td>35</td>
<td>52</td>
</tr>
<tr>
<td>Employee Expenses</td>
<td>36</td>
<td>51</td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td>Terminal Liabilities</td>
<td>-</td>
<td>-</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Total O&amp;M Expenses</td>
<td>167</td>
<td>119</td>
<td>102</td>
<td>119</td>
</tr>
</tbody>
</table>

KSERC approved the followings for truing up of accounts of M/s. Techno Park for the year 2017-18:

i) Total revenue is ₹6311.84 lakh
ii) Total expenditure is ₹5931.18 lakh
iii) The revenue surplus of the year is ₹379.94 lakh

The revised accumulative revenue surplus up to 2016-17 is ₹803.44 lakh, and total cumulative revenue surplus till 2017-18 will be ₹1183.38 lakh.

KSERC approved a revenue gap of ₹1118.66 crore after truing up, by allowing additional depreciation of ₹12.56 crore and interest on normative loan of ₹27.05 crore for the asset addition for the year 2016-17.

KSERC approved the following amount in truing up of accounts of M/s. CSEZA for the year 2018-19:

<table>
<thead>
<tr>
<th>Particulars</th>
<th>ARR Approved (₹ Lakh)</th>
<th>True Up Petition (₹ Lakh)</th>
<th>True Up Approved (₹ Lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Income</td>
<td>3602</td>
<td>3671</td>
<td>3671</td>
</tr>
<tr>
<td>Total Expenditure</td>
<td>3661</td>
<td>3729</td>
<td>3653</td>
</tr>
<tr>
<td>Revenue surplus/gap (-)</td>
<td>-58</td>
<td>-58</td>
<td>18</td>
</tr>
</tbody>
</table>

MERC approved relief in residential tariff requested by MSEDCL. However, the Commission has directed that such relief is given by MSEDCL at its own discretion and its impact needs to be adjusted against its Return on Equity without passing it through in ARR.

MSEDCL provided relief of 2% rebate if consumer pays first bill based on actual meter reading after relaxation of lock down within due date. Also, waiver is given in case of delayed payment charges and interest for delay in making payment of electricity bills if consumer opts for payment of bill in three equal instalments.

PSERC decided to adopt the tariff of ₹2.60/kWh under Component - C of KUSUM scheme, in order to incentivize small and marginal farmers.

PSERC considered the financial and operational parameters as per PSERC Regulations (CERC RE Regulations, 2020 as adopted) and directed PED/PSPCL to develop a user-friendly mobile application that can be downloaded by the farmers on their mobile phones to be able to monitor generation, consumption and sale to PSPCL, i.e. Suryashakti Kisan Yojana (SKY) App used by the farmers in Gujarat under Suryashakti Kisan Yojana.

PSERC approved the capital cost of ₹340 Lakh/MW and the O & M Expenses of ₹4.50 Lakh/MW for FY 2020-21.
ERC Tracker

Regulatory Updates

with an escalation of 3.84% as submitted by PEDA and PSPCL in its submission dated 14th Oct, 2020. PSERC specified ₹ 2.74/kWh as the levelised tariff for solar PV projects, and the above tariff will be applicable for the projects set up in both conditions either on land mounted (in case of barren land) or stilt mounted (in case of agricultural land). The other terms and conditions stated under the PM KUSUM Scheme will remain applicable.

RERC directed the RVUN to file a fresh petition for determination of tariff for FY 2020-21 for DCCPP, when the fuel is tied up in required quantity on firm basis as per the provisions of RERC Tariff Regulations, 2019.

TERC partly allowed the Review Petition No. 13 of 2020 filed by Tripura State Electricity Corporation Limited for review of tariff order dated 1st Sept, 2020, and revised the cumulative revenue gap (₹ Crore) for FY 2020-21 as below:

<table>
<thead>
<tr>
<th>Particulars</th>
<th>TSECL Petition</th>
<th>Approved</th>
<th>Approved (Review Order)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net ARR for FY 21</td>
<td>1596</td>
<td>1553</td>
<td>1553</td>
</tr>
<tr>
<td>Less: Total Revenue from sale of power</td>
<td>1432</td>
<td>1524</td>
<td>1524</td>
</tr>
<tr>
<td>Standalone Revenue Gap/(surplus)</td>
<td>164</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Revenue Gap/(surplus)</td>
<td>FY 14</td>
<td>110</td>
<td>34</td>
</tr>
<tr>
<td>for truing up of ARR</td>
<td>FY 15</td>
<td>151</td>
<td>35</td>
</tr>
<tr>
<td>FY 16</td>
<td>121</td>
<td>109</td>
<td>109</td>
</tr>
<tr>
<td>FY 17</td>
<td>153</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Revenue Gap/(surplus) for provisional truing up of ARR</td>
<td>FY 18</td>
<td>57</td>
<td>(42)</td>
</tr>
<tr>
<td>FY 19</td>
<td>164</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Revenue gap/(surplus) for Review of ARR for FY 2019-20</td>
<td>154</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Carrying cost</td>
<td>104</td>
<td>39</td>
<td>50</td>
</tr>
<tr>
<td>Cumulative Revenue gap till FY-21</td>
<td>1178</td>
<td>248</td>
<td>308</td>
</tr>
</tbody>
</table>

Power Procurement

GERC approved the draft supplemental PPA and directed Gujarat Urja Vikas Nigam Limited and the ACB (India) Limited to sign the supplemental PPA by revising the addendum to Schedule 10 of the PPA dated 26th Feb, 2007 and supplemental PPA dated 17th Mar, 2018 signed between the parties.

MPERC approved draft supplementary agreement to PPA dated 5th Jan, 2011 between M.P. Power Management Company Ltd. and M/s Jhabua Power Ltd. for procurement of 30% power generated by a thermal power station of capacity 600 MW located at Seoni District owned by M/s Jhabua Power Ltd.

MERC approved PPA between Laxmipati Balaji Supply Chain Management Limited (LBSCML) and Manikaran Power Limited for procurement of Short-Term power up to 1 MW for one year starting from 1st Dec, 2020 to 30th Nov, 2021 for LBSCML sector-specific SEZ and IT SEZ. The Commission also approved for adoption of tariff at ₹ 4.47 per unit at LBSCML Licensee Periphery determined through transparent and competitive bidding process for procurement of power.

PSERC determined and ordered that Additional Surcharge will be leviable on the consumers situated within the area of supply of PSPCL on the actual open access power brought by them from sources other than PSPCL, subject to the condition that the contracted capacity of PSPCL continues to remain stranded during the period 1st Oct, 2020 to 31st Mar, 2021. The Additional Surcharge has given in following table.

<table>
<thead>
<tr>
<th>PSERC Open Access Surcharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over and above the contracted demand</td>
</tr>
<tr>
<td>₹ 1.23/kWh</td>
</tr>
</tbody>
</table>

TNERC specified that Pooled Cost of Power Purchase payable by the TANGEDCO for the year 2020-21 as ₹ 4.37 per unit or 75% of the preferential tariff fixed by the Commission to that category/subcategory of NCES generators, whichever is less.

TNERC directed TANGEDCO to make payments to the appellants at the full APPC rate without applying any cap from 2013-14 to 2017-18 together with normal interest thereon at the rates provided in the Energy Purchase Agreement from the date the capped tariff was effected until date of payment to the Appellants.

WBERC approved the West Bengal State Electricity Distribution Company Limited (WBSEDCL) second supplementary agreement to Power Purchase Agreement (PPA) executed on
28th Dec, 2010 for purchase of 300 MW power by WBSEDCL from the thermal power station of Hiranmaye Energy Limited (capacity 3 x 150 MW) at Haldia in Purba Medinipur district of West Bengal in terms of Regulation 7.4.1 of the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011.

Renewable Energy, RPO and REC

MNRE issued notification stating that power generated from co-firing of biomass in the thermal power plants will be considered as renewable energy, and such generated power is eligible for meeting non-solar Renewable Purchase Obligation (RPO).

MNRE issued guidelines for off-grid and Decentralized Solar PV Application Programme Phase-III. These guidelines provide implementation framework for operation of off-grid solar PV systems through RESCO model. The guidelines emphasize on isolated off-grid solar plants, implementation model, financial assistance, selection of RESCO, tariff estimation, power purchase agreement, timeline, monitoring, technical requirement, etc.

CSERC directed CSPTCL to change the relay setting to accommodate additional 20% power generation from 24.75MW run of the river power generating plant of M/s. Venika Hydro Projects Pvt. Ltd.

GERC approved the petition of Torrent Power Limited for approval of the actual RPO achieved for FY 2017-18 and allow adjustment of surplus in Solar RPO for FY 2017-18 against shortfall in Non-Solar RPO:

<table>
<thead>
<tr>
<th>Category</th>
<th>Unit</th>
<th>Revised RPO Target</th>
<th>RPO Achieved</th>
<th>Surplus(-)/Shortfall(+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Solar</td>
<td>%</td>
<td>8</td>
<td>8</td>
<td>-0.5</td>
</tr>
<tr>
<td></td>
<td>MUs</td>
<td>892</td>
<td>944</td>
<td>-51</td>
</tr>
<tr>
<td>Solar</td>
<td>%</td>
<td>2</td>
<td>3</td>
<td>-0.9</td>
</tr>
<tr>
<td></td>
<td>MUs</td>
<td>200</td>
<td>296</td>
<td>-96</td>
</tr>
<tr>
<td>Total</td>
<td>%</td>
<td>10</td>
<td>11</td>
<td>-1.3</td>
</tr>
<tr>
<td></td>
<td>MUs</td>
<td>1092</td>
<td>1241</td>
<td>-148</td>
</tr>
</tbody>
</table>

GERC decided not to deal or express any view or decision on the submissions made by GEDA regarding RPO compliance by obligated entities other than distribution licensees like late submission of compliance reports, eligibility regarding fulfilment by their respective RPO compliance in subsequent financial year for previous year, modalities for verifying the compliance by CPP and OA users. It is not proper to consider these issues in present proceeding.

HERC approved the present source of procurement of Solar Power and the draft PPA to be executed with M/s Clean Max Enviro Energy Solutions Pvt. Ltd for purchase of 50 MWp Solar Power for 25 years from the grid interactive Solar PV Power Project located at Village Chormaar, District Sirsa, Haryana. Tariff will be determined by the Commission under Section 62 of the Electricity Act, 2003, on a separate petition to be filed by the Generator.

HERC approved the present source of procurement of Solar Power and the draft PPA to be executed with M/s Avaada Green HN Project Private Limited for purchase of solar power for 25 years from the 50 MWp grid-interactive Solar PV power project located at Village Mithi Surera, Dt. Sirsa, Haryana. Tariff will be determined by the Commission under Section 62 of the Electricity Act, 2003, on a separate petition to be filed by the Generator.

HERC approved the present source of procurement of Solar Power and the draft PPA to be executed with M/s LR Energy Private Limited for purchase of 20 MW Solar Power, for 25 years, from grid-interactive solar PV based power project located at Village Tosham, District Bhiwani at the tariff determined by the Commission under Section 62 of the Electricity Act, 2003, on a separate petition to be filed by the Generator.

MERC ruled that the composite RPO targets for CPPs commissioned before 1st Apr, 2016 will be 9% of the operating period. In case of any augmentation of the Captive Generating Plant, the RPO target for augmented capacity will be equal to the RPO target applicable for the year in which such augmented capacity has been commissioned. The projects that are commissioned on or after 1st Apr, 2016 the composite RPO target will be equal to the target applicable for the year in which project is commissioned.

PSERC allowed PACL to carry forward the cumulative shortfall of 9426.74 MU Non-Solar RECs and 2102.46 MU Solar RECs for FY 2018-19 by 30th Sept, 2020 due to COVID-19 pandemic.
RERC allowed M/s ACME Jodhpur and Rewa Solar Power Pvt. Ltd. for injection of solar power up to 110% of the plant's rated capacity until it creates grid disturbance. In case of disturbance, SLDC/DISCOMs are free to issue any direction to M/s ACME Jodhpur and Rewa Solar Power Pvt. Ltd. as per Act and Regulations.

RERC ordered the DISCOMs to pay principal payment as well as LPS amount to wind & solar generators and other generators of the State by the end of 31st Mar, 2021 and the seller GENCOs is entitled to get late payment surcharge as per RE Tariff Regulations, on first come first serve basis.

RERC extended timeline of DISCOMs for next three years to make up the shortage in RPO in terms of energy by buying renewable energy.

RERC approved Rajasthan Rajya Vidyut Prasaran Nigam Ltd. for investment towards implementation of Smart Transmission Operation Management system (STOMS), Smart Transmission Network and Asset Management System (STNAM) and also for the implementation of RE integration system. Further, RERC analysed and approved the investment plan for last 3 years as given in table below:

<table>
<thead>
<tr>
<th>Approved and Actual investment for last 3 years (₹ Crore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2016-17</td>
</tr>
<tr>
<td>FY 2016-17</td>
</tr>
<tr>
<td>FY 2017-18</td>
</tr>
<tr>
<td>FY 2018-19</td>
</tr>
<tr>
<td>FY 2019-20</td>
</tr>
</tbody>
</table>

Ministry of Power issued notification, in consultation with BEE, to all DISCOMs mandating compliance with Energy Conservation (EC) Act, 2001. This notification will make it mandatory for DISCOMs to conduct energy accounting and auditing, resulting in appointment of energy manager and energy auditor. DISCOMs will also need to identify energy losses category-wise, and implementation of energy conservation & efficiency measures, etc. which will facilitate in reducing losses and increase profitability of DISCOMs.

DERC imposed penalty on BSES Rajdhani Power Ltd. of ₹20,000/- (₹10,000/- for each violation) for violation of Regulations, to be paid within 30 days of the order.

DERC imposed penalty on Tata Power Delhi Distribution Ltd of ₹10,000/- (ten thousand only) in respect of violation of Regulation 32 (8) (i). The amount of penalty has to be paid within 30 days of the order.

DERC directed BSES Rajdhani Power Ltd to take over distribution system & after taking over of distribution system, if fails to provide individual electricity connection within eight weeks, the Commission may impose a penalty of ₹1,00,000/- and a penalty of ₹5,000/- per day for continued violation.

GERC directed GUVNL to take appropriate course of action as per the provisions of applicable law for recovery of the liquidated damages (₹1,25,92,500) including interest (rate of 15% per annum) as per provisions of PPA dated 6th May, 2010.

GERC decided to consider the petition fees as per Sr. No. 11 (a) of the Schedule annexed to GERC (Fees, Fines and Charges) Regulations, 2005 applicable for Conventional Fuel based (coal, oil, etc.) plant, which is ₹32.5 lakhs.

JSERC clarified that no further extension will be allowed for metering of the un-metered consumers after Dec 2020, on any ground as already extended before.

MERC noted that Sai Wardha Power Generation Ltd. does not fulfil the captive status criteria for FY 2016-17. MERC directed the distribution licensee to levy cross-subsidy surcharge and other applicable charges on the Captive Users of Sai Wardha Power Generation Ltd. for FY 2016-17 as per the provisions of Electricity Rules, 2005 and the Electricity Act, 2003.

MERC directed MSEDCL to pay outstanding dues within 2 weeks to petitioner listed in table. Dues must be settled in chronological order as listed in the table. MSEDCL is further directed to approach Financial Institutions (FIs) in order to settle dues with these generator.

Others

Ministry of Power introduced “Electricity (Rights of Consumers) Rules, 2020”, laying down consumer rights in power sector. Rules emphasize on rights of consumers to get reliable services and quality electricity. Rules will ensure time bound delivery of services like new electricity connection and refunds, by the distribution licensees to consumers.

Key areas are covered in the Electricity (Rights of consumers) Rules were rights of consumers, obligations of DISCOMs new connection, metering arrangement, billing and payment, disconnection/re-connection, reliability of supply, prosumer SOP for licensee, compensation mechanism, call center grievance redressal, etc.
MERC approved the claim of ₹ 130.46 crore by MSPGCL under the provision for compensation due to Change in Law. MSPGCL has claimed this compensation against demand of Service Tax liability claimed by Water Resource Department (WRD), Government of Maharashtra for the period of FY 2009-10 to FY 2014-15. MSPGCL are asked by the Commission to claim the amount in next Mid-Term Review (MTR) petition.

MERC decided to initiate a study for setting up uniform principles across DISCOMs for voltage-wise (i.e. EHT, HT, and LT) accounting of assets based on their usage for computation of Wheeling Charges. The petition was filed in regard with the concerns raised by TPC-D on existing methodology for asset accounting.

MERC suspended trading license of M/s Global Energy Pvt. Ltd. (GEPL) after petition to surrender trading license was filed by GEPL. The circumstances leading to suspension of license includes defaults against GEPL, serious allegation by various generator/consumer and enquiry on GEPL by the Commission.


RERC approved SLDC to fix the responsibility of defaulting officer/official and also directed to develop suitable effective mechanism to ensure that information regarding real time transmission curtailment is communicated to open access consumer immediately.

RERC approved the decision of SLDC dated 15th July, 2020 that M/s BLS Ecotech Ltd. drew the excess power beyond the admissible drawal in the time block 23:00 hrs to 23:15 hrs, hence M/s BLS Ecotech Ltd. is liable to pay excess power utilization charges to JVVNL.

RERC approved the request of M/s Rajasthan Textiles Mills that DISCOM could not levy the excess energy drawal charges on the M/s Rajasthan Textiles Mills for the energy drawal on 18th Mar, 2016. RERC suggested SLDC to fix the responsibility of defaulting officer/official and also directed to develop suitable effective mechanism to ensure that information regarding real time transmission curtailment is communicated to open access consumer immediately.

RERC allowed Rajasthan Rajya Vidyut Utpadan Nigam Ltd. to recover special fuel surcharge from M/s Shivanchal Alloys Pvt. Ltd. for the consumption period from Apr, 2018 to June, 2018 even after disconnection of its electricity connection according to the applicable law.

RERC allowed M/s Shree Cement Ltd. to pay excess charges on the basis of 1000 kVA as per HT supply agreement when demand reached beyond the standby supply.

WBERC approved the West Bengal State Electricity Distribution Company Limited (WBSEDCL) investment proposal of ₹ 242.24 Cr. to provide last mile connectivity and electrification under 'Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA)' scheme.

WBERC approved the West Bengal State Electricity Distribution Company Limited (WBSEDCL) investment proposal for Strengthening and Extending Electricity Distribution Network (SEEDN) in terms of Regulation 2.8.2.3 of the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011.
### Tariff Orders

<table>
<thead>
<tr>
<th>State/Union Territory (SERC)</th>
<th>Licensee/Utility</th>
<th>True-up</th>
<th>Annual Performance Review (APR)</th>
<th>Aggregate Revenue Requirement (ARR)</th>
<th>Tariff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delhi (DERC)</td>
<td>IPGCL FY 18-19</td>
<td>-</td>
<td>-</td>
<td>FY 20-21</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DTL FY 18-19</td>
<td>-</td>
<td>-</td>
<td>FY 20-21</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NDMC, BRPL, BYPL, TPDDL FY 18-19</td>
<td>-</td>
<td>-</td>
<td>FY 20-21</td>
<td></td>
</tr>
<tr>
<td>Jharkhand (JSERC)</td>
<td>JBVNL FY 18-19</td>
<td>FY 19-20</td>
<td>FY 20-21</td>
<td>FY 20-21</td>
<td></td>
</tr>
<tr>
<td>Gujar (GERC)</td>
<td>GIFT PCL FY 18-19</td>
<td>-</td>
<td>-</td>
<td>FY 20-21</td>
<td></td>
</tr>
<tr>
<td>Uttar Pradesh (UPERC)</td>
<td>NPCL FY 18-19</td>
<td>FY 19-20</td>
<td>FY 20-21</td>
<td>FY 20-21</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DVVNL, MVVNL, PVVNL, PUVVNL, KESCO FY 18-19</td>
<td>FY 19-20</td>
<td>FY 20-21</td>
<td>FY 20-21</td>
<td></td>
</tr>
<tr>
<td></td>
<td>UPPTCL FY 17-18, FY 18-19</td>
<td>-</td>
<td>-</td>
<td>FY 20-21</td>
<td></td>
</tr>
<tr>
<td>Andhra Pradesh (APERC)</td>
<td>APSPDCL, APEPDCL FY 14-15, FY 16-17 FY 17-18, FY 18-19</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

### Regulations

<table>
<thead>
<tr>
<th>Title</th>
<th>Date of Approval/Notification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tariff</td>
<td></td>
</tr>
<tr>
<td>HPERC Determination of Generic Levelised Tariffs for Solar PV Projects for FY 2020-2021</td>
<td>15th October, 2020</td>
</tr>
<tr>
<td>CSERC (Terms and Conditions for Determination of Tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2020</td>
<td>16th October, 2020</td>
</tr>
<tr>
<td>MPERC (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, (Third Amendment) Regulations, 2015</td>
<td>27th November, 2020</td>
</tr>
<tr>
<td><strong>Renewable Energy (including RPO and REC)</strong></td>
<td></td>
</tr>
<tr>
<td>DERC (Group Net Metering and Virtual Net Metering for Renewable Energy) (First Amendment) Guidelines, 2020</td>
<td>20th October, 2020</td>
</tr>
<tr>
<td><strong>Codes</strong></td>
<td></td>
</tr>
<tr>
<td>MERC (Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2020 [Draft]</td>
<td>8th December, 2020</td>
</tr>
<tr>
<td><strong>Others</strong></td>
<td></td>
</tr>
<tr>
<td>AERC (Power Quality for Distribution System) Regulations, 2020 [Draft]</td>
<td>7th December, 2020</td>
</tr>
</tbody>
</table>

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CER’s 1st Regulatory Manthan on “Developing a Multi-year Tariff (MYT) Framework: Insights and discussion on the draft regulation of Gujarat and Chhattisgarh”

Centre for Energy Regulation (CER), IIT Kanpur, organized 1st Regulatory Manthan (Online) on the topic “Developing a Multi-Year Tariff (MYT) Framework: Insights and Discussion on the Draft Regulation of Gujarat and Chhattisgarh” dated November 06, 2020. Total sixty six participants attended the session including Chairpersons, members and regulatory staff from CERC, SERCs of Andhra Pradesh, Bihar, Chhattisgarh, Delhi, Gujarat, Haryana, Jharkhand, Punjab, Rajasthan, Uttarakhand, Tamil Nadu, Tripura, and JERC for the state of Goa and Union Territories. Mr. P. K. Pujari, Chairperson, CERC, inaugurated the 1st Regulatory Manthan and welcomed the delegates with his opening remarks. Dr. Anoop Singh, Coordinator, CER, IIT Kanpur, presented key highlights on MYT framework and CER’s opinion thereof. The key discussion points were – reforms w.r.t. Cost of Service (CoS) regulation, concerns with CoS regulation, evolution of Multi-Year Tariff (MYT) framework, and comparison of existing and proposed MYT regulations of CSERC and GERC focusing primarily on general and financial principles. Closing remarks were delivered by Mr. Ghanshyam Prasad, Joint Secretary (OM, R&R), Ministry of Power, Government of India. The key delegates who participated in the discussion were Mr. D.S. Misra (Chairperson, CSERC), Mr. M.K. Goel (Chairperson, JERC (Goa & other UT)), Mr. Anand Kumar (Chairperson, GERC), Mr. Udit Mathur (Energy Advisor, FCDO) and Ms. Adritha Subbiah (Green Growth Analyst, FCDO).

CER shared its opinion and suggestions on "Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2020" to CSERC before the event.

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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