



FORUM OF REGULATORS

FOR-NEWS

ISSUE NO. 2



Shri U.N. Behera has assumed charge as Chairperson of Odisha Electricity Regulatory Commission w.e.f 16th January, 2017.

Shri M.K. Goel has assumed charge as Chairperson, Joint Electricity Regulatory Commission (for the State of Goa and Union Territories) w.e.f. 17th February, 2017.

Shri Rajendra Prasad Barwar has been appointed as Member of Rajasthan Electricity Regulatory Commission w.e.f. 9th February, 2017.

Shri Arbind Prasad, has been appointed as Chairperson, Jharkhand Electricity Regulatory Commission w.e.f. 7th July, 2017.

Shri R.Preman Dinaraj has been appointed as Chairperson, Kerala State Electricity Regulatory Commission w.e.f. 1st August, 2017.

Shri Anand Kulkarni has been appointed as Chairperson, Maharashtra Electricity Regulatory Commission w.e.f. 9th August, 2017.

Mrs. Kusumjit Sidhu has been appointed as Chairperson, Punjab State Electricity Regulatory Commission w.e.f. 10th August, 2017.

Shri Bhanu Pratap Singh has been appointed as member, Himachal Pradesh Electricity Regulatory Commission w.e.f. 29th September, 2017.

Shri Ngangon Sarat Singh has been appointed as Member, Jharkhand State Electricity Regulatory Commission w.e.f. 23rd October, 2017.

Chairperson's Message

At the outset, I would like to place on record our gratitude for appreciating this new initiative of publishing FoR Newsletter. I am glad to present the second issue of Forum of Regulators (FoR) Newsletter. The Newsletter continues to facilitate dissemination of information, sectoral developments and best practices amongst the Member Organizations.



It is heartening to inform you that Union Cabinet has approved an MoU between the Forum of Regulators and the National Association of Regulatory Utility Commissioners of United States of America and the same has been signed on 10th August, 2017.

In this issue, a brief about CERC regulations on Communication System for inter-State Transmission of Electricity, Tariff for Renewable Energy Sources and Procedure related to ESCerts has been provided. The details related to the 5th Annual Integrated Ratings of Discoms issued by the Ministry of Power are also given. A reference is also provided relating to one important pronouncement made by the Appellate Tribunal for Electricity. This issue also carries the salient features of the draft National Electricity Plan brought out by the Central Electricity Authority and the FOR study on electricity vehicles.

We value your feedback and contributions in the form of update on the activities of SERC / JERC, issuance of Regulations etc. We look forward to your responses.





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FOR Meetings

- 60th FOR meeting was held on 23rd June 2017 in New Delhi. Shri Piyush Goyal, Hon'ble Minister of State (I/C) for Power, Coal, New and Renewable Energy and Mines graced the occasion and launched the “Weather Portal for Power System Operation”, “Merit Order Despatch Portal” and released the POSOCO /FOLD report on “Operational Analysis of Optimization of Hydro Resources”. Issues related to “Simplification of Tariff Categories”, “Tariff Rationalization” and definition of RPO, Merit order Despatch were also discussed.
- 59th FOR Meeting was held on 21st April 2017 in Guwahati, Assam issue included discussion on included Renewable Energy Generators –Data Communication System, Demand Pattern Analysis, Roof-top Solar installation and FOR Working Group Report on Load Based Connection charges.
- 58th FOR Meeting was held on 27th February, 2017 in New Delhi. In the meeting, proposal of Plan Assistance for the next 5 Year Plan Period, issues related to Promotion of digital payments, CERC Staff Papers on Energy Storage and Open Access Registry and Implementation of ESCerts were discussed.





Regulations at a Glance

CERC Regulations

- **CERC (Communication System for inter-State transmission of electricity) Regulations, 2017**

These regulations provide for planning, implementation, operation, maintenance and up-gradation of reliable communication system for all communication requirements including exchange of data for integrated operation of National Grid. The Regulations apply to the communication infrastructure to be used for data communication and tele-protection for the power system at National, Regional and inter-State level and shall also include the power system at the State level till appropriate regulation on Communication is framed by the respective State Electricity Regulatory Commissions. The nodal agency for planning, and coordination for development of communication system for inter-State transmission system user shall be the Central Transmission Utility. The role of Users, SLDCs, RLDCs, NLDC, CEA, CTU, STUs, RPCs, REMC, FSP and Power Exchanges has been in the regulations.

- **CERC RE Tariff Regulations 2017-2020**

Central Electricity Regulatory Commission has issued the Terms and Conditions for Tariff determination from Renewable Energy Sources Regulations, 2017 dated 17th April 2017. The Control period of the Regulations is from 1.4.2017 - 31.3.2020. Only project specific tariff for projects involving solar, wind, municipal solid waste, refuse derived fuel and other emerging hybrid and non hybrid renewable energy technologies shall be issued while generic tariff for others shall be issued.

Return on equity shall be 14% to be grossed up by prevailing MAT as on 1st April of previous year.

Rate of depreciation has been considered as 5.28% for the first 13 years and the remaining spread over remaining useful life of project

Interest on loan is 200 basis points and interest on working capital is 300 basis points above the average of SBI MCLR Rates (1 year tenor) during last six months.

- **Approval of Procedures for transaction of ESCerts**

CERC has come up with new regulations on ESCerts. ESCerts come under the Perform, Achieve and Trade (PAT) scheme of BEE which is a market based mechanism where ESCerts are issued on over achieving Energy efficiency targets and they need to be purchased by under achievers to comply with their targets. 38.4 lakh ESCerts have been issued to 316 Designated Consumers (DCs) and 110 DCs need to buy 14.25 lakh ESCerts to meet their targets failing which they would need to pay penalty. DCs are registered as per detailed procedure issued by CERC, Dated 14th February 2017. The First Trading Session of ESCerts took place on 26th September, 2017 where there were 39 participants



SERC Regulations/Developments

- **18 States/UTs have issued the Tariff Order for FY 2017-18 viz. :**

Andhra Pradesh, Assam, Bihar, Chhattisgarh, Goa & UTs, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Sikkim, Uttarakhand, Haryana, Manipur, Himachal Pradesh, Meghalaya and Mizoram

- **APERC (Forecasting, Scheduling and Deviation Settlement of Solar and Wind Generation) Regulation, 2017 notified on 21st August 2017**

APERC has issued Regulations to facilitate large-scale integration of solar and wind generating stations while maintaining grid stability and security through forecasting, scheduling and deviation settlement. The Regulations are applicable to all wind and solar generators connected to the grid and will be applicable from 01.01.2018. The commercial implication will be effective from 01.07.2018.

The term 'Error' has been defined in these Regulations, which is similar to the definition provided in the FOR Model Regulations and Regulations notified by Karnataka and Chhattisgarh. The Regulations also have provision of revising the schedule 1 revision for each time slot of 1½ hours starting from 00:00 hrs of a day subject to a maximum of sixteen (16) revisions during the day for wind projects and 1 revision for each time slot of 1½ hrs starting from 5:30 hrs up to 19:00 hours of a particular day subject to a maximum of nine (9) revisions during the day for solar projects.



Ministry of Power News

- **5th Annual Integrated Ratings of Discoms has been issued by the Ministry of Power**

Ministry of Power in May, 2017 issued Annual Integrated Ratings of Discoms. Four discoms of Gujarat topped the rankings for the fifth year. Uttarakhand Power Corporation, which has made continuous improvements in curbing transmission losses and has a collection efficiency of 107.8 % with no subsidy from the state government, has moved to the top slot alongside the Gujarat utilities. The rating methodology was developed by the Power Ministry in 2012 and covers only state-owned power distribution utilities. The Uttar Pradesh utilities, which have piled up ₹ 54,000 crore in debts, trail utilities of Rajasthan, which have debts of ₹ 84,000 crore. Jodhpur VidyutVitaran Nigam is in B grade and the other two, the ones in Ajmer and Jaipur, are in C grade.

- **Solar Bidding Guidelines**

- Ministry of New & Renewable Energy (MNRE) has issued the Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV Power Projects. The Government has notified these Guidelines on 3rd August, 2017
- These Guidelines have been issued under the provisions of Section 63 of the Electricity Act, 2003 for long term procurement of electricity by the 'Procurers' [the distribution licensees, or the Authorized Representative(s), or an Intermediary Procurer] from grid-connected Solar PV Power Projects ('Projects'), having size of 5 MW and above, through competitive bidding.
- The "Must-run" status for solar projects has been stressed upon. Generation Compensation provided for following off-take constraints
 - a) Back-down - Minimum Generation Compensation = 50% of [(Average Generation per hour during the month) × (number of backdown hours during the month) × PPA Tariff
 - b) Grid unavailability - Compensation by way of Procurement of Excess Generation / Outright Compensation
- Minimum PPA tenure has been kept at 25 years. Unilateral termination or amendment of PPA is not allowed.
- Bid Package: The bids will be designed in terms of a package. The minimum size of a package should be 50 MW, in order to have economies of scale.
- Change in Law provision, effective from the date of bid submission and covering any change in law/Tax rate which has a direct effect on the Project (and not just taxes made applicable for supply of power) has been provided.
- Early commissioning and part commissioning have not only been allowed, but incentivised, by way of allowing the PPA for a minimum 25 years from the Scheduled Commissioning Date.
- Bids have been allowed in both Power (MW) and Energy (kWh) terms. Also, e-bidding has been emphasised to improve transparency.
- Bidding Parameters: For procurement of electricity, the Procurer may opt for either 'Tariff' as Bidding Parameter or 'Viability Gap Funding (VGF)' as Bidding Parameter.

- **Guidelines for procurement of electricity for medium term**

On January 17, 2017, the Ministry of Power notified the Guidelines for procurement of electricity for medium term from power stations set up on Finance, Own and Operate basis. The application of these Guidelines is restricted to projects for which power is procured in accordance with an agreement for procurement of power for a period between one and five years with a provision for extension of this period upto 25% of the initial contract period of one year, whichever is lower. Further, the tariff determined through the electronic bidding process through these Guidelines shall be adopted by the Appropriate Commission in pursuance of the provisions of Section 63 of Electricity Act 2003.



CEA Related

Central Electricity Authority (CEA) published the Draft National Electricity Plan (NEP)

- The Draft National Electricity Plan (Vol-I: Generation & Vol-II: Transmission) has been prepared by CEA. The Draft covers a review of the 12th Plan, plan for 2017-2022 in detail along with details for RE integration and a perspective for the period beyond 2022. While preparing the NEP, tentative demands for 2021-2022, as part of working of 19th EPS have been taken into consideration.
- A key highlight of this draft plan is – no coal-based capacity addition is required to meet the country's power demand by 2027. It is also expected that the share of non-fossil (hydro, nuclear, and renewable energy sources) based capacity will reach 46.8 percent by 2021-22, and will further increase to 56.5 percent by the end of 2026-27; as compared to 30 percent at present.

MNRE Related

- **Draft Quality Control Solar Photovoltaic Systems, Devices and Components Goods Order 2017**
MNRE has published an Order for quality control, testing and registration of solar photovoltaic systems, devices, components and goods under section 10 of the Bureau of Indian Standards Act, 1986 (63 of 1986) and in pursuance of clause (fa) of rule 13 of the Bureau of Indian Standards Rules, 1987. It is published on WTO Website for comments of WTO Members

- **Indian Solar Capacity crosses 10 GW**

MNRE declared that India has crossed 10,000 MW of solar energy on the 12th of March 2017 which is an increase of more than three times of last three years. This milestone coincided with the commissioning of 45 MW solar power project in Rajasthan by National Thermal Power Corporation (NTPC).

FOR Related

- **Cabinet approves MoU between Forum of Regulators and the National Association of Regulatory Utility Commission, USA**

Memorandum of Understanding (MoU) between Forum of Regulators (FOR) and the National Association of Regulatory Utility Commission (NARUC) in the area of large-scale Grid Integration of Renewable Energy has been approved by the Union Cabinet on 31st March 2017. The MOU has since, been signed on 10.08.2017.

- **Model DSM Regulations at State Level**

The objective of these regulations is to maintain grid discipline and grid security as envisaged under the Grid Code through the commercial mechanism for Deviation Settlement through drawal and injection of electricity by the users of the grid. These regulations shall be applicable to Seller(s) and Buyer(s) involved in the transactions facilitated through short-term open access or medium-term open access or long-term access in intra-state transmission or distribution of electricity (including inter-state wheeling of power), as the case may be. These Regulations aim to govern the functioning of the various State Entities in a way that discipline is maintained with regards to the injection and drawal of energy by such State Entities and the reliability and integrity of power system is maintained.



FOR Study Reports

The Forum of Regulators (FOR) conducted a study on “Impact of Electric Vehicles on the Grid” with the objective to carry out techno-economic analysis of the roll-out of electric vehicles (EVs) along with analysing the regulatory interventions required for streamlined transition to electric mobility.

The study was carried out to answer the following questions –

- (1) What are the international best practices for EV integration and promotion?
- (2) What has been the role of regulators and distribution licensees in the uptake of EVs?
- (3) What would be the impact of EV load on the local distribution system?
- (4) What business models can be developed for public charging infrastructure development in the context of the Electricity Act, 2003? and
- (5) What would be the tariff impact of a distribution utility’s investment in public charging infrastructure?

Technical analysis shows minimal impact of charging on the distribution grid. In the context of Electricity Act 2003 (The Act) and its provisions, the following observations are made:

1. As per The Act, the provision of public EV charging service to the users would fall under the jurisdiction of a distribution licensee,
2. Specific amendments to the Act can be made, allowing EV charging businesses to resell the electricity without specific licensing arrangements,
3. In the current legal provisions, following three business models are feasible, which are detailed in the report:
 - a. Distribution Licensee owned EV charging infrastructure,
 - b. Distribution Licensee Franchised EV charging infrastructure, and
 - c. Privately-owned battery swapping stations

Further, the report estimates the Tariff Impact of the EV charging infrastructure, if socialized to the entire consumer base or the EV consumers only. The report recommends creating a separate category of tariff, with due regard to time-of-the-day variations. A sample franchise agreement between a Discom and a firm for investment in charging infrastructure has also been provided.

For complete repository of FoR information,

kindly visit www.forumofregulators.gov.in

Please send your feedback at

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