

**MINUTES OF THE 14<sup>TH</sup> STATE ADVISORY COMMITTEE (SAC) MEETING OF THE JOINT ELECTRICITY REGULATORY COMMISSION (JERC) HELD AT PORT BLAIR, ANDAMAN ON 21<sup>ST</sup> FEBRUARY, 2019 AT 10:00 HRS**

The 14<sup>th</sup> Meeting of the SAC of the JERC was held at Port Blair on 21.02.2019 at 10:00 hrs under the Chairmanship of Shri M.K. Goel, Hon'ble Chairperson, JERC.

The following SAC Members were present:-

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| I.    | Shri M.K. Goel, Hon'ble Chairperson, JERC | : | Ex-officio Chairperson of SAC |
| II.   | Ms. Neerja Mathur, Hon'ble Member, JERC   | : | Ex-officio Member of SAC      |
| III.  | Shri Rakesh Kumar, Secretary, JERC        | : | Ex-officio Secretary of SAC   |
| IV.   | Shri M.G. Durairaj                        | : | Member                        |
| V.    | Shri C.K. Parekh                          | : | Member                        |
| VI.   | Shri K.C. Parekh                          | : | Member                        |
| VII.  | Shri Rajesh Mediratta                     | : | Member                        |
| VIII. | Shri Uma Shankar                          | : | Member                        |
| IX.   | Shri Ramesh Kumar                         | : | Member                        |
| X.    | Shri S.S. Walia                           | : | Member                        |

2. Leave of Absence was granted to those Members who could not attend the Meeting.
3. The Meeting commenced with a warm welcome of all the Members by the Secretary of the Committee. He informed that this Meeting is being held after a long gap of a little over than a year. He briefly narrated the point-to-point Agenda of the Meeting.
4. The Hon'ble Chairperson welcomed all the Members of the SAC and the officers of the Electricity Department, A&N Islands to the 14<sup>th</sup> SAC Meeting. He informed that during the previous year since last Meeting, we have come a long way forward and carried out some major activities during the year and issued some significant regulations, particularly Electricity Supply Code Regulations 2018 and MYT Regulations 2018. For MYT

Regulations, all the territories were asked to submit their Business Plan Petitions and subsequently Business Plan Orders were issued for the multi-year period of 2019-20 to 2021-22. He gave the details of the Agenda items scheduled for the meeting and solicited the expert opinion and advice of the Members of the SAC with their rich experience and expertise in their respective fields. He mentioned that deliberations in the meeting among the members would inspire ideas and discussions around the paths that can make the power sector scenario stronger and more robust in all the Union Territories and the State of Goa.

5. Following Presentations were planned for the meeting :

- (i) Strengths & Challenges of the power sector in A&N Islands and the new initiatives taken by the ED, A&N Islands - By Suptdg. Engineer, ED, A&N Islands
- (ii) Salient features of JERC Electricity Supply Code, 2018 – By Shri Rajesh Dangi, Director, JERC
- (iii) Principles of Multi Year Tariff Determination Process – By Mrs. Rinku Gautam, Director, JERC
- (iv) Implementation of Micro Grid – By SAC Member Shri Ramesh Kumar
- (v) Status of Open Access in UTs – By SAC Member Shri Rajesh K. Mediratta, Director, IEX Ltd.
- (vi) Installation of Solar Power Plant to the quantum of 5% of the contract demand invariably by all the existing EHT and HT consumers – By SAC Member Shri C.K. Parekh
- (vii) Effectiveness of regulations on Standard of performance and other regulations notified by Commission – By SAC Member Shri M. Durairaj

6. After a brief introduction of all the Members of the SAC, the Minutes of the 13<sup>th</sup> SAC Meeting circulated earlier were confirmed with the consent of the SAC Members.

7. **Presentation by Mr. U.K. Paul, Superintending Engineer (SE), ED, A&N Islands on the Strengths & Challenges of the Electricity Deptt.**

- (i) A detailed presentation was given by Mr. Paul, SE, ED, A&N Islands. He started his Presentation by citing the challenges faced by the Deptt. such as maintaining power plants and power supply with diesel gensets in the stand alone islands as each island

- has its own power station(s) / distribution network. He stated that generation does not pose much problem but distribution is a big challenge for the department.
- (ii) He informed that power generation, transmission and distribution system of A&N Islands is operated under 'Stand-alone System' due to geographical isolation of Islands barring Port Blair and South Andaman where there is nano grid. He further informed that peak demand in A&N islands is 58 MW. The total generation capacity including hydro, diesel and solar is around 119.12 MW. Hon'ble Chairperson asked about the peak demand of Nicobar Islands. Mr. Paul informed that it is less than 4 MW.
- (iii) Thereafter Mr. Paul explained about how the solar power generation is growing in the A&N Islands, like Port Blair and South Andaman having 5 MWp and 50KWp ground mounted solar PV Plants and 3MWp grid connected solar roof top on Govt. Buildings. He informed that in December 2018 Hon'ble Prime Minister had inaugurated a 2.5 MW of Solar PV Power Plant at Dollygunj and remaining work for installation of 17.5 MW along with Battery energy Storage System (BESS) by NLC is under progress and may be completed by the end of October 2019.
- (iv) He then informed that small DG Power Plants ranging from 10 KW to 50 KW are also functioning as Community Power Houses/Outsourced through private firms in North & Middle and Nicobar group of islands in different remote locations having restricted hours of power supply ranging from 8 hrs. to 16 hrs.
- (v) Further, an analysis of demand for power was presented The consumer base in the islands largely comprises of domestic consumers and there is no un-electrified rural household in the islands except few remote and inaccessible household in the protected forest areas. It is also expected that the industrial and commercial share of energy will increase gradually in future.
- (vi) Hon'ble Member pointed out that the DG set installed at Chatham is very old and is running at 50% of its capacity. She asked about the existence of any centralized system that would ensure the running of cheaper and the more efficient plants to minimize the overall cost. Mr. Paul replied that the power plant at Chatham is being monitored manually. Hon'ble Member suggested that a system of merit order dispatch of DG Sets be prepared so that expensive DG sets run only when all cheaper DG Sets are running or are unavailable.

- (vii) Mr. Mediratta raised the concern that Electricity Deptt. Andaman should have a system in place to manage the distribution of power, to which Mr. Paul replied that they are in the process of setting up an Energy Management Centre (EMC) Centre by PGCIL and the survey has already been carried out by teams from CEA and POSOCO. However the project could not be implemented as there are some fund constraints. Hon'ble Chairman also asked ED to have the system in place as early as possible.
- (viii) Mr. Paul informed that various measures have been taken to provide 24 x 7 power to the South Andaman in consultation with Ministry of Power, Ministry of New and Renewable Energy, NTPC and CEA. He explained about some future projects which are in the pipeline in A&N Islands, out of which a 17.5 MWp Solar PV Plant by NLC is likely to be commissioned by October, 2019.
- (ix) Further, he explained about various improvement works being done under the Central schemes like Deen Dayal Upadhyay Gram Jyoti Yojana, IPDS, Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGAYA).

**8. Presentation by Shri Rajesh Dangi, Director, JERC on Salient features of JERC Electricity Supply Code Regulations, 2018**

- (i) A detailed presentation was delivered by Shri Rajesh Dangi on the Salient features of JERC Electricity Supply Code Regulations, 2018 which mainly covered the procedure for connection, disconnection, reconnection, assessment of load, changes in existing connections (load, name, tariff category), consumer metering, billing and payment, theft & unauthorized use of electricity.
- (ii) Hon'ble Chairman clarified that since the earlier Regulations were quite old and a need was felt to review those Regulations to make them more consumers friendly, the Commission decided to repeal the earlier Supply Code and notified Supply Code 2018.
- (iii) Shri Dangi informed about major consumer friendly measures for new connections like facility for Online application procedure to be started within one year, option of self execution on payment of 15% supervision charges on the estimated labour cost of such works, technical feasibility of connection shall not be required upto 20 KW for domestic & commercial consumers, option given to consumer to take connection at

- higher voltage than specified on payment, occupiers to be able to take connections on providing No Objection Certificate from owner or on submission of an Indemnity Bond, Jhuggi Dwellers to be able to take connection on basis of ration card or electoral identity card as a proof of occupancy, the Licensee shall prepare a ready reckoner containing schedule of rates for various services. These consumer friendly measures were discussed at length and appreciated by the SAC Members. Hon'ble Chairman reiterated that provision of electricity connection is the basic need and statutory right of every person.
- (iv) Shri Mediratta, SAC Member requested the Commission to give wide publicity to the Regulations in all the Utilities through various newspapers and by conducting workshops. Hon'ble Member also informed that these Supply Code Regulations are integral interface between the licensee and the consumer. Hon'ble Chairman directed ED, A&N to circulate the Supply Code Regulations, 2018 in the various ED officials of Islands.
- (v) Further, Shri Dangi explained about the system of electricity supply and various timelines for issue of the demand notes for releasing new electricity connections. Shri Walia raised some concerns regarding the timelines which were taken into account like where augmentation is required or sub-station needs to be commissioned. Hon'ble Commission assured him that these have been duly considered while finalizing the timelines specified in the Supply Code, 2018.
- (vi) Further, Shri Dangi informed about various consumer friendly measures which have been provided for the existing consumers, viz. Option of third party meter testing in case of defective/burnt/tampered meters, Power factor to be maintained above 0.85 even by domestic consumers having a load of above 25KW on LT and 0.95 for all HT/EHT Consumers, seasonal Industry consumers can change their contract demand twice a year whenever a seasonal category is defined by the Commission. Further, it was informed that the procedure for theft and unauthorized use of electricity along with Formula for assessment of energy was firmed up. It was informed that the licensee is required to keep the electrical infrastructure ready and wherever the existing transformation capacity at sub-station end is loaded up to 70%, the Licensee shall prepare a scheme for its augmentation. Shri Walia raised concerns regarding this issue and proposed that it should be 80%. Hon'ble Commission

informed that 70% limit has been stipulated as a lot of time is taken in planning, procurement and commissioning of activities associated with procurement. A call centre/complaint centre shall be created by licensee within a period of 6 months. It was informed to the Commission that Electricity Departments of Andaman & Nicobar Islands, Goa and Chandigarh already have call centres operational.

- (vii) Shri Dangi further informed about the formation of Supply Code Review Panel which shall be headed by Secretary of the Commission and shall comprise of members from various Forums viz. Distribution Licensees, Industrial consumers, agricultural consumers, CGRF, Ombudsman and any other expert member as deemed necessary. All members of review panel shall be appointed for a period of three years unless they cease to hold their office. The new replacement shall be from same category. The review panel shall meet atleast once in every twelve months. The decision was highly appreciated by the SAC Members.

#### **9. Presentation by Shri Rajesh Dangi, Director, JERC on the Principles of Multi Year Tariff Determination Process**

- (i) A detailed presentation was given by Shri Rajesh Dangi on the principles of multi-year tariff determination process. He explained that as per Section 61(f) of the Electricity Act, 2003, the Commission is required to specify the terms and conditions for the determination of the tariff, and in doing so, is to be guided inter alia by multi-year tariff principles. Further, as per the Tariff Policy, 2016 the performance based cost of service Regulations framework explains that Multi-Year Tariff mentioning the duration of MYT period, the data inputs and their reliability, norms of operations and bench marking, recovery of uncontrollable costs etc.
- (ii) Further, he explained the differences between the Annual Tariff Framework and the Multi-year tariff framework. The first control period commenced from 1 April 2016 to 31 March 2019 in accordance with MYT Regulations, 2014. The MYT Regulations, 2018 were notified on 10 August 2018 for Second control period from 1 April 2019 to 31 March 2022.
- (iii) Then Shri Dangi explained the various timelines of the MYT Regulations of 2018 wherein Business Plan Petitions were to be filed by the Transmission and Distribution Utility by 31 August 2018 and petitions for Multi-Year ARR and Tariff for the first year

- of the second Control period, (i.e. FY 2019-20) to be filed by 30 November 2018. He informed that the Commission has issued 8 Multi-Year Business Plan Orders in respect of seven Distribution Utilities and one Transmission Utility and is in the process of finalizing 9 Multi-Year ARR and Ensuing Year Retail Tariff Orders in respect of seven Distribution Utilities and one Transmission Utility and one Generation Company. Public Hearing of all the MYT Petitions for all the Utilities has been completed.
- (iv) Further, Shri Dangi highlighted the various principles for approving the multi-year Business Plans, viz. Number of consumers, load growth and sales, T&D Loss Trajectory & Power purchase. Mr. Walia inquired as to what is the basis for fixing the trajectory to which Shri Dangi replied that past performance, ability to perform, consumer mix etc. have to be kept in mind. Further, all the utilities have a T&D loss of less than 15% and that of DNHPDCL is very low i.e. below 5%.
- (v) Other principles such as capital investment & funding and ARR components were also discussed in detail. Shri S.S. Walia asked about the Return on Equity to which Shri Dangi replied that it was 16%. Shri Dangi stressed on each point step by step explaining the principles for approving the multi-year Business Plans and concluded his Presentation by stating that the Commission has issued all the MYT Business Plan Orders in December 2018 and hopes to issue tariff orders for FY 2019-20 of all the utilities timely.

#### 10. Presentation by Shri Ramesh Kumar on implementation of Micro Grid

- (i) Shri Ramesh Kumar initiated his presentation by explaining the concept of Microgrid and how it leads to a paradigm shift from the Centralized Generation to Distributed Generations. The purpose of Microgrid is to create resilience of supply system, low probability and high impact, disruptions. It got further boost due to reducing cost of PV and other Distributed Generations, requirement for reducing Carbon foot print, Microgrid would be basic feature of future Distribution Network. Microgrid has technical and regulatory challenges. One of the regulatory challenges is how to apportion the cost to the entire network. He informed that Microgrid is an age old concept.

Ramesh

- (ii) He highlighted the history of the Microgrid and events which have happened in the past which have boosted research on Microgrid to provide resilience to the Grid, particularly the events which are weather driven, high impact and low probability events in the last decade, like the hurricanes, ice storms which have lashed throughout the world and caused major disruptions in the power supply.
- (iii) Then he gave a brief background of the Microgrid which has been in existence at some universities and large medical campuses for decades in other parts of the world. For example, when super storm hit New York City in 2012, power supply to a very large area was impacted, however Microgrids kept power supply in some major areas working. He informed that Andaman & Nicobar Islands could have some similar system in place and the measures adopted by western countries could be implemented here. The countries where Microgrid has been in existence are for critical infrastructure like hospitals, Police & Fire Stations, emergency shelters, waste water & drinking water facilities, remote communities etc.
- (iv) Further, Shri Ramesh Kumar explained the concept of Microgrid in detail and elaborated specific features of Microgrid and how it can be operated. Microgrid has been defined as a group of interconnected loads and Distributed Energy Resources (DERs) within clearly defined electrical boundaries that act as a single controllable entity with respect to the grid. A Microgrid can connect and disconnect from the grid to enable it to operate in either grid-connected or island mode.
- (v) Further, significant features of Microgrid were explained through various diagrams and slides. Then, he informed about some ongoing research works in Europe, USA, Japan, Canada out of which Aomori Project in Japan has been operationalized. In India, Microgrid project was started by Coast Guard in Andaman Island with connected power sources of 75kWp of solar PV, 2400 Ah battery bank and 2 DGs of 30 KVA each. Microgrid system provides excellent power reliability and redundancy as well as significant diesel fuel savings.
- (vi) Further, Shri Ramesh Kumar demonstrated the difference between AC vs. DC Microgrids through various slides and flowcharts. Further, he explained the economics of Off Grid AC vs. DC Micro Grids, viz. Cost per day for solar AC Home is more than Cost per day for solar DC Home.

Ramesh

- (vii) Further, Shri Ramesh Kumar informed about existing Mini Grids in India in the States of Jammu & Kashmir, Rajasthan, Karnataka, Orissa and Uttar Pradesh. Then he explained the key features of Mini Grid Regulations in U.P. and Jammu & Kashmir.
- (viii) He concluded his Presentation by giving the way forward for Microgrid/Minigrid like for low probability, high impact disruptions for critical loads Microgrid can be considered, DG sets based systems - right sized MG can be considered, as 100% households are electrified in JERC Constituents. For Off Grid Locations DC Microgrids are planned under Saubhagya scheme. For remote locations where power availability is not certain DC Microgrid, could be an attractive solution. To achieve this objective, Regulations are required to be in place.

#### **11. Presentation by Shri Rajesh K. Mediratta, Director, IEX Ltd. on Status of Open Access in UTs**

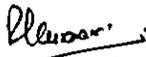
- (i) Shri Rajesh Mediratta presented an exhaustive Presentation on the status of Open Access and Optimization Potential in Union Territories. He gave a brief of Power Market Update, Open Access Update, Discom Optimization Potential, Regulatory Update, New Developments @IEX
- (ii) Then Shri Mediratta emphasized upon the company's snapshots and its standing in the market and its achievements.
- (iii) Further, he informed that IEX has developed a Smart Power Procurement Tool and suggested some corrective measures, like discoms can replace costlier long term power by procurement from IEX, if (a) energy charge of power plant is greater than IEX rates; (b) during night hours when prices at IEX are further lower and savings can be enhanced.
- (iv) Further, Shri Mediratta highlighted the issue that High Additional Surcharge is one of the key factor which has resulted in complete shutdown of Open Access in UTs and requested to revise methodology for determination of Additional Surcharge. He further said that SAC may deliberate on this issue and may suggest a way forward to enable competition at Distribution level in UTs. He also explained the impact of open access in various territories under the jurisdiction of the Commission. Hon'ble Member informed that additional surcharge is being levied on the energy which is

being procured through open access. Further, open access consumer now is required to pay fixed charges corresponding to the portion of power being procured through open access but only on the portion of balance demand which continues to be met by the Distribution Utility.

- (v) Then, Shri Mediratta informed the SAC about the recent regulatory updates and the new developments which have taken place at IEX, viz. (a) New Order Types for better clearing of block bids and take care of start-up/shutdown of thermal power stations; (b) Green Market– a platform for buying/selling green power; (c) Long-duration contracts(monthly/quarterly) – Resolution of SEBI/CERC jurisdiction issue; (d) Cross-Border Trade : CERC allows through DAM/TAM.
- (vi) Shri Mediratta ended his presentation by deliberating on each of the above issues and measures suggested by IEX. Hon'ble Commission and other SAC Members raised some concerns to which Shri Mediratta put forward his Company's point of view to the satisfaction of the Commission.
12. The other Agenda items which were to be presented by SAC Members, Shri C.K. Parekh and Shri M. Durairaj could not be taken up due to paucity of time and the same shall be taken up during next SAC meeting.

13. Hon'ble Chairperson requested the SAC Members to put forward any other suggestions.

14. The Meeting ended with a Vote of Thanks by the Secretary, JERC.

  
Secretary, JERC