# Minutes of the State Coordination Forum

Venue : SFS Home bridge, Vellayambalam

Date : 19.07.2023

Time : 10: 00 AM

List of participants: Attached as annexure

1. The meeting of the newly constituted State Coordination Forum was held under the Chairmanship of Sri. T.K Jose, Chairman, Kerala State Electricity Regulatory Commission. Sri. C.R Satheeshchandran, Secretary, KSERC welcomed all the participants to the meeting.

2. The Chairman in his introductory speech mentioned that this is the first meeting of the newly constituted State Coordination Forum. This Forum is to evolve suggestions through collective brainstorming to ensure coordinated development of the energy sector in Kerala. Globally, the power scenario is in a state of transition from the fossil fuels to green energy and allied research activities are happening worldwide. Much more coordinated effort is required in the generation, transmission and distribution sector, as well as with the various entities/ departments within the State. It is not the duty of power department alone to create a conducive atmosphere for increased generation and resolving the hurdles in transmission and distribution. Renewable Energy Obligations notified by the Ministry of Power point towards the commitment in green energy and we all have to work in a much more coordinated, prioritised and focused way to achieve the same in Kerala. Most often our renewable energy potential is not fully tapped. For tapping the full potential of the renewable energy sources, especially Wind energy in Kerala, requires a much more coordinated effort from various departments like; Public Works Department, Forest Department, different levels of local self-government institutions etc.

3. Many of our hydro projects got delayed due to delay in getting forest clearance. Further, the cost of power production increased recently due to factors such as enhanced use of imported coal, mainly from countries such as Indonesia and Australia. Earlier factors affecting the price of power was due to variations in monsoon and issues within the state, but now it is affected by global factors. The changes in the energy market are not predictable. In the power sector, apart from the day ahead market, short term or medium term prediction about the cost of power is difficult. Further, policies at the national level and state level are affecting the cost of production. The objective of this forum is to discuss about overcoming the constraints and hurdles being faced by the licensees in their endeavour to supply round the clock power to all the consumers in their licensed area in a cost effective manner. This forum may discuss on the development of

an efficient power system in the State; for the consumers, industries, trade and commerce and the production companies, as well as for the transmission and distribution licensees. A coordinated team work can always bring in better results. This forum may be a stepping stone for various coordinated measures required to be taken for the smooth conduct of the electricity production, procurement, transmission and distribution and also to suggest the improvements needed to make the sector more effective and efficient. The Chairman has further explained about the importance of the Battery Energy Storage Systems and ongoing researches, due to the excessive RE penetration. The Chairman also mentioned that the Commission is in the process of revamping its website; which will include an interactive page for the State Coordination Forum, where the members can share their ideas, suggestions and comments to the Commission.

4. Sri. B Pradeep, Member (Technical) has mentioned that, the State Coordination Forum is a statutory forum, which has been provided by the Electricity Act, 2003. While examining the history of the meetings of the Forum it is seen that the meetings are seldom held. In view of the challenges in energy transition, increased coordination among all stakeholders is important. In this context Commission intends to convene the forum frequently to facilitate the coordinated development of energy sector in the State. Commission has proposed four agenda items for the meeting. Apart from that, M/s Rubber Park India Limited and M/s Cochin Port Authority has proposed two agenda items, which are included as additional agenda. Further Energy Management Centre has made a proposal that, they had initiated a joint effort with Centre for Study of Science, Technology and Policy (CSTEP), towards creating ideas and reports on energy transition. He also mentioned that the country has announced an energy transition path way, where the target is 100% Renewable Energy (RE) by 2050 and Net zero by 2070. Further, the State of Kerala has put up an even ambitious target of having 100 % RE by 2040 and Net zero by 2050. The focus of discussions on the energy transition is mostly on the transition from fossil fuel to the RE based generation. But for a true energy transition to take place and to achieve the target of net zero emissions, the transition of the end usage of energy towards electricity is equally important. Use of various sources of energy for various purposes in transportation sector, industries, buildings etc. has to transition towards electrical energy. Presently the contribution of electrical energy in our country is below 20 %. So, there needs a quantum jump in electrification of the end use energy. Kerala Government has already carried out certain campaigns in this regard, such as the Smart kitchen projects, electric vehicle policy etc. Since government is promoting end use energy transition as well, the pattern of the demand growth is likely to depart from past trends. In view of this, there is an urgent need to have an effective coordination and the forum to function on a regular basis is necessary. The Commission look forward

for functioning of this forum more frequently and effectively, to achieve the ambitious targets of the State Government.

5. The Commission has noticed many lacunas in the current planning process in the State power sector. The Commission has noticed certain instances of bottle neck in power evacuation from upcoming generation projects, since the transmission system is not in place. Further, during the routine inspections of compliance of the licensees in the State, it has seen that in Malappuram district prospective electricity consumers are waiting for years together, to get their power demand sanctioned by the licensee, due to lack of transmission capacity. The Commission has flagged this issue before KSEB Ltd to have an urgent resolution in the matter. The generation by prosumers is increasing at a faster rate in Kerala and it has almost touched 500 MW in the State. While analysing the National data on the roof top RE capacity on per million of population basis, State of Kerala is among the top States in the country.

   Member (Technical) has further mentioned that the Commission is thinking of enhancing the limit of the transformer loading capacity from 75% for the purpose of RE connectivity. He has also mentioned that, as of now KSEB Ltd does not have a system to account for the demand growth of the small licensees and plan the transmission system accordingly. As per the Electricity Act, 2003, STU is responsible for the coordinated development of the transmission system taking into account all the distribution licensees in the State. But currently State of Kerala doesn't have such a system in place. KSEB Ltd has a transmission plan to meet demand of their consumers only. So, there is a need for evolution of a State transmission plan taking into account of the prosumers, RE generation, need for evacuating power for new and upcoming generation projects, to meet the requirements of the consumers including that of small licensees and also to predict the demand of next 5-10 years, and plan the transmission system accordingly. The Hon'ble Supreme Court in Civil Appeal No. 1933 of 2022 (Tata Power Company Limited vs Maharashtra Electricity Regulatory Commission & Ors.) has highlighted the need for the State transmission plan, on a long term basis. We have a National generation plan and National transmission plan, but when we look into the State scenario, a futuristic transmission plan is absent. Taking into account all these, the Commission has proposed the agenda items. Further, considering that Kerala has a fast urbanizing geography, the Commission has put a proposal on the development of distribution system in high rise buildings and flats. Further, Member (Technical) has mentioned that since the agenda proposed by Cochin Port Authority is related to Agenda no. 1, it can be discussed along with the same.

6. After the introductory speeches from the Chairman and Member (Technical), Sri. Sarmakumar C.S, Consultant (Engineering) explained the gist of the agenda one by one.

Agenda No. 1 (i) Coordinated development of Transmission system to meet requirement of all licensees and generating stations;

(i) Formulation of State Transmission Plan; and

(ii) The Capital Investment Plan proposed for the control period FY 2022-2027.

Agenda no. 1 corresponds to the issues in the transmission plan and the requirement of the State transmission plan. National transmission plan is formulated by the Central Electricity Authority and is being implemented by PGCIL, the Central transmission utility. Based on their development policies, we have to develop our own policy to distribute the power to the end consumer. Based on that KSEB Ltd has made Transgrid projects during the control period FY 2018-22 and now they have put up Transgrid project part -II for the control period FY 2022-27 for the approval of the Commission. In Kerala we have 10 distribution licensees and major among them is KSEB Ltd, which is also the State Transmission Utility. The transmission projects proposed by KSEB Ltd has only considered their consumers but not taking into account of the requirements of the small licensees. At present the State have six PGCIL owned and two KSEB Ltd owned 400 kV Substations in the State. In addition to that, Kerala have a 320 kV, 2000 MW VSC based HVDC System at Thrissur, which is connected to 400 kV substation at Madakathara. Further, power highway in Kerala has not been completed, which is envisaged from Trivandrum to Kasargode and Mangalore. Now, there exist a missing link from Areacode to Kasargode and to Mangalore. Further, the sub transmission systems in Kerala need to be revamped effectively to transmit the power with least loss and to have redundancy in the State transmission system. The transmission planning is to be done to provide 24 x 7 power supply to all the consumers with n-1 and n-1-1 reliability, as applicable.

The small licensees in Kerala lack a transmission system which is redundant and having n-1 criteria. The Central Electricity Authority has revised the Manual on Transmission Planning Criteria in 2023. The key points in the Manual on Transmission Planning Criteria 2023 are discussed below:

(1) For Intra-STS planning, the transmission network may be modelled down to 66 kV level and lumping of generating units & loads may be considered accordingly. The STUs may consider modelling of smaller generating units if required.

(2) The system studies for firming up the transmission plans may be carried out with 3-5 year time horizon on rolling basis every year.

(3) The load-generation scenarios shall be worked out in a pragmatic manner so as to reflect the typical daily and seasonal variations in load demand and generation availability. Typical load generation scenario may include Wind, high/nil Solar, high/low Hydro generation, high demand, low demand and combinations thereof.

(4) For practical considerations the load variations over the year shall be considered as:

(a) Annual peak load

(b) Seasonal variation in Peak Loads for Winter, Summer and Monsoon.

(c) Seasonal Light Load

(d) Variation of peak load in the State and time of day.

(5) For developing an optimal Intra State Transmission System, the STU must clearly spell out the substation-wise maximum and minimum demand in MW and MVAr on seasonal basis. In the absence of MVAr data, the load power factor shall be taken as per Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 and its amendments or re-enactment thereof. The STU shall provide adequate reactive compensation to bring power factor as close to unity at 110 kV and 220 kV voltage levels.

(6) For evolving transmission systems for integration of RE generation projects, high wind/solar generation injections may also be studied in combination with suitable conventional dispatch scenarios. In such scenarios, the generation of Intra-State generating station may be adjusted so that ISTS access of the state remains within the limits of General Network Access of the state.

(7) The new transmission additions required for system strengthening may be planned keeping a margin of 10% in the thermal loading limits of lines and transformers. Further, the margins in the interregional links may be kept as 15%.

(8) The system shall be planned based on one or more of the following power system studies, as per requirements:

i) Power Flow Studies

ii) Short Circuit Studies

iii) Stability Studies

iv) Total Transfer Capacity /Availability Transfer Capability Calculations.

Based on the transmission planning criteria, we have to develop the transmission system Nation wise and State wise.

7. Further, KSEB Ltd, in the Capital Investment Plan of SBU-T for the Control Period 2018-22 had sought approval for Rs 6064.31 Cr. and the Commission vide Order dated 28.05.2021 in OA 15/2018 has approved asset addition for the control period for Rs 4688.31 Cr. KSEB Ltd has sought approval for GFA addition of Rs 8256.96 Cr in the Capital Investment Plan for the Control Period 2022-27 and the Commission in the ARR and ERC Order dated 25th June, 2022 has provisionally approved Rs 5135.28 Cr as the Net GFA addition for the control period. Final approval of the Plan for the Control Period has to be issued by the Commission, after consultation with the stakeholders and review of the detailed proposals and also considering the futuristic growth of the transmission system. The Commission urges the Members of the Forum to peruse the same and provide valuable inputs to be considered by the Commission while processing the petition for approval of the plan.

8. Sri. Saji Paulose, Director (Transmission and System Operations) has mentioned that, taking into account the transmission plan and to meet the futuristic requirements, KSEB Ltd has commissioned the 400 kV GIS Kottayam on 13.05.2023. Further, regarding the 400 kV power highway across the State, KSEB Ltd plan to link Areacode – Mysore line to Cheemeni and the link work has already been started in Kasargode district and Wayanad district. The works in Kannur district got delayed due to compensation packages. Further, mentioned that the construction of Udupi- Kasargode 400 kV transmission line in Kerala side is progressing and there exists issues in the Karnataka region. He mentioned that there exist redundancy problems in Kasargode district, which can be resolved after completion of the Areacode- Cheemeni transmission line.

   Further, Director (T& SO) mentioned that, there exists a congestion in S1 (Karnataka, Andhra Pradesh and Telangana region) and S2 (Kerala and Tamil Nadu region) during the outage of Kudamkulam Nuclear Power Station and KSEB Ltd has taken up this issue with the Ministry of Power and PGCIL. It was mentioned that the maximum capacity utilisation of the Pugalur- Madakathara HVDC transmission line so far is 1000 MW only.

9. Chairman, KSERC has suggested to KSEB Ltd, to bring the issues and hurdles faced in the construction of the transmission line from Kasargode to Udupi, in Karnataka State, before the State Government, for expediting a faster solution. Further, Chairman has also mentioned that, if necessary the Commission can raise the issue in the next meeting of Southern Electricity Regulators Forum, which is scheduled in the month of November.

10. Member (Technical) has suggested two action points from KSEB Ltd based on the discussion in agenda 1, namely:

(1) KSEB Ltd has facilitated the commissioning of two Inter State transmission lines; for Tirunelveli- Kochi 400 kV line, KSEB Ltd has set up an exclusive office with an Executive Engineer in charge for facilitating Power Grid, for taking up the ROW issues and removing the bottlenecks in the construction of that line. Similarly an arrangement has been put in place for Pugalur-Madakathara line also. Member (Technical) suggested KSEB Ltd to put in a place a mechanism, wherein there is a designated officer to look after the commissioning of the Udupi- Kasargode transmission line and also to flag the issues to the highest level, as and when there arise hurdles in the progress of the project.

(2) Since S1 and S 2 congestion is resurfacing, the load flow study team may be entrusted to study on how the HVDC link can be put into use at a better and efficient level, so that outages of the Kudamkulam will not affect the import capability of Kerala.

11. Sri. R. S Ajayakumar, Executive Engineer (Electrical), Cochin Port Authority (CoPA) mentioned that, CoPA is availing power at Willingdon Island from M/s KSEB Ltd, through 110 kV transmission system. Single circuit 110 kV U.G cable is laid from the Kattaribagh substation of KSEB Ltd to the 110 kV substation of Cochin Port Authority. This cable was laid 14 years ago and the reliability of this U.G transmission cable will be less in coming years due to ageing. Port has to lay additional 110 kV transmission system for (N-1) redundancy. CoPA being a small distribution licensee, cost of such transmission projects could not be met from the surplus fund of the distribution business. Such costs if included in ARR & ERC, the tariff will be on higher side. If such transmission projects for small distributions licensees are taken care of by KSEB Ltd, the concept of dedicated transmission line to small distribution licensees could be avoided and they can use the transmission system as a ring for more reliable power. The transmission line upto the metering point of the small distribution licensees may be maintained as common grid.

Proposal in the TRANSGRID project for making 110 kV ring system with 110 kV transmission line of CoPA at Wellington Island is to be made at the earliest to have N-1 redundancy. Further, mentioned that KSEB Ltd has given sanction for providing110 KV supply to Cochin Port at Vallarpadam & Puthuvypin SEZ area for meeting power requirement of major consumers like PETRONET LNG, International Container Transhipment Terminal and IOCL LPG Import Terminal, at an estimated cost of Rs 64 crores. The work is proposed on cost sharing basis among the major stakeholders. This will be a huge investment for the consumers. Hence CoPA requested before the Commission that, if the above 110 kV transmission line is made common transmission facility by KSEB Ltd (N-1) redundancy could be achieved for small distribution licensees.

12. Sri. George V James, Managing Director, Rubber Park India Limited, mentioned that an effective coordinated transmission system have to be developed in line with the transmission planning criteria of Central Electricity Authority and also considering the targets of Kerala State Action Plan on Climate Change 2.0. Further, mentioned that n-1 criteria have to be followed during the planning.

13. Sri. Krishnakumar N.K, Assistant Secretary, TCED mentioned that KSEBL is not taking care of the needs of other small licensees in its capital investment plan and transmission planning. Specifically, TCED has been requesting connectivity to its proposed 110 KV substation at Laloor for the past two years, but KSEB Ltd has denied the request for some or other reason. This denial is effectively denying n-1 reliability to TCED. Further mentioned that the inclusion of the flaws of KSEB Ltd's transmission plan in the agenda of the State Coordination Forum is a positive step because it will allow for a more informed discussion of the plan and its shortcomings. This will hopefully lead to improvements in the plan and to have a more reliable and efficient electricity transmission system for the state.

14. In view of the issues raised by TCED, Director (T & SO) KSEB Ltd, mentioned that KSEB Ltd has agreed to provide the connectivity to the new 110 kV Substation proposed by TCED. At present there doesn't exist a connectivity agreement between KSEB Ltd and TCED and KSEB Ltd will execute the connectivity agreement based on their present load requirements and as per the appropriate directions of the Commission.

15. Sri. Sarmakumar C.S has explained the gist of the Agenda No. 2 and 3, as follows:

**Agenda 2:** Coordinated development of distribution system with a view to meet the futuristic requirements. Adequacy/ Prudency of the works of Capital Investment Plan for the distribution system for the Control Period 2022-2027- Development of robust and redundant distribution system in the State. Replacement of Overhead lines with Underground cables in high demand areas like city, corporation area etc.

Electricity consumption is considered one of the important indices that decide the development level of a nation. Globally it is estimated that over 50% of the total energy requirement will be met from electricity by 2050; as against around 20% in 2022. Advancement in electric mobility will be the key driver of enhanced demand. With the evolvement of e-mobility, the energy requirement of the State may increase significantly. Majority of the electric vehicles will be undergoing home / office charging. It is expected that this will have a significant role on the distribution grid especially during late evening hours. Lack of adequate charging infrastructure was raised as a concern in proliferation of electric vehicles. Fast

Charging Stations may often require installation of Distribution Transformers, UG cables, RMU etc. Considerable capital investment is required to meet the demand.

KSEB Ltd, in the Capital Investment Plan of SBU-T for the Control Period 2018-22 had sought approval for Rs 6064.31 Cr. and the Commission vide Order dated 28.05.2021 in OA 15/2018 has approved asset addition for the control period for Rs 4688.31 Cr.
To meet further increase in demand and consumption, due to Renewable Energy penetration and electric mobility, KSEB Ltd has proposed Capital Investment Plan of SBU –T, for the control period FY 2022-23 to 2026-27. KSEB Ltd has sought approval for GFA addition of Rs 8256.96 Cr in the Capital Investment Plan for the Control Period 2022-27 and the Commission in the ARR and ERC Order dated 25th June, 2022 has provisionally approved Rs 5135.28 Cr as the Net GFA addition for the control period. Final approval of the Plan for the Control Period has to be issued by the Commission, after the consultation with stakeholders and review of the detailed proposals. The Commission sought the Members of the Forum to peruse the same and provide valuable inputs to be considered, while processing the petition for approval of the plan.

**Agenda 3:** Enhancing the generation capacity within the State, meeting Renewable Power Obligation targets and the action plan for meeting the RPO targets up to the year 2029-30, as specified in the Order dated 22.07.2022 of the Ministry of Power and meeting the targets of Kerala State Action Plan on Climate Change 2.0.

Ministry of Power vide Order dated 22nd July, 2022 has issued the RPO trajectory for the FY 2022-23 to FY 2029-30. In the said order, MoP has introduced Wind RPO and also specified that the Wind RPO shall be met only by energy produced from wind Power Projects commissioned after 31st March, 2022. The Solar RPO has been merged with Other RPO in the aforesaid order of MoP. The RPO targets notified by MoP vide Order dated 22nd July, 2022 is shown in the Table below:

Table

| Financial Year | Wind RPO (%) | HPO (%) | Other RPO (%) | Total RPO(%) |
|---|---|---|---|---|
| **2022-23** | 0.81 | 0.35 | 23.44 | 24.61 |
| **2023-24** | 1.60 | 0.66 | 24.81 | 27.08 |
| **2024-25** | 2.46 | 1.08 | 26.37 | 29.91 |

| | | | | |
|---|---|---|---|---|
| **2025-26** | 3.36 | 1.48 | 28.17 | 33.01 |
| **2026-27** | 4.29 | 1.80 | 29.86 | 35.95 |
| **2027-28** | 5.23 | 2.15 | 31.43 | 38.81 |
| **2028-29** | 6.16 | 2.51 | 32.69 | 41.36 |
| **2029-30** | 6.94 | 2.82 | 33.57 | 43.33 |

In the said Order MoP has mentioned that, any shortfall remaining in the achievement of "Other RPO" category in a particular year can be met with the excess energy consumed from Wind Power Plants commissioned after 31st March, 2022 beyond the "Wind RPO" for that year or with the excess energy consumed from eligible LHPs (including PSPs) commissioned after 8th March, 2019 beyond HPO for that year or partial from both.

Further, the Energy Storage Obligation has also been specified by MoP in the Order dated 22nd July, 2022. It is also mentioned that the Energy Storage Obligation shall be calculated in energy terms as a percentage of total consumption of electricity and shall be treated as fulfilled only when at least 85% of the total energy stored in the Energy Storage System (ESS) on an annual basis, is procured from renewable energy sources. The Energy Storage Obligation notified by MoP in the Order dated 22nd July, 2022 is shown in the Table below:

Table

| **Financial Year** | Storage (on Energy basis) (in %) |
|---|---|
| **2023-24** | 1.00 |
| **2024-25** | 1.50 |
| **2025-26** | 2.00 |
| **2026-27** | 2.50 |
| **2027-28** | 3.00 |
| **2028-29** | 3.50 |
| **2029-30** | 4.00 |

16. Sri. R Harikumar, Director (Energy Management Centre) has mentioned that, EMC has collaborated with Centre for Study of Science, Technology and Policy (CSTEP), to conduct a preliminary study on preparing the action plan for energy transition to meet the Renewable Purchase Obligation (RPO) targets specific to Kerala. CSTEP has submitted a draft report in the matter and the presentation on the report can be made available during the next meeting of the Forum. Further, he mentioned that, the transmission requirements due to RE penetration need to be studied. EMC has mentioned that, EMC in coordination with KSEB Ltd and ANERT has made a MOU with TATA power limited and initiated a challenge in Clean Energy International Incubation Centre, for mentoring and initiating new start-ups in the power sector. EMC has mentioned that as per the records of EMC, at present there are 10 start ups in electrical sector in Kerala.

Chairman, KSERC suggested EMC to emerge as a consultancy agency in the State of Kerala, rather than falling to the lower orbit. It was also mentioned that EMC shall focus in providing consultancy to various power sector utilities in the State.It was cited that the purpose of formation of EMC was to provide consultancy to the utilities in Kerala. It was also suggested that EMC shall encourage and motivate the teachers in Electrical departments, to go for national level papers, patents etc. Further, Chairman suggested EMC to initiate this as challenge and institute rewards to the teachers in Electrical departments in Kerala, and motivate them to create new innovations, patents and national level papers. Further, Chairman directed EMC to publish the list of the start-ups in power sector, in the website of EMC.

17. Sri. Aneesh S Prasad, Chief Technical Manager, ANERT has mentioned that the transformer capacity limit of 75% has to be enhanced for the purpose of RE connectivity. Further, he mentioned that the distribution networks need to be strengthened considering the upcoming rooftop plants and solar PV projects. It was also mentioned that MNRE has sanctioned 100 MW solar plant capacity for Trivandrum Corporation area itself and ANERT mentioned that the detailed project report can be shared with the Commission. In view of the above ANERT mentioned that an effective and coordinated planning is required in the distribution sector.

Chairman, KSERC suggested ANERT to publish the details of the solar implementation companies/ firms which are accredited/ rated by ANERT, in their website. Further, Chairman has suggested ANERT to provide consultancy to EMC, for the purpose of rating the companies/ firms in the field of solar implementation. The Chairman has also suggested ANERT to publish the list of professional start-ups in the solar implementation, in their website.

18. Sri. Krishnakumar N.K, TCED mentioned that, they have been taking serious efforts to achieve the RPO (Renewable Purchase Obligation) trajectories within

the time frame. However, TCED is of the considered opinion that Kerala State Electricity Regulatory Commission (KSERC) should not amend its Renewable Energy and Net Metering Regulations 2020 as it will have a negative impact on the small licensees like TCED.

19. Sri. George V James, RPIL mentioned that the small distribution Licensees' in the State like, RPIL are operating in very limited geographical area and hence not having sufficient area to install renewable energy sources for meeting the RPO targets of 21.84% fixed by the Commission for the FY 2023-24. As per the KSERC (Renewable Energy and Net Metering) Regulations, 2020, the small distribution licensees shall not have separate obligation for purchase of renewable energy if KSEB Ltd meets the renewable purchase obligation for the energy sold to the small licensee or the small licensees reimburses the additional cost incurred by KSEB Ltd for the same as approved by the Commission. Since, the power supplied by KSEB Ltd to other distribution licensees is a mix up of energy from various sources inclusive of renewable sources, the cost for meeting the renewable power purchase obligation of the buyer licensees through KSEB Ltd will always be lower than that of the small distribution licensees directly meeting the RPO. In this context, it was requested that the Commission may kindly consider meeting the RPO targets of small distribution licensees via the state utility KSEB Ltd.

    Sri. Pramod S, Secretary, CSEZA and Sri. Ajith Kumar T. M, CEO, KPUPL has mentioned that regarding RPO, the existing provisions in the RE Regulations, 2020 may be retained.

    Member (Technical) has directed the small licenses to share the generation data of the prosumers with KSEB Ltd, for considering the same as part of RPO, in accordance with the Regulations.

20. **Agenda 4:** Standardization, Development and maintenance of 11 kV distribution system in flats and high rise buildings.

    Sri. Sarmakumar C.S explained the brief concept put forth by the Commission in this context. Standardization of 11kV distribution system is essential in the futuristic development, maintenance, robustness and redundancy of the distribution network. A standardized distribution network is important as they can signal the user that the technology complies with some minimum requirements guaranteeing its quality, effectiveness and safety of use. If the 11kV distribution system to the high rise buildings are developed and maintained by the distribution licensee, then the power supply redundancy can be assured, since the licensee is capable of keeping inventory of the distribution assets. The cost of the 11kV substation of the consumer, including cabling, extension of the 300 mm2 cable and termination, RMU and transformer supply and installation shall

be carried out by the DISCOM and the total cost for the above shall be remitted by the developer at the time of approval of the power feasibility application.

Further, LV cabling to the main panel of the consumer be installed by the licensee at the cost of the developer. LV panel and associated metering panels and installation thereafter shall be maintained by the consumer itself. Standby generators of the building shall be connected to the LV side through proper change over system with provision for proper accounting of licensee energy and standby generator energy and with safety inter locking. All the LV individual consumers including common service system shall be fed through the LV panel with appropriate metering system for energy and demand accounting.The Operation and Maintenance of distribution transformer and RMU shall be carried out by the licensee and accounted in R & M cost, in the ARR. Further, mentioned that Electric Vehicles are increasing day by day and majority of the electric vehicles will be undergoing home/office charging. Considering this change, it is necessary to have fast charging points in common area and EV charging points in the individual car parking area of residential buildings. The procedures to be followed for providing such type of connections need to be analysed. Sri. Sarmakumar C.S has also brought to the attention of the Forum that the Central Electricity Authority has notified Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2023 on 8th June, 2023, which insists floor wise metering for high rise buildings.

21. Sri. Joby P.K, Deputy Electrical Inspector, has mentioned that, at present there exists a system in which the contractor provides a temporary transformer in the case of transformer failures in high rise building and they replace the transformer after completing the repairing works. Further, mentioned that the transformers used in the high rise buildings are of dry type, which is not used by KSEB Ltd. Since, there exists a system which is sufficient to cater the requirements, the proposal put forth by the Commission shall not be pursued. It was also mentioned that the internal system development shall be done by the contractor itself.

Sri. Saji Paulose, Director (T & SO) requested the Commission to introduce ToD billing to shift EV charging from peak hours to off peak hours.

Member (Technical) has suggested KSEB Ltd to collect the database of the electric vehicles from the Motor Vehicles Department to analyse the requirement of developing the downstream distribution network, based on the increase in EV. It was suggested that KSEB Ltd have to drive down their thought process to the Section offices, to have local planning and equip them to analyse the issues at the ground level itself for resolving the same. Further, it was mentioned to adopt ABC conductors by FY 2023-24 to improving power quality.

Sri. Surendra P, Director (Distribution, IT and SCM), KSEB Ltd suggested that KSEB Ltd can reach out to the start-ups, for conducting study on the requirements of a model section office.

Smt. Jayasree T.J, General Manager, Powergrid, mentioned that PGCIL has been developing many solar projects especially in the Northern States. At present, PGCIL have a proposal for a solar plant in Ernakulam district.

Sri. S. K Ram, General Manager, NTPC Limited, mentioned that NTPC currently have 92 MW floating solar plant at Kayamkulam. They are further enhancing the capacity by adding 38 MW.

22. **Agenda 5 :** Section (3) Duty as an expenditure of the distribution licensee – Reference from Rubber Park India (P) Limited.

RPIL has invited the attention of the forum towards the Section (3) duty. It is mentioned that the recovery of costs incurred by the distribution licensees through the tariff is essential for the sustainability of the power sector. The power sector has become a regulated business, and the expenses of the distribution companies (DISCOMS) are serviced through the tariff as per the provisions of the Electricity Act 2003. The Govt. of Kerala have notified the Kerala Electricity duty Act in 1963, which is long before the notification of Indian Electricity Act 2003. As per Section 3 (1) in chapter-II of the Electricity Duty Act, 1963, every licensee in the State of Kerala shall pay every month to the Government in the prescribed manner, a duty calculated at 6 Naya Paise per unit of energy sold at a price of more than 12 Naya paise per unit. It's also stated in 3(3) of the said act that the duty under this section on the sales of energy should be borne by the licensee and shall not be passed on to the consumer. Since inception, the Hon'ble Kerala State Electricity Regulatory Commission has not been admitting section 3(1) duty as a revenue expenditure of the distribution licensees in the Truing Up orders quoting the above provisions of the Kerala Electricity Duty Act 1963, that Section 3(1) duty should be borne by the Licensee and shall not be passed on to the consumers.

As per Section 61 of the Electricity Act, the appropriate Commission, while determining tariff, shall not only ensure safeguarding of consumer's interests but also the recovery of the cost of electricity in a reasonable manner. It was mentioned that, as a regulated business, the distribution licensees cannot find any alternate means to meet the huge amount of Section (3) duty from any other source other than the Return on Equity. As in the case of RPIL, the ROE approved by the Commission in the Truing Up order for the FY 2020-21 is Rs.37.80 lakhs; however, the Section (3) duty remitted to Govt. was Rs. 17.62 lakhs and the tax on ROE is Rs. 16.03 lakhs. The small distribution Licensees can survive only if the Commission approves the remittance of Section (3) duty

as an expenditure of the distribution licensee in the Truing up/ARR orders. It was further mentioned that, to the best of our knowledge, distribution licensees in other states do not have any such duties exclusively without passing them on to the consumers through tariff. In a cost-plus method of tariff fixation, it would be greatly appreciated, if the lawfully incurred expenditures are taken into consideration, as it would contribute to a more reasonable and equitable pricing structure.

As the disallowance of Section (3) duty is a common issue of the power distribution licensees in the State, RPIL requested before the Commission that the coordination forum may kindly discuss the matter and collectively present the matter to the State Government for a favourable decision. CSEZA, CoPA, KPUPL and KDHPCL have also requested before the Commission to present the matter before the State Government.

The meeting came to an end at 02:00 PM with the vote of thanks by Sri. Mohanakumar B.V, Consultant (Technical).

Secretary

Annexure

List of participants

1. Sri. T.K Jose, Chairman, KSERC.
2. Sri. B Pradeep, Member (Technical), KSERC.
3. Sri. Surendra D, Director (Distribution, IT & SCM), KSEB Ltd
4. Sri. Saju Paulose, Director ( Transmission and System Planning), KSEB Ltd
5. Sri. R. S Ajayakumar, Executive Engineer (Electrical), Cochin Port Authority.
6. Sri. S. K Ram, General Manager, NTPC Limited, Kayamkulam
7. Smt. Jayasree T.J, General Manager, Powergrid, Trivandrum
8. Sri. Ajithkumar T, M, CEO, Kinesco Power Utilities Private Limited, Kakkanad
9. Sri. Raju Warrier, Senior Manager, KDHPCL, Munnar
10. Sri, Krishnakumar N.K, Assistant Secretary, TCED, Thrissur
11. Sri. Jose T.S , Electrical Engineer, TCED, Thrissur
12. Sri. Pradeepkumar P.K, Electrical Inspector, CEI, Trivandrum
13. Sri. Joby P.K , Deputy Electrical Inspector, CEI, Trivandrum
14. Sri. R Harikumar, Director, Energy Management Centre, Sreekariyam
15. Sri. George V James, Managing Director, Rubber Park India Limited, Ernakulam
16. Sri, Pramodu S , Secretary, CSEZA, Kakkanad
17. Sri. Aneesh S Prasad, Chief Technical Manager, ANERT, Thiruvananthapuram