

BEFORE THE HON'BLE KERALA STATE ELECTRICITY REGULATORY COMMISSION

In the matter of: In the matter of determining the upper ceiling tariff for procurement of solar power from the 6MW solar plant proposed at Moongilmada, Palakkad as part of implementation of Component-C of Pradhan Mantri -Kisan Urja Suraksha evam Utthan Mahabhiyan (PM KUSUM)' Scheme.

Petitioner Kerala State Electricity Board Limited,
Vydyuthi Bhavan, Pattom,
Thiruvananthapuram – 695 004.

KSEBL MOST HUMBLY STATES THAT:

1. The petitioner, Kerala State Electricity Board Limited (KSEBL), is an integrated State Public Sector power utility company constituted by the State Government. KSEBL is carrying out the Generation, Transmission and Distribution functions through three strategic business units.
2. Being a distribution licensee, KSEBL is mandated to achieve the Renewable Purchase Obligation targets set by this Hon'ble Commission as per the Kerala State Electricity Regulatory Commission (Renewable Energy & Net Metering) Regulations,2020 and its subsequent amendments.
3. Meanwhile, India has committed before the UNFCCC to increase the share of installed electric power from non-fossil-fuel sources to 40 % by 2030 as a part of our Nationally Determined Contributions (NDCs).Accordingly, the Government of India has set a target of installing 175 GW of renewable energy capacity by the year 2022, which includes 100 GW from solar, 60 GW from wind, 10 GW from bio-power and 5 GW from small hydro-power. In September last year at the United Nations Climate Action Summit, GoI had announced increasing the renewable energy target to 450 GW by 2030.
4. The Government of India has launched New Scheme for Farmers named '**Pradhan Mantri - Kisan Urja Suraksha evam Utthan Mahabhiyan (PM KUSUM)**' Scheme on 22-7-2019. In continuation to this, the guidelines for implementation of feeder level solarization as part of solarization of grid connected agricultural pumps under Component-C of PM-KUSUM Scheme was issued as per office memorandum dated 4-12-2020. A copy of the guidelines is enclosed as **Annexure-1**.
5. KSEBL is the state implementing agency for feeder level solarization under Component -C of the scheme and 2000 pumps have been allocated under the scheme as per sanction order dated 17-3-2021 of MNRE. A copy of the sanction is enclosed as **Annexure-2**.

6. Where agriculture feeders have already been separated the feeders may be solarised under the scheme. This will lead to lower cost both in terms of lower capital cost and cost of power. Feeders having major load for agriculture may also be considered for solarisation under the Scheme. The requirement of total annual power for an agriculture feeder will be assessed and a solar power plant of capacity that can cater to the requirement of annual power for that agriculture feeder can be installed either through CAPEX mode or RESCO mode, which will supply solar power to that feeder.
7. Feeder level solar power plant may be installed to cater to the requirement of power for a single feeder or for multiple agriculture feeders emanating from a distribution sub-station (DSS) to feed power at 11 kV or at the higher voltage level side of the DSS depending upon on factors like availability of land, technical feasibility, etc., and there is no cap of the capacity of solar power plant for feeder level solarisation. The DISCOMs may identify land near DSS, get ownership of land or its lease rights, provide connectivity at DSS and lay sub-transmission line between DSS and solar power plant.
8. The Central Financial Assistance (CFA) of 30% of the benchmark cost or the tender cost, whichever is lower will be provided by Government of India. For the purpose of calculating CFA, the cost of installation of solar power plant has been estimated as Rs. 3.5 Cr/MW. Under the Scheme solarisation of pumps of any capacity is allowed, however, in case of pumps of capacity above 7.5 HP, the CFA will be limited to solar capacity for 7.5 HP pumps.
9. Implementation models proposed in the guidelines:
 - A. **Implementation under CAPEX Model:** For installation of feeder level solar plant, CFA of 30% will be provided by Central Government and the balance has to be taken by KSEBL. KSEBL has invited tenders for the installation of 5.995MWp solar plants in the own properties as part of the scheme.
 - B. **Implementation under RESCO Model:** For implementation through RESCO model, the developers will be selected on the basis of lowest tariff offered for supply of solar power for a period of 25 years. The developer will get CFA @30% of the estimated cost of installation of solar plant i.e. maximum of Rs.1.05 Cr/MW (30% OF Rs.3.5 Cr/MW). CFA will be released to the RESCO developer through KSEBL on successful commissioning of solar power plant.
10. As per the guidelines, the farmers are incentivized for saving water for conserving ground water level which can be treated as surplus power injected by farmers and they will be paid by DISCOMs against this saved power at a pre-determined tariff for enhancing their income.
11. To implement feeder level solarization utilizing 30% CFA, the institutional land of Kerala Water Authority at Moongilmada, Palakkad was identified for installing ground mounted solar project in 36 Acres and it has been assessed that a solar plant of capacity 6MW can be

installed here. The power evacuation is through 33KV Vannamada substation which is approximately 3.5km from the proposed site.

12. KSEBL has decided to implement this scheme in the above proposed site through tariff based competitive bidding by inviting developers for installing and supplying 6MW ground mounted solar project at Moongilmada, Palakkad in the 36 acres of land owned by Kerala Water authority. The lease rent to the Water Authority shall be on mutually agreed terms and conditions with the developer. The tariff for the procurement of power shall be determined including the lease rent.
13. Therefore to implement the scheme an upper ceiling tariff for procurement of solar power from the 6MW solar plant proposed at Moongilmada, Palakkad has to be determined considering maximum CFA of Rs.1.05 Cr/MW and including lease rent for 25 years to water authority for providing land for the project.
14. Hon'ble Commission under section 86(1)(b) of the Electricity Act,2003 is vested with the power to regulate electricity purchase of distribution licensees including the price at which electricity shall be procured from the generating companies through agreements for purchase of power for distribution and supply within the State.
15. It is therefore humbly requested that Hon'ble Commission may kindly determine the upper ceiling tariff for procurement of solar power from the 6MW solar plant proposed at Moongilmada, Palakkad considering maximum CFA of Rs.1.05 Cr/MW and including lease rent for 25 years to Water Authority for providing land for the project.

Prayer

In light of the above submission, the petitioner prays to Hon'ble Commission to kindly determine the upper ceiling tariff for procurement of solar power from the 6MW solar plant proposed at Moongilmada, Palakkad considering maximum CFA of Rs.1.05 Cr/MW and including lease rent for 25 years to Water Authority for providing land for the project, as part of implementation of Component-C of Pradhan Mantri -Kisan Urja Suraksha evam Utthan Mahabhiyan (PM KUSUM)' Scheme.

Chief Engineer (Commercial & Tariff)

-12-2021

Acc: as above