

## Report of the program “Kerala's Solar Power Policy-Draft Report 2025 – will it lead to a brighter future “ on 27/08/2025 at Quilon Beach Hotel.

The Quilon Management Association (QMA) held its monthly program on August 27, 2025 at the Quilon Beach Hotel. Dr. K Madhusoodanan Pillai, QMA president chaired the meeting.



The subject for discussion was “Kerala's Solar Power Policy-Draft Report 2025 – will it lead to a brighter future “.. Mr. Naushad Pathanapuram, Deputy Chief Engineer of KSEB and Mr. Roy Christy Founder and Managing Director of RENERGY SYSTEM INDIA PVT. LTD highlighted various aspects of the draft report.

Kerala's draft renewable energy regulations, released in May 2025, include comprehensive provisions for solar energy, energy storage, and benefit to the prosumers. These regulations, titled "Kerala State Electricity Regulatory Commission (Renewable Energy and Related Matters) Regulations, 2025", focus on promoting solar adoption through various mechanisms like net metering, net billing, and gross metering.



The draft also emphasizes the need for energy storage solutions, including battery energy storage systems (BESS) and pumped storage projects (PSP), to manage the intermittency of solar power, the need for regulatory changes, addressing profit and loss concerns for both KSEB and prosumers, and ensuring a stable grid infrastructure.



The draft policy report focused on the state's vision to increase its solar capacity and promote renewable energy adoption.

Sri Naushad explained about the regulatory Changes - The need for changes in regulations to accommodate the growing solar power capacity and ensure a stable grid infrastructure. This includes addressing profit and loss concerns for both KSEB and prosumers.

Grid Congestion and Reliability is a major factor: Kerala's high solar power generation compared to its consumption leads to grid congestion and reliability issues. The discussion highlighted the need for a more efficient grid infrastructure to handle the increased solar capacity.



Battery Energy Storage Systems (BESS) and its importance in maintaining grid stability was discussed. The policy mandates a minimum of 10% of the total installed capacity of renewable energy projects to be allocated for BESS.



Net Metering, Net Billing, and Gross Metering was also explained: Net Metering allows consumers to offset their electricity consumption with solar power generation and Net Billing Involves paying consumers for the excess electricity generated. Gross Metering, Measures the total electricity generated by a solar power system.

Kerala's Solar Vision is to achieve 3.5 GW of solar power capacity by 2030, with 2.5 GW from decentralized solar initiatives and 1 GW from utility-scale projects. The policy aims to reduce dependence on conventional power sources, promote clean energy, and enhance energy security. Government subsidies and incentives will be provided to encourage solar adoption, including a subsidy of up to Rs.78,000 for rooftop solar installations under the PM Surya Ghar: Muft Bijli Yojana.



Households consuming over 500 units of electricity per month with rooftop areas exceeding 100 square meters will be required to install solar systems with a minimum capacity of 1 kW. Commercial establishments occupying over 100 square meters will need to install rooftop solar systems of at least 3 kW, increasing to 5 kW for rooftops over 400 square meters. Kerala plans to upgrade its transmission infrastructure to handle a peak load of up to 10 GW by the end of the decade.



The discussion on Kerala's Solar Power Policy-Draft Report 2025 highlighted the state's commitment to promoting renewable energy adoption and reducing dependence on conventional power sources. With a clear vision and incentives in place, Kerala is poised to become a leader in India's renewable energy landscape.

To support this increase in renewable energy, the state plans to upgrade its transmission infrastructure. This upgrade will prepare the system to handle a projected peak load of up to 10 GW by the end of the decade. The Kerala State Electricity Regulatory Commission estimates that Rs. 522.38 billion will be needed by 2030 to build the required infrastructure and enable the smooth integration of renewable energy into the grid.

One of the most significant features of the new policy is the introduction of mandatory rooftop solar systems for certain categories of consumers. Commercial buildings with more than 100 square meters of area must install rooftop systems of at least 3 kW, while those with over 400 square meters must install a minimum of 5 kW. On the residential side, homes that use more than

500 units of electricity per month and have roof areas exceeding 100 square meters must install a minimum of 1 kW capacity.



The policy allows different business models such as capital expenditure, operating expenditure, leasing, roof rental, utility-owned systems, and build-own-operate-transfer models. Ground-mounted systems of up to 1 MW, if installed within a consumer's premises, will also be eligible for rooftop solar benefits. Rooftop systems below 500 kW will no longer require inspection by the electrical inspectorate. Net metering will continue to be available for eligible consumers, provided project sizes are within 1 MW and renewable purchase obligations are met.

The state also emphasizes the importance of energy storage to ensure a steady and reliable power supply. Kerala plans to develop 2 GW/4 GWh of battery energy storage systems by 2030. All new renewable projects, including solar and wind, will be required to include storage systems in their design. At least 10% of the total project capacity must be allocated to battery storage, with the option to increase this share based on future needs.



The Kerala State Electricity Board projects that electricity demand will reach 7 GW during peak hours by 2031. Under a business-as-usual scenario, the state could face a shortfall of 2.6 GW during evening peak periods. Total electricity demand is expected to rise to 38,000 million units by 2030 and could increase significantly under carbon-neutral goals.



Mr. Roy Christy, Founder and Managing Director of Renergy System India Pvt. Ltd explained about his company. The company has Completed 19MW of solar projects across sectors. They are empanelled with PMSURYAGHAR, MNRE, KSEB, and ANERT subsidy schemes, ensuring compliance and credibility. They monitor the plant to ensure it's functioning correctly and check alarms through their exclusive mobile app.

He explained about the on-Grid solar system, off-grid solar system and Hybrid solar system and battery technologies like Lead acid battery, Lithium-Ion battery .The mono crystalline, polycrystalline an bifacial solar panels and advanced technologies like PERC, (Passive Emitter Rear Cell), Top Con (Tunnel Oxide Passivated Contact) which improve the efficiency of mono crystalline and poly crystalline panels by light capture also discussed.



Various types of inverters like cost effective string inverter, micro inverter and hybrid inverter were explained. The benefit of solar systems are cost saving by reducing electricity bills, zero emissions and sustainable energy. Energy independence, low maintenance and the property value increase also is there. Finally the vendors role is critical in solar installation. Rs 700 cror have already collected by the Government from solar installation by way of GST.



He concluded his presentation by stating that Solar is affordable sustainable and job-generating. The draft law will increase burden on common people and will delay Kerala's renewable energy goal and will cause job losses and revenue drop. With right policy support (especially battery subsidy) Kerala can be a national leader in renewable energy.

The event started at 7.30 pm with silent prayer and QMA Secretary General Sri P N Appukuttan welcomed the gathering. Sri Jayakumar Tharamel introduced Mr Naushad and Mr Roy Christy to the audience. Mementos presented to Mr Naushad and to Mr Roy Christy by Sri K.Madhusoodhanan Pillai. Membership certificates to the newly joined members were distributed. The event concluded with a vote of thanks by QMA Secretary Public Relation Sri R S. Chippy and followed by a networking session and dinner.

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Based on the discussions and the suggestions from the audience we have prepared a memorandum to submit before the Kerala State Electricity Regulatory Commission (KSERC) as follows:

To

**The Secretary,**  
Kerala State Electricity Regulatory Commission (KSERC),  
Thiruvananthapuram, Kerala.

**Subject: Memorandum on Draft Kerala State Electricity Regulatory Commission (Renewable Energy and Related Matters) Regulations, 2025**

Respected Sir/Madam,

We, the members of **Quilon Management Association** (Affiliated to All India Management Association), the stakeholders, respectfully submit our concerns and recommendations on the draft Kerala State Electricity Regulatory Commission (Renewable Energy and Related Matters) Regulations, 2025.

### **1. Net Billing vs. Net Metering**

We strongly oppose replacing “ net metering” with “net billing” for small-scale prosumers.

Net metering has been the effective mechanism to encourage household solar adoption across India.

The Ministry of Power (MoP), Government of India, through its notification dated 8 June 2021 , mandates that net metering shall be allowed for loads up to 10 kW.

The draft proposal contradicts this directive and risks reducing financial viability for prosumers.

### **Recommendation:**

Maintain net metering for prosumers up to 10 kW capacity, as mandated by the Ministry of Power and aligned with national renewable energy policies.\*

### **2. Battery Energy Storage Systems (BESS)**

The draft requires prosumers to install battery systems, which will impose a heavy financial burden on households.

MNRE's National Programme on Advanced Chemistry Cell (ACC) Battery Storage (2021) emphasizes utility-scale BESS and central support, rather than mandatory household-level installations.

The Central Electricity Regulatory Commission (CERC), in its Discussion Paper on Grid-Scale Battery Storage (2020), highlights that storage solutions should primarily be deployed at grid and distribution levels.

**Recommendation:** Do not mandate household battery installation for small prosumers. Instead, KSEB should install grid-scale BESS at substations, with optional subsidies for voluntary home-level adoption.

### ***3. Affordability, Sustainability, and Employment***

Solar must remain affordable, sustainable, and job-generating. The proposed regulations will:

Increase household financial burdens.

Delay Kerala's renewable energy transition.

Cause job losses in the solar installation sector.

Reduce state revenue from solar-driven economic activity.

The National Solar Mission (Jawaharlal Nehru National Solar Mission, 2010) and National Electricity Policy, 2021 both stress affordability, consumer participation, and employment creation.

**Recommendation:** Policies should accelerate adoption, not restrict it. With net metering and battery subsidies, Kerala can lead nationally in renewable energy adoption while sustaining jobs.

### ***4. Regulation of Vendor Pricing and Installation Costs***

Presently, rooftop solar consumers face inflated charges from empanelled vendors.

As per MNRE Rooftop Solar Programme Phase-II Guidelines (2019), DISCOMs are required to ensure transparency in vendor empanelment and consumer pricing.

**Recommendation:** KSEB should fix benchmark installation rates for empanelled vendors and enforce transparency, ensuring consumers are not exploited.

### ***5. Broader Impact on Kerala's Renewable Energy Goals.***

If implemented in the present form, the draft regulations will:

Reduce household-level adoption of rooftop solar.

Increase financial burden on common people.

Delay Kerala's contribution to India's Nationally Determined Contributions (NDCs) under the Paris Agreement, which commit to achieving 50% cumulative electric power installed capacity from non-fossil fuel sources by 2030.

Cause job losses in the renewable energy ecosystem.

**Recommendation:** Adopt consumer-friendly, nationally aligned, and employment-supportive regulations in line with MNRE and CERC guidelines, ensuring Kerala meets its renewable energy targets.

### **Conclusion.**

We respectfully urge KSERC to:

- Uphold net metering up to 10 kW, in compliance with MoP guidelines.
- Avoid burdening small prosumers with mandatory battery installations.
- Ensure affordability, protect jobs, and regulate vendor pricing.
- Align Kerala's policies with MNRE, MoP, and CERC directives to accelerate renewable energy adoption.
- A people-centric, inclusive, and forward-looking renewable energy policy will ensure Kerala's leadership in sustainable development while protecting consumers, creating employment, and advancing towards a clean energy future.

Submitted by:



**President**

**Quilon Management Association, Kollam**