Unlocking Kerala's Clean Energy Potential- Technology and local government focused interventions

19th November 2024

Trivandrum

Concept Note

Background

Kerala aims for a full transition to renewable energy by 2040 and seeks to achieve carbon neutrality by 2050. However, the State imports around 75% (FY 22) of its electricity, predominantly from coal-based resources. Kerala is also experiencing an increase in electricity demand due to multiple factors, including a higher usage of electric vehicles and air conditioners. During May 2024, daily electricity consumption in the State set a record of 114MU and multiple reports indicate that the state is facing power shortages ranging 500-650MW during peak hours.

This dual challenge of meeting the state's energy needs while pursuing its clean energy goals emphasizes the requirement for a comprehensive strategy, planning, and an innovative technological solution at various levels, encompassing the state power department, utilities, and the local self-governments (LSGs).

Recognizing the significance of addressing these challenges, WRI India started the Sustainable Energy Transition Initiative in Kerala to bolster Kerala's efforts in increasing the share of green energy in its energy mix through a systemic approach. The project involved collaboration with state agencies such as Navakeralam Karmapadhathi, Energy Management Centre, and Agency for New and Renewable Energy Research and Technology (ANERT) to devise strategies and solutions for the state's energy transition. Extensive research was conducted on clean technology options for the state and clean energy opportunities for local governments.

To share the outcomes of the efforts undertaken, WRI India is partnering with Navakeralam Karmapadhathi to organize a one-day stakeholder consultation workshop on November 19th with a focus on research outcomes related to technologies and local governments

Theme 1 – Local Government's Role in Kerala's Energy Transition

Recognizing the pivotal role of local governments in Kerala's energy transition, the project focused on devising strategies for LSGIs to transition towards clean energy. WRI India collaborated with Navakeralam Karmapadhathi, ANERT, and EMC Kerala to assess the rooftop solar and energy saving potential of public buildings in the select 92 Panchayats. A video story featuring this initiative will be launched during the event, and a panel discussion will be conducted to deliberate on the opportunities and challenges of local governments in contributing to the state's energy transition scenario.

Theme 2 – Clean energy technologies for Kerala

Given that nearly 70% of the state's electricity demand is met by power purchased from outside the state, and considering its diverse geographic and climatic features, it is crucial for the state to promote new and suitable technologies to meet its future energy demands and clean energy goals. WRI India partnered with several agencies to conduct extensive research on the assessment of various technology options suitable for Kerala, including green hydrogen. A knowledge product will be launched based on this comprehensive research, with one focusing on the various clean

technology options specific to Kerala and the other on the way forward for the scaling up of small wind turbines in India. This will be followed by a panel discussion to deliberate on the role of technology in the state's energy transition.

Agenda

19th November 2024

Venue – Hotel Hilton Garden Inn, Trivandrum

Time	Session details
09:30-10:00	**Registration**
10:00-11:00	**Introductory session** **Welcome Address:** Sandhya Sundararagavan, *Program Head – Energy Transitions, WRI India* **Opening Remarks:** *Dr T N Seema, Coordinator, Navakeralam Karma Padhathi* **Inaugural Address***: M B Rajesh, Minister for Local Self-Governments and Excise, Government of Kerala** **Special Address:** *Biju Prabhakar IAS, Chairman and Managing Director, Kerala State Electricity Board* **Special Address:** *Dr R Harikumar, Director, Energy Management Centre*
	Launch of Video Story – Solarizing the Local Bodies
11:00-11:30	**Presentation: Energy Transition Through Local Governments** Ijas M A, Senior Research Associate, Energy Program, WRI India
11:30-11:45	Tea Break
11:45- 13:00	**Panel discussion: Energy Transition Through Local Governments – Opportunities and Challenges** Panellists 1. *Navaneeth Kumar, President, Kollayil Panchayat* 2. *Johnson Daniel, Head- NMEEE & DSM Division, Energy Management Centre* 3. *Aneesh S Prasad, Former Chief Technical Manager, ANERT* 4. *Sanjeev S. U, Assistant Coordinator, Harithakeralam Mission, Navakeralam Karma Padhathi* 5. *Dhilon Subramanian, Manager, Energy Program, WRI India* **Moderator**: *Sasi Kottayil, Fellow, Energy Program, WRI India & Vice Chair, South Asia Working Group - IEEE Smart Village*
13:00-14:00	Lunch Break
14:00 -14:30	**Presentation: Electricity Generation Technologies for Expanding Renewable Energy in Kerala** *Vaisakh Kumar, Senior Program Associate, Energy Program, WRI India*
14:30-15:00	**Presentation: Green Hydrogen – Roadmap for Trivandrum District and Fertiliser sector** *Santosh K Gurunath, Founder, H2 Carbon Zero & Umagine*
15:00-16:00	**Panel Discussion: Technology options for Kerala's renewable energy future** Panellists:

	1. *V N Prasad, Chief Engineer, REES & Projects, KSEBL* 2. *Dr Ajith Gopi, Additional Chief Technical Manager, ANERT* 3. *G Sivaramakrishnan, President, Kerala Renewable Energy Entrepreneurs and Promoters Association* 4. *Santhosh K Gurunath, Founder H2 Carbon Zero & Umagine* 5. *Vaisakh Kumar, Senior Program Associate, Energy Program, WRI India* ***Moderator**: Sandhya Sundararagavan, Program Head – Energy Transitions, WRI India*
16:00-16:15	**Closing remarks:** *Chandana Sasidharan, Program Research Fellow, Energy Program, WRI India*
16:15	High tea and networking

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