

PRESS RELEASE
Guwahati, March 27th, 2024

New research released by iFOREST on Assam's renewable energy generation potential assessment and the need for policy strengthening and institutional capacity building for ensuring large-scale RE scale-up

Guwahati, March 27, 2024: The International Forum for Environment, Sustainability and Technology (iFOREST), a prominent environmental research think tank, released new research findings showing that Assam is blessed with significantly higher renewable energy (RE) generation potential than previously assessed by central government agencies. The reassessed RE potential is adequate to support a low-carbon pathway to meet the state's growing electricity demand. While an increased commitment to RE projects is already visible in the state, there are limitations to growth that need to be addressed through policy tightening and institutional capacity building.

The research reports titled "Assam Renewable Energy Potential Reassessment: Focus of Solar, Wind and Biomass", "Enabling Renewable Energy Growth in Assam" and "Impact of ISTS Waiver on Economics of Solar Power Procurement in Assam" were released today in Guwahati during a multi-stakeholder dialogue organised by iFOREST.

Speaking at the inaugural session, **Smt. Laya Madduri, IAS, Secretary, Department of Science, Technology and Climate Change**, highlighted, "In response to the mounting challenge of climate change, the Government of Assam has been steadily and consciously working towards climate change adaptation and mitigation. The state is fully committed to developing a low-carbon growth pathway for meeting the expanding energy demand."

At present, Assam is one of India's most vulnerable states to climate change. Yet, the state has a substantial carbon footprint, owing to its significant dependence on fossil fuels to meet the growing energy demand. The state government is responding to the requirement, with about 1,200 MW of RE capacity planned to be added under the Assam Renewable Energy Policy 2022-27 and another 1,000 MW under the Mukhya Mantri Suro Shakti Prokolpo initiative. Since the announcement of the new policy, there has been substantial momentum in the large-RE segment driven by state intervention, with nearly 2,000 MW of solar capacity in the pipeline.

Elaborating on the progress made so far, **Shri Bibhu Bhuyan, Managing Director, Assam Power Generation Corporation Limited (APGCL)**, stated, "As the state generation utility, we are fully committed to a green growth pathway. While the majority of our installations are gas-based, our plan is to expand our generation capacity to 2,000 MW by 2030, of which 92% will be through renewable energy sources.

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While the progress is commendable, iFOREST studies point to new and enhanced imperatives to RE capacity growth for Assam, calling for increasing ambitions. The state's electricity demand has steadily grown and is projected to double by 2030. Meanwhile, the central government's RE procurement mandates through updated renewable energy obligations (RPOs) require more than 43% of the state's total consumption to be sourced from RE sources by 2030.

"Our assessment shows that Assam requires nearly 3,000 MW of RE capacity by 2026-27 and 5,000 MW by 2031-32, given the projected electricity demand growth and RPO requirement. There is a clear case for RE capacity expansion within the state to ensure energy security and to lay the foundation for developing a green economy. The state policy targets must be aligned with the new requirements," highlighted **Ms Mandvi Singh, Programme Director, Clean Energy and Climate Change Programme at iFOREST**, while sharing the research findings. The momentum towards RE capacity addition in the state must be accelerated further.

Currently, the official assessment of Assam's RE potential by the Ministry of New and Renewable Energy (MNRE) is estimated at 14.4 GW. This includes 13.76 GW of solar, 246 MW of wind, 212 MW of biomass, 201 MW of small hydro and 8 MW of waste-to-energy. However, iFOREST's reassessment study based on updated satellite data and assumptions indicates that the state can add 27,748 MW of solar ground-mounted capacity, 883 MW of floating solar capacity, and 1,621 MW of solar rooftop capacity. The theoretical potential has been estimated considering the state's geographical limitations regarding high vulnerability to floods, landslides, and hilling terrain.

To fully utilise the state's potential and stimulate RE investments, there is a need to address persistent structural challenges limiting sector growth. While AREP 2022 was a timely step taken by the state government to boost RE investments and decarbonise the state's electricity sector, RE investments continue to be driven solely by state and central government PSUs and remain focused on only large solar projects. The progress in distributed solar and non-solar segments remains muted, while the private sector investment interest remains eluded.

In this context, the iFOREST study recommends that while AREP 2022 provides the broad framework for RE growth in the state, technology-specific detailed policies/guidance should be provided for crucial focus segments such as water resource-based RE projects, urban and rural DRE and biomass. Further, project identification, infrastructure support, clearance facilitation through a digital platform, and the implementation of standard operating procedures (SOPs) need to be expedited to support private sector investments. Incentives under the policy should also be aligned to cover the generation tariff differential with large RE states and the prevailing interstate transmission system (ISTS) waiver.

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Meanwhile, a crucial requirement is building the capabilities of state nodal agencies to foster investments in large and distributed RE segments. The current policy has assigned APDCL the role of state nodal agency for RE growth. However, the utility's role must be expanded to stimulate and facilitate RE growth in Assam. AEDA must be developed as a dedicated organisation to focus on the DRE segment and expand its ecosystem enabler/facilitator role. Ms Singh mentioned, "Strengthening AEDA as an institution for fostering DRE sector growth requires substantial institutional building and integrating institutional best practices."

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