

PRESS RELEASE

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Odisha has substantial potential to become a major renewable energy state in the country, finds a new study by iFOREST.

Bhuvneshwar: The International Forum for Environment, Sustainability and Technology (iFOREST) today released a report on Odisha's renewable energy (RE) potential using the latest data and methodology.

The report titled "Odisha Renewable Energy Potential Re-assessment: Focus on Solar, Wind and Biomass" was released at a meeting chaired by the Shri Nikunja Bihari Dhal, Additional Chief Secretary (ACS), and Principal Secretary, Energy Department. Several state government officials and representatives of the renewable energy industry and institutions participated in the meeting.

"Our report essentially highlights that in contrast to the general perception, Odisha has significant RE generation potential and can emerge as a major RE state. Our research shows that even with modest use of wasteland and reservoir area, Odisha can install over 170 gigawatts (GW) of solar capacity. This is six to seven times higher than the Ministry of New and Renewable Energy (MNRE) estimate. Moreover, in some districts like Koraput, Malkangiri, Keonjhar, Angul and Keonjhar, the solar potential is as good as states like Karnataka and Gujarat, which are currently dominating the RE industry," said Chandra Bhushan, CEO and President, iFOREST at the release event.

Speaking at the meeting, Shri Nikunja Dhal said, "OREP 2022 is a very ambitious policy. We have given best in class incentives to enable RE in the state. We want Odisha to become a leading player in RE sector. And from the iFOREST report it is clear that there is enough potential in the state to achieve the policy goals and beyond."

Also speaking at the function Mr Trilochan Panda, Managing Director, GRIDCO Limited said, that "the partnership with iFOREST is designed to deliver cutting edge research and ensure capacity development of the sector. We look forward to working together to achieve the goals set under of the OREP, 2022."

The iFOREST report aims to support RE sector growth in the state, aligned with the objectives of the recently released Odisha Renewable Energy Policy (OREP), 2022. As per the policy, Odisha needs 21,700 megawatts (MW) of new RE capacity by 2029-30 to meet the new renewable purchase obligations (RPO). Of this, about 16,000 MW is required by industries for captive use and 5,700 MW by the utility.

RPO is a central government policy under which all obligated entities, distribution companies, captive power generators and open-access consumers must meet a minimum amount of their electricity requirement through RE. The RPO target for 2029-30 is 43.33%. So, in 2029-30, nearly 45% of utility and captive electricity demand in Odisha has to be met from renewable sources.

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“Currently, Odisha imports RE from other states to meet its RPO requirements, missing out on the investment opportunity within the state. Our research shows that even if Odisha meets half of its RPO target by installing RE within the state, it would attract an investment of at least Rs 50,000 crores and create almost 200,000 new jobs in the RE sector,” said **Mandvi Singh, Programme Lead – Energy, iFOREST.**

iFOREST research shows that a full implementation of OREP-2022 is a win-win for Odisha:

- Carbon emissions from the utility power in the state will reduce by 29%-32% by 2029-30, putting Odisha firmly on the path of the Net-Zero target.
- The air pollution from the coal-based thermal power plants – particulate matter (PM), SO_x and NO_x – will also reduce by 29%.
- Meeting the RPO through RE installations within the state will increase the consumer tariff minimally by 2-3%.
- Meanwhile, the land requirement will be minimal. For instance, setting up 17,000 MW of solar to meet the ‘Other RPO’ requirement by 2029-30 will require only 1.8% of the total wasteland area or 8.3% of the total reservoir area.

iFOREST research also identified the potential areas for RE installation. Key highlights are:

- Majority of the assessed solar potential for ground-mounted solar projects is concentrated in 16 districts. Of these, Angul, Bolangir, Keonjhar, Koraput and Malkangiri are key districts due to the higher concentration of large land patches with low socio-ecological conflict and substantially higher insolation.
- For floating solar projects, large capacity projects of 1.5-3 GW can be set up at the Rengali, Tikilipada, Upper Indravati, Nabrangpur, Jalaput and Hirakund reservoirs.
- For solar rooftop projects, the Bhubaneswar block has the highest potential, followed by other urban blocks of Baleswar and Jatani and the industrial blocks of Kujanga, Kuanmunda, and Jharsuguda.
- For wind power projects, 86 locations are identified with an average wind speed ranging from 6.19 m/s to 8.78 m/s at 150m hub height across 16 districts. However, on-ground studies are required for detailed assessment.
- For biomass projects, Bargarh district has the highest potential, followed by Kalahandi and Baleswar districts.

The meeting was organised by iFOREST with the support of GRIDCO and OREDA under their MoU signed for knowledge, planning and capacity-building support to enhance the role of RE in Odisha’s energy mix.

“Odisha has immense RE potential not only to meet the new RPO requirement but also export to other states. Developing this potential is crucial for ensuring the state’s energy security under the new RPO regime and for capitalising on the global demand for green industrialisation, mining and metals,” summarised Bhushan.

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