

Press Release

iFOREST research reveals immense renewable energy potential in Chhattisgarh and calls for policy action



Stakeholders share policy perspectives on what it would take Chhattisgarh to unlock its renewable energy potential at iFOREST's stakeholder dialogue held in Raipur

Raipur, October 05, 2024: iFOREST, a leading environment research organisation in India, unveiled three crucial reports today highlighting the tremendous potential of renewable energy (RE) growth in Chhattisgarh. The findings also highlighted new imperatives for expansion and actionable policy pathways to accelerate green energy growth in the state.

The reports were released at a stakeholder dialogue titled 'Enabling next phase of RE growth in Chhattisgarh' hosted at the Babylon Capital, Raipur. Representatives from the state energy department and agencies, regulatory commission, major industries, developers, think tanks, academics and other sector experts participated in the dialogue.

Chhattisgarh, a leader in the RE off-grid segment, specifically in solar water pumps for agricultural use, is at a crucial point. It seeks to expand the share of renewables in its energy mix. The state has aligned its Renewable Purchase Obligations (RPO) with India's national goal, targeting 43.3% energy procurement from RE sources by 2030. This commitment was reaffirmed by the Honourable Chief Minister Shri Vishnu Deo Sai at the 4th Global Renewable Energy Investor's Meet (RE-Invest) held last month in Gandhinagar, Gujarat.

Electricity demand in Chhattisgarh has been rising steadily at 5% per annum and is projected to grow further at 6% for the utility and 10% for the captive segments in the current decade. Given this, the new RPO commitments will give rise to a demand of around 35 GW by 2031-32. This represents a strong foundation for RE sector growth within the state, which will also drive green growth and job creation.

“Chhattisgarh is widely attributed as a leader in the distributed RE segment. The Commission has aligned state regulations with the national framework to support the growth of RE in the state. These have helped add 1 GW of capacity. The outlook for the state remains positive,” said Shri Hemant Verma, Chairperson, of Chhattisgarh State Electricity Regulatory Commission (CSERC).

Changed circumstances require a changed approach, noted Shri Arun Kumar Pandey, IFS, Nodal Officer, Chhattisgarh State Centre for Climate Change. “As the climate change concern is becoming more and more real for the country, renewable energy growth in the state has to be prioritised. There is enough land and resources in the state to be utilised for RE development,” he said.

“Chhattisgarh must prioritise expanding its RE sector to drive climate change mitigation, create local jobs, and stimulate economic growth. Given the state’s reliance on thermal power, a just transition to RE is essential. To achieve this, the government needs a forward-thinking policy framework that encourages investment and aligns with its own ‘Viksit Bharat, Viksit Chhattisgarh’ initiative, positioning the state as a leader in sustainable energy development,” said Ms Mandvi Singh, Programme Director, iFOREST.

So far, Chhattisgarh’s RE sector has been lagging compared to other states. The state accounts for only 1.7% of the national RE capacity. In the last five years, while India’s capacity has increased by 64,232 MW, the capacity addition in Chhattisgarh was only 1,011 MW. However, there is immense potential to scale.

iFOREST’s research, based on updated datasets and methodologies, reveals that Chhattisgarh’s RE potential is significantly higher than earlier estimates by the Ministry of New and Renewable Energy (MNRE):

- The potential for solar ground-mounted is over 41 GW, double the MNRE estimated potential. About 50% of the potential is in Bolada Bazar, Surajpur, Korba, Raigarh, Jashpur, Manendragarh-Chirmiri-Bharatpur, and Raipur districts.
- Across the 258 dams in the state, the floating solar PV potential is estimated to be over 23.5 GW (in a high utilisation scenario). Sikasar Dam provides the largest individual potential.
- For wind power projects, a theoretical potential of approximately 7.4 GW is identified at 150 meters hub height in areas with high wind speeds ranging from 6 to 7 m/s.
- Biomass potential is estimated at 4.2 GW, ten times the MNRE assessment. The districts of Rajnandgaon, Janjgir–Champa, and Raigarh contribute nearly one-third of this potential.

The reports highlight the economic case for developing RE potential. Imports from other states are scheduled to become significantly expensive in the coming years as the waiver available on transmission cost on inter-state RE procurements will be phased out between 2025 and 2028. iFOREST estimates the current Inter-State Transmission System (ISTS) charges waiver to be as high as 60 paise/unit. Once these charges are accounted for in the procurement costs, it will be cheaper to procure power from RE plants located within Chhattisgarh. It would, therefore, be economically prudent for Chhattisgarh to install RE plants within the state, finds iFOREST’s reports.

However, adopting a comprehensive RE growth strategy would involve establishing a new policy framework based on an expanded vision for the state’s RE sector, promoting investments in high potential RE areas is critical. Establishing a single window clearance mechanism and clear SOPs for project approvals is crucial, the reports conclude.

About iFOREST

The International Forum for Environment, Sustainability and Technology (iFOREST) is an independent non-profit research and innovation organisation which was established in 2019 to identify, promote and scale-up solutions for pressing environment-development challenges in India and other developing countries in Asia and Africa. Our work is guided by a commitment to sustainability and equity, ensuring that our solutions are socially just and environmentally responsible.

iFOREST's work is rooted in regional priorities to accelerate environmental actions at the sub-national level and to improve national policies and plans to support it. At our core, we are a regional organisation with a national focus and an international reach. Our mission is to address the unique needs of regions by leveraging our resources and expertise to scale up national action and make a global impact. We use our regional knowledge to inform national policy and plans and strengthen international collaboration.

To achieve our goals, we conduct independent evidence-based research, develop new knowledge and innovative solutions, convene stakeholders to increase awareness and build consensus, and partner with think tanks, civil society, government agencies, philanthropies and industry to scale up solutions.

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