



JOINT NEWS RELEASE

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NTU Singapore, Energy Department, Government of Odisha, India represented by GRIDCO and IIT-Bhubaneswar launch a five-year research collaboration to testbed sustainable energy solutions

Nanyang Technological University, Singapore (NTU Singapore), the Energy Department of the Government of Odisha represented by GRIDCO, and the Indian Institute of Technology Bhubaneswar (IIT Bhubaneswar) have signed a Research Collaboration Agreement (RCA) on 7 December on research, development, test-bedding and deployment of sustainable energy technologies in Odisha.

The five-year programme, backed by S\$10 million / INR 700million in funding from the Energy Department Government of Odisha through GRIDCO – the State-run bulk supplier of power and designated nodal agency for renewable energy projects - builds on the Memorandum of Understanding signed in January 2025 during Singapore's President Tharman Shanmugaratnam's official visit to India.

India and Singapore are celebrating 60 years of diplomatic relations this year, marking the anniversary with official visits, business events and discussions to strengthen their comprehensive strategic partnership. This first of its kind project marks a major milestone in further strengthening R&D cooperation between Singapore and India in the areas of clean energy, sustainability and future grid technologies.

The RCA was signed during the **Global Energy Leaders' Summit** in Puri, Odisha, by **NTU Vice President (Industry), Professor Lam Khin Yong, Dr Satya Priya Rath, Managing Director of GRIDCO and Professor C N Bhende, Dean – SRIC of IIT-Bhubaneswar.**

Hon'ble Deputy Chief Minister of Odisha, Mr Kanak Vardhan Singh Deo, graced the RCA signing ceremony. Principal Secretary, Energy Department, Odisha, Mr. Vishal Kumar Dev and NTU's Executive Director of the Energy Research Institute @ NTU (ERI@N), Professor Madhavi Srinivasan, attended the signing ceremony.

Four pilot R&D test-bedding projects to support Odisha's clean energy and sustainability goals.

As part of the collaboration, NTU's multi-disciplinary team, led by ERI@N, IIT-Bhubaneswar, a premier Institute for Technological Studies and GRIDCO, the representative of Energy Department, Govt. of Odisha will carry out knowledge-exchange programmes and research activities focused on renewable energy.

These initiatives will emphasise R&D pilot-scale implementation and community engagement, contributing to the shared goal of accelerating large-scale adoption of clean energy technologies across Odisha. Four pilot projects are planned: **Intelligent microgrids, Battery Energy Storage System (BESS), Agrivoltaic solutions and Waste to resource platform**, which will also serve as a living laboratory for students, researchers and other stakeholders. Successful validation is expected to pave the way for wider replication across the state with relevant stakeholders.

Catalysing R&D, deployment and demonstration efforts for commercialisation

The four pilot projects are designed to catalyse research, development, deployment, and demonstration efforts, while also informing commercialisation pathways, socio-environmental studies, certification frameworks, and future industry partnerships.

Hon'ble Deputy Chief Minister of Odisha, Mr Kanak Vardhan Singh Deo, said: "In the past Odisha had a long-standing trade link with the Malaya Peninsula. Those days we exchanged spices, fabrics, artefacts, and agricultural products etc. for metals, luxury goods, and ceramics etc. Now, through this collaboration, we want to re-establish the link for exchange of knowledge in renewable energy sector and take forward the energy transition activities."

NTU Vice President (Industry), Professor Lam Khin Yong, said: "This collaboration underscores NTU's commitment to delivering research that makes a tangible difference to society. It also reflects our strong track record of working closely with industry and government partners, both in Singapore and internationally, to translate advanced energy research into real-world deployment. By bringing together NTU's strengths in sustainable energy technologies with the capabilities of IIT Bhubaneswar, GRIDCO and the Government of Odisha, and leveraging our past experience leading large-scale industry-backed testbeds in areas such as microgrids, energy storage and sustainable infrastructure, we aim to co-develop scalable clean-energy solutions that can accelerate India's energy transition and improve quality of life for communities across the region and beyond."

The partnership will also strengthen long-term talent development through researcher exchanges and knowledge-sharing workshops between Singapore and Odisha.

Executive Director of NTU's ERI@N, Professor Madhavi Srinivasan, said: "These pilot projects, spanning microgrids, energy storage, agrivoltaics and waste-to-resource,

create an important testbed for translational research at a scale that can significantly advance decarbonisation efforts. Alongside the technical work, this partnership will invest in capacity-building through student and faculty exchanges, fostering knowledge sharing and cross-disciplinary learning to support the next generation of clean-energy leaders.”

Principal Secretary, Energy Department, Govt. of Odisha, Mr Vishal Kumar Dev, said: “Going forward with the MoU signed between NTU, Singapore and IIT-Bhubaneswar in January 2025, we have taken up four Nos of Pilot Projects in Renewable Energy Sector i.e. a MW Scale Microgrid, a 1 MW advanced Battery Energy Storage System with 4 Hours of Storage, a 50/100 kW Waste to Energy System and a 1 MW Agri-PV Plant. These pilot projects will be used towards research for customisation of the systems for Odisha ecosystem and replication across the State. The Exchange Programmes will help capacity building on both sides. After successful implementation of first phase, we’ll take up more projects in future.”

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About Nanyang Technological University, Singapore

A research-intensive public university, Nanyang Technological University, Singapore (NTU Singapore) has 35,000 undergraduate and postgraduate students in the Business, Computing & Data Science, Engineering, Humanities, Arts, & Social Sciences, Medicine, Science, and Graduate colleges.

NTU is also home to world-renowned autonomous institutes – the National Institute of Education, S Rajaratnam School of International Studies and Singapore Centre for Environmental Life Sciences Engineering – and various leading research centres such as the Earth Observatory of Singapore, Nanyang Environment & Water Research Institute and Energy Research Institute @ NTU (ERI@N).

Under the NTU Smart Campus vision, the University harnesses the power of digital technology and tech-enabled solutions to support better learning and living experiences, the discovery of new knowledge, and the sustainability of resources.

Ranked amongst the world's top universities, the University's main campus is also frequently listed among the world's most beautiful. Known for its sustainability, NTU has achieved 100% Green Mark Platinum certification for all its eligible building projects. Apart from its main campus, NTU also has a medical campus in Novena, Singapore's healthcare district.

For more information, visit www.ntu.edu.sg

About Indian Institute of Technology, Bhubaneswar

IIT Bhubaneswar, established in the year 2008, has gradually emerged as one of the technology, Science and education hub in the country with 230+ faculty members of national and international repute. The institute has a strong Research and Development credential with 1500+ high impact publications and 60+ patents in the emerging areas of Science and Technology. The institute has drawn external funding of more than 200 Cr including sponsored and consultancy projects. IIT Bhubaneswar is striving for excellence with Centre of Excellences in the frontier of Emerging areas including Energy, Semiconductor, AI and Computing, Environment, Materials, and Manufacturing.

For more information, visit www.iitbbs.ac.in

About GRIDCO Limited, Bhubaneswar, Odisha

GRIDCO Limited, a Public Sector Utility under Govt. of Odisha is engaged in the business of bulk purchase and sale of power to the Distribution Companies in the State and trading of surplus power. GRIDCO is also the State designated Agency for development of Renewable Energy Projects in the State. Under Odisha Renewable Energy Policy GRIDCO is collaborating for promotion of pilot projects, innovations, encourage R&D activities for advancement of new RE technologies, green micro grids etc. for research & demonstration purpose.

For more information, visit www.greenenergyinvest.odisha.gov.in & www.gridco.co.in