ORGANIC RECYCLING SYSTEMS LIMITED
CLEANTECH | INNOVATION | ENGINEERING

9th December 2025

BSE Limited
Department of Corporate Services
Listing Department
P J Towers,
Dalal Street,
Mumbai - 400001
Scrip Code: 543997

Dear Sir/Madam,

Sub: Press Release

In accordance with Regulation 30 of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015, please find enclosed herewith revised Press Release in respect of **Organic Recycling Systems Limited (ORSL), IIT Bombay & IIT Kharagpur Awarded DBT–BIRAC Grant to Build India's First Pilot-Scale BIO-CCU Platform for Next-Generation CO_2 Valorisation.**

We request you to take the same on record.

Thanking you,

Yours faithfully,

For Organic Recycling Systems Limited

SEEMA HARISHCHANDRA GAWAS
Digitally signed by SEEMA HARISHCHANDRA GAWAS
Date: 2025.12.09 08:33:29 +05'30'

Seema Gawas
(Company Secretary & Compliance Officer)

ORSL, IIT Bombay & IIT Kharagpur Awarded DBT–BIRAC Grant to Build India's First Pilot-Scale BIO-CCU Platform for Next-Generation CO_2 Valorisation

Mumbai, Maharashtra, 9th December 2025: Organic Recycling Systems Limited (ORSL), in collaboration with **IIT Bombay (IITB)** and **IIT Kharagpur (IITKgp)**, has been awarded a landmark research grant under the **DBT BIRAC Joint Call on Carbon Capture and Utilization (CCU)**. ORSL is now the **first company in India** to receive this prestigious grant in the CCU domain under the **BioE3 Policy for High Performance Bio manufacturing**.

Notably, this technology presents a transformative commercial opportunity for India's rapidly expanding Compressed Biogas (CBG) sector. Currently, many CBG plants vent or flare a significant portion of purified CO_2 due to the lack of viable utilisation pathways. With ORSL's CCU platform, this otherwise unutilised CO_2 has a potential to be converted into high-value products such as bio-alcohols, specialty chemicals, nutritional supplements, and industrial additives—creating new revenue streams and significantly enhancing plant economics.

The initiative, titled **"Integrating Biotechnological Interventions to Capture and Utilize CO_2 from Biogas via Algal Cultivation and Photocatalytic Conversion to Mixed Alcohols"**, will be implemented at the **ORSL Research Innovation Centre (RIC), Navi Mumbai**.

- **Leadership Perspectives: Accelerating India's CCU Breakthroughs**

Mr. Sarang Bhand, Managing Director, ORSL, stated:

"This project marks an important milestone for India's bioenergy and carbon circularity landscape. To meet the interim targeted goal of 45% reduction in carbon intensity in the Indian economy by 2030, it is mission critical to step-up the R&D initiatives in both public and private domains. Academic and Industrial collaborations will ensure that the technology development life-cycle for novel and innovative carbon capture and utilisation (CCU) technologies can be reduced considerably and successful POC's by some of the best brains working in the academic space can be aided for pilot demonstrations and can be scaled-up to commercial applications by the Industrial partners. The IITB, IITKgp and ORSL collaboration is the first step in this direction with an intent to bring forth and demonstrate some novel technologies in the CCU and clean-tech space. The recent BIRAC grant to the consortium under the prestigious BioE3 program is going to be pivotal in redefining how we manage and valorise biogenic CO2 through cost effective sustainable processes."

Dr. Manju Tanwar, Chief Scientist and Head R&D, ORSL (Principal Investigator), added:

"This project integrates frontier biotechnology, algal engineering, and MXene based photo catalysis in a way not previously demonstrated at this scale in India. Our goal is to build a near zero CO_2 emission biogas platform that can set a new national benchmark for CCUS in the Waste to Energy sector."

Prof. Dr. Indrajit Chakraborty, IIT Bombay, commented:

"Advanced photo bioreactor based CO_2 fixation offers a high impact route for sustainable carbon utilization. This collaboration enables the development of a robust and replicable model for India's growing energy infrastructure."

Prof. Dr. Koustuv Ray, IIT Kharagpur, noted:

"Selective photocatalytic conversion of CO_2 into mixed alcohols holds significant potential for future bio refineries and green chemical manufacturing. The multidisciplinary approach of this project is essential for advancing India's climate relevant technologies."

Acknowledgement to DBT, BIRAC & Government of India

ORSL and its academic partners express profound gratitude to the visionary leadership of:

- **Dr. Jitendra Singh**, **Hon'ble Minister of State (Independent Charge), Ministry of Science & Technology, Govt. of India**
- **Dr. Jitendra Kumar, Managing Director, BIRAC**
- **Dr. Vishwadeep Kapare, BIRAC**
- **Dr. Rajesh Gokhale**, Secretary, Department of Biotechnology (DBT)
- **Dr. Sarma Pakala**, BIRAC
- **Dr. Amita Joshi**, BIRAC
- **Dr. Balendra Singh**, DBT

Their continued efforts, national initiatives, and progressive programs under the Government of India have created an enabling ecosystem for breakthrough CCU innovations. These visionary interventions are significantly advancing India's capabilities in sustainable biomanufacturing, clean energy transition, and industrial-scale deep decarbonisation.

➢ Project Overview

Category	Details
Lead Applicant	Organic Recycling Systems Limited (ORSL)
Research Partners	IIT Bombay – Prof. Dr. Indrajit Chakraborty IIT Kharagpur – Prof. Dr. Koustuv Ray
Project Site	ORSL Research Innovation Centre (RIC), Navi Mumbai
Project Duration	**24 months**
Total Project Cost	**INR 187.17 lakh**

➢ Strengthening India's Bioenergy and Circular Carbon Future

This ground-breaking BIO CCU initiative supports India's strategic missions related to:

- **Net zero emissions**
- **Circular carbon economy**
- **Waste to wealth pathways**
- **Scalable and sustainable bio manufacturing**

As the **first Indian company** to receive this grant, ORSL is positioned to lead the development of **indigenous CCU technologies** that can transform biogas plants nationwide and drive meaningful progress in **deep industrial decarbonisation**.

About Organic Recycling Systems Limited (ORSL)

Organic Recycling Systems Limited (ORSL) is a pioneering environmental engineering company specializing in sustainable waste management and valorisation solutions. Established in 2008 by technocrats, ORSL develops and deploys robust, cost-effective, and eco-friendly technologies across the entire waste value chain.

ORSL operates India's first municipal solid waste (MSW) processing plant based on a patented anaerobic biomethanation process, recognized by the Government of India under the National Master Plan. One of its flagship projects is located in Solapur, Maharashtra, where biodegradable waste is converted into **Compressed Bio-Gas (CBG)** and **fermented organic manure**, exemplifying a scalable circular economy model.

ORSL currently has a total processing capacity of 400 tonnes per day (TPD) across its facilities, with 50% of this capacity currently utilized.

The company's operations span three strategic business verticals:

- **Project Development & Technology Licensing** – Delivering turnkey projects and technology solutions for waste valorisation.

- **Product Vertical** – Offering a growing portfolio of bio-based products such as CBG, organic manure etc. that support sustainable energy and agriculture.

- **Consulting Vertical** – Providing specialized advisory services in environmental strategy, waste management, and regulatory compliance.

Recognized under the Swachh Bharat Mission for operational excellence and innovation, ORSL is actively pursuing EPC (Engineering, Procurement, and Construction) opportunities nationwide.

ORLS's research and innovation efforts are reinforced through collaborations with esteemed institutions such as **IIT Bombay (IITB)**, **AGH University Poland, University of Birmingham (UOB)**, and other technical partners. These partnerships continue to drive the company's intellectual property development and technological advancements in the environmental sector.

For further information on the Company, please visit https://organicrecycling.co.in/

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Disclaimer: