ORGANIC RECYCLING SYSTEMS LIMITED
CLEANTECH | INNOVATION | ENGINEERING

4th June 2026

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 Press Release about Organic Recycling Systems Limited (ORSL), through its R&D centre, Expands its Waste-to-Value Platform with Downdraft Gasification Pilot for Agricultural Shell Waste.

We request you to take the same on record.

Thanking you,

Yours faithfully,

For Organic Recycling Systems Limited

SARANG BHAND
Digitally signed by SARANG BHAND
Date: 2026.06.04 08:30:46 +05'30'

Sarang Bhand
Managing Director
DIN 01633419

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Organic Recycling Systems Expands Its Waste-to-Value Platform with Downdraft Gasification Pilot for Agricultural Shell Waste

Navi Mumbai, 4th June, 2026 – Not all waste is equal. While India's bioenergy sector has made significant progress with wet organic waste, one category has remained stubbornly outside its reach — **hard biomass agricultural residues**. Hard biomass residues like coconut shells, cashew nut shells and groundnut shells have largely been left out of that story.

Organic Recycling Systems Limited (ORSL) has begun working on that gap with Sanjeevak 2.0.

Its NABL-accredited **ORS Research and Innovation Centre** (**ORS-RIC**) in **Mahape**, Navi Mumbai has commenced a pilot study for a **10 kg/h Downdraft Gasification System**, a thermochemical technology that converts hard biomass feedstocks into clean syngas and high-grade biochar through controlled partial oxidation. The downdraft configuration is specifically chosen for its **low tar formation**, a key advantage over alternative biomass conversion technologies. Additionally, it has an **autothermal design**, which means the reactor sustains its own process heat once ignited, requiring no external fuel source during operation.

ORS-RIC is currently conducting trials across four hard biomass feedstocks — **tender coconut shells**, **brown coconut shells**, **cashew nut shells**, and **groundnut shells**. The study is focused on mapping and optimising key process parameters to maximise **charcoal mass yield** while ensuring high fixed-carbon content. The pilot is in its parameter optimisation phase — no yield or quality results are being reported at this stage.

Speaking on the development, **Mr. Yashas Bhand, Whole Time Director, Organic Recycling Systems Limited**, said:

"Hard biomass waste like coconut shells and groundnut shells represents a significant and largely unaddressed category of agricultural residue in India. Downdraft gasification offers a pathway to convert them into high-grade biochar and clean syngas. ORS-RIC is conducting this study systematically — mapping parameters before scaling — and if the results are promising, ORSL will look to commercialise this technology."

Dr. Manju Tanwar, Head – Research & Development, ORS Research and Innovation Centre (ORS-RIC), added :

"Hard biomass feedstocks present unique thermochemical challenges due to their density, structure, and composition. Through this pilot study, we are systematically evaluating the impact of key operating parameters such as equivalence ratio, residence time, and extraction volume on the gasification process. Our objective at this stage is to develop a robust process framework, generate reliable operating data, and identify the optimal conditions required for future scale-up and commercial deployment."

If the pilot succeeds and the technology is commercialised, ORSL projects it could reduce fuel and electricity costs along with potential to market the technology multiple stakeholders facing the issues of hard biomass waste.

The downdraft gasification pilot adds to ORS-RIC's expanding research portfolio, which currently includes **7+ innovations** in development across biochar, advanced catalysts, carbon membranes, CO_2 utilisation, and microalgae-based treatment systems. ORS-RIC received NABL accreditation under ISO/IEC 17025:2017 in February 2026.

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 **Bio-Gas** and **fermented organic manure**, exemplifying a scalable circular economy model.

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.

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