

SECI's Landmark Green Ammonia tender set to decarbonize India's fertilizer sector

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The Solar Energy Corporation of India Limited (SECI), a 'Navratna' Central Public Sector Undertaking under the aegis of Ministry of New and Renewable Energy (MNRE), has issued a landmark tender for offtake of Green Ammonia, aimed at decarbonizing India's fertilizer sector. With final bid submissions due shortly, the tender calls for the production and supply of 724,000 tonnes of green ammonia annually across 13 fertilizer plants, under the Strategic Interventions for Green Hydrogen Transition (SIGHT) Scheme - Mode 2A, Tranche I.

SECI will anchor demand aggregation and sign long-term offtake agreements, providing producers with market certainty over a 10-year contract period. The tender was issued on 07th June 2024 and the last date for bid submission is 26th June 2025.

Ammonia, an essential component in urea and other nitrogen-based fertilizers, is currently produced using fossil fuels, leading to high greenhouse gas emissions. SECI's tender leverages renewable energy to produce green hydrogen and ammonia, promoting low-emission, domestic fertilizer production.

To ensure financial viability, the government is offering financial incentives under the National Green Hydrogen Mission, with Production Linked Incentives (PLI) of ₹8.82/kg, ₹7.06/kg, and ₹5.30/kg for the first three years respectively- amounting to a total support of ₹1,533.4 crore. A robust Payment Security Mechanism (PSM) is also committed by GOI to de-risk potential payment delays from fertilizer companies. This gives suppliers the assurance of steady cash flows, encouraging greater participation and financing. The bidding process will follow SECI's e-reverse auction model, ensuring competitive and transparent price discovery.

India consumes approximately 17-19 million tonnes of ammonia annually, with more than 50% of its hydrogen requirement used in fertilizer production. However, most of this is derived from imported natural gas. SECI's initiative is expected to drastically cut this dependence, reduce exposure to global gas price fluctuations, and lower the trade deficit. Producing green hydrogen emits less than 2 kg of CO per kilogram, compared to up to 12 kg CO from conventional grey hydrogen.

Domestic green ammonia production is expected to enhance resilience during geopolitical disruptions and generate new employment opportunities.

SECI's green ammonia tender addresses the "chicken-and-egg" challenge facing the hydrogen economy by simultaneously stimulating demand and supply. It creates an immediate demand pull that encourages investment in green hydrogen production, electrolyser manufacturing, and allied clean energy sectors.

This initiative is a pivotal move toward India's goal of achieving net-zero carbon emissions by 2070 and supports the broader vision of Viksit Bharat - a developed, sustainable, and self-reliant India. Bidders are encouraged to bring forward their most competitive proposals, continuing SECI's legacy of pioneering clean energy markets with innovation, transparency, and global impact.
