Trump tariffs threaten India's renewables push

They could derail solar manufacturers' US exports and expose them to dumping from China, besides input uncertainty

Amarendu Nandy

lobal cooperation on clean energy once seemed immune to geopolitics. Trump's proposed "reciprocal" tariffs on clean energy technologies, though paused pending negotiations, however, mark a shift towards economic nationalism. US' transactional, zero-sum approach threatens to displace principles of rules-based multilateralism, precisely when global climate imperatives demand the opposite.

India's renewable sector, too, faces fallout from US policy shifts despite remarkable progress. Per the Ministry of New and Renewable Energy, the total installed renewable capacity reached 220.10 GW by March 2025, with 29.52 GW added last fiscal. Supportive policies like ISTS (Inter-State Transmission System) charge waivers, aggressive tendering, and solar and green hydrogen missions have aided growth.

Yet, US trade measures threaten to undercut this momentum.

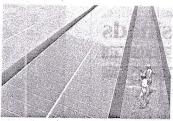
First, a 26 per cent "reciprocal" tariff on Indian solar modules could derail the sector's export-driven growth. As of November 2024, the US accounted for almost 98 per cent of India's \$1.44 billion solar PV module exports. Estimates anticipate that higher tariffs could halve exports in FY26, squeezing revenues and straining firms with thin working capital buffers.

Second, this disruption comes when the renewable sector requires an estimated \$223 billion cumulative investment by 2030 to meet India's 500 GW non-fossil energy target and broader net-zero ambitions. A tighter trade climate may not only deter capital inflows but could also elevate financial risks, including a rise in NPAs, particularly among smaller manufacturers that typically operate with lower margins and have limited access to capital markets.

CHINA FACTOR

Third, the tariffs come just as global supply chains were shifting from China, with India positioned as a key alternative. Now, the US is undermining the very diversification it once promoted. For India, the effect could be significant. As Chinese firms face restrictions in American markets, their surplus capacity, backed by economies of scale and state support, may flood Indian markets. Without strong anti-dumping safeguards, India's nascent clean-tech manufacturers, especially smaller exporters with thin margins, could face sustained, asymmetric competition.

Fourth, India's dependence on imports for upstream components and critical minerals will likely amplify the risks. Unlike vertically integrated exporters like China, India's solar manufacturing depends heavily on imports — nearly 80 per cent of



CRITICAL INPUTS. Too much reliance on global supply chain REUTERS

solar-grade polysilicon comes from China. Besides, China controls 69 per cent of global rare earth output and processes 90 per cent of rare earth elements. Since trade tensions escalated, dysprosium prices have risen 29 per cent (January-May 2025), while neodymium prices have shown high volatility. The lack of upstream capacity could increase India's solar import bill to \$30 billion annually. Trump's tariffs have triggered a price-cost squeeze—solar manufacturers are trapped between rising input costs they cannot control and falling export revenues.

India's policy response must match the scale of the shock. On the supply side, greater investments in polysilicon, wafers, and cells are essential to reduce external dependence. Besides, project execution lags due to delays in PPAs, land approvals, and transmission bottlenecks. IEEFA noted 8.5 GW of under-subscribed tenders last year due to complicated tender frameworks and delays in interstate transmission readiness. Between 2020-2024, 38.3 GW of capacity was scrapped owing to poor tender design and technical hurdles. Amid tariffs and rising costs, such inefficiencies threaten domestic manufacturers' survival and must be urgently addressed.

On the demand side, procurement reforms are urgent to provide clearer revenue visibility for investors. With Trump's tariffs, stable domestic offtake becomes critical. Delayed PPAs and shifting contract terms have undermined investor confidence and raised risk premiums. Currently, long-term PPAs are being shortened to 12-15 years, down from 25 years, as part of broader electricity market reforms. While increasing flexibility, this may be ill-timed amid external shocks.

Trump's tariffs have exposed a strategic blind spot — our over-reliance on global supply chains for critical components and on open markets to absorb exports. To course correct, India must deepen its manufacturing base, fast-track PLI disbursals, and diversify partnerships for critical minerals. It must also move up the value chain into clean energy services like AI-driven grid solutions, storage analytics, and green hydrogen applications that offer higher value and export resilience.

The writer is Assistant Professor (Economics Area) at IIM Ranchi. Views are personal