How KPI Green Energy Plans to Build 10 GW and Power India's Industrial Energy Transition

India's renewable energy transition is one of the biggest infrastructure makeovers in the world. Our 10 GW ambition is not just a corporate milestone, but our contribution to India's energy security.

India's energy transition is picking up its pace. In the last decade, the country has increased its solar power capacity more than 50-fold, rolled out more than 60 million smart meters in its power distribution network, and set an ambitious target of 410 GWh of energy storage capacity by 2032.

Dr. Faruk G. Patel, Founder, Chairman & Managing Director of KPI Green Energy Ltd., in a conversation with FE B2B online, explains how India's industrial energy transition is moving beyond capacity expansion toward reliability, affordability, and long-term sustainability. From battery-backed renewable systems and interstate green power access to the economics of green hydrogen and the company's 10 GW ambition, He shares what it will take to build a resilient clean-energy ecosystem for India's next growth phase. (Edited Excerpts)

Many factories want to transition to renewable energy, but concerns around reliability and power outages remain. How do your hybrid solar-wind projects and battery storage solutions address these challenges?

The key issue in the industrial uptake of renewable energy is reliability; manufacturing plants cannot afford an outage..

With our integrated wind-solar hybrid projects with Battery Energy Storage Systems (BESS), we are able to combine both resources, integrating storage considerably, which further improves power availability and reduces intermittency.

Additionally, this integration of BESS improves the system performance by providing Firm and Dispatchable Renewable Energy (FDRE) and the performance of the Round-the-Clock (RTC) renewable energy supply. Storage allows excess renewable energy generated to be moved and supplied during periods of lower generation.

This can help industries to meet their demand more reliably and reduce dependence on conventional power sources. Thus, we are not just producing renewable energy, but reliable renewable energy.As battery costs continue to decline and storage technologies mature, we believe hybrid-plus-storage systems will be the solution of choice for industries that require 24/7 green power while maintaining operational continuity.

KPI Green Energy recently got a licence for interstate power trading. What new options does this open up for businesses that want to buy green power across India?

The interstate trading licence marks an important milestone in our evolution from a renewable energy developer to a comprehensive green energy solutions provider.

Historically, businesses were largely dependent on renewable energy availability within their own state. With inter-state trading capabilities, we can now facilitate access to green power across multiple regions, allowing industrial and commercial consumers greater flexibility in procurement.

We believe this capability positions us to offer end-to-end green energy solutions, from generation and storage to trading and delivery under a single ecosystem.

For a large manufacturing company, how much can they realistically save by switching to your solar parks instead of using the local government grid?

Savings vary based on location, consumption patterns, voltage category, and applicable regulatory frameworks. However, for many industrial consumers, renewable energy sourced through captive or group captive structures can deliver meaningful reductions in power costs compared to conventional grid tariffs.

In many cases, industrial customers can achieve electricity cost savings ranging from approximately 20% to 40% over the long term. Given that energy often represents a significant operational expense, these savings can directly improve competitiveness and profitability.

Beyond cost reduction, companies also gain price visibility over the long term. Traditional power tariffs are subject to periodic increases, whereas renewable energy provides greater predictability and insulation from future energy price volatility.

In India, setting up a power grid is not the easiest task. How do your 'Solarism' solar parks make this process easier and faster for companies?

Agreed, land acquisition and grid connectivity are often the most time-consuming and complex aspects of renewable energy projects.

We built our Solarism model from the ground up to address these challenges. We build large renewable energy parks on land with secured titles, existing infrastructure, transmission connectivity, regulatory approvals and ready-to-go ecosystems.

That means companies don’t need to spend years hunting down the right parcels of land, gaining approvals or installing evacuation infrastructure. They can simply join an already developed ecosystem and accelerate their transition to renewable energy.

This significantly reduces project risk, shortens implementation timelines, and lowers execution complexity for industrial consumers

You are beginning to invest in green hydrogen projects, but costs remain prohibitive for most industries. How many years away are we from green hydrogen becoming commercially viable for everyday Indian factories?

Green hydrogen represents one of the most promising opportunities in the global energy transition, particularly for sectors that are difficult to electrify, such as steel, chemicals, fertilizers, and heavy industry. That’s the reason we have already installed our pilot 1MW Green Hydrogen project at our Matar state-of-the-art facility. The green hydrogen produced is then used to fire Asia’s largest galvanizing plant.

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