Reon Energy brings refurbished European wind turbines to Pakistan's industrial sector

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Reon Energy has been at the forefront of Pakistan's clean energy transition, playing a pivotal role in the sector's fast growth and expansion. Now, the company has made headlines with a bold and first-of-its-kind step in the region, importing refurbished wind turbines from Europe and installing them for industrial use in Pakistan.

Energy Update sat down with Mujtaba Haider Khan, CEO of Reon Energy, to talk about this unique initiative, the company's wider clean energy solutions, and what's next for Pakistan's renewable energy landscape. Here are the important excerpts from this interview for our readers:

Energy Update: Reon is pioneering refurbished wind turbines in Pakistan. How did this idea take shape?

Mujtaba Haider Khan: We've started procuring decommissioned wind turbines from Europe and refurbishing them with the help of original equipment suppliers, who replace any faulty components. Our aim is to give these turbines a second life at industrial sites in Pakistan.

The first project is with Gul Ahmed Textile Mills, where two refurbished 2.5 MW turbines will be installed at their Landhi plant. We're modifying the turbines to meet the 123-metre height restriction in the area. Detailed feasibility studies have been carried out, and top clean energy consultants such as TUV NORD are supervising the project. These turbines are expected to serve for another 15-plus years. It's the first initiative of its kind in the region, and we're very excited about it.

For Pakistan, an even better long-term option would be to transition towards the indigenous production of concrete wind turbines, rather than relying on conventional steel ones. Steel is a more expensive option in terms of market rates, while concrete turbines are not only more affordable but also more durable and better suited to local conditions. Developing this capability at home could give Pakistan a strategic edge in scaling up wind energy at lower cost while simultaneously building domestic manufacturing expertise.

EU: Why Europe, and why refurbished turbines?
Mr Khan: Europe is a goldmine for this. There are around 100,000 wind turbines across the continent, and that number is set to triple in the next five years. Every year, 5,000 to 6,000 turbines are decommissioned—not because they've failed, but because they're being replaced with higher-capacity machines.

Most of these turbines are simply recycled for their metals, but they still have a lot of useful life left. Power produced from a refurbished 2.5 MW turbine costs ~12 PKR per kwh compared to 34 PKR industrial tariff today, and third-party inspections have already proven that the refurbished ones are reliable and sound. Unsurprisingly, several industrial players in Pakistan are eager to get on board.

EU: Reon's work isn't just about installing solar and wind. What's happening on the technology side?
Mr Khan: You're right—our focus goes far beyond panels and turbines. Traditionally, electricity grids rely on engines or turbines with natural inertia to keep them stable. But renewable energy systems run on power electronics and don't have that inertia.

To fill the gap, we've developed technology that creates artificial inertia for renewable-powered grids. We've been delivering this technology for about three to four years now, making a 100 per cent clean energy transition possible for our customers.

EU: One of your landmark projects is with Lucky Cement. What makes it special?
Mr Khan: Lucky Cement's Nooriabad plant is one of the largest cement production facilities in Pakistan. It now runs on six wind turbines (28.8 MW), a 30 MW solar system, and a waste heat recovery setup. On top of that, we've designed and installed a 20.7 MW/22 MWh lithium-ion battery —the largest of its kind for any industrial site in Pakistan.

This battery is the backbone of the plant's grid system. It forms the grid during high renewable periods, manages voltage swings, and helps the plant run entirely on clean power during the summer months. What's more, the system is software-driven, AI-controlled, and fully autonomous, with predictive algorithm accuracy levels close to 100 per cent.

EU: How big a role does Reon play in Pakistan's industrial battery market?
Mr Khan: We're the pioneers in this area and today almost 90 per cent of the large industrial-scale batteries installed in Pakistan are from Reon. We don't just provide the hardware, we design and deliver complete solutions: designing, installation, commissioning, operations, troubleshooting, and more.

That one-window service, combined with our autonomous battery and controls platform REFLEX and unmatched experience, give us a clear edge in the market. We've executed more such projects than anyone else in the country.

EU: And internationally—how far has Reon's reach extended?
Mr Khan: We're already active in 11 African and Middle Eastern countries, and we're exploring opportunities in the Far East. Recently, we've also entered the European market to source turbines and plan to expand our business footprint there.

With electricity costs climbing everywhere, there's a strong global demand for AI-driven, software-backed renewable solutions. We see a huge opportunity to take our expertise beyond Pakistan.

EU: Finally, how do you view Pakistan's clean energy market?
Mr Khan: It's one of the most dynamic in the region. Just last year, nearly 20 GW of solar panels were imported, and the numbers this year are already higher. Analysts and experts across the board have praised the sector's phenomenal growth.

That said, there's also a downside. With industries moving to solar, distribution companies have suffered increased T&D losses. To counter this, the government needs to fast-track the rollout of the Competitive Trading Bilateral Contract Market (CTBCM). It's crucial for the survival of the grid while keeping the renewables momentum going. ■