

EXCLUSIVE INTERVIEW



“Our long-term vision is to power Karachi’s growth with reliable, sustainable, and affordable electricity, while driving innovation and inclusivity in the energy sector. As of 2023, the exclusivity in the region has ended, opening the door for new players to potentially enter the market”



Syed Moonis Abdullah Alvi CEO, K-Electric

ICMA: K-Electric plays a significant role in Karachi’s power supply. Can you describe the company’s current efforts to enhance the efficiency and reliability of both power generation and distribution?

Syed Moonis Alvi: At K-Electric, we are committed to ensuring Karachi receives reliable and sustainable power. Since privatization, we have invested \$4 billion across the value chain, with an additional \$2 billion investment planned to upgrade our systems and enhance energy provision by 2030. These investments are not just figures but are driving tangible results on the ground.

We have added five new power plants to our fleet and significantly improved generation efficiency, increasing it from 30% in 2005 to 42% today through advanced technology and efficient power plants like the 900 MW Bin Qasim Power Station 3 (BQPS-III).

A significant portion of our investment is focused on Transmission and Distribution (T&D) upgrades. Over the years, we have successfully reduced T&D losses from 34.2% to 15.3%. This progress enables us to increase supply, and our investment plan aims to further enhance these efficiencies.

To strengthen the distribution and transmission network, we are constructing 13 new grids, laying over

450 kilometers of transmission lines, and installing more than 7,600 new transformers. By 2030, K-Electric aims to serve 5 million customers, up from 3.7 million today. These investments will allow us to meet growing demand reliably while advancing operational efficiency and sustainability.

ICMA: With Karachi’s growing power demands, how is K-Electric planning to expand its capacity in power generation to meet future needs? Are there any new projects or initiatives in the pipeline?

Syed Moonis Alvi: The future of power generation must address the energy trilemma of affordability, sustainability, and reliability.



We are proud to share that KE is the first private utility in the country to launch a competitive bidding process for renewable energy projects, totaling 640 MW of capacity. This initiative is part of our broader Power Acquisition Program, which aims to add 1,300 MW of renewable energy—868 MW solar, 332 MW wind, and 82 MW hydel—raising renewables' share in our energy mix to 30% and reducing reliance on imported fuels. These projects have already attracted the country's lowest tariff bids for power production, underscoring our commitment to building a stable and sustainable energy ecosystem.

In addition to renewables, key infrastructure projects in progress include KE's first 500 kV KKI (Karachi Kanupp Interconnection) Grid, which will enhance Karachi's access to affordable power from the national grid, and the Dhabeji Grid. Together with planned investments in Transmission and Distribution (T&D), these grids will play a pivotal role in improving reliability and supporting Karachi's economic growth.

Investments in grid infrastructure are being complemented by the integration of advanced technologies to automate and digitize processes, ensuring KE is equipped to deliver sustainable, efficient, and reliable power to Karachi's growing population and industries.

ICMA: Given the challenges in urban distribution networks, what measures is K-Electric taking to improve the reliability of its grid and reduce instances of power outages, especially in densely populated areas?

Syed Moonis Alvi: Today, 70% of our network delivers uninterrupted power, including to Karachi's industries, the driving force behind the country's economic growth. Achieving this in a city as dynamic as Karachi has not been without challenges, particularly in densely populated areas with high demand and strained infrastructure.

Digitization has been pivotal in ensuring reliability. Technologies such as smart meters across our transformer network, GIS network mapping, and ADMS allow us to monitor energy flow and network health at granular levels. To combat losses, we have implemented Aerial Bundled Cables, which are theft-resistant and more efficient at delivering electricity.

Densely populated areas often result from gaps in urban planning and governance. Karachi is home to over 900 slum areas, which contribute to electricity theft—posing both safety and technical risks. In 2024 alone, KE has removed more than 200,000 kgs of kundas through over 16,000 drives.

While we continue to modernize and strengthen the grid, collaborative efforts with city authorities are crucial. Integrating power infrastructure and climate consider-

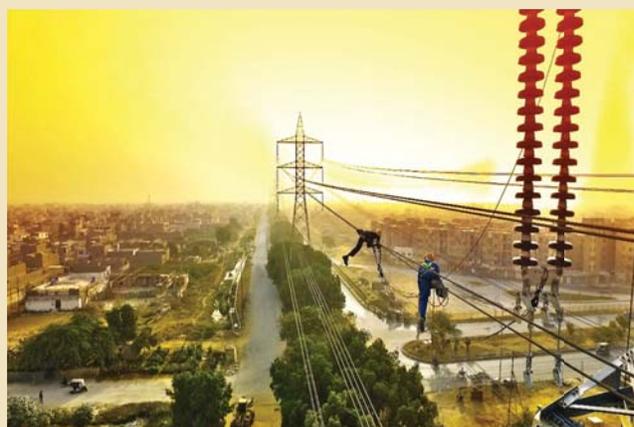
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 As Karachi continues to expand, its demand for energy will grow as well. Our 640 MW renewable energy projects were authorized for competitive bidding by NEPRA, marking the first time a private company has been allowed to do so
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ations into urban planning frameworks is essential to ensure that future developments account for electricity demand and grid accessibility.

ICMA: The energy sector in Pakistan faces challenges like inefficiencies and circular debt. How does K-Electric manage these issues, and what role does the company play in addressing the sector-wide challenges?

Syed Moonis Alvi: An interesting fact that many may not be aware of is that, due to privatization, KE has no contribution to circular debt. All losses have been borne by the investor, while any profits have been reinvested into the company. Addressing sectoral inefficiencies requires targeted, planned investment and a collaborative effort at the government level.

When we advocate for the integration of renewables, our vision is to support the national exchequer by reducing dependence on imported fossil fuels. This helps mitigate the vulnerability to global market fluctuations and foreign exchange volatility. We are also focused on building synergies within the system. KE is committed to investing in the entire power value chain and partnering with organizations to explore indigenous manufacturing of the equipment we need. Localization is a key focus, as it strengthens supply chains and fosters a circular economy.



These challenges do not exist in isolation—they ripple through the economy, fueling inflation and adding hardships for both households and industries. Addressing them requires a multi-faceted approach, and as an industry leader, we are committed to playing our part in driving progress. Additionally, we advocate for systemic reforms and greater collaboration among stakeholders to modernize Pakistan’s energy ecosystem, tackle inefficiencies, and build resilience.

ICMA: What are the key challenges K-Electric faces when it comes to transmission and distribution losses, and what steps are being taken to reduce these losses and improve overall system efficiency?

Syed Moonis Alvi: Transmission and distribution (T&D) losses are a global challenge for utilities, and for K-Electric, these losses are further compounded by Karachi’s unique urban landscape. As mentioned earlier, factors such as theft and technical inefficiencies contribute significantly to these losses. The city’s high population density, unplanned urbanization, and infrastructure encroachments place additional strain on our network.

Despite these challenges, we have made remarkable progress in reducing T&D losses, thanks to sustained investments in infrastructure and technology. We have deployed smart meters in industrial and key residential areas to improve monitoring and curb theft. Our digitized High-Tension network, supported by Geographic Information Systems (GIS), enables us to pinpoint loss-prone areas and address issues proactively. Additionally, 40% of our network’s Pole-Mounted Transformers (PMTs) are now equipped with Aerial Bundled Cables (ABCs), significantly reducing illegal connections.

Customer education plays a critical role in this effort. Through programs like Roshni Baji and other community engagement initiatives, we are spreading awareness about the consequences of electricity theft and encouraging legitimate connections.

ICMA: K-Electric has been involved in integrating renewable energy into its generation mix. Can you share the company’s vision for expanding renewable energy, particularly solar and wind power, in the coming years?

Syed Moonis Alvi: KE’s green revolution is being driven by our Power Acquisition Plan (PAP), which prioritizes fuel mix diversification through the integration of renewable energy and local fuels, while reducing reliance on imported conventional fuels. As Karachi expands, its energy demand will also increase. Our 640 MW renewable energy projects were authorized for competitive bidding by NEPRA, marking the first time a

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private company has been allowed to do so. The projects span across Sindh and Balochistan, including the country’s first 220 MW site-neutral hybrid project that combines solar and wind energy. Additionally, the solar projects include 150 MW in Balochistan (50 MW in Winder and 100 MW in Bela) and 270 MW in Sindh (120 MW at Deh Halkani and 150 MW at Deh Metha Ghar, in District West, Karachi).

The competitive bidding process attracted an overwhelming response, with bids from both local and international players, resulting in the lowest proposed tariffs. The successful bids will undergo regulatory scrutiny and approval before finalization. Once approved, we plan to initiate these projects immediately. This historic milestone for KE marks the successful conclusion of a journey where multiple stakeholders — from the regulator to provincial governments of Sindh and Balochistan — collaborated on a shared vision to revolutionize sustainability in Pakistan, demonstrating the power of collaboration.

ICMA: K-Electric has been leading the way in terms of bringing digitization in its offerings. Can you share the company’s current standing and future outlook to keep up with technological advancements?

Syed Moonis Alvi: As a public-facing company, our customers are at the core of everything we do, and our industry-first initiatives demonstrate this commitment. Currently, 70% of K-Electric’s customers pay their bills through online channels, a number that continues to grow as we enhance digital payment solutions, expand partnerships with banks and fintech platforms, and increase accessibility. Programs like cashback offers, which have benefited over 400,000 customers, and partnerships with more than 40 payment providers, make bill payment more convenient than ever. Additionally, we are the first and only utility to offer a loyalty program, providing regular bill payers with access to discounts and offers across various sectors, including healthcare, lifestyle, food, and entertainment.

We have also introduced digital solutions such as the KE Live app and a bilingual WhatsApp service, offering 24/7 support and real-time updates. These platforms enable customers to manage their accounts, lodge complaints, and track resolutions conveniently, empowering them with greater control over their interactions with us. This is all part of our comprehensive digitization roadmap. By innovating the way we connect with our customers, we aim to build trust, deliver value, and enhance their overall experience in ways no other power utility is doing.

ICMA: What other innovative solutions are part of KE's digitization roadmap and what operational improvements are likely to come out as a result?

Syed Moonis Alvi: Our digitization roadmap is designed to transform how we deliver power, enhancing operational efficiency and customer focus. Key innovations include the deployment of smart meters across our network, especially for all industrial customers, which enables real-time consumption monitoring and faster fault detection. We've also digitized our entire High-Tension (HT) network using Geographic Information Systems (GIS), improving grid management and planning.

Additionally, we've implemented ADMS powered by artificial intelligence and analytics, which allows us to predict and address issues before they escalate. Mobile workforce management tools help allocate resources more efficiently, reducing response times for outages and service requests.

These innovations have already yielded measurable improvements — power interruptions have been reduced by 33%, and their duration has decreased by 29%. Looking ahead, we expect further reductions in system inefficiencies, better resource utilization, and enhanced reliability for our customers.

ICMA: How does K-Electric assess its financial health, and what steps are being taken to ensure that the company remains financially sustainable while also meeting its service obligations to consumers?

Syed Moonis Alvi: K-Electric operates in a regulated environment where tariffs are set by the regulator under a uniform tariff policy. While this ensures consistency across regions, it limits our ability to fully recover costs, especially amid rising operational expenses and sector-wide challenges. Nevertheless, we remain committed to achieving financial sustainability while fulfilling our service obligations.

Our strategy focuses on fostering a circular economy through localization and efficiency-driven initiatives. By increasing the share of renewables in our energy mix, we aim to reduce reliance on costly imported fuels, thereby

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mitigating exposure to global price volatility and foreign exchange fluctuations. Additionally, investments in digitization and smart technologies enable us to optimize operations, reduce losses, and improve collections, which in turn strengthens our financial health.

We are also exploring partnerships with local suppliers and industries to create value within Karachi's economy, further embedding sustainability into our operations. These efforts not only support KE's financial stability but also contribute to the broader economic ecosystem.

ICMA: Looking ahead, what is K-Electric's long-term vision for the power sector in Karachi, and how does the company plan to address future energy challenges?

Syed Moonis Alvi: Our long-term vision is to power Karachi's growth with reliable, sustainable, and affordable electricity, while driving innovation and inclusivity in the energy sector. As of 2023, the exclusivity in the region has ended, opening the door for new players to potentially enter the market. We embrace this evolving landscape and welcome competition within Karachi, as it pushes us to innovate and further strengthen our customer-centric approach. One of our key priorities is to enhance Karachi's energy self-sufficiency by advancing localized energy generation.

Looking ahead, we understand that energy challenges go beyond technology and infrastructure. Collaborative urban planning, climate resilience, and sustainable energy policies are essential to addressing Karachi's unique challenges. As a responsible utility, we are committed to working with stakeholders, fostering innovation, and driving systemic reforms to ensure a brighter, more sustainable future for the city and its people. Ultimately, our goal is to make Karachi's power infrastructure a benchmark for other urban centers—adaptable, sustainable, and aligned with the needs of a growing metropolis.

The Editorial Board thanks Syed Moonis Abdullah Alvi, CEO of K-Electric, for sparing his precious time to give an exclusive interview for the Chartered Management Accountant Journal.