Energy Upgrade Solution for Pakistan Communication Sites



Overview

Huawei collaborates with Jazz to build Pakistan's smart Assist traditional communication stations in achieving low-carbon and efficient upgrades, Jazz Powe.

Key Takeaways

Pakistan is actively upgrading telecom sites with solar energy, high-efficiency network solutions, and battery storage to reduce diesel dependency, cut costs, and lower carbon emissions.Government and Financial Initiatives

Pakistan has launched its first Green Sukuk worth Rs. 3 billion to fund clean energy solutions for telecom towers. This initiative, supported by InfraZamin and partner banks, aims to install solar systems and battery storage at nearly 2,000 sites, reducing reliance on diesel generators, lowering fuel costs, and cutting carbon emissions while improving network performance and efficiency .

Private Sector and Technology Deployments

Telecom operators are adopting advanced technologies to enhance energy efficiency:

• CMPak and Huawei deployed the FDD 8x120W ultra-wideband high-power solution, which is 37% more energy-efficient than conventional setups. The solution is lighter, smaller, and reduces operational costs while maintaining or improving coverage .

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• Jazz and Huawei are solarizing 1,000 telecom sites using iSolar technology, projected to generate 15,000 MWh of clean energy annually, supporting Jazz's net-zero carbon emissions goal by 2050 .
Alternative Energy and Battery Solutions

Due to Pakistan's unstable grid and frequent outages, mobile towers have historically relied on diesel generators, consuming around 1.2 billion liters of diesel annually. Companies like EDOTCO are integrating solar panels and high-capacity lithium-ion batteries to provide reliable backup power, reduce diesel usage, and lower carbon emissions by approximately 56,000 tonnes annually . These solutions also extend benefits to nearby communities where feasible.

Benefits of Energy Upgrades
• Operational efficiency: Reduced downtime and lower OPEX due to less diesel dependency.

• Environmental impact: Significant reduction in carbon emissions and fuel consumption.

• Sustainability: Supports Pakistan's climate goals and encourages green financing.

• Network performance: Enhanced reliability and coverage through modern, energy-efficient equipment.
Conclusion

Pakistan's telecom sector is undergoing a comprehensive energy transformation through a combination of government-backed green financing, private sector solarization projects, high-efficiency network solutions, and battery storage systems. These initiatives collectively reduce diesel dependency, lower operational costs, improve network reliability, and contribute to national sustainability and climate objectives .

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Case Study: Telenor Pakistan

Telenor Pakistan prioritised solar solutions for deployment on Off-Grid and sites with the highest fuel consumption. The

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Telecom Energy Solution

They include Distribution Power Systems (DPS) and hybrid power, as well as a site energy management system. Huawei telecom

New Ericsson solution for smart energy use in network sites

Much of society runs on networks. This makes it vital to ensure that networks are efficiently powered while using

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Learn how to improve energy efficiency in communication sites using hybrid power systems, advanced cooling, and

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