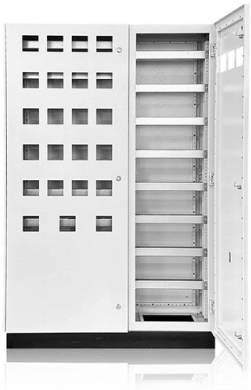
Energy-saving solutions for communication power systems in Finland



Overview

Research teams from the University of Helsinki, University of Oulu, and Aalto University, working alongside Finnish tech companies, have demonstrated practical wireless power transmission using multiple innovative approaches including ultrasonic sound waves, electromagnetic. Research teams from the University of Helsinki, University of Oulu, and Aalto University, working alongside Finnish tech companies, have demonstrated practical wireless power transmission using multiple innovative approaches including ultrasonic sound waves, electromagnetic. Research teams from the University of Helsinki, University of Oulu, and Aalto University, working alongside Finnish tech companies, have demonstrated practical wireless power transmission using multiple innovative approaches including ultrasonic sound waves, electromagnetic fields, and advanced. Using the Radio Access Network (RAN) to run a Virtual Power Plant could save telecoms operators around 50% of their current electricity costs by optimising their energy purchases as well balancing the grid with renewable energy at times of need says Elisa. The company received pre-qualification for. Finnish engineers achieved a revolutionary breakthrough in late 2025 by successfully testing a wireless electricity system that transmits power through the air without cables, plugs, or physical connections. This groundbreaking technology uses high-frequency magnetic fields and superconducting. Europe's telecommunications sector has the potential to deploy 15GWh of distributed energy storage (DES), halving its energy costs and helping the energy transition, Finnish telecoms firm Elisa said discussing its new DES solution with Energy-Storage. The firm has launched a DES smart energy. To support these objectives, Telia has benefitted from several high-efficiency ABB power solutions including main transformers, UniGear Digital and UniSec medium-voltage switchgear, MNS low-volt...

Article Content

Finland Successfully Tests Wireless Electricity

Finnish researchers from universities like Aalto, Helsinki, and Oulu, along with startups like Willo Technologies, are exploring new ways to send small amounts

European telecoms networks'' 15GWh energy storage

Europe''s telecommunications sector has the potential to deploy 15GWh of distributed energy storage (DES), halving its energy costs and helping

Elisa to Assist Telecom Operators in the Move to Renewable Energy

Finnish telecoms and digital services company Elisa is announcing its intention to enable international telecoms operators to play a key part in tackling climate change by storing their surplus

White Paper 6G Energy Efficiency and Sustainability

stainable 6G methods and technologies in Chapter 7. This white paper concludes by discussing the impact of new energy-saving techniques on mobile communications, as well as opening up further

Finland Develops Cable-free Wireless Electricity System

Finnish engineers achieved a revolutionary breakthrough in late 2025 by successfully testing a wireless electricity system that transmits power through

Green Communications for Energy-Efficient Wireless Systems and

Attractive solutions for the design and implementation of energy efficient wireless networks and 5G technologies include massive MIMO, non-orthogonal multiple access, and energy harvesting

Smart Energy-Saving Solutions Based on Artificial ...

AI technology can automatically configure the energy-saving strategy on the basis of coverage and configuration identification. Besides all this, the energy-saving solution centred on the

Energy saving campaign

On this page, we will update information on the energy saving campaign and tips for how to prepare for possible power cuts caused by the energy shortage. Page updated on 20 January 2023.

Finland''s Energy Storage Revolution: Powering a Sustainable Future

Discover how Finland is leading Europe''s energy storage innovation to balance renewable integration and industrial demand. This guide explores cutting-edge technologies, market trends, and practical

Hitachi Energy to deliver power conversion solutions for Finland''s ...

Hitachi Energy will deliver power conversion systems and intelligent controls for Finland''s largest BESS, boosting grid stability and supporting carbon neutrality goals.

Academy of Finland grants funding for research on sustainable and ...

The Academy of Finland has granted funding to ten projects researching the sustainability and energy efficiency of future ICT solutions. Tampere University is involved in five

AI-enabled basestations create virtual power plant in

Using the Radio Access Network (RAN) to run a Virtual Power Plant could save telecoms operators around 50% of their current electricity costs by

Powering Finland''s Future – Fingrid and Merus Power

Together with Fingrid, they explored future market scenarios and the pivotal role of battery storage in enabling a secure and sustainable energy

Capalo AI partners with Lehto Group to Optimize

Helsinki, 1.10.2024 — Capalo AI, a sustainable growth company specializing in AI-based trading and optimization services for energy storage, has announced a

The Emergence of Energy-Efficient and Power-Saving Solutions in

This study analyzes how patents of energy-efficient and power-saving features in mobile technologies have evolved and how these are significantly impacted by the transition to 5G networks. The paper

150MWh battery storage virtual power plant to roll out by

This project is a significant step towards creating a more sustainable and resilient energy system, as it allows for better integration of renewable energy sources

Increasing flexibility of Finnish energy systems—A review of potential ...

This paper reviews potential means to increase flexibility of Finnish energy systems by comprehensively regarding both electricity and thermal systems. After introducing renewable energy

Energy Efficiency and Sustainability in Mobile Communications Networks

Chapters 3 and 4 examine the system architecture enablers such as network slicing, virtualization, and Open RAN, bringing these key network architecture elements in the context of sustainability and

How wireless power transmission can build a resilient

Wireless power is transforming energy delivery, lowering infrastructure needs, and powering Japan''s shift toward a more resilient, flexible

SMART ENERGY

Finland''s total government-funded R& D leapt 58% from 2019 to 2020, according to Statistics Finland. The private sector has invested in software, AI

Finland Wireless Power Transmission Market (2025-2031) | Trends ...

As Finland aims to reduce its carbon footprint, innovations in wireless power transmission that support renewable energy sources, such as solar or wind, are gaining traction. The increasing need for

Elisa unveils home energy storage service in Finland

Elisa''s smart home energy storage service works as part of Elisa''s DES solution, the distributed virtual power plant used in Elisa''s mobile network base stations, which uses AI to optimise

Smart energy solutions in Finland | Innovation News

Business Finland outlines the importance of smart energy solutions and details the testing platforms that have been established through their programme.

ABB provides high efficiency power solutions to Telia for its next ...

The key objective for the Telia data center, which opened in Helsinki in 2018, was to reduce energy consumption by lowering losses in power distribution to improve the CO 2 footprint.

The Emergence of Energy-Efficient and Power-Saving Solutions in

Request PDF | On Jan 1, 2022, Ulla Anneli Saari and others published The Emergence of Energy-Efficient and Power-Saving Solutions in Mobile Communication Technology | Find, read and cite all

New energy sector program concentrating on flexibility

Business Finland launched a new energy sector program: Flexible Energy Systems. The 6-year program facilitates future looking innovations and promotes Finnish solutions increasing

New America

New America develops bold ideas and innovative solutions to strengthen democracy, education and work, technology, and family well-being in the U.S.

Finland Has Successfully Tested a System That Sends

This vision of wireless electricity, long confined to science fiction, has taken a major leap toward reality as Finnish researchers successfully test

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