

Energy Internet Site Renovation Project

Article Overview

The Energy Internet Site Renovation Project focuses on modernizing infrastructure to improve energy efficiency, integrate smart energy management, and support sustainable energy use at ICT and building sites.

Project Objectives

The project aims to reduce energy consumption, lower greenhouse gas emissions, and enhance operational efficiency at both ICT sites and buildings. For ICT sites, this involves transitioning to a smart energy setup that leverages AI, sensors, and digital twin technologies to optimize energy use, automate equipment operation, and integrate renewable energy sources, while also enabling ancillary services to support the power grid and generate additional revenue streams for site owners. For buildings, the project aligns with initiatives like the EU Renovation Wave, which targets the renovation of millions of buildings to improve energy performance, reduce energy poverty, and create green jobs in the construction sector. Renovations focus on deep retrofitting, including upgrading building envelopes, heating and cooling systems, and integrating renewable energy solutions.

Key Strategies and Technologies

- **ICT Site Modernization:** Hardware upgrades, energy-efficient software features, AI-enabled automation, and real-time monitoring of temperature, humidity, and electrical parameters to optimize energy consumption.
- **Building Renovation:** Retrofitting to zero-carbon-ready standards, improving insulation, installing high-efficiency technical systems, and leveraging renewable en...

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