INTERPED

Interoperable cloud-based solution for cross-vector planning and management of Positive Energy Districts

Our Vision

Transforming Urban Energy Landscapes. InterPED focuses on developing Positive Energy Districts (PEDs) through innovative sector coupling, cross-vector integration, and enhanced demand flexibility. This initiative aims to optimize the use of local renewable energy sources, storage, and excess/waste heat to improve grid robustness and energy efficiency in urban settings. By implementing a cloud-based platform for the integrated planning and control of PEDs, InterPED supports urban planners and service providers in creating sustainable and energy-resilient communities.

Our Mission

Integrated Technology

Leveraging ICT to orchestrate fully integrated, sustainable PEDs, enhancing sector coupling and demand flexibility.

Proof of Concept

Validating the InterPED approach through diverse, large-scale pilot projects to demonstrate tangible benefits and a 30% increase in demand flexibility.

Blueprint for Expansion

Developing a replicable model for expanding the InterPED solutions to additional districts, setting the stage for a Europe-wide transformation.

Our goals

Innovative Planning

Crafting a future where city planning harnesses the full potential of local renewable energy and waste heat, ensuring sustainability is at the core of urban development.

Energy Optimization

Maximizing the utilization of local resources to boost energy independence and efficiency.

Flexibility in Demand

Shifting energy use smartly to balance supply and demand, directly benefiting the grid and the community.

Seamless Integration

Fostering a cooperative ecosystem where energy systems work in harmony, thanks to advanced interoperability standards.

Community Power

Encouraging every resident to take an active role in energy decisions, shaping the way we consume and conserve energy.

Sustainable Business

Demonstrating models that benefit everyone, from households to big providers, backed by transparent and secure blockchain technology.

Pilots

Lugaritz-Matía Community

Set in San Sebastián's Basque Country, the Lugaritz-Matía Community forges a cutting-edge Positive Energy District. This pilot weaves together a hospital and two nursing homes, harnessing a robust heating network driven by geothermal, biomass, and gas. Dedicated to perfecting energy efficiency, this 700-resident district showcases the synergy of advanced energy management with proactive consumer engagement.

Ecovillage Findhorn

Scotland's Ecovillage Findhorn exemplifies progress with its drive towards 70% self-consumed renewable energy. A beacon of innovation, the village is electrifying heating and transport systems and enriching its microgrid with added solar and wind capabilities alongside a new community battery. This pursuit of enhanced energy autonomy underpins the vibrant life of 250 families with reliable, green power.

Arena Innovation Community

In Switzerland's Capriasca Village, the Arena Innovation Community is a testament to versatile energy approaches, marrying residential needs with public services in a quest for efficiency. This Positive Energy District melds 35 households with a public pool and football field, all underpinned by a diverse energy mix including biomass and pioneering heat recovery to streamline consumption.

Alba Iulia College District

Romania's Alba Iulia College District, centered on the Dorin Pavel Technical College, illuminates sustainable education through its cohesive energy strategy. Sporting 138 kW of solar prowess, the district is a vanguard for self-sufficiency, reinforcing its commitment through strategic renovations and the introduction of sophisticated energy storage and heating systems.

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