

E2P2

ECO EDGE PRIME POWER



Project ID	101007219
PRR 2025	Pillar 4 - H ₂ End Uses - Stationary Applications
Call Topic	FCH-02-9-2020
Project Total Costs	3 576 409.45
Clean H ₂ JU Max. Contribution	2 499 715.50
Project Period	01-01-2021 - 30-04-2026
Coordinator Beneficiary	RISE RESEARCH INSTITUTES OF SWEDEN AB, SE
Beneficiaries	VERTIV CROATIA DOO ZA TRGOVINU I USLUGE, VERTIV, INFRAPRIME GMBH, EQUINIX NETHERLANDS B.V., SNAM S.P.A., TEC4FUELS, SOLYDERA SPA

<https://e2p2.eu/>

PROJECT AND GENERAL OBJECTIVES

The main objectives of E2P2 are to define the concept of fuel cell prime power for data centres and create an authoritative open standard for the adaptation of fuel cells to power data centres. E2P2 will demonstrate and validate a proof-of-concept fuel-cell-based prime power module for data centres and evaluate the opportunities for improved energy efficiency and waste heat recovery. The project strongly anticipates opportunities for the European fuel cell suppliers to increase the uptake of their fuel cells across multiple markets, with improved energy efficiency and cost-effectiveness.

NON-QUANTITATIVE OBJECTIVES

- Define the concept of fuel cells for prime power for data centres.
- Create an authoritative open standard for adapting fuel cells to power data centres.
- Demonstrate and validate a proof-of-concept fuel cell based prime power module for data centres.
- Collect extensive operational data to support the use of fuel cells as prime power for data centres.
- Analyse the combined social, environmental and commercial impact on the European market.

- Evaluate opportunities for improved energy efficiency and waste heat recovery.
- Generate effective market uptake and create a business strategy.

PROGRESS, MAIN ACHIEVEMENTS AND RESULTS

Vertiv, Tec4Fuels, and SolydEra have successfully developed their modules for the E2P2 project, with meticulous attention to detail. Comprehensive drawings and installation plans have been meticulously crafted. The location has been carefully selected, with Equinix ML 5 site outside Milan, Italy. Substantial data has been gathered for the Life Cycle Assessment, ensuring thorough analysis.

FUTURE STEPS AND PLANS

The subsequent phase involves conducting factory acceptance testing for the modules, followed by their shipment to Milan for installation. Research Institutes of Sweden will facilitate network connectivity to enable seamless data collection. Once all modules are installed, site acceptance testing will be performed. Subsequently, the E2P2 proof of concept will undergo rigorous testing under full operational conditions for one year.

PROJECT TARGETS

Target source	Parameter	Unit	Target	Target achieved?
Project's own objectives	Tolerated H ₂ content in NG	%	20	A small icon of a gear with a checkmark inside, indicating that the target has been achieved.