

Topics in the call 2025

Hydrogen End Uses: Clean Heat and Power

Eleni Kontonasiou



Hydrogen End Uses: Clean Heat and Power Overview

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Main Focus

- Demonstrate in real life the added value of fuel cell technologies when integrated in a local energy system, focusing on FC units from 50 to 200 kWe
- Rise the maturity level of H₂-based energy generating systems and allow their further deployment in other areas of the hydrogen economy



What is new

- Integration of fuel cells in renewable energy communities, supplying reliable and efficient energy
- Empowering citizens and putting them at the centre of the clean energy transition

Hydrogen End Uses: Clean Heat and Power Overview

| Topic | Type of Action | Budget (M€) |
|--|----------------|-------------|
| HORIZON-JU-CLEANH2-2025-04-01: Demonstration of stationary fuel cells in renewable energy communities | IA | 5* |

***This is the maximum Clean Hydrogen JU contribution that may be requested – proposals requesting Clean Hydrogen JU contributions above this amount will not be evaluated.**

Clean Heat and Power - Topic

HORIZON-JU-CLEANH2-2025-04-01: Demonstration of stationary fuel cells in renewable energy communities



Demonstration of an integrated renewable energy system applying stationary fuel cells, in at least one renewable energy community (TRL 5→7)



- Showcasing the advantages of FC: high efficiencies, heat valorization, demand response, backup, peak shaving applications
- System based on a fuel cell power supply unit, with nominal capacity of **50 to 200 kWe**, including also the balance of plant components
- Testing for at least **3000 hours** of cumulative operation in a real renewable energy community (covering 2 different seasons)
- Renewable hydrogen and/or other renewable hydrogen-rich fuels produced on-site or be delivered at the site
- Engaging the renewable energy community