Consortium seeking Ukrainian partner for off-grid renewable energy storage for data centres (CL5-2026-03-D3-21)

Summary

Profile type	Company's country	POD reference
Research & Development Request	**Netherlands**	**RDRNL20260130010**
Profile status	**Type of partnership**	**Targeted countries**
PUBLISHED	**Research and development cooperation agreement**	**• Ukraine**
Contact Person	**Term of validity**	**Last update**
Enrico FRANZIN	**30 Jan 2026** **30 Jan 2027**	**30 Jan 2026**

General Information

Short summary

This Dutch large battery start-up develops iron-air batteries for large-scale long-duration energy storage. Their Iron-air batteries store energy for durations of 24-100 hours, at extremely low-cost, with high energy density and without risk of fire through thermal runaway. The company is looking for partners for deployment of early commercial systems (1-10 MW, up to 250 MWh). Application areas are co-located with renewables, grid connected or with large off-t.

Full description

This consortium is specifically seeking a Ukrainian partner to join the consortium. The role is open and will be shaped together with the selected partner, based on their strengths and interests. Potential roles include: a Ukrainian data centre operator contributing requirements, operational constraints and (where possible) data; a research organisation or university contributing modelling, control, safety, testing, or LCA/TEA; an SME contributing components, prototyping or engineering; or an organisation providing strong knowledge of the Ukrainian electricity system, resilience constraints, and regulatory/operational context.

Advantages and innovations

The goal of the project is to research and develop a novel off-grid/hybrid renewable energy storage solution tailored to a data-centre use case as critical infrastructure. The innovation lies in a data-centre-driven design that translates strict requirements (high availability, fast response, safety, predictable performance and modular scalability) into the architecture of the storage system, power conversion and control/energy management. The solution aims to enable higher renewable energy shares and reduce reliance on fossil-based backup in weak-grid or off-grid contexts.

Technical specification or expertise sought

The consortium seeks a Ukrainian partner. The role is open and will be shaped together based on the partner's strengths and interests. Relevant expertise can include one or more of the following:

• Data-centre operations and critical-load requirements (UPS/backup interfaces, constraints, operational data, use cases).
• Off-grid/hybrid power systems and microgrids, including renewable integration and resilience strategies.
• Energy storage research and development (cell/system design, safety, thermal management, degradation, testing).
• Power electronics and control/energy management (converter design, protection, grid-forming/weak-grid control, EMS algorithms).
• System modelling and optimisation (dynamic simulation, sizing, techno-economic assessment, reliability analysis).
• Laboratory methods and facilities for subsystem prototyping and testing.
• Knowledge of the Ukrainian electricity system (grid conditions, restoration practices, regulations, and resilience constraints).

Stage of development

Concept stage

Sustainable Development goals

- **Goal 7: Affordable and Clean Energy**
- **Goal 9: Industry, Innovation and Infrastructure**

IPR Status

IPR Notes

Partner Sought

Expected role of the partner

Expected contributions (to be agreed) may include: co-defining Ukraine-relevant use cases and requirements; providing datasets and operational insights; contributing to specific R&D tasks (modelling, control concepts, component development, lab testing); and supporting dissemination and stakeholder engagement in Ukraine and the EU

Type of partnership

Research and development cooperation agreement

Type and size of the partner

- **SME 11-49**
- **SME 50 - 249**
- **SME <=10**
- **Other**
- **Big company**

Call Details

Framework program

Horizon Europe

Call title and identifier

HORIZON-CL5-2026-03-D3-21: Novel solutions for off-grid storage of renewable energy for critical infrastructures

Submission and evaluation scheme

Anticipated project budget

Coordinator required

Yes

Deadline for EoI

28 Feb 2026

Deadline of the call

31 Mar 2026

Project duration in weeks

Web link to the call

Project title and acronym

Dissemination

Technology keywords

- **04001003 - Storage of electricity, batteries**

Market keywords

- **02006008 - Data storage**

Targeted countries

- **Ukraine**

Sector groups involved

- **Renewable Energy**