HORIZON-CL5-2026-03-D3-23: AI-driven forecasting algorithms for Grid and Consumer friendly Energy Sharing – Societal Readiness pilot

Call: Cluster 5 Call 03-2026 (WP2026-2027)	
Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 6.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 12.00 million.
Type of Action	Innovation Actions
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).
Technology Readiness Level	Activities are expected to achieve TRL 6-8 by the end of the project – see General Annex B. Activities may start at any TRL.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025) [1].

Expected Outcome: Projects are expected to contribute to all the following expected outcomes:

- Develop and test AI-driven forecasting algorithms that use machine learning processes to optimise the value of collective self-consumption through energy sharing for communities and citizens

[1] This decision is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

- Upscale AI tools and models for grid balancing and forecasting to ensure consumer participation in a distributed energy system.
- Analysis of social interactions using advanced methods like game-theoretic models to highlight the role of active consumers and communities in energy systems.
- Deeper understanding of the needs and concerns of diverse social groups involved in or potentially affected by the R&I development of the technology, thereby increasing the potential for beneficial societal uptake and building trust in results and outcomes.
- Improvement of operation and maintenance of the grid and distributed assets.

Scope: AI-driven forecasting algorithms and machine learning can optimize bidirectional energy transfers involving flexibility services that can help energy communities and jointly acting customers evolve in their role as active participants in the energy system, while ensuring the reduced burdens on DSOs and residual suppliers. Innovations in machine learning forecasting can help balance energy systems and enable active participation in a decentralized, resilient, and digitalized European energy landscape, optimizing self-consumption and reducing energy costs for consumers.

This topic is a Societal-Readiness pilot:

- Proposals should follow the instructions applying to the Societal Readiness pilot, as described in the introduction of the Horizon Europe Main Work Programme 2026-2027 for Climate, Energy and Mobility. They entail the use of an interdisciplinary approach to deepening consideration and responsiveness of R&I activities to societal needs and concerns.
- This topic requires effective contribution of the relevant SSH expertise, including the involvement of SSH experts in the consortium, to meaningfully support Societal Readiness. Specifically, SSH expertise is expected to facilitate the socio-technological interface and enable the design of project objectives with Societal Readiness related activities.

Selected projects are expected to contribute to the BRIDGE initiative [2] and actively participate in its activities.

[2] https://bridge-smart-grid-storage-systems-digital-projects.ec.europa.eu/