

HORIZON-CL5-2022-D3-01-08: Supporting the action of consumers in the energy market and guide them to act as prosumers, communities and other active forms of active participation in the energy activities

Specific conditions	
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR 5.00 and 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.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 18.00 million.
<i>Type of Action</i>	Innovation Actions
<i>Technology Readiness Level</i>	Activities are expected to achieve TRL 6-8 by the end of the project – see General Annex B.

Expected Outcome: Project results are expected to contribute to most of the following expected outcomes:

- Demonstrate in real life interactive communication and support tools to engage citizens in the energy transition and to support them throughout the process of creating, constituting and developing an energy community, that are developed and fine-tuned based on field-tests;
- Engagement of distributed active consumers and energy communities at broad scale, including through innovative incentive mechanisms;
- Enabled new market roles and market participants;
- Enabled automated participation;
- Residential and SME related Demand Response contributing to increased level of flexibility and to the development of new flexibility products;
- Identified drivers and rules beyond marginal pricing which can steer the transactions within the energy communities;
- Developing mechanisms to support the creation, growth and capacity building of energy communities.

Scope: The provisions of the Clean Energy Package have paved the way for a new, more active role of prosumers and energy communities in the electricity market. Innovative tools and tailored solutions should be developed and tested in order to fully enable new type of interactions between citizens as consumers, prosumers and (members of) energy communities and foster participation in energy (in particular electricity) markets.

To this aim, projects should link citizens, technologies, regulation and markets together.

Tools should be developed to support demonstration of the energy community paradigm shift within the mentioned context using suitable digital platforms for putting the citizens in direct contact with each other, suppliers, aggregators and other involved market stakeholders and to increase prosumers' satisfaction and participation.

Dedicated demonstrations should be set to demonstrate the use of these interactive tools to contribute to real-time optimization of Distributed Energy Resources and the facilitation of investment decisions at household or community level in RES or demand response.

To get the acceptance of different energy technologies in civil society, these demonstrations should be built on SSH approach to take into account the social and behavioural dimension at the stage of their design, also considering safety issues of electrical systems.

As a result, these demonstrations are expected to aim to increase the understanding of consumer's behaviour (e.g. by understanding how they are providing demand side flexibility as close as possible to real-time). They should also aim to create innovative tools and tailored solutions to empower prosumers, to help them to realise energy communities and finally pave the way for the energy transition.

With these new insights the projects are expected to adapt the solution, test it again and compare the outcome of both iterations.

The tested solutions should be able to reconciling the top-down market developments with the bottom-up changes in the market arrangement and participation.

Solutions are expected to be as replicable as possible and to be demonstrated in a variety of geographical locations in different Member States/Associated Countries representing very different social and economic situations. In addition, regulatory / administrative barriers and possible solutions should be assessed as part of the projects.

To do so, projects are expected to design, develop and test incentives for market participants to react to system conditions according to location and time, while at the same time considering maximization of their economic benefit.

Projects should develop the entire functional chain from data collection and elaboration, to local flexibility needs and user-centric compensation enabling the active participation of prosumers.

Projects should take into account related ongoing activities under H2020 and Horizon Europe and are expected to contribute to relevant BRIDGE⁹⁹ activities.

⁹⁹ <https://www.h2020-bridge.eu/>