

Who is SEL

Smart Energy Lab (SEL) is a Portuguese Collaborative Laboratory (CoLAB) that combines science, technology, and industry expertise to accelerate the energy transition in the new downstream. SEL's purpose is to empower businesses and their customers with innovative solutions that enhance the use of renewable electricity, accelerating the Energy Transition in the New Downstream Energy sector.

SEL operates a Living Lab, *Living Energy*, comprising over 110 households equipped with IoT sensors that collect real-time data on energy consumption, temperature and humidity. This infrastructure enables SEL to support pilot deployments, user-centric design, behavioral studies, and applied research on smart energy solutions. Living Energy has been used in HE projects (Enershare, EV4EU, Reeflex and Communitas) to develop and test new technologies that will enable the deployment of new energy transition solutions under real-world environments.

Key Topics of Interest (LIFE-2025 Calls)

- LIFE-2025-CET-LOCAL: Implementation and development of Living Energy to support local decarbonization plans.
- LIFE-2025-CET-INDUSTRY: Test and validate a tool created and developed by SEL, which focuses on providing the most suitable heat electrification solutions for a specific industry.
- LIFE-2025-CET-BETTERRENO: Implementation and development of Living Energy to support energy renovation solutions.
- LIFE-2025-CET-ENERPOV: Implementation of Living Energy as a platform to support the diagnosis of energy poverty and monitor the performance of home renovation actions after they're implemented.

What SEL Can Offer to Consortiums

- ✓ Validated Solutions Ready for Scaling – Living Energy, EDGE, and REEF already in use.
- ✓ Tech Infrastructure – PV & Storage Lab, E-Mobility Lab, Electronics & Prototyping Lab
- ✓ Proven Track Record – Participation in several Horizon Europe & PRR (Next Generation EU) projects.
- ✓ Cross-Cutting Expertise – A Team of +60 individuals with complementary competencies to solve any challenge in the energy downstream: technical development & engineering, software & web development, design & user experience, business & financial management, data analysis, marketing & research.
- ✓ Strong Ecosystem – Fast track to enter or promote consortium creation leveraged by the Associates ecosystem and other stakeholders.