

Deployment of energy communities & prosumers

SOLUTION PACKAGE 2

ASCEND is driving the deployment and replication of energy communities, ensuring the creation of appropriate legal entities, new services, and innovative business models. The Lighthouse and Multiplier cities are demonstrating the transformative potential of energy communities and prosumers in advancing clean energy transitions. You can read more about the key developments taking place in ASCEND cities organized under the Solution Package 2.



MUNICH

Munich's Harthof district hosts 750 kWp of on-site solar energy, supplying housing units through a Tenant Electricity Model that lowers network fees and energy costs. Partnering with Naturstrom AG, hydroelectric power supplements solar when needed. A cooperative of 25 housing companies has deployed over 60 tenant electricity systems, funding and expanding the initiative.

750 kWp
PV system output

60
tenant electricity systems

25
housing companies



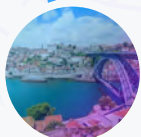
LYON

Lyon's Collective Self-Consumption Model distributes solar power to 150 residents across five buildings, managed by the Le Soleil d'Ydeal Confluence energy association. A smart metering system simplifies billing, while 50 participants pay a €3 monthly fee for predictable costs and affordable renewable energy. A 200 kWh battery system is now operational, optimizing energy storage and self-consumption.

200 kWh
battery systems

150
solar-powered residential homes

3€
monthly fee for 50 residents



PORTO

Porto is deploying PV-based energy communities across municipal buildings, schools, and housing. The Asprela + Sustentável Pilot, Portugal's first municipality-led energy community, integrates PV, battery storage, and EV charging, cutting grid demand by 26%. REC licenses were approved for three schools and a police building, with expansion to social housing. A smart energy management system enables real-time monitoring of energy use.

1st
municipal energy community

26%
reduction in grid demand

3
schools received a REC license



CHARLEROI

Charleroi has established a legal framework to coordinate energy network infrastructure development, with ongoing efforts to define its operational role. The city is launching a local energy community for electricity, heating, and cooling, starting with renovated buildings. Additionally, Charleroi is exploring energy sourcing options, including waste heat recovery, while assessing local energy demands.

legal framework established

local energy community being launched

exploring new energy sources



PRAGUE

Prague is piloting the Energy Community Readiness Concept (ECRC) in Dolní Počernice for 550 residential units, enabling local energy sharing and renewable energy use. The first version is expected by end of 2025, with a revision in 2027. New legislation simplifies energy community creation, while integrating Local Distribution Network (LDN) solutions will improve operations.

550
residential units conceptualized

new legislation enacted

integration of LDN solutions



BUDAPEST

Budapest has defined the PCED site, identifying core and buffer zones for potential Renewable Energy Community (REC) participants. The city is mapping stakeholders, engaging district institutions, and collecting energy data from municipal buildings. Ongoing efforts include assessing REC scenarios to optimize energy-sharing configurations based on building energy profiles and connectivity.

PCED identified

stakeholder mapping

assessment of REC scenarios



ALBA IULIA

Alba Iulia has PV systems on three buildings: 57.75 kWp at Dorin Pavel Technical College HQ, 52.8 kWp at the Sports Hall, and 23.3 kWp at the Central Heating Building. The city is analyzing self-consumption savings and exploring energy-sharing revenue models. Planned PV expansion includes 22 kWp for Technical College workshops and 20 kWp for the Heating Plant. Alba Iulia is also developing local policies to support energy communities and shape Romania's legal framework.

3
buildings with PV systems

133 kWp
PV system output

42 kWp
planned expansion of the PV system output