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EUROPEAN UNION

Investing in your future
European Regional Development Fund

LECo

Local Energy Communities



**LECo factsheet:
Accelerate community
energy transition**



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Local Energy Communities

Regional and local approaches to climate and energy transition are most successful when initiatives draw on the regions' own resources. Pioneers, associations, innovative enterprises and visionary local decision makers have successfully moved from ideas to action, when there was a common goal:

Sustainable, highly self-sufficient energy supply and local value addition.

The project LECo – Local Energy Communities - supports small municipalities and communities in the partner regions of Finland, Ireland, Norway and Sweden to identify and implement sustainable energy initiatives.

Important factors for successful local energy transition projects include:

- **Economic benefit** to community members, local business and the municipality:
 - Energy efficiency options reduce costs to households, enterprises and municipal activities. Housing conditions are improved. Local entrepreneurs in collaboration with homeowners, creating local value, implement such measures.
 - Renewable energy projects have the potential to provide energy to local users with lower and stable energy costs. Overproduction can be sold to the grid.
 - Saving household and business expenditure for fossil fuels and re-injecting into the local economy.
 - Level of increased economic benefits is determined by the availability and use of local, qualified labor and supplies, as well as by the share of local ownership.
- **Benefits beyond economic advantages:** A feeling of creating something together can unearth unexpected support and enthusiasm. Local interests on siting and sizing of the project have to be considered.
- **A driving force in the community:** A single person or a group of enthusiastic community members engaging in energy transition projects is crucial for a successful way forward.
- **Cooperation, cohesion and integration:**
 - Cooperation between stakeholders, local entrepreneurs, local politicians, local public staff and citizens' awareness for the project and its development is important. Team up with other communities.
 - Reinforcing cohesion within the community and between city and countryside.
 - Integrating with other community activities and linking the initiative with national, regional and municipal strategies and plans increase the chances for successful implementation.
- **An active local energy office:** A local or regional energy office (or locally available experts) with knowledge on local resources, applicable technologies, funding opportunities, organizational development provides expertise and support to small municipalities and community initiatives.
- **Long-term policy, financial security and local energy planning:** Stable, foreseeable policies and financial support frameworks which ensure long-term financial sustainability are required for a broad engagement in energy projects throughout the regions. Local energy planning encouraging community/municipality owned energy supply.

Community energy initiatives follow a bottom-up approach, developing their own way to reduce energy consumption and utilizing local renewable energy resources. High levels of participation with a focus on community's strengths are the advantages of this approach. Local value addition through securing and creating jobs revitalize the community and the region.

LECo is designed to support this approach in four phases:

- **Analysing policy and support frameworks** in the partner regions plus Germany and Austria and providing recommendations on engaging in improving existing policies.
- **Providing assistance in assessing the local energy situation:**
 - Assessing the building stock and need for improvement of the building envelope.
 - Assessing local transport patterns and developing more sustainable transport solutions.
 - Assessing consumption behavior, advocating for less consumption and shifting to
 - consumption of locally or regionally produced goods.
 - Understanding the potential of local renewable energy resources.
 - Mapping available skills amongst community members and local entrepreneurs and the
 - need for capacity building interventions.
- **Supporting arising community energy initiatives** with developing local sustainable energy action plans and pilot projects. That are based on local energy system models, scenarios and concepts developed in close cooperation with project partners.
- **Supporting community energy initiatives in moving from ideas to action.** That includes study visits and learning from good practice in other communities, help with joining networks, technical, methodological and organizational support, and help in writing project proposals, investigating in funding options as well as advice on application to selected funding sources.
- **Supporting community energy projects.** Capacity building on project management, controlling, monitoring and evaluation. Training on managing media and public presentation of the activities.

LECo supports local action. Bundling them will give political weight, raise acceptance levels, encourage more to start and hence accelerate energy transition contributing to regenerate communities and regions.

Table: Typical projects for energy efficiency, renewable electricity and heat, bioenergy supply:

Renewable electricity	Renewable heating/cooling	Renewable fuels	Energy efficiency
Wind energy (onshore)	Domestic solar thermal heat (hot water and heating)	Biodiesel	Improving building envelopes
Wave and tidal energy	Large solar thermal heat integrated with DH	Bioethanol	Applying advanced building standards
Small (domestic rooftop) solar PV or small ground-mounted.	Solar thermal cooling	Plant oil	Residential buildings
Large solar PV (roof- or ground-mounted)	Ground source heat-pumps and floor heating systems	Forestry residues; wood-chips; Pellets; waste-wood	Public buildings Commercial buildings Apartment buildings
Small hydropower	Water heat-pumps (lakes, rivers, ocean)	Peat for District Heating boilers; peat for residential use.	
Biogas electricity or CHP.	Air heat-pumps		Street lighting
Wood-fired micro CHP.	Wood-fired boilers Peat-fired boilers		
Local district heating CHPs: <ul style="list-style-type: none"> • Biogas-CHP • Wood-fired-CHP • Peat co-fired-CHP 	Biogas, biodiesel-fired boilers	Transport sector: Focus on walking, cycling, and public transport. Biogas for busses, etc. Electric vehicles, charging stations	
Micro-grid and electricity storage: <ul style="list-style-type: none"> • Behind the meter • On the grid 	Local district heating boilers: <ul style="list-style-type: none"> • Biogas • Wood-fired • Peat co-fired 		





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Project Partners

Centria University of Applied Sciences (Finland),
Western Development Commission (Ireland), Luleå University of Technology (Sweden),
Renewable Energies Agency (Germany)*, Jokkmokk municipality (Sweden),
The Gaeltacht Authority (Ireland), Lohtaja Energy Cooperative (Finland),
UiT – the Arctic University of Norway (Norway)

*Outside the NPA Programme area

