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LECo

Local Energy Communities



**How to accelerate the energy
transition for Communities:
A handbook for Ireland**



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The **LECo (Local Energy Communities)** project supports small municipalities and communities in the partner regions of Finland, Ireland, Norway and Sweden to implement energy initiatives. This handbook intends to guide energy initiatives from the initial idea to conclusion. It includes links to important sources and recommendations for citizen engagement with policy development.

This information has been developed by LECo project partner LTU (Lulea University of Technology). Adaptations for Ireland have been made by project partners *The Western Development Commission and Údarás na Gaeltachta*.

MAKE YOUR PROJECT WORK

Energy efficiency and small-scale renewable energy projects are typically started by an association of energy users or producers in a community in order to either provide lower cost energy and/or the possibility of additional future income.

A common feature of these initiatives is that they benefit the community and create economic cycles where the money does not unilaterally flow out of the area.

Get your project started

Linking your energy efficiency or renewable energy project idea with energy strategies of the country and region will ease any planning issues and funding procedures. A clear vision on how your project can benefit households and the local community will increase interest and ensure active participation of community members. Engaging members in activities such as public meetings, interviews and discussions with key people in the community on renewable energy possibilities will assist this process. Visiting similar initiatives in other commu-

nities can also lay the foundation for a new community owned and led organization, which in Ireland typically takes the form of a community organisation, a company limited by guarantee (CLG) or an Energy Co-Operative. Once community members and all stakeholders are on board and organized and the acceptance of the general public is attained the idea can be launched. Aims and objectives must also be agreed upon. This will involve clarification of expectations, delegation of roles and responsibilities within the organization and in the project management. The next step is to make the project work. The first place to start is with the Sustainable Energy Authority of Ireland (SEAI), Ireland's national sustainable energy authority who is leading the low carbon energy transition. They run the Sustainable Energy Community (SEC) Network which is made up of over 180 communities around Ireland who are interested in community energy. The aim of the network is to encourage and support a national movement of SECs in every part of the country. Together they want to: Be as energy efficient as possible, use renewable energy where workable, and use smart energy technologies.

<https://www.seai.ie/sustainable-solutions/community-projects/community-network/>

Planning permissions and land use

Acquiring regulatory consents, such as planning permission, grid connection (if possible) or an Environmental Impact Assessment (EIA), can be time-consuming and costly. However, there are planning exemptions in respect of microgeneration technologies in certain circumstances.

Please see https://www.seai.ie/resources/publications/Conditional_Planning_Exemptions.pdf.



The Local Authority's planning office should be the first point of contact for information about permission and declaration requirements. Depending on the chosen technology, capacity, visual design, existing detailed and land use plans, and other factors that the planning officer can determine which regulations to apply and if more extensive permissions from the Local Authority is required. SEAI's staff and/or experienced installers are also familiar with required permissions for energy projects and can assist in this regard.

In Ireland most changes on existing commercial buildings, including insulation and replacing heating systems, require a planning exemption declaration only. Significant changes to the building's appearance – for example rooftop solar systems exceeding 50sq.m or 50% of the total roof area including existing panels require permission. For larger wind energy projects, detailed step by step guides are available on <https://www.seai.ie/sustainable-solutions/renewable-energy/wind-energy/>

For small hydropower projects and any activities affecting river bodies, permission is necessary according to the current environmental legislation.

Legal advice must be sought in cases where the energy project is a greenfield project, for example installation of ground-mounted solar systems or wind turbines. The requisite title and ownership rights need to be acquired for the intended land use, which could involve leasing or purchasing the land.

Financing the project

A project plan, a functioning organizational structure and experienced project management are elements that form successful projects in a funding application.

Funding options may be available from ongoing government programmes for your project type and size and it may be useful to rank them after examining the best match of funding criteria. Funding can also be secured from initiatives for rural development, structural funds, regeneration of areas, improvement of housing, charitable trusts and foundations, the lottery and private sector finance. In most of the cases, some form of co-financing from the community will be necessary.

The Sustainable Energy Authority of Ireland (SEAI) administers several grant support programmes, including:

- <https://www.seai.ie/grants/home-grants/>
- <https://www.seai.ie/grants/business-grants/>
- <https://www.seai.ie/grants/community-grants/>
- <https://www.seai.ie/grants/electric-vehicle-grants/>
- <https://www.seai.ie/grants/research-funding/>

Other funding sources include:

- <https://www.hse.ie/eng/services/list/1/schemes/natlotterygrants/>
- <https://www.wheel.ie/Funding>
- <https://www.pobal.ie/programmes/leader-programme-2014-2020/>

Implementing and completing the project

Once all permissions and declaration requirements are fulfilled, a suitably qualified installer is procured and awarded the project contract. They will deliver and competently install the system. Ideally they will also provide comprehensive documentation of the system, training for operation and maintenance, which can be carried out by community members. The system is tested and commissioned. Evidence of completion is submitted to the funding providers. Milestones and finalization have to be demonstrated, reported and communicated.

The project and all the experiences with it are evaluated and documented in a final project report; this includes highlighting lessons learned; expected and unexpected problems and benefits; achievements hopefully other mostly positive experiences. This is important for the community and the members of the cooperative. After successful implementation of the first project, new ideas will evolve and new projects will follow.

ORGANISATIONAL FORMS FOR SMALL-SCALE ENERGY PROJECTS

Such projects are typically owned and operated by a cooperative or a community enterprise, which in Ireland takes the legal form of a Co-Operative, a Company Limited by Guarantee (CLG) or Community Association

Information on Energy Co-Ops:

- www.energyco-ops.ie
- www.icos.ie

Support for Community Associations:

- www.carmichaelcentre.ie
- <https://www.wheel.ie/content/whats-out-there>

Registration of Limited Company:

- www.cro.ie/Registration/Company

TECHNOLOGIES AND PROJECT TYPES

Table: Projects for energy efficiency, renewable electricity and heat, and 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 		

Improving building envelopes and replacing heating systems:

- **SEAI:** <https://www.seai.ie/grants/home-grants/better-energy-homes/heat-pump-systems/>
- **SEAI:** <https://www.seai.ie/grants/home-grants/deep-retrofit-programme/>
- **Irish Green Building Council:** www.igbc.ie

Hydropower:

- **SEAI:** <http://maps.seai.ie/giswiki/maps/hydro-power-map/>
- **Irish Hydropower Association:** <http://www.irishhydro.com/>

Solar:

- **SEAI:** <https://www.seai.ie/sustainable-solutions/renewable-energy/solar-energy/>

Irish Solar Energy Association:

www.irishsolarenergy.org/

Wind:

- **SEAI:** <https://www.seai.ie/sustainable-solutions/renewable-energy/wind-energy/>
- **Irish Wind Energy Association:** www.iwea.ie

Bioenergy:

- **SEAI:** <https://www.seai.ie/sustainable-solutions/renewable-energy/bioenergy/>
- **Irish Bioenergy Association:** www.irbea.ie

Biogas:

- **SEAI:** <https://www.seai.ie/resources/publications/Assessment-of-Cost-and-Benefits-of-Biogas-and-Biomethane-in-Ireland.pdf>

CITIZEN ENGAGEMENT IN POLICY DEVELOPMENT

Within the context of a low carbon energy transition, new roles for local communities are emerging; transitioning them from passive consumers to active prosumers with local generation, demand response and energy efficiency measures possible. Community members with interest and enthusiasm for energy initiatives can engage in national policymaking, regional and municipal development planning processes through activities including participation in public consultation (for example the current Renewable Electricity Support Scheme (RESS) consultation that closed on November 10th 2017 had a significant community focus in terms of ownership models, local benefit models and feed-in-tariffs), public hearings, seminars, road-shows, writing submissions to local and central authorities, letters to media and contributions in social media forums. Local energy advisors and energy offices are important stakeholders who engage directly with citizens and SMEs. Individual citizens and community organizations are invited to participate in such activities. As in all Local Authority planning, citizens can engage in the development and updates of such local energy plans.

Recommendations for policy adaptations and engagement:

- There is currently **no feed-in-tariffs for microgeneration in Ireland**, thus excluding most community energy participation except in the case of significant on site consumption, this need to be addressed and was excluded from the RESS consultation mentioned above.
- There is currently no priority grid access for communities in Ireland, this was part of the RESS consultation and we are awaiting feedback
- **Include and incorporate local stakeholders** into the design, development and context of the sustainable energy transition
- Need for those who contribute to and accommodate community energy projects **to also reap the financial and social benefits locally**
- **Introduce tax incentives for Renewable Energy Projects**
- **Engage in mandatory implementation of co-ownership models for the future e.g. wind parks and solar parks** resulting in direct and long-term financial benefits for affected communities and consider applying such legislation on new and existing renewable installations. This was part of the RESS consultation and we are awaiting feedback. A target of 20% community investment is proposed within certain distances (possibly 5km) of future renewable installations above agreed sizes (possibly 500kW). Co-ops are in their infancy in Ireland as there were only four established in 2016, and the shared ownership model is not widely used.

Accelerating energy transition in communities through:

- **Local energy offices and energy advisors to provide more support** for SMEs and community energy initiatives towards project identification, proposal writing for financing, project development and implementation.

- **Getting local political decision makers and entrepreneurs involved.**
- **Overcoming a lack of know-how by capacity building and involving experts.**
- **Provision of long-term funding for energy and climate work at each municipality.**
- **Ensuring long-term financial and regulatory stability** for community energy projects.
- **Advisory support in organizational development** for the establishment of energy cooperatives.
- **Reviewing and simplify application procedures** to support programs.
- **Designing technology neutral financial support** for small-scale energy production and energy efficiency measures for households and SMEs.

OTHER INTERESTING LINKS

- **Tipperary Energy Agency:** www.tippenergy.ie/
- **Dublin Energy Agency:** www.codema.ie
- **Three Counties Energy Agency:** www.3cea.ie
- **Friends of the Earth:** www.foe.ie/energy/communityenergy.html
- **RESCOOP:** www.rescoop.eu/
- **Covenant of Mayors:** www.covenantofmayors.eu/en/
- **Community Energy Scotland:** www.communityenergyscotland.org.uk/
- **Community Power:** www.communitypower.eu/en/



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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

