Northern Periphery and Arctic Programme
2014–2020

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Local Energy Communities

Report on the review of the renewable energy strategic planning

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1.0 INTRODUCTION

Municipals and local authorities aim to improve the environment and living conditions for citizens through proper planning and development. An overall strategy and plan for the sustainable development of the area under their remit is required by every municipal and local authority in order to fulfil these aims. These plans are entitled 'development plans'. These development plans involve spatial planning which set out the manner in which land is to be used for planning purposes. Strategic plans are documents or blueprints used to guide the decision-making processes regarding planning permission and development in the municipal or local authority area. This would involve allocating certain lands for housing or for energy use purposes. These development plans should have regard to renewable energy and climate change within the context of the Renewable Energy Directive (2009) and national and regional planning guidelines.

A review of the renewable energy strategic planning will examine county council, local authority and municipal development plans as well as community owned energy plans in Ireland, Finland and Sweden. Municipals and councils should have regard to national and regional energy planning and include a renewable energy section in their local strategic development plans. This report will examine the collaboration between energy agencies regarding strategic plans and the effectiveness of same. Usually, there is no single funding source for strategic energy planning and most community owned energy plans are completed on a voluntary bases but funding options will also be discussed.

This report will review the current energy strategic planning process and review the energy section of the strategic development plans in LECo partner regions. This will include an analysis of current development plans, community owned energy plans, the aims and goals of these plans as well as the effectiveness and impact of the development plans.

1.1 Review of the renewable energy section of the local strategic development plans

IRELAND

The planning system in Ireland aims to create sustainable social and economic development in line with national policies and therefore encourage improvement in the environment and living standards for citizens. At national level the Department of Housing, Planning and Local Government is responsible for planning policy. However, this function is carried out by the 31 county and city councils, also known as local authorities and also referred to as planning authorities. (Relate - Citizens Information Board, 2018)

All planning authorities are obliged under the Local Government (Planning and Development) Acts, 2000 to 2018, to set out the overall planning policies of the local authority every six years. The Planning and Development Act 2010 (as amended) requires each development plan to include objectives to mitigate against climate change and reduce reliance on fossil fuels. Any future planning applications must comply with the objectives set out in the development plan.

Work on a new development plan must begin four years after the date of the last plan. These development plans are a blueprint for County Council policies in relation to the use and development of land within their remit. The development plan must set out the overall strategy and planning for the sustainable development of the area. When a new development plan is being prepared, anyone can become involved at the initial stage when your local authority publishes its intention to review the plan. One can also participate at the draft plan stage and the amended draft plan by making observations, submissions and suggestions about the local authority proposals. Before the final plan is adopted, various statutory agencies, voluntary and community organisations are consulted and requested to give any observations or advice. All planning applications must be compatible with the development plan and planning permission will only be given where the application is in accordance with the plan.

Local authority development plans must also consider the National Spatial Strategy (NSS). The NSS is a twenty year framework designed to achieve a national balance on social, economic and physical development between regions as populations grows. This involves using and developing the economic resources of rural areas including the potential for renewable energy. The National Planning Framework (NPF) was published on the 16th February 2018 must also be considered and aims to ensure that population growth is sustainable economically, socially and environmentally. The NPF has been incorporated into planning law and regulations that the planning authorities must adhere to unlike its predecessor the NSS. (The Planning and Development (Amendment) Act 2018)

Ireland also has three regional assemblies regarding planning guidelines. These are the Northern and Western Regional Assemblies, the Southern Regional Assemblies, and the Eastern and Midland Assemblies. These assemblies have functions regarding spatial planning and economic development. The Planning and Development (Amended) Act 2018 imposes more stringent obligations on the local authorities to ensure development plans are in line with national or regional spatial and economic policies and guidelines.

Local authorities are also responsible for developing local area plans (LAP). A LAP must be prepared for any designated town with a population over 5,000. A LAP identifies specific issues for a smaller area and is more detailed than a development plan.

Under the Local Government Reform Act 2014, each local authority must establish a Local Community Development Committee (LCDC). The aim of the LCDC is to develop, implement and monitor the community elements of the six year Local Economic and Community Plan (LECP) and overseeing the Local and Community Development Programs (LCDP).

Each county development has extensive objectives and aims regarding Renewable Energy taking into account the best use of locally available renewable energy resources. The Renewable Energy section of the development plan affords individuals, communities and businesses opportunities to harness renewable energy in a sustainable manner in order to combat climate change.

Wind Energy Guidelines

In August 2017 the Department of Housing, Planning and Local Government issued a circular providing guidance on the review of wind energy and renewable policies within the context of the development plans. (Dept. of Housing Planning and Local Government, August 2017) . This circular re-affirms the position of a previous circular letter which advises local authorities to defer amending their existing Development Plan policies in relation to wind energy and renewable energy generally as part of either the normal cyclical six-yearly review or plan variation processes and should instead operate their existing development plan policies and objectives until the completion of the review of the Wind Energy Development Guidelines 2006.

The Department of Housing, Planning and Local Government acknowledged that a review of the Wind Energy Development Guidelines 2006 has taken considerably longer to conclude than envisaged and therefore have issued new Planning Guidelines under section 28 of the Act entitled "Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change."

The interim guidelines clearly state that under section 28 of the Act (Planning Development Act 2000) that in making a development plan with policies that relate to wind energy developments the planning authority **must;**

- Ensure that the national policy on renewable energy is acknowledged and documented (Consideration must be given to the following policies - National Renewable Energy Action Plan, 2010; the Strategy for Renewable Energy 2012-2020, the White Paper on Energy Policy; Ireland's Transition to a Low Carbon Energy Future 2015-2030 and the National Mitigation Plan);
- Indicate how the implementation of the relevant development will contribute to realising overall national targets on renewable energy and climate change mitigation, and in particular wind energy production;
- Demonstrate detailed compliance with the above and complete environmental assessments.

The interim guidelines will be subject to Strategic Environmental Assessment and public consultation before they are finalised by the Government. The Interim guidelines are a clear indicator that it is incumbent on Planning Authorities to implement national policies through the development process and the need to address climate change is at the fore in considering planning policies within the County Development Plan. (Det. of Housing, Planning, Community and Local Government, July 2017) However, the guidelines urgently required finalisation with definitive guidelines as well as a National strategy for wind developed.

The planning functions within local authorities have the power to deliver Ireland's renewable energy targets, in particular the identification or zoning suitable renewable energy projects and infrastructure and implementing planning permissions.

FINLAND

Motiva is a Finnish company that provides the public sector, businesses, municipalities and consumers with information, solutions and services that allow them to make resource-efficient, effective and sustainable choices. The State of Finland owns Motiva, and its main goal is to promote the use of renewable energy sources and energy efficiency.

Motiva manages an Energy Efficiency Agreement-service (Energiatehokkuussopimus) which municipalities can join. Municipalities can respond to the challenges of climate change by paying attention to their own energy use according to the agreement. This affects the amount of energy consumed, the different emissions and the operating costs. By means of agreements the Energy Efficiency Agreement, municipalities and joint municipal authorities can contribute to the implementation of the national climate strategy. Energy saving and investing in renewable energy sources can bring a competitive advantage to the municipality. The agreement is a means of enforcing the Energy Services Directive in Finland instead of a possible energy saving law. The Ministry also financially supports municipal energy audits and investments related to energy saving and production.

SWEDEN

Source of the following text: National Board of Housing, Building and Planning

With its overall perspective on land use, buildings, green structure and infrastructure, the overview planning is an excellent basis for highlighting the energy issue's connection to other planning issues. Here is an opportunity to report and analyze the conditions and goals for both energy conservation and renewable energy expansion in order to reduce the climate impact. To consider in the overview planning:

The strategies in the overview plan should promote energy efficiency improvements and an expansion of renewable energy production. The type of renewable energy that the municipality / region should invest in must be based on the local / regional local conditions. The regional climate and energy strategy that each county administrative board is responsible for developing is an important planning document.

In the overview planning, the municipality should ensure how the energy is to be distributed. The municipality's energy plan can be indicative in this respect. Capacity in existing systems needs to be mapped and the need for new distribution systems analyzed. The outline planning should take into account and promote the expansion of secure distribution systems for biofuels and the grid's capacity in areas suitable for wind power. It is also important that new buildings, especially larger expansion areas, are located in areas where there is the possibility of connecting to the municipal district heating network.

The possibility of regional collaboration for joint energy production and distribution needs to be utilized in overview planning. Here too, the regional climate and energy strategy that each county administrative board is responsible for developing should be used as a basis.

The strategies in the overview plan need to be followed up and analyzed on the basis of how they affect the energy use in the municipality.

It is important that the overview planning promotes energy recovery from residual products and waste heat. The munic-

ipality should therefore investigate the possibility of utilizing surplus energy from industries in the location of district heating plants.

Strategies for the expansion of charging infrastructure for electric vehicles should be addressed in the overview plan.

Solar energy strategies need to be addressed in the overview plan to show how the municipality can facilitate and stimulate an increased expansion of solar cells and solar heat.

1.2 Community owned energy plans

IRELAND: Energy Master Plan - Community Partnership with the Sustainable Energy Authority of Ireland (SEAI)
The SEAI encourages Sustainable Energy Communities (SEC's) to enter a partnership with them in order to access support to assist communities in establishing a baseline Energy Master Plan. The SEAI will provide assistance to communities in order to tailor an Energy Master Plan for the community. The SEAI can provide access to technical panel of experts, provide funding to hire consultants to collect data, provide mentoring and skills and competency building. This process is non-competitive, on a first come first served basis and learnings are kept within the community and not restricted to one deadline per year. (https://www.seai.ie/sustainable-solutions/community-projects/community-partnerships/)

Renewable Electricity Support Scheme
One of the main barriers to community owned RE projects is the complicated, long and risky process for a community energy project to connect into the National Grid and the difficulty and often impossibility for communities to get paid for electricity they export. However, the details of the proposed Renewable Electricity Support Scheme (RESS) have been announced and the proposed new scheme allows for community participation through an enabling framework. This proposed framework aims to provide pathways and supports for communities in the form of the following;

- Financial supports for community-led projects across early phases of the project development including feasibility and development studies (grants, legal and technical assistance).
- Separate 'community' category in the RESS auction. RESS auctions will be held ar frequent intervals throughout the duration of the scheme. The first RESS auction in 2019 will deliver 'shovel ready' projects.
- Mandatory Community Benefit Fund and register standardised across the sector. It is proposed that this contribution is set at €2/MWh for all RES-E generation supported through RESS auctions.
- Mandatory investment opportunities for communities and citizens in all RESS projects. Projects must fulfil community investment criteria to qualify for RESS actions.

However, micro-generation projects were not included or supported in the RESS given the higher costs identified with micro generation. (Dept. of Communications, Climate Action & Environment, 2018)

FINLAND
To connect a conventional small or micro RE-system to the grid in Finland is straightforward. Small or micro-production is referred to when the rated output will not exceed 50 kVA. Before joining the grid, a network service agreement must be acquired from the energy provider for each production point. Before the agreement is valid, the network company must approve the installed hardware.

In Finland, there is no feed-in tariff support for the production of electricity based on wind power, wood-chips, other wood-based fuels and biogas. However, there are no specific feed-in tariffs for small-scale electricity providers. This makes it unprofitable for small- and micro producers to sell surplus energy to the grid and is one of the main barriers to community owned RE projects.

According to a report produced by a the Finnish Ministry of Economic Affairs and Employment regarding the Promoting of small-scale energy production, feed-in tariffs for small scale VRE-production does not serve a purpose. The group concluded that production support does not encourage self-use of the production or the optimization of energy use.

For instance, a PV-system in Finland is generally profitable only when the generation displaces a significant share of the imported electricity rather than creating surplus energy. Acquiring one kWh electricity from the grid costs approximately 0.10-0.15 € (2019) including taxes and grid costs. When exporting electricity to the grid, the producer generally only receives slightly less than the current hourly SPOT-price, which is only around 30-35% off what the imported electricity costs.

SWEDEN
In each municipality there must be a current plan for the supply, distribution and use of energy in the municipality. In such a plan there should be an analysis of the impact of the plan's activities on the environment, health and management of land and water and other resources. The plan is decided by the City Council. Law (1998: 836).

1.3 Discuss aims and goals, financial contributions and collaborations

IRELAND
There are 31 local authorities in Ireland each with their own local development plan unique to their region and landscape. A development plan usually included broad aims relating to the specific local authority relating to housing, infrastructure and community facilities. Therefore, an overview of general aims and goals of local authorities will be discussed. As stated in the Planning and Development Act 2010 (as amended) development plans are required to include objectives to mitigate against climate change and reduce reliance on fossil fuels. Development plans will "zone" land for certain development which in turn can assist large scale RE projects. All developments must comply with the development plan.

Most local authorities also work in conjunction with the Sustainable Energy Authority Ireland (SEAI) in order to avail of grants schemes.[1]

The SEAI also developed a planning tool entitled SEAI methodology for Local Authority Renewable Energy Strategies (LARES). LARES aims to assist local authorities in spatial planning and renewable energy strategies and ensure consistency and sustainability in line with national and European obligations.

- The Preliminary Phase, which clarifies the local need for a LARES and identifies whether strategic environmental assessment or appropriate assessment are required;
- Step 1: The Policy Review, identifying all renewable energy and other relevant policies;
- Step 2: Identify the Renewable Energy Resources and their potential for exploitation;
- Step 3: Review the Constraints and Facilitators that might affect exploitation;
- Step 4: Develop the Local Renewable Energy Policy. (Cann, 6 September 2016)

Many local authorities are actively involved in European projects relating to renewable energy in collaboration with third level institutions and other partners from Northern Periphery and Arctic regions

Local authorities are also actively involved in collaborating with other public sector organisations under The Climate Action Fund. (Government of Ireland, November 2018)

Building Regulations also require that all new builds must be designed and constructed in a manner that minimises the amount of CO_2 emissions. Regulations required all new homes to include at least one type of renewable energy source in order to reduce our reliance on fossil fuels and Part L of the Building Regulations 2001 Conservation of Fuel and Energy prescribes energy performance requirements from renewable energy technologies. All new builds must demonstrate how they have incorporated measures for sustainable energy efficiency as a means of reducing future reliance on fossil fuels. These measures have an effect on planning for individual houses.

1.4 Discuss policy implementation

IRELAND

The Development Plan sets out a policy for the making of planning decisions in a particular area. In cities, the development will set out a vision of how large urban areas will develop and in rural areas the development will set out how large geographic areas will be developed or "zoned". The implementation of the development plan will hinge on the capital investment by the public and private sector based on the plan and also investment from the local authority. The plan must take into consideration the economic, social and cultural needs of the community. Therefore, the development is a vision or blueprint of what the local authority envisages. As previously discussed the development plan can allow for collaboration with the SEAI and European projects as per objectives.

Most local authorities collaborated with the SEAI as the objectives fulfil those in the development plan. However, there are also some challenges with the Better Energy Communities (BEC) programme. They include a competitive process with stringent deadlines, a lot of paperwork, with a complicated technical workbook and only a handful of project co-ordinators.

FINLAND

The Land Use and Building Act concerns the use of land areas and building activities conducted on them. The purpose of this law is to organize the use and construction of the areas to create the conditions for a good living environment and to promote ecologically, economically, socially and culturally sustainable development. The Land Use and Building Act also contains provisions for RE-construction, in particular for wind power construction.

The purpose of the Land Use and Building Act:

- Organizing the use of land areas and building activities conducted on them in such a way that creates the preconditions for a favorable living environment
- Promoting ecologically, socially and culturally sustainable development
- Ensuring that everyone has the right to participate in the preparation of related matters
- Ensuring the high quality and interactivity of planning, the diversity of expertise, and the openness of communications

SWEDEN

The Planning and Building Act specify the general interests that the planning should take into account and promote. Based on natural and cultural values, environmental and climate aspects as well as inter-municipal and regional conditions, planning should contribute to, among other things, an efficient structure, good and accessible living environment, good management of land, water, energy and raw materials, economic growth and housing construction.

1.5 Discuss effectiveness of plans

IRELAND

The development plans create a vision for the local authority under which they can develop RE projects. Any development must comply with the development plan. However, the effectiveness of a development plan is as previously mentioned contingent on a number of other factors including investment from public and private sectors and investment from the local authority. The development plans in essence creates an environment for change but further investment is also required.

Each local authority also has a large building stock including local authority or social housing and therefore it is within their remit to create an exemplary role and provide strong leadership to communities regarding RE projects while also reducing their own emissions. For example The Tipperary energy Agency was established in 1998 by Tipperary County Council and Tipperary Institute to enable communities and the public sector become more sustainable in their energy use. Tipperary Energy Agency is one of the most successful energy agencies in the country and has identified a €500 million sustainable energy opportunity for the county in the last 20 years. (https://tippenergy.ie/about-us/).

It must also be noted that there are some challenges with the Better Energy Communities (BEC) programme that local authorities implement with the SEAI. They include a competitive process with stringent deadlines. They is also a lot of paperwork involved, with a complicated technical workbook and only a handful of project co-ordinators and not all projects are chosen for grant aid.

FINLAND

In Finland, development plans must follow certain energy efficiency requirements (rakentamismääräyskokoelma, energiatehokkuus) that are defined in the building regulations produced by the Ministry of the Environment. The development project must be designed and constructed in a way that saves energy and natural resources. The compliance with the energy performance requirements must be calculated and presented when the planning permit is applied. Construction products used in the buildings, as well as their adjustment and measurement systems, must be such that energy consumption and power requirements remains low and that energy consumption can be monitored. Energy efficiency has also to be improved in connection with other renovations of the building.

SWEDEN

Development plans are strong tools to promote sustainable living environments and they are the base for further and more detailed plans leading to concrete and binding regulations. However, as said above, the effectiveness of a development plan is as previously mentioned contingent on a number of other factors including investment from public and private sectors and investment from the local authority. The development plans in essence creates an environment for change but further investment is also required. Each local authority also has a large building stock including local authority or social housing and therefore it is within their remit to create an exemplary role and provide strong leadership to communities regarding RE projects while also reducing their own emissions.

When it comes to municipal energy planning and the legislation which demands every municipality to have an updated energy plan, so is this legislation very weak. There are no consequences if a municipality does not have an energy plan nor are the plans binding. They often do not have any impact. Here, a review and more effective instruments is needed.

1.6 Discuss impact of plans – environmental impact and sustainability

Positive Impacts of Renewable energy Production

- Availability of renewable energy resources
- Reducing noxious emissions
- Security of energy supply – reduce dependency on foreign source fuel
- Accessibility of renewable energy sources
- Community and local ownership involvement
- Community benefit
- Employment opportunities

Some Negative Impacts of Renewable Energy Production

- Natural energy flows – renewable energy production can be variable and intermittent and interfering with natural energy flows may have an effect on the environment.
- Cost – initial investment can be significantly high
- Public concerns – concerns regarding large scal projects
- Land requirements- large amount of land are required particularly for biomass
- Conservation of Natural and Cultural Heritage and Biodiversity – RE projects can lead to negative impacts on habitats, species and natural features.
- Neighbour interactions – noise, odour, signal interference and shadow flicker concerns
- Aesthetics/ Visual Amenity – many structures on a large scale can be visually
- Obtrusive. (Renewable Energy Strategy for County Mayo 2011-2020, May 2011)

Sweden: When it comes to municipal energy planning and the legislation which demands every municipality to have an updated energy plan, so is this legislation very weak. There are no consequences if a municipality does not have an energy plan nor are the plans binding. They often do not have any impact. Here, a review and more effective instruments is needed.

1.7 Conclusion

Local authority development plans create a framework for each geographical area taking legislation, national strategies and national guidelines into consideration. No development can proceed without adhering to the local development plan. However, in order to bring plans to fruition further public, private and local authority investment is required. In Ireland, the significant delay in the review of the Wind Energy Development Guidelines 2006 is leading to more localised decisions on wind energy as opposed to a National strategy on Wind Energy. It must also be noted that some local authorities are working to becoming exemplary authorities by investing and promoting renewable energy projects.
In Ireland, the RESS scheme should allow for more community owned RE projects and we await the practical workings of this scheme for communities. The SEAI has also allocated significant funding through grant schemes and through promoting community energy projects. These include technical advice for communities as well as energy audits in order to complete an Energy Master Plan and acts as a catalyst for change in the renewable energy sector.
RE projects can have both positive and negative environmental consequences. There are however procedures regarding planning, public consultation and the option of judicial review.

Sources

[1] Through these schemes with the SEAI the local authorities collaborate with not only the SEAI but local communities, business and individual citizens. Better Energy Communities (BECs) is an energy efficiency grant scheme available through the SEAI and a scheme that is administered by most local authorities. Up to 50% funding to community facilities is available and up to 30% funding for private sector. Typical measures that are eligible under the grant include installation of heat pumps, insulation upgrades, lighting upgrades, electric vehicles, solar electricity grant, deep retrofit grant and solar water heating grant. The Better Energy Warmer Homes Scheme (BEWH), administered by the SEAI funds energy efficient improvements for those in fuel poverty making the homes more comfortable and cost effective with up to 95% grant funding available. Through these grant schemes the local authority can encourage a high standard of sustainable energy efficiency and conservation in the existing building stock. They can also promote the uptake in incentives and promote new innovative building design. (https://www.seai.ie/grants/community-grants/)

References

- Dept. of Communications, Climate Action & Environment. (2018). Renewable electricity Support Scheme (RESS) High Level Design. Government of Ireland.
- (2009). Renewable Energy Directive 2009/28/EC.
- Cann, J. M. (6 September 2016). Planning for a low-carbon future - SEAI's Local Authority Renewable Energy Strategies. Engineers Journal Ireland.
- Dept. of Housing Planning and Local Government. (August 2017). Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy, Climate Change and Wind Energy, Guidelines 2006- update on review (Circular PL 5/2017).
- Det. of Housing, Planning, Community and Local Government. (July 2017). Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy, Climate Change and Wind Energy Development. Government of Ireland.
- Government of Ireland. (November 2018). Climate Action Fund.
- (n.d.). https://www.seai.ie/grants/community-grants/.
- (n.d.). https://www.seai.ie/sustainable-solutions/community-projects/community-partnerships/.
- Relate - Citizens Information Board. (2018, August). Planning in Ireland. Volume 45: Issue 8.
- (May 2011). Renewable Energy Strategy for County Mayo 2011-2020.
- (n.d.). The Planning and Development (Amendment) Act 2018.

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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