



Renewable Community Empowerment in Northern Territories



Northern Periphery and Arctic Programme

2014-2020



EUROPEAN UNION

Investing in your future
European Regional Development Fund

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Issue 5

Project Objectives:

To increase the capacity of communities to develop their own solutions for reliable, energy efficient public infrastructure;

To maximise energy asset management in water services;

Knowledge exchange programme leading to increased awareness and sustainable public policy;

Robust, sustainable community projects that will be self-sufficient post NPA funding.

Lead Partner Update

With the project rapidly moving towards a conclusion, the pieces are beginning to fall into place on many of our planned products. Our project had three main outputs and substantial progress has been made on each.

Virtual Learning Campus

The Virtual Learning Campus is shaping up nicely with plenty of content now in place and more to come. Agreement has also been reached with the LECO project who will take on the VLC allowing for it to continue to provide information for communities after the end of the RECENT Project.

Mentoring Programme

We have appointed a number of mentors for our mentoring program who have agreed to be available to chat with people who have an interest in developing a community renewable energy project. A wide range of skills and backgrounds are included within these mentors and we hope that being able to contact someone with such a skill set will be hugely beneficial.

Policy Influencer Programme

RECENT partners continue to pursue our policy influencer programme and events have been held across the regions. In Northern Ireland an event was held in South West College in conjunction with the GREBE Project where several members of industry were invited to meet with local politicians and a lively discussion on the lack of new renewable and sustainability energy policy followed. In Sweden a series of roadshows was held around the Arctic area prior to Christmas to gain feedback on policy issues in the country.

We have engaged with a wide and varied range of communities from across the five countries within the project partnership and many links have been forged that will hopefully allow for work to continue after the conclusion of the project!

Once again this newsletter will be focussing on some of the pilot sites we have worked with around the regions and also have a look at our final conference that was held in June 2018 in Brussels, Belgium.



For more in depth information or if you have any specific questions please contact Ewan Ramsay on ewan.ramsay@irri.org.uk or on + 44 (0) 131 290 2750.



Final Conference—Brussels

WATCH LIVE: TOWARDS A LOW-CARBON-FUTURE: CO-MANAGING ENERGY & WATER ASSETS

Lessons and policy recommendations from RECENT, a Renewable Energy Community Empowerment Project in Northern Europe
Live Stream Available: Wednesday 6th of June 2018, 17:00-19:30 (CET)



The RECENT Project held its final conference in Scotland House, Brussels on June 6th 2018. In attendance were Kirsti Mijnhijmer, Head of Secretariat, Northern Periphery and Arctic Programme and Pierre-Emmanuel LeClerc, EU Commission, DG Regio who both spoke to the attendees. Indeed, it was the first time Mr LeClerc had

spoken at an event in his new role and we were delighted to welcome him along and give him this opportunity!

In a new innovation it was decided that to attempt to further spread the word of the RECENT project and attempt to bring in a wider audience than may have been possible if the conference was open to attendees in Brussels on we would have a live stream of the conference. This live stream was hosted via our Facebook channel with extensive promotion via all

our social media channels including Facebook, Twitter and Linked In. Due to an unseasonably hot day in Brussels some attendees were unfortunately unable to make it to the conference but were able to tune into the stream and not miss out altogether.

Further information on each of the speakers will follow later in this newsletter but it is fair to say all speakers were highly engaging and thought provoking.

The full conference is still available for viewing via our Facebook page at

<https://www.facebook.com/recenteu/>

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Aran Islands Energy Co-operative — Ireland

The Aran Islands are a group of three islands located at the mouth of Galway Bay, on the west coast of Ireland, with a total area of about 46 km² (18 sq mi) (figure 8). From west to east the islands are: Inishmore, the largest; Inis Meain, the second-largest; and Inis Óirr, the smallest.

The Aran Islands Energy Cooperative joined the Sustainable Energy Authority of Ireland's Sustainable Energy Communities (SEC) Network in 2016. Their main aim is to make the three Aran Islands carbon neutral and self-sufficient in green, locally produced energy by 2022. They wish to build a new island economy based on this green energy. They wish to install a wind turbine in the island of Inis Mór, which will supply energy to all three islands.

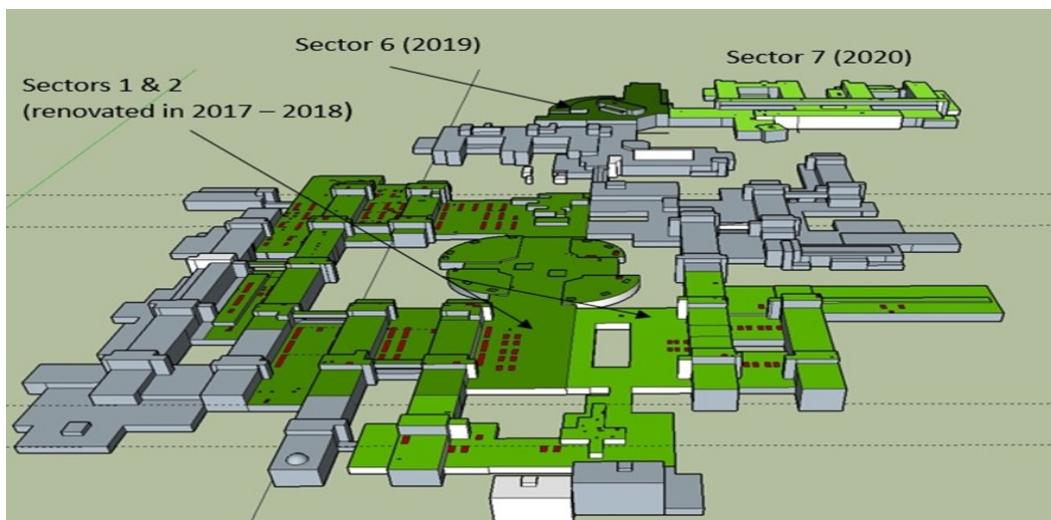
Clár ICH worked with various stakeholders within the community to

create a proposal to combat their energy use. Proposals for the pilot site include building a community owned wind turbine. Estimations on annual heat and electricity demand were created to enable sizing and feasibility assessment of the proposed technologies.

This community owned wind turbine is safe, and it does not pose danger or risks to inhabitants nearby. It ensures clean and healthy habitat for living and the solution offers sustainable water treatment or waste management possibilities. The solution also enables citizens with safe, clean, renewable and reliable energy and poses no negative impacts on the health of the community.

The community owned solution would benefit the community by creating local employment and financially benefiting local residents. It offers a way to utilize unused renewable ener-

gy sources. Solution also decreases emissions from fossil fuels.



3D Map of University of Oulu

University of Oulu Solar rooftop PV Pilot Project — Finland

This pilot proposal considered sizing a rooftop solar photovoltaic (PV) system for the Linnanmaa campus of the University of Oulu. The buildings use large amount of electricity, with demand peaks mid-day, coinciding with peak solar radiation. The expectation was to size the PV system such that it would provide for the baseline electricity need without any negative impacts to the buildings and its occupants.

The installation would also provide a positive image of the university as an institute supporting clean and renewable energy. Harvesting solar energy would also lower the carbon dioxide (CO₂) emissions resulting from the

usage of conventional electricity, currently generated largely using peat, a fossil source.

The economic assessment of this scenario indicated that, if the energy subsidy is received and a 3% loan interest rate is used, the payback time for the system is projected to be eleven years.

This solar PV panels are safe, and they do not pose danger or risks to inhabitants nearby. They ensure clean and healthy habitat for living. The solution also enables citizens with safe, clean, renewable and reliable energy and poses no negative impacts on the

health of the community. Participation of decision makers takes place also.

The pilot would employ the use of PV solar systems that uses the renewable energy from the sun (solar radiation). The pilot will promote energy efficiency whereby the electricity produced will be used as and when need. The PV panels would be visible when they are being installed on the rooftop of the university buildings.

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Haparanda Sustainable Energy Strategy—Sweden

The City of Haparanda is a municipality in Norrbotten County in Northern Sweden, which has shown interest in getting support from the RECENT project in developing a strategic implementation plan on energy efficiency and renewable energy sources. Based on the plan a systematic approach on identifying the most economic and technical feasible solutions in both short-term and long-term would be possible and would have a long lasting impact.

Haparanda's overall energy demand has decreased considerably between 1990 and 2015. The two most important sectors are transport and housing. The share of the service sector has increased over time. The public sector has been able to realise high energy efficiency gains between 1990 and 2015. The energy mix has

changed. Most significant is the drop of non-renewable liquid fuels which is due to phasing out fossil oil for heating and changes of the fuel mix for transport mainly.

Public buildings in Haparanda used 5050 MWh of electricity and 5075 of district heating in 2016. The politically agreed 5 percent energy efficiency target means a saving of 506 MWh/yr. Experience shows that a 5 percent saving in existing building stocks can be realized at low costs by behavior change and optimizing existing systems of ventilation, heating systems and lighting.

Swedish local authorities are owner of many facilities which use a significant share of energy. Energy cost are a relevant burden. However, small municipalities in the NPA area often lack staff capacities and know-how about potentials and have difficulties to prioritise projects. Projects like RECENT are very well needed to support the transformation towards low-carbon municipalities but can fail if the response capacity of possible pilot communities is too low.

Three things are needed:

Political leadership and a long-term legal framework on climate protection to make climate and energy a priority on local, national and European level.

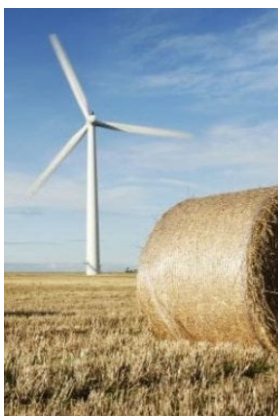
Experience exchange and capacity building for politicians, administrative staff and craftsmen

EU or national funded projects which fight brain-drain in small NPA communities by capacity building of individuals.



View of Haparanda

Armstrong Farm Pilot Project— Northern Ireland



A feasibility study for installing a “Siva 250 kW” wind turbine was carried out at Armstrong farm, Northern-Ireland. The study includes a survey of the location for identifying the ideal height of the wind turbine to avoid any surrounding obstruction.

An analysis of wind speeds and directions was carried out that helped to identify the appropriate turbine type to be installed. Based on the wind speeds and directions data extracted from Action Renewable and the NOABL Wind Speed Atlases, wind turbine specification and site survey, the wind turbine outputs were modelled, and the results prove that the wind resource at the site was concluded to be more than adequate, and the installation was deemed technically viable.

The project has both economic and environmental benefits for the pilot community. Energy security and improved energy efficiency are presented as the primary advantages of the project.

In addition, utilization of carbon-free energy source will help in reducing a reliance on fossil fuel and improving the air quality by reducing the CO₂ emissions from electricity generation. Enhancement of public health is also one of the indirect benefits of such renewable carbon-free project. Potential negative impacts of this solution are visual or aural impacts.

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KEEP IN TOUCH WITH INFORMATION ON NORTHERN PERIPHERY ENERGY ISSUES, FOLLOW THE RECENT SOCIAL MEDIA CHANNELS!

The European North is one of the areas that will undergo significant changes in the coming decades due to climate change. Climate change is likely to challenge the provision of water services and local water and energy infrastructure. Projected challenges include precipitation induced flood events and increased run-off especially in winter and spring months and, in the summer, increased competition for water.

The impacts of climate change may also open new possibilities for the remote NPA regions that could make the region become a major energy producer. The 5 partner countries are some of the top regions of the world as regards the amount and quality of water. While water is abundant, providing water services in these regions is energy intensive. To become more efficient and smart in this area is therefore a significant objective.

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