

## 1.5 IRELAND: CASE STUDY 1. ERRIS SUSTAINABLE ENERGY COMMUNITY

Case study report for Ireland: The Erris Community:  
Becoming an Sustainable Energy Community  
WESTERN DEVELOPMENT COMMISSION



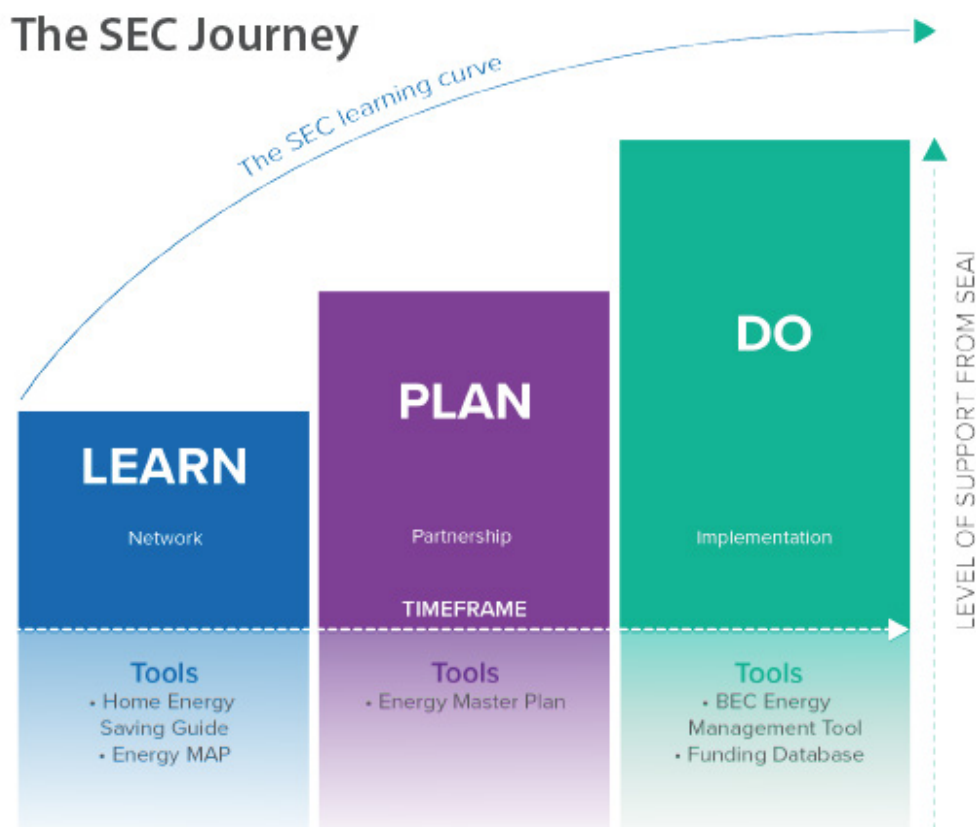
The chosen case study is the Sustainable Energy Community in Erris, Co Mayo. They started their energy transition in 2014 with both energy efficiency upgrades and renewable energy installations. This case study will include details on the process followed by the community, their structure, how they were

financed, how their projects developed using the best use of RE resources in their regions and how they are implemented.

### 1 Introduction

Sustainable Energy Communities (SECs) were initiated in 2015 by the Sustainable Energy Authority of Ireland (SEAI [1]). An SEC is a community that works together to develop a sustainable energy system. To do so, they aim to: be energy-efficient, use renewable energy, and to consider smart energy solutions. The Irish SEC programme is a three stage model consisting of "learn", "plan", and "do" phase. The Learn phase is effectively the SEC network that SEAI has established as a support framework designed to enable a better understanding of how communities use and save energy across all sectors. The second phase is Plan. This consists of the SEC partnership agreement and the Energy Masterplan (EMP). The SECs who are already in the SEC Network are now encouraged to enter into a three year Partnership Agreement with SEAI where they can access SEAI technical supports to help establish a baseline EMP, identify energy saving opportunities, implement a tailored programme of activities for the community, monitor the programme's progress and review accordingly. The third phase is Do. This phase is where the SECs take action and develop projects identified in the opportunities register, and bring them to fruition through SEAI's Better Energy Community (BEC) Programme [2] or other SEC grant funding.

**The Erris community used the BEC programme to become an SEC!**



## 2 Description of community

Erris is located in the North West region of County Mayo. It covers an area of 850 km<sup>2</sup> and has a population of only 10,000 people, giving it the lowest population density in Western Europe (Erris is a similar size to Rome which has a population of 2.5m). It is a small rural area with huge natural resource potential due to an abundance of wind, wave, solar, and seaweed. There is a strong community spirit that is evident in all aspects of daily life here.

## 3 Renewable Energy Projects

The community of Erris in Co Mayo has engaged in energy saving measures since 2014 including the following: installation of energy efficient upgrades for buildings in the area (including all types of insulation, fabric upgrades, heating upgrades); adoption of renewable energy technologies (photo voltaic (PV) cell arrays to produce electricity, solar hot water panels, heat pumps, electric vehicles, wind turbines); distributive generation (micro grid demo site to include PV/wind); and smart grid technologies (smart meters, intelligent building controls).

Year	Projects completed
<b>2014</b> 14 Community Groups	2 electric vans for local "Meals on Wheels" 2 x 7kW Photovoltaic arrays 10 buildings insulated 9 buildings heating system upgrades 7 buildings LED lighting 28 Quantum storage Heaters
<b>2015</b> 10 Community Groups	Western Care (Adults with Intellectual Disabilities) 3 building upgraded Irish Wheelchair Association 11kW Photovoltaic array 6 National Schools retrofitted Micro grid incorporating 11 kW Photovoltaic, 6 kW battery, 3 x Glen Dimplex storage heaters
<b>2016</b> 50 home owners in energy poor homes	Doors and windows replaced LED lighting replacements Attic, cavity, internal and external insulation New heating systems Solar hot water systems €19,000 per year saved overall with an average of €380 per house

## 4 Ownership structure and financial model used

The community groups involved used the Local Authority, Mayo County Council to draw down the grant aid funding. At that time, there was a community gain fund established as part

of the Corrib Gas Project in North Mayo. The community used the Corrib fund to finance 40% of the overall projects in 2014 and 2015. This enabled significant projects to be implemented at a **10% cost to the community group** when SEAI's 50% BEC funding was also used.

Year	Total Cost	No. of Groups	Structure of Funding	KWhs Saved	Annual Electrical Savings (15c/kWh)	Annual Thermal Savings (5c/kWh)
2014	€340,163	14	50% SEAI BEC 40% Community Gain Fund 10% Community Groups	194,143	€29,121	n/a
2015	€385,729	10	50% SEAI BEC 40% Community Gain Fund 10% Community Groups	323,624	€48,543	n/a
2016	€402,777	50 homes	80% SEAI BEC 20% Home Owners	373,470	n/a	€18,673

## 5 Implementation Process

There were several collaboration partners: Sustainable Energy Authority of Ireland, Údarás na Gaeltachta, Mayo County Council, Community groups, Primary schools, Retrofit Energy Ireland Ltd, GREAT Project & INTERREG funding programme, Corrib Community gain fund. Each one was essential to both the implementation process and the grant application process.

## 6 Project results: Lessons learnt & post- project benefits

The biggest lesson learnt for communities in Ireland is that the Irish SEC model addresses the majority of barriers that exist for communities in Ireland that are trying to transition to a low carbon future.

Barriers to Overcome	Irish SEC Model
Community Ownership	Ownership (Community Charter and Master Plan)
Community/Stakeholder Engagement	Addressed throughout the entire process Bottom up approach, grassroots approach SECs are community led, and community focussed 3 year partnership agreements in place
Overcome local mistrust.	Addressed throughout the entire process Community mentors in place SECs are community led, and community focussed 3 year partnership agreements in place
Financial support	Addressed throughout the entire process Financial support: (look at funding available in Table 3) Access to Expertise: technical mentors are available throughout Core competency Skills development
Access to technical expertise and knowledge	Addressed throughout the entire process Access to Expertise: technical mentors are available Core competency Skills development
Lack of capacity	Addressed throughout the entire process Community mentors in place Access to Expertise: technical mentors are available Core competency Skills development

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### Sources

- [1] SEAI is Ireland's national sustainable energy authority. They are leading Ireland's transition to a sustainable energy future.
- [2] SEAI's Better Energy Community (BEC) Programme was initiated in 2012 as a pilot project with a budget of €3m; in 2017, the Programme provided €25m in direct funding to a total investment in energy efficiency of almost €100m.