



## Green Community Energy

Climate change has had a negative physical impact on our environment, society, economy and natural resources.

Action must be taken urgently to respond to the climate crisis and create a sustainable future for all.

Green energy communities refer to collective and citizen-driven energy actions that help pave the way for a clean energy transition while moving citizens to the fore. They contribute to increasing public acceptance of renewable energy projects and at the same time, they have the potential to provide direct benefits to citizens by increasing energy efficiency, lowering their electricity bills and creating local job opportunities.

We selected case studies of initiatives and projects of Green Community Energy to transfer their application and stimulate the implementation of similar initiatives at a community level across Europe.

1. COOPÉRNICO, A COOPERATIVE OF RENEWABLE ENERGIES
2. GREEN ENERGY IN THE MUNICIPALITY OF BRATSIGOVO
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4. TEMPLEDERRY RENEWABLE ENERGY SUPPLY
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# COOPÉRNICO, A COOPERATIVE OF RENEWABLE ENERGIES

## CATEGORY

Green community energy

## LOCATION OF THE PRACTICE

Portugal

## PROBLEM THAT TACKLES

The desire to contribute to a new energy, social and business model, generating economic as well as environmental benefits through the production of clean electricity

## VOLUNTEERING ASSOCIATION OR PERSONS INVOLVED



Coopérnico was created by 16 citizens from diverse backgrounds and professional experiences, sharing a common concern for sustainable development. Under the legal form of a cooperative dedicated to the development of renewable energies, it combines its social purpose with support to solidarity, educational or environmental protection projects.

## DETAILED INFORMATION ABOUT THE PRACTICE



**Vision:** A fair and responsible model based on renewable energies, contributing to a more sustainable future, both under the social, environmental and energy aspects.

**Mission:** To involve citizens and companies in the creation of a new, renewable and decentralized energy standard for the benefit of society and the environment.



The main activities developed are the purchase and commercialisation of energy, and the construction and improvement of electricity distribution networks, in low and medium voltage electricity distribution networks for lighting and motive power.

All electricity is produced exclusively from renewable energy sources; all the projects create social value, either by close association or the sharing of revenues with social economy entities. Local partners are given priority in the development of new projects, promoting local jobs and the transition to a more sustainable economy; and updated information on the projects is shared with all the members that have supported them.

Becoming a member requires the purchase of at least 3 shares, at the total amount of €60. These bonds do not have a fixed remuneration except when there is a distribution of surplus resulting from the activity of the cooperative.

### Sharing & Learning

Coopérnico is a cooperative of renewable energies, that allows them due to its social nature to support projects of solidarity and educational or of environmental protection. The project received a «Vote of Praise for the exceptional support in the pursuit of Cerciespinho's objectives and for the active promotion of the inclusion of people with disabilities in sports, cultural and social initiatives to Coopérnico Cooperativa during the implementation of the electric energy production project through solar panels, and which also represents a source of revenue for Cerciespinho and contributes to the environmental policy promoted by the organization.

General assembly 2018  
Cerciespinho»

### Transferability of the Practice

Promoting the establishment of Local Groups is a way for Coopérnico to make itself known throughout the country, encouraging other groups to carry out similar projects and represent action and its members.

In addition to fostering cooperation with the local authorities (municipality), the functions of the Local Groups include: ensuring the regional representation of the cooperative and identifying opportunities for new members and new projects for the production of renewable energy.



## IMPLEMENTATION PERIOD (START/END DATE)

**Start Date:** 1/11/2012

**End Date:** Ongoing





Coopérnico is the first Portuguese renewable energy cooperative to sell electricity in mainland Portugal. They advocate a democratic, transparent and participatory model, where each customer owns their electricity company. They seek the transition to a 100% renewable energy model. They promote self-consumption, energy communities, electricity sharing, as well as ensuring the production of electricity from renewable sources equivalent to the electricity consumed by their customers. The cooperative has currently 2351 members and an accumulated investment of €1,859,250.



### INFORMATION LINKS

<https://www.coopernico.org/en>

### CONTACT

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### ORGANISATION

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# GREEN ENERGY IN THE MUNICIPALITY OF BRATSIGOVO

## CATEGORY

Green community energy

## LOCATION OF THE PRACTICE

Bulgaria, South Central Region, Bratsigovo, 6A Atanas Kabov Str.At

## PROBLEM THAT TACKLES

Main problem for the Municipality are high costs for electricity and heat energy supply to the municipal buildings – kindergartens, schools, cultural buildings and healthcare centers. The multifamily buildings are not energy efficient and use fossil fuel and wood for heating. High costs of street lightening.

## VOLUNTEERING ASSOCIATION OR PERSONS INVOLVED



Five experts from Bratsigovo Municipality technical department, Three Directors of schools and kindergartens, 6 external technical experts in PV installations and biomass heating installations.

## DETAILED INFORMATION ABOUT THE PRACTICE



In the last 5 years the Municipality realized a number of projects aimed at the introduction of combined renewable energy sources, that would be able to provide electricity, heating and cooling of municipal premises and private multifamily houses. The investments in green energy transition include the installation of 4.5 MWp of biomass heat/electrical energy and 160 sq.m. solar panels in municipal-owned buildings.



The Municipality of Bratsigovo is located in the foot of Rodopi Mountain and covers a very large area under Natura 2000. The major objective of the municipal energy strategy is to implement the route to green energy transition. The stages in the journey to energy efficiency and renewable energy sources include:

- Set up a team of experts at the Municipality
- Cooperate with external experts in energy audit and suppliers of services and materials
- Development of a Sustainable Energy Action Plan for the period 2016 – 2021
- Identify sources for project preparation and implementation
- Develop pipeline of projects
- Launch number of projects for funding under different sources – ERDF, EEA and National funding

On the roof of the health care centre in the city of Bratsigovo a photovoltaic central of 30 KWp has been installed and the electricity is used for their own needs. Part of the energy is sold to the grid mainly out of the working hours.

The retrofitting of the main cultural building in the city included change of window frames, repair of roof and installation of biomass heat boiler 675 Kw.

The retrofitting of four multifamily buildings was financed by the National Energy Efficiency Program where the beneficiaries are the respective associations of owners. The municipality supported the process with the respective technical documentation and permissions.

The streetlights in the city of Bratsigovo were replaced with energy efficient lightening. Main stakeholders in the initiative are the municipal authorities and managers of municipal enterprises as well as the population of the municipality.

### Sharing & Learning

Mrs Grigorova, Director Territorial Settlement Planning at Bratsigovo Municipality shared how municipalities and regions can become independent of fossil energy sources.

*"All decisions in the municipality like spatial planning, public buildings, energy supply, mobility, procurement and awareness-raising are directly or indirectly related with energy. Our energy transition is based on a vision designed to make the energy supply of the municipality as independent as possible of fossil energy in the areas of heat and electricity and to cover the demand mainly from renewable sources in the area."*

### Transferability of the Practice

This practice can be transferred to other small municipalities in Bulgaria and across Europe since they face the same problems with high energy costs and use of fossil fuels. The structure of the social and utility infrastructure is similar and as well as the economic development. The lessons learned can be of support for other local authorities in Bulgaria.



## IMPLEMENTATION PERIOD (START/END DATE)

**Start Date:** 1/1/2017

**End Date:** Ongoing





## EVIDENCE OF SUCCESS (RESULTS ACHIEVED)



Current energy savings for the Municipality are around 5 MW/h and reduction of CO<sub>2</sub> emissions - 13 t/year.

The municipal energy costs decreased twice and thus allows the local authority to save from the budget for other investments in utility infrastructure.

The Municipality became a member of the Covenant of Mayors (CoM) in 2015 and was awarded the Energy Award for 2016 which proves the firm commitment to increasing energy efficiency and the use of alternative energies in the municipal territories.



### INFORMATION LINKS

<http://www.bratsigovo.bg/documents.php?id=143>

### CONTACT

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## GREEN SKIBBEREEN

### CATEGORY

Green Community Energy

### LOCATION OF THE PRACTICE

Skibbereen is a town in County Cork, Ireland. It is the largest town in West Cork with a population of 2,568, but acts as a central hub for the small towns and villages throughout the region.

### PROBLEM THAT TACKLES

In 2016 more than 9,357 households (20,844 people) in West Cork Municipal District were living in accommodation constructed before 1970, with the majority being heated by fossil fuels. 85% of buildings that will be used in 2050 have already been built, meaning that retrofitting must be a massive part of the solution for sustainable communities.

Green Skibbereen was born from a group of friends looking at what they could do within their community to eradicate carbon. The bare roof space of buildings was identified as a place to install PV panels and Green Skibbereen grew from there.

### VOLUNTEERING ASSOCIATION OR PERSONS INVOLVED



Green Skibbereen is a not-for-profit community organisation, set up in 2020 by a group of friends who were disillusioned with progress on climate action in their local area in West Cork. Director Jim O'Donnell, has said that the group was born from the vision of wanting to "go after carbon" to reduce or eliminate it.

After a steering group was set up, Green Skibbereen began engaging with key stakeholders and approached the owners of [Myross Wood House](#) about setting up a [Centre for Excellence for Climate Action & Sustainability \(CECAS\)](#)

### DETAILED INFORMATION ABOUT THE PRACTICE



Green Skibbereen has been established to address the challenge of moving to low carbon energy through actively engaging, educating and facilitating a whole community approach, that is driven by local people, businesses and organisations rather than top down, one size fits all schemes that can struggle to reach rural areas.



## DETAILED INFORMATION ABOUT THE PRACTICE



Green Skibbereen aims to promote awareness and understanding of the need for community action on climate change in Skibbereen & West Cork and encourage the uptake of renewable energy and energy efficiency measures by the local community.

This will have the impact of helping participants save money on bills, reducing emissions and contributing to a broader community supported transition to sustainable development for the town and the surrounding areas.

### Activities

Green Skibbereen is a truly community-led project. It was born from concerned local stakeholders looking at what they can do to reduce the impact of their rural town. Through active engagement with the broader community, they have worked on this idea and are setting an example for what towns around Ireland and Europe can achieve.

In the short term, the plan was to develop a Sustainable Energy Community, applying for funding for a Masterplan, to identify energy retrofitting opportunities and renewable energy opportunities in the region, whilst working with [NCE's Energy Hub](#) to access [SEAI](#) funding for Better Energy Community Grants. Following Green Skibbereen's first meeting in November of 2019, the vision was set, and the community was mobilised to start greening Skibbereen starting with 3 case study organisations as proof of concept consisting of Baltimore Pool, Drinagh co-op and O'Donnell Furniture. The working group were able to secure funding from SEAI under the [2020 community grants project](#) and deliver 10 energy efficiency projects throughout the community.

Under the same aim, it works to promote awareness and understanding of the need for community action on climate change in Skibbereen & West Cork and encourage the uptake of renewable energy and energy efficiency measures

by the local community. The Green Skibbereen Steering group identified the opportunity of establishing a Centre for Excellence for Climate Action & Sustainability ([CECAS](#)) at Myross House just outside of Skibbereen and approached the owners. In 2021, they carried out feasibility studies and went about sourcing funding for the centre.



## IMPLEMENTATION PERIOD (START/END DATE)

**Start Date:** 2019

**End Date:** Ongoing

Green Skibbereen was established in November 2019 following a public meeting in the town. They are continuing to build and engage with the community and are seeking funding for a Centre for Excellence for Climate Action & Sustainability (CECAS) at Myross house just outside of Skibbereen.

## EVIDENCE OF SUCCESS (RESULTS ACHIEVED)



Born from a group of local stakeholders identifying that something needed to be done about climate action within the community, Green Skibbereen has successfully delivered energy efficiency projects and has set up a centre of excellence for Climate and Sustainability.

CECAS is an inclusive, effective, practical and innovative centre for investigating and demonstrating practical solutions to Climate Change and Biodiversity loss.

CECAS land provides the opportunity to research and raise awareness about both sustainable infrastructure and communities, and the importance the preserving biodiversity and how that interconnects with climate action. CECAS will have an education centre where students could come and learn about the environment, a business hub, an accommodation centre, a training & research hub, an events centre (hosting green weddings and concerts), a well-being centre and other important community learning projects.



## INFORMATION LINKS

[Green Skibbereen Website](#)

[Centre for Excellence for Climate Action & Sustainability \(CECAS\)](#)

[CECAS Feasibility Report](#)

[Photos of West Cork credited to Red Door Photography](#)

## WATCH



## EMAIL

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## TEMLEDERRY RENEWABLE ENERGY SUPPLY

### CATEGORY

Green community energy

### LOCATION OF THE PRACTICE

2nd Floor, Friars Court, Nenagh, Co. Tipperary

### PROBLEM THAT TACKLES

The group recognises that Ireland's energy system is in crisis, with over 90% reliance on climate-polluting fossil fuels, but many people are struggling to pay high energy bills in cold homes. That's why Community Power is working to make sure the many benefits of generating renewable power are shared by the people and communities of Ireland.

### VOLUNTEERING ASSOCIATION OR PERSONS INVOLVED



The mission is to support Ireland to run on clean, renewable power, but as if that's not enough the group also thinks people should also have a real stake in it and own it for themselves.

In September 2013 Templederrey Wind Farm (4.6 MW installed capacity) in Tipperary became the first entirely community-owned Wind Farm to connect to the National Grid and began selling renewable electricity for the benefit of its members. There are two other operational Wind Farms in Ireland within which there is a community benefit element; a 0.68 MW Wind Farm on Innis Meain in the Aran Islands that powers the island's desalination plant, and a 0.66 MW Wind Farm in Burtonport, Donegal that supplies electricity to a fish processing plant. A further five community-owned developments are currently in progress and are likely to be constructed over the coming years, pending grid connection and financing





**This practice helps to catalyse, part-fund and project manage community-owned, renewable energy facilities such as solar, wind, hydro and biomass.**

1.. Provide communities with optional PPAs (power purchase agreements), so they can sell their excess electricity, thereby improving their revenue stream from their power plants.

### **Selling electricity to communities and the wider market**

1. Contracts have no early termination clause, which means customers are free to leave whenever they wish without penalty. The community ethos and the service level agreements are the strengths that bind the group to the customers – who in the vast majority of cases are also the owners.
2. Provide businesses, large and small, with an ideal opportunity to lead by example in terms of Corporate Social Responsibility. Every euro spent and every kilowatt hour of electricity used – facilitates the development of additional community-owned renewable energy generation facilities, in their neighborhood, and around the country.
3. Provide a meaningful ownership structure for communities and individuals in the renewable energy sector – to ensure that the surplus revenue generated stays in the communities, thereby buttressing the local circular economy.

### **Sharing & Learning:**

Sharing and Learning Registering as a member of Community Power Group:

- Community Power will provide advice and guidance on legal structures for communities, land leases (including Lease Options), planning (including all studies & impact assessments), grid connections, RESS auctions, finance for

projects, construction and operation.

- Community Power is also a vehicle for all individual community groups to make representations whereby we can influence policy, promote the Community ethos, attempt to ensure commercial viability for Community Projects, and with the common purpose of building community-owned renewable electricity generation projects and supplying electricity locally through Community Power.
- You are expected to pay the Annual Subscription and expand the Community Power customer base.
- The first steps for each Community would include, identifying a suitable site (preferably adjacent to an ESB Power-station), land lease/lease option, RESS (see below for further details) Auction application and acquiring Planning Permission.
- Community Power will also provide advice for successful projects (i.e. having secured Lease, Grid Connection and Planning) in the next phase which includes; Secure Finance/Investment Options, Tendering and Construction stage, Commissioning and operation of the facility.



## IMPLEMENTATION PERIOD (START/END DATE)

**Start Date:** 1/11/2022

**End Date:** Ongoing



## EVIDENCE OF SUCCESS (RESULTS ACHIEVED)



Community-owned energy projects have the potential to transform our energy system. Communities and cooperatives all over Europe are creating projects where they own and are actively involved in running an energy resource.

### The Community Power (CO-POWER) project aims:

- Speed up the development of renewable energy projects by creating a favourable legislative environment.
- Build a broad, public coalition across Europe supportive of community renewable projects.
- Inform and educate policymakers, empowering them to put forward enabling legislative frameworks.
- Inform and engage citizens.
- Make recommendations to enable legislative change in the Czech Republic, Denmark, Spain, Hungary, Ireland, Scotland and Belgium and recommendations to support community energy projects in EU legislation.
- Create opportunities for public-private finance of community renewables projects in Eastern European countries.



### INFORMATION LINKS

<https://communitypower.ie/our-story/>

### CONTACT

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### ORGANISATION

Community Power

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## CLOUGHJORDAN ECOVILLAGE

### CATEGORY

Green community energy

### LOCATION OF THE PRACTICE

North Tipperary Green Enterprise Park,  
Cloughjordan, Co. Tipperary, Ireland E53 VP86

### PROBLEM THAT TACKLES

Europe is lacking sustainability-centred living centres and demonstrative sites. Ecovillages are living laboratories pioneering sustainable alternatives and innovative solutions. Cloughjordan EcoVillage is a project that creates a socially, economically and ecologically viable community that will serve as a model for sustainable living into the 21st century and as an education, enterprise, research and service resource for all based on a 67-acre site that includes beautiful and fertile land where they grow their own food, and plants and trees to promote biodiversity.

The Eco Village provides a wide range of educational programmes for all ages, primary to third-level, active retirement, local and international.

### VOLUNTEERING ASSOCIATION OR PERSONS INVOLVED



Cloughjordan Ecovillage brings together a diverse group of people creating an innovative relatively new community in Tipperary led by the Educational Charity Sustainable Projects Ireland CLG, they are doing this a way that is democratic, healthy and socially enriching while minimising ecological impacts.

### DETAILED INFORMATION ABOUT THE PRACTICE



The village with the lowest Ecological Footprint in Ireland.

This is the lowest ever measured in Ireland.

The Cloughjordan project supports its status as an ecovillage: its ecological building standards, its carbon-neutral District Heating System and its food system centred on Cloughjordan Community Farm.



## DETAILED INFORMATION ABOUT THE PRACTICE



- Ecological building standards have been adhered to in terms of the construction of the Eco village. The buildings are well insulated as well as covering issues of air-tight construction, ventilation, and maximising natural light and heat through building south-facing. The building material is non-toxic in nature and regionally sourced and with low embodied energy. The village has pioneered the use of different building types such as passive timber-frame, Durisol blocks of chipped waste wood bonded with eco-cement, cellulose, hemp-lime, and cob.
- The majority of the 55 houses in the ecovillage have installed photovoltaic panels to generate energy.
- Biomass-fuelled district heating system: All homes in the ecovillage depend on the district system for the supply of hot water and heating. The heating plant contains two 500-kilowatt wood-chip boilers backed up by 500 m<sup>2</sup> of solar (thermal) panels. This system is the first of its kind in a private housing development in Ireland and is estimated to save some 113.5 tonnes of carbon emissions annually over what would be emitted by an equivalent size development using conventional heating methods. The plant supplies hot water daily to all homes via a well-insulated network of piping and the water is stored in each house in an insulated storage tank supplying hot water and heating.

## EVIDENCE OF SUCCESS (RESULTS ACHIEVED)



The Eco Village has grown over the last twenty years. The village has one hundred residents living in 55 Eco-homes, a bakery, an enterprise centre and a hostel which are powered by solar and district heating systems. The village has an amphitheatre and a community farm with 16 acres of broadleaved forestry is maturing nicely; a meandering biodiversity trail, colloquially known as the “perimeter walk”, is trod daily by eco-villagers and locals alike. There’s also a steady trail of students, both from school and university, who come to learn in the community.



## IMPLEMENTATION PERIOD (START/END DATE)

**Start Date:** 1999

**End Date:** Ongoing



### INFORMATION LINKS

<https://www.thevillage.ie>

Twenty years a growing, celebrating 20 years of CloughJordan Eco Village

<https://youtu.be/ZhRiVmhs8T4>

The Relevance of Ecovillages in these Challenging Times

<https://youtu.be/5M68ya9mXs8>

### CONTACT

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