



# Energy Cooperative

Business model based on Energy Cooperative

Sinloc SPA



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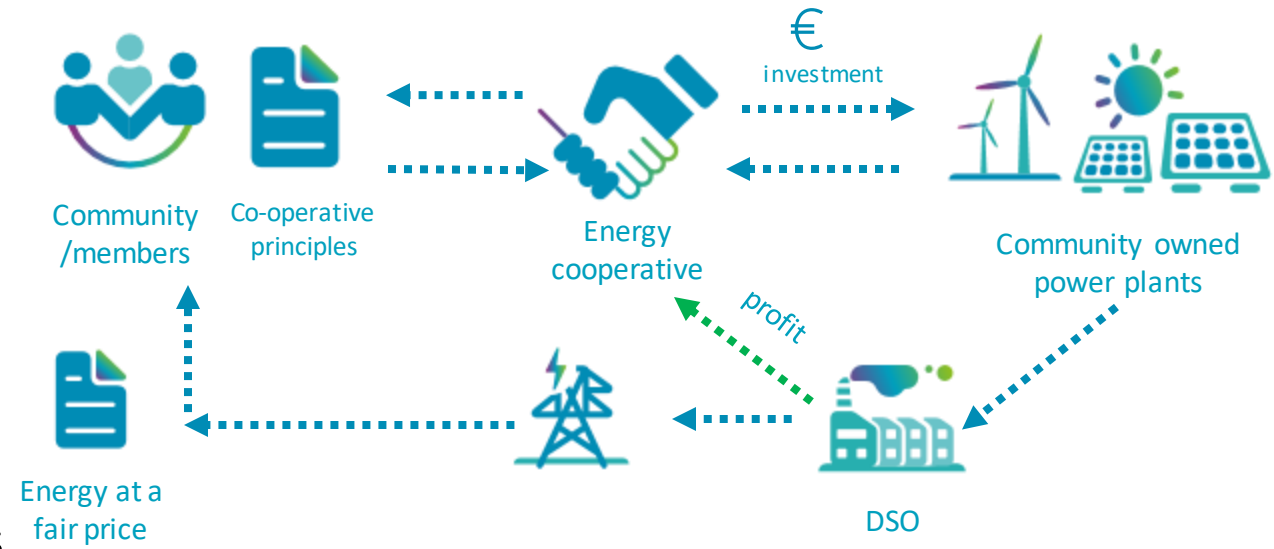
# Description of the model

- This model is about setting up a legal entity to manage the energy produced from communally owned power plants and or the surplus of energy produced by the members/ shareholders
- It provides access to green locally produced energy at fair and stable prices for its members and invests the profit in further energy production, energy efficiency and projects of local development
- Requires an upfront investment to build the RES plant
- Generally, requires a subscription fee to join the cooperative

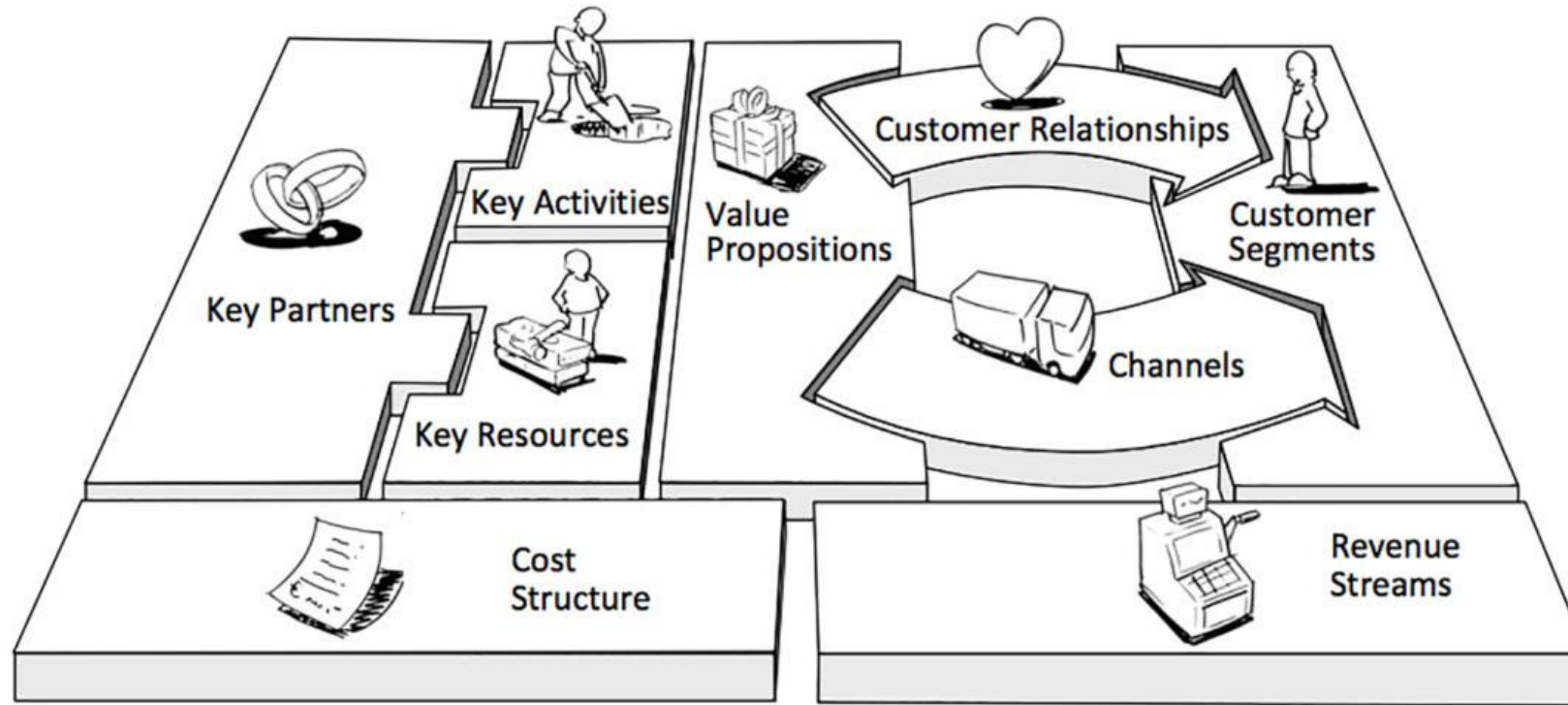


# Description of the model

- Energy cooperative manages the community owned power plant (windmill, solar panels etc.), including maintenance and provides technical assistance to subscribers
- Sells the energy produced at a fair price to its members;
- Manages the surplus of energy production and actively invests in new clean energy resources;
- Manages membership to make sure cost of energy is stable;
- Designs and implements projects of energy efficiency, social inclusion like fighting energy poverty
- Contributes to lowering CO2 emissions



# Business Model Canvas



# Key partners



- **Members:** shareholders, subscribers of the service provided by the cooperative (households, businesses, PA etc.)
- **Financing organization:** Donor, crowdfunding tool, bank etc.
  - To provide tools to access and raise funding to purchase energy plants
  - Entity to manage resources and costs
  - Entity that buys (pre-finances) cooperative shares and donates them to EP households
- **Technology suppliers:**
  - Suppliers of energy plants and equipment
  - Installation, management and maintenance of the plants
  - Installation of monitoring systems at the consumer end
- **DSO and grid:** buy surplus energy and manages the distribution



# Key activities



- **Generate Energy**
  - It generates electricity from local renewable energy power plants
- **Sell the produced energy at fair price to the members**
  - Members of the cooperative benefit from a special energy tariff and the guarantee of green origin
- **Management of daily operations and subscription of members**
  - Manage and troubleshoots technical, admin, payments and financial issues
  - Managing membership, subscriptions
- **Invest in projects of local development and new power plants**
  - Reinvest money coming from subscriptions and the revenues from the sale of energy to setup new renewable energy plants
  - Reinvest the profit to offer services of the community, including projects to fight energy poverty and reduce energy consumption (i.e. by providing energy efficiency solutions to its subscribers and limiting the number of members/consumers)

# Key resources and Time



- **Resources to start the energy cooperative:**
  - Financial resources to purchase the energy plant and relevant technology installations
  - Technical, administrative and legal expertise to set up the cooperative and hire personnel
- **Resources to operate and manage the energy cooperative:**
  - Administrative personnel
  - Qualified technical personnel to manage the RES production
  - Financial provision to cover working capital
- **Time:** to set up and start is relatively long it varies depends on the following:
  - Legal issues: Flexibility of regulations to set up the entity
  - Budget: if there is a grant to fund the power plant or the community has the raise the funding
  - Availability of staff: qualified personnel to set up and run the cooperative
  - Availability of interested community of investors (subscribers/members)
  - Technical complexity

# Value Proposition



- **Increase production of Renewable Energy:**
  - Investment in producing RE including new sites for renewable energy production
  - Contribution to reaching renewable energy targets and lowering CO2 emissions
- **Providing green energy at stable (fair) prices**
  - Energy prices are linked to (lowest) the market prices of energy and are calculated as to cover the actual cost of production for the cooperative
  - Reduction in energy costs by providing energy efficiency projects to its members
- **Subscribers are owners and decision makers**
  - Members can decide their preferred source of energy, how to handle the profit generated and what kind of projects they want to invest in
  - Profit could be used to assist poor households in reducing energy consumption and grant them access to affordable green energy



# Customer Relationships Segments and channels



- Customers are the members of the cooperative who subscribe to the services by buying shares in the cooperative. And they can be beneficiaries of services provided by the cooperative through shares financed by other parties (NGOs, social services, etc. )
- Members can reach the cooperative through different channels
  - Interested members or investors:
    - Cooperative's office or website, platform (depending on offered tools)
    - Offices/website of the city (One Stop Shop)
    - Through communication campaign
  - Energy poor households:
    - Social services or equivalent
    - NGOs and charities



# Cost structure

# Revenue stream



## Cost Structure:

- Initial investment cost of the power plant and relevant technology (wind turbine, PV plants, smart meters etc.)
- Cost of setting up the cooperative (legal and admin cost)
- Management and technical staff as well as daily operations costs
- Marketing campaigns to engage customers

## Revenue Streams:

- Sales of energy to the members of the cooperative
- Sales of surplus energy to the grid
- (indirect) energy and economic savings for the households thanks to the improvement of energy efficiency through services provided by the cooperative

# Sustainable development goals



The proposed business model not only pursue his major aim of tackling energy poverty, but also contributes to the achievement of the Sustainable development goals provided by the United Nations



Fights Energy Poverty

Contribution



Contributes to inclusive, sustainable, neighbourhoods & cities

Contribution



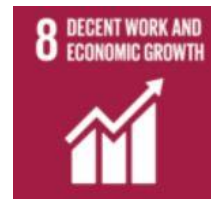
Ensures access to affordable, reliable, sustainable & modern Energy for all

Contribution



Reduces CO2 emissions and air pollution








Contribution





Provides new decent jobs

Contribution



<p><b>Key Partners</b> </p> <ul style="list-style-type: none"> <li>Members: shareholders, subscribers of the service provided by the cooperative (households, businesses, PA etc.)</li> <li>Financing organization: Donor, crowdfunding tool, bank etc.</li> <li>Technology suppliers:</li> <li>DSO and grid</li> </ul>	<p><b>Key Activities</b> </p> <ul style="list-style-type: none"> <li>Energy production</li> <li>Selling the produced energy at fair price:</li> <li>Management of daily operations and subscription of members</li> <li>Investing in projects of local development and new power plants</li> </ul>	<p><b>Value Propositions</b> </p> <ul style="list-style-type: none"> <li>Increased production of Renewable Energy</li> <li>Providing green energy at stable prices</li> <li>Subscribers are owners and decision makers</li> </ul>	<p><b>Customer Relationships</b> </p> <ul style="list-style-type: none"> <li>Customers are shareholders and members they take part in decision making and should be informed and updated.</li> </ul>	<p><b>Customer Segments</b> </p> <p>Customers are the members of the cooperative who subscribe to the services by buying shares in the cooperative. (citizens, SMEs, PA, etc.)</p> <p>And they can be beneficiaries of services provided by the cooperative through shares financed by other parties (NGOs, social services, etc.)</p>
<p><b>Key Resources</b> </p> <ul style="list-style-type: none"> <li>Budget to purchase the energy plant and relevant technology installations</li> <li>Technical, administrative and legal expertise to set up the cooperative</li> <li>Qualified staff for management</li> </ul>		<p><b>Channels</b> </p> <p>Interested members or investors:</p> <ul style="list-style-type: none"> <li>Cooperative's office or website, platform (depending on offered tools)</li> <li>Offices/website of the city (One Stop Shop)</li> <li>Through communication campaign</li> </ul> <p>Energy poor households:</p> <ul style="list-style-type: none"> <li>Social services or equivalent</li> <li>NGOs and charities</li> </ul>		

<p><b>Cost Structure</b> </p> <ul style="list-style-type: none"> <li>Cost of the power plant and relevant technology (wind turbine, PV plants, smart meters etc.)</li> <li>Cost of setting up the cooperative (legal and admin cost)</li> <li>Management and technical staff as well as daily operations costs</li> <li>Marketing campaigns</li> </ul>
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<p><b>Revenue Streams</b> </p> <ul style="list-style-type: none"> <li>Energy sales to subscribers at fixed cost</li> <li>Saving energy by improving energy efficiency of member's households</li> <li>Surplus energy sales to the grid</li> </ul>
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# Business Model SWOT Analysis

## STRENGTH

- Generates revenue that stays in the community
- Provides affordable access to local Renewable Energy
- Creates jobs
- Long term solution and financially sustainable
- Provides a solution to poor households

## OPPORTUNITIES

- Leverage Private capital for Energy projects
- Creates opportunity for technically skilled members to volunteer
- Model can be used everywhere with any RE plant
- Can cater to energy communities

## WEAKNESSES

- Raising the initial capital can be challenging
- Its running costs are high
- It takes time to set up
- Expansion requires further investment

## THREATS

- Regulation changes
- Market prices
- Credit risk of vulnerable houses
- Energy produced might be insufficient, which requires buying energy from the market at higher prices

The first not-for-profit and democratic RES electricity supplier in Italy



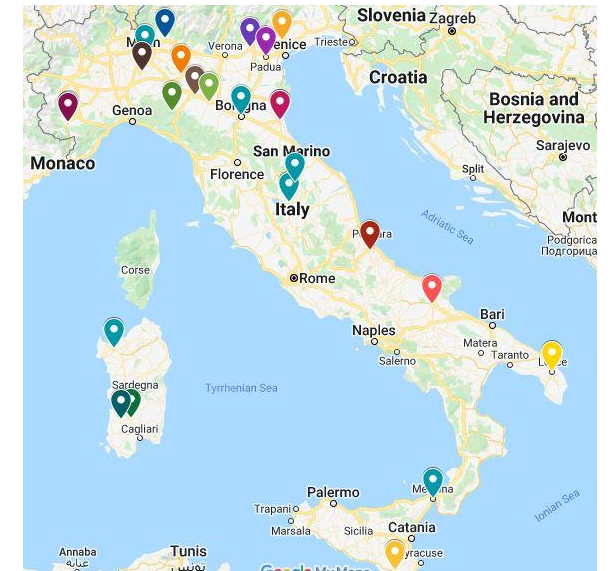
Founded in 2014, the cooperative aims at enhancing the number of renewables on the global production and consumption and reducing waste of energy. Moreover, they strive to providing 100% green energy from sustainable energy plants and with direct participation/investment of the citizen.



Developed an assessment tool (sustainability matrix) to make sure the RE plants they work with adhere to a certain criteria to avoid bare green washing practice and to favour collective and socially accepted RE plants



They use the collective capital to further invest in new RES. Besides providing green energy, they perform energy efficiency projects, provide services and information to set up energy communities, and work with PA on projects to fight poverty energy through Energy communities



*The cooperative invests/buys energy from 35 power plants all over the country*

# Som Energia



A not-for-profit green energy cooperative from Catalunya



It started in 2011 in Catalunya by selling energy to its members from RES, while investing in its own energy plants. Now it has projects all over Spain. Produces and commercialises 100% clean energy from RES hydroelectric, solar, biomass and wind power

## Right for energy and fighting energy poverty:

- Dedicate part of the voluntary donation to actions to fight energy poverty in collaboration with entities at a local level
- Each member can share his/her membership with 5 people, giving access to lower income households to have access to energy without paying 100 € membership
- They apply the principles of the Catalan law 24/2015 to all Spanish territory to protect vulnerable households from being subject to energy supply cut off
- Sign agreements with the social services of the municipalities and work with them to: 1) train personnel on energy efficiency and energy poverty issues; 2) finding solutions to prevent energy supply cut off to vulnerable households.

## Production



### Auto-production

Collective PV  
Assistance in  
process



### Social capital

Voluntary  
contribution to  
social capital for  
RE projects

## Commercialising

Managing electricity consumed by members and produced by power plants..



81.540 members

24,60GWh/year

47 employee

They buy the rest of the energy from certified green energy producers.

## Sustainability of the business model

- Services and communication are mainly online
- Energy efficiency training and audit services to public and private entities
- Modest overhead costs (office rent and management salaries)
- Use the local groups as focal points for interested members
- Provide services to members via collaborations with other social business

# Grunneger Power



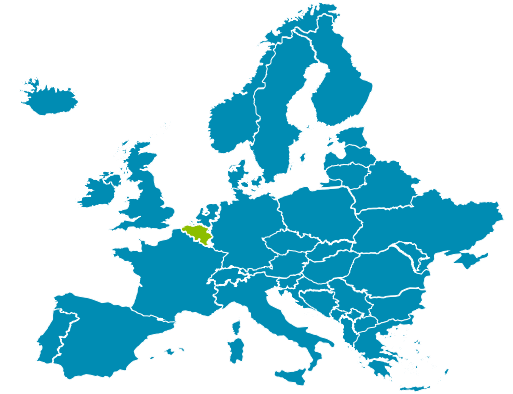
Generating green energy and contributing to sustainability in NL

The cooperative supplies green energy produced by residents of Groningen and its neighbouring villages at affordable prices. The cooperative works closely with the municipality, the first financial investment of 200.000 Euro was pre-financed (loan) by the city.

The profit is invested in implementing several sustainable energy projects in the area focusing on creating jobs and contributing to local economy. It established several energy projects like installing more than 7,700 solar panels using funds from the municipality, crowdfunding, strategic marketing techniques

Offers its members collective purchasing actions, access to trainings on energy efficiency, entrepreneurial skills, events and independent advice. It also enables rental and installation of solar panels, and electric car sharing. All members have a say in the running of the co-operative.

The co-operative offers green energy contracts, selling generated energy via the company 'Energie VanOns',.



## Membership is for free.

Members can decide to contribute financially if they wish. Service should be available to all citizens of Groningen.



# Ecopower



Cooperative producer and supplier of renewable energy in Belgium

The mission is to develop a democratic, decentralized and sustainable energy system. Ecopower cooperatives are around 64.114 cooperative producing green local energy for a healthy climate.

- 1) To invest in renewable energy: profit from energy sold is invested in new power plants; strong communication campaigns to involve more members
- 2) To supply 100% green electricity to its members, consumers must be members
- 3) To promote a rational use of energy: co-founded EnergieID , a smart measurement aid enables members to easily keep track of their consumption and compare themselves to others.

Alliances with other cooperatives, cities and initiatives to achieve its goals, provide more information and innovative solutions

Vision is an Energy union with citizens are at its core, where citizens take ownership of the energy transition, benefit from new technologies to reduce their bills, participate actively in the market and where vulnerable consumers are protected

- All cooperatives jointly own all Ecopower installations
- An Ecopower share costs 250 euros and keeps its value
- There are no entry or exit fees
- A share is fixed until the third financial year after purchase
- Each shareholder has one vote in the general meeting
- If profits allow, a dividend will be paid, max. 6%
- The number of shares is limited to 20 per person



The greenest kWh  
is the kWh  
that you do not use.

Energy Saving Tips

Saved more than **65,000 tons of CO2** in 2020

# Conclusion and analysis

Legal Complexity



Set up Complexity



Management Complexity



Replicability



Effectiveness towards  
energy poverty



Scalability





[www.socialenergyplayers.eu](http://www.socialenergyplayers.eu)





We are  
the catalyst  
for social  
innovation  
in the energy  
market

