European Commission | Energy Communities Repository

ECoOB

Herent, Belgium

Energy community data

State: 13/01/2024

Overall information

Country:	Belgium
City:	Herent
Energy community type:	N/A
Founding date:	2018-06-01
Types of membership:	Natural persons / citizens
Number of members:	**1100**
Citizens/Individual:	1100
SMEs:	0
Municipalities:	0
Associations:	0
Other:	0
Website:	https://www.ecoob.be/
Status:	Legal structure with multiple ongoing activities / projects

Activities

Activities:	Electricity generation, Energy sharing
Services:	N/A
Challenges in establishing the energy community:	N/A
Challenges in the last year:	N/A

Governance

Ownership structure:	N/A
Share of female members:	0%
Share of vulnerable members:	0%
Share of members under 35:	0%
How do you engage your members in decision-making?:	General assembly
Board members:	Natural persons / citizens
Voting system:	One vote per member
Participation in last year's General Assembly:	N/A

Energy

Technologies:	Solar PV
Capacity electricity in MW:	N/A
Capacity heat in MW:	N/A
Capacity cold in MW:	N/A
Capacity gas in MW:	N/A
Output electricity in MWh:	N/A
Output heat in MWh:	N/A
Output cold in MWh:	N/A
Output gas in MWh:	N/A
Price for Electricity (EUR/kWh):	N/A
Price for Heating (EUR/kWh):	N/A
Price for cooling (EUR/kWh):	N/A

Price for gas (EUR/kWh):	N/A
Energy storage: Value in MW:	N/A
Energy charging: Value in MWh:	N/A

Economy

Business model:	Collective generation and trading
Staff: Number of employees/consultants (ín FTEs):	N/A
Staff: Number of volunteers (in FTEs):	N/A
Approximate amount of volunteer hours last year:	N/A
Turnover in last year:	N/A
Financial support since foundation:	N/A
Financial support in last year:	N/A
Origin of financial support:	N/A
Total funding since starting the energy community in €:	N/A
Total funding in last year in €:	N/A
What was the (average) dividend allocated to your members in the last year?:	N/A
Total investment in last year in €:	N/A
Total investments since starting the energy community in €:	N/A

Social impact

Environmental benefits:	N/A
Environmental impact:	N/A
Social benefits:	N/A
Support or inclusion of vulnerable households or	Discounts for vulnerable groups

minority groups in your energy community's activities in the last year:	
Number of social or educational activities:	N/A
People reached by these activities:	N/A
Social Impact:	N/A
To what extent are renewable energy sources accepted in the broader community:	N/A
Surplus investments into projects beyond your immediate membership:	N/A
Local investments:	N/A

Meet the community

How did it all start?

In 2017 the City of Leuven in Belgium joined forces with Ecopower to explore opportunities to install solar energy on public roofs in the city. This raised awareness of the approach and lots of people wanted to do similar projects.

At the same time, the Provincial authorities of Vlaams-Brabant organised “Licht” (Light) sessions to motivate and help starting citizen’s collaboration in the area towards energy cooperatives. Leuven and Ecopower organized a series of workshops in Leuven. Similar sessions in Herent led to the start in 2018, of ECoOB. Both Herent and Leuven volunteers decided in 2019 to merge into the existing ECoOB.

The first solar project was installed in 2019, followed by multiple projects in 2020, with €220,000 investment from 300 shareholders. Now, in 2023, ECoOB has over 1100 shareholders and has invested €2.98m capital. The organisation grew and professionalized quickly. From 2018 to 2021 the cooperative was totally volunteer run; they now have seven paid members of staff.

The project

Photo copyright: ECoOB

ECoOB initially focused only on solar as they wanted to have quick, relatively simple projects allowing them to generate a stable income, before starting longer more complex projects such as wind. The cooperative has a total of 52 solar installations in 13 Flemish localities, generating 3MW. ECoOB is now ready to diversify its portfolio of projects and was keen to explore wind. However, Leuven is very close to the Zaventem airport meaning that onshore wind is not possible in the area as yet. In addition, only 15 percent of onshore wind projects come to fruition, so these projects are high risk, especially for smaller energy cooperatives who cannot afford to cover lost development costs.

ECoOB therefore joined Seacoop, a coalition of 34 cooperatives from the Flemish and French speaking parts of Belgium, who will jointly invest in an offshore wind park. The park will require €450m investment in total. The first phase will install 2-2.5GW, increasing to 5-6GW in the second phase. ECoOB as part of Seacoop will be representing citizen participation and aims to cover 20 percent of the total investment. Through this approach ECoOB wants to ensure that the energy produced will be provided to citizens at the best possible price.

ECoOB is also exploring opportunities for communal heating projects, and has two members of staff working on this. The cooperative has a partnership with the city of Leuven, which, thanks to their Net Zero Cities' status, has been able to build a heat coalition and identified five neighbourhoods as focal areas. ECoOB has already studied two of these neighbourhoods, and set up Special Purpose Vehicles to run the projects and are ready for implementation.

Energy sharing is now a legal concept in Belgium. ECoOB has been developing a model to install solar on apartments and enable residents to share the production to charge electric vehicles. The cooperative's standardised model aims to remove all complexity for users. It is however challenging to balance loads and ensure peak capacity of the network locally is not surpassed, for example between 5 and 7pm when most people want to start charging their cars and use domestic appliances. ECoOB has developed intelligent software to manage this and will be launching their model soon, attracting significant interest. The software has been developed in collaboration with CORE, a cooperative spin-off of the university of Leuven. The programme is designed to avoid power outages due to many cars charging simultaneously, whilst guaranteeing that every car can charge to a minimum agreed capacity at any time. A second component – developed by a commercial company – will take this to the next level by adding AI

components that allow the system to learn from the usage patterns and adopt and fine tune the distribution of electricity to individual charge points. In the region only two percent of apartments have solar panels, so there is a lot of potential. ECoOB wants to prove that this model is an economically viable solution and a valuable contributor towards a climate neutral living environment.

Business model

The cooperative has a total of 52 solar installations in 13 Flemish localities, generating 3MW. Income is generated by selling the generated electricity to both building users and via the grid. Members get dividends on their investment which was 3.5 percent in 2022 and is limited to a maximum of 6 percent. ECoOB's goal is to be able to offer 3 to 4 percent. The cooperative currently has a team of seven paid members of staff.

ECoOB uses the capital provided by shareholders to finance its installations. The investment (preliminary study, dimensioning, installation, monitoring, maintenance and insurance) is done by ECoOB. The solar installations are installed on large rooftops of non-profit organisations, buildings of local authorities, and business offices and factories. ECoOB sells the generated green electricity to the owners of the roof at a favourable cost for the user. A second stream of revenue is generated by selling the injection of the surplus of electricity on the market. The solar installations remain the property of ECoOB for 20 years. A shorter period is negotiable between the parties and an early buyout option can be provided, subject to mutual agreement of all the parties involved. After the contractual period, the installation automatically becomes the property of the building owner at no cost. The generated cashflow pays for amortisation of the solar, staff and the general operations of ECoOB. What is left is partly spent on charity and partly distributed as dividends amongst the shareholders.

For innovation projects on the edge of regulation and technical complexity, ECoOB seeks support from Vlaio (Flemish Agency for Entrepreneurship and Innovation), regional subsidies or other funding mechanisms to mitigate the risk and to allow ECoOB to "package" new solutions for replication by other energy cooperatives.

Internal governance

ECoOB has been set up as an official "recognized" cooperative, incorporating the International Cooperative Alliance principles, which include one person one vote. The board currently comprises nine people. Board members are proposed by the board, approved by members at the general assembly and have a mandate for six years. Board members work on a voluntary basis and do not receive expenses for anything, including travel or IT equipment costs. This ensures they are completely independent and have no vested interests or monetary gains. The need to diversify has been recognised and ECoOB is looking at how to involve women and how to get a second opinion from external experts on specialist topics such as complicated new legislation, investment strategies and risk capital management. ECoOB currently has more than 1100 shareholders.

Day to day tasks of the cooperative are managed by a paid general manager. ECoOB has developed detailed Key Performance Indicators (KPI's) which are monitored closely on a regular basis for each segment of its business, and by its internal business owner or board member. These include: financial (margin, cashflow, liquidity, profitability and solvency), shareholder status (geographical penetration by location, average investment by shareholder, growth over time), project pipeline (amount, estimated investment relative to the average, success rate and pipeline stage),

marketing (number of events, average attendance, average conversion into shareholders, social media, website hits). The staff team currently comprises three women and four men, ranging from early twenties to mid-fifties.

Collaboration with other stakeholders

For ECoOB, citizens are the main stakeholder. Other key partners include:

• Municipalities: ECoOB is hired to provide sustainability consultancy for citizens. Local governments provide ECoOB with the opportunity to install solar panels on their buildings.
• Other energy cooperatives: via the REScoop Flanders who organises topical workgroups consisting of representatives of cooperatives throughout Flanders.
• Energy poverty organisations: as advisors to ECoOB's energy poverty program
• Industry groups: ECoOB is a member of Flux50, the membership organisation that helps Flanders gain international recognition as a Smart Energy Region. Flux50 facilitates cross-sector collaboration between energy, IT and building companies to enhance the competitiveness of the Flemish smart energy industry in the transition towards low carbon systems.
• Solar panel installers: ECoOB does not install the solar parks themselves but assigns installers for specific projects from a pool of 6 – 10 installers. Installers for any given project are selected based on quality of previous projects, price, safety policies and meeting the agreed service levels.

Overcoming challenges

In the beginning, when setting up, everything was driven by the enthusiasm of volunteers The organisational structure grew ad hoc, no mature tools or organisational procedures were in place. This was not sustainable and the cooperative felt it needed to professionalise quickly. This in itself is not easy however, for example, re-allocating responsibilities and tasks from volunteers to paid staff can be tricky and needs to be sensitively handled.

In response to the need to keep volunteers involved and motivated, ECoOB decided to set up a second non-profit organisation, called Klimkracht, with hubs in several localities. Volunteers can define which projects they want to do and can step in and out according to their availability and interests. Typically, these are social projects focussed on energy poverty, shareholder recruitment campaigns, information events for private households on heat pumps, home batteries or other technical solutions that help in the journey from fossil sources to renewable energy. This cannot happen at the same level in professional organisations where continuity and economic sense are key. However, by building awareness and understanding, Klimkracht helps also to build support for ECoOB's projects.

The second challenge is the competence balance of the board. Initially ECoOB's board consisted predominately of people with technical skills, such as engineers. However, the cooperative realized that it also needed professional legal, financial and HR skills. A profile is defined for each new board member and circulated amongst shareholders and the general public, tapping into the networks of key influencers, existing board members and customers. New board members need approval of the general assembly of ECoOB. Getting women involved continues to be a challenge and currently no women are on the board.

Gender balance & inclusion of vulnerable households

Assisting energy poor households is a key concern for ECoOB. Several board members are also board members of organisations addressing energy poverty. ECoOB was already providing energy advice to shareholders but was not investing in installations on smaller private roofs. The federal government currently helps energy poor households to reduce their energy costs through a social tariff system. However, this does not necessarily provide them with clean energy or help to reduce energy needs, and the households are reliant on financial support to cover their bills. ECoOB realised that if they could provide these households with solar panels they could enable them to move out of energy poverty.

ECoOB therefore launched a new initiative. Free solar panels were installed on local homes, 100 percent funded by ECoOB, the households use the free electricity and ECoOB gets revenue from any surplus sold to the grid. However, this solution was only for people who owned their own homes, and requires a suitable roof. ECoOB therefore developed a solution for people in rented accommodation or with an unsuitable roof. ECoOB generates power from big installations on public roofs and gives these energy-poor households some of the energy generated. The cooperative has allocated €160,000 to be spent each year on their energy poverty programme. This capital is funded by shareholders acquiring additional ECoOB shares.

The economic viability of the project is an issue, as the market price is volatile, and the Flemish government has stopped subsidizing solar panels which has increased ECoOB's investment costs. To address this, ECoOB set up a guarantee fund to ensure that the project did not reduce member dividends. The cooperative is currently looking at whether members could also donate dividends to the fund if they would like to.

The energy poverty project is primarily organized through the not-for-profit organisation Klimkracht. There is a team of voluntary energy coaches who visit people in energy poverty, explain what is going to happen and follow and organise all steps. The volunteers also hold information evenings and have developed a range of educational tools, including a trailer with solar panels and a battery to demonstrate solar energy in remote locations. The trailer is hired out to youth organisations and for parties. The team also has thermal imaging cameras to help households identify heat losses. The organisation has around 25 active volunteers and is relatively gender balanced.

What makes you different?

ECoOB does not like to think of itself as different. However, the speed of set up and professionalisation of the organisation might be a key difference. Being based in the university town of Leuven originally helped as a large pool of talent is available in the city. From day one, experienced civil engineers joined the board with existing project management, market and financial skills. In a first phase of the existence of an energy cooperative it is critical to insource these skills to ensure first projects can be realised fast with the associated revenue stream to finance growth. Once a total investment of €2m has been reached, it is critical to insource board members who have a solid and proven background (and network) on the various competences needed: finance, HR, internal processes, legal, compliance, industry knowledge, marketing, visionary and business development. If not available, prioritise the competencies needed at a given point and time and assign the top two or three areas of responsibility to existing board members and hire staff to migrate operational tasks handled by board members to staff (over time). As a result, there will be a natural shift over time from an operational board to a more business and strategy focussed board.

A piece of advice...

“If you are thinking of setting up an energy community, don’t! Look left and right, there are enough cooperatives out there so join an existing one if you can. It takes a lot of time and energy to set up from scratch. Don’t reinvent the wheel, join the club!

However, if there is something new or innovative you want to do, such as e-mobility, then go for it. And if you do set up something new, build strong relationships with local authorities. Don’t act as a protest group, put yourself on the market as a partner, a game changer for their policies and their needs.

Having a strong board is also very important and not all initiatives focus enough on this. Focus is also important, don’t spread yourself too thin. Do one thing and do it well, then start diversifying to mitigate risk.”

Documents/Useful links

Useful links to follow