



Establishing Community Renewable Energy Webs

A new business model to aim for

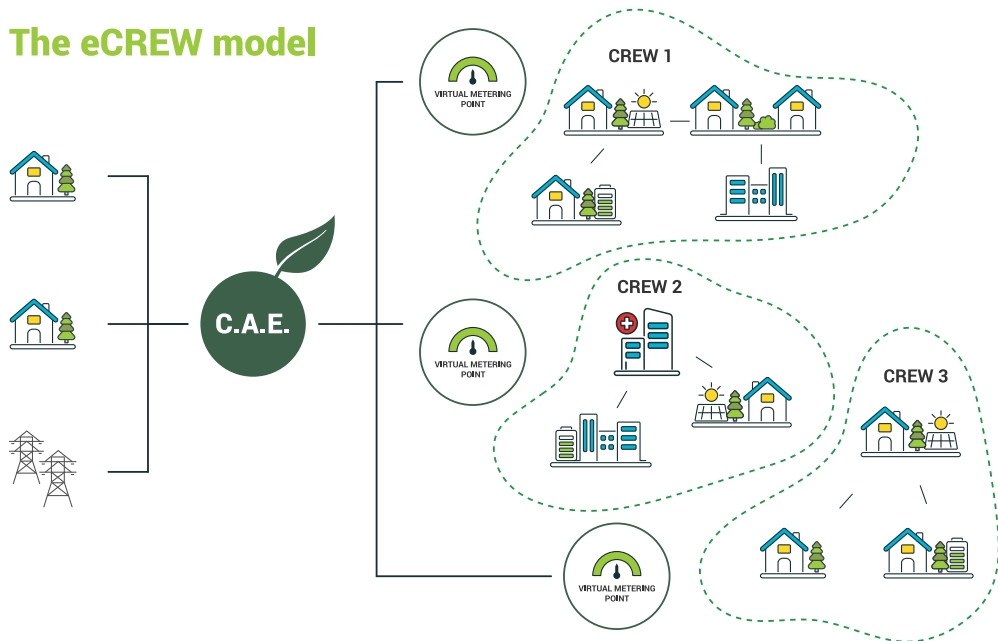


eCREW – An energy concept for life

Join an energy community, be involved and get informed, see the fruits of collective actions, improve environmental strain and add social, environmental and economic sustainability to your life.

eCREW coordinates and supports the roll-out of an innovative scheme of household cooperation in energy management, addressing Community Renewable Energy Webs (CREWs), in which households jointly exploit household-level electricity generation and battery storage capacities and optimise energy efficiency and expenditures.

The eCREW model



Who can join: the eCREW's actors

Consumers: households that purchase energy from the eCREW

Prosumers: households that share/sell their production within the eCREW and purchase energy from the eCREW

Energy Retailers or Community Administrative Entities (CAE): legal entities with the right (license) to establish electricity supply contracts.









How it works: the eCREW model

An eCREW is a virtual energy community aimed at supporting the exchange of energy among prosumers and consumers via the mediation of an administrative entity.










Based on an innovative split-incentive scheme and an IT infrastructure capable of handling the energy flows within the eCREW via smart-metering devices, the members will be able to increase the share of locally produced renewable electricity, to improve the environmental sustainability of their energy consumption behavior and to experience additional financial benefits.

Benefits to join an eCREW

For companies to become CAE

-  To reduce energy distribution costs and losses (for hybrid CAEs retailers and distributors).
-  To further strengthen the collaboration between company and customers.
-  To add to a sustainable and environmentally friendly future.
-  To offer a split-incentive system creating a win/win/win situation.
-  To be part of a sustainable energy community.
-  To increase the number of customers in the reference area.
-  To lead the energy transition.
-  To build relationships of trust with the public administrations of the territory.

For Citizens to become eCREWers

-  To take an active part in the decentralized energy system of the future.
-  To gauge and compare individual energy consumption.
-  To use an individual energy efficiency app.
-  To easily adjust the own energy consumption behaviour.
-  To enjoy a split-incentive system.
-  To be part of a community.
-  To reduce energy dependencies and to become to a certain extent self-sufficient.
-  To save money.
-  To shift energy peaks and reduce costs.



The model in place during the project's runtime

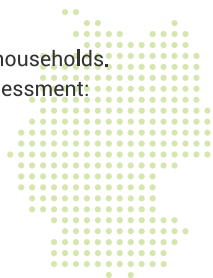


SPAIN

Alinet Distribución Energía Eléctrica S.L.U. (ADEE)

Our Lighthouse Community in Spain is covering ~1,000 households. The impact of the eCREW-participation based on our assessment:

- 580kWh/year reduction in energy consumption
- saving 130€/year/household
- 140 tons of GHG emissions/year reduction of the environmental footprint



TURKEY

Uluğ Enerji Dağıtım ve Perakende Satış Hizmetleri AŞ (UEAS)

Our Lighthouse Community in Turkey is covering ~5,000 households. The impact of the eCREW-participation based on our assessment:

- 330kWh/year reduction in energy consumption
- saving 34€/year/household
- 140 tons of GHG emissions/year reduction of the environmental footprint

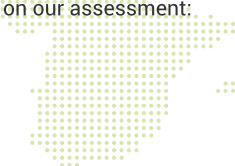


GERMANY

Stadtwerk Haßfurt GmbH (SWH)

Our Lighthouse Community in Germany is covering 150 households and growing. The impact of the eCREW- participation based on our assessment:

- 500kWh/year reduction in energy consumption
- saving 160€/year/household
- 200 tons of GHG emissions/year reduction of the environmental footprint



How to create an eCREW

The six steps to for eCREW starting-up

- 1 Check the technical and economic feasibility following the guidelines provided in the eCREW CEO Handbook.
- 2 Assess the potential target through the survey contained in the eCREW CEO Handbook submitted to your and other customers.
- 3 Engage your customers following the eCREW Collective Action Plan.
- 4 Sign the collective contract to formally adopt the eCREW split-incentive scheme.
- 5 Install the eCREW monitor system on customers devices (smart-meters, digital platform and mobile phone-App).
- 6 eCREW established: to produce, exchange and (carefully) consume energy.

Enabling conditions and aspects to be carefully considered for companies to become CAE

ENABLING CONDITIONS

- Shared sustainability values with citizen (consumers & prosumers).
- Proactive engagement of community as CAE.
- Technological appliance implementation (smart grids; smart meters).
- Digital platform and support application.
- Innovation and eagerness to improve performance.
- Eagerness to lead the energy transition.
- Existing and cooperative prosumers.
- Awareness programs.
- Community and network building.
- Be at the forefront of the energy transition.
- Eagerness to become self-sufficient.

CONSIDERATIONS

- Legal restrictions to and regulations for energy community network systems.
- Expansion of local energy communities.
- Tariff-setting.
- Implementation of smart-grids and smart-meters.
- Lack of additional human resources of CAE.
- Resource availability for renewable energy generation (wind, water, solar).
- Limited motivation for innovation and change.
- Technical incompatibility.
- Lack of consumer and prosumer trust.
- Consumer rejections.

Helpful eCREW tools ready to be used

Firstly, **The White Book** serves as an initial guideline for the eCREW enrolment process providing end user engagement strategies, community creation and management. This compendium is based on the lessons learned of the three Lighthouse Communities. Secondly, a **Report on the legal and administrative framework** and **national/regional Policy Briefs** provide an overview of current regulations and policies, framing the setting for a successful eCREW enrolment. Thirdly, a digital **App designed for citizen engagement, energy monitoring and efficiency** (phone/tablet app) **and collective actions**. The App allows a split incentive scheme and individual change of energy consumption behavior due to monitoring and push-up messages.

Tools for Companies (CAE)

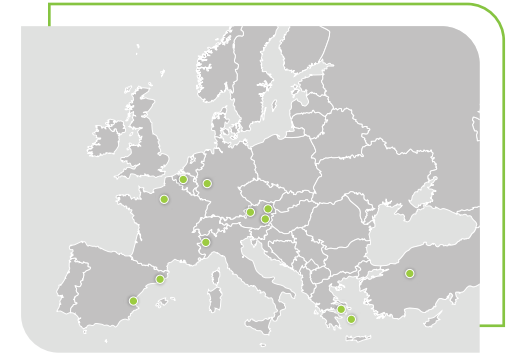
- The White Book - end user engagement strategies, community creation and management.
- App for citizen engagement, collective actions, energy monitoring and efficiency.
- A split incentives scheme.
- KPI set for easy community progress and performance assessment.
- CEO information package and Handbook.
- Best practices and lessons learned.
- Communication campaign.
- Collective action plan.
- Follower communities engagement and networking report.
- Website and social media accounts.

Tools for Citizens

- App for citizen engagement, energy monitoring and efficiency (phone/tablet app).
- Fast app user guide and easy installation procedure.
- Roll-out tutorial.
- A split incentives scheme.
- Best practices and lessons learned.
- PV-installment savings simulation and self-consumption assessment.
- Follower communities engagement and networking report
- Community network exchange events website and social media accounts.

The Follower Communities Network

A strong and diverse Follower Community - 17 right from the start of the project and many more to follow - made up of companies and entities from Austria, Belgium, France, Germany, Greece, Spain, Sweden and Turkey is made fit for giving the eCREW approach a "Go". Follower Community is supported to decide for establishing their own CREW concept by providing them all tools and information needed to assess the cost and benefits of the approach in their environment.



AUSTRIA

- Energie Steiermark AG
- E-Werk Götting Stromversorgungs GmbH
- Kraftwerk Glatzing-Rüstorf eGen
- Österreichs Energie
- Spotty Smart Energy Partner GmbH

BELGIUM

- Joint Programme on Economic, Environmental and Social Impacts of the Energy Transition

FRANCE

- Électricité de France S.A. (EDF)

GERMANY

- Energieversorgung Mittelrhein AG
- RhönEnergie Fulda GmbH
- SWB AG

GREECE

- Municipality of Kythnos
- Network of Sustainable Greek Islands

ITALY

- Iren S.p.A.

SPAIN

- Federación Cooperativas Eléctricas
- Som Energia SCCL

SWEDEN

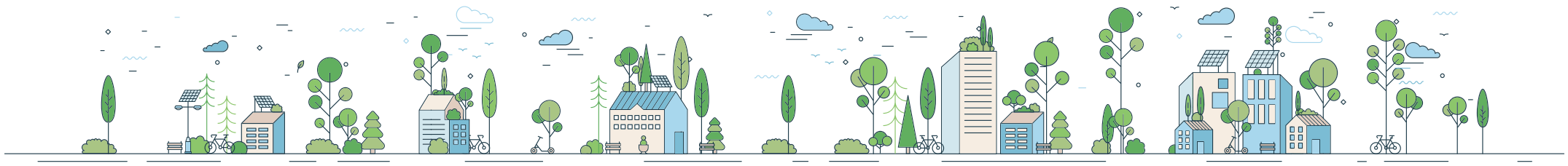
- Nordiska Elbolaget AB

TURKEY

- Ataseven Enerji Üretim a.ş
- Petroleum and Natural Gas Platform Association
- Turkish Pump and Valve Manufacturers' Association

UNITED ARAB EMIRATES

- SA Engineering Consultancy



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