



Community Power – Europe and beyond

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Energy Community



Community Power in Europe



Access to information and finance



Towards new business models

Citizens participations in RES projects



Art. 14. Directive 2009/28/EC: inform citizens of the benefits and practicalities of developing and using energy from RES. In addition:



1. Pursue **explicit recognition** of community power and its benefits
2. Encourage **citizen participation** through community energy
3. Develop effective **business models** for community financed energy projects

EU energy policy is a highly shared competence

- Principle of subsidiarity + Article 194(2) TFEU: MSs retain significant control on energy;
- High diversity of legal contexts in Europe, a **one-size-fits-all** community power model **not possible**;

RE Directive, EE Directives, IEM Directives (2009/72/EC, 2009/73/EC) provide a degree of recognition for the role of citizens in low-carbon energy transitions

- The EU framework lacks an **EXPLICIT and ELABORATE** legal basis for community power and a fully optimized low-carbon IEM;
- Imperative for the new RE Directive (2020-2030) to be **recalibrated** to reflect this;

Legal forms for Community Power

EU Community energy projects have different legal forms, e.g.:

- ❑ **Partnerships:** small group of people in a relatively equal position who share profits and responsibilities equally. Transparent decision making plus often enjoying tax advantages;

- ❑ **Cooperatives:** usually based on the *one-member one-vote principle*, equitable contribution and limited compensation, if any. Surplus goes to the cooperative development. Autonomous from government, they provide training for their members.

- ❑ **Community Foundation:** usually intended as vehicles for return of investments to be used for specific local needs or community purposes.

Partnership: Dardesheim, Germany



Location: Dardesheim, Germany, Saxony Anhalt, 1000 people.

Legal Form: limited partnership with a private limited company (*Dardesheim, Windpark Druiberg GmbH & Co. KG*)

- Only local residents allowed to purchase shares and engage as limited partners (over 90% of locals involved)
- Finance based on initial capital from shareholders

Objective: Self-sufficiency! Profits to expand RES capacity into PV (currently 19 large photovoltaic rooftop systems), biomass, e-vehicles storage system and social projects.

Results: 40 times more electricity than needed, and 10 times the need for electricity heat, cooling and mobility.

Effective policies in place: FiT with 100% interconnection guarantee.

Challenge: get everybody on board!

Cooperative: Brixton Energy, London (1)



Cooperative: Brixton Energy, London (2)



Location: Brixton, South London, UK (neighbourhood under Lambeth local authority)

Legal Form: not-for profit cooperative society (regulated by the Industrial and Provident Societies Act, IPS, 1965). Mainly to benefit the cooperative members, with equal voting rights (min. investment 50 £).

- Most of surplus reinvested into 1) continuation of the project and 2) Community Energy Savings Programme, to assist vulnerable members of the community.
- Members able to qualify for tax relief such as the Seed Enterprise Investment Scheme (SEIS).

Objective: clean, local energy generation; tackling energy poverty; employment for locals.

Results: purchased and installed **200 solar panels**; generated around **40,000 kWh** each year – enough to power 12 homes; employment to **10 young people**; avoided over **18 tonnes of CO2** emissions/year, the equivalent of almost 2.5 times round the earth! delivered **home energy audits** and energy efficiency measures to help tackle fuel poverty; Community Fund for the future activities.

Effective policies in place: tax relief; income through government's FiT; sale of energy used on-site to Lambeth Council.

Challenge: future income generation and continuation of the project after the first 20 years.



Location: Hvide Sande, small port village, 3,000 people, west coast of Denmark. Popular tourist region.

Legal Form: community foundation, regulated by the Commercial Foundation Act, 1985. Local unions, tourism association and utilities.

- Finance based on initial capital (min. 40,000 EUR) from local associations and businesses, with NO ownership rights.
- Profits to the community purposes for which it was established.

Objective: support the development of the Hvide harbour and tourism by production of RE.

Results: 3MW wind turbines installed; led by the Community foundation. 1.2 MLN EUR revenue to spend into local community.

Effective policies in place: premium tariff and loan guarantee.

Challenge: resist recent trend toward pvt-developer led wind farms.



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Cities play a key role in providing information on rules and procedures for community power.

Freiburg (DE) launched **FREE SUN**, an internet based tool which:

- Identifies available roof space for solar installations (GIS technology) – solar PV and thermal;
- Provide free information on:
 - i) suitable buildings for the installation of solar equipment
 - ii) how to concretely realize the project (regulation, permits, finance, etc.)



Why using crowdfunding as funding model:

- Easy (online campaign) and **accessible to all** community power associations;
- Direct access to the funds necessary for the initial investments;
- **Avoid bank loan** and administrative/financial burden linked to it;
- Provide an **energy and monetary benefits to investors and democratize energy!**

RENEWABLE ENERGY CROWDFUNDING MAP

RENEWABLE ENERGY CROWDFUNDING CONFERENCE
 5 NOVEMBER 2015 /// LONDON, UK
www.recrowdfunding.eu

USA

Divvy Since 2014
 4 Projects
 €11,500 Raised

Clean Reach Since 2014
 6 Projects
 €5,980 Raised

CollectiveSun* Since 2015
 5 Projects
 €326,781 Raised

RE-VOLV Since 2011
 3 Projects
 €111,746 Raised

SunFunder Since 2011
 21 Projects
 €437,500 Raised

MOSAIC Since 2013

UK

abundance Since 2009
 14 Projects
 €15,857,783 Raised

Trillion Fund* Since 2011
 23 Projects
 €104,379,968 Raised

microgenius Since 2011
 18 Projects
 €2,130,000 Raised

SOLAR ESCO SCHOOLS Since 2013
 65 Projects
 €736,164 Raised

NETHERLANDS

de Windcentrale Since 2010
 9 Projects
 €15,000,000 Raised

DUURZAAMINVESTEREN.NL Since 2014
 7 Projects
 €2,900,000 Raised

GREENCROWD Since 2012
 24 Projects
 €1,833,600 Raised

WE SHARE SOLAR Since 2012
 €1,700,000 Raised

FRANCE

Lendosphere.com Since 2014
 12 Projects
 €970,000 Raised

lumo Since 2012
 6 Projects
 €200,000 Raised

enerfip Since 2015
 2 Projects
 €7,900 Raised

PORTUGAL

Coopérnico Since 2013
 7 Projects
 €327,000 Raised

GERMANY

econeers Since 2013
 10 Projects
 €4,100,000 Raised

bettervest Since 2013
 28 Projects
 €1,700,000 Raised

GreenVesting Since 2009
 9 Projects
 €980,000 Raised

green X money Since 2014
 14 Projects
 €311,000 Raised

LehDeinerUmweltGold Since 2013
 19 Projects
 €4,000,000 Raised

NOTABLE PROJECTS OPEN FOR FUNDING

- #1**
 Platform: Abundance Generation
 Project: Ecosoll PV
 Raising target: £1.900.000
 Type project: Solar PV
- #2**
 Platform: Trillion Fund
 Project: Whalley Hydro
 Raising target: £750.000
 Type project: Hydro
- #3**
 Platform: Abundance Generation
 Project: Oakapple Two - Debenture 2
 Raising target: £388.000
 Type project: Solar PV

QUICK FACTS

<p>There's more than 1250 active Crowdfunding Platforms (CFPs) worldwide</p>	<p>2015 Crowdfunding Volumes:</p> <ul style="list-style-type: none"> North America: \$9.46 billion Asia: \$3.4 billion Europe: \$3.26 billion 	<p>There are 25 crowdfunding platforms solely focused on renewable energy</p>	<p>Renewable Energy Crowdfunding raised over €165mln, funding more than 300 projects</p>	<p>Crowdfunding may supply rooftop solar-projects with \$5 billion of investments within five years, more than 50 times the amount raised to date.</p>
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New business models in Europe: OVO Energy



Electricity supplied by OVO Energy



Average for UK



Better Energy

Big savings and get fixed rates for a year

£83 a month

On average¹

33% renewable electricity
12 month fixed rates
£30 exit fee per fuel

Greener Energy

100% renewable electricity with fixed rates for a year

£88 a month

On average¹

100% renewable electricity
12 month fixed rates
£30 exit fee per fuel

Simpler Energy

Our most flexible plan with no contract, and no exit fees

£84 a month

On average¹

33% renewable electricity
No contract, variable rates
No exit fees

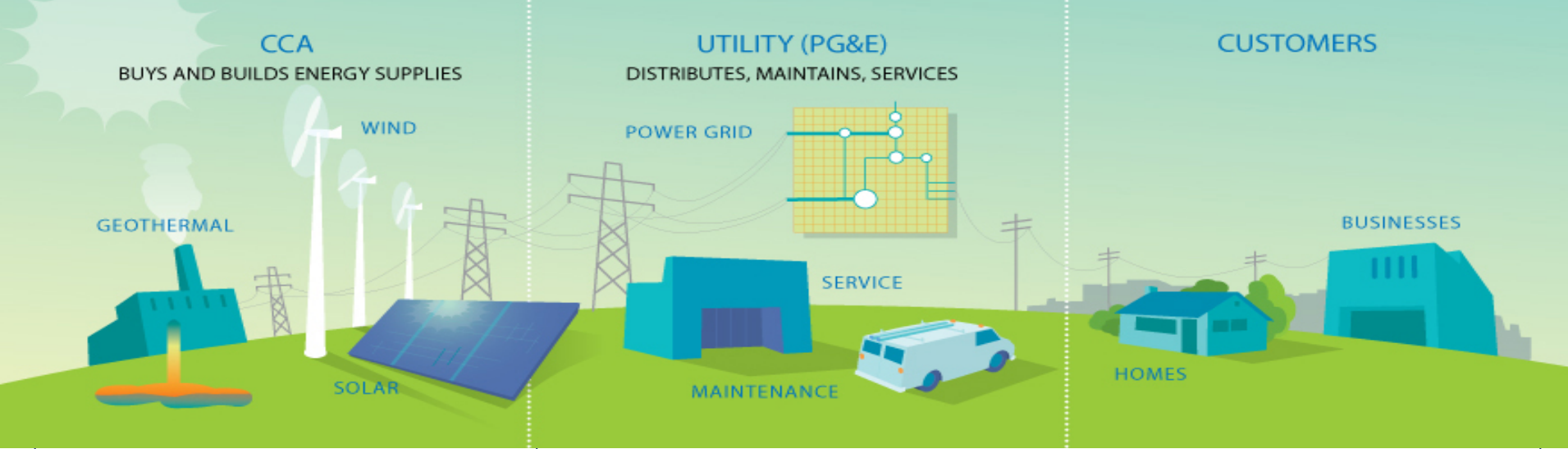
Beyond Europe: Community Choice Aggregation



Example Monthly Residential Electric Charges**	PG&E	MCE Light Green	MCE Deep Green	MCE Local Sol
Renewable Energy	27%*	56%*	100%	100%
PG&E Electric Delivery (all customers)	\$37.30	\$37.30	\$37.30	\$37.30
Electric Generation (all customers)	\$45.12	\$37.97	\$42.60	\$65.75
Additional PG&E Fees (MCE customers only)	-	\$5.71	\$5.71	\$5.71
Average Total Cost	\$82.42	\$80.98	\$85.61	\$108.76

*As reported in the Annual Report to the California Energy Commission Power Source Disclosure Program in June 2015 (www.energy.ca.gov/sb1305/labels).

**The above comparison is based on a typical usage of 463 kWh at PG&E's rates effective as of March 1st and MCE's current rates for the April 2015 to March 2016 fiscal year under the Res-1/E-1 rate schedule. Costs shown are an average of summer and winter rates in baseline territory X with gas heating; actual differences may vary depending on usage, rate schedule and other factors.



In a nutshell...

- New schemes **challenging the dominance of investor-owned utilities**; great examples of **bottom-up, local action to increase the share of RE in the electricity mix**;
- Profits are reinvested to meet the **needs of communities**: efficiency, poverty, education, job creation!
- Citizens increasingly perceived as **prosumers** and **energy citizens**, the driving force behind the low carbon transition;

To achieve more:

- Legal framework more supportive of local communities and jurisdictions (e.g. cities, counties, or collections of both) to generate or procure on the market the electricity to meet their own demands;
- Citizens to become **knowledgeable participants** and able to exercise their rights in the political, economic and social dimension of energy policy!

The background is a satellite-style image of the Earth at night, showing city lights. Overlaid on this are numerous glowing blue lines that represent energy or data connections, crisscrossing the globe.

*Thank you
for your attention!*

www.energy-community.org

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Photos: credits to EnC; google.org