

The future of prosumer business models: balancing the needs of communities and the energy system

PROSEU Brief #1

Key takeaways:

- Prosumer: producing energy for own use (**producer + consumer**.)
- Prosumer-ism may develop in different directions using different business models.
- These different models may adopt a market or community logic, or a combination of both.
- This depends on societal conditions such as the actors involved, the project's objectives energy market regulations, subsidies and taxation, public and private investment, and cultural issues.
- Transposing EU-directives into national laws is a window of opportunity for shaping future business models.

The future of prosumer business models

The production of renewable energy is on the rise in Europe.¹ A major role is reserved for 'energy citizens', who could generate up to 45% of the European Unions' electricity by 2050.² Individuals and collectives are no longer just consumers of energy. They produce renewable energy and, in this way, actively engage in energy markets. For example, by delivering electricity to the grid or providing energy storage. They have become prosumers.³

Exploring the future of prosumer business models means exploring the tension between two extremes: will the future of prosumerism follow a **community logic** or a **market logic**? Which side of the spectrum will become dominant depends on societal conditions such as the actors involved, the project's objectives energy market regulations, subsidies and taxation, public and private investment, and cultural issues.

Direction: community logic

The main goal of prosumerism following a community logic is to meet the energy needs of specific communities. Driven by local motives, citizens, households, public-institutions, governments and companies invest together in collectively owned and managed renewable energy systems. This type of prosumerism may also ensure an equal distribution of costs and benefits between individual members, communities, companies, and governments. Already today, there are energy cooperatives with a strong focus on local and/or regional membership which are managed in an inclusive manner. In this future, ownership and decision making are distributed, along for example the one member one vote system, and installations, such as solar panel or wind turbines, owned by many participants. Emphasis is placed on direct democracy, creating social value and inclusivity as opposed to only making profit.

1 Currently rising with about 0,5% per year, reaching 17,5% in 2017; see Eurostat.

2 Kampman et al. (2016) The potential of energy citizens in the European Union. CEDelft: Delft.

3Horstink, L., Wittmayer, J., Ng, K., Luz, G., Marin-Gonzales, E., Gähns, S., Campos, I., Holstenkamp, L., Oxenaar, S., & Brown, D. (2020). Collective Renewable Energy Prosumers and the promises of the Energy Union: taking stock. *Energies*. <https://www.mdpi.com/1996-1073/13/2/421>

Direction: market logic

In this direction, prosumer energy systems are governed largely by market actors – much in the way that liberalised energy markets are governed today: prosumerism is a commercial activity. New market entrants and incumbents drive the adoption of innovative technologies, products and services towards a market logic that is focused on low costs and choices for consumers. The main goal of prosumerism in this direction is to maximise profit and energy cost savings. Thus, large companies may optimise decentralised energy production delivering benefits for wider system stability and to network operators. Here, prosumers are viewed as consumers, who want to make a profit/savings but are not interested in governing energy systems. To a large extent, profits may be primarily captured by private utilities or companies and may be passed on to consumers.

Finding a future that works

Many futures for prosumerism may appear that lie somewhere between the extremes of community and market logic. For example, a social enterprise which combines being for profit with achieving societal goals. Or a local energy company operated in partnership between government, community and market actors. Although the market logic is currently more dominant, there is also a growing movement of more community-economy based prosumer initiatives in Europe. This will, however, differ between EU countries. The Figure below visualises how prosumerism could develop towards different futures.

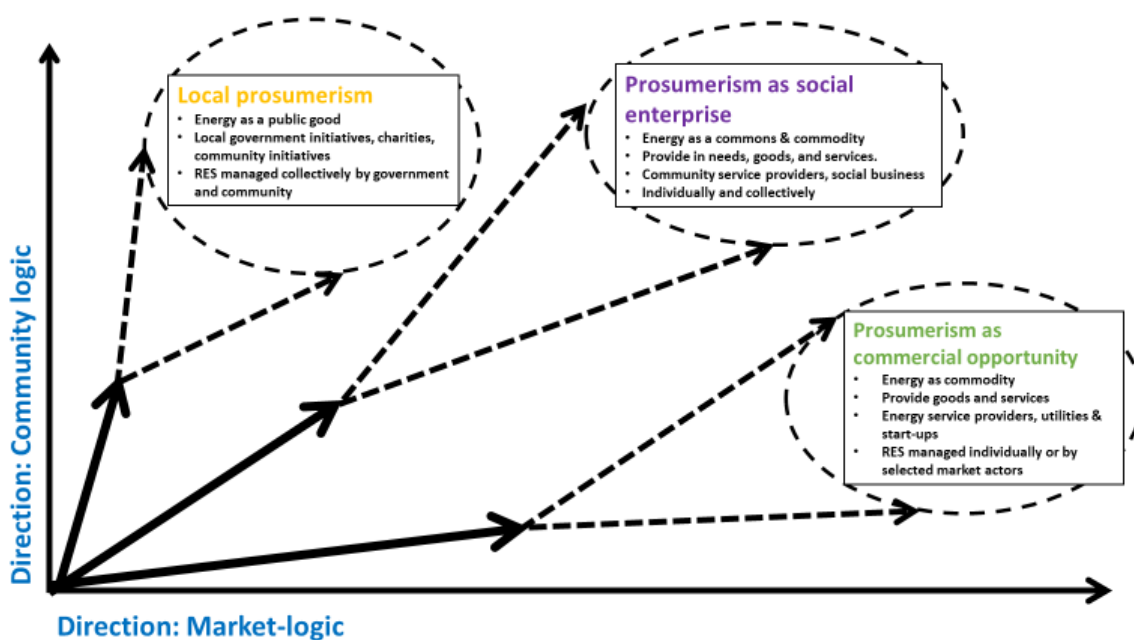


Figure 1 Mainstreaming prosumerism: between community economy and commercial opportunity



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N°764056. The sole responsibility for the content of this brief lies with the authors and does not necessarily reflect the opinion of the funding authorities.