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NEWCOMERS international workshop

Business models of new clean energy communities

A summary report on the international workshop of the NEWCOMERS project.

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This is a summary report of the NEWCOMERS international workshop held on Tuesday 26 October 2021. The aim of the workshop was to share and develop knowledge on energy community business models amongst researchers and practitioners of energy communities. The workshop covered three topics: **actors, technologies, and value**. This document summarises the discussion and takeaway messages from each session.

Headline takeaways from the workshop

1. The workshop stressed how **creating people centred energy systems** drives the creation of energy communities.

2. The workshop underlined that whilst the actors and technologies are important aspects of ECs (and serve as useful entry points), **ECs need to be considered through a systems perspective**. As one participant stated, *'it's not just technology, but also finance, skills, community interest and so on that have to align for projects to work'*.



Actors

This session examined the **roles of members in ECs, the range of actors involved in ECs, and the implications of this for the development of new business models.**

“You need a lot of friends, but at the end you need most of all local actors but also the central government, for regulations.”



Key takeaways

- Two contrasting views of members emerged through discussion. Members as essential contributors to the design, implementation, management, and expansion of ECs versus members as passive recipients or participants in ECs.
- Members play an important role in ECs as ‘ambassadors’ of ‘happy stories’
- For genuinely democratic and participatory ECs, ‘trust is the most important bit’
- Partnerships are important but vary: some partnerships are based on shared goals and non-commercial relationships. Other partnerships are based on contractual relations.

What are the most important roles members play in ECs?

- Contributing social, professional, technical and organisational skills; Bringing in their experiences and skills; Helping to finance projects; Roof or opportunity scouting;
- Recruiting new members, talking to people; Passing on their knowledge and experience to others; Sharing experiences and knowledge with other members, but also with the wider interested public and the media; Getting the neighbour involved with happy stories; ambassadors, trusted within the community; community building
- Participating in the community as consumers and prosumers.

Who are the most important partners for Ecs and why?

- Local/central government: for regulations; for engagement; as responsible for planning, housing and transport
- Licensed suppliers: because of regulations; but this can make the “power” dynamic less of a partnership and more of service provision
- Local groups: important for engagement
- Funding bodies: for access to funds, especially in the start-up phase
- Intermediaries
- Local network operators
- PV installers and companies: so the community can grow and get more autarky.
- Energy trading company, to sell and buy energy from the overlaying system.
- Metering device supplier: for transparency on energy consumption.
- Platform managing company: to manage the sharing process and collect all data

Technologies

This session explored **how decisions regarding technology are made in ECs**. It examined which technologies are used, why some may be more popular than others, and what some of their advantages and disadvantages are.



“The most difficult thing is getting the system up running, connecting the dots.”

“Its all about proven technologies. There are lots of challenges with unproven tech.”

Key takeaways

- Governments (local and national) as well as the rules and regulations of energy systems shape what technology options are viable.
- Unproven or novel technologies are high risk, and often fraught with implementation challenges, making them less attractive to ECs.
- Affordability and ease of use are very important where members have to engage with new technologies.
- Choosing which technologies to use is less important than getting them to work for communities.

What are the most popular technologies to use and why?

Solar PV: Advantages: Usefulness in places with a lot of sun; Availability (on the market); being an established technology; Ease of use/implementation; high acceptance; low cost; modular, but: future recycling issues; Network capacity constraints; Vulnerability to extreme weather conditions; peaky;

Wind: proven technology, complements solar generation; lower margins, but: site specific (wind speeds); Turbines interfere with the landscape and affect its visual attractiveness; noise, low frequency sound; Perceived as harmful to human health; Potentially harmful to wildlife (birds and bats)

Smart meters: important for advanced functionality; can have positive effect on energy conservation;

Connective technologies: seen as vital to more advanced operations; but getting the necessary technologies in place and working together is a non-trivial issue;

Value

This session examined the **value of ECs for individuals, local communities, energy systems and wider society**. It aimed to identify which types of value are considered important now and in the future, and what should be done to increase the perceived value of ECs.

“There’s more to energy communities than money and kilowatts.”

“They do not feel they are alone, they don’t have to fight battles alone.”



Key takeaways

- The value of ECs are wide-ranging and reach beyond environmental and financial aspects.
- ECs can provide multiple types of value, and these types of value cascade out from ECs, from members to their local community and beyond.
- Value can be conceived within a hierarchy, with functional value (like reduced cost, reliability) at the bottom, moving up through cognitive value (largely related to knowledge and education), social value (connections) to affective value (like involvement, empowerment, democracy) at the top.

What types of value are associated with energy communities?

For members	For local communities
<ul style="list-style-type: none"> • Financial savings • Empowerment: creating a sense of being able ‘to do something’ • Connecting people: creating relations; reducing social marginalisation; bonds between members; shared experience; less marginalisation; • Learning: about new technologies, new practices, habits or business management; potential of renewable generation 	<ul style="list-style-type: none"> • Educating others: Awareness-raising of energy issues + climate change issues; on technical energy issues; by working through schools • Community creation: connecting people beyond core activities; can create cohesion or fracture communities; can be polarising • Creating opportunities: supplying communities with renewable generation; can lead to other energy efficient behaviours and considerations
For wider society and/or government	For energy systems
<ul style="list-style-type: none"> • Democratisation of energy systems; energy democracy; empowering people; • Reducing inequality, fairness: Making life better for future generations and society; lowering energy poverty by selling electricity at half the price; including the old and energy illiterate • Knowledge generation: • Making life better for future generations and society • Implementation of green transition: demonstrate to government 	<ul style="list-style-type: none"> • Increased renewables; helps balance the grid; lower transmission costs; load shifting through technologies away from peak times; facilitating behaviour, controls and technology working together

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