



WORKSHOP REPORT OF WORKSHOP SERIES 1

How to overcome the energy crisis in a smart way locally? – Renewable energy & local energy communities (1/4)



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TITLE OF WORKSHOP: How to overcome the energy crisis in a smart way locally? – Renewable energy & local energy communities (1/4)

Facilitator: Michael Fischer, OEAR, Austria

Rapporteur: Hans-Olof Stalgren, Sweden

Notetaker: Veneta Paneva, E40 Communications, Belgium

BRIEF SUMMARY OF THE SESSION

The importance of renewable energy solutions has further increased with the Ukraine crisis. At the local level, cooperation and the role of energy communities – that not only contribute to local energy transition, but also strengthen social innovation – are particularly important. The workshop aimed to explore in detail the situation in Stanz, Austria, as well as to discover drivers and opportunities/solutions for sustainable energy and (possibly) energy communities from participants' villages and experiences. It explored how energy transition ambitions can be combined with other types of innovations, such as social, that ultimately lead to strengthening local communities.

The **main message** that resonated throughout the presentation and the discussions that followed was that the key drivers behind the energy transition and local energy communities are financial and energy independence.

PRESENTATIONS

Rainer Rosegger, Agentur Scan, Stanz, Austria: [Renewable and Local Energy Communities](#)

Stanz enjoys a broad **engagement of its civil society** and a **democratisation of its communal life** since 2019. The key topics it needed to address were communicated by residents and included: usage of its community centre; quality of life; leisure time; and energy.

In 2019-2020, Stanz received funding for the substantial '**Stanz+** **Research & Development energy project**'. The funds, EUR 700 000, were invested into: a biomass power plant; coupling of the heat and energy sectors; integration of a small hydropower plant; rural pioneer community for new electricity production concepts; use of blockchain as a pilot test for administration and automation. The project was extremely important in it enabled not only the technical aspects and solutions, but also the **social innovation** aspects for an energy transition – it allowed the village to figure out how to bring technical solutions together through people. Blockchain technology was used as a pilot test within this context.

The overall benefits from Stanz' energy community are believed to be three-fold: **ecological** (as a way of contributing to Austria's objective of having 100% of its energy production from renewables by 2030); **economic** (since energy communities get a reduction of electricity taxes) and **social** (improving relations between



community members and engaging them in village development & vision). Stanz conducted a feasibility study within the framework of the Smart Rural 21 project to define the social benefits of its energy community and the impact of the use of a blockchain technical administration on the community.

FINDINGS ON DRIVERS/CHALLENGES

- **Stanz, Austria:** energy communities have the possibility to make autonomous decisions, can decide for themselves what they want to do in terms of electricity and energy.
- **Stanz, Austria:** energy communities can play a role in the democratisation of the production, management and distribution of energy – people are directly brought into the process and have a role to play, they can feel a part of the process as they engage directly with the energy production.
- **Italy (national level):** there is a perception that energy communities are a very good opportunity overall, which is a pedagogical tool to include the private sector in the dynamics. The economic dimension of energy communities is open to participation, so the factors that hinder participation are the associated difficulties at the rural level and the fact that this kind of participation and involvement usually take longer than the four-year term of political mandates.
- **Croatia (national level):** energy communities exist at the urban level, not at the rural – there is not enough critical mass in terms of population (50 residents is not enough) to set up an energy community and it is difficult to find the right kind of local leader to get the process going (even if this does not have to be a municipal leader). However, this situation could be approached from a business model perspective.
- **Sweden (national level):** in a context of rising gas and energy prices, and more expensive mobility, there is a growing realisation that rural areas can deliver solutions that are just as, or sometimes even more effective than those of urban areas.
- **Overall drivers:** financial independence of the rural community – alternative source of income, for example, due to lower municipal taxes; money from energy generation remains in the region; independence from larger energy suppliers (including in case of blackouts).

“Energy communities are a huge possibility to bring in the people and give them a role in the energy transition process so they can really feel part of this. [...] One part of this is to bring more democratisation in village life, another is that there is more democratisation in the production and management of energy.”

Rainer Rosegger (Stanz, Austria)

FINDINGS ON SOLUTIONS

- **Renewable energy community** using pilot test blockchain technology and a local currency – tokens (Stanz, Austria): working to increase and diversify the supply of renewable energy sources, Stanz has based this effort on innovative business and cooperation models for the financing and flexible use of these energy sources. Its energy currency system based on tokens/vouchers works to enable transactions between energy producers and consumers, the municipality and local goods and service providers – it can only be used locally.



- **Biogas plant (Finland):** the plant functions for dairy production and is based on the initiative on a local farmers union; SME + refinery to produce biogas fuel; the Skoda factory is currently in discussions to join the group
- **Photovoltaic farm (village of 150 residents, France):** built a large photovoltaic farm which gave it financial independence as this was an alternative source of income; this subsequently changed and shaped the way the municipality planned things as it gave it stability and predictability.
- **Refinery and biogas production (Raudanmaa, Finland):** several villages got together, set up a refinery and are selling the produced biogas; they have now conducted a feasibility study for a hydrogen plant/photovoltaic installation to expand their activities.
- **Make use of the European Commission's [Rural Energy Community Advisory Hub](#)** for technical assistance – can provide assistance with a range of activities related to energy communities, from business plan development, to advice on energy technology efficiency, legal advice and promotion activities.
- **Integrate a social impact indicator** in the process of developing energy communities to ensure that the community benefit is clear – many models for energy communities can be used, but such an indicator is important for consistency.

What is your vision for the future? You are one of the first exploring this field, so what is your vision for the next 10 years about this kind of tools regenerating the community and local development?

“We want to be innovative and use the technology and see how this can benefit the municipality, the people who live there, how it can generate economic profit for the community and the region. And of course, being innovative and competitive, a lot of companies and enterprises in Stanz...maybe it's possible to develop somehow a research centre to work on production systems. We also included this in our Smart Rural Strategy for the next 10 years.”

Rainer Rosegger, Agentur Scan, Stanz Austria

SUMMARY OF KEY FINDINGS, CONCLUSIONS, NEXT STEPS

Key message delivered at the plenary: *“Transforming sunshine directly into beer.”* The key drivers behind the energy transition and local energy communities are financial and energy independence.

Stanz’ success factors:

- broad participation & co-creation;
- clear vision;
- work with experts;
- eagerness to fund solutions;
- technical and social innovation; and
- putting complex concepts (such as blockchain technology) into simple narratives.

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