



## Loenen Energy



DIRECT ENERGY  
PRODUCTION /  
CONSUMPTION



COLLECTIVE



PERI-URBAN

### Summary

The story of Loenen Energy started in the village of Loenen in east Netherlands. In 2013, a group of enthusiastic residents won a competition organised by the municipality of Apeldoorn for the best sustainable idea, called: ‘the Energetic Village’. This one-off subsidy triggered a long-term process for Loenen via the Loenen Energy Fund (LEF). The aim of this fund was to achieve ‘full energy neutrality for Loenen by 2050’. More than 300 projects have now been implemented in Loenen.

### Why is it a case of energy citizenship?

One of the defining features of Loenen Energy is its community Virtual Power Plant (cVPP) project.

The "c" in cVPP stands for "community" (i.e., everyone involved and affected) and determines how the Energy Management System is used: what values does the community consider important, and for which activities is the flexibility deployed? The implementation of the cVPP was a bottom-up process with workshops involving 100 local citizens and various local stakeholders, guided by shared values and interests.



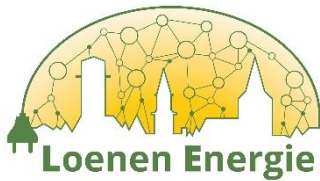
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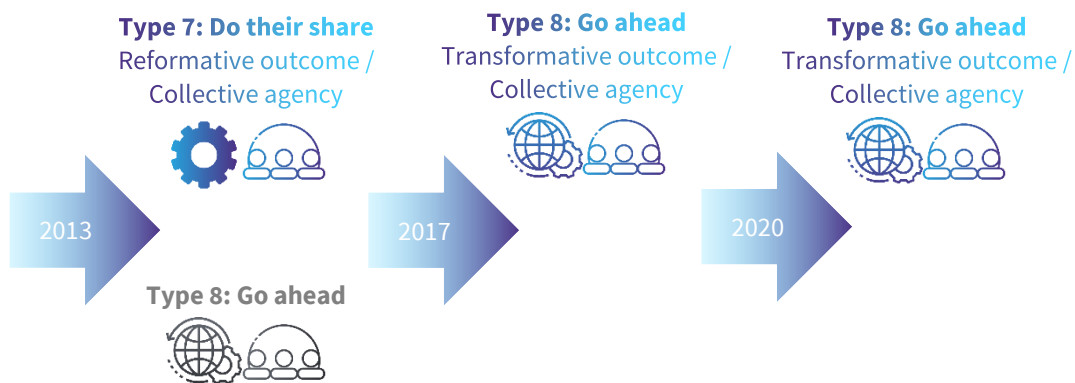
## Goals



1. Promoting the use of renewable energy and energy conservation in its area of operation directly or indirectly for the benefit of its members;
2. Implementing (and financing) local projects;
3. Activating local people, improving social cohesion and public relations.

## The story and the typology

Loenen Energy was started by a group of residents from the village of Loenen who won the 'Energetic village' competition of Apeldoorn municipality. The group needed an entity to do business with rather than citizens as a condition of accessing and implementing EU funds. Therefore, in 2014, the Loenen Energy Cooperative was established as an organisational entity to manage these EU funds. The type of agency has remained the same in all phases of the cooperative, but objectives have changed from a reformative to a transformative type. In the first phase, the case was citizen-based but still primarily reformative, so it was classified as "Do their share", and the transformative "Go ahead" only appeared as a secondary phase. Later, 'transformative' became the main ideal type.



*Case history summary*

For the summary  
methodology,  
click [HERE](#)



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## Phase 1: Since the creation of the case in 2013 until 2017

In 2013, the municipality of Apeldoorn launched a competition for the best sustainable village idea. A number of residents from Loenen applied and won the prize, which was used to set up the Loenen Energy Fund (LEF), a local fund for financing projects related to energy savings, such as insulation and providing renewable energy expertise and financial assistance (the fund is managed by a locally based organisation called Loenen Energy Neutraal LEN). This proved to be a success, as 300 projects have since been implemented. By supporting participants with preferential purchasing and subsidies, Loenen Energy makes participation attractive, which helps to drive the energy transition.

Even at this phase, the case was a collective and citizen-based one because it was set up and managed by citizens. It still shows a primarily reformative orientation (indicated by the main type

of energy citizenship manifested in the case (Type 7). However, transformative features were already present (as indicated in the secondary type, Type 8). ‘The success driver here is the volunteers and the commitment of these volunteers [...] The participants' enthusiasm contributed to giving the board the necessary energy and motivation to continue on the chosen path’.

	Individual			Collective	
					
 Reformative	1. Do their bit (in the household)	3. Do their bit (within organizations)	5. Make their voice heard	<b>7. Do their share</b>	9. Do the job
 Transformative	2. Do their own (in the household)	4. Do it their way (within organizations)	6. Make their vote count	<b>8. Go ahead</b>	10. Make their claims

### Main type: Do their share

Reformative outcome / Citizen-based and hybrid agency

### Secondary type: Go ahead

Transformative outcome / Citizen-based and hybrid agency

## Phase 2 Part of an EU project consortium, 2017-2022

In 2017, the cVPP project<sup>1</sup> was launched under the leadership of TU Eindhoven and the Loenen Energy cooperative was established towards the end of this project to ensure continuity. Loenen was a pilot study area that participated in collaboration with Irish and Belgian partners (as part of an EU project consortium). To develop the cVPP, Interreg North-West Europe made available a grant of 850,000 euros. Besides the European grant, the Province of

Gelderland in the Netherlands also contributed financially to the implementation of the project.

In 2021, the Energy Management System (EMS), part of the cVPP of Loenen Energy, was launched, and the cooperative won the prestigious EU Sustainable Energy Award.

EMS is a smart energy management system that matches the supply and demand of renewable energy. This system is called the DE power plant

<sup>1</sup> Technically, the cVPP consists of close to 100 residential PV systems, an 0.9 MWp industrial PV, several steerable heat pumps and an EV-charging point, all connected through a tailor-made EMS.



and, in Loenen, involves residents in the electricity system of the future. Large energy companies are also betting on this technology, but what is special in Loenen is that the residents of Loenen themselves have control over the DE power plant. The new energy system is for and by citizens.

This shows that the project was already transformative at this phase (as shown by the change in the main ideal type to Type 8).

### Phase 3: Current phase, since 2020

In addition to being an innovative cooperative with the piloting of the cVPP, Loenen Energy grew its operations not only by providing energy advice and support regarding energy measures but also by developing its own local solar farm, called Zonnendak Thomassen – the first major project developed by the Loenen Energy Cooperative - on the solar roof of the Distribution Centre Thomassen. Local residents, businesses, and organisations are co-owners and co-investors of this solar farm. The ambition of the cooperative is to use all rooftop capacity in Loenen for PV and become self-

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#### Main type: Go ahead

Transformative outcome / Citizen-based and hybrid agency

supporting. However, this strategy requires smart energy management. Currently, Loenen Energy supplies 50% of household demand with local PV.

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## The aspects of energy citizenship

Loenen Energy was founded with aim of promoting the use of renewable energy in Loenen to make the village energy neutral. It is a cooperative of and for all Loenen residents. The members jointly own the cooperative. **They generate and supply energy locally and encourage, advise and support residents and entrepreneurs to make their homes and/or businesses more sustainable.**



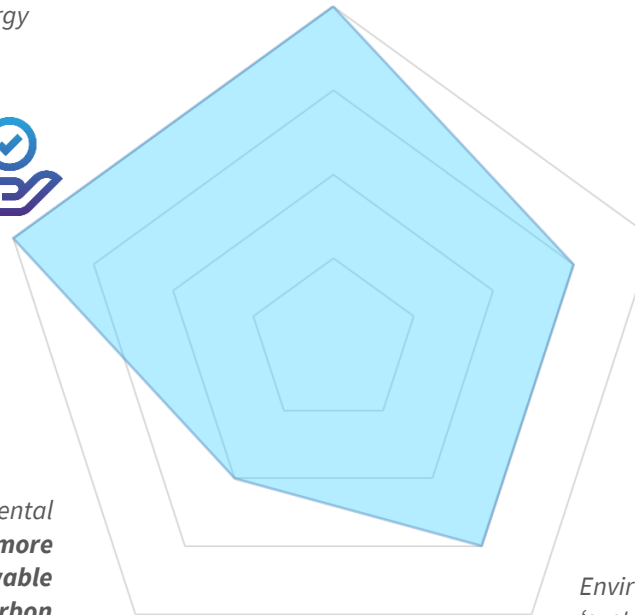
One of Loenen Energy's key quotes is: "Benefiting from renewable energy together". **The members jointly own the cooperative. As members, they can think, talk, decide and invest.** In this way, they hope to involve as many Loenen residents as possible in the energy transition.

 Democratic energy future  
**A more democratic energy future is a core concern of the case, and is part of the vision**



Citizens/residents are free to become involved (all who want to join the cooperative without any specific conditions), but they have to live in the region. To increase involvement and participation in the cooperative, **Loenen Energy aims to reduce the monthly energy payments of its members, including for people who find it challenging to participate in the cooperative.** The cooperative is aware of the lack of equity and justice associated with the energy transition. Members recognise that a large segment of society (i.e., households with medium to low incomes compared to the average) have not benefited from the national support schemes that are now being phased out.

**Citizen control**  
**Citizens exert effective control, and their votes have to be taken into account**



**Equity and justice**  
**Equal access is granted, but limited by various criteria**

There is no mention or recognition of the 1.5C target or environmental limits in general. **However, by focusing on building a more sustainable, decentralised energy system based on renewable sources, the initiative implicitly contributes to reducing carbon emissions and promoting cleaner production.**

**Carbon limit**  
**Implicit recognition of the carbon limit**



Environmental sustainability is mentioned within the wider context of 'sustainability and glocalisation': Loenen Energy aims to do as much as possible locally, using the local revolving fund. **Creating an energy infrastructure involves facilitating awareness, decision-making and the implementation of sustainability projects** by offering organisational, knowledge-content and financial support.



**Environmental sustainability**  
**Environmental sustainability is part of the process; energy remains the main focus**



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## Further information



[facebook.com/Loenenenergie](https://facebook.com/Loenenenergie)



[loenenenergie.nl](https://loenenenergie.nl)



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### References

- Information available on various aspects of the case on the case website (Accessed 30.09.2023):
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### Source of images

[loenenenergie.nl/de-centrale](https://loenenenergie.nl/de-centrale) ; [facebook.com/Loenenenergie](https://facebook.com/Loenenenergie)

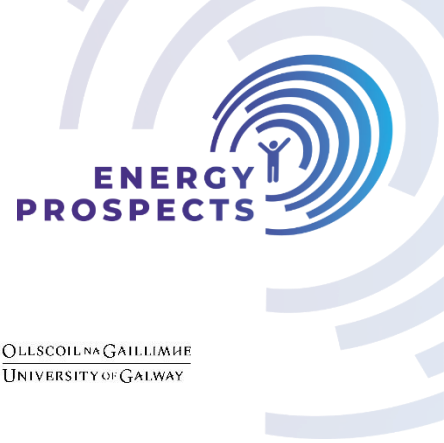


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