

Energy Citizenship country profiles



The
Netherlands



Cite as Crighton, A., Szöllőssy A., Marianna, M., Kemp, R., Vadovics, E. (2022) Energy Citizenship Country Profiles: Netherlands. EnergyPROSPECTS (PROactive Strategies and Policies for Energy Citizenship Transformation), WP3 ENCI mapping.

Published by the Maastricht Sustainability Institute and GreenDependent Institute as part of the EnergyPROSPECTS Consortium.

Data collection (i.e. case research) for the report was undertaken by:

Marianna Markantoni and Rene Kemp

Report concept: Edina Vadovics and Anita Szöllőssy, GreenDependent Institute

Data organisation and analysis: Anita Szöllőssy, GreenDependent Institute

Proofreading of Introduction and methodology description sections: Simon Milton

This report is part of a series of country profile reports that can be found at

<https://www.energyprospects.eu/>

For further information about the mapping of energy citizenship and the series of country profile reports, please contact GreenDependent Institute at info@greendependent.org.

For further information about the cases in the Netherlands, please contact Maastricht Sustainability Institute (MSI) at marianna.markantonis@gmail.com or ali.crighton@maastrichtuniversity.nl

This Country Profile Report is published under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International Public License:

<https://creativecommons.org/licenses/by-nc-nd/4.0/legalcode>.

This publication was prepared with funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101022492.

The sole responsibility for the content of this document lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither the INEA nor the European Commission is responsible for any use that may be made of the information contained herein.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.



Maastricht University

gr^{EE}ndependent
Institute



Table of Contents

Introduction and notes on methodology	3
Part 1: Basic information about energy citizenship in Netherlands: illustrating the diversity of energy citizenship	7
Part 2: Motivation, objectives, actors, operation	11
2.1 Motivation and objectives	11
2.2 Actors initiating and involved in the ENCI cases	13
2.3 Scale of ENCI operations, networks	14
2.4 Sources of funding for ENCI operations	15
Part 3: Placement of Dutch cases in the typology	17
Introduction to the EnergyPROSPECTS conceptual typology	17
3.1 Main types of cases according to the typology	19
3.2 Other typology types selected	24
Part 4: Aspects of energy citizenship	25
4.1 More and less active forms of energy citizenship	25
4.2 Private and public forms of energy citizenship	26
4.3 Level of hybridity in the cases of energy citizenship	28
4.4 Citizen power	29
4.5 Justice and equity	30
4.6 Environmental sustainability, recognizing carbon and other ecological limits	32
4.7 Frontrunners, early adopters and laggards	35
4.8 Pragmatic and transformative change	37
4.9 Contesting the current energy system	39
References	41
Annex: List of the Dutch cases	42





Introduction and notes on methodology

This report was prepared as part of the ‘mapping of energy citizenship in Europe’ task within the EnergyPROSPECTS project.

EnergyPROSPECTS (PROactive Strategies and Policies for Energy Citizenship Transformation) works with a critical understanding of energy citizenship that is grounded in state-of-the-art social sciences and humanities (SSH) insights. The project aims to develop a broad understanding of energy citizenship as a policy concept, a sociotechnical imaginary, and a knowing-of-governance – i.e., a social construction of desirable/normal civic agency in future energy systems. The project set out to identify and examine a range of cross-cutting issues in energy citizenship, which informed the iterative typology development and criteria for case selection. Drawing on pre-existing databases and the identification of new cases, the selection of at least 500 initiatives, as well as mapping and typology refinement exercises that demonstrate the depth/breadth of the energy citizenship concept in theory and practice is undertaken.

As part of the energy citizenship mapping task, a methodology was developed for pursuing the overall project aim of identifying the diversity of types and empirical manifestations of energy citizenship. The methodology was created to help answer the main research questions the EnergyPROSPECTS project team intends to answer through undertaking the mapping activity, which are as follows:

- Which forms of energy citizenship (henceforth referred to as ENCI) can be found in Europe today? How can we account for their diversity?
- Can we find the same forms of ENCI in the different regions/countries of Europe?
- In what contexts do different forms of ENCI emerge and develop?

In the current report we present the diversity of forms of energy citizenship identified in one of the project partner countries, the Netherlands. Please note that **the objective was to identify the diversity of forms rather than to ensure representativity. Thus, this report does not aim to present all examples of energy citizenship in the Netherlands, but rather to illustrate their diversity.**





For the definition of energy citizenship, we turn to the conceptual framework of the EnergyPROSPECTS project presented in [Pel et al., 2021](#):

Energy citizenship refers to forms of civic involvement that pertain to the development of a more sustainable and democratic energy system. Beyond its manifest forms, ENCI also comprises various latent forms: it is an ideal that can be lived up to and realised to varying degrees, according to different framework conditions and states of empowerment. (Pel et al., 2021:64)

Building on this definition of energy citizenship, **within the EnergyPROSPECTS project, instances of ENCI are understood as:**

1. constellations of actors (in a context) and how they
 - ✓ enable/support citizens to become active private and/or public energy citizens;
 - ✓ act as collective energy citizens by contributing to changes in the energy systemor
2. including individual energy citizens and how they realize their potential in a private, public or organisational setting.

As indicated by these definitions, and underlined by the agency dimension of the conceptual typology presented in [Debourdeau et al. \(2021\)](#) and summarised in Chapter 3 below, examples of ENCI can involve individuals or be realised in a multitude of collective forms. During the mapping of the ENCI landscape, focus was placed on identifying and collecting data about both types of cases.

Furthermore, as a huge variety of cases and initiatives are available that would fit these definitions, and mapping them all would go beyond the scope and resources of the current project, there was a need to further define what is considered a case within the research focus of the EnergyPROSPECTS project. Thus, the consortium decided at team workshops that the ENCI mapping activity would cover cases that:

- are **based in European countries** (including EU, EEA, and accession countries);
- are **currently active or were concluded no sooner than 2015** when the Energy Union Strategy was published.
(This is because the focus in this research is not so much the historical forms of ENCI, but rather its current forms and manifestations, and the differences between them depending on the political, socioeconomic, etc. characteristics of their context);
- are **focused on direct energy production and/or consumption** (e.g., in households, organizations, etc.), **mobility** (having a direct connection to energy issues), or with a **more holistic overall focus on sustainable and just energy**.

This means that in EnergyPROSPECTS a decision was made not to study initiatives that focus solely on nutrition, for example. However, if nutrition is part of an overall strategy for reducing energy use or carbon footprint that also focuses on direct energy use, mobility,





etc., then the case could be included (*more details on the sampling strategy can be found in [Vadovics et al., 2022](#)*).

As Pel et al. (2021) indicate, we also recognise that even within the limitations specified for ENCI mapping, "enabling" and "supporting" citizens to become active private and/or public energy citizens can take many different forms. Similarly, energy citizenship itself can take many different forms. Furthermore, in reality many cases enable or support several different forms of energy citizenship in parallel, and often involve less as well as more active forms within the same case (e.g. citizens voluntarily organising carbon reduction groups as a more active form of citizenship, and citizens participating in these groups as a less active form).

As a result, it is expected that a very diverse collection of ENCI cases will emerge as an output of the mapping process. Indeed, it is important to note that although the term *energy citizenship* is often associated with energy communities or community energy projects, the objective in the EnergyPROSPECTS project is to uncover other forms of energy citizenship as well that include both individual and collective forms of citizenship.

As a result of the ENCI mapping activity, the consortium mapped 595 cases of ENCI in Europe. In addition to the country profile reports, we will present them in various forms, including an interactive database [on the project website](#) and various analytical reports that will all also be available on the website. For more about our ENCI mapping methodology and sampling strategy, please read [Vadovics et al., 2022](#).





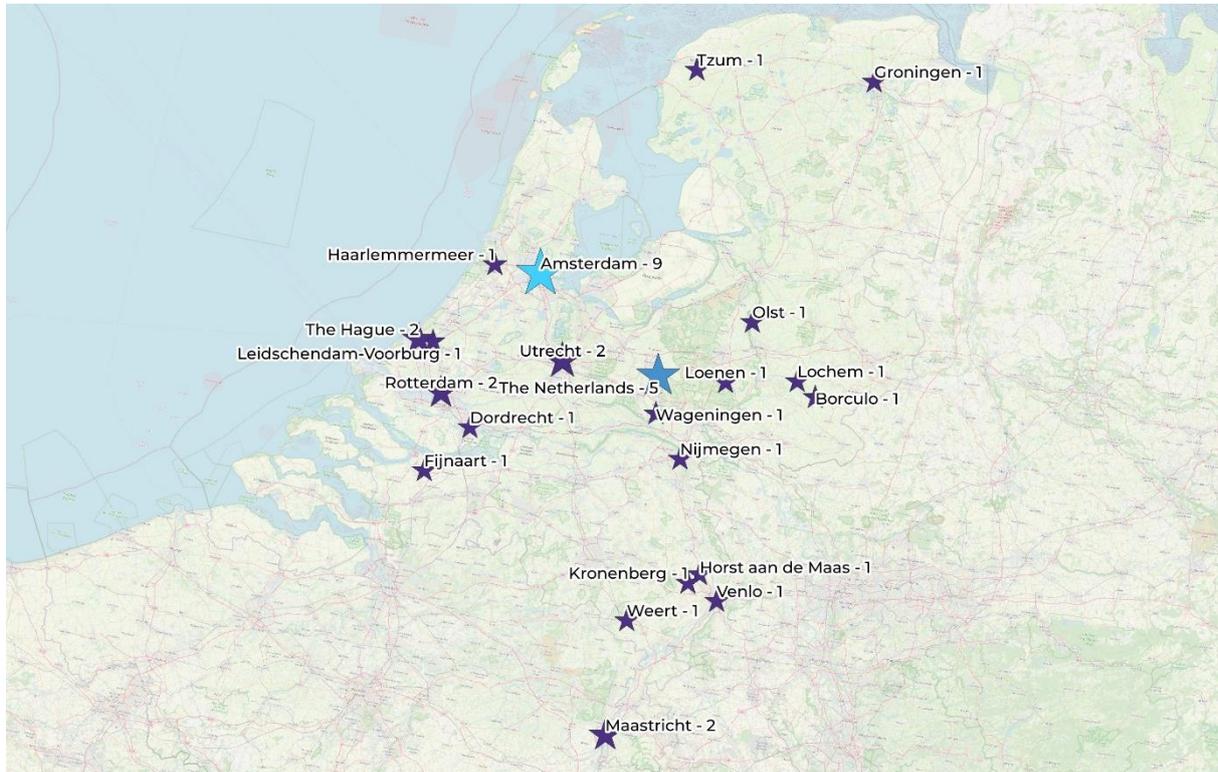
Report Disclaimer

In summary, when reading the following report, please bear in mind the following:

- The mapping of energy citizenship (ENCI) was not conducted to achieve a representative sample of cases in the country, but rather with the aim of providing an overview of the diversity of cases.
- The analysis is rather descriptive in nature, and further highlights diversity.
- The classification of the mapped cases into the various categories in our analysis does not involve a value judgement, but is rather an indication of diversity, as all types of cases are needed for the sustainable energy transformation to happen.
- Since providing details about the conceptual and methodological underpinning of the work that is presented here would go beyond the scope of this report, this is not attempted in this document, but details are available in other project documents – primarily, the following:
 1. methodology for ENCI mapping and data collection: [Vadovics et al., 2022](#)
 2. conceptual framework: [Pel et al., 2021](#)
 3. conceptual typology: [Debourdeau et al. \(2021\)](#)

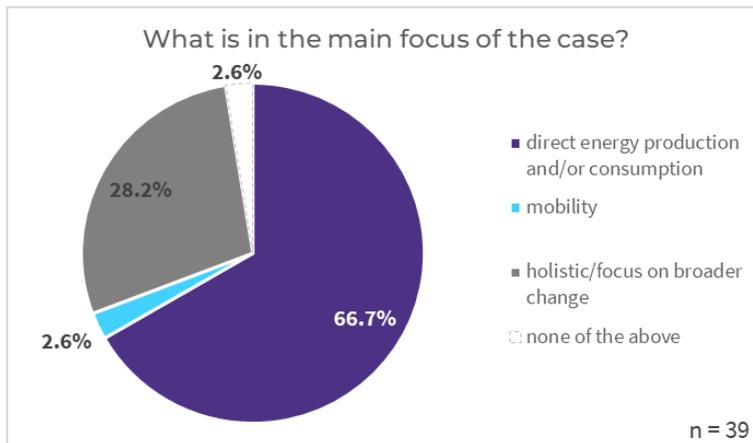


Part 1: Basic information about energy citizenship in Netherlands: illustrating the diversity of energy citizenship



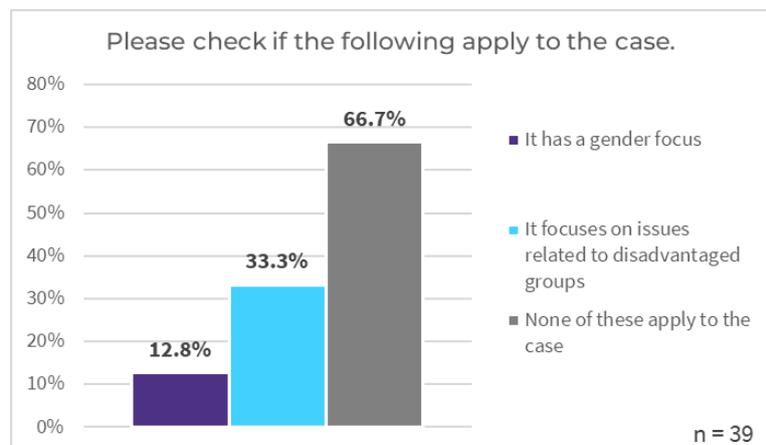
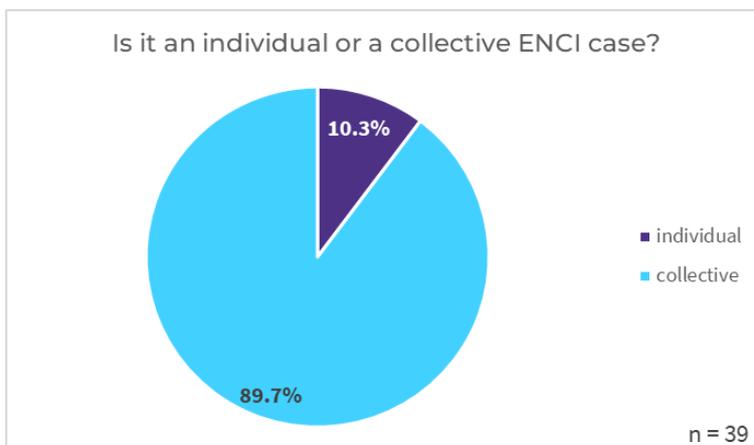
A total of **39 ENCI cases from Netherlands** have been entered into the database. As stated in the Introduction, the objective of the mapping was not to achieve representativity, but rather to map the diversity of ENCI. Nine cases are related to Amsterdam (e.g., Southern Light [Zuiderlicht], MoreEnergy - Amsterdam Heat Grid [MeerEnergie - Warmtenet Amsterdam], MoreShare [MeerDelen]), capital of the country. The rest of the cases are distributed across the country and aside from Amsterdam, there is no area which has more than two cases. One case (REScoopVPP) is not limited to a specific geographical location but operates across Europe, integrating and improving different European-based initiatives.

Almost **one third of the cases (28.2%) focus on holistic, broader change** (e.g., Neighbourhood Power [Buurkracht] and Ecovillage Earth Houses [Ecovillage Aardehuizen]). Approximately two thirds (66.7%) of the cases are energy-specific initiatives (e.g., Energy Common



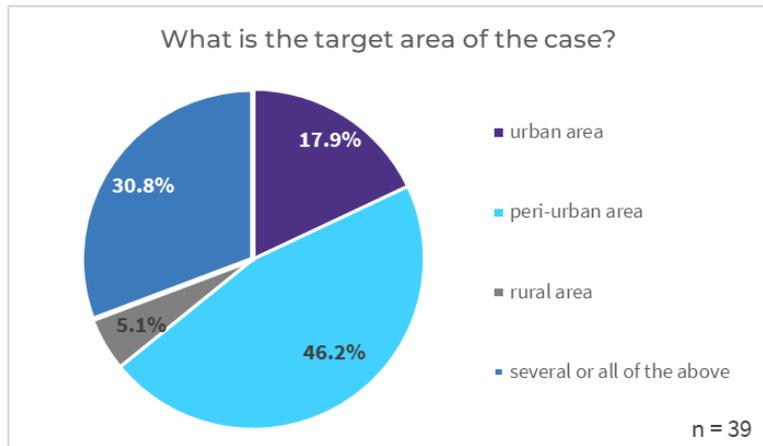
Leidschendam-Voorburg and Foundation Hydrogen Energy Limburg [Stichting Waterstof Energy Limburg (WeL)] and only one case is focused mainly on mobility (More Sharing [MeerDelen]).

The **great majority (89.7%)** of Dutch cases in the database **are collective** (e.g., Citizen Wind Cooperative Achterhoek [Burgerwindcooperatie Achterhoekse Wind Energie (BAWE)], and EMEC First Energy Cooperative of Maastricht [Eerste Maastrichste Energie Cooperatie]) and approximately one-tenth (10.3%) are individual cases (e.g., Anna Wijmans, Marlous van der Veen, and Pauline Westendorp).

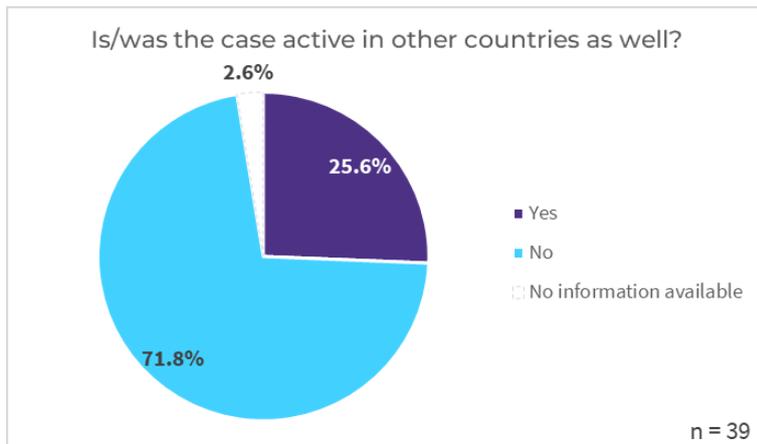


Approximately **one third of all cases (33.3%) focus on issues related to disadvantaged groups**, like those involving energy poverty, minorities, etc. (e.g. CNME Maastricht and region - Nature and Environment Education Foundation in Maastricht [CNME Maastricht en regio - Stichting Natuur en Milieu Educatie in Maastricht]), **but a specific gender focus is less widespread, involving only a small proportion of cases (12.8%)** such as a focus on gender equity, focus on women, etc. (e.g., Collective Strength [Collectieve Kracht]).

Looking at the mapped cases, a **small proportion of the initiatives (17.9%) are based in urban areas** (e.g., Energy Transition Oostpoort [Energietransitie Oostpoort], De Ceuvel), and almost half (46.2%) are concentrated in suburban, semi-urban areas (e.g.,



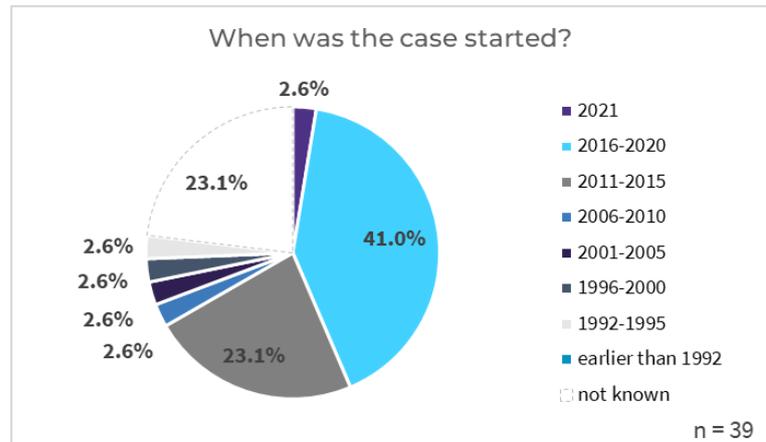
WeertEnergy [WeertEnergie], Tegenstroom). Only a small proportion (5.1%) focus on rural areas (including remote communities) (e.g., Citizen Wind Cooperative Achterhoek (BAWE) and Kronenberg Energy [EnergieKronenberg]). Almost a third of the cases (30.8%), focus on several of the above areas (e.g., Pauline Westendorp, Kronenberg Energy [EnergieKronenberg]).



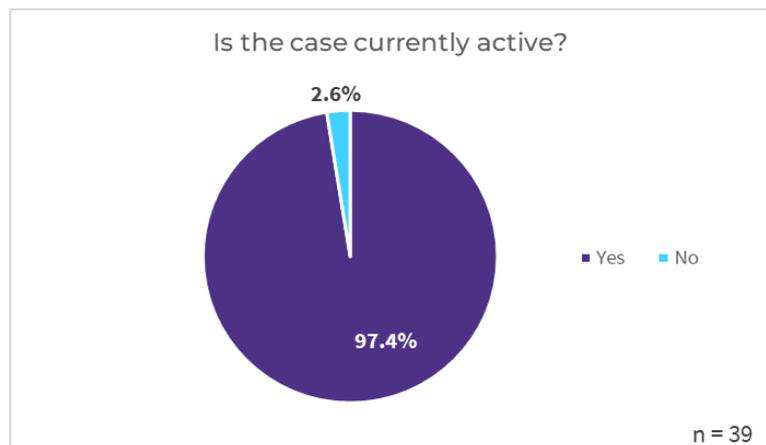
More than two-thirds of the cases (71.8%) that were mapped are active only in the Netherlands (e.g., Foundation Hydrogen Energy Limburg, Energy Common Leidschendam-Voorburg) and only a quarter are now (25.6%) operating in other countries (e.g., Reindonk Energy &

Co: Energy from your own region [Reindonk Energie & Co: Energie van jouw regio]). Belgium is the top partner country for Dutch cases currently in the database (involving 2 cases, REScoopVPP and Community Virtual Power Plant Loenen (cVPP)).

In the Netherlands, with only a few exceptions (e.g., TOER Tzummer Organisation for Energy in the Regio and Tegenstroom), **most of the cases that were mapped started after 2010**, with nearly a quarter starting between 2011 and 2015 (e.g., Bospolder-Tussendijken (BoTu)), and almost half between 2016 and 2020 (e.g., The Drechtsteden cooperative). Data was not found on the starting year of almost one quarter (23.1%) of the cases.



The majority (97.4%) of the cases entered in the database **are still active**, and only one (2.6%) of the cases that were mapped is no longer in operation (Foundation Hydrogen Energy Limburg). This is also worth mentioning as a good example because their experience is valuable and can provide lessons for other projects.





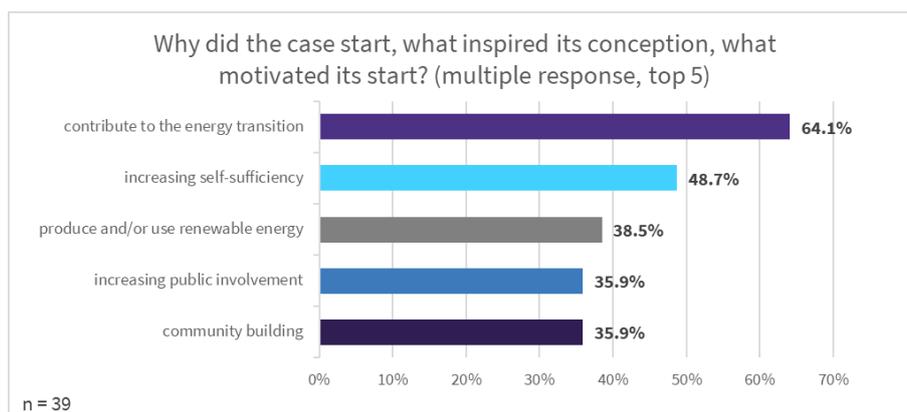
Part 2: Motivation, objectives, actors, operation

2.1 Motivation and objectives

Q24. Why did the case start, what inspired its conception, **what motivated its start?**

Q25. What do the actors involved in the case want to achieve in the first place/most importantly? **What are/were the main objectives, aims?**¹

In the Netherlands, the main motivation, which was a determining factor in almost **two-thirds of the cases (64.1%)**, was the **contribution to the energy transition**. The second most important factor involved a desire for increasing self-sufficiency, which was the key motivator in almost half of cases (48.7%). The third factor, present in over one-third of the cases (38.5%), involved a desire for the production and/or use of renewable energy.



Although all the mapped cases had several sources of motivation for their conception and start, it is interesting to mention some examples of the main ones. The contribution to the energy transition was an important source of motivation for initiatives such as Energy Common Leidschendam-Voorburg, Reindonk Energy & Co and WeertEnergy.

A desire for the production and/or use of renewable energy was influential in cases like Energiek Moerdijk, TOER Tzummer Organisation for Energy in the Region and Clever Net in Sustainable Lochem: Citizen's initiative Lochem Energy.

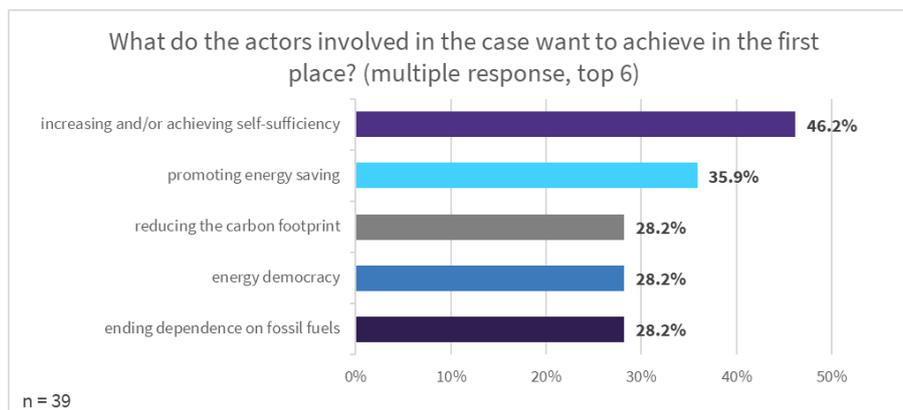
For almost all of the cases (97.4%), 'Other' sources of motivation were (also) relevant. For example, Collective Strength [Collectieve Kracht] stated that their motivation to start was focused

¹ Questions from the mapping questionnaire. Methodology and questions are available here:

https://www.energyprospects.eu/fileadmin/user_upload/ENERGY_PROSPECTS.EU/Deliverables/EnergyPROSPECTS_D3.1_310122_Final.pdf

on connecting citizen collectives in the Netherlands and helping them to overcome obstacles together.

Cases were also divided based on what they primarily want to achieve. **The greatest proportion seek to promote self-sufficiency**, which is an important aim for almost half of the cases (46.2%). For over a third (35.9%), promoting energy saving, and for a slightly smaller proportion (28.2%), reducing carbon emissions was an important factor.



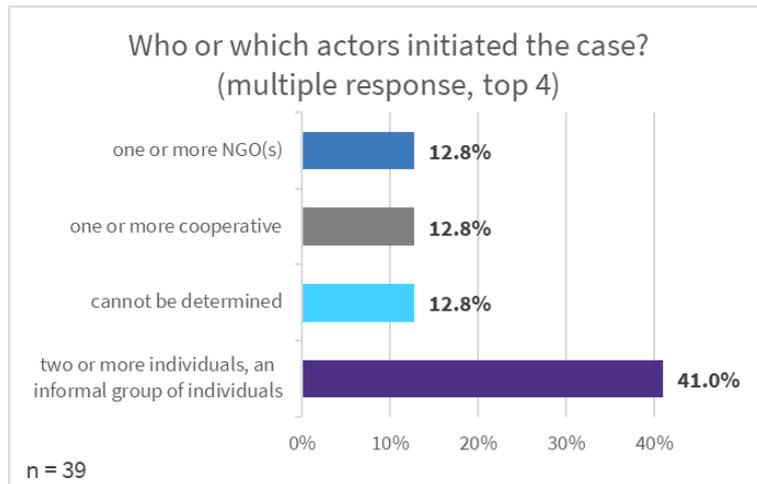
Promoting and enabling self-sufficiency was an important aim for cases such as Energy Transition Oostpoort, REScoopVPP and Warm in the neighbourhood [Warm in de Wijk]. Promoting energy saving was connected to initiatives like Community Virtual Power Plant Loenen (cVPP) and Clever Net in Sustainable Lochem. Reducing the carbon footprint was indicated as relevant for cases such as National Association of Active Residents [Landelijk Samenwerkingsverband Actieve Bewoners] and Neighbourhood Energy Works [Wijkenergiewerk].

Regarding this question, the 'other' category was relevant in the majority of the cases (87.2%). For example, promoting community development was a goal for some of them (Neighbourhood Power [Buurkracht]), social connections (Neighbourhood Company NuDe Future [Buurtbedrijf NuDe Toekomst]) and bridging between citizen collectives and scientists was an important motivator too (Collective Strength [Collectieve Kracht]).

2.2 Actors initiating and involved in the ENCI cases

Q31. Who or **which actors initiated** the case?

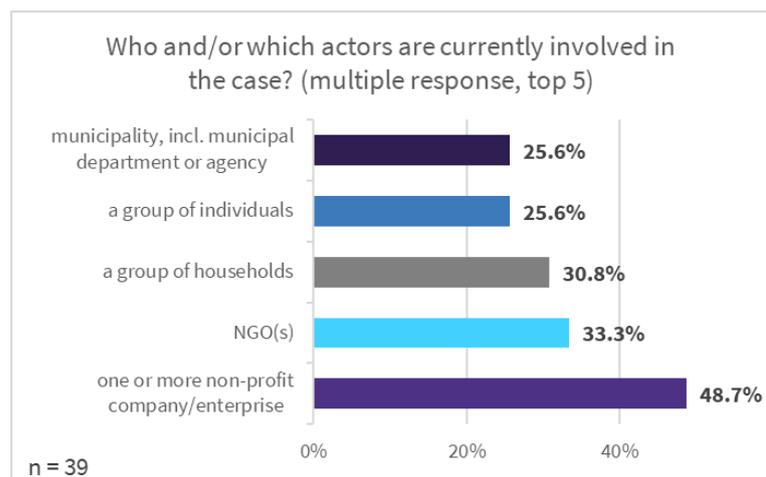
Q33. Who and/or **which actors are currently involved** in the case?



In most Dutch cases, **the initiating actors were two or more individuals, an informal group of individuals: in almost half of cases (41%)** they were identified as important actors (e.g., Strong on Electricity [Sterk op Stroom]). For a smaller proportion of cases (12.8%), one or more NGOs

were initiators (e.g., Shale Gas Free the Netherlands [Shaliegasvrij Nederland], Fossil Free the Netherlands [Fossielvrij Nederland]), and in the same proportion of cases (12.8%) one or more cooperative was responsible for initiating the case (e.g., Neighbourhood Heat [Buurtwarmte], REScoopVPP, Reindonk Energy [Reindonk Energie & Co: Energie van jouw regio]).

In the majority of cases – **almost half (48.7%) – one or more non-profit company/enterprise were involved** in the implementation of cases (e.g., Energiek Moerdijk, MeerDelen). Also, significantly, in one-third (33.3%) NGOs were the important actors (e.g. CNME Maastricht and region, Ecovillage Aardehuizen, De Ceuvel), and in almost one-third a group of households were important for the case (e.g., EMEC, EnergieKronenberg).



2.3 Scale of ENCI operations, networks

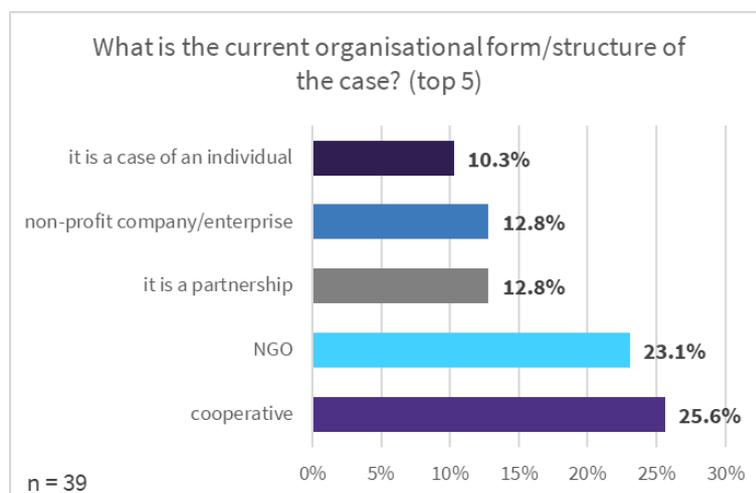
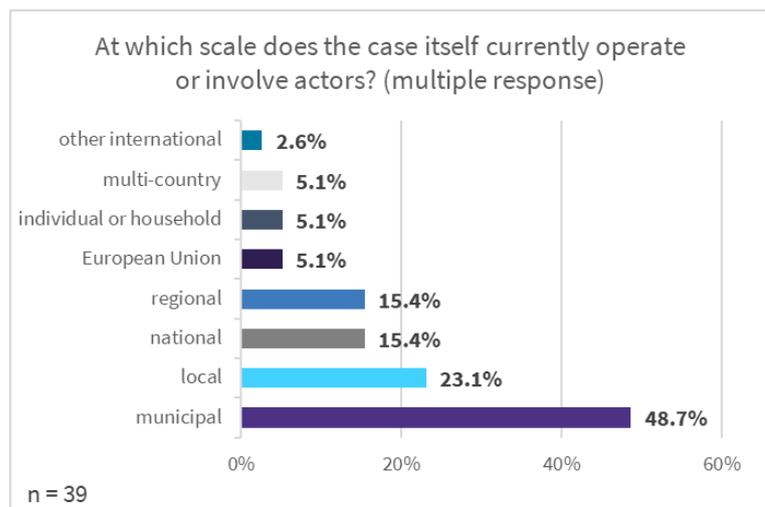
Q35. At **which scale** does the case itself currently operate or involve actors?

Q36. What is the current **organisational form/structure** of the case?

Q39. Is/was the case **part of a network** of similar initiatives?

The **operational level of Dutch cases is mixed**. Almost one half of them (48.7%) operate at municipal level, almost one-quarter (23.1%) at local level, and 15.4% at both regional and national levels, respectively. Examples at a municipal level includes cases like Southern Light [Zuiderlicht] and Tegenstroom, at

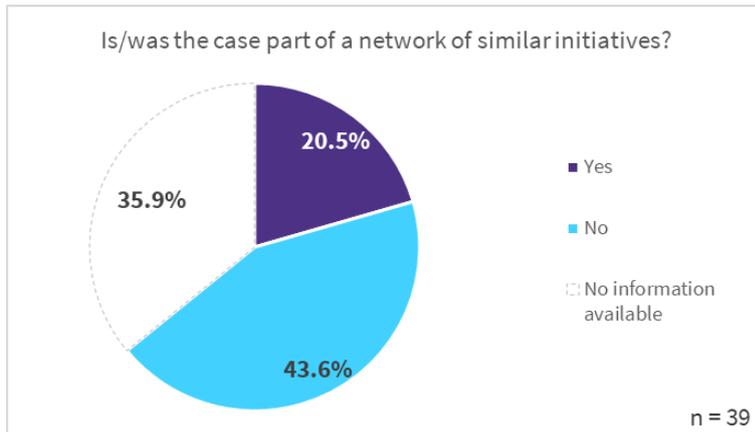
the local level are MeerDelen and MoreEnergy - Amsterdam Heat Grid [MeerEnergie - Warmtenet Amsterdam], and at the national level are Collectieve Kracht and at the regional level are Energiek Moerdijk. A case can operate at several levels, such as Sterk op Stroom, which operates or involves actors at local, municipal and regional levels. It is important to note that the level of operation is not restricted by the case being an individual one, individuals, like Pauline Westendorp, are also often active at different levels (municipal and national).



The **roughly one-quarter of Dutch cases (25.6%) take the form of cooperatives**. Just less than a quarter of the cases (23.1%) have an NGO structure. 12.8% constitute a partnership (public, public-private, etc.) and the same proportion of cases (12.8%) are non-profit companies/enterprises.

The rest of the cases constitute individuals (10.3%). The cooperative type of case is represented, for

example, by WeertEnergie and Sterk op Stroom, while the NGO cases are demonstrated by, for example, Fossil Free Netherlands and Shale gas free The Netherlands, while partnerships include, for example, Amsterdam 02025.



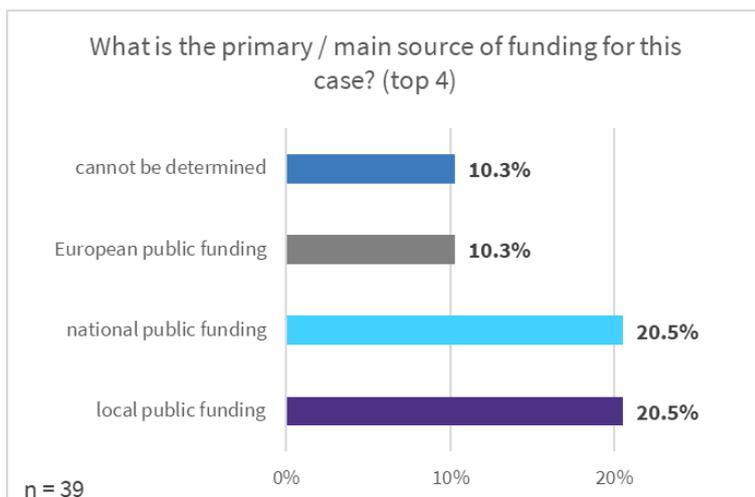
Almost half of the Dutch cases (43.6%) are not part of any network of similar initiatives – just one-fifth of them (20.5%) are. In over one-third of cases (35.9%), there was no information available to answer the respective question. For those cases that are part of a

network, the following, among others, were mentioned: Energy Common Leidschendam-Voorburg and Energy Transition Oostpoort and Marlous van der Veen.

2.4 Sources of funding for ENCI operations

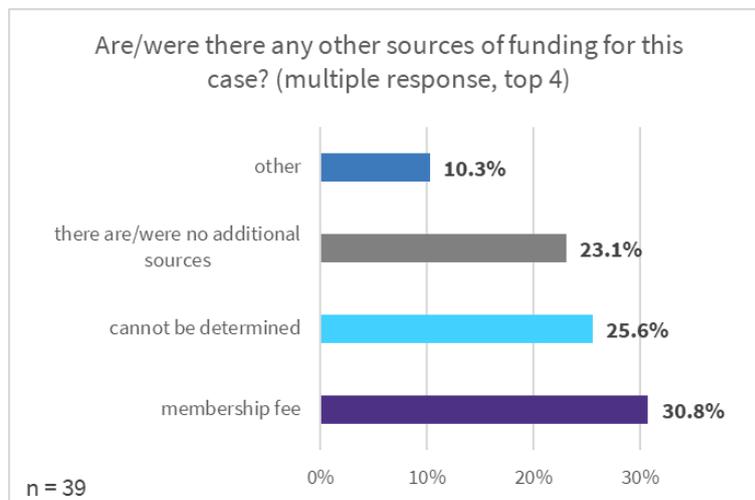
Q46. What is the **primary / main source of funding** for this case?

Q47. Are/were there any **other sources of funding** for this case?



One-fifth (20.5%) of Dutch cases had local public funding as their primary source of funding (e.g., Wijkenergiewerkt). For the same proportion (20.5%), national public funding was their primary source (e.g., EnergieKronenberg). A smaller proportion (10.3%) had European

public funding as their primary source (e.g., Warm in de wijk). While for the same proportion (10.3%) this could not be determined by desk research (e.g., The Drechtsteden cooperative).



The situation is similar with regard to additional funding. In the largest proportions, comprising almost a third of cases (30.8%), a membership fee constitutes another source of funding (e.g., Community Virtual Power Plant Loenen (cVPP)). The category with the second highest

number of cases (25.6%) were cases for which another source of funding cannot be determined by desk research (e.g., CNME Maastricht en regio). For less than one-quarter of cases, there are/were no additional sources of funding (e.g., REScoopVPP, Neighbourhood Heat [Buurtwarmte], District C Power [Wijk C Stroom]). 10.3% of cases were categorized as 'Other', including cases that used, for example, income from their café and renting rooms (De Ceuvel) or from loans (BAWE).

Part 3: Placement of Dutch cases in the typology

Introduction to the EnergyPROSPECTS conceptual typology

In accordance with the conceptual framework elaborated in [Pel et al., 2021](#), the EnergyPROSPECTS conceptual typology seeks to derive from the key conceptual distinctions analytical types and categories that account for the multiple forms of energy citizenship (ENCI). This is a qualitative descriptive typology that is mostly grounded on both a conceptual framework and consistent empirical research. Therefore, a dedicated methodology was elaborated to allow for typologisation that takes into account the specificity of the ENCI as a research object and the provisional absence of empirical input. The conceptual background of the EnergyPROSPECTS typology and its development process is summarized in [Debourdeau et al. \(2021\)](#).

As presented in [Debourdeau et al. \(2021\)](#), the EnergyPROSPECTS conceptual typology has two key dimensions: agency (individual vs. collective), and outcome orientation (reformative vs. transformative), each of which encompasses a variety of forms of ENCI.

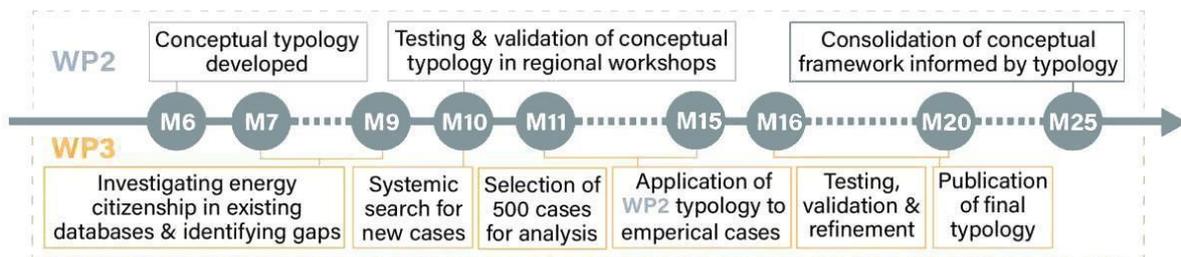
The agency dimension encompasses three key distinctions highlighted within the conceptual framework, and primarily aims at addressing basic issues such as: *Who is doing ENCI? To whom can ENCI be ascribed? and Which kinds of configurations of actors can be considered relevant when searching for empirical cases?*

The outcome orientation dimension also encompasses two key distinctions highlighted within the conceptual framework and aims primarily at addressing questions that are complementary to those used for the agency dimension – i.e., *ENCI for what? What are the possible outcomes of ENCI that legitimise it as desirable? What kind of engagements and outcome orientations are to be considered as relevant for the empirical research?*

The matrix that can be constructed considering these two key dimensions is as follows, and allows for the distinction of ten conceptual types of ENCI:

AGENCY	INDIVIDUAL			COLLECTIVE	
	PRIVATE (HOUSEHOLD)	ORGANISATIONALLY EMBEDDED (E.G., WORKPLACE)	PUBLIC	CITIZEN-BASED AND HYBRID	SOCIAL MOVEMENTS
REFORMATIVE 	1. DO THEIR BIT (in the household) Complying with the green energy transition	3. DO THEIR BIT (within organisations) Energy citizenship within organisations	5. MAKE THEIR VOICE HEARD Participating in societal energy discussions	7. DO THEIR SHARE Joining green energy projects	9. DO THE JOB Facilitating the energy transition through alignment activities
TRANSFORMATIVE 	2. DO THEIR OWN (in the household) The change-making energy citizen	4. DO IT THEIR WAY (within organisations) The energy-related change maker in organisations	6. MAKE THEIR VOTE COUNT Mobilising votes for energy transition	8. GO AHEAD Building, expanding and linking citizen-based organisational forms	10. MAKE THEIR CLAIMS Protesting against the current energy system

During the mapping activity, members of the consortium were asked to first identify the main type of mapped ENCI cases according to the typology, and then to identify all remaining types that it shapes, enables, or supports. However, given the conceptual nature of the typology, it was also acknowledged that the mapping – or in other words, the empirical validation of the typology – may uncover ENCI types the typology does not yet include. Furthermore, the iterative typology development process adopted in EnergyPROSPECTS also means that the conceptual typology will be further developed during subsequent stages of the research, as depicted in the figure below.



In our analysis, described below, we present the ENCI cases as they were typologised using the conceptual typology presented above. Any further development of the typology will be reported [on the project website](#).

3.1 Main types of cases according to the typology

Q75. Considering the main (or only) type of ENCI the case shapes/enables/supports, which **ideal type of ENCI** would you associate it with?

Based on the evaluation of the Dutch research team of most of the cases that were mapped, **over one-third of them (35.9%) were classified as Type 8 according to the “Transformative–Citizen based and Hybrid”** part of the ENCI typology. The category associated with the second largest number of cases was Type 7, “Reformative– Citizen based and Hybrid”, representing over one-quarter of cases (28.2%), and the third largest was Type 10, “Transformative–Social Movements”, also representing over one-tenth of cases (12.8%).

	Individual			Collective		Other
	Private	Organizationally embedded	Public	Citizen-based and Hybrid	Social movements	
Reformative	4 (10.3%)	0 (0.0%)	0 (0.0%)	11 (28.2%)	0 (0.0%)	0 (0.0%)
Transformative	4 (10.3%)	1 (2.6%)	0 (0.0%)	14 (35.9%)	5 (12.8%)	

The **Reformative - Private** category includes, among others, the **Anna Wijmans and Energiek Moerdijk** initiatives, while the **Transformative - Private** category includes the **Houseboat space** and **Ecovillage Earth houses**.

Anna Wijmans is an active energy citizen who lives in a rental house in Rochdale, Amsterdam, and who aims to lead by example in her ambitions to live independent of gas and fossil-fuel in her home.

The **Energiek Moerdijk** initiative is run by the residents of Moerdijk who aim to transition their municipality away from reliance on fossil fuels. They identify as a think tank and stimulator and focus on energy saving, generation and knowledge sharing to achieve their goals.

The **Houseboat space [Woonark de Ruimte]** initiative is run by four people who live on a houseboat near Amsterdam which is not connected to gas or electricity. They now have 13 solar panels and solar collectors and hope to inspire others to follow their way of living on renewable energy sources only and more in alignment with the seasons.



Ecovillage Earth houses (Ecovillage Aardehuizen) is a modern ecovillage in the eastern countryside of the Netherlands where 70 people live in houses built according to the Earthship design of architect Michael Reynolds. The homes are built using locally sourced, sustainable, and recycled materials to reduce environmental impact. Furthermore, solar energy, natural filtration and permaculture principles are used to sustain the residents.

The **organizationally embedded category** includes one case, **Marlous van der Veen**, which represents one individual working in an organisation, Enexis Group, as an energy transition architect. Her role is to be a challenger and change agent within the organisation, in order to expand the frameworks and boundaries and offer new perspectives. The aim of this individual is to initiate renewal and system innovations in accordance with the energy transition in the organisation. She acts as a multi-directional bridge between academia and the organisation, transferring knowledge between the two fields to achieve her aims.

The Dutch cases do not comprise any examples that can be categorised as **public** in the ENCI typology.

The **citizen-based and hybrid** cases include **reformative**-type initiatives such as, **The Drechtsteden cooperative** and **WeertEnergy**. While the **Transformative-Citizen based and Hybrid** category includes cases such as, **Amsterdam 02025 and Community Virtual Power Plant Loenen (cVPP)**.

The Drechtsteden cooperative is an initiative based around the Renewable Energy Strategy (RES 1.0) of the Drechtsteden region. It comprises many different stakeholder groups working together in alignment with the collaboratively-designed RES pathway. Thirty organisations were involved in the making of the RES 1.0 for the region. They focus primarily on energy efficiency and alternatives to gas.

WeertEnergy is an energy cooperative featuring partnership between the residents of Weert, the municipality and other regional cooperatives, with the combined aim of transitioning Weert away from reliance on fossil fuels. The cooperative officially opened its windfarm in June 2022 with 3 wind turbines in operation, with the aim to provide approximately 11,000 homes with resident-owned wind energy from 2022 onwards.

Amsterdam 02025 is a network and platform for and by energy pioneers in Amsterdam with the aim of acting as frontrunners and leading the energy transition. The actors involved in this case



are primarily residents and organisations. Actors create their own profile on the platform in order to engage with the network and share knowledge, expertise and networks.

Community Virtual Power Plant Loenen (cVPP) is a cooperative run by the residents of the rural village, Loenen. The group has implemented 300 projects on the built environment (heat pumps, insulation, etc.). They have an ambition to be self-sufficient energy-wise through the use of solar PVs on rooftops. Currently they generate 50% of household demand with local PV.

The social movements typology category includes cases such as **Pauline Westendorp** on the **transformative** side. **Pauline Westendorp** is an active energy citizen who is a frontrunner in the energy transition in the Netherlands. She is part of Amsterdam 02025 and represents the social movement of turning energy transition goals into practical actions.

There are no example cases categorised as Reformative-Social Movements in the Dutch case study.



	Individual			Collective	
	Private	Organizationally embedded	Public	Citizen-based and Hybrid	Social movements
Reformative	<ul style="list-style-type: none"> • Anna Wijmans • Energiek Moerdijk • Kronenberg Energy • Tegenstroom 	-	-	<ul style="list-style-type: none"> • Citizen Wind Cooperative Achterhoek • EMEC, First Energy Cooperative of Maastricht • Energy cooperative WPN • Foundation Hydrogen Energy Limburg • Neighbourhood C Power • neighbourhood energy works • Southern light • The Drechtsteden cooperative • TOER Tzummer Organisation for Energy in the Region • Warm in the neighbourhood • WeertEnergy 	-





	Individual			Collective	
	Private	Organizationally embedded	Public	Citizen-based and Hybrid	Social movements
Transformative	<ul style="list-style-type: none"> • Clever Net in Sustainable Lochem: Citizen's initiative Lochem Energy • Ecovillage Earth houses • Energy Transition Oostpoort • Houseboat space 	<ul style="list-style-type: none"> • Marlous van der Veen 	-	<ul style="list-style-type: none"> • Amsterdam 02025 • Bospolder-Tussendijken (BoTu) • Collective Strength • Community Virtual Power Plant Loenen (cVPP) • De Ceutel • Energy Common Leidschendam-Voorburg • More Sharing • MoreEnergy - Amsterdam Heat Grid • Neighbourhood company NuDe Future • Neighbourhood heat • neighbourhood power • Reindonk Energy & Co: Energy from your own region • REScoopVPP • Strong on electricity 	<ul style="list-style-type: none"> • CNME Maastricht and region - Nature and Environment Education Foundation in Maastricht • Fossil Free Netherlands • National Association of Active Residents • Pauline Westendorp • Shale gas fee The Netherlands
Other	-				



3.2 Other typology types selected

Q76. If relevant for this case, which **other ideal-type(s) of ENCI** does the case shape/enable/support?

In the process of characterising cases, it was possible to identify one or more other categories in addition to the main typology type. The **most often selected category was Transformative – Citizen-based and Hybrid: one-third of the cases (33.3%) were placed here.** This was followed by the “Reformative – Citizen-based and Hybrid” type, as which 20.5% of the cases were classified, while the third most often selected secondary type (17.9% of cases) was “Transformative- Private”.

	Individual			Collective		Other
	Private	Organizationally embedded	Public	Citizen-based and Hybrid	Social movements	
Reformative	5 (12.8%)	1 (2.6%)	2 (5.1%)	8 (20.5%)	0 (0.0%)	0 (0.0%)
Transformative	7 (17.9%)	0 (0.0%)	2 (5.1%)	13 (33.3%)	2 (5.1%)	

For example, there are two different classification categories for the case of the **Stichting Waterstof Energy Limburg (WeL)**, which are “Reformative - Citizen-based and Hybrid” as the main type, and “Reformative – Organisational” as the secondary. This is because it is on the one hand a collaborative effort from different stakeholder groups (municipal, civil, corporate, etc.) as part of the Hydrogen Coalition Limburg, but on the other hand, members also take action within the organisations that they personally work for.

One of the best examples of a case that has been classified into several areas is **Energy Common Leidschendam-Voorburg**, which is “Transformative– Citizen-based and Hybrid” as the main typology type, but on the other is also “Reformative Individual – Private” and “Transformative Individual – Private”, because this case operates both as a cooperative but also as a point of consultation on energy coaching for households.

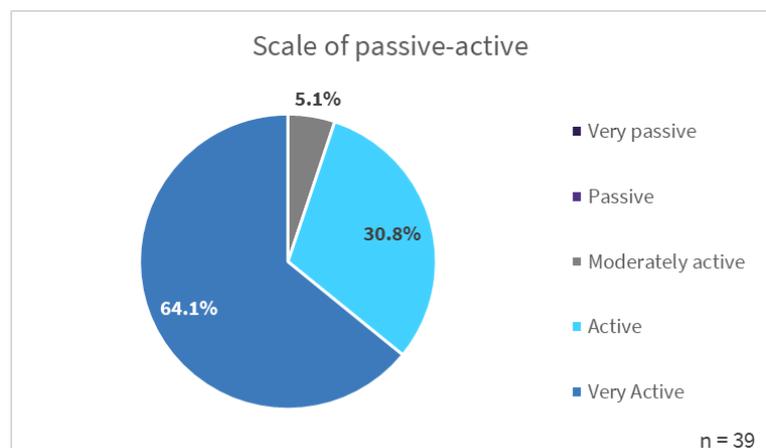
Part 4: Aspects of energy citizenship

4.1 More and less active forms of energy citizenship

Q48. In terms of the form of ENCI it shapes/enables/supports (or shaped/enabled/supported), please place the case on a **scale of passive-active** below, by moving the slider.

For this question, responses were collected using a scale of 1 to 100 by the researchers participating in the mapping activity, and then divided into the following five categories: 1-20 very passive, 21-40 passive, 41-60 moderately active, 61-80 active, 81-100 very active. The **more passive a case is, the more it involves energy consumption**, which means that it is not an ENCI yet but rather a passive consumer of energy due to disempowerment, disillusionment, or disinterest. The **more active a case is, the more aware, empowered, and active it is**, which means that it involves not only changing individually and joining others but activating and empowering others and helping others to become active.

On the scale of passive-active, the **majority of the Dutch cases (64.1%) were classified as “Very Active”**. Almost one-third (30.8%) of the cases were classified into the “Active” category, and 5.1% were classified into “Moderately active”. In regard to this question, all cases were classified.

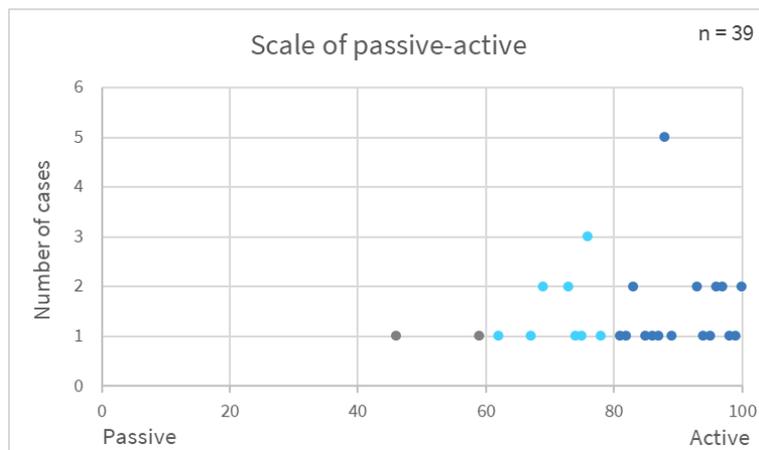


The **very active** category includes cases such as **Buurkracht** because according to the researcher, “its sole purpose to bring together people in the same neighbourhoods, motivate them and make them more active in various issues/projects in and around their home.”

The **active** category includes cases such as **Woonark de ruimte** because the founders actively use their personal lives and social media accounts to inspire others through sharing the actions that they adopted in their own lives. According to the researcher, “they are not only changing

their house to a more sustainable one but also sharing their experience with others to help them become more active and to empower them to join the energy transition”.

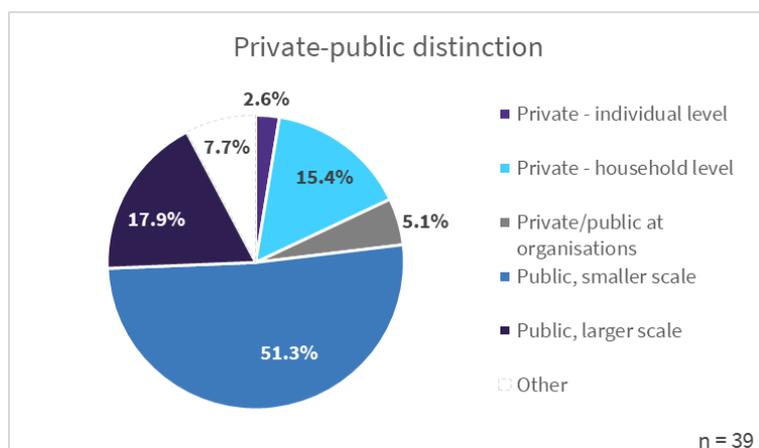
The **moderately active** category includes cases such as **Tegenstroom** because it adopts a more facilitative role in helping citizens with their own aims around energy generation and consumption, as opposed to explicitly empowering local citizens in an active way.



In the graph we depict the exact placement of the cases on the Passive-Active scale. It is clearly visible that the majority of cases selected for mapping in the Netherlands are located in the Very Active area of the scale.

4.2 Private and public forms of energy citizenship

Q50. In terms of the form of ENCI it shapes/enables/supports (or shaped/enabled/supported), considering the **private-public distinction**, please select which applies most to this particular case.



In the Netherlands, the **distribution of the cases mapped on the public-private scale is diverse**. The largest proportion of them (51.3%) were classified as “public, smaller scale”, but the “public, larger scale” share is just 17.9%, while the third highest proportion (15.4%) involve “private

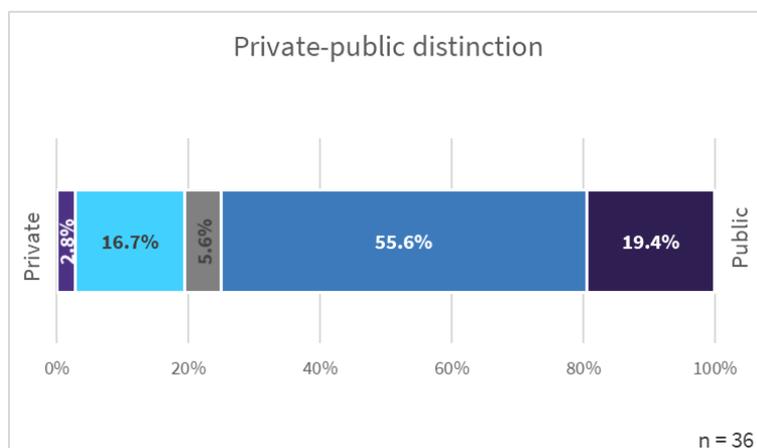
– household level” cases. 5.1% of cases were “private/public at organisations” and 2.6% were categorised as “private - individual level”. Lastly, 7.7% (3 cases) were classified as “other”, meaning

they did not suit the categorisation. These three cases are not classified because they are simultaneously distinct in more than one area, for example, Buurtbedrijf NuDe Toekomst, which operates at the individual, household, and neighbourhood scales. For this question, as shown above, it was not possible to select more than one response.

Public, smaller scale means change and action in smaller groups and/or on a smaller scale (e.g. community groups, local shared-ownership and/or renewable energy projects), like the case of **Energy Common Leidschendam-Voorburg**, because it is a public entity that operates at the level of neighbourhoods.

Public, larger scale means change and action at the district or settlement level or even a larger scale, including the societal level (e.g. low-carbon districts/towns, city-level public consultation, protests, transition towns) like the case of **Fossielvrij Nederland**, because this is “a wider social movement with operations all over the country”.

Private - individual level action and change means, for example, individual-level action in the home, individual lifestyle change, and low-carbon consumption, like the case of the **Energiek Moerdijk**. This is because this case focuses on energy scans and energy transition advice for individuals.



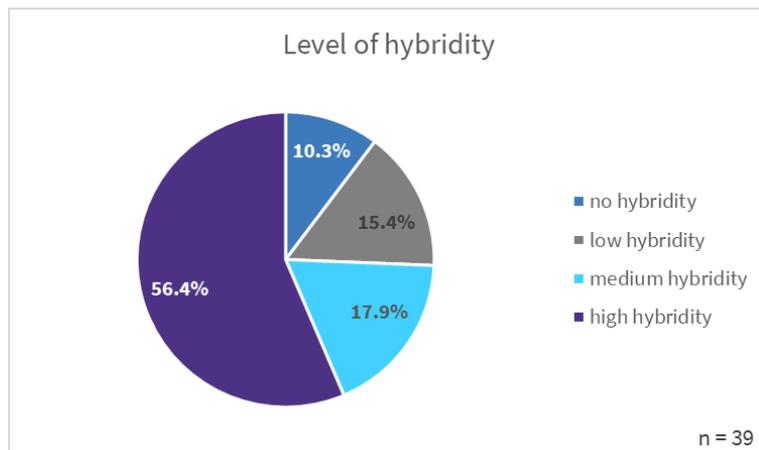
Private - household level action and change means, for example, household-level action, still in the home, including more radical change like prosumerism and energy self-sufficiency, like the case of **Energietransitie Oostpoort**, because it operates

within two residential apartment blocks, focusing on the energy supply for the buildings.

Private/public at organisations means change and action at organisations, like the case of the **Stichting Waterstof Energy Limburg (WeL)**, because its members acted in a private capacity and some members have influential positions in organisations (CEO, professor).

4.3 Level of hybridity in the cases of energy citizenship

Q52. In terms of the form of ENCI it shapes/enables/supports (or shaped/enabled/supported), please select the **appropriate level of hybridity** for the case...



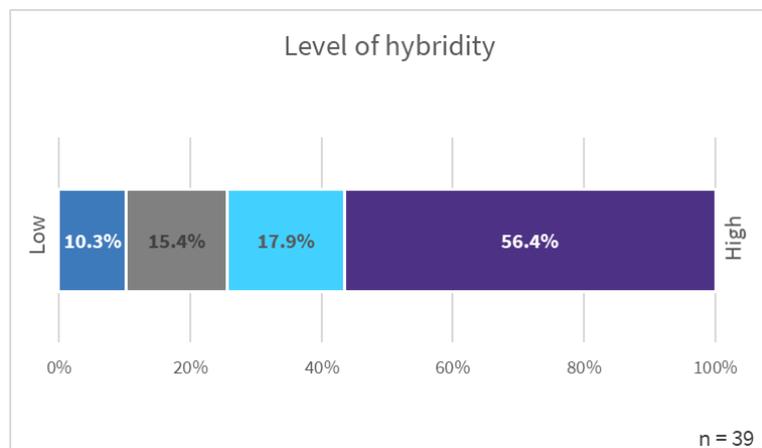
In the Netherlands, the **majority of cases mapped, over half of them (56.4%), were classified as “high”** in terms of the level of hybridity. Over one-sixth (17.9%) of the cases were classified into the “medium” category and about one-sixth (15.4%) into the “low” one. One-tenth (10.3%) of

cases were categorized as “no hybridity”. For this question, all cases were classified.

No hybridity means that only one type of actor/institutional logistic is/was involved or represented in the case, as in the case of **Pauline Westendorp** because the case represents an individual activist.

Low hybridity means that two or three types of actors/institutional logistics are involved or represented in the case, as in the case of **EnergieKronenberg**, where the main actors are the municipality (Horst aan de Maas), the village council and the local residents (community).

Medium hybridity means that four or five types of actors/institutional logistics are/were involved or represented in the case, as in the case of **Bospolder-Tussendijken (BoTu)**, where groups of actors include companies,

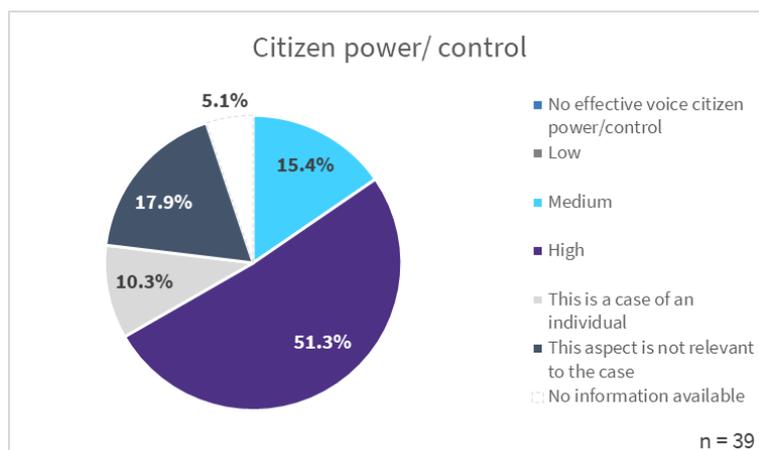


organisations, and large and small residents' initiatives, and “all parties are given an appropriate place at the table”.

High hybridity means that more than five types of actors/institutional logistics are involved or represented in the case, as in the case of **Landelijk Samenwerkingsverband Actieve bewoners**, where the sources of funding come from many different actors, and there are initiatives, such as SchakelWijk, consisting of a coalition between the Natuur en Milieu Federaties, Energie Samen, HIER, Buurkracht and LSA Bewoners.

4.4 Citizen power

Q54. In terms of the form of ENCI it shapes/enables/supports (or shaped/enabled/supported), considering **effective citizen power/ control**, please select which applies most to this particular case.



In the Netherlands, the **majority of cases mapped, almost a third (51.3%), were classified as “high”** in terms of the citizen power/control dimension of the typology. One-sixth (15.4%) were classified into the “medium” category and none of the cases were classified into the “low”

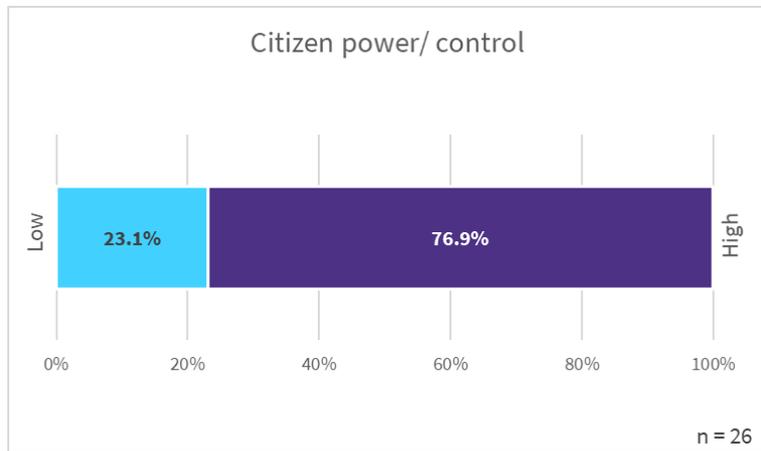
category. One-tenth (10.3%) reflected the case of an individual, and this categorisation was not relevant for less than one-fifth (17.9%) of cases (i.e., the criterion was not relevant due to the nature of the case). For two of the cases (5.1%) there was no information available from desk research to answer this question, meaning that based on the available data the researcher was unsure how to classify the case.

High citizen power means that “Citizens exert effective control, and their votes are mandatory. This governance takes place mostly in an “invented” process (as opposed to “invited” ones described by Radtke et al., 2020). Citizens represent a majority group, are empowered enough to control the process, and thus make their voices predominant”, as in the case of the **Wijkenergiewerkt**. As a social enterprise their aim is mainly to benefit the neighbourhood. In this case everyone is seen as equal, and everyone participates in the project. Moreover, income

generated goes to projects in the neighbourhood, and locals are trained to become energy installers in order to make the neighbourhood more self-sufficient.

Medium citizen power

means that “Citizens can express their views, but their voices are not included on a compulsory basis (within deliberative, representative or consultative processes). Within organised / participative structures, citizens remain a minority group; i.e., are unable to

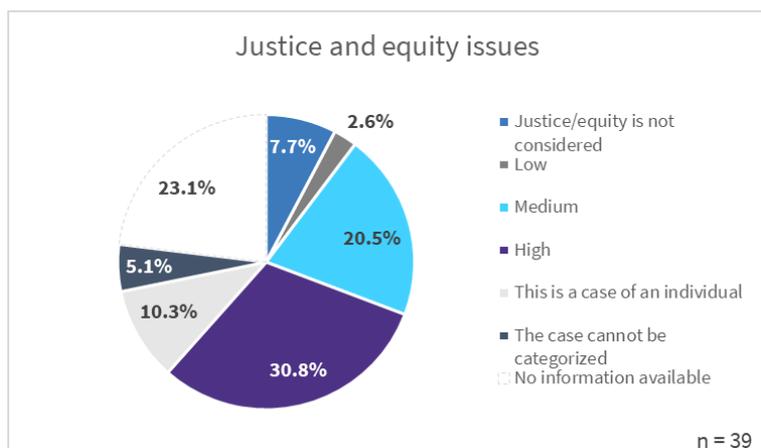


impose their views on other groups”, as in the case of **EMEC [Eerste Maastrichste Energie Cooperatie]**, because citizens can co-own solar PV but, decision making process appear to be via the cooperative board meetings only and there is a lack of transparency on this process from online information.

4.5 Justice and equity

Q56. In terms of the form of ENCI it shapes/enables/supports (or shaped/enabled/supported), considering energy, mobility, or more holistic **justice and equity issues**, please select which applies most to this particular case.

In the Netherlands, among the cases that were mapped, roughly one-third of cases were categorised as “high” in terms of justice and equity issues. One-fifth (20.5%) of the cases were classified into the “medium” category and only one



case (2.6%) was classified into the “low” category. For 3 cases (7.7%) justice/equity was not considered. The criterion was not relevant to roughly one-sixth of cases because four cases (10.3%) are cases of an individual, and two cases (5.1%) could not be categorised due to the nature of the

case. For roughly one-quarter of the cases (23.1%), desk research could not reveal the information necessary to categorise them.

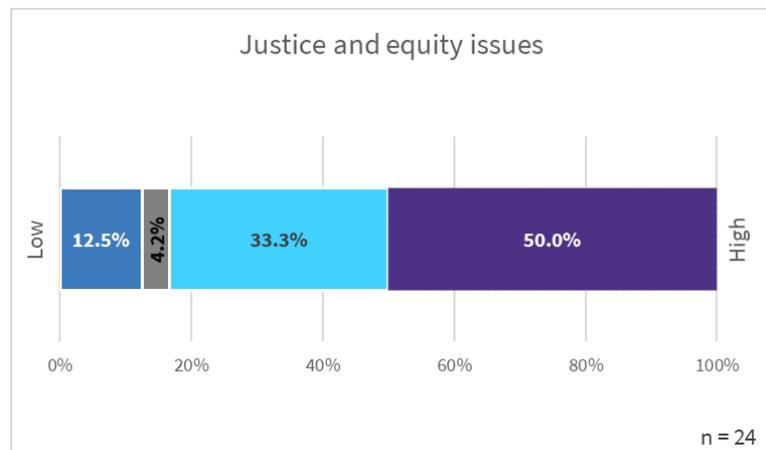
Justice/equity is not considered for example in the case of **ZuiderLicht** because, online materials and desk research did not explicitly mention these issues.

Low was defined in the project as “justice or equity are essentially out of scope, or restricted to equal access to

markets” like in the cases of **Stichting Waterstof Energy Limburg (WeL)** because in this case “Not everyone can become a member. However, public events with citizens are planned.”

Medium means that equal access is granted to all concerned citizens, but the framings tend to limit them to a certain geographical area or amount of financial contribution, etc. which does not guarantee “real” equity, like in the case of **Neighbourhood Heat [Buurtwarmte]**, where “equal access is granted to all the households who want to participate and none is left out”.

High means that involvement is fully open, without specific conditions of participation, and issues such as energy poverty, gender, and inclusivity are taken into account and foster adaptive measures aimed at guaranteeing more justice/equity like in the case of **REScoopVPP** who adopt a user-centred approach in order to design a product that answers the need and expectations of its future users. “REScoopVPP aims at enabling comfortable lifestyles while consuming only renewable energy and minimizing the CO2 impact of end-users. While this appears too complex for individuals, the organization in energy communities enables to address this challenge collectively in an effective manner.”



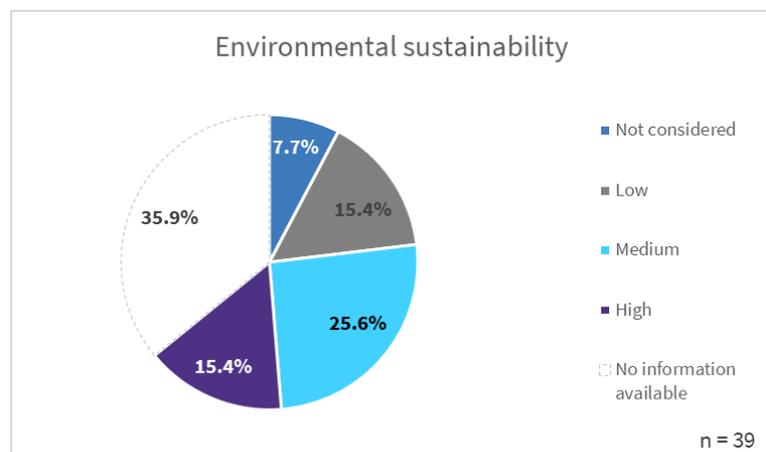
4.6 Environmental sustainability, recognizing carbon and other ecological limits

Q58. In terms of form of ENCI it shapes/enables/supports (or shaped/enabled/supported), considering **environmental sustainability**, please select which applies most to this particular case

Q60. Does/did the case shape/enable/support ENCI that **explicitly recognizes the ecological limit** of atmospheric carbon emissions...?

Q61. Are there **other ecological limits** (e.g. biodiversity loss, deforestation, freshwater use, chemical pollution, etc.) mentioned and recognized as well?"

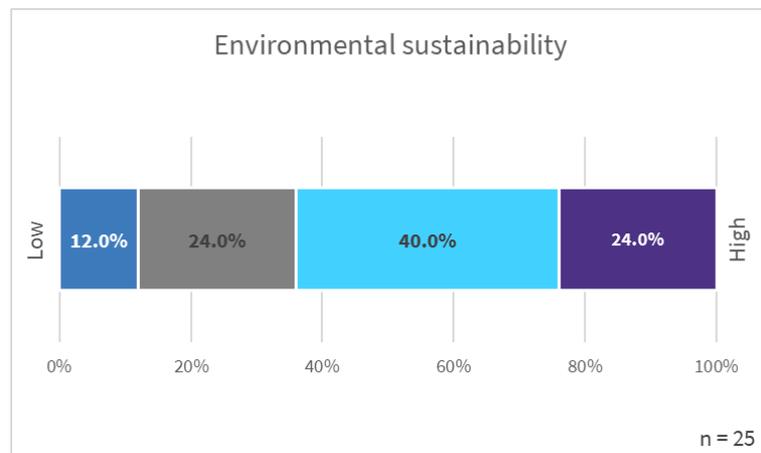
In the Netherlands, the **one-sixth of cases (15.4%) were classified as “high”** according to the environmental sustainability dimension of the typology. One-quarter (25.6%) of the cases were classified into the “medium” category and one-sixth (15.4%) into the “low” one. A large proportion



(35.9%) were not classified into this category due to a lack of information available from desk research. Finally, 7.7% (three cases) were categorised as not having considered this dimension.

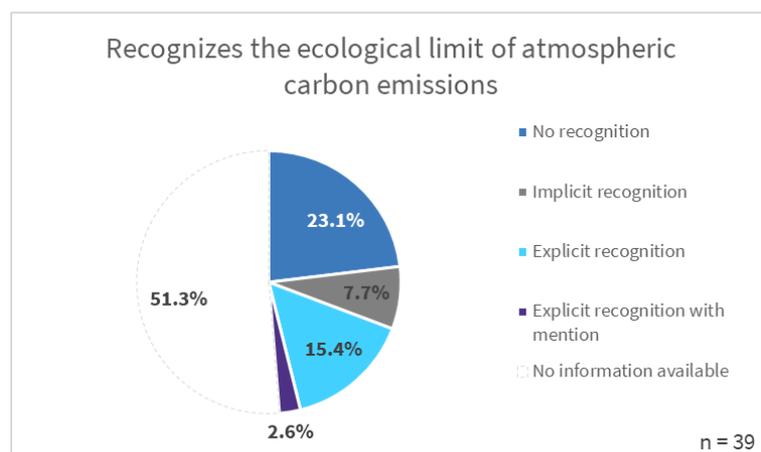
Low here means that “if given any consideration, environmental sustainability issues are mostly taken for granted and not explicitly taken into account; in the lowest forms, environmental sustainability tends to be dealt with as a positive or negative externality” like in the case of **Tegenstroom**, because “Environmental sustainability is very broadly mentioned as part of the wider context but not really given any deep consideration.”

Medium means that “environmental sustainability is part of the process or initiative, but this concern is addressed superficially and without dedicated assessment, and energy remains the main focus” like in the case of **cVPP** where “environmental sustainability is taken into consideration, however, there are no concrete policies or strategies evident”.



High was defined as “environmental sustainability is a core issue, which is associated with a holistic strategy, and its assessment through indicators is seen as desirable” like in the case of **Pauline Westendorp**, because “Pauline is highly concerned about environmental sustainability. Through her involvement in Amsterdam02025 she is leading the way in a cleaner, more sustainable world. Pauline believes that the city's residents and organisations, are the key figures in accelerating this transition and building the Amsterdam of tomorrow”.

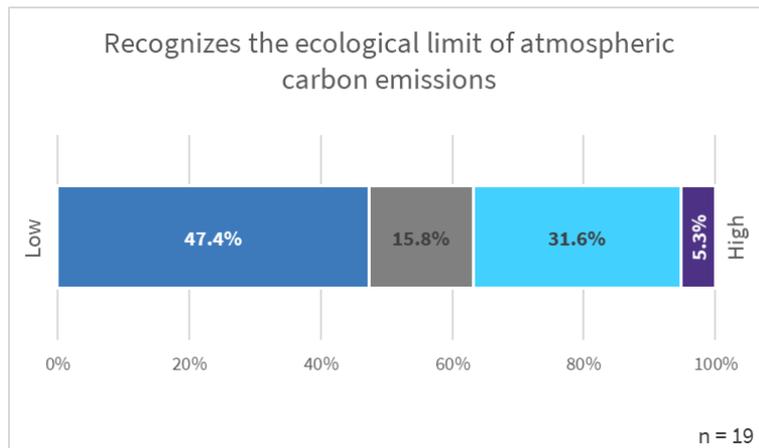
Related to environmental sustainability, we also investigated the cases’ approach to recognising and taking action related to the ecological limit of atmospheric carbon emissions. In regard to this question, **almost one-quarter of cases (23.1%)**



were classified as “no recognition”. Three cases (7.7%) were classified into the “implicit recognition” category, one-sixth (15.4%) of them into the “explicit recognition” and one case (2.6%) in the “explicit recognition with mention” one.

Half (51.3%) of cases were not classified in this category: as there was no way to make an informed decision about classification, these are listed as “No information available”.

No recognition is understood to mean that “there is no mention of carbon limit or sustainable carbon footprint”, like in the case of **Energy Transition Oostpoort**, which comprises residents of Oostpoort who installed and use solar panels on rooftops, however, they do not explicitly mention carbon emission issues.



Implicit recognition

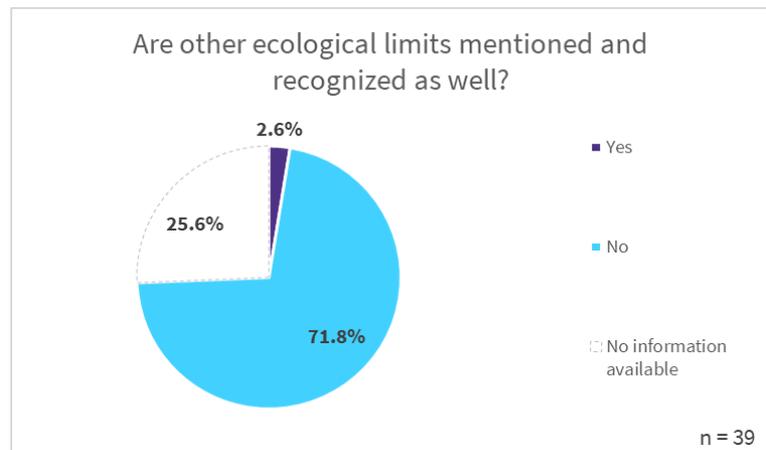
means that there is “No explicit mention of the ecological limit of atmospheric carbon emissions or sustainable carbon footprint, but despite the lack of formal references to either of them, the case is involved in activities aimed at reducing consumption and/or

the emission of carbon”, like in the case **Stichting Waterstof Energy Limburg (WeL)**, which is focuses on hydrogen use in Limburg through a coalition structure with different actors, including corporations, municipalities, and residents. Thus, this case indirectly strongly encourages the reduction of carbon emissions, but does not explicitly focus on the topic.

Explicit recognition is defined as meaning that “the ecological limit of atmospheric carbon emissions or sustainable carbon footprint is mentioned in core documents and the actors involved in the case are engaged in attempts to reduce consumption and/or emission of carbon”, like in the case of the **Ecovillage Aardehuizen**, which is a case that explicitly discusses households’ carbon footprint and the process of reducing carbon emissions through Earthship building principles.

Explicit recognition with mention means that, in addition to mentioning the ecological limit of atmospheric carbon emissions or sustainable carbon footprint, the maximum sustainable carbon footprint and/or emissions are also defined in associated documents, like in the case of **Fossilvrij Nederland**, which explicitly focuses on the dismantling of the fossil fuel industry in the Netherlands.

Almost three-quarters of the Dutch cases (71.8%) do not mention and recognize other ecological limits, while just one case (2.6%) does. One-quarter (25.6%) were not classified according to this category: these are listed as “No information available” for making an informed judgement.



The one case that does explicitly mention other ecological limits is **Stichting Waterstof Energy Limburg (WeL)** where “issues of green siting and safe capture of carbon are considered”.

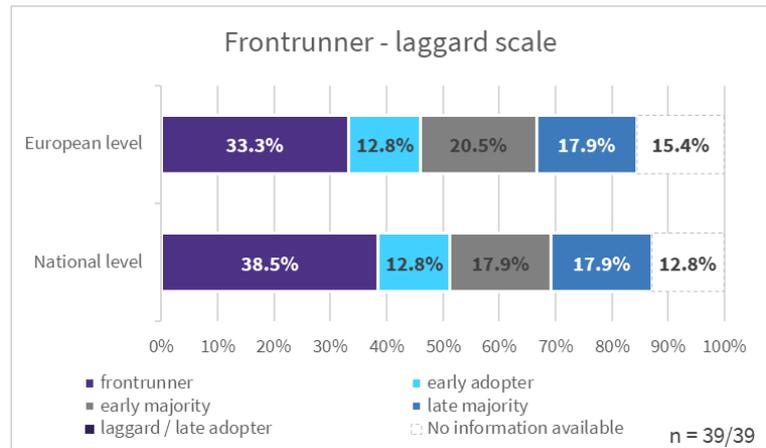
4.7 Frontrunners, early adopters and laggards

Q63-Q64. In terms of the form of ENCI it shapes/enables/supports (or shaped/enabled/supported), considering the **laggard - frontrunner distinction**, please select which applies most to this particular case – national and European level context.

As indicated by the question above, the issue of frontrunners and laggards was investigated at both the national and European levels as the assumption was made that some cases, although frontrunners in their national context, may be considered early adopters, etc. when evaluated at the European level.

At the national level, over **one-third of the Dutch cases (38.5%) were classified as “frontrunners”**, and about one-tenth of them (12.8%) as “early adopters”. 17.9% were categorised as “early majority” and the same percentage were categorised as late majority. For 12.8% of cases, no information was available to categorise them, from desk research conducted.

At the European level, the distribution was similar, **one-third (33.3%) were classified as “frontrunners”**, and 12.8% again as “early adopters”. More were classified as early majority at the European level compared to the national level (20.5%). And the



same proportion (17.9%) were classified as late majority. Finally, 15.4% were not classified due to a lack of sufficient information collected from desk research on these cases.

Frontrunner is understood to mean that the case “unleashes the change process, starts the innovation, whether technological or social, and takes it through the first difficult stage, i.e., pioneers, trendsetters, those who wish to lead and/or have the resources to lead the change process”. Frontrunner examples of cases that were classified as such at both the national and European level include **Slim Net in Duurzaam Lochem: Lochem Energie**, because “it is a pilot case and has received EU Interreg funding to explore further the development of a small-micro grid” and therefore acts as an experimental field trial in which citizens of Lochem are acting as frontrunners in the production- and demand-side of renewable energy production.

The **frontrunner** category also includes cases like **Community Virtual Power Plant Loenen (cVPP)** because this initiative is also a pilot case in which the second phase (2020-2022) of the pilot focuses on upscaling the cVPP. The Interreg cVPP project is a unique research project and it gives a very rare opportunity to set real innovations in practice and study them. This is very different from usual research routines where innovations initiated by others, are studied.

Early adopter(s) are defined as “opinion leaders who become enthusiastic about new products/ways of doing things/solutions, etc., share their benefits with others and adopt first”. This includes **The Drechtsteden cooperatie**, because “it appears to be the first renewable energy strategy (RES) from a cooperative. The cooperative went beyond and above to create this strategy together with many stakeholders and many of them are embracing it.”

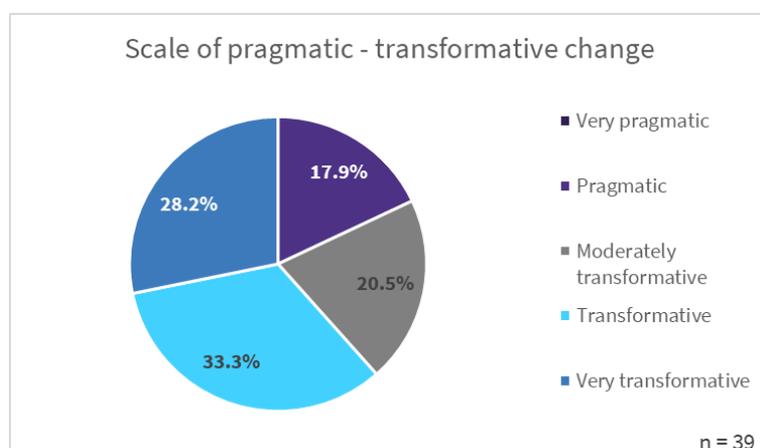
Early majority means “early adoption, but deliberate, less venturesome and independent than earlier adopters”. For example, **Zuiderlicht**, “because the technology they use (solar panels) are less venturesome than a new and innovative technology.”

Late majority means “the case only adopts change when there is a strong feeling of being left behind or missing out”. For example, **Energiek Moerdijk**, “because based on the fact that the actors are mainly giving energy savings advice to their members on various tested technologies, there does not seem to be innovative leadership for change in this case, but more of an example which is following in the path of initiatives before them”.

4.8 Pragmatic and transformative change

Q66. In terms of the form of ENCI it shapes/enables/supports (or shaped/enabled/supported), please place the case on a **scale of pragmatic - transformative change**, by moving the slider.

For this question, responses were collected from case researchers on a scale of 1 to 100, and for the analysis were divided into the following five categories: 1-20 very pragmatic, 21-40 pragmatic, 41-60 moderately transformative, 61-80 transformative, and 81-100 very transformative. A case is understood to be **more pragmatic if it mainly operates using pragmatic involvement**, which often refers to involvement within “concrete projects” or activities, and is often characterised by a preoccupation with technology and efficiency. A case is defined as **more transformative if it is more about transformative involvement**, embraces broader energy transition goals and climate change, and is concerned with and focuses on energy democracy and/or sufficiency.



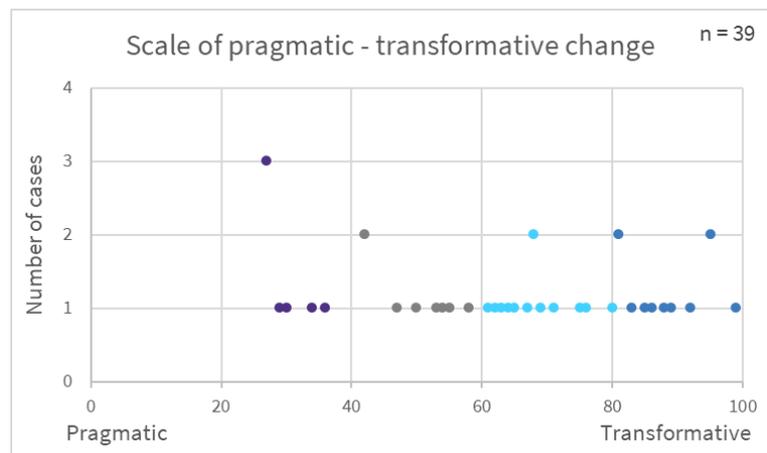
Using the scale of pragmatic-transformative change, the **one-third of the Dutch cases (33.3%) were classified as “transformative”**. One-fifth (20.5%) of cases were classified into the “Moderately transformative” and more than one quarter (28.2%) into the “Very

transformative” category. About one-sixth (17.9%) into the “Pragmatic”, and none into the “Very pragmatic” one. For this question, all cases were classified

The **pragmatic** category includes cases such as the **Tegenstroom** because “the model of Tegenstroom is based on concrete projects where people decide to get involved (or not) and it could be conceptualised as an energy provider.”

The **moderately transformative** category includes cases such as **Citizen Wind Cooperative Achterhoek (BAWE)** because “it aims to involve as many people as possible from the region and as many stakeholders as well, it thus focuses on energy democracy as well as fair distribution of energy among its members. There is another innovative element of this and that is the option it offers for people to invest their pension to the windfarm (Windpension), which is a forward-thinking idea.”

The **transformative** category includes cases such as **Woonark de ruimte** because the Houseboat project owners took action in an early period, before the energy transition was a buzzword. They took committed steps to transform their way of living in terms of energy efficiency and independency from fossil fuels.

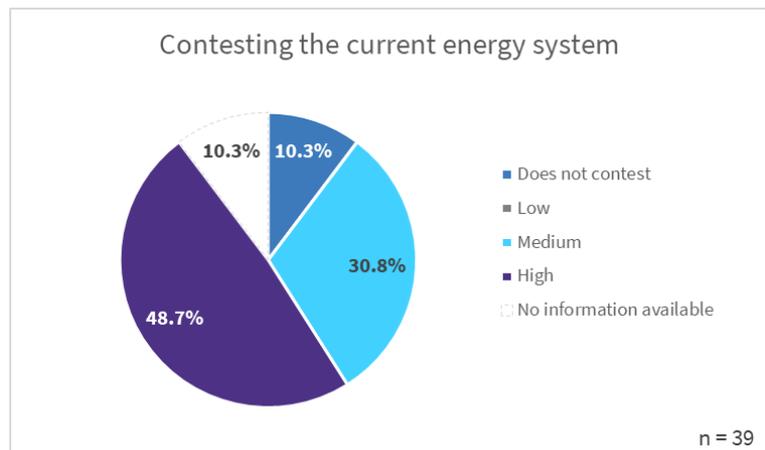


The **very transformative** category includes cases such as **Pauline Westendorp** because she can be considered a transformative agent of change, especially in terms of the energy democracy and energy citizenship as she is trying to engage her fellow citizens through various local initiatives.

4.9 Contesting the current energy system

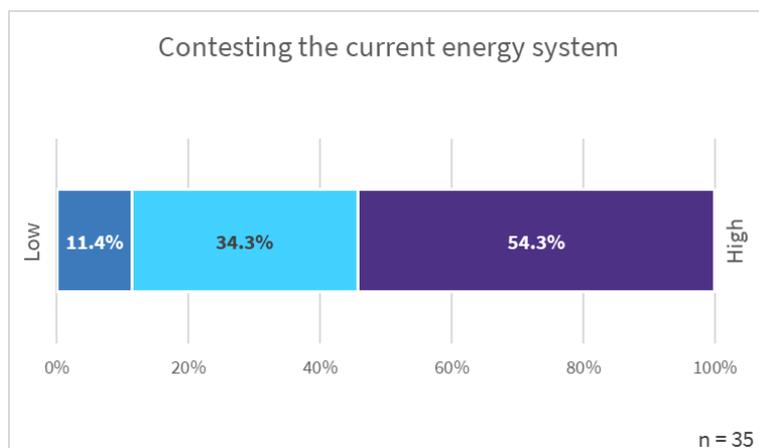
Q68. In terms of the form of ENCI it shapes/enables/supports (or shaped/enabled/supported), please select which applies most to this particular case in terms of **contesting the current energy system**..?

Of the Dutch cases that were mapped, almost half (48.7%) were independently classified as “high” and almost one-third (30.8%) as “medium” in terms of at which level they contest the current energy system. None of the cases were classified into the “low” category, and only one-tenth of them (10.3%) were found not to be contesting the system.



Similarly, only one-tenth (10.3%) were classified as “No information available” in relation to this question.

There are some cases, like **Buurtbedrijf NuDe Toekomst**, which **do not contest** the current energy system. In the latter case, this is because it is now only focusing on more social challenges, such as employment, home comfort, etc. This case intends to address energy system related issues in the future.



Medium means that “some system-contesting aspects are part of the process, yet are not appropriated by citizens or considered a full part of their involvement” like in the case of **TOER Tzummer Organisatie voor Energie in de Regio**,

because “the members still will depend on the energy supplier Greenchoice to buy (if they



choose) energy from the windmill. So, it is basically shifting energy supplier from the mainstream to a more localised energy supplier.”

High means that “citizens are committed to deeply renewing and restructuring the system toward a more democratic and sustainable one; additionally, narratives, action, and proposals are part of the contestation of the dominant system, resulting in critique and protest against energy or mobility policies, or support for more holistic sustainability policies and action, as well as forms of engagement that aim at making fundamental change (e.g., achieving autonomy)”. For example, **Pauline Westendorp**, who is fully committed to changing the current dominant system of energy production and is a big advocate of accelerating the energy transition to be completed in five years. Another example is the **Woonark de ruimte**, because the individuals who initiated this case set the examples for many to become an independent household from fossil fuels. That already goes against the dominant energy structure depending on gas or electricity providers as for example, they do not even have a gas or electricity meter.





References

Debourdeau, A., Schäfer, M., Pel, B., Kemp, R., Vadovics, E., Dumitru, A. (2021) Conceptual typology. EnergyPROSPECTS Deliverable 2.2, European Commission Grant Agreement No. 101022492.

Pel, B., Debourdeau, A., Kemp, R., Dumitru, A., Schäfer, M., Vadovics, E., Fahy, F., Fransolet, A., Pellerin-Carlin, T. (2021) Conceptual framework energy citizenship. EnergyPROSPECTS Deliverable 2.1, European Commission Grant Agreement No. 101022492.

Radtke J., Drawing E., Eichenauer E., Holstenkamp L., Kamlage J.H., Mey F., Warode J., Wegener J. (2020) Chapter 4 - Energy transition and civic engagement. The Role of Public Participation in Energy Transitions. Academic Press: pp. 81-91.

Vadovics, E., Vadovics, K., Zsemberovszky, L., Asenova, D., Damianova, Z., Hajdinjak, M., Thalberg, K., Pellerin-Carlin, T., Fahy, F., Debourdeau, A., Schäfer, M., Pel, B., Kemp, R., Markantoni, M. (2022) Methodology for meta-analysis of energy citizenship. EnergyPROSPECTS Deliverable 3.1, European Commission Grant Agreement No. 101022492.





Annex: List of the Dutch cases

Title of the case in English <i>(original)</i>	Brief overview	Webpage / Facebook
Amsterdam 02025 (Amsterdam 02025)	<p>02025 is a network and platform for and by Amsterdam energy pioneers who look beyond our own front doors - a community of frontrunners in the energy transition who together make the city an energy leader. As residents and organisations, we find each other, learn from each other and strengthen each other by sharing knowledge, experience, initiatives and networks. Together we will succeed: clean, honest and safe energy by 2025.</p>	<p>02025.nl/ facebook.com/02025Amsterdam/</p>
Anna Wijmans (Anna Wijmans)	<p>Anna is a citizen in the city of Amsterdam who wanted to live in a house that is independent of gas. And she made it! After a year of searching and trying to find solutions in her house in Rochdale (house cooperation) she has now installed isolation curtains and in 4 years time she will have paid off her own purchase costs due to the low energy bill (in summer about €20/month, in winter about €37/month). Anna also wants to install solar panels but that is not allowed (yet) in the rental house she is living. Anna is asking anyone who wants follow her example to contact her. She is an active energy citizen who wants to help more people to follow her transition in a house without gas.</p>	<p>02025.nl/project/5922/update-9juli-2020--de-transitie-van-mijn-huurhuis-van-rochdale-is-klaar--</p>
Bospolder-Tussendijken (BoTu) (Bospolder-Tussendijken (BoTu))	<p>Rotterdam residents and many other organisations signed a broad cooperation agreement. Residents, initiatives and entrepreneurs, the municipality, the housing corporation and the energy company; they are all working together in Bospolder-Tussendijken (BoTu). Residents wanted to enter into an equal partnership in which energy transition contributes to the development of their neighbourhood in a broad sense. A group of residents and parties from the neighbourhood put their heads together to find answers to questions such as: What values do we share, what do we find important? How can we work together intelligently? And which projects can we get to work on now? They have now moved from being a housing corporation to an energy company.</p>	<p>bospoldertussendijken.nl/energietransitie/ facebook.com/bospoldertussendijken</p>





Title of the case in English <i>(original)</i>	Brief overview	Webpage / Facebook
Citizen Wind Cooperative Achterhoek (Burgerwindcooperatie Achterhoekse Wind Energie (BAWE))	<p>The aim of cooperation is to stimulate and promote wind energy in Berkelland. Berkelland residents can become members and help decide on the cooperative's course. Members can also become co-owners of a wind turbine and benefit financially from new wind turbines in the region through their civilian wind cooperative. The citizens' wind cooperation Achterhoek wants as many residents in Berkelland to benefit from their own wind turbines. The municipality of Berkelland wants to be energy-neutral in 2030 and, in addition to solar energy, this also requires wind energy. This is exactly what the cooperative is aiming for. The impact of climate change is not something they can ignore. The cause of the extreme drought in the Achterhoek region can be linked to climate change. By building and operating wind turbines together, they can better ensure that the benefits of local green energy generation accrue to their own residents.</p>	achterhoeksewindenergie.nl/
Clever Net in Sustainable Lochem: Citizen's initiative Lochem Energy (Slim Net in Duurzaam Lochem: Lochem Energie)	<p>Slim Net Lochem Background: In4Energy is the consortium of corporations and organisations responsible for the implementation of the field trial Slim Net in Duurzaam Lochem. Within several weeks of start-up the citizen's initiative "LochemEnergie" over 1000 aspiring members joined up to actively cooperate and accelerate the transition to clean renewable energy. By involving the local residents this project does not only consider the production side of energy management, but also specifically considers the demand side and a balance between both. A smart grid contributes to a sustainable Lochem and eventually a sustainable energy supply chain across the globe.</p>	lochemenergie.net/producten/slim-net-lochem-afgerond ; facebook.com/pages/Lochem-Energie1/
CNME Maastricht and region - Nature and Environment Education Foundation in Maastricht (CNME Maastricht en regio - Stichting Natuur en Milieu Educatie in Maastricht)	<p>For 25 years, CNME have been connecting people and nature to create a more green and sustainable world. That is why they work in co-creation with residents, schools, municipalities, businesses and other green organisations. They work on information, education, advice, landscaping and (ecological) nature management. With their knowledge and expertise about nature and sustainability, they help others to behave in a more (nature) aware manner, and to green their own living environment. They help to move from grey to green, in thought and action.</p>	cnme.nl/ ; facebook.com/cnme.maastrichtenregio/





Title of the case in English (original)	Brief overview	Webpage / Facebook
Collective Strength (Collectieve Kracht)	CollectiveStrength is a knowledge platform that connects citizen collectives in the Netherlands and helps them to overcome obstacles together. Independent, free of charge and accessible to all citizens' collectives. CollectiveKracht strives to form a bridge between the daily practice of citizens collectives and the research questions of scientists. Not only by unlocking knowledge and insights from existing publications and making them applicable, but also by actively developing new evidence-based knowledge, demand-driven and practice-oriented. In doing so, they strive to connect various scientific disciplines. Scientists look at citizen collectives from different disciplines (law, social sciences, psychology, public administration, history, energy etc.) and different theoretical perspectives.	collectievekracht.mett.nl/default.aspx
Community Virtual Power Plant Loenen (cVPP) (Community Virtual Power Plant Loenen (cVPP))	The story of the Dutch cVPP starts in 2013 in Loenen, a small rural village in the Province of Gelderland. In 2013, the village of Loenen won a sustainability competition, organized by the municipality of Appeldoorn, requiring solutions to make villages energy neutral. Winning this competition by introducing a revolving fund, was the start to implementing this solution in their own village. Already more than 300 projects with an investment value of close to 2 million euro's have been installed in the Loenen buildings (insulation, PV (166), Heat pumps, etc) thanks to this fund and more are to come. The ambition of the village is to use all rooftop capacity in Loenen for PV, and become selfsupporting. Yet, this strategy requires smart energy management and so the rural cVPP got initiated. Currently Loenen generates 50% of household demand with local PV.	loenenenergie.nl/ ; facebook.com/Loenenenergie





Title of the case in English <i>(original)</i>	Brief overview	Webpage / Facebook
De Ceuvel (De Ceuvel)	<p>DE CEUVEL IS ONE OF THE MOST SUSTAINABLE AND UNIQUE URBAN DEVELOPMENTS IN EUROPE. De Ceuvel is an award-winning, sustainable planned workplace for creative and social enterprises on a former shipyard on the Johan van Hasselt kanaal off the river IJ in Amsterdam North. In 2012, the land was secured for a 10-year lease from the Municipality of Amsterdam after a group of architects won a tender to turn the site into a regenerative urban oasis. The former industrial plot is home to a thriving community of entrepreneurs and artists, where all involved have lent a hand to build Amsterdam's first circular office park. The plot hosts creative workspaces, a cultural venue, a sustainable café, spaces to rent, and a floating bed & breakfast. On the former shipyard we have realized one of the most unique urban experiments in Europe. Old houseboats have been placed on heavily polluted soil, the workspaces have been fitted with clean technologies and it has all been connected by a winding jetty. Around the houseboats phyto-remediating plants work to clean the soil. De Ceuvel is not only a "forbidden garden" which will leave behind cleaner soil, but also a playground for sustainable technologies. Through experimentation, we are as energy self-sufficient as possible and process our own waste in new, innovative ways.</p>	<p>deceuvel.nl/en/ facebook.com/deceuvel/</p>
Ecovillage Earth houses (Ecovillage Aardehuizen)	<p>The Aardehuizen ("Earth houses") is a modern ecovillage on the outskirts of a small town in the eastern countryside of the Netherlands. It is the home of 70 people, mostly families, who have spent 3,5 years of their lives working together to construct each other's houses. The houses were constructed according to the Earthship design by Architect Michael Reynolds. Key design features include the use of recycled, sustainable and locally sourced materials, in order to minimise the environmental impact. In addition, energy is harvested from the sun (both heat & power), water is filtrated organically and recycled, and food is harvested according to permaculture principles.</p>	<p>aardehuis.nl/index.php/nl/ facebook.com/Aardehuis</p>
EMEC, First Energy Cooperative of Maastricht (Eerste Maastrichste Energie Cooperatie)	<p>EMEC promotes energy saving and generation of sustainable energy in South Limburg and the Maastricht region in particular. The cooperation aims to produce sustainable energy locally. They believe that the benefits of green energy should not only fall to multinationals but also to citizens and small businesses in the local area. The cooperation also aims to contribute to the sustainability awareness within the region and thus accelerate the energy transition.</p>	<p>emec.nu/index.php; facebook.com/EMEC.nu/?fref=ts</p>





Title of the case in English <i>(original)</i>	Brief overview	Webpage / Facebook
Energiek Moerdijk (Energiek Moerdijk)	<p>Energiek Moerdijk is a community cooperative of and for the residents of Moerdijk. The members want us in Moerdijk to no longer be dependent on fossil fuels. Mission: Low-energy and sustainable energy consumption for everyone in the municipality of Moerdijk. We realise this by cooperating and investing in energy saving, sustainable energy production and knowledge transfer. We consider energy a basic necessity of life. Energy should therefore be permanently affordable and sustainable. We want to realise projects with the goal of generating sustainable energy and supplying this to our members and the residents of the municipality of Moerdijk. We seek the strength, support and expertise from the residents and companies of the municipality of Moerdijk.</p>	<p>energiekmoerdijk.nl/ facebook.com/EnergiekMoerdijk</p>
Energy Common Leidschendam-Voorburg (Energy Common Leidschendam-Voorburg)	<p>In Leidschendam-Voorburg, they are working on energy as a common good. The residents' initiative Energy Common in Leidschendam-Voorburg aims to generate, store and share as much energy as possible locally. Common' therefore stands for 'common', and this residents' initiative is based on energy as a common good, for which you bear joint responsibility. The dream is to have an energy source that they own or that they can manage and use together.</p>	<p>ec-lv.nl/</p>
Energy cooperative WPN (Energiecooperatie WPN)	<p>The Energy cooperative WPN is a sustainable energy cooperative by and for citizens. A first important milestone was reached with the realisation of Windpark Nijmegen-Betuwe in 2016. 1,013 members of Energy Cooperative WPN have invested in wind shares and have thus become joint owners of the wind farm. The wind farm is only the beginning. The cooperative wants to realise many more wonderful, sustainable energy projects for and by citizens in Nijmegen and the surrounding area. Starting with Zonnepark de Grift!</p>	<p>energiecooperatiewpn.nl/ facebook.com/zonneparkdegrift</p>
Energy Transition Oostpoort (Energietransitie Oostpoort)	<p>The EnergieTransitie Oostpoort (ETO) working group grew out of an initiative group that ensured that solar panels were installed on the roof of Oostpoort 11 in 2017. These now provide a substantial green contribution to the power supply every year. The working group consists of enthusiastic residents of 7 and 11 with a heart for sustainability and at the same time a pragmatic, critical no-nonsense approach. They started looking at possibilities for making the area even more sustainable. This resulted in information and numerous useful contacts. The working group is supported by Bureau 02025. This organisation connects and supports frontrunners in Amsterdam's energy transition. They can help each other with effective sustainability.</p>	<p>energietransitieoostpoort.nl/</p>





Title of the case in English (original)	Brief overview	Webpage / Facebook
Fossil Free Netherlands (Fossielvrij Nederland)	Fossil Free Netherlands is a foundation established in 2016 to institutionalise the activities of 350.org in the Netherlands. It aims at building a civil society movement to accelerate the transition towards a just and renewable energy system specifically focusing on dismantling the fossil fuel industry.	gofossilfree.org/nl/ ; facebook.com/FossielvrijNL/
Foundation Hydrogen Energy Limburg (Stichting Waterstof Energy Limburg (WeL))	The Stichting WeL is created in 2019 by Ger Jonkergouw and Peter Kersten, two retired citizens who felt that hydrogen as an important energy carrier for the energy transition in the Netherlands is neglected by business, knowledge institutes and the local and regional government in Limburg. They had talks with hydrogen experts in the Netherlands and organized a (table-based) group discussion about “hydrogen in the South of the Netherlands” at a hydrogen stakeholders conference in Groningen. One of the initiators utilised the opportunity of citizens to talk about the importance of hydrogen to the Commission on Mobility and Sustainability of the regional government in Limburg. After this, they had a large number of direct talks with local stakeholders, including the regional government of Limburg, and organized a meeting in July 2020 at the premises of the regional government about the creation of the Hydrogen Coalition Limburg (WCL), as the successor of WeL. The official aim of WeL and the newly created WCL is to speed up the introduction of hydrogen in Limburg in a good way. For this they proposed a 4 pillar approach: 1) the creation of a coherent vision, mission, strategy and policy, 2) to foster an eco-system for hydrogen in Limburg, 3) to foster knowledge generation and dissemination about hydrogen via knowledge institutes, new courses and a hydrogen academy (to be created), and 4) to support pioneers and the creation of Living Labs for hydrogen. WeL acted as initiator for those activities, to be realized through WCL with the support of business, knowledge institutes and the regional government.	waterstofcoalitielimburg.nl/





Title of the case in English <i>(original)</i>	Brief overview	Webpage / Facebook
Houseboat space (Woonark de ruimte)	<p>Ika and Pauline live in a houseboat near Amsterdam. Since 2005 they started a sustainable renovation starting with 4 solar panels on their roof. Now they have 13 solar panels and 10m² of solar collectors. They enjoy the fact that they can shower and heat their home on clean energy every day. In summer, when the sun is not shining for a day, they choose to take a short shower with lukewarm water instead of heating our home with wood. We live much more with the seasons. They also do not have a gas or electricity meter and their only expenses are maintenance and the costs for the wood pellets.</p>	<p>wijzijnom.com/portfolio-item/woonark-pauline-en-ika/</p>
Kronenberg Energy (EnergieKronenberg)	<p>The Foundation EnergieKronenberg together with the inhabitants, companies and organisations of Kronenberg, is committed to a sustainable society. In 2014, they set themselves a very ambitious goal: an energy-neutral Kronenberg by 2030. In the 450-household village of Kronenberg, a bottom-up initiative started in 2015. Residents founded 'EnergieKronenberg', aiming to make the village energy neutral by 2030. A joint study by the foundation and the municipality in 2020 has shown that 'all electric' is the best option for Kronenberg. But this scenario is not easy to implement, because every individual homeowner needs to invest in energy measures.</p>	<p>energiekronenberg.nl/ facebook.com/EnergieKronenberg-101243418138691/</p>
Marlous van der Veen (Marlous van der Veen)	<p>As DSO Architect Energy Transition at Enexis Group, I work on the transition from today to the near and distant future. My goal is to be a challenger to the organisation, to stretch the frameworks and to offer new perspectives. To seek out boundaries and ask questions. Not because I don't want to and cannot accept how things are now, but because I want to work on how things can be. It is my belief and ambition to make energy accessible always, everywhere and to everyone. This requires renewal and innovation, which I facilitate and initiate from my role as DSO Architect (which is similar to Business Developer), but also from an academic framework. I am doing my PhD at the University of Groningen on the subject of 'system innovation in energy transition', in which I am trying to find an answer to the question: how do we ensure that various innovations interlock and realise change at the system level? In short, how do we make these system innovations in the energy transition possible instead of continuing to talk about them. I try to let professional and academic impact reinforce each other: I bring Enexis lessons from my research and vice versa, I bring the daily practice of energy transition to the academia.</p>	<p>dj100.nl/marlous-van-der-veen/</p>





Title of the case in English <i>(original)</i>	Brief overview	Webpage / Facebook
MoreShare (MeerDelen)	<p>Meerdelen is a cooperative in Watergraafsmeer (Amsterdam East) where people can buy green energy and share electric cars with their neighbours. They were asked by stadsdeel Oost to set up an eHub with electric cars and electric bicycles. They now have cars in Bussum, which will eventually lead to a new local cooperative. As a cooperative, they work without a profit motive. Any profit they make is invested directly in new sustainability projects or making their neighbourhood greener.</p>	<p>meerdelen.com/</p>
MoreEnergy - Amsterdam Heat Grid (MeerEnergie - Warmtenet Amsterdam)	<p>MeerEnergie is a non-profit cooperative. MeerEnergie wants to realise an Amsterdam a heat network for all buildings within a part of the Watergraafsmeer district. This is relevant for owners, residents, tenants, companies and housing corporations. Whether you live in a house built in 1900, 1950 or 1980! Data centres in the Science Park release heat when cooling the servers. This heat is now simply blown into the air! In total, so much energy is available that we can provide at least 5,000 homes with heating and hot water. MeerEnergie is developing a heat network for the whole of Middenmeer.</p>	<p>meerenergie.amsterdam/; facebook.com/meerenergie123/</p>
National Association of Active Residents (Landelijk Samenwerkingsverband Actieve bewoners)	<p>The Landelijk Samenwerkingsverband Actieve bewoners is an association of and for active residents' groups. They are the national network of resident groups, independent community centres, neighbourhood cooperatives and BewonersBedrijven (neighbourhood enterprises). They share their knowledge and expertise with each other and with others. Together they advocate the position of active residents, also to (local) government.</p>	<p>lsabewoners.nl/energie/; facebook.com/lsa.bewoners/</p>
District C Power (Wijk C Stroom)	<p>Utrecht residents want sustainable energy for everyone. Residents of Wijk C see that the energy transition is currently not accessible to all residents in their neighbourhood - and they believe that this must change. After a door-to-door flyer campaign by one resident, a group of residents has been together for a year. They put their heads together to think about how sustainable energy can truly be for all the residents of Wijk C. By entering into a dialogue with residents and stakeholders, they want to be the connecting link in the search for solutions for the neighbourhood. Wijk C Stroom. That's what the residents call their core team that has been meeting since the end of 2019. Step by step, the residents are working on a new collaboration between residents and parties involved, such as the residents' initiatives, the Volksbuurt Museum, housing corporations and the municipality.</p>	<p>wijkcstroom.nl/; facebook.com/wijkcstroom/</p>





Title of the case in English (original)	Brief overview	Webpage / Facebook
Neighbourhood company NuDe Future (Buurtbedrijf NuDe Toekomst)	<p>The neighbourhood company NuDe Toekomst from Wageningen shows how to build on the neighbourhood. Together with the residents, they develop opportunities to work, learn and inspire in order to contribute to a nicer living environment in the neighbourhood. They do this, for example, with their handyman business, where residents do small jobs in other residents' homes in cooperation with the contractor carrying out major maintenance on the homes. In the future, they will sink their teeth into an even greater challenge: energy transition. According to them, this will only be successful if the transition links tasks and brings them closer to the residents.</p>	<p>nudetoekomst.nl/ facebook.com/BuurtbedrijfNudeToekomst/</p>
Neighbourhood energy works (wijkenergiewerkt)	<p>WijkEnergie Werkt is a social enterprise with Rotterdam roots. They are working hard to create a sustainable future in their neighbourhood. In homes and other buildings they do various energy jobs. To keep the heat inside, to use less electricity and for healthier air in the house. Good for you, good for your house, good for the neighbourhood!</p>	<p>wijkenergiewerkt.nl/</p>
Neighbourhood Heat (Buurtwarmte)	<p>This project in Groningen will be one of the firsts in the Netherlands to replace the 'traditional' natural gas grid by a district heating network. It is one of the most advanced community-led district heating projects in the entire country. Since the national and local government cannot force anyone to connect to the district heating network, the cooperative will have to foster the engagement and participation of the inhabitants. Preliminary financial calculations show that the project needs a participation rate of at least 70% of the community to be economically viable. The cooperative aim to organize local ownership of the collective heating system.</p>	<p>buurtwarmte.energiesamen.nu/</p>
Neighbourhood power (Buurkracht)	<p>In Buurkracht they believe in the power of neighbours. The power to make things nicer, better, greener, safer or cosier together in the neighbourhood. They help neighbours throughout The Netherlands to discover and increase their neighbourhood power. They do this by bringing people together and supporting them with tips, tricks and tools. Buurkracht is a social initiative. Their aim is to connect people in neighbourhoods and support them in improving their lives. Buurkracht is independent, has no commercial objectives and makes no profit. Buurkracht is an independent foundation. The activities and staff of the foundation are financed by municipalities, provinces and the grid manager Enexis.</p>	<p>buurkracht.nl/ facebook.com/buurkracht/</p>





Title of the case in English <i>(original)</i>	Brief overview	Webpage / Facebook
Pauline Westendorp (Pauline Westendorp)	Pauline is leading the energy transition in the Netherlands as an activist and the owner of the 02025. She represents the energy community movement in the Netherlands. To quote her: 'Today, we turn shared energy goals developed by politicians, big industry, academics and the disruptive ideas from communities into practical solutions.	02025.nl/persoon/22866/pauline-westendorp
Reindonk Energy & Co: Energy from your own region (Reindonk Energie & Co: Energie van jouw regio)	The mission of this initiative is to make the municipality of Horst aan de Maas sustainably energy-neutral. Together with, for and by inhabitants, companies, authorities and organisations from Horst aan de Maas, they aim to contribute to the energy transition. Reindonk Energy & Co focuses on local solutions that contribute to a global challenge. Because of its local character, they contribute to the generation of clean energy, a clean environment and more healthy air in our own living environment. Together they can make the difference! Because energy is a local product, energy is ours and energy is cooperative.	reindonkenergie.nl/ ; facebook.com/ReindonkEnergie/
REScoopVPP (REScoopVPP)	The main objective of the REScoopVPP project is to integrate and improve different initiatives throughout Europe in order to create the most advanced community-driven smart building ecosystem to support energy communities. The REScoopVPP project aims to bring different initiatives throughout Europe together to form the largest and most advanced community-driven open smart building eco-system for REScoops and citizen energy communities. The main goal of the ecosystem is to enable end-users to lower overall energy consumption and to use primarily renewable energy whenever available. The ecosystem consists of a Community-driven Flexibility Box (COFY-box) that enables the project to make existing buildings smarter, as well as a set of community tools targeted at renewable energy cooperatives (REScoops) and citizen energy communities (CEC) to organise themselves as aggregators and retailers of renewable energy.	rescoopvpp.eu/
Shale gas fee The Netherlands (Shaliegasvrij Nederland)	Shaliegasvrij is a foundation established in 2012. It aimed at a moratorium on the exploitation of unconventional natural gas through fracking.	facebook.com/SchaliegasVrijNederland/
Southern light (Zuiderlicht)	Zuiderlicht is an initiative of houseboat residents in the Schinkel (near Amsterdam) in the Netherlands. Their goal is to generate as much clean energy as possible (through solar panels mainly), in and around Amsterdam. They want to involve as many people as possible in this. Anyone can participate, even if he or she does not have their own roof or a suitable roof. For a one-time fee of €1, people can become a member. Sometimes they can co-invest, sometimes they can buy the energy generated.	zuiderlicht.nu/





Title of the case in English <i>(original)</i>	Brief overview	Webpage / Facebook
Strong on electricity (Sterk op Stroom)	We are ordinary neighbours with an extraordinary idea. That you give energy instead of costing it. So that you get a fair price for your electricity and our world becomes a more beautiful place. Together in a cooperative in your own Vruchtenbuurt. We do this to keep our planet liveable, CO2 emissions must be reduced and global warming halted. By generating more sustainable electricity in the Vruchtenbuurt neighbourhood and using it in a smart way, we are making a serious contribution to the climate goals and the necessary energy transition. An honest and green energy supply for the Vruchtenbuurt area, that is what the Sterk op Stroom cooperative is striving for.	sterkopstroom.nl/
Tegenstroom (Tegenstroom)	Tegenstroom is a social enterprise without financial profit motive, founded by the municipality of Haarlemmermeer. They help the municipality to accelerate the energy transition. Currently, they supply local customers/citizens with 100% solar power generated by local entrepreneurs. This is how they keep the energy and money flows within Haarlemmermeer.	tegenstroom.nl
The Drechtsteden cooperative (The Drechtsteden cooperatie)	Everybody takes part in this cooperative. Energieregio Drechtsteden is keen to work towards a sustainable future. In 2017, they were one of the first regions in the Netherlands to create a regional energy strategy (RES) in cooperation with thirty organisations. They are working with many other partners: each with their own interests, but also with the same goal. No matter how you look at it, the generation of sustainable energy affects us and our living environment. There is no denying that we are sometimes faced with difficult choices. The fact that they are a small energy region, where many people live close to each other, makes the large-scale generation of electricity in the region a challenge. At the same time, the region offers many opportunities for making homes gas-free.	drechtstedenenergie.nl/index.html





Title of the case in English (original)	Brief overview	Webpage / Facebook
TOER Tzummer Organisation for Energy in the Region (TOER Tzummer Organisatie voor Energie in de Regio)	Energy cooperative TOER is an initiative of the MAST foundation in Tzum, where MAST stands for 'Environment and Activities Stipe Tsjom'. Members of the energy cooperative TOER are citizens and companies who wish to make their electricity consumption more sustainable by means of local energy projects, to make a contribution to the community and to save costs. The MAST foundation has been operating a village windmill since 1994, and the proceeds are used to support village associations and projects. In this way, it contributes to the environment and village life: the mienskip: the community. The operating profits from their wind turbine are spent on village projects and village associations. The objectives as laid down in the foundation's deed are: 1) to stimulate the use of renewable energy sources, in particular wind energy; 2) to acquire, establish, maintain, manage and operate wind turbines or other installations for the generation of sustainable energy; 3) promoting energy saving and a clean, liveable environment; 4) stimulating village life in Tzum, in particular socio-cultural activities.	toer.frl/ buurtmolentzum.nl/ tsjom.nl/index.htm
Warm in the neighbourhood (Warm in de wijk)	The pioneering Warmindewijk project aims to connect a first group of at least 500 residents to a sustainable heat network within a few years. We, the residents of the Vruchtenbuurt, have taken the lead in developing a sustainable heat supply for our neighbourhood. The ultimate goal of the project is to develop this for the entire Vruchtenbuurt, with the support and commitment of the residents. After all, the decision to move away from natural gas has been taken at national and municipal level. It is going to happen. The only question is how and when. The time to shape it as residents is now! This is quite a big change. That is why, after consultation with residents from the neighbourhood and our partners, we decided to first carry out a pioneering project. With financial support from the European ELENA programme, we are investigating whether we can find at least 500 pioneers in a first section of the Vruchtenbuurt.	warmindewijk.nl/ facebook.com/warmindewijk





Title of the case in English <i>(original)</i>	Brief overview	Webpage / Facebook
WeertEnergy (WeertEnergie)	WeertEnergie is green energy, locally generated and affordable. Because we believe that investing in sustainable energy now is important for the future of our children. Because we believe that we can manage the transition to green energy in Weert ourselves. Because together we can ensure that green energy is accessible to all citizens of Weert. WeertEnergie works together with its members, the municipality of Weert and other regional cooperatives to shape the energy goals Weert wants to achieve. Together, we have more knowledge and expertise. For the realisation of our projects, we work with local, specialised companies.	weertenergie.nl/ facebook.com/WeertEnergie/

