

Government and Citizen Collaboration in the Local Energy Transition in Groningen, The Netherlands

'How are local governments and citizen energy initiatives (CEIs) currently collaborating in the region of Groningen: A case study on the collaboration of energy initiative Grunneger Power and the municipality of Groningen in the local energy transition.'

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16-06-2023

Abstract

In the light of the Dutch regional energy strategy programme (RES), the decentralization of power on governance levels and the rise of bottom-up initiatives in the energy transition take place. With the decentralization and rise of bottom-up initiatives, collaborations between local governments and local initiatives become of great importance both in theory and practice. This study explores the collaboration between local governments and local initiatives with an exploratory case study located in the municipality of Groningen, namely how the municipality of Groningen and citizen energy initiative (CEI) Grunneger Power (GP) are currently collaborating in the local energy transition. Firstly an institutional framework of transformative climate governance, multi-layered governance and RES Groningen is presented in which the energy transition is situated. Additionally, a clear definition of a citizen energy initiative is presented in which it becomes clear that GP is an CEI or cooperative with open & participatory and local & collective characteristics. Furthermore, interviews and a thorough literature research were conducted from which the role of GP and the municipality in their collaboration in the local energy transition became clear. The results from the conducted interviews and literature research were analysed based on the stairs of government and citizen participation in the local energy transition, based on the five role model by Wagemans et. al. (2019), the government participation model by Mees et. al. (2019) and the ladder of participation by Arnstein (1969). From this analysis, it is argued that the municipality and GP take on roles ranging to the highest level of the stairs of participation, meaning that there is a high degree of citizen participation and a low degree of government participation in their collaboration.

Keywords: Regional energy strategy programme (RES), local energy transition, citizen energy initiatives (CEIs), five roles model, government participation, ladder of participation

Wordcount: 6844

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Chapter 1: Introduction

In the light of global warming and climate change, a transition in energy sources in order to prevent the earths temperature from rising with 1.5 degrees Celsius is necessary (Rijksoverheid, 2019). This energy transition entails going from a fossil fuel based society towards a sustainable fuel based society. With the energy transition, a change in the built environment in both urban and rural landscapes can be seen (Castán Broto, 2019). This change in built environment entails for example solar parks or wind parks that are implemented in the environment surrounding us (Klimaatakkoord, 2021). In order to address the energy transition and additional impacts on the built environment the national Dutch government has made the Regional Energy Strategy (RES) Programme (Nationaal Programma RES, 2019).

The Regional Energy Strategy (RES) Programme of the Netherlands is a national strategy programme that aims to contribute to the energy transition. Producing energy from solar, wind, hydro power or other sustainable sources on a regional level plays a central role in this programme. The main goal is to reduce CO_2 emissions (Nationaal Programma RES, 2019), however the means to reach this goal are not explicitly stated in the RES programme, but are up to the RES regions to decide for themselves. Because the RES regions have the power to decide in what way they want to contribute in reaching the national goal, one could doubt how 'national' the RES programme really is. Since the power of decision-making is distributed on a regional level, the RES programme can provide a customized approach to the climate goals, set in the national Dutch climate agreement (Rijksoverheid, 2019). This gives the regions the opportunity to build on local collaboration between local actors and governments.

The collaboration on a local level implies a decentralisation in actions and responsibilities of government levels in the Netherlands (van Dijk et al., 2022). At the same time a shift from top-down governance to a more bottom-up approach accompanied by an increase in citizen initiatives and grassroot initiatives can be seen (Oteman et al., 2017). Some citizens and residents don't want to wait for governments to act but want to act themselves and have control in the energy transition. This communal drive for a sustainable environment among citizens causes citizens to gather and create citizen energy initiatives (CEI) in order to get grip on the energy transition (Sloot et al., 2019). This means that the relationship with local governments and CEIs is an important factor in creating sustainable energy regions. CEIs add to the energy transition by organizing, setting-up and providing green energy sources, such as wind, solar or hydro power energy sources, for themselves and the community. Therefore, these initiatives are part of creating sustainable energy regions (Soares da Silva and Horlings, 2020).

In order to add to the energy transition in the Netherlands, I want to study the relationship between local governments and citizens in the municipality of Groningen. The RES region of Groningen has the highest ambition and energy goals to achieve in comparison to other RES regions (RES Groningen, 2021). This means that a big challenge lies ahead of the Groningers. Because Groningen has these ambitious energy goals it interesting to study the relationship between the municipality and citizen initiatives here.

This study can add to the societal change, in which regions in the Netherlands, have to transition to sustainable energy sources. Studying the relationship between local governments and citizens can add to the understanding of the energy transition and the impacts it has on the built environment. It also adds to the academic literature, by studying the role of the local government and institutions in

the energy transition, regarding citizen initiatives. Earlier research was done on the role and relationship of multi-level actors in the energy transition and RES programme by *van Dijk et. al.* (2022), but it did not zoom in on the dynamics between local institutions and actors. On the other hand, there has been research done on the relationship between local governments and citizen initiatives in the Netherlands, but these studies focussed mainly on the role of the CEI rather than the role of both the local government and CEI.

The research aim is to find out how the municipality of Groningen and CEIs are collaborating in the local energy transition. The study will be done on the basis of an exploratory case study in the municipality of Groningen. The case that will be used is the collaboration between pioneering energy initiative 'Grunneger Power' (GP) and the municipality of Groningen. GP was the first CEI in the municipality of Groningen. The research will focus on the current collaboration between the municipality of Groningen and CEI GP. The research question that I address is:

'How are local governments and citizen energy initiatives currently collaborating in the region of Groningen: A case study on the collaboration of energy initiative Grunneger Power and the municipality of Groningen in the local energy transition'.

In order to answer the main question, the following sub-questions about the institutional framework and roles of both actors in their collaboration in the local energy transition are considered:

- What policies, strategies and concepts (institutional framework) are in place that are relevant for the collaboration between local governments and initiatives regarding the local energy transition?
- What role does the municipality take on in the local energy transition?
- What role does GP take on in the local energy transition?
- What role does the municipality take on in the collaboration with GP?
- What role does GP take on in the collaboration with the municipality?
- How are the municipality and GP currently collaborating?

This study is organised as follows: Chapter 2 discusses the theoretical framework consisting of relevant theoretical concepts and a conceptual model. Chapter 3 presents the research approach, methodology and data collection instruments applied in this research and how the collected data was analysed. Chapter 4 summarises the collect data and analyses the data by means of the conceptual model presented in chapter 2. Eventually it becomes clear in this chapter what the roles from the municipality and GP are in their collaboration regarding the local energy transition and how the two actors are collaborating. Chapter 5 reflects on these roles and the collaboration and discusses the outcome. Finally, a conclusion of this research can be found in chapter 6. Here also recommendations for future research and policies are made followed by a reflection on the quality of the study.

Chapter 2: Theoretical framework

2.1 Institutional framework

To answer the main research question of this study, first the sub-question on what relevant institutional framework is in place for the collaboration between local governments and initiatives in the local energy transition, is addressed.

2.1.1 Transformative climate governance

In the light of the energy transition and decentralisation of actions of governments it is important to understand the concept of climate governance or transformative climate governance. Transformative climate governance is a governance process in which multiple actors aim to contribute to sustainable

objectives (Hölscher et al., 2019). The definition given by Hölscher et. al. (2019) is: "the process of interaction and decision-making in which multiple actors seek to address climate mitigation and adaptation while purposefully steering societies towards low-carbon, resilient and sustainable objectives" (p.792).

2.1.2 Multi-level governance

In the transformative climate governance definition it is however not clear who the 'multiple actors' are. Van Dijk et. al. (2022) identify these multiple actors through the concept of multi-level governance (MLG). Looking at the MLG concept, actors exist in different governance levels. There are two types of MLG that make a distinction between different structures and levels in which governance takes places. Type I MLG states that actors are present in three conventional and hierarchical governance levels; national, provincial and local. Type II describes a more flexible system in which overlapping structures between governance levels are present (van Dijk et al., 2022). Through the means of MLG a distinction between actors can be made on the basis of governance levels in which they operate. In the case of the Regional Energy Strategy (RES) programme of the Netherlands, thirty energy regions are identified. These regions operate on a multi-level basis. In terms of the MLG, one could say that the level on which the RES regions make decisions and interact can be described as one of the levels as in MLG type II: a flexible overlapping structure between multiple governance levels. In the RES programme, provincial and local actors are of importance to implement the sustainable goals as stated in the national Dutch climate agreement. But the main role in this programme is played by local actors. The RES programme focusses on a decentralised and bottom-up approach in which collaboration with local businesses, residents and energy cooperatives or collectives makes it possible to find a locally fitting solution that contributes to the goals in the Dutch climate agreement (Nationaal Programma RES, 2019).

2.1.3 RES Groningen

In the RES region of Groningen, which has the same borders as the province of Groningen, the province and ten municipalities work together in order to reach their goals as stated in the Regional Energy Strategy of Groningen (RESG) (figure 1). The objective of RESG as described by *RES Groningen* (2021), states that in the year of 2030, 5,7 Terawatt hours (TWh) of electricity must be produced by sustainable energy sources on land. This goal is the most ambitious one of all RES regions. To achieve this goal, not only the collaboration between governance levels is needed, but also the collaboration within governance levels is of importance. This entails interactions between local governments and businesses, residents and CEIs, for example. Seeking for conversation and collaboration between these parties is necessary in order to achieve the goal of RESG (RES Groningen, 2021).



Figure 1: The RES region of Groningen circled in black with next to it all the municipalities that are involved in the RES region (Nationaal Programma RES, 2019).

2.2 Citizen energy initiatives (CEIs)

2.2.1 Definitions of CEIs

Within the field of CEIs there are multiple definitions and terminologies that refer to a CEI. These definitions and terminologies touch upon the range of how an initiative can be organized, formal or informal, and upon the involved participants, local residents and/or local businesses and NGOs. Oteman et. al. (2017), use the term 'grassroot initiatives' when talking about CEIs. They define grassroot initiatives as the following: "local and bottom-up collaborations between citizens, motivated by the desire to supply or produce renewable energy on a local scale" (p. 2). In their definition they give a clear identification of the involved participants, namely citizens. However, from their definition it is not clear how grassroot initiatives are structured or organised. Seyfang and Haxeltine (2012), also speak of grassroot initiatives or rather innovations. They identify an initiative as an innovative network of activists and organisations that lead bottom-up solutions for sustainable development. Initiatives are solutions that respond to the values and interests of local communities (Seyfang and Haxeltine, 2012). Similar to the definition by Oteman et. al. (2017), the role of the participant in the initiative is well defined, namely activists and organisations. But lacking is the organizational form in which an initiative can take place. Both articles refer to the organizational form of an initiative as a collaboration or network, but a clear specification is not made. In contrast to Oteman et. al. (2019) and Seyfang and Haxeltine (2012), Walker and Devine-Wright (2008) discuss the term 'community renewable initiatives', when referring to CEIs, and specify the different organizational aspects.

2.2.2 Organizational aspects: process and outcome

A community renewable initiative or CEIs is a form of a community energy project. This encompasses all projects and initiatives that are present to contribute to the energy transition (Walker and Devine-Wright, 2008). Examples of these initiatives can be projects regarding wind turbine parks and/or solar parks for example. Walker and Devine-Wright (2008) made a differentiation between them, based on organizational aspects. They identified two dimensions in which CEIs can be differentiated. These dimensions are the *process* and *outcome* dimension. The first dimension, the *process* dimension entails who is involved in the project of an initiative. Basically, it concerns who develops, runs and influences the project. Within this dimension four categories can be identified of who is involved in the project: 1. Distant parties, 2. Closed parties, 3. Local parties and 4. Open parties.

The second dimension, the *outcome* dimension, concerns how the outcomes of a project are spatially and socially distributed. To elaborate on this, the outcome dimension describes for whom the project

is. It concerns who is benefitting from the project. Also, this dimension is categorized into four categories that directly relate to the categories of the *process* dimension. These categories are based on how the outcomes are allocated: 1. Private, 2. Institutional, 3. Collective and 4. Participatory.

Figure 2, visualizes these dimensions and categories. The distant & private and closed & institutional side of the figure refers to distant and closed parties that are not accessible for local stakeholders. For example, businesses and institutions that have a wind turbine park and create economic outcomes for distant stakeholders and create energy for the grid, rather than for a regional energy network. They can be classified within the bottom left corner of the figure. On the other hand, there is also the local & collective and open & participatory side of the figure. This encompasses for example citizen initiatives from the region that have set up solar parks. They share the economic and energy outcomes with the community. GP falls under last category and is classified as a local & collective and open & participatory CEI.

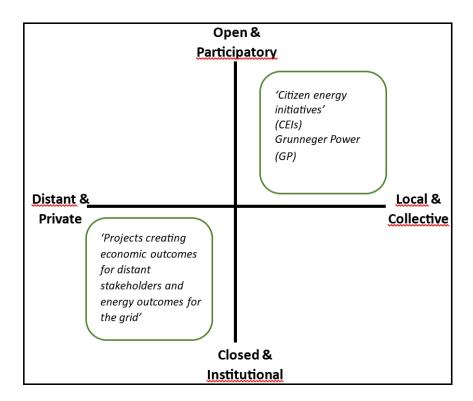


Figure 2: Organizational differentiation of community energy projects. Consisting of two dimensions: process and outcome (Walker and Devine-Wright, 2008).

2.2.3 Dutch context: energy cooperatives

In the Netherlands most CEIs are structured in a formal way. These formal structures are referred to as 'energy cooperatives' (Hieropgewekt, 2018). An energy cooperative can be started by anyone who desires to do so, such as local citizens and activists, and often consists of multiple members. The economic benefits that the cooperative makes can be distributed among the members and locals (KVK, CBS, n.d.). These characteristics of a cooperative make it a suitable organizational form for open & participatory and local & collective energy citizen initiatives, since they are mainly focussed on generating for and distributing their outcomes among the community. Looking at GP, it can be said that they are an energy cooperative (Grunneger Power, 2011a). Therefore, they fall under the open & participatory and local & collective CEI (see figure 2).

2.3 Local government and citizens in the energy transition

As said before this study focusses on the collaboration between local actors in the energy transition, the municipality of Groningen and GP. In order to achieve the ambitious goals set by RESG (Regional energy strategy Groningen), the local government namely the municipality of Groningen needs to collaborate with local parties and citizens energy initiatives such as GP. This section explores the roles of a local government and local initiatives in their collaboration in the energy transition.

2.3.1. Citizen participation

Between the collaboration of a local government and citizen initiatives a process of citizen participation takes place. The citizen participation of CEIs such as GP in local government plans is a result from the decentralization of power among government levels and the fast emergence of bottom-up initiatives in the Netherlands (Proka et al., 2018).

There are multiple degrees or stages on which this citizen participation can take place. *Arnstein* (1969), describes these degrees of participation between governments and citizens in a ladder of participation (see figure 3), which is an overview of different stages that show the citizen's participation in the decision-making process of governments. Furthermore, the ladder illustrates the relationship between governments and activist or citizens. In the case of this study, the municipality of Groningen is considered as the government and GP is considered as the activist or citizen. The ladder consists of eight degrees or stages, with the bottom level indicating the lowest participation rank, also referred to as non-participation, and the top level indicating the highest participation rank in which citizens have full control (Arnstein, 1969).

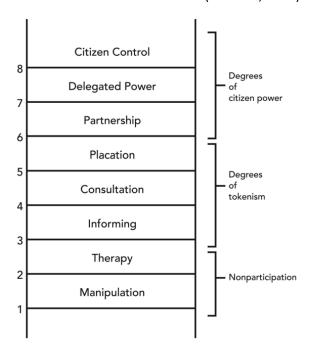


Figure 3: Ladder of citizen participation (Arnstein, 1969)

2.3.2 The role of CEIs

From the ladder of participation it is not clear how it relates to the participation of CEIs in the energy transition and the how much influence CEIs have on governmental energy policies and strategies. In order to get an idea to what extent a CEI participates and collaborates with local governments, it is important to find out what roles CEIs can take on to influence the local energy transition. *Wagemans et al.* (2019) have identified five different roles an energy cooperative or CEI can take on in facilitating the local energy transition. The roles are: Mobilizing the public, brokering between government and

citizen, providing context specific knowledge and expertise, initiating accepted change and proffering the integration of sustainability (Wagemans et al., 2019)(see figure 4). The different roles can be seen in context of a ladder, with 'mobilizing the public' as the first step and 'proffering the integration of sustainability' as the last consecutive step of influencing the energy transition. Which role(s) and how much of the roles a CEI can take on also relates to their position with respect to participating and collaborating with a local government in the energy transition. This is because the role(s) and actions of an CEI in the energy transition depend on their institutional support (Soares da Silva and Horlings, 2020). If local governments do not support roles and actions of CEI, CEIs have a limited influence on the energy transition.

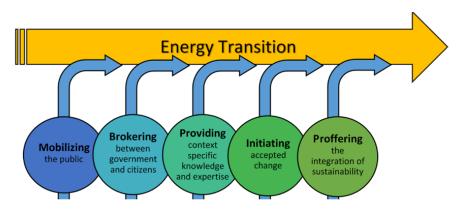


Figure 4: The five different roles an energy cooperative or CEI can take on in facilitating the energy transition (Wagemans et al., 2019).

2.3.3 The role of the local government

Subsequently, it is also important to look at the role of local governments in the energy transition. Local governments or municipalities play a critical role in local energy transitions, because they are responsible for setting strategies for the region, implementing policies and regulations, providing a range of services for citizens and owning and managing infrastructure and land (Uyar, 2017). Furthermore, one could say that from these characteristics of a local government, it can be said that they have the potential to take on a guiding or shaping role in change of direction in their region (Uyar, 2017). However, there is currently a shift in the role of local governments, going from steering and leading towards facilitating and enabling local non-governmental actors to partake in the local energy transition (Mees et al., 2019).

Mees et. al (2019) have identified what steering and leading, facilitating and enabling roles mean for a local government. In contrast to the ladder of participation of Arnstein (1969) in which citizen participation is described, Mees et. al (2019) framed a ladder of government participation in which the roles of a government are ranked on five different levels (see table 1). The ladder was created in the light of the collaboration of local governments and citizen initiatives in achieving local climate goals. Each level on the ladder of government participation includes a specific role and practicalities. The levels on the ladder reach from level 5: regulating, in which the government takes on a leading and dominant role towards citizen initiatives, to level 1: Letting go, in which the government lets go of the dominant role and lets initiatives take the lead. One could day that level 5: regulating, of the ladder of governmental participation (see table 1) relates most to a top-down approach that corresponds with 'Degrees of tokenism' on the ladder of participation by Arnstein (1969)(see figure 3). Therefore, it could also be said that level 1: Letting go, (see table 1) describes a bottom-up approach and corresponds with 'degrees of citizen power' in the ladder of participation by Arnstein (1969)(see figure 3).

Rung	Roles for local governments	Who initiates, who coordinates and who decides	Practices of local government roles
5	Regulating	Government regulates interventions by the community, so initiates, coordinates and decides (hierarchical government).	Policy making, organising traditional public participation such as hearings and citizen juries, checking, enforcing regulations, and sanctioning in case of noncompliance.
4	Network steering	Government (co-)initiates and creates a network of public and private stakeholders; it coordinates the decision- making process. Decisions are co-decided in the network.	Process coordination, fostering of dialogue and negotiation among stakeholders, mediation of interests, arbitrage of conflicts, trust building, creation of a level playing field through rules of the game.
3	Stimulating	Government actively stimulates the initiation and continuation of community initiatives. Initiatives coordinate and decide independently from government.	Provision of structural(financial) support during a longer period.
2	Facilitating/ enabling	Initiatives are self- initiated, and the government has an interest in making them happen. Initiatives coordinate and decide independently from government.	Boundary spanning activities that facilitate free flows of ideas, people and resources, while maintaining a boundary between the initiative and its institutional environment; Process facilitation, helping the initiative to find its way in the municipal organisation, providing a (very)limited number of resources and relevant information, schooling and other forms of capacity development.
1	Letting go	Initiatives are self- initiated, self- coordinated and self- governed without the help of government.	None, government is not participating in any direct way, but indirectly by becoming ambassadors for such initiatives.

Table 1: Ladder of government participation with roles (Mees et al., 2019).

2.4 Operationalisation

By combining the ladder of participation by *Arnstein* (1969) with the five role model of *Wagemans et. al.* (2019) and the government participation ladder of *Mees et. al.* (2019) it can become clear how the municipality of Groningen and initiative GP relate to each other and how they collaborate. The different models are combined into the stairs of government and citizen participation in the local energy transition (see figure 5). The first level of the model begins with a mobilizing role for CEIs and a regulating role for the local governments, corresponding with the 'degrees of tokenism' stage on the ladder of participation by *Arnstein* (1969). The highest level on the stairs represents the 'degrees of citizen power' stage and consists of a proffering role for CEIs and a letting go role for local governments (see figure 5). The higher the level on the stairs, the higher the degree of citizen participation and the lower the degree of government participation.

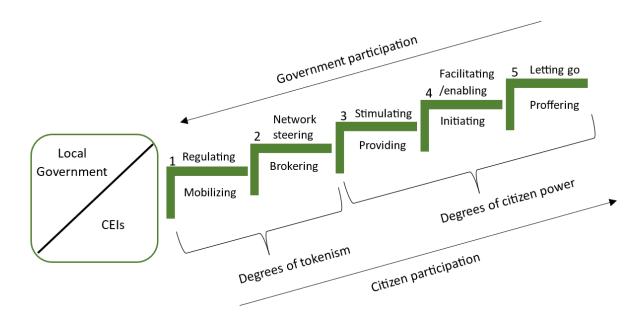


Figure 5: The stairs of government and citizen participation in the local energy transition. A combination of the five role model by Wagemans et. al. (2019), the government participation model by Mees et. al. (2019) and the ladder of participation by Arnstein (1969).

Chapter 3: Methodology and data collection

3.1 Research approach

In order to study the collaboration of local governments and CEIs in the local energy transition an exploratory case study in the municipality of Groningen was used to discover how the municipality of Groningen and initiative GP are currently collaborating in the local energy transition. This type of case study can give insights in the dynamics, context and roles of the collaboration and participation of the municipality and GP. Because the 'current' collaboration between the municipality and GP is explored in this research a timespan of the year 2020 till now (2023) was used.

To answer the main question and sub questions, qualitative research is used in this study. Qualitative data is needed to answer questions regarding the role of the municipality and GP in their collaboration in the energy transition. The qualitative research approach in this study consists of conducting semi structured interviews and reviewing academic and grey literature.

3.2 Literature review

The literature review that was executed, consisted of policy and vision documents, monitoring reports and websites from the municipality, blogs and websites from GP and other energy initiatives and news articles regarding the local energy transition. With the literature review, questions regarding the role of the municipality and GP in the local energy transition and in the collaboration process were answered. Also questions about which policies and strategies are relevant to study for this research were answered.

3.3 Interviews

With regards to the interviews, I, as the researcher took on the role of an outsider with a policy-makers or public administrator's point of view. The questions in the interview were directed at the employee of the municipality and experts in the field of the local energy transition. In the interview the participant of the municipality and GP took on the role of insiders in the collaborative process between the municipality and GP. The experts in the field of the local energy transition took on the role of outsiders sharing their research, studies and thoughts on the collaboration between the municipality and GP in the energy transition. In total one employee of the municipality was interviewed and two experts in the field of the local energy transition were interviewed.

The questions asked in the interview varied between participants and were adjusted according to their role in the collaboration process (insider or outsider) and their employer. Someone with an insider role working at the municipality was asked a different set of questions as an outsider expert in the field of the local energy transition in Groningen. The employee of the municipality was asked questions about their role in the collaboration with GP. These questions were more about depth instead of breadth, because they could go into more detail since the employee of the municipality had worked several years with GP (see appendix Ia). The experts on the other hand were asked questions about their thoughts, expectations, predictions and perspectives on the collaboration between the municipality and GP and were more about breadth instead of depth (see appendices Ib1 & Ib2). The questions in all interviews touched upon topics that are related to the current collaboration between the municipality of Groningen and GP. The questions tried to answered what the role of the municipality and GP is in their collaboration regarding the local energy transition of Groningen.

The interviews were semi-structured, meaning that a set of questions was prepared in advance of the interview, but that the questions asked could differ from the original set of questions prepared. A semi-structured approach also allowed space for probing or asking specific questions about

interesting answers that may be given. All interview questions were written down in an interview guide (see appendix IIa, IIb and IIc). Furthermore, one participant was audio-recorded during the interview. They were only audio-recorded with their consent (see appendix II). The two other interviews were not audio-recorded, but written notes were taken. Next to that, the interview with the employee of the municipality and one of the experts was carried out in Dutch and the interview with the other expert was conducted in English.

At the end of each interview, it was concluded if more interviews with employees of the municipality and experts were necessary. Since only three participants were interviewed, a comprehensive literature review was conducted (see 3.2 literature review).

3.4 Analysis

Finally, all recordings and written notes from the interview were summarized and written down, from which the main message and answers are clear. The summaries were then analysed by coding words relating to roles of the municipality and GP in the collaboration process. Roles or actions relating to the municipality were highlighted in yellow, roles and actions relating to GP were highlighted in green and statements that related to both of them were highlighted in blue (see appendix IIa, IIb and IIc). After that, the coded summaries together with the policy documents, websites and monitoring websites, were analysed using the stairs of government and citizen participation in the local energy transition (see figure 5). From this analysis it became clear not only what role GP and the municipality serve in the local energy transition, but also to what extent citizen and governmental participation is present in their collaboration. This gave insights in how the two actors are collaborating regarding the energy transition in Groningen and how other local governments and CEIs in the light of the energy transition can collaborate.

Chapter 4: Results

In this chapter the roles of the municipality and GP in the local energy transition will be analysed by using the conducted and coded interviews (see appendices IIa, IIb and IIc) and grey literature review consisting of policy documents and vision, monitoring websites and websites from GP and other initiatives. Furthermore, after the selected data, as described above, was analysed it became clear by the means of the stairs of government and citizen participation, how the municipality of Groningen and GP are collaborating.

4.2 The role of GP

Firstly, the role of GP is analysed by means of the bottom layer of the stairs of government and citizen participation (see figure 5). The bottom layer of these stairs represent the level of CEI participation in the local energy transition and is similar to the five role model of *Wagemans et. al.* (2019) consisting of the roles: mobilizing, brokering, providing, initiating and proffering.

4.2.1 Mobilizing

One of the main objectives of energy cooperatives and CEIs is to mobilize the public in raising attention and building support for the energy transition (Wagemans et al., 2019). GP does this by letting members and residents participate in the energy transition (see appendix IIb). GP is organising gatherings and meetings about energy plans in neighbourhoods (Grunneger Power, 2011b) while also helping small initiatives to organise activities relating to raising awareness about the energy transition (see appendix IIc). Next to that GP also organises the annual sustainable open house day in which homes with sustainable measures, such as heat pumps or solar panels, are open to the public

(Grunneger Power, 2023). At the sustainable open house day of 2022, more than 600 people visited homes with sustainable measures and at this year's (2023) edition more than 1000 people are expected to visit (Gemeente Groningen, 2023). With organising meetings, gatherings and special events GP mobilizes the public (see table 2).

4.2.2 Brokering

Not only does GP has a connection to its members and residents, but they are also connected to the municipality. According to *Wagemans et. al.* (2019) energy cooperatives often have ties with citizens as well as with the local government, causing them to bridge the gap between citizens and governments. In many projects by the municipality of Groningen regarding the local energy transition, GP gets hired to let the plans of the municipality come across to the citizens and the take into account the needs and concerns of the citizens involved (see appendix IIa and IIc). In this process, GP provides citizens with platforms and meetings about the energy plans and projects in the neighbourhood (see appendix IIa). This means that GP performs a consultant or intermediate role between the municipality and citizens, which can be considered as brokering between the government and citizens (see table 2).

4.2.3 Providing

Next to a mobilizing and brokering role, CEIs can also take on the role of providing context-specific knowledge and expertise. The providing role entails that measures regarding the local energy transition will be made suitable for each specific context or case on a local level (Wagemans et al., 2019). With more than 10 years of experience (Grunneger Power, 2011a), GP supports neighbourhood energy plans, by finding sustainable solutions and energy measures that meet every individual's own wishes and needs (Grunneger Power, 2011b). By supporting neighbourhoods' energy plans and considering individual wishes and needs, GP provides context-specific expertise and knowledge (see table 2).

4.2.4 Initiating

The fourth role an energy cooperative or CEI can take on is to initiate socially accepted change. This role is about going beyond the conventional and traditional approach of command and control. It is about creating mutual trust between a CEI and its members and between local governments and citizens (Wagemans et al., 2019). GP builds mutual trust by giving residents and citizens a voice in local energy plans in neighbourhoods (see appendix IIa and IIb) and by building networks with other CEIs in the region. By building connections with other CEIs in neighbourhoods, GP makes it easier for the municipality to communicate energy plans and projects in the neighbourhood. This makes that GP functions as an umbrella initiative, in which it also supports and helps other small initiatives to grow and gain expertise (see appendix IIc). Simultaneously, GP acts as a point of contact for the municipality to reach out to these small initiatives and vice versa (see appendix IIa). By fostering communal trust in energy plans, GP performs the role of initiating socially accepted change (see table 2).

4.2.5 Proffering

The last role an energy cooperative or CEI can take on, identified by *Wagemans et. al.* (2019) is the proffering of integration of sustainability. The integration of sustainability means that a CEI not only needs to focus on renewables and energy measures, but it needs to look at sustainability in a broader context, one that goes beyond just renewables and energy measures. GP has multiple solar panel parks and projects running in the municipality of Groningen (Grunneger Power, 2011c), which fall under the category of renewable energy projects. If CEIs want to integrate sustainability on a broader scale, they would have to take into account the sustainability of the process and outcome of

implementing a solar park and relating energy measures. One thing GP does is considering the impact of the implementation of a solar park for the region's biodiversity. Together with the Nature and environment federation of Groningen, GP makes sure that biodiversity is enhanced in their solar parks (Grunneger Power, 2011c). Therefore, it could be said that GP proffers the integration of sustainability in their solar park projects by enhancing the biodiversity at the solar fields (see table 2).

Roles	Context of GP
Mobilizing (the public)	Organising meetings and gatherings for energy plans in neighbourhoods. Organising special events like the annual sustainable open home day.
Brokering (between government and citizens)	Consultant or intermediate between residents and the municipality.
Providing (specific knowledge and expertise)	Supporting neighbourhood energy plans and considering individual wishes and needs when implementing sustainable energy measures.
Initiating (socially accepted change)	Creating mutual trust by giving residents a voice in energy plans and projects and by building connections with small neighbourhood scale initiatives.
Proffering (the integration of sustainability)	Enhancing biodiversity on solar fields owned and build by GP.

Table 2: The five roles model of an energy cooperative or CEI in facilitating the local energy transition in the context of GP. Based on the model by Wagemans et. al. (2019).

From table 2 it can be concluded that GP has the ability to take on the mobilizing, brokering, providing, initiating and proffering roles an CEI can have in facilitating the local energy transition. However, it is not clear to what extend they can execute these roles and to what extend they can expand these roles. Therefore, GP depends on institutional support by the municipality of Groningen and how the municipality is participating in the local energy transition. Nevertheless, it can be said that GP is participating on the highest level of the stairs of government and citizen participation in the local energy transition (see figure 6).

4.3 The role of the municipality

Secondly, the role of the municipality is analysed by means of the top layer in the stairs of government and citizen participation, based on the five role model by *Mees et. al.* (2019), consisting of the roles: regulating, network steering, stimulating, facilitating/enabling and letting go.

4.3.1 Regulating

The local energy transition in the municipality of Groningen is mainly led by the municipality. This is because the municipality sets the energy goals and ambitions for the region in their municipal masterplans. One of the ambitions set by the municipality is to be CO_2 - neutral by 2035 (Gemeente Groningen, 2018). The goal of CO_2 - neutral by 2035 is subsequently annually monitored by the municipality of Groningen. Although many business and companies are involved in achieving this goal, the goal itself is set, monitored and regulated by the municipality (Gemeente Groningen, 2019). Meaning that this can be considered as a regulating role of the municipality (see table 3).

4.3.2 Network steering

Next to that, local actors and parties do have an active role in deciding on how to get to those energy goals and ambitions together with the municipality. In the light of CO_2 - neutral by 2035, 43 partners of the municipality, including GP (Groningen Energieneutraal, 2023), sat together and collectively

created different scenarios in which the energy ambition could be achieved (Gemeente Groningen, 2018). By inviting different sectors and partners, like GP, to the table, the municipality takes on a role that is no longer regulating, but rather network steering, in which the municipality sets up a network of stakeholders in which there is co-decision making process present (see table 3).

4.3.3. Stimulating

Furthermore, on the executional side there are several projects running, regarding the local energy transition, in which the municipality and GP collaborate. Some of these projects are initiated by GP and others are initiated by the municipality (appendix IIa). When a project is initiated, the initiator, which is one of the two parties, the municipality or GP, ask the other party for support or help. Meaning that both parties can take on a leading role in energy related projects (appendix IIa). This means that the municipality can be involved in energy projects, initiated by GP, as a supporter or helper. Next to this, the municipality additionally provides GP with financial support in order to let them set up and execute their own plans and projects (appendix IIa) (Klimaatakkoord, 2022). This indicates that the municipality stimulates GP to act independently, which suggest a stimulating role in the ladder of government participation (see table 3).

4.3.4 Facilitating/enabling

Additionally, the municipality looks at GP as a business partner. Often GP gets hired by the municipality in energy related projects to fulfil the role of the consultant between the municipality and citizens (appendix IIa). GP then makes sure that governmental plans can connect to the concerned citizens in the neighbourhood and that the citizens can voice their wishes, concerns, desires and opinions on the plan or project. Next to that, GP gets the space to act as an umbrella citizen initiative for the whole municipality. This entails that GP helps out small and/or beginning (energy) initiatives to get experience, knowledge and expertise to grow (appendix IIc). This means that GP can help the municipality with energy plans and projects by connecting, inviting, informing and involving the right neighbourhood initiatives. Meaning that GP gets space from the municipality to act as an intermediate between government and citizens initiatives. By giving GP an consultant role in their collaboration and by giving them freedom to support and connect to small initiatives it can be indicated that the municipality takes on a facilitating or enabling role (see table 3).

4.3.5 Letting go

GP is a completely independently governed and coordinated CEI, that consist of a board and multiple experts (Grunneger Power, 2011a). In many of their projects GP acts independently from the municipality and therefore municipal actors do not interfere with GP. Therefore, it can be said that the municipality and GP are both independent bodies that work together in the local energy transition in Groningen. Although GP is an independent initiative, it still partly depends on the financial support of the municipality (appendix IIa), making GP not an entirely independent actor in the local energy transition.

Rung	Role of municipality	Who coordinates, who initiates and who decides	Practices of the municipality
5	Regulating	The municipality coordinates, decides and initiates energy ambitions for the region.	CO_2 - neutral by 2035 (Gemeente Groningen, 2018).
4	Networking steering	The municipality sets up gatherings and networks	43 partners of the municipality participated

3	Stimulating	for stakeholders to participate in the decision-making process. The municipality supports, helps and stimulates GP as an initiative to set up their own plans and projects.	in co-decisions on achieving CO_2 - neutrality by 2035. Financial support through subsidies is granted to GP. And the municipality participates in projects initiated by GP.
2	Facilitating/enabling	The municipality hires GP as consultant. Also, space is given to GP to act as an umbrella initiative to support other initiatives.	In energy projects and plans by the municipality, GP is often hired as an consultant bridging the gap between citizens and government. In their role as consultant, GP connects involved citizens and neighbourhood initiatives to form a network.
1	Letting go	GP is an independent initiative in the energy transition and is selfgoverned and coordinated.	The municipality grants financial means to GP.

Table 3: The ladder of government participation linked to the municipality of Groningen regarding the local energy transition. Based on the model by Mees et. al. (2019).

From table 3 it can be concluded that the municipality has roles reaching from 'regulating' with a high level of government participation, to 'letting go' with a low level of government participation (see figure 6).

4.4 Collaboration between the municipality and GP

Both the role from the municipality as the role of GP go as far as the highest level on the stairs of participation. The role of the municipality regarding the collaboration with CEIs in the local energy transition goes as far as 'letting go' and the role of GP goes as far as 'proffering' (see figure 6). Meaning that there is a high degree of citizen power and participation and a low degree of government participation. At the same time the municipality also still regulates, steers, stimulates and facilitates certain parts of the process in the local energy transition. However, because of the high degree of citizen participation and influence from GP in the collaboration with the municipality, it can be stated that their collaboration involves a high degree of citizen involvement and participation.

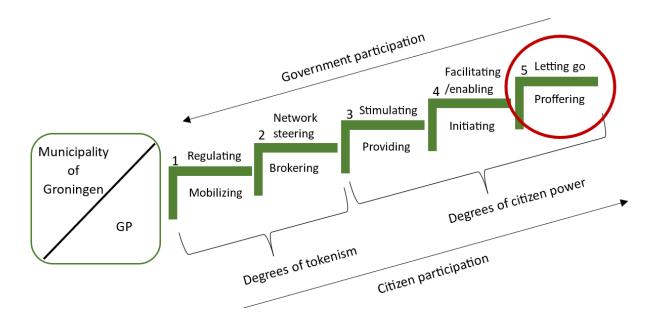


Figure 6: The stairs of government and citizen participation in the local energy transition. In the case of the municipality of Groningen and GP, their participation and therefore also collaboration go as far as the highest level of the stairs (marked in a red circle).

Chapter 5: Discussion

Both the municipality of Groningen and GP rank among the highest level of the stairs of government and citizen participation in the local energy transition, relating to all the roles that are stated in the five role model by *Wagemans et. al.* (2019) and the government participation model by *Mees et. al.* (2019). One thing that stands out however, is that GP goes beyond their role as individual CEI and is also acting as an umbrella initiative that is overarching multiple small scale CEIs and cooperatives in the municipality of Groningen.

Furthermore, the collaboration between the municipality and GP is situated on the highest level of the stairs of participation. Nevertheless, there is still a tension between local governmental influence (top-down) and citizen influence (bottom-up). The government on the one hand has the capacities and experience to lead the energy transition, but is often lacking the knowledge of neighbourhood scale needs and wishes from residents, which is important since this knowledge is crucial for plans to succeed. On the other hand, local neighbourhood CEIs have the relevant knowledge about their neighbourhood, environment and desires but lack the expertise and experience to have enough influence in the local energy transition.

Chapter 6: Conclusion

In this study the collaboration between the municipality of Groningen and GP in the light of the energy transition and Dutch regional energy strategy (RES) was explored. To explore how the collaboration between the municipality and GP works and to answer the main question: 'How are local governments and citizen energy initiatives (CEIs) currently collaborating in the region of Groningen: A case study on the collaboration of energy initiative Grunneger Power and the municipality of Groningen in the local energy transition', it is important to look at what roles the municipality and GP took on in their collaboration in the local energy transition. The roles were analysed by means of the stairs of participation model based on the five role model by Wagemans et.

al. (2019), the government participation model by *Mees et. al.* (2019) and the ladder of participation by *Arnstein* (1969).

Based on the results of chapter 4 (see figure 6), the collaboration of the municipality and GP ranks among the highest level of the stairs of participation. Meaning that there is a high level of citizen participation and influence and a low level of government participation.

Next to that, does GP not only act as an individual CEI, but it goes beyond the borders of an CEI and also acts as an umbrella initiative that helps and supports multiple small scale CEIs. Future research can be done on how the role of umbrella initiatives can have an influence on the local energy transition and how they can have an influence on the collaboration with local governments.

Additionally, policy implications for the RES Groningen can be to explore the influence of CEIs in the process of vision and policy making regarding the local energy transition. Currently, the municipality of Groningen has a regulating and top-down approach in setting the energy ambitions for the region, while CEIs can have valuable input in the energy visions and ambitions, since they know what citizens can accomplish, need and desire.

Finally the results of this study show how the collaboration between a local government and CEI can be situated and how this collaboration can take place. Since the goal of the RES region Groningen is one of the most ambitious goals of all RES regions, it is unclear how the collaboration between local governments and CEIs in less ambitious RES regions takes place. Therefore, additional research needs to be done in other RES regions.

A reflection of the process and results of this bachelor project can be found in appendix IV. Additionally the acknowledgements can be found in appendix V.

References

- Arnstein, S.R., 1969. A Ladder Of Citizen Participation. Journal of the American Institute of Planners 35, 216–224. https://doi.org/10.1080/01944366908977225
- Castán Broto, V., 2019. Urban Energy Landscapes, 1st ed. Cambridge University Press. https://doi.org/10.1017/9781108297868
- Gemeente Groningen, 2023. Groningse Duurzame huizendag op zaterdag 13 mei. URL https://gemeente.groningen.nl/groningse-duurzame-huizendag-op-zaterdag-13-mei (accessed 6.13.23).
- Gemeente Groningen, 2019. Over het platform Groningen CO2- neutraal 2035. URL https://www.groningenco2neutraal.nl/energieakkoord (accessed 6.13.23).
- Gemeente Groningen, 2018. Routekaart Groningen CO2-neutraal 2035: Strategie 2023 en eindbeeld 2035. Groningen.
- Groningen Energieneutraal, 2023. Bijdrage partners routekaart. Groningen CO2-neutraal 2035. URL https://www.groningenco2neutraal.nl/co2-monitor/bijdrage-partners-routekaart (accessed 4.26.23).
- Grunneger Power, 2023. Duurzame huizendag najaar. Agenda. URL https://www.grunnegerpower.nl/evenementen/duurzame-huizendag-mei-2/ (accessed 6.1.23).
- Grunneger Power, 2011a. Over Ons. URL https://www.grunnegerpower.nl/over-ons/ (accessed 5.23.23).
- Grunneger Power, 2011b. Ondersteuning voor een wijkenergieplan. Projecten. URL https://www.grunnegerpower.nl/projecten/cooperatieve-aanpak/ (accessed 6.1.23).
- Grunneger Power, 2011c. Projecten. URL https://www.grunnegerpower.nl/projecten/ (accessed 6.1.23).
- Hieropgewekt, 2018. De coöperatie: een unieke rechtsvorm. URL https://www.hieropgewekt.nl/kennisdossiers/cooperatie-een-unieke-rechtsvorm (accessed 3.9.23).
- Hölscher, K., Frantzeskaki, N., Loorbach, D., 2019. Steering transformations under climate change: capacities for transformative climate governance and the case of Rotterdam, the Netherlands. Reg Environ Change 19, 791–805. https://doi.org/10.1007/s10113-018-1329-3
- Klimaatakkoord, 2022. Een activistische onderneming voor burgers. URL https://www.klimaatakkoord.nl/serie-aanpakkers/aanpakker-grunneger-power (accessed 6.13.23).
- Klimaatakkoord, 2021. Bouw en Energie. URL https://www.klimaatakkoord.nl/gebouwde-omgeving (accessed 6.12.23).
- KVK, CBS, n.d. De Coöperatie. De Coöperatie. URL https://ondernemersplein.kvk.nl/de-cooperatie/ (accessed 4.26.23).
- Mees, H.L.P., Uittenbroek, C.J., Hegger, D.L.T., Driessen, P.P.J., 2019. From citizen participation to government participation: A n exploration of the roles of local governments in community initiatives for climate change adaptation in the N etherlands. Env Pol Gov 29, 198–208. https://doi.org/10.1002/eet.1847
- Nationaal Programma RES, 2019. Dutch National Programme Regional Energy Strategies. URL https://www.regionale-energiestrategie.nl/english/default.aspx (accessed 2.27.23).
- Oteman, M., Kooij, H.-J., Wiering, M., 2017. Pioneering Renewable Energy in an Economic Energy Policy System: The History and Development of Dutch Grassroots Initiatives. Sustainability 9, 550. https://doi.org/10.3390/su9040550
- Proka, A., Hisschemöller, M., Loorbach, D., 2018. Transition without Conflict? Renewable Energy Initiatives in the Dutch Energy Transition. Sustainability 10, 1721. https://doi.org/10.3390/su10061721
- RES Groningen, 2021. RES 1.0 Groningen, Regionale enegie strategie. Groningen. Rijksoverheid, 2019. Klimaatakkoord.

- Seyfang, G., Haxeltine, A., 2012. Growing Grassroots Innovations: Exploring the Role of Community-Based Initiatives in Governing Sustainable Energy Transitions. Environ Plann C Gov Policy 30, 381–400. https://doi.org/10.1068/c10222
- Sloot, D., Jans, L., Steg, L., 2019. In it for the money, the environment, or the community? Motives for being involved in community energy initiatives. Global Environmental Change 57, 101936. https://doi.org/10.1016/j.gloenvcha.2019.101936
- Soares da Silva, D., Horlings, L.G., 2020. The role of local energy initiatives in co-producing sustainable places. Sustain Sci 15, 363–377. https://doi.org/10.1007/s11625-019-00762-0
- Uyar, T.S. (Ed.), 2017. Towards 100% Renewable Energy, 1st ed, Springer Proceedings in Energy. Springer International Publishing, Cham. https://doi.org/10.1007/978-3-319-45659-1
- van Dijk, J., Wieczorek, A.J., Ligtvoet, A., 2022. Regional capacity to govern the energy transition: The case of two Dutch energy regions. Environmental Innovation and Societal Transitions 44, 92–109. https://doi.org/10.1016/j.eist.2022.06.001
- Wagemans, D., Scholl, C., Vasseur, V., 2019. Facilitating the Energy Transition—The Governance Role of Local Renewable Energy Cooperatives. Energies 12, 4171. https://doi.org/10.3390/en12214171
- Walker, G., Devine-Wright, P., 2008. Community renewable energy: What should it mean? Energy Policy 36, 497–500. https://doi.org/10.1016/j.enpol.2007.10.019

Appendices

la: Interview guide municipality employee

Openingsvragen:

- Kunt u uzelf voorstellen? Wie bent u?
- Wat is u rol binnen de gemeente?
- Hoe lang werkt u hier al?
- Wanneer heeft u voor het eerst kennis gemaakt met Grunneger Power?
- Hoe lang werkt u al met GP?

Hoofdvragen:

- Hoe zijn jullie in contact gekomen met GP?
- Op welke gebieden werken jullie samen met GP?
 - Wat voor projecten lopen er met GP?
 - o Met welk project bent u bezig?
- Op wat voor manier staat u in contact met GP?
 - o Zijn er speciale samenwerkingsvormen tussen jullie en GP? Of werkgroepen?
 - Hoe intensief is u contact met GP? Hoe vaak spreekt of overlegt met u hen? Regulier contact of incidenteel? Formeel of informeel?
- Wat is de rolverdeling in de projecten tussen de gemeente en GP?
 - o Hoe zou u de rol van de gemeente hierin omschrijven?
 - En hoe zou u de rol van GP hierin omschrijven?
 - Zijn er verschillen tussen de rol van GP en de gemeente?
 - Zo ja? Wat zijn die verschillen?
 - Wat voor rol heeft u in de projecten/samenwerking met GP?
 - o Bent u tevreden over die rolverdeling? Zou de rolverdeling anders kunnen?
 - Verschilt de rolverdeling per project?

- Zo ja? Wat is het verschil? En kunt u uitleggen waarom dat verschil er is?
- Is er sprake van hiërarchie in de rolverdeling? Heeft er een partij meer macht of mogelijkheden dan de ander? Is er één aansturende partij?
- Is er een verschil met de samenwerking met GP en andere initiatieven?
 - Zo ja? Wat voor verschil(len)?
- Wat zijn positieve aspecten van de samenwerking met GP?
 - o Heeft de samenwerking bijgedragen aan jullie energie doelen als gemeente?
 - Zo ja? Wat heeft het bijgedragen aan jullie doelen als gemeente? Op welke manier?
- En wat zijn nog verbeterpunten in de samenwerking met GP? Wat loopt nog niet zo soepel?
- Hoe ziet u de toekomst van de samenwerking met GP?
 - o Zijn er redenen waarom de samenwerking met GP zal standhouden of juist niet?
 - o Hoe ziet u de rol van de gemeente hierin?
 - Behouden jullie je rol zoals die nu is? Gaat GP meer taken overnemen of uitbreiden? Of gaat juist het tegenovergestelde gebeuren?
 - o Krijgt GP misschien meer mogelijkheden of macht? Of juist het tegenovergestelde?

Afsluitende vragen:

- Als ik andere medewerkers of collega's van u zou interviewen met dezelfde vragen, zouden die denkt u (ongeveer) dezelfde antwoorden geven?
- Zijn er nog personen die ik moet/kan spreken m.b.t de samenwerking van de gemeente met GP?
 - Zo ja? Heeft u de contactgegevens van deze personen? Zou u me kunnen doorverwijzen naar deze personen?
- Heeft u nog vragen of opmerkingen? Wilt u nog ergens op terugkomen?
 - Was er nog iets onduidelijk? Of is er nog iets wat meer uitleg vraagt?
- Hoe vond u dit interview?

Ib: Interview guide experts

Ib1: Interview guide Expert I

Openingsvragen:

- Kunt u zichzelf voorstellen? Wie bent u en wat voor werk doet? Waar houdt u zich mee bezig in u werk?
- Hoe verhoudt u werk zich tot de lokale energie transitie en tot lokale energy initiatieven? Hoe komt dit terug in uw werk?
- Heeft u weleens gehoord van het energy initiatief Grunneger Power?

Hoofdvragen:

- Wat weet u van Grunneger Power? Bent u bijvoorbeeld bekent met de projecten waarmee Grunneger Power bezig is?
 - Voorbeelden van project zijn:
 - Buurtwarmte en warmtenet in stad (selwerd)
 - Ondersteuning bij buurtenergieplannen
 - Zonnepanelen op huurhuizen
 - Zonneparken (vierverlaten en meerdorpen)
 - MAKING CITY

- Kunt u iets vertellen over de rol van energie initiatieven (en dus ook Grunneger Power) in de energie transitie?
 - Op wat voor manier hebben zij toegevoegde waarde?
 - O Wat is hun toegevoegde waarde aan de energie transitie?
 - o Zo nee? Waarom niet?
- Wat is de rol van lokale overheden zoals de gemeente Groningen in de energie transitie? Wat is hun toegevoegde waarde?
 - Bent u bekend met de ambitie van de gemeente om CO2-neutraal te zijn in 2035?
 - Zo ja? Wat denkt u dat energie initiatieven voor rol hebben zoals (GP) in deze ambitie?
- Hoe denkt u dat de Gemeente Groningen en GP samenwerken om deze ambitie waar te maken?
 - Wat is de rol van de gemeente in deze samenwerking? (faciliterend?
 Ondersteunend? Leidend? Dominant? Of juist afzijdig? Controlerend?)
 - Wat is de rol van GP in deze samenwerking? Initiator? Faciliterend? Leidend?
 Dominant? Helpend? Onderdanig?
 - o Hangt hun rol af van het project? Verschillen de rollen per project?
 - Wat voor projecten (op het gebied van de energie transitie) lopen er nu waarin de gemeente samenwerkt met energie initiatieven?
- Hoe ziet u de toekomst van energie initiatieven in energie transitie?
 - Zullen energie initiatieven groeien of uitbreiden? Zich samenvoegen? Zich verminderen?
 - Zullen nieuwe vormen van energie initiatieven ontstaan? Als deel van een lokale overheid? Of projectgroepen met gemeentes?
- Hoe ziet u de toekomst van de samenwerking tussen lokale overheden (zoals de gemeente Groningen) en energie initiatieven (zoals GP). (Of wat is een verschil met 10jaar geleden en nu in de samenwerking tussen lokale energie initiatieven en lokale overheden).
 - Hoe zal deze samenwerking eruit zien? (Hoe zag deze samenwerking eruit?)
 - Zullen de rollen van deze partijen veranderen? (Zijn de rollen van de partijen verandert? Zo ja? Hoe zijn die rollen verandert? Wat waren de rollen vroeger en hoe zijn de rollen nu?)

Afsluitende vragen:

- Zijn er nog projecten of andere interessante ontwikkelingen waarvan ik op de hoogte moet zijn m.b.t. tot mijn onderzoeksvraag? (dus projecten waarbij de gemeente samenwerkt met energie initiatieven of artikelen op dit gebied?).
- Heeft u nog vragen en opmerkingen?
- Hoe vond u dit interview?

Ib2: Interview guide Expert II

Introduction questions:

- Can you introduce yourself? What kind of work do you do? And how does it relate to the local energy transition and energy initiatives?
- Are you familiar with GP? When did you first hear of citizen energy initiative GP? How are you in contact with GP?

Main questions:

- Can you tell a bit more about the project MAKING city here in Groningen?
 - o Something about the PED development? Can a tell a bit more about this?
 - O How are you involved in that?
 - O How is GP involved in that? What is their role?
 - o How is the municipality involved in it? What is their role?
 - o Are there more parties involved?
- Can you tell me a bit more about the role of energy initiatives in the energy transition in general? For example about GP? What is their added value to the energy transition?
 - O What role do they take on?
- And how do you think the municipality contributes to the local energy transition?
 - O What role do they take on in this?
 - Guiding? Leading? Or supporting? Facilitating?
- How do the municipality and GP collaborate in the energy transition?
 - What kind of projects are there in which they are collaborating?
 - O How do they divide the roles when collaborating?
 - o Is there always one party who takes on the leading role?
 - o Is there always one party who initiates projects and actions?
 - How would you describe the role of the municipality in their collaboration with GP?
 - How would you describe the role of GP in their collaboration with the municipality?
- How do you see the future of the collaboration between the municipality and GP with regards to the local energy transition?
 - o Will the roles change?
 - o Is there going to be a more top-down approach or bottom-up?

Closing questions:

- Are there any other projects or articles that could tell me more about this topic, that you want to share or that you know of?
- Do you have any questions or remarks?
- How did you like this interview?

IIa: Summary interview with employee Municipality of Groningen

GP is more than just an energy initiative in the municipality. They function as an energy umbrella for the municipality of Groningen. They support and help out small energy initiatives. When other energy initiatives have questions or problems they can come to GP for help. The municipality pays GP to maintain and execute this supporting role to other energy initiatives. Furthermore, since GP is an energy initiative it always needs to seek for financing and other financial support. The municipality plays a key role in the financing and subsidizing of GP.

The municipality mainly collaborates with GP in order to have fitting and accessible communication with their citizens and residents. Because GP is founded and run by citizens they speak to citizens more than a local government does. This helps the municipality in order to get their plans and points across when it comes to local plans on the energy transition. GP mainly involves and mobilizes residents for municipal energy plans in the neighbourhood. They organize residents platforms and meetings to talk about the energy plans (created by the municipality) that take place or will take place in their neighbourhood. You could say that the municipality hires GP to take on a consultant role in energy projects between government and citizen. The municipality sees GP not only as a local energy initiative but also as a business partner that they can hire for their energy projects. GP is a trusted partner of the municipality and has a lot of experience and manpower.

Next to that the municipality does not always take on a leading role in the collaboration with GP. The municipality and GP often propose a collaboration in an energy project to each other. Meaning that GP asks the municipality for support in their projects and that the municipality asks GP to help in their projects. When the municipality asks GP for help in their projects, GP gets or takes space from the municipality to fill in the project in their own way. In this way GP maintains the role of being an independent activistic organization in the local energy transition. When working for projects of the municipality GP profile themselves not as an unit of the municipality, but rather as an organization for the residents. In those projects they try to highlight both the residents side and the municipal side of the story and as said before they take on the role of the consultant.

Between various projects of GP and the municipality the hierarchy of the two actors variate. This depends on who the initiator is of the project is. The initiator often takes on the role of the project leader. Both GP and the municipality can be initiators/project leaders in their collaboration.

The future of their collaboration together depends on the regulations that are in place for the municipality. For example, the municipality cannot always hire GP in their projects because there is a regulations that states that the municipality also has to give other organizations and initiatives a change. Also the municipality is not allowed to spend more subsidy on GP then is anchored in their budgets. This can possibly hinder their collaboration.

IIb: Summary interview with expert I and researcher on the local energy transition in Groningen

The role of GP and other energy citizen initiatives is mainly to involve residents in the energy transition. Because GP is an initiative, created and run by residents, they speak to residents more than a local government does when it comes to the energy transition. They are a bottom-up initiative that plays into the interests of residents in the field of energy and the energy transition.

The role of the municipality on the other hand is to balance the needs of the residents with national, provincial and regional visions and strategies. They are there to protect the common interests. They are contributing to the energy transition by setting goals and ambitions and by making masterplans on how to tackle the energy transition. Furthermore, they have the capacities and tools to make a difference in the energy transition. They have budget, ties with the business sector and contact with knowledge centres. Therefore it could be said that the municipality has an guiding or controlling role in the local energy transition. But it also has to be said that GP is the one who makes sure that citizens and residents feel addressed in their needs and problems regarding the energy transition. Therefore GP makes sure the residents and citizens are involved and are participating.

In the future more collaboration between energy initiatives will be seen. At the moment there are a lot of small energy initiatives in the municipality but also the region of Groningen. They all have their own small projects, but if in order to contribute more to the energy transition, bigger projects are necessary. A small initiative does not have the capacity to take on a big project on their own. Therefore, multiple initiatives need to gather to organize and maintain these projects. This can already been seen in the municipality of Groningen. In which Grunneger Power acts as an overarching energy initiative for all energy initiatives in the municipality.

The collaboration between the municipality of Groningen and GP will stay somewhat the same in the future. Citizen initiatives most likely will not have leading roles in energy transition project, because they just lack the capacity to do so. The municipality has more capacities. Such as the role of creating masterplans and visions for the region and get national and provincial support for this. Also does the

municipality have more budget, manpower and opportunities that can guide and control the local energy transition. Overall the energy transition will have an top-down approach.

IIc: Summary of interview with expert II and researcher in the field of the local energy transition and the project 'Making city'

Making City is a European project in which the city of Groningen plays an important role. The city of Groningen was designated as one of the lighthouse cities, meaning that Groningen is the test city for this project. The project is about creating neighbourhoods that will generate more energy than is used in the light of local energy transitions. Two districts in the city were chosen to be part of this project. The North district: Paddepoel and Zernike and the South district: the neighbourhood surrounding the Europapark station. In this project the municipality and GP are both involved.

The role of the municipality is very clear. They are the project leaders. The have a leading and guiding role in the process and outcome of the project. Furthermore, they make sure that the project is monitored after it is implemented and done. Also the municipality serves a supportive role towards other stakeholders in the project.

GP on the other hand serves other roles in the project. They are more concerned and involved in the process of the project. Their role is to network among citizens and to raise awareness and spark energy activism among them. They also serve as an intermediate between citizens and the municipality. Next to that GP often helps small start-up citizen initiatives in the neighbourhoods to gain experience, knowledge and independence, so that they can grow as an citizen initiative. GP for example helps initiatives with marketing, facilitating and organising meetings and gatherings with members and residents in the neighbourhood. This means that GP is not only just a CEI, but they are also a supportive facet to small initiatives and serve a brokering and intermediate role between those initiatives and the municipality in the project of Making City.

Overall there needs to be searched for a balance between the power of the municipality and the power of initiatives in projects like these regarding the local energy transition. On the one hand it is nice to have the municipality as a leader in a project such as Making City. Since the municipality has the budget, manpower and time. On the other hand you don't want to give the municipality to much influence, because this calls for opposition among local residents. Residents want to decide for themselves what happens in their neighbourhood and street. This is why you also want to have the influence of citizens and initiatives in the local energy transition. They know what is best for their neighbourhood. They have a network and community in their neighbourhood to get people along. However, often those small neighbourhood initiatives don't have the expertise and knowledge to have a significant influence on the local energy transition. Therefore the municipality and initiatives need to collaborate and seek for a balance in their collaboration. This describes the tension between a top-down and bottom-up approach that can be present in the local energy transition.

GP has a role in this tension by helping small initiatives to grow and gain experience. They help initiatives by facilitating and organising neighbourhood meetings for members and residents. Also expertise and knowledge is shared. In this way small initiatives gain the capacities they need to have a significant influence in the local energy transition and to stand their ground in the collaboration with the municipality in energy projects.

Instemmingsformulier

Onderzoek naar de samenwerking tussen energie initiatief Grunneger Power en de gemeente Groningen

1. Doel van het onderzoek:

Het doel van dit onderzoek is om een zo goed mogelijk beeld te krijgen van de samenwerking tussen het energie initiatief Grunneger Power en de gemeente Groningen op het gebied van de lokale energietransitie.

2. Data die wordt verzamelt:

De data die met dit onderzoek wordt verzamelt is audio data. Het interview zal met toestemming van de deelnemer worden opgenomen met een audiorecorder.

3. Datagebruik en bescherming:

De data die wordt verzamelt met dit onderzoek zal uitsluitend worden bekeken en beluisterd door de onderzoeker van dit project. De kern van het interview zal worden samengevat en opgeschreven in het onderzoek. Ook kunnen citaten uit het interview gebruikt kunnen worden in het onderzoek. De opnames die gemaakt worden tijdens het interview zullen verwijderd worden na het einde van dit onderzoek in juni.

4. Rechten van de deelnemer:

De deelnemer heeft de optie om zijn/haar anonimiteit te waarborgen in het interview. Ook mag de deelnemer op elk moment aangeven om te stoppen met het interview. Daarnaast staat het de deelnemer altijd vrij om vragen te stellen voor, tijdens en na het interview. Verder kan de deelnemer voor vragen en klachten over het interview terecht bij de onderzoeker, de begeleider van de onderzoeker of de Rijksuniversiteit van Groningen (zie contact informatie).

5. Hierbij geeft de deelnemer aan het instemmingsformulier te hebben doorgelezen en op de hoogte te zijn van zijn/haar rechten. Hierbij stemt de deelnemer ermee in om deel te nemen aan het onderzoek:

Datum van interview	Naam deelnemer	Handtekening deelnemer

6. Contact informatie:

Onderzoeker:

- Marg Schoenmaker

- Email: m.j.schoenmaker@student.rug.nl

Begeleider onderzoeker:

- Dr. F.M.G. (Ferry) van Kann

- Email: f..m.g.van.kann@rug.nl

IV: Reflection on the process and results of this bachelor project

The results of this study are based on energy policy and vision documents of the municipality, monitoring websites and websites of GP and other CEIs together with three interviews conducted with an employee of the municipality and two experts in the field of the local energy transition in Groningen. Because I only got to change to speak to one employee of the municipality and two experts, there is no inside information about the side of GP in the collaboration with the municipality. This is of course very unfortunate, but I compensated for this by speaking to the two experts in the field of the local energy transition in Groningen, that did research on or knew more about GP and the local energy transition in Groningen, and by conducting a thorough literature research.

V: Acknowledgements

Finally, I want to thank the employee of the municipality and two experts in the field of the local energy transition for their willingness to participate in an interview for this study and for their valuable contribution to this bachelor project. They shared interesting information about the collaboration between the municipality and GP, the local energy transition, citizen initiatives and energy projects in the region.

Additionally, I want to thank my peer Dieke de Lange for her peer review on my bachelor project concept and for her feedback throughout the whole process of conducting my research and writing this paper.

To end, I want to thank my supervisor Ferry van Kann for supporting and guiding me through this process of writing my bachelor thesis.

V: Presentation preliminary findings, research step 4









Literature review: Ongoing process

- Amstein's Ladder
 Energy collabs and initiatives:
 Energie Loket: Duurzaam Groningen
 Energy Umbrella: Energie van ons.
 Grunneger Power:
 Projects in multiple neighbourhoods of Groningen

- of uroningen

 Municipal goals and plans:

 CO2- neutral by 2035

 Together with GP a.o., initiatives discovering possibilities for new energy projects.
- Documents on municipal goals and policies regarding energy transition and energy initiatives.

Contents ■ Methodology Data collection & preliminary findings

"How is the municipality of Groningen currently facilitating citizen energy initiatives in the region: A case study on the pioneering energy initiative Grunneger Power, the collaboration between the municipality and GP on energy projects."

- Sub questions:
 Institutional framework
 Roles and collaboration





Qualitative research

- Interviews

 Semi-structured
 Semi-structured
 Participants of municipality and Grunneger Power (GP)
 Answering sub questions about roles and collaboration
 Answering sub question about institutional framework

Interviews: In progress...

- Interview guide
- In contact with municipality
- Still trying to reach GP ■ Set up consent form



NEXT STEPS

- Make appointment with employee municipality
- Get in contact with GP. Calling or visiting in person
- Plan B: Interview a professor at university or employee of other energy initiative
- Continue with literature research

