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Construction of wind turbine, N33
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JUSTICE IN THE ENERGY TRANSITION

HOW CITIZENS OF MEEDEN AIM TO ACHIEVE ENERGY JUSTICE

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Abstract

This research concerns the topic of justice in the energy transition. The energy transition is likely to produce and perpetuate existing inequalities. It is therefore relevant to uncover how and by whom this is done. Here, this is exemplified by a case study of wind park N33 in Meeden, Groningen in the Netherlands. It is attempted to discover how energy justice is envisioned by the government through a policy analysis, and how citizens strategize to gain benefits or avoid burdens of the transition by interviews with citizens of Meeden. The policy analysis is conducted on two documents, the Energietransitieplan 2015-2019 and the Inpassingsplan 2017. Energy justice is envisioned as participation and compensation. Citizens of Meeden indicated that there should be an equal distribution of burdens and benefits, options for participation, and revenues should be invested in the area. Participation methods have, so far, felt like 'checking a box' and not as a chance for them to join in the decision-making process. They deployed several strategies in attempt to increase their influence. These included, among other things, the foundation of a citizen protest group, collecting signatures, or occupying the local townhouse. For the energy transition to be just, inclusion and participation can play important roles in increasing social acceptance, driving innovation, and distribute the burdens and benefits equally.

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List of Abbreviations

NMP4	Nationaal Milieubeleidsplan 4/National Environmental Policy Plan 4
RIVM	Rijksinstituut voor Volksgezondheid en Milieu/Institute for Public Health and Environment
NAM	Nederlands Aardolie Maatschappij/Dutch Petroleum Company
TFE	Taskforce Energietransitie/Taskforce Energy Transition
NIMBY	Not In My Backyard
PBL	Planbureau voor de Leefomgeving/Planning bureau for the Living Environment
RES	Regionale Energie Strategie/Regional Energy Strategy
Chw	Crisis-en herstelwet/Crisis en recovery law
SvWOL	Structuurvisie Wind op Land/Structure Vision Wind Energy on Land
MER	Milieu Effect Rapportage/Environmental Impact Report

1. Introduction

In this research a deep dive into the generation of wind energy on land will be taken. Wind energy on land is generated mostly in the northern region of the Netherlands, the provinces Drenthe, Noord-Holland, Zuid-Holland, and Groningen especially as a part of efforts to minimise climate change effects. Over the last century humans have severely disturbed the Earth's ecosystems by polluting the environment, exploiting its resources, and harming ecosystems worldwide. In order to minimise further threats that are expected because of climate change, we have to drastically adjust the way we live and consume. Although we have been aware of climate change effects, there has not been made substantial change in our global consumption behaviour. There have been drafted several international agreements – Kyoto Protocol, Paris Agreement – that call for global action. To maintain a habitable planet for mankind there is a variety of measures necessary. Instead of exploiting resources, we need to reuse them. One important part of reaching the goals that have been set in international agreements is the transition from fossil fuels to renewable energy. With the energy transition fossil fuels will be phased out and we will transition to renewable alternatives (Chapman, McLellan, & Tezuka, 2018). Numerous countries worldwide have set ambitious renewable energy targets. Using renewables such as bioenergy, geothermal energy, hydropower, solar energy, wind energy and ocean energy these goals ought to be met.

Although needed, this transition poses a new set of challenges. New types of raw materials, technologies, resources, and land are required to realise the energy transition. The different types of renewables lead to different practical and political implications. The most obvious implications would perhaps be the technicalities. How to design the most optimal machinery to generate the most energy in such a way that the carbon emission is minimal to zero. The optimisation and implementation of renewables is therefore often seen as a technical matter that requires technical solutions. But in practice, the energy transition also has social implications. In the case of wind energy, the turbines need to be placed somewhere and this often leads to dissatisfaction with people living in the surrounding area. The social implications of the energy transition are in some cases a serious threat to life and health. An example here is Congo, where people work in toxic environments to mine minerals that are used for electric batteries. In some cases, it is a threat to nature. In Norway, the mining for minerals needed for the energy transition (such as copper) threatens the salmon fish stock as mine waste is dumped into the Fjords

(Johnsen, 2016). In some cases, it is also a threat to culture. Wind energy and mineral mining in the living area of the Sámi, which stretches over Finland, Norway, Sweden, and Russia, threaten cultural practices such as reindeer husbandry (Cambou, 2020). The social implications do vary from context to context. In the situation of Congo, it could be argued that the mining of minerals takes place in a socio-political context where it is harder to ensure safe working conditions in a healthy environment (Sovacool, Hook, Brock, & Turnheim, 2020). Good governance and a social justice system are not in place and corruption levels are high (Matti, 2010). However, despite contextual differences there are parallels to be drawn in the global energy transition. The transition to renewable energy will produce and perpetuate existing inequalities. The winners will profit from cleaner energy resources, and the losers will bear the social and environmental burdens and lack access to opportunities (Carley & Konisky, 2020). Often, these 'losers' are the ones living in the surrounding area of the wind parks. In many cases, including the aforementioned, the local communities carry the burdens. Green goals of national governments are important drivers of the energy transition (Zoomers, 2010). But the renewable energy system will continue to commodify nature, if justice and equity are not incorporated (Martinez, 2017).

Deriving from the concept and movement of environmental justice, this thesis will zoom in on experiences of (in)justice in the energy transition. Although the energy transition is a pressing matter, we should strive for a just transition. Due to the covid pandemic the chosen research area is the Netherlands. Experiences of injustice in the energy transition occur also here, perhaps on a different scale. Like the rest of the European countries, the Netherlands is working towards a carbon free future. To meet the goals of the Paris Agreement, the Netherlands aims to generate 35 TWh of renewable electric energy through wind and solar energy. The Dutch government has set up the Regional Energy Strategy to implement renewable energy plans. The strategies are to be realised by the twelve different provinces of the Netherlands. Each province has its own strategy and its own way of implementing (RES Groningen, 2021). They need to generate a certain amount of renewable energy regardless of what means they use. Each province has created its own regional energy strategy. Wind and solar energy are important components of the renewable energy strategies. This thesis will zoom in on the wind energy situation in Groningen. In Groningen wind energy on land is an important aspect of attaining the goal of renewable energy. Wind turbines have been built and are going to

be built to generate renewable energy both on land and at sea. Although the wind turbines are efficient and becoming more advanced, it has led to some very heavy public resistance. The not-in-my-backyard discussion has become apparent in this context as well. People are generally in favour of renewable energy that is more sustainable and environmentally friendly, but preferably not in their own direct surroundings (or backyard). Especially in Groningen this movement has clashed with local governments. These civil-government clashes slow down wind energy projects and sometimes even prevent them from happening. Some civilians feel left out and unconsidered. They have united themselves in organisations to express this. But the energy transition is happening already and will continue to do so. Therefore, it is important to create trust and support between government officials and the local population. This research will explore experiences of (in)justice by local communities in the energy transition in Groningen. It has become clear that the energy transition causes friction everywhere around the world. Often the people living in the areas of the desired instalments of 'clean energy' vehicles feel underacknowledged in the process. This does not mean, however, that they are victims. Additionally, 'they' are also not a homogenous group. This thesis aims to unfold the power structures, the desires, and views of the citizens of Groningen, and the (assumed) experienced injustice in the context of the energy transition.

1.1 Problem Statement

Solution for climate change adaptation and mitigation are often approached from a technical perspective. However, in Groningen, and elsewhere, the energy transition is as much a social matter as it is a technical one. The instalment of various wind turbine parks has led to resistance, as locals do not feel validated in the process. For decades Groningen has served as supplier of natural energy resources to the rest of Netherlands. In Groningen there have been placed wind turbines and there are plans to build more in the Veenkoloniën. This has led to, in some cases, extreme resistance with people living in the surrounding areas. The wind park in Meeden, Groningen is a heavily contested energy project that led to huge resistance, judicial procedures, and big protests (Hofslot, 2021). Part of the local population was against the wind park, due to several factors: it changes the landscape, there is (possible) nuisance, and perhaps most importantly: only in later stage of the energy projects civilians were able to put forward their view on the project

(Perlaviciute & Squintani, 2019). This led to a rigid development of the wind energy project.

1.2 Context

Worldwide strategies

Governments and organisations worldwide responded to climate change by either adaptation or mitigation, some in lesser extent than others. Adaptation strategies include minimising and adjusting to the impacts of climate change (VijayaVenkataRaman & Goic, 2012). Mitigation strategies include actively reducing greenhouse gas emissions. The search for affordable, renewable energy is part of the mitigation strategies. To do so, the use of fossil fuels needs to be reduced to prevent the planet from warming up any further. With new technologies there have been made advancements in producing renewable energy that is carbon free (Chapman, McLellan, & Tezuka, 2018). Everywhere in the world there will need to be made countless changes, from changing our consumption habits to restricting polluting industries. Right now, although not every country has met the agreements made in Paris 2015, the transition to a more sustainable world has been set in motion (Alova, 2020). As public awareness and pressure increases, governments worldwide incorporate mitigation and adaptation strategies in their agendas. But who decides how these strategies should proceed? This question is also relevant in the transition to renewable energy. This transition requires sacrifices. The road towards a sustainable future is bumpy and hardly linear. The idea of a smooth transition is utopic because there are so many parties involved who all have different interests (Szarka, 2016).

Often, decisions to use land or extract certain resources are made top-down. This sometimes clashes with people using or living on that land. It also has a chance of extracting other resources that locals are dependent on. This threatens the regions' ecosystems and the well-being of their rural communities. For the greater good of the energy transition, communal land is appropriated, and it is justified by the notion that it used to be worthless land and has now become valuable. This discourse of transforming worthless land into valuable land is an important characteristic of the potential injustices of the green energy transition (Terrapon-Pfaff, Fink, Viebahn, & Jamea, 2019). The research that has been done up until now shows that involvement and acknowledgement of local citizens are important. The notion of civilian engagement is important everywhere, also in the Netherlands. As mentioned, we will need a new infrastructure of

energy and energy distribution, different resources, budget, land, manpower, and more (Valero, Calvo, Ortego, Ascaso, & Palacios, 2018). But in a small, densely populated country such as The Netherlands, where and how should the energy transition take place? Answers to these questions will be formed in the upcoming years. But it is important to start asking the right questions before technological solutions have decided for us how the energy transition will proceed.

Groningen

For decades, Groningen has served as an energy region, and they wish to continue to be so. First as a so-called peat colony, later it supplied gas and now it is producing wind energy. The gas extraction has become quite controversial as it has allegedly led to earthquakes which have damaged people's houses. In addition, Groningen did not receive much compensation (Voort & Vanclay, 2015). They were carrying the burdens of the extraction, but hardly joined in the benefits.

Groningen has for a long time been a province where natural resources were and still are being exploited. Groningen is especially rich in gas. In the last energy transition, from oil to gas, Groningen was an important supplier of the resource (Voort & Vanclay, 2015). But today, the gas extraction is a very sensitive issue as it has led to earthquakes (Dost, Ruigrok, & Spetzler, 2017). Among other things, this has caused damage to people's houses (Voort & Vanclay, 2015). The gas extraction has led to utter dissatisfaction with locals (Voort & Vanclay, 2015). People are afraid of the earthquakes, they also fear that because of rising sea levels and the extraction of gas, soil will become soggy and therefore houses will sink (Middel, 2022).

The northern provinces are less densely populated, and regions see a steady trend of depopulation and decline of services (Provincie Groningen, 2015). As the earlier examples showed, areas that are seen as 'underutilised' often see this being used as a justification for a free pass to appropriate land. There are signs that this is also happening in Groningen. Despite promises from the Dutch government, it is expected that in the upcoming year more gas will be extracted (Radar, 2022). This has recently led to a protest in the capital city Groningen, where approximately eight to ten thousands of people joined (Middel, 2022). This is hardly the first time the Groningen people collectively showed their disagreement with the national government. For many years, people living in the gas extraction areas felt unheard.

The instalments of the wind turbines are another example of how, as one citizen puts it, Groningen is becoming an industrial area (Heijmans, 2018). The frustration led to civic resistance that was even marked as terroristic by the National Coordinator Terrorism Combat and Safety (National Coördinator Terrorismebestrijding en Veiligheid, 2019). Several threats related to the wind turbines were made. In some newspapers, the resistance of some is even marked as radicalised (Berg & Dirks, 2019). Last year, several parties involved in the wind turbines park in Drenthe and Groningen were threatened and harassed. These parties included construction companies and energy companies. Two suspects were prosecuted for the threats. Two parties therefore retreated from the wind turbine building projects in Groningen and Drenthe (Hofslot, 2021).

In short, energy has always been approached from an economic and technological perspective, hardly from a social and societal perspective. The questions regarding energy have been related to efficiency rather than how the technologies will land in society. The energy transition has also been regarded as an economic matter for too long, instead of also including the social, societal, and spatial dimensions. But the transition we now face is such an impactful process, the citizen needs to be included. Otherwise, it is going to be very hard to plant all the windmills and solar panel fields that are needed to generate enough renewable energy needed to decarbonise our world.

There has not been done much research yet on the social justice aspect of the energy transition (Heffron, 2021; Chapman, McLellan, & Tezuka, 2018; Evensen, Demski, Becker & Pidgeon, 2018; Outka, 2012), nor has there been done much research on energy justice in the context of Groningen. This research will attempt to explore citizens' strategies to avoid the risks/costs of the energy transition (or gain the benefit) in a detailed manner, so that there will be a better insight in how citizens experience the burdens and the benefits of the energy transition. It will be attempted to answer the following research question:

How is the distribution of benefits and burdens envisioned in the government-led energy transition; and how do people in Groningen anticipate gaining the benefits and/or avoid the burdens?

The following sub-questions will help answer the research question:

1. How is energy transition policy implemented in the Netherlands?
2. What is energy justice?

3. Social acceptance and wind energy

1.2 Relevance

1.2.1 Academic Relevance

This is relevant for various reasons. Scientifically, because up until now a lot of parties involved consider climate change and the energy transition to be an environmental and a technical problem. But the impacts reach further than that. To learn more about the social and political impacts of the energy transition means that more effective plans can be made that involves local communities, so the energy transition can take place as it is necessary. The field of energy justice is quite young (Fairhead, Leach, & Scoones, 2012). Therefore, this research will hopefully add to this debate, as our demand for renewable energy becomes increasingly pressing.

1.2.2 Developmental Relevance

The social relevance is to shed light on the experiences of the Groningen community with regards to the energy transition. How do they experience environmental justice? What is fair for them? And if they are involved, how would they make the energy transition fairer? Governments do need local actors to be on board if they wish to make a substantial change in the way we consume energy. Although local parties could be aware of the necessity of the energy transition, that does not mean they agree with the process and methods used to achieve renewable energy. This research therefore could raise awareness on local experiences and attitudes towards the process of the green energy transition. It eventually could contribute to the energy transition. Because a deeper understanding of all involved parties could lead to policies and plans that are inclusive and therefore more effective.

1. Theoretical Background

This chapter provides for the theoretical framework in which this research takes place. First, a literature review of related and relevant concepts is given. This is followed by an overview of past and current energy policy in the Netherlands and Groningen.

2.1 Literature Review

This section will dive into the literature. There are several concepts that are related to justness in the energy transition. This section dives deeper into the concepts of political ecology, environmental justice, and land grabbing.

2.1.1 Political Ecology

This term was coined in the 1970s and refers to study of the relationships between political, economic, and social factors with environmental issues and changes. It could be considered the forerunner of environmental justice, which has a base in political ecology and community-based activist groups. In his article, anthropologist Eric Wolf, discusses how local rules of ownership and inheritance stand in the middle of the larger society needs and those of the local ecosystem (Wolf, 1972). Historically, political ecology was concerned with understanding the political-economic dynamics regarding resource extraction and the environment in what was then called the 'Third World'. Geographer Piers Blaikie was an influential scholar in the field of political ecology. His work *Political Economy of Soil Erosion in Developing Countries* (1985) has delivered an important contribution to understanding the economic and political drivers of resource degradation and particularly the lack of access to natural resources suffered by poor or marginalised people. Blaikie dissects the subject by researching the social aspects of soil degradation. He states that soil erosion is primarily seen as an environmental problem, rather than "a complex 'socio-environmental' problem" (Blaikie, 1985a). He also disregards the notion that the process of soil erosion is a neutral process, he views it a political-economic issue. Blaikie also argues that soil erosion is a symptom, a result, and a cause of underdevelopment. He reasons that "inequalities between the majority of the rural populations affected by soil erosion and other more powerful groups in access to adequate economic opportunities are both a result and a cause of soil erosion." The focus in his work lies on, what is then called, developing countries, especially in the context of countries with weak governments. In the third chapter of his book, he addresses

conservation policies (Blaikie, 1985a). He lists several components of which one concerns “the question of who pays, who benefits, and who loses.” Especially this component resonates also with the energy justice question. Blaikie bases some of his ideas of the social aspect of soil erosion on the colonial structures that are present in the countries he mentions. Blaikie offers guiding questions to dissect power dynamics in soil erosion, which could also be useful for analysing the power dynamics in the energy transition:

- “What precise groups and classes are affected adversely by [soil erosion]?”
- What power does each of them have in the state apparatus?
- In what ideological terms do these classes or groups perceive the problem of [soil erosion] – causes, blames, solutions?
- Is the problem of [soil erosion] perceived to be important enough for them to unite on this issue so that their combined power leads to a coherent response?” (Blaikie, 1985b).

Importantly, Blaikie states that science, and thereby innovation, is not neutral. Here it is placed in the context of agricultural technology. But it can also be applied to the case of the energy transition. These new ways of generating energy are innovative, but for whom?

2.1.2 Justice and the governance of scarcity

First, the concept of justice will be discussed. David Schlosberg (2007) dissects the concept of justice in his work ‘Defining Environmental Justice’. For several scholars, justice has been explained as a question of equity in the distribution of social goods. It is described as ‘how, and to what end, should a just society distribute the various benefits (resources, opportunities, and freedoms) it produces, and the burdens (costs, risks, and unfreedoms) required to maintain it’ (Brighouse, 1988). In his work *A Theory of Justice* (1971), John Rawls defines justice as ‘the appropriate division of social advantages.’ He thought the guiding principles to decide upon this appropriate division should be made behind ‘a veil of ignorance’ (Rawls, 1971). This would then lead to equal rights for everyone and equal social and economic distribution. He proposes justice as fairness realised by rules to govern a just distribution of social, political, and economic benefits and burdens. This also relates to the concept of good governance, where institutions independently create these rules so every member of society can thrive (Weiss, 2000). There is, however, more to justice than the distribution of goods and/or rights. It is also

important to address the processes that construct maldistribution (Schlosberg, 2007). Justice as recognition is then proposed as a way of defining justice. Iris Young (1990) challenges distribution-based justice by drawing attention to the context in which the unjust distribution exists: what determines poor distributions? Young argues that this is a direct outcome of 'social structures, cultural beliefs, and institutional contexts' (Hunold & Young, 1998). In the academic debate there exists a dichotomy between justice as distribution and justice as recognition. According to Fraser (1997) this is a false dichotomy as 'justice requires both redistribution and recognition'. A third dimension to the concept of justice is the procedural dimension. This refers to justice in the procedures for producing distribution of justice (Schlosberg, 2007).

Environmental Justice

There are numerous definitions of what environmental justice exactly is. Taylor (2000) defines it as protection from contamination and the cessation of the production of toxic materials, but also environmental policies based on mutual respect (as opposed to discrimination), the right to participate, and self-determination. Some scholars use the term 'environmental racism', focusing on the relationship between race and environmental inequities.

The origins of environmental justice can be found in North and South America. It is a movement of the indigenous people. Threats to their way of living have been a powerful catalyst to mobilisation (Schlosberg & Carruthers, 2010). The initial focus in America was on inequity in the distribution of environmental burdens. But justice goes beyond that. It is also tied to race, oppression, and political disenfranchisement (Schlosberg and Carruthers, 2010). In 1991 the First National People of Colour Environmental Leadership Summit took place. During this summit the Principles of Environmental Justice were drafted (First National People of Color Environmental Leadership Summit, 1991). These principles define environmental justice and have been instrumental for the movement. One of the principles reads: "Environmental Justice mandates the right to ethical, balanced and responsible use of land and renewable resources in the interest of a sustainable planet for humans and other living things." Another important one: "Environmental Justice demands the right to participate as equal partners at every level of decision-making, including needs assessment, planning, implementation, enforcement and evaluation." Schlosberg and Carruthers (2010) use a

capabilities-based approach to justice and argue that environmental justice is embedded in community. The movement started with cases where indigenous communal land was used for commercial ends. Such as with the Navajo in the San Francisco Peaks. Local companies wanted to use the land for creating a ski area. The case also shows different perspectives on development: the tribes saw the ski park as another attempt of development focusing merely on economic development. The president of Navajo, Joe Shirley, addressed it as “genocide by allowing the desecration of the essence of our way of life.” There is a lack of recognition of the tribes and their spiritual and cultural practices and their ability to reproduce these practices for upcoming generations.

Another case presented by Schlosberg and Carruthers (2010) is that of the Mapuche in Chile. The National Electricity Company (ENDESA) started building hydroelectric dams in the Mapuche area in the 1990s. Even though there was a committee set-in place that defended indigenous rights, the dam was still built. The cases showed how the government interpreted the committee as a development agency, whereas the indigenous people saw it as a vehicle ensuring the wellbeing and functioning of the community. Although the community in Groningen is not an indigenous community, there are similarities in all cases. First, the perception on how available land should be utilised. In the first case, it is eventually utilised for a ski resort. In the second case, there was a dam built and in Groningen there is the wind turbine park that was built. In all three cases, the local community did not agree with the environment should be planned. Second, in all cases the locals felt neglected and unheard. Even despite having possibilities and ways to engage. Such as the committee in the Mapuche, as well as the information evenings in Meeden. Third, in all the cases there are commercial interests involved that (partially) determine the planning agenda. These commercial interests have a high stake in the matter and clash with local interests.

Energy justice

Energy justice may be called a modern branch of environmental justice. Although there are some distinctions, such as its focus on energy systems and the focus on life cycle of energy resources (Carley & Konisky, 2020). The concept energy justice revolves around the idea that everyone should have access to energy that is affordable, sustainable, and able to sustain a decent lifestyle (Bazilian, Nakhoda, & van de Graaf, 2014). As mentioned, the energy transition has up until recently been approached as a technical and

economic issue that must be undergone through technological fixes. But, over the last decade a shift in the way the energy transition is talked about has taken place (Heffron, 2021). Still, there is relatively little attention for the justice aspect in energy research (Evensen, Demski, Becker, & Pidgeon, 2018). Heffron (2021) mentions five forms of justice that are central in delivering energy justice: distributive, restorative, recognition, and cosmopolitan justice. These entail the following: distributive justice refer to the distribution of benefits and negatives from the energy transition, procedural justice refers to who is included in energy decision-making processes and seeks to ensure that energy procedures are inclusive and fair, restorative justice refers to the recognition of different groups, and cosmopolitan justice refers to how we are all on the same planet and that the energy transition's cross-border effects should be considered as well. The energy transition is also likely to produce, mostly pre-existing inequalities (Carley & Konisky, 2020). Some people will benefit from cleaner resources, others will bear the burdens and may lack access to the renewable resources. This relates to the creation of scarcity, as the energy transition requires different and/or new resources and land. Scarcity is created by exclusion and unequal relations that allow access to resources by those in power (Metha & Harcourt, 2021). Scarcity is constructed rather than a naturally occurring phenomenon. It is about how we allocated resources, and who is allowed to decide that. Creating scarcity in the energy transition, which is done by continuing to commodify natural resources, links with energy injustice as burdens are often carried by locals. Processes of appropriation – of land, resources – lead to an inequality which blocks a just transition (Harvy, 2004). In the case of wind energy generation, some studies have found that the negative externalities are experienced mostly by the rural populations, and the benefits are mainly experienced in urban areas (Outka, 2012). The negatives of the transition are especially felt by people located close to the facilities.

Related to energy justice are the concept energy democracy and energy (in)security. Energy democracy refers to the notion that communities should have a say and agency in shaping and participating in their energy future (Szulecki, 2017). Energy security addresses the (in)ability to meet basic household energy needs, which is related to affordability, accessibility, and the availability of energy resources (Winzer, 2012).

2.1.3 Accumulation by dispossession

Environmental justice also relates to the concept of land grabbing and the energy transition. The resources needed for the energy transition are often decided top-down, whereas local communities still depend on those resources. Today also, as seen in the aforementioned cases, minority groups' access to resources is pressured by national plans and corporate interests in using certain resources for the energy transition.

The transition to renewable energy has been a driver of the land rush (Scheidel & Sorman, 2012). Land grabbing refers to the process of large-scale land acquisition by private and governmental actors (Zoomers, 2010). This is leading to a change in landscapes and land rights. Important drivers of land grabbing have taken place in the aftermath of the global food crisis to produce food and an increasing interest in biofuels. But Zoomers (2010) offers a wider perspective on the notion of land grabbing as it stretches further than the acquisition of land for agricultural purposes. Protected areas, eco-tourism, large scale tourist projects, and large-scale infrastructure instalments are also part of the global land rush. Land-grabbing can be both international and internal. The energy transition requires land as well, for example to place windmills or solar plants. Scheidel and Sorman (2012) state that the three broad motives for land acquisition are energy security, business opportunities and food security and that these are intermediate causes ultimately driven by the energy transition. They link the global energy transition to the current land rush by motivating local cases of foreign and domestic land grabs for various purposes.

A striking example of land appropriation for the energy transition can be found in the Saharan dessert of Morocco. In Ouarzazate, Morocco a plant has been placed in 2013, called the NOOR (Terrapon-Pfaff, Fink, Viebahn, & Jamea, 2019). The development of this plant is part of the Moroccan Solar Plan, designed to expand the national solar capacity. 3000 ha of communally owned land was acquired by the Moroccan government and the Moroccan Agency for Sustainable Energy (MASEN) (Zografos & Robbins, 2020). This can be seen as a case of green grabbing (Environmental Justice Atlas, 2017). The rural lands were characterised as 'underutilised'. In doing so, the appropriation of the land can be justified, because with the building of the power plant, the land transformation leads to the creation of jobs, sustainable development, and opportunities for health and sanitation, education, and new infrastructure thereby becoming 'valuable' (Ryser, 2019). However, the land was already in use, namely by the rural communities. For them it is not an empty

desert, but a pasture (Environmental Justice Atlas, 2017). Local institutions regulated the land access, which was especially important for minority groups (Gerber & Haller, 2021). The earnings of the sale of the land were transferred to a local government agency. The people who used the land were not included in the sale arrangement (Ryser, 2019).

The solar plant has led to loss of access to these common pool resources: land and water. Through a discourse of green energy and a green economy and the wish of the Moroccan government to be a leading African supplier of solar energy on both a national and international level, a sense of community has been stimulated among Moroccans (Ryser, 2019). This makes it harder to be critical of this project, some research shows that locals welcome the power plant (Terrapon-Pfaff, Fink, Viebahn, & Jamea, 2019). Another important point made by supporters, is that infrastructure projects like these, decreases the dependency on foreign suppliers of energy (Moore S. , 2017). Still, this is at the cost of local communities whose livelihoods have been affected. It is also questionable if this project meets local needs, as electricity connection is unaffordable for parts of the rural communities (Rignall, 2016). Additionally, there are environmental impacts as well. There are visible impacts such as groundwater pollution and/or depletion. Potential impacts are desertification and food insecurity because of crop damage (Environmental Justice Atlas, 2017). This will then impact local livelihoods, as they are dependent on these commons for food security. From this example it is important to take away that there is a certain narrative created around the desert land. The narrative of an 'empty', 'underutilised' desert justifies the appropriation of the land. This relates to the Groningen case as well, as Groningen has been facing a steady decline in population and the land could be characterized as 'empty' as well. This is done by both external parties, such as the national government, and by the province of Groningen itself. But this is experienced differently by locals who live in proximity of for example wind turbine parks and who see their living environment being altered by higher-level needs. It is therefore important for this research as well to explore who creates what narrative and for what purpose.

The example described above could also be defined as 'green grabbing'. This is the latest 'update' on the concept of land grabbing. The land grabbing is now justified with the notion that it is necessary for green agendas linked to biodiversity conservations, ecotourism, or carbon off-setting (Fairhead, Leach, & Scoones, 2012). Fairhead, Leach, & Scoones (2012) provide an analysis of how economic mechanisms behind the rush on land for green purposes. Harvey (2006) defines the commodification of nature as

'accumulation by dispossession'. There are several processes behind this, such as privatisation and financialisation (Harvey, 2006). Privatisation refers to the transfer from public assets to private companies. But it also involves the securing of ownership rights for the poor. The process of financialisation has come about by the valuing of services provided by ecosystems (Harvey, 2006). It enforces the idea that services provided by nature, such as soil systems, should be exploited and used for generating revenue, or even profit. Legitimising green grabbing is done through a global green agenda that uses the narrative of how land or natural resources should be used to protect the planet's future. Living areas are being labelled as whatever necessary to justify appropriation, often at the cost of people already living there (Fairhead, Leach, & Scoones, 2012). As becomes evident in the case of the NOOR plant in Morocco, but also in the Meeden-case.

2.2 Energy transition in Groningen: past and present

This thesis will focus on Groningen. Therefore, to paint a clear picture of the context of the energy transition in the Netherlands, this section will discuss how the Dutch government implements this transition. In 1972 the Dutch Cabinet published for the first time a full picture of Dutch environmental policy. Environmental pollution had become apparent and led to several problems such as water pollution, air pollution, soil contamination, waste products disposal and the use of pesticides (Ministerie van Volksgezondheid en Milieuhygiëne, 1972). It was assumed several years were necessary to work towards a solution for these environmental problems. This took much longer, as we still see today. Prior to the transition that is currently attempted to realise, the Netherlands transitioned from oil to gas. After the Second World War, 65 per cent of the total energy consumption consisted of coal (Hölsgens, 2019). Shortly thereafter, more than half of the energy consumption would consist of oil. From 1900 onwards, the Netherlands explored oil extraction and they began importing oil from Dutch colonies in the Antilles. The Royal Dutch/Shell Group, founded in 1890, began processing its crude oil in Venezuela (Hölsgens, 2019).

During the Second World War, Shell discovered oil in Dutch soils and together with ESSO they founded the NAM (Dutch Petroleum Company). But this was not enough to provide for the total need of petroleum. Therefore, the Netherlands was quite dependent on imports, like other western countries (Hölsgens, 2019). In 1959, however, domestic gas fields in Slochteren, Groningen were discovered. This led to a shift in energy

resources. The NAM worked together with the Dutch government and together they aimed at extracting as much natural gas from the Groningen gas fields as possible. The production of 'clean' natural gas took off in the late 1960s and early 1970s. The proximity and abundance of the domestic gas fields led to cheap gas prices, which meant the definite closure of the 'dirty' coal mines (Hölsgens, 2019). Despite expectations that it would lead to increased wealth for the province of Groningen, it was the Dutch state who benefitted greatly thanks to a mining law from 1810 (Brandsma, Ekker, Start, & Veenstra, 2016). The state profited by selling the gas, having shares in the NAM and income from royalties, taxes, fees, and dividends (Voort & Vanclay, 2014). The gas was in many sectors a good substitute for coal. It swiftly became the dominant source of energy. The majority of households became connected with the gas network and in the industrial sector the gas was offered at low prices (Ibid.). Oil was cheaply imported at the time and in combination with the domestic gas field and the promise of nuclear energy, energy resources appeared to be widely available (Hölsgens, 2019). There was a sense of abundance and therefore few reasons to investigate other resources. However, in the following years, this era of cheaply and abundantly available energy sources soon ended because of the oil crisis in the seventies. The crisis led to an economic depression (Issawi, 1978-1979). During the economic depression, the Dutch government claimed a more central role in the energy market again. It was recognised that there should be diversity in energy suppliers as well as in energy resources, in order to minimise risks (Hölsgens, 2019). This path of diversification led to renewed interest in coal and in nuclear energy. Coal was imported again and made up about one tenth of the total energy consumption (Lubbers, 1974). It reduced the energy security risks to some extent, but it also added dependence again. Therefore, small, domestic gas fields remained to be exploited as well.

But there were, and still are, defects with the domestic gas extraction as well. Initially, the local population was positive about the gas extraction because of the revenues, including for Groningen. But it soon turned out, the Dutch state hardly invested the revenues in the province (Voort & Vanclay, 2014). According to the CBS (Central Bureau for Statistics) the NAM made a profit of 417 billion euros from the sixties onwards by exploiting the gas fields (CBS, 2019). The CBS estimates the total amount of gas production at 2740 billion cubic metres, the majority has been extracted in Groningen (CBS, 2019). In addition, and perhaps even worse, the gas extraction caused repeated seismic activity that eventually led to the destabilisation of buildings (Vlek, 2018). The

involved parties have long refused to acknowledge that the gas extraction led to the earthquakes (Brandsma, Ekker, Start, & Veenstra, 2016). In 1993, it was recognised that the gas extraction led to earthquakes. In 2012, the strongest earthquake to date caused over 1900 inhabitants to report damages (Brandsma, Ekker, Start, & Veenstra, 2016). Research conducted by the University of Groningen uncovered the social and economic consequences of the gas extraction. Due to the (possibility of) earthquakes people felt unsafe and those whose houses were damaged have been suffering from stress-related health problems (Postmes, et al., 2018).

The Dutch government started to, moderately, explore 'alternative energy resources and technologies', such as solar energy, biomass, wind energy, tidal energy, geothermal energy, and hydropower (Verbong & van Selm, 2001). But the actual amount of energy generated from these resources remained insignificant. By 2000, solar and wind energy only accounted for 3.2 per cent of the total energy consumption (Verbong & van Selm, 2001). Domestic gas (26.9 per cent) and imported oil and gas (52.3 per cent) still accounted for most of the energy consumption. Fossil fuels remained the motor of the Dutch, and the European economy. During the late 20th century, alternative energy resources became sustainable resources. Up until around 2000, there was a lack of broad public and political awareness regarding the issues of sustainable energy (Kemp, Rotmans, & Loorbach, 2007). But global developments drove a change in attitude: conflict in the Middle East, rising oil prices, Russia's gas threat, the latter being very prevalent at the moment. In addition, local climate pollution and high energy bills helped create awareness amongst the public. Slowly, the notion that the current fossil fuel-based energy system is unsustainable became widely accepted (Kemp, Rotmans, & Loorbach, 2007). Kemp et al (2007) note that this led to a new vision of sustainable energy system in 2050. This system is clean – meaning climate-robust, contributing to CO₂ reduction –, affordable, and secure in the sense that there are guaranteed and reliable supplies.

Fast forward to today, the Netherlands is still mostly depending on fossil fuels. But there has been made some progress, in 2020 the Dutch energy consumption consisted for 11.5 per cent of renewable energy resources (Rijksoverheid voor Ondernemend Nederland, 2020). In 2019 this was still 8.7 per cent. The government aims at a minimum of 27 per cent by 2030. In terms of risk diversification to curb energy insecurity, the Dutch government has stepped in multiple times to assure secured supply and a continuation of sustainable economic development (Hölsgens, 2019). This showed during the mid-

nineteenth century when the coal dependent economy was threatened by coal shortages and during the oil crisis in the 1970s. This tendency is currently visible, as rising energy prices impact households and companies. Currently, the gas prices are high because of the high demand for energy. The Dutch government mentions that important suppliers struggle to provide extra gas and of course the war between Russia and Ukraine adds extra pressure to the market, as Russia is an important gas exporter. Therefore, the government provides companies with discounts on energy bills, and it compensates low-income households (Rijksoverheid, 2022). In addition to reducing climate impact, employing renewable energy could be a great way to strategize for securing energy supply (Hölsgens, 2019). Unfortunately, the Netherlands is lagging on the rest of the European countries in terms of realising renewable energy goals (Eurostat, 2022).

2.2.1 Implementation of the energy transition

In 2001, it was decided that for actual change to happen, a new policy strategy was necessary. Therefore, the Fourth Dutch National Environmental Policy Plan (NMP4) was drafted, which aimed at 'system innovation' in important societal domains like energy. The NMP4 focuses on environmental problems and sustainability and is produced by the Institute for Public Health and Environment (RIVM). The RIVM notes in its introduction that there are several environmental problems that have hardly or not been targeted by policy (RIVM, 2001). However, tackling these environmental problems requires drastic societal changes. In the decades before this plan economies and societies have become increasingly intertwined and interdependent. Production and consumption patterns have become more international and there was mainly a focus on liberalisation of markets. The RIVM states that there was less attention for the social and ecological dimensions. They also deemed policies that were in place unfit for future challenges of restoring ecological balance.

With the policy plan the RIVM wants to centralise the quality of life, which differentiates from country to country and from generation to generation. Quality of life is dependent on a clean environment, clean air, clean water, which are all part of a healthy biodiverse ecological system. There has been done too little to guard these ecological systems that provide such vital services to humans. As mentioned, the RIVM calls for system innovation. The RIVM speaks of innovation, and how this can take up different shapes that often lead to long processes that require technological, economic, socio-

cultural, and institutional changes (RIVM, 2001). In their report, the RIVM has divided the problems in various clusters. Sustainable energy use of one of these clusters. Transition management was chosen here as a policy model (Kern & Smith, 2008). According to Kern and Smith (2008), transition management “aims at influencing structural change in socio-technical systems alongside system optimisation by a set of coherent policy initiatives.” The Ministry of Economic Affairs was responsible for energy and innovation policy and appointed itself as transition manager. The government actively took up the role as a driver of the transition by organising stakeholder consultations to find out under what conditions businesses would be prepared to take part in activities that contribute to a sustainable energy system (Kern & Smith, 2008).

The initial key themes of the energy transition project were new gas, chain efficiency, sustainable mobility, and green resources. These were the cornerstone themes on which the Ministry of Economic Affairs built their strategies. The themes were drafted by transition platforms consisting of individuals from the private and public sector, who develop pathways, themes, and transition experiments (Oudshoff & Klinckenberg, 2003). Industry and other stakeholders were also included in the project. The Ministry appointed business representatives as chairs for all the platforms, who then identified other relevant stakeholders (Kern & Smith, 2008). Kern and Smith (2008), do note, however, that businesses were the dominant actor in the project and there were almost no civil society groups present. Only one environmental NGO was involved from the start (Oudshoff & Klinckenberg, 2003).

The tasks of the platforms include developing strategic visions for the themes and then work out possible transition pathways along which the energy transition project can be realised (Kern & Smith, 2008). The transition experiments were meant to see how new energy systems behave. Examples of these experiments are the micro heat and power project where 50 households in Groningen were supplied of heat and electricity from natural gas boilers and the residual heat project in Rotterdam where homes in the South of Rotterdam are supplied with residual heat from industry in the Rotterdam Harbour District (EZ 2004a, Kern & Smith).

In the year 2005 two major changes took place. First, the transition platforms were joined by a taskforce energy transition (TFE). The TFE is led by the CEO of Shell Netherlands and is made up of 17 high-level members, mostly from business and government. This advisory panel was tasked with determining strategic directions and

supervising the transition process. The taskforce is 'intended to strengthen the role of the platforms to determine technological spearheads offer the best prospectus for the Netherlands' (Ministerie van Economische Zaken, 2005). Since then, the taskforce has emerged as a crucial player in the process, as evidenced by the publication of a national transition action plan in May 2006 (Minister van Economische Zaken, 2006). The taskforce faced criticism for being controlled by significant energy companies from the existing energy regime, including Shell, Essent, Electrabel, and Gasunie.

Second, the Interdepartmental Directorate Energy Transition was created. This directorate consists of 30 civil servants from six ministries. With the creation of the directorate, it was hoped that there would be synergy between the different policy dossiers so 'system innovations over the longer term will be achieved' (Ministerie van Economische Zaken, 2005). Stakeholders involved in the energy transition provided the impetus for directorate. The Netherlands maintains three major goals in energy policy: security of supply, environmental quality, and economic efficiency. These pillars of energy policy should contribute to creating a sustainable energy system (Ministerie van Economische Zaken, 2005). Energy and climate policy during this period was mainly focused on cost-effective measures to reduce CO₂, energy conservation, and sustainable production of electricity (Kern & Smith, 2008). During that period, the Ministry of Economic Affairs expected that by 2010 energy policy would be influenced by transition policy, but current energy policy and transition policy do appear to be separate policy fields (Ibid.). An immediate impact of the energy transition process is seen in Dutch energy R&D policy as the national energy strategy became aligned with energy transition priorities (Harmsen & Menkveld, 2005). However, Dutch renewable energy policy has received a lot of criticism for being too unstable to offer enough incentives for investments in renewable energy technology (Dinica, 2006; Rooijen & van Wees, 2006; Negro, Hekkert, & Smits, 2007). Kern and Smith (2008) assess that there was no significant impact of energy transition policy on 'regular' energy policy. They also note that core energy policy issues such as energy security were not rethought. Dutch advisory councils concluded that, despite lack of devotion of the Dutch government, the energy transition process has the potential to greatly influence energy policy on a longer term (VROM, 2004).

2.2.2 Social acceptance of the energy transition

During the eighties policy on renewable energy resources were developed and during this initial phase, social acceptance was largely neglected (Wüstenhagen, Wolsink, & Bürer, 2007). Carlman (1984) was the first scholar to look beyond public support as a non-technical factor and to define social acceptance for wind power as a problem. She stated that the siting of wind turbines was “also a matter of public, political, and regulatory acceptance” (Carlman, 1984). Soon, others began to research the topic as well (Bolsey and Bolsey, 1988; Wolsink, 1987). These early studies focused on issues such as reluctance among policy makers, lack of support among key stakeholders, as well as the lack of understanding of the public’s attitude towards wind on land energy plans. In their article, Wüstenhagen et al (2007) discuss the concept of social acceptance of renewable energy innovation. They state that social acceptance may be a constraining factor in achieving renewable energy goals. Especially in the case of wind energy there seems to be heavy protest, because of its visual impact on landscapes. The concept of social acceptance is also quite ambiguous. In the last decade, social acceptance in the light of the energy transition has become a prominent research topic (Devine-Wright, 2004) (Wüstenhagen, Wolsink, & Bürer, 2007). Earlier studies on social acceptance and participation present it as indisputably positive (Clever, 1999). Later studies display a more critical review of the concept and expose new dynamics of scarcity, the commodification of natural renewable resources, and the creation of new inequalities (Roth, Vink, Warner, & Winnubst, 2017; Hulbert & Gupta, 2015).

The NIMBY-discussion is a good example of how the discussion was initially focused on social acceptance, but when taking a deep-dive it shows that there is more to it (Devine-Wright, 2004). This theory poses that people support renewable energy projects as long as it is not in their own backyard. So, there is general acceptance of the energy transition, but resistance usually surfaces at a local level. This debate is by some characterised as an oversimplification of the public’s actual motives (Wüstenhagen, Wolsink, & Bürer, 2007). There are several misconceptions that underpin this. First, it was long assumed that those who live closest to a wind park may have the most negative attitude towards it (Devine-Wright, 2004). But more recent research on public acceptance has shown that this is not necessarily the case. Public acceptability means more than the technical and physical attributes of wind parks, it is also about the symbolic and socially constructed aspects. This mainly refers to ‘how’ the wind parks are developed and how

people interpret the wind parks in their area of residence (Devine-Wright, 2004). There are several physical and environmental aspects that attribute to negative perceptions of the wind turbines. One of the most obvious ones is the visual impact (Devine-Wright, 2004). In multiple countries there has been done research about the size of the park, in Denmark for example, parks that consisted of two to eight turbines received more support than single turbines scattered across an area of larger parks. The impact the wind turbines have on the landscape is sometimes perceived as a 'visual burden' (Berry, Holland, Watkiss, Boyd, & Stephenson, 1998).

However, the discontent with the situation in Groningen is more complex than just disagreement with having wind turbines in one's backyard. Public acceptability in the energy transition is quite a broad concept that generally refers to people's general evaluation of energy projects. Attention for public acceptability typically only comes up when the project is met with resistance, in the form of protest for example (Perlaviciute, Schuitema, Devine-Wright, & Ram, 2018). Project developers and decision makers often maintain an instrumental approach to acceptability, used to legitimise already developed projects. People opposing energy projects are often framed as NIMBYs by media or policy makers. It is rather easy to label to assume resistance comes from selfish, irrational, or ignorant motives. Perlaviciute (2018) et al. note that denoting resistance as NIMBY influences the way project developers and (local) authorities interact with the public. They mention steps in the process that can be taken to increase acceptability. Financial compensation is mentioned first. In this case, a reduction in energy bills could positively influence one's acceptability. But financial incentives are not main drivers of motivation. As will show in the following chapters.

2. Research Design and Methodology

The research question is as follows: How is energy justice envisioned in the government-led energy transition, and how do people in Groningen experience and respond to the benefits/burdens of the energy transition with regards to wind-on-land energy. The research has been conducted by doing field research in Meeden, Groningen.

3.1 Operationalisation of concepts

This research revolves around several concepts: justice, energy transition and citizens' responses/strategies to energy justice. The concept of justice is about what is considered fair and just, according to what and whose norms and views. In the context of this research the focus is on how justice is envisioned in policies that promote energy transition, and how it is experienced and practiced by citizens. The concept of justice is often explained in three core themes: distributional, procedural, and recognition justice. Distributional justice refers to how the burdens and benefits of all members on society are divided. In the light of the energy transition, this dimension of justice relates to how the burdens of certain interventions lay heavier on certain parts of a population. Procedural justice refers to how all groups should be able to participate in decision-making and that everyone's decision is taken seriously. In the energy transition this would mean that all stakeholders, including civilians, have a say in the matter. Recognition justice is the dimension in which all individuals must be represented fairly and must be offered the complete and equal political rights.

The energy transition is the transition from fossil fuels to renewable energy in the Netherlands. In this research there is a special focus on wind-on-land-energy, in particular Meeden.

3.2 Research design

The study is based on a qualitative approach, because in order to explore how injustice is being envisioned in policy and experienced by citizens it is necessary to use a method that is capable of critical reading of policy and uncovering people's perceptions on justice in the energy transition. A qualitative approach allows for thorough and detailed data that captures the full experience of (in)justice.

3.3 Methodological framework: the energy justice framework

Energy justice has quite recently emerged in the field of energy research (McCauley, Heffron, & Jenkins, 2013). Energy justice aims to apply principles of justice to energy policy, energy production and systems, energy consumption, and energy security (Jenkins, Darren, Raphael, Hannes, & Rehner, 2016). The energy justice framework applies the dimensions of justice – distributional, procedural, recognition – to evaluate the following:

- Where injustices emerge
- Which affected sections in society are ignored
- And which processes exist for their remediation to reveal and reduce such injustice (McCauley D. , Heffron, Stephan, & Jenkins, 2013).

This framework is chosen because the framework allows for a consideration of longitudinal processes with social outcomes and investigation in past, present, and future energy systems impact (Jenkins, Spruit, Milchram, Höffken, & Taebi, 2020). Another reason for choosing this method is its ability to expose marginalisation. Especially the core tenet of justice as recognition allows groups and individuals, who could be considered to have less power, to weigh in on decision-making. Justice as recognition emphasises the understanding of who wins, who loses, how and why is the most important precondition to establish more just distributions of burdens and benefits. Energy Justice further emphasizes that marginalized groups, such as non-users, non-dominant, and non-state-based entities, should be given fair consideration while planning transition processes. Energy justice has also been positioned as a mechanism that expose exclusionary and/or inclusionary technological and social niches. It also provides a way for involved actors to reflect and potentially destabilize existing regimes. Moreover, it has the potential to exercise pressure on the regime below, which could lead to reevaluation of our energy choices (Jenkins, Spruit, Milchram, Höffken, & Taebi, 2020).

The dynamics of accumulation by dispossession, scarcity and commodification of nature are also taken into account when analysing the data. These concepts are found to be in relation to justice in the energy transition and are helpful in uncovering questions of authority in rulemaking in impactful societal transition.

It is also argued that energy literature in social sciences should move towards human-centred, social science explorations of energy developments (Sovacool, 2014).

3.4 Research Design

The question is two-fold, and it therefore requires multiple strategies to answer it. The first part of the question concerns the analysis of how the Dutch government approaches the energy transition. It specifically concerns policy on wind on land energy. This requires a policy analysis, trying to understand how justice is envisioned in the policies, implicitly or explicitly. The second part of the question aims to answer how citizens of Groningen experience the practical outcomes of the policies.

For the first part of the question, a policy analysis will be conducted. This section will discuss how, and which policy documents have been chosen. The following documents have been important in strategizing the energy transition in the Netherlands and in Groningen.

Number	Title	Publisher	Date
1	Nationaal Milieubeleidsplan	RIVM	2004
2	Het Energieakkoord	SER	2013
3	Energietransitie: zoektocht met een helder doel	Planbureau voor de Leefomgeving	2015
4	Beleidskader: Sanering en Opschaling, Gebiedsfonds en Participatie	Provincie Groningen	2015
5	Vol ambitie op weg naar energietransitie. Programma Energietransitie 2016-2019	Provincie Groningen	2016
6	Opties voor energie- en klimaatbeleid	Planbureau voor de Leefomgeving	2016
7	Inpassingsplan N33	RVO	2017
8	Het Klimaatakkoord	Ministry of Economic Affairs and Climate	2019
9	Nationaal Programma RES	Unie van Waterschappen	2021
10	RES 1.0 Groningen	RES Groningen	2021

Table 1 Selected policy documents

These documents have been selected according to the following methods. Several national policy documents have been retrieved from the literature, these include document 1, 2 and 8. They were mentioned multiple times in articles, such as Kern and Smith (2008).

The RES documents were chosen because this is the direction the Netherlands and the provinces are currently taking; these include documents number 9 and 10. These were chosen to explore how current energy transition policy is implemented.

Documents number 4 and 5 are provincial documents that were chosen because they were written during the process of the wind park N33 and therefore provide a clear picture of how the province Groningen implements the energy transition during that period. These documents precisely reflect how the government sees the incorporation of the energy transition in society.

Documents 3 and 6 are chosen because they were also drafted during the process of the wind park N33 and because they were written by the Planning bureau for the living environment (PBL). PBL is a Dutch governmental institution that puts forward strategic policy analyses on environmental, natural, and spatial policy. Their writing on the energy transition provides background on how the Dutch government proceeds with the energy transition, how policy is eventually brought into practice and what impacts it has.

Document number 7 is the complete outline of how the wind park N33 will be constructed, the assessments that will be carried out to analyse environmental impacts, and the legal foundation on which the wind park is grounded.

All of these documents have helped shape the direction for the Netherlands towards the transformation of new energy systems. There has of course been written much more about energy, renewable energy and how it should be implemented. But these documents comprise the most important discourses in Dutch energy transition policy. The policy documents that have been analysed in this research are the Inpassingsplan N33 and Programma Energietransitie 2016-2019. They have been chosen on the basis of the following criteria:

- It concerns the wind park of N33 specifically
- It is drafted before/during the process of the N33 park
- It concerns energy transition strategies in the province of Groningen

Methodology policy analysis

For the policy analysis there have been chosen five codes based on energy justice literature and literature on policy analysis. Also, these codes are applicable on both policy documents. This approach is based on Foucault's discourse analysis. Although the themes in public policy concern political, economic, social, environmental, etc. issues, there are

common features. The first one is the role and the activities of the government, thereby their ideologic vision on the subject (Hill & Hupe, 2006). The second one is power structures, and how especially the government exerts its power. Organisations and structures are the framework in which policies are defined and decisions are made (Hewitt, 2009). Thirdly, the policy process is an overarching feature. This concerns the policy formation, implementation, and evaluation. The code involved parties is also used, to identify which parties are considered and involved in the process. Finally, justice is also coded, as the ways in which the government envisions a just transition.

The policy analyses aim to answer the first part of the research question: how is energy justice envisioned in the government-led energy transition?

Only sections about wind-on-land energy have been analysed, since the research concerns the impact of this type of renewable energy generation.

Analysis Interviews

For the second part of the research question, how citizens anticipate the benefits and/or avoid the burdens, locally involved citizens and one government official were interviewed. Three citizens, one farmer, and one employee of the province were interviewed. The interviews are coded manually. They are coded inductively and deductively. Then the codes are categorised and then the main themes are distilled. See the appendix for the codebook.

3.5 The population

This research aims to uncover experienced injustices in the energy transition in Groningen. The experienced injustice comes from people who live in the surround area of the wind turbine park N33. This case could be a precedent for others who find themselves in a similar situation and serve as an example in a wider struggle for justice in the energy transition in the Netherlands. The population of this research are citizens living in the Meeden area. They have first-hand experiences of what the instalment of such massive renewable energy siting means in terms of their relation to the government, their fellow community members, and their perception of participation in the energy transition. The population experiences the practical outcomes of implemented policy. It is therefore that citizens in the Meeden area have been chosen as research population.

The research population has been selected mainly on the basis of their proximity towards the wind park. I had no real connections in Groningen, so I contacted a civilian organisation that has been protesting the wind turbine park. They have united themselves as a properly functioning organisation with a board and active members. Through their website I have contacted my first respondent, who is not a member of the organisation, but is related and who also lives in Meeden. I have also contacted the RES Groningen and the local municipal council. Through the snowball sampling technique, I was able to find more participants from Meeden. I mainly searched for people living in Meeden, as they would automatically have some thought about the wind park, considering the wind park is situated in their village. There were no other criteria. The most important criterium was that a participant lives in the area of the park and/or is involved because of their professional occupation (e.g., working at the municipality, in politics, or as a farmer). Participants would forward me to other people who they thought would also be interested in talking to me. This technique was quite useful because people from the Windtegen N33 organisation know each other and would forward me to other members. This allowed me to identify participants who had similar experiences of injustice (Hennink, Hutter, & Bailey, 2010). Using only this technique, however, would lead to a rather homogenous sample, because everyone at Tegenwind N33 has (experienced) some problems with the wind turbine park. This would lead to a very one-sided story. To include more perspectives, as many related organisations were searched and contacted. Not everyone who was contacted responded, but the ones who did were able to refer me to other participants. For example, someone who worked for the involved energy company and

now works for the municipality of Groningen, she then referred me to a farmer whose land is used for wind turbines. It was also attempted to reach out to people who do not participate in an organisation like Windtegen N33 but do live in proximity of the wind turbines. They may be less active or vocally against the wind park, or even be in favour, but they still have meaningful experiences which could lead to a completer picture of energy justice in this particular case. Below a table can be found of the participants and their positions.

Participant	Role
1	Living in Meeden, involved with Windtegen N33
2	Worked at Essent, now works as policy maker in energy for province of Groningen
3	Farmer, rents his land for wind turbines
4	Living in Meeden, member of Windtegen N33
5	Lives in a neighbouring village, not directly affected by the wind park N33.

Table 2 The respondents

3.6 Sample Size

This study is largely built on primary qualitative data. Therefore, the focus is on richness of data, rather than reaching a large sample size (Hennink, Hutter, & Bailey, 2010). Some argue that there are no rules for sample size in qualitative research (Patton, 1990) (Ritchie, Lewis, & Elam, 2003). Hennink et al (2010) refer to the principle of saturation, the point in qualitative research where no new issues are raised, data becomes repetitive and does not lead to added understanding which makes an increased data collection superfluous. Also, because the effects of the wind turbine park in Meeden take place on local scale, there is no need for a large sample size.

3.7 Research methods: semi-structured interviews

Policy analysis and the interviews are the main method of data collection. This method is chosen because the data from this type of method leads to rich, in-depth knowledge on the topic. To understand participants’ experiences of injustice in depth-interviews are useful in clarifying people’s beliefs, perceptions, feelings, and emotions. The way of conducting the interviews is semi-structured. This style of interviewing is guided by a topic list rather than set questions. This allows for a flexibility that leaves space for input from the respondent. It gives insight in people’s lived realities and can lead to information

that is yet unknown to the researcher. It is, for some, also quite a sensitive topic. Therefore, semi-structured interviewing is the most suitable. Finally, the difference in policy and practice is best known by the research population. Semi-structured interviewing enables participants to raise issues they have come across themselves.

The downside of this type of data collection is that it requires quite some time to prepare and conduct an interview. The conversations were between thirty minutes and sixty minutes. Also because of the sample size, it is highly likely that not all perspectives are represented. Therefore, secondary data has also been collected. Next to the policy analysis, there have been read multiple reports by organisations such as PBL and the Noordelijke Rekenkamer. This is done to contextualize and interpret the answers of the interviewees and achieve a deep understanding of the workings of governmental decisions on all three levels and the mechanisms that lead to certain outcomes.

3.8 Limitations

There are several limitations to this research. The first limitation is the sample size. The current sample consists of five participants. To make a stronger claim, there could be more people interviewed. Also, the lack of diversity within the sample forms a limitation. The sample consists of people between the 45 and 60 years old. The data represents the views of this generation. For a complete and more inclusive picture, younger generations should be interviewed as well. They could have different attitudes towards the wind park and the energy transition. Especially younger generations (17-25 years old) could provide for interesting data, as they are the future generation that will proceed with the energy transition. Another limitation is that there are no participants who currently work for an energy cooperation. Respondent 2 has worked there but is now employed by the province of Groningen. It also would have been interesting to have conducted more interviews with people who are from Meeden, but who are not involved with the protest collective nor are they a farmer or a locally politically involved figure. This perspective could bring in a more nuanced view on the impacts of the wind park.

In terms of the policy analysis, the analysis of two documents could pose a limitation. There are numerous documents that also have been important in the energy transition in the Netherlands. There have not been conducted analyses on policy documents of other governments levels to see to what extent national, regional, and local policy are aligned.

3.9 Positionality and ethics

For this research it is required to be aware of the context in which this research takes place. As mentioned before, Groningen has already endured quite a lot with regards to resource extraction. It may be a sensitive topic for some. As someone who has lived in the city for quite some years, I have never been confronted in such a direct and permanent way such as people who have for example a windmill in their backyard.

It is also important to steer away from placing certain parties in certain boxes. The research population is not a homogenous group, there may be people who are in favour, or people who are indifferent. This also goes for describing the role of governmental parties. The government has in the first place the goal to ensure safe and accessible renewable energy. It is also important to always consider the complex dynamics of this transition. There needs to be awareness of the fact that the transition will not proceed without pain, nor should certain groups in this process be victimised.

The data has been collected with care for ethical matters. The interviews are conducted with informed consent, and they have been recorded after the participant consented. The data itself has been treated with care and integrity.

4. Energy transition and justice as envisioned by policy

4.1 Judicial context of decision-making

There are two important laws that allow decision-making in energy projects. The first is the coordination regulation (Rijkscoördinatierегeling in Dutch, RCR). The Ministry of Economic Affairs and Climate is responsible for this, and it is based on the law spatial planning (RVO, 2019). There are several projects that fall under state coordination. For wind energy, this includes wind park with a capacity over 100 megawatts. The projects under state coordination undergo three phases of participation. During three formal moments, locals can submit their views (zienswijze). Submitting a view is an official way of responding to (policy) documents. Citizens can submit their views in the first phase, when there is a concept plan of the project. They can do so again when there is a concept decision and the environmental impact reports are drafted. Based on the views and consults on the concept decisions, the involved governments determine their final decisions. In the final phase, when the decision is made, citizens can make an appeal. The project is then already in an advanced stage (RVO, 2019). The Raad van State reviews the appeal. After they have given their verdict, it is no longer possible to appeal. The decision is then final, and the project will be executed.

Decisions concerning permits and exemptions are made simultaneously and in consultation with regional governments. But the State has the authority to make the final decisions. Permits and exemptions remain the responsibility of the regional or local governments.

The second law that plays an important role is the crisis and recovery law (crisis-en herstelwet, Chw). This law allows to accelerate the execution of planned construction projects (Rijksoverheid, sd). In terms of sustainable projects, this law allows for deviation of certain regulations. The Chw leads to shorter application procedures so construction projects can commence faster (Bröring & Tollenaar, 2015). However, the Chw is of temporary nature. Eventually the Chw will merge into the Omgevingswet, which concerns spatial projects. This law is not yet in effect, but it will aim to bundle all laws concerning the living environment. This should facilitate starting spatial projects, such as a wind turbine park (Rijksoverheid, 2019). The Chw has allowed for an overruling in the case of the windpark N33. It enabled the government to build the park, despite it not being in line with what the municipality had envisioned for the area in which the N33 wind park is now situated.

The Structure Vision Wind on Land (SvWOL) is another part of the Dutch policymaking on wind energy. A structure vision is a policy document in which the government determines its course and offers insight in how it wishes to realise the stated objectives. The structure vision wind on land stipulates the course on wind energy for the whole country. The area selection is given, the agenda for the upcoming years, but also here there is a chapter devoted to participation and area development (IMRO, 2014). With this document the cabinet determined that at least 6000 megawatts of wind energy on land should be realised

4.2 Energietransitie Plan 2015-2019

This plan outlines the course the province of Groningen aims to take regarding their energy transition.

Involved parties
Companies
Knowledge institutes
All inhabitants of the province of Groningen
Water agencies
Energy companies
Housing corporations
MKB (Middle and small companies)
Province of Groningen
National government
Societal organisations
External energy experts
Province of Drenthe
Province of Friesland
Energy Valley
Energy Academy Europe
Energy College
Fellow governments: North-west Germany, Niedersachsen
EU
Municipalities

Municipality of Groningen
Energy Service Company (Esco)
Groningse Energie Koepel (GREK)
'Vliegende Brigade': experts who share knowledge, bring parties together, support projects
Klankenbordgroep: external parties together with province to exchange thoughts once/twice a year

Table 3 Involved parties mentioned in the Energietransitie Plan 2015-2019

Discourse energy transition

This document is written in 2016, it starts off by stating there are not only new technologies necessary, but also a different attitude towards energy. In the introduction there also mentioning of a skewed distribution of burdens and benefits. Therefore, there is even more reason for the province of Groningen to be frontrunner in the energy transition and the accompanied innovations (p. 1, prologue). The prologue ends with the sentence: *“we are going to work, are you in?”*

The document is structured in seven chapters, explaining why the energy transition is necessary, the ambitions, the program itself, the instruments, the program in the earthquake area, and the energy transition as integral theme. The introduction starts off with emphasising how the challenge is mostly a social issue (introduction). The main goal of the province as stated in this document is accelerating the transition in Groningen. So, Groningen has moved beyond the initial goals and wanted to reach for even higher goals:

“Our main goal is accelerating the energy transition in the province of Groningen. Simultaneously, we want to strengthen regional-economic developments and improve liveability” (p. 20).

In the first chapter the need for the energy transition is explained. Already in the first sub-section it is mentioned that *“the most important lesson is to give people space to think, discuss, and join in on this issue. Therefore, we are going to start, together with our inhabitants, municipalities, and all other parties who want to achieve sustainable energy, with a process to map where and under which conditions we can offer space to sustainable energy”* (p. 8).

The energy transition is described as an inevitable, necessary process to be undertaken. But it is also described as an opportunity for the region, in terms of

employment mostly (p. 8). The region has historically always been an energy supplier, for over sixty years they are the gas region of the Netherlands. Groningen wants to continue to play that role, because energy has always been important for employment and the energy transition means creating sustainable jobs (p. 8).

In addition, the province stresses its ambitious goals, they want to transition, and they also want to accelerate the current process to reach the goals before the nationally agreed deadline of producing at least 35 terawatts of sustainable electricity by 2030.

The energy transition is approached from three pillars: energy saving, sustainable energy, change in the energy system. The province wants to heavily contribute to the energy transition, but their *“contribution should be supported by society”* (p. 25). Groningen also sees itself as facilitator of local initiatives, such as small-scale windmills. These local initiatives are *“of great importance for the societal embedding of the energy transition”* (p. 27).

Another part of the Groningen strategy is communication. The province works by the principle of *“be good and tell it!”* (p. 33), which entails that they will communicate all initiatives in the energy transition. They want to inspire others to follow their example. The province of Groningen wants to fulfil a leading role in this transition, a driver for more renewable energy initiatives.

Groningen sees itself as facilitator, driver, and frontrunner of the energy transition. But they also devote quite some text to how inhabitants of Groningen have the opportunity to think about how they wish to see the energy transition being handled. The following table sums up all the phrases used to stress the role of the Groningen inhabitants.

Page	Wording
Prologue	The transition to sustainable energy requires that we sometimes choose different forms living, working, travelling and
7	The Groningen inhabitants themselves
7	If we listen to our inhabitants
7	Groups of inhabitants
8	People have space to think and discuss

10	Work together with the local region
13	... see if ownership increases acceptance and support for energy projects
16	Local initiatives are essential for the transition on the long term
16	We want to create an attractive environment for energy innovation
18	The surrounding of the energy program is important
19	Inhabitants
25	The energy transition needs to be carried by society. Therefore, we are starting a process together with our inhabitants, ...

Table 4 Discourse on citizens in the Energietransitieplan 2015-2019

Review of involved parties

Roles of governmental organisations

As mentioned, the province of Groningen is the driver of energy transition policy in their region. But they want and need other parties as well. In the prologue they mention companies, knowledge institutes, other governmental levels, and all the inhabitants of the province Groningen. Only by combining forces “*we can turn our region into a strong, clean growth-economy*” (prologue). In the document the role for other parties is mentioned multiple times.

Groningen aims to “*drive innovation*” (p.7, 16, 30) and to “*heavily contribute to the energy transition*” (p. 25). In the discussion of the three pillars, they again stress their wish to create an attractive environment for energy innovation. It is hoped that this will lead to new activity in the sustainable energy sector (p. 16).

They do this by first mapping out under what conditions sustainable energy can be realised (p. 8). Groningen states that the one of their most important tasks is managing energy saving goals with companies.

In the second chapter, the goals are set even higher, as Groningen wants to accelerate the transition (p. 10). Again, the energy transition is described as a collective responsibility (p. 12). It is stated that in this transition a lot of parties play a role. But

“investing decisions are often taken by other parties than the province” (p.12). The province aims enable these parties to do so and lift possible jurisprudential barriers (p.12).

Roles of other involved parties

In the document the other parties are described as ‘de omgeving’ (the surrounding area). These parties are involved in the program and contribute to reaching the targets (p. 18). These include many collaborations, such as the ‘Noordelijke samenwerking with Energy Valley. This is a cooperation with the provinces Drenthe and Friesland. Together the three provinces founded the Energy Valley Foundation, focused on energy innovation, especially with middle and small size companies (p. 18). Another way of spurring innovation is the collaboration with the Energy Academy Europe and the Energy College. These organisations conduct research and train energy professionals in the region. The province has been investing in these institutes and aims to reap the benefits of this by increasing the number of graduates, start-ups, and relevant research that is useful in the energy transition.

Groningen also looked at international cooperation, especially with north-western Germany. This is a region close by, and therefore a useful partner. The municipalities, national government as well as the EU are also mentioned as partners. The municipalities are mentioned specifically, as the province wanted to talk about cooperation in energy projects and the physical, societal, and economic space necessary for renewable energy (p. 19). The connection with the municipalities is described as partnerships.

In terms of the three pillars (energy saving, sustainable energy, change in energy system), the province has reserved certain roles for both itself and for the other involved parties. For energy saving, the province supervises and maintains energy saving especially with companies, it takes its own measures, and it stimulates others to save energy (p. 21). According to the province, the municipalities play the most obvious role in energy saving.

For sustainable energy, the province has an important role, because they have to plan wind, solar, and bioenergy or build the right infrastructure. This pillar requires the province to play four roles: spatial planning, financial support of initiatives, stimulate and drive (local) initiatives, take own measures (p. 24). In *space for new policy sustainable energy* (p. 25), it is mentioned that the province would be a main contributor, but this contribution should be carried by society. They planned to map out how sustainable

energy should be fitted into society and space, together with all parties: inhabitants, municipalities, landowners, and all other parties who want to contribute.

The province also aims at professionalising local initiatives. The GREK, for example, is one of these more professional initiatives. Through this program, people can be linked to an 'energy coach', someone who will guide a household with saving more energy but also with assisting in generating energy.

For the pillar change in energy systems the role of the province is outlined as lobbying for adjustment in policy and regulation, financially supporting initiatives, and stimulate and drive initiatives (p. 30).

Groningen also thinks about the energy transition in relation to the European Union. They mention a collaboration with Niedersachsen that would allow them to learn from each other as well as increasing influence in Brussels, because of what they call 'mini-Energy Union' (p. 30). It is stated as well that *"policy that is relevant to this program, comes from Brussels more and more often."* Therefore, Europe is increasingly important for lobbying activities and financing of projects. Groningen also wants their projects to align with the goals of a European Energy Union.

Justice

Energy justice is incorporated in the policy according to how the province of Groningen sees justice in this respect. It reflects the various forms of social justice. In the prologue, for example, the province calls to *"decrease dependence on fossil fuels."* This falls under environmental justice, as the government has the task to provide for a safe and healthy environment. The province of Groningen acknowledges its own responsibility in being *"being the frontrunner in new, innovative ways to save energy and produce locally and sustainably."* In the introduction it is also acknowledged that *"impact leads to protest. Both visible in fossil and sustainable energy."* In the first chapter energy justice is interpreted as follows: *"The most important lesson according to us is that people are given space to think, speak up and engage. Therefore, we want to start, together with our citizens, with municipalities and all other parties who want to commit to sustainable energy, a route to map out where and under which conditions we can offer sustainable energy space"* (p. 8). Also, the program is justified, its necessity explained by how *"climate change affects everybody. It is the first and most important reason for this Energy Transition Program"* (p. 8). Justification for this plan surfaces in every chapter of this document. The reasons and

the level of necessity are explained thoroughly. The first chapter is completely devoted to the question energy transition: why? The answer to this question is threefold: climate change, sustainable energy and saving energy, economic benefit. With this base they justify their actions, so in that sense energy justice is incorporated. Climate change is marked as a global matter that will affect everyone, *“including our province”* (p. 8). Also in economic regard, the plan is justified, because Groningen has always been an energy region and local employment is closely connected with the energy sector (p. 8).

Next to justification, there is also mentioning of how legal frameworks play an important role: *“the (largely national) fiscal and judicial framework plays an important steering role in what eventually will be realised”* (p. 10).

In chapter two, it is also mentioned that people have increasing attention for energy. Here is acknowledged that in Groningen that is also related to the earthquakes (p. 13). Engagement in the issue of energy is described as installing solar panels, participating in an energy cooperation, but also protesting a wind park or a coal plant (p. 13). The province also wants to *“see if ownership can enlarge acceptance and support for energy projects”* (p. 13).

The program maintains certain criteria for that the plan has to meet (p. 15):

- Expected efficiency in saving or generated energy
- Level of provincial influence
- Is there enough support capacity, or does it contribute to that?
- Is it sustainable on the long term and/or does it create opportunities for the future?

Justice is also envisioned by the province's aim to be set a good example themselves. They aim to have all their buildings, infrastructure, and purchases energy neutral by 2035 (p. 17). As mentioned, the province of Groningen wants to *“heavily contribute to the energy transition, but we think our contribution should be carried by society”* (p. 25). The province envisions this as involving inhabitants, municipalities, landowners and all other involved parties (p. 25). The wish to involve other parties (inhabitants, municipalities, landowners) is also a way of envisioning energy justice. This enables parties to have a voice and participate. Groningen strives for societal embedding of the energy transition, by stimulating and supporting local initiatives (p. 27). By monitoring progress, Groningen wants to measure the effort compared to the result and the fashion of local engagement

in the initiatives (p. 30). This relates to distributive justice, as this would revise who does what and who gains from it. There is also mentioning of setting up a 'klankenbordgroep', *"consisting of external parties with various backgrounds to exchange thoughts with once or twice a year"* (p. 32). With this transparency and options for engagement, one could argue that the province attempts to include as many voices and visions as possible to increase justness.

The instruments mentioned in chapter five are also related to justice, especially the energy fund. This fund would be used to finance health, accommodation, liveability in general (p. 33). Part of this fund would also be invested in energy initiatives the area that has been hit by earthquakes (p. 35). In the sixth chapter, it is stated that *"for all other categories we want that it is easy for inhabitants to take energy measures"* (p. 34). Here, energy justice is defined as making it accessible and easy for everyone in society to join. In the final chapter, an outline is presented on how the energy transition is an integral theme that stretches across other policy areas as well. These areas include, among other things, environment, liveability, housing, well-being and healthcare, but also: labour market and education, spatial planning, traffic and transport, and agriculture and fishery, nature and landscape.

Conclusion

The trends that occur in this document are aiming for participation, focusing on mitigation, and striving for innovation. Especially the latter plays a big role in the province's vision of the energy transition. The citizen is acknowledged as an involved party whose needs should be met, but also as active agents who are part of the process. Remarkably, the division of burdens and benefits is only mentioned once, in the prologue. Other literal mentioning of the division does not occur.

4.3 Inpassingsplan 2017

This document is the legal foundation of the wind park N33. It exactly describes the situation and the way in which the park is going to be installed. It assesses all possible risks in terms of the environment and public health. The impact of the park on various environmental aspects, such as ecology and landscape, are researched and assessed. The health risks include noise, the effects of the blade shadow and the visual hindrance. It becomes clear that, according to the document, there are no obstacles in that respect.

The reasoning for this document is based on the European agreement that 16 per cent of the total energy consumption in the Netherlands is from sustainable energy resources (p. 4). Furthermore, wind energy is the most suitable option of sustainable energy for the Netherlands. This is because due to climatic and geomorphologic characteristics there are less possibilities for other options such as solar energy and hydro power (p. 5). Wind energy plays an important role to reach the renewable energy targets shortly as it is a relatively cost efficient and yields sufficient power. The wind park N33 was aimed to consist of 35 wind turbines that ought to generate 120 MW.

It is also aligned with the Energy report transition to sustainable 2016 and the National Energy Agreement (p. 20).

The focus here is on wind energy, specifically wind energy on land in the northern region of the Netherlands. In the first chapter the use and necessity are explained. In the document it is stressed that wind energy is the most suitable option for this part of the Netherlands.

Involved parties
Farmers
Landowners
Companies
Province of Groningen
Municipalities Menterwolde, Oldabt, Veendam
Windpark Vermeer Noord BV
Windpark Vermeer Midden BV
Windpark Vermeer Zuid BV
Innogy Windpwer Netherlands BV
Ministry of Economic Affairs

Minister of Economic Affairs
Minister of Infrastructure and Environment
EU
Dutch state
SER (Social-Economic Council)
Commission of the m.e.r. (Environment Effect Report)
Citizens
Societal organisations
Other levels of government

Table 5 Mentioned parties in Inpassingsplan 2017

In the introduction it is mentioned that various private parties have united themselves to realise the wind turbine park: *“Various private parties (farmers, landowners and companies) have united themselves and initiated the joint intention to realise a wind park with all-encompassing civil and electric services and to exploit in the province of Groningen in the municipalities of Menterwolde, Oldambt, and Veendam”* (p. 4). The ministry of Economic Affairs plays an important role in this plan. This ministry oversees the coordination of the decision-making process. In terms of permitting license for the building and designing of the park, the mayor, and the aldermen of the municipalities of Veendam and Menterwolde are the primary authority. Citizens are mentioned only once in this document.

The Dutch state ensures that all decisions are ready for inspection and the state is the central point in this procedure (p. 7). This procedure started in 2000, when the region was selected for the development of largescale wind energy. In the following years, the area has been assessed for its suitability for wind energy projects. Several impact assessments, such as the environment impact report (MER-procedure), were carried out. The Dutch state has appointed areas for large scale wind energy generation together with the provinces (p. 21).

In 2016 the area where the wind turbine park is now built, was chosen for the project. The location for the wind park N33 has been in consideration since 2000, as part of the provincial environment plan (POP) as a concentration area for the development of large-scale wind energy (p. 10). Ever since, the area has been part of successive provincial spatial plans (p. 10). In 2010, the project became part of the state coordination regulation (RCR). The earlier mentioned first phase (development of concept plan) of this process

started in 2011. An environmental impact assessment was carried out and in 2012 the concept was determined. In 2014 the area was marked as one of eleven locations where over a hundred megawatts would be generated. Therefore, the project falls under state coordination. So, the province has selected the area as fitting for wind energy generation and since then, the area has been in consideration. Eventually, the state ruled that the N33 area would be chosen for the development of the park.

Chapter two thoroughly describes the technicalities of the construction and the wind turbines; this is less relevant for the analysis.

In the fourth chapter an overview of policy on wind energy developments on the three governmental levels is given. The national policy is based on the European regulation 2009/28/EG. This regulation states that 14 per cent of the total energy consumption in the Netherlands should come from sustainable resources by 2020. In 2012 the Social-Economic Council drafted the National Energy Agreement, which was signed by various parties, including the Dutch state. The Dutch government implements policy based on 'Structuurvisie Infrastructuur & Ruimte' and 'Structuurvisie Windenergie op Land'. In these documents, promising areas are listed and assessed for suitability.

The province maintains the 'Omgevingsvisie 2016-2020'. At this level, the realisation of wind energy is already more concrete. The division of burdens and benefits is also mentioned here. In this section it is mentioned that a better division through participation and compensation will create more support and acceptance. Therefore, the province of Groningen wanted to set up a fund.

The municipalities of Menterwolde, Oldambt, and Veendam are less aligned. The municipality Menterwolde does not deem the proposed location appropriate and thinks a larger area should be researched. They also think the distance between the park and the area where inhabitants live should be at least 2 km. The municipality of Oldambt has decided in 2012 that there will be no wind parks developed. For a wind project to be realised, there needs to be support of the local population. The municipality of Veendam does support generating renewable energy.

The wind park N33 fits in the state policy for wind energy (p.29). However, the plan does not coincide with the municipal policy on wind energy. The determination of the location and the design of the park are the result of a lengthy process in which the

province of Groningen has been closely involved from the start (p. 29). Not all areas are suitable for large-scale wind energy generation (p. 21). There were several 'promising areas', and the *"the provincial policy was taken into account"* (p. 21). After the environmental impact assessment and the SvWOL, several areas were confined due to spatial laws and regulations and the requirements for wind turbines (p. 22). Then, it was assessed how much generation capacity there would be for each area. The areas were also assessed on the possibility of effects on living environment, landscape, cultural history, archeology, nature, safety, and spatial use, should there be large-scale wind generation.

Another qualitative effect assessment was carried out, as well as a sensitivity analysis (p. 22). After this, another global estimation of the generation capacity was made. Based on the area features and the impact assessments, it was eventually determined which areas are suitable for large-scale wind energy generation of at least 100 megawatts (p. 23). The cabinet eventually choose which areas were chosen for the SvWOL. Because of the impact of the large-scale wind parks on the landscape and the living environment, it was recommended that for new wind parks the involved governments should make a spatial design together with the project initiators (p. 23). Per area there were several issues raised that needed extra attention. These issues concerned for example nuisance and blade shadow, or safety (p. 23).

Decision-making process

Throughout the process there were several suitable options. The location choice was based on four criteria: energy yield, living environment, ecology, and landscape (p. 35). For energy yield *"the higher the potential power, the more positive the score"* (p. 35). The criterium living environment explored the potential hindrance the wind park could have for residents. Effects of noise and blade shadow fall under this criterium. Ecology refers to how a wind park could affect the ecological environment in terms of protected nature areas as well as protected animal species such as birds and bats. Here a location scores more positively when there are less effects on protected areas and species to be expected (p. 35). The location options were also assessed based on impacts on landscape. Here *"a location situated in an area that aligns with infrastructure and/or industry and not in an area that is characterised by openness"*, scores highest (p. 35).

All locations were considered suitable. *"From the comparison of the different locations it follows that none of locations is unsuitable for large-scale wind energy"* (p. 35).

It was concluded that the area N33 was suitable for the construction of a wind turbine park. This location was approved because *“it is suitable for a large-scale wind park and has a good score on ecology”* (p. 35). The choice for this location also *“aligns with the state and Groningen provincial policy that states this area is adequate for large-scale wind energy”* (p. 35). It is mentioned that living environment is an important issue for determining the design (p. 36). This is because of *“the proximity of Veendam as a big node and a few smaller nodes, causing a lot of houses to be in the area of the location”* (p. 36). However, as stated, *“a part of these houses is shielded because they are in villages and because the industrial area is between the houses and the wind park area”* (p. 36).

There were also several options for the design of the park. Here the following was considered: distance to living areas, connection to road N33, distance to infrastructure such as water ways and power lines, spacing between wind turbines. Based on this, there were six different design variants. These were then evaluated on the basis of noise, shadow, flora and fauna, cultural history and archeology, landscape, water and soil, safety, space use, and the sustainable energy yields and the theoretically avoided emission. All the criteria had certain scores per area. For noise, for example, there listed sub-criteria. These include nuisance, assessment of change in acoustic quality of the environment, assessment of low frequency sound (p. 39). These criteria can all in some way affect residents. In terms of direct risks for residents, noise and blade shadow could be considered having the highest chance of negatively impacting them. The noise poses risks for night’s rest and could be experienced as distracting. The blade shadow could also be experienced as distracting and irritating.

Justice

Energy justice in this document is approached differently than in the Energietransitie Plan 2015-2019. In the first chapter it is mentioned that *“on the basis of the Law spatial planning (Wro) the Ministers of Economic Affairs and the Minister of Infrastructure and Environment have the authority to set up planning”* (p. 5). Justice is in this document more based on law (p. 5/6). The inpassingsplan has the same judicial status as a bestemmingsplan, but in this case it is drafted by the Ministers of Economic Affairs and Infrastructure and Environment. The crisis-recovery law (Chw) is the legal base of this plan (p. 7). The impacts are assessed according to the outcomes of the MER (p. 12).

In the fourth chapter it is stated that this document *“underpins the importance of a good and open process of the project preparation of the wind turbine projects. In the Energy Agreement it is stated that a better division of burdens and benefits (compensation and participation) between developers and the surrounding area is essential for increasing carrying capacity for the project”* (p. 26). In this document the division between burdens and benefits is envisioned as *“participation and the establishment of an area fund”* (p. 26). This chapter concludes with the notion that the *“State is aware that the wind park does not fit in with provincial and municipal policy”*. (p. 29). The main reasoning for deviating from provincial and municipal policy is *“the necessity to generate sustainable energy through wind energy to realise the national goal of 14% sustainable energy in 2020”* (p. 29). This is supported by *“the chosen setup of the wind turbines, the legal framework, de SvWOL and the goal of 14% sustainable energy in 2020, all the different interests are taken into as much consideration as possible”* (p. 30).

Justice comes in the form of impact assessments and analyses. As can also be seen in chapter four. Assessments were carried out in several stages of the process, to establish exactly how big the park can be and how much energy should be generated. Chapter five is devoted to the MER-procedure. In the MER there are several locations in Northern Netherlands assessed and compared, each offering space for large-scale wind energy (p. 33). The MER provides as a base for the choices that have been made. The criteria show that the location selection was done with care. In the final part of this chapter, it is stated that *“wind energy is a sustainable form of energy generation and therefore of great common interest”* (p. 45).

The sixth chapter concerns all environmental and value aspect tests. These include noise, shadow of the blades, safety, ecology, archeology and cultural history, landscape, soil, aviation and light, radar, radiation, health, flexibility, and environmental zone. All these impacts are assessed for the area N33. It is mainly noise, blade shadow, and health that could directly impact people. It is concluded that the noise does not exceed regulations. For the low-frequency noise it is concluded that *“in the Netherlands there are no specific legal norms, because the current system offers enough protection against low-frequency hindrance”* (p. 49). Therefore, *“the low-frequency sound is deemed acceptable”* (p. 50). For blade shadow, flickering frequency, contrast, and time span of blade shadow are considered (p. 51). In the MER there was also carried out blade shadow research and *“with the chosen setup each wind turbine type can always meet the legal norms”* (p. 53).

In terms the health assessment, noise hindrance, blade shadow, and visual hindrance are considered (p. 86). It is stated that *“the translation of the mentioned effects to the consequences on the health of residents is subject of discussion. Health effects, such as sleep disturbance, are not only determined by noise hindrance, blade shadow and visual hinder, but also by the degree of involvement, financial advantage or disadvantage with the turbines and one’s attitude towards sustainability and landscape”* (p. 86). It is concluded with the notion that *“there is no clear relation between health and wind turbines yet scientifically determined”* (p. 87).

Conclusion

This document comprises the implementation of the wind park N33. The various assessment procedures show that the wind project plan was thoroughly checked before it was executed. This shows the decisions are made on the basis of legitimate procedures and expert advice, which implies that energy justice is incorporated here in the form of scrutiny moments during the phases of the planning process.

5. Energy transition and justice as experienced and practiced by citizens

5.1 Introduction

For the primary data collection there have been conducted several interviews with people who are connected to the wind turbine park N33. Two members of Windtegen have been interviewed, as well as one farmer, one person working for the province of Groningen, and one participant is an inhabitant of a village close to Meeden. Goal of the interviews was to find out what strategies involved parties executed in reaction to the instalment of the wind turbine park N33. With these interviews it was also aimed to uncover what roles the involved parties have been playing. The second goal was to explore the interpretations of (in)justice in the energy transition. Therefore, it is first necessary to establish how participants think about the energy transition itself. To what extent do they deem it necessary? And what is their view on wind energy as part of the energy transition? Justice is questioned in the light of experienced (in)justice.

This chapter is structured according to the various strategies the involved citizens have implemented in their dealing with burdens and benefits of the wind park N33. There are various ways in which citizens have attempted to strategize gain benefits and/or avoid burdens. These strategies can be seen as ways to reach energy justice. There were various moments in the process where citizens could respond officially and object or give suggestions. This option was used, but simultaneously people also found their own ways of objecting. The following section will dive deeper into this.

5.2 Strategies used by citizens

Establishing a foundation: Windtegen N33

An important method and way of citizens to take control in the situation was uniting themselves in a citizen collective. In Meeden, people are confronted with the implications of the energy transition quite directly, as a wind turbine park borders their town. Inhabitants of Meeden have founded Windtegen N33. They form a vital voice in the local discussion of the procedure of the wind park. Inhabitants have founded this group in 2010. One member stated: *“I have been in the town council Meeden for twelve years. In 2010 we were worried about the arrival of the wind turbines. Then we said, we should not handle this in the town council, but establish a separate foundation.”* Reasons for joining this foundation were numerous. It should not be assumed that this group has one homogenous

view on the generation of wind energy in their local environment. Within this group there are variations in views on wind energy, the wind park, and motivations for joining this collective. Some are actively against wind energy in general, some disagree with the locations of the wind park N33. The concerns involved the size of the wind turbines, the height, the possibility of noise nuisance, vibrations, low-frequency noise, and the possibility of sleeping problems. Respondent 1 addresses his reasoning for being involved with Windtegen N33 in relation to justice. On the question of why he would put in time and effort in such an organisation, he answers: *"I think this mainly comes from a feeling of injustice."* The formation of this action group reflects how citizens want to be included and want to have influence in the decision-making process to protect and defend their interests. The procedure of choosing a location, constructing the turbines, and assessing the environmental impact of the wind turbine park has been carried out on the basis of law spatial planning, the crisis-en herstelwet and the state coordination regulation. However, it was felt by Windtegen N33 that the crisis-en herstelwet was used mostly to *"overrule everything"*. According to them, the state used this law to make the definite decisions on the location and design of the wind turbine park thereby bypassing the municipality.

Protest actions

Legal pathways

Windtegen N33 tried to alter the course of the process through legal options. Respondent 1, involved with Windtegen N33, mentioned there have been filed several lawsuits, one of is still ongoing. Windtegen N33 also appealed to the Raad van State. He also mentioned the procedure of responding to the environmental impact report. Windtegen N33 has handed in several of these responses, but according to respondent 1 this did not stop the planning process.

Also, participant 1 has filed a WOB-request. This is a law that allows people to see certain governmental documents. He received very late replies and the documents he requested were not sent. This also contributed to a feeling of not being acknowledged.

Other actions to increase attention and awareness

But Windtegen N33 also used other strategies to increase their impact. According to respondent 4, who is a member of Windtegen N33, they distributed flyers with information to fellow community members, trying to make them aware of the impacts and

side with Windtegen N33. They also collected signatures and sent these to government officials in The Hague. Member of Windtegen also expressed concerns to local politicians at the province house and went to public meetings of the province. At one point they filed an enforcement request (Handhavingsverzoek) at the municipality. This is a request that citizens can make if they think laws and regulation are not complied.

Later in the process, a part of Windtegen N33 split up and formed Storm Meeden. The latter can be described as a more extreme sub-group. Respondent 2 described that this group has *"held the process hostage"*, meaning to say that they blocked any progress in discussions. Respondent 2, working for the province, mentioned the following about some of the protesters: frontmen of Storm Meeden drew a lot of attention to himself. She felt like he was mainly there to protest, *"it could be about any other issue"*. She found that this person silenced the rest by drawing all attention to himself. The respondents who are not part of the protest groups, felt like some people in the protesting group *"made a lot of noise, and gained, also because of sensationalism, a lot of allies"* (Respondent 3). This can also be seen as a strategy, as this draws (media) attention to the topic. But according to the two respondents it drew a lot of attention to those loud voices, thereby distracting from what the discussion was about. Namely, coming together and working towards finding a solution.

Respondent 2, who is now working at the province, mentioned various protest actions from a more aggressive nature, especially towards the farmers. There have been placed cement concrete blocks with iron pins in the agricultural lands of local farmers. Although some farmers acknowledged this action was done by four or five people and does not represent the majority, it was enough for some to back out of contracts. In one extreme case, she stated, a farmer told her that *"he was building a new house, and he received a text message, with photos from his new house saying he should look at these photos closely, because this will probably be best view he will see of his house. If you continue this."* Also, villagers came to her, wanting to know more about the wind park, but told her *"If Storm Meeden knows I'm having contact with you for whatever reason, they will come at my door tonight and will tell me I cannot have contact with you. And that is the mild manner."* Throughout the process several threat letters were sent to energy companies, farmers, and other people involved in the wind park.

Respondent 3, who is a farmer, mentioned several actions by protesters that showed their dismay but also, in respondent's 3 view, obstructed the conversation. He stated that the protest group Storm "*sabotaged information evenings.*" These are evenings organised by the local government to answer questions of their citizens and give information about the upcoming plans. According to respondent 3 several of these evenings did not take place because of these actions. Because of risks of escalation, the mayor decided to cancel the meetings. The respondent stated that "*in the beginning there were some sympathetic actions, soft actions, but five or four people went further and further. And at one point they crossed the line.*" Colleagues of his that did not even rent their land for wind energy were "*sabotaged*". He also mentioned the cement blocks in land owned by farmers.

Strategies from farmers

There is a group of citizens that has been able to gain benefits of the wind energy development: landowners, which are mostly farmers. Farmers use their agricultural land place wind turbines on. They earn a profit by renting out their land. These contracts run for the period of exploitation with a maximum period of 25 years. The farmers, for example, are in some citizens' eyes seen as profiteers. Respondent 2 states that farmers are seen as greedy, but she does not recognise that. She said: "*the farmers have said from the beginning, we live in this town as well. We are part of this community as well.*" Meaning that the farmers had no intention of deliberately stirring up social structures in their town. Respondent 5 could understand the farmers and said, "*a farmer runs an economic business. From an economic point of view, I don't think it's weird that a farmer says I'm renting out my land.*" Respondent 1 and 2 both stated that the wind park led to tensions between the farmers and the villagers who were disturbed by the wind turbines. As respondent 1 stated: "*It did not contribute to the social cohesion of Meeden.*"

Options of participating in decision-making process offered by government

Citizens were able to react in certain stages of the process. Citizens could hand in their views on the proposed plans for the location. From the interviews, it became clear that participants made use of that option. According to respondent 1, there were handed in more than a hundred views. But he felt like everything was already set and their 'zienswijzes' were not listened to. So, there is a participation procedure, but it felt like this

procedure did not allow citizens to exert any influence. One participant stated: *“what bothers people is that they were just not heard. We offered alternatives. But it was already a done deal.”* The alternatives were in the ‘zienswijze’.

In terms of decision-making, there are different perspectives. Respondent 3, who is a farmer, states that: *“if you have changes that are met with big resistance, then it means that you can’t get anything done in a democracy, because there will always be a group who obstructs that. And then, I don’t know if it gives progress, but it does prevent development. And thus, it sometimes must be forced to initiate change.”*

Respondent 2 mentioned that decision-making has to be transparent and politicians and other civil servants should not try to sugar coat the message. She also pleads for collaboration and involvement of parties such as environmental organisations. She stated: *“by doing it together, you will gain insight in what kind of issues occur and there will be more understanding of the choices you make.”*

Respondent 5, who could be seen as less involved because he does not live in Meeden, stated that decision-making should not be done by citizens. They can, however, *“participate in the process. But the final decision should not be made by them.”*

Area fund

The area fund was developed to invest a part of the wind energy revenue back in the local community. The area fund is supposed to benefit locals. Members of the citizen collective felt the *“burden was being dumped on them.”* And they did not join in the benefits. Participant 1 mentioned that in terms of financial benefits *“1.5 per cent goes to the surrounding area.”* This comes down to 150 thousand euros. But according to the respondent the energy companies make a profit of ten million euros. However, the fund has not been operational. Windtegen N33 has not accepted the fund as they feel like accepting the fund would mean approval of the plan. According to respondent 3 *“the hard core of protesters saw this as bribery.”* However, other respondents, civil servant, and farmer, felt like the citizen collective obstructed local development by not accepting the fund. But all participants agreed that financial benefits for the residents and local services is part of a just transition.

Complaint form by citizens

Another important part of energy justice was coded acknowledgement in the process. Something that surfaced in every conversation was the validation of concerns and acknowledgement of the citizens in the process. From the beginning, citizens have been worried about the view, the noise, and possible vibrations. As members of Windtegen N33 felt like the government, all levels, did not recognise their concerns, they started doing that themselves. Respondent 4 mentioned that a few people collected noise complaints in an Excel sheet. In a timeframe of two years, they collected over 600 complaints divided over 150 people. The reasoning behind this collection of complaints was to have proof they could take to government officials, to show that people had trouble sleeping for example, and thereby strengthen their reasoning. The respondent also stated that *“it was a shame that his concerns were rightful, I would have preferred that they would all make fun of me, like now these things [wind turbines] are here and no one is bothered by them. Now I can say, this is what I was so concerned about.”*

The complaint file was set up by the town council. Initially, it was supposed to be set up by the municipality. When this was not realised properly, according to the respondent, the council created their own hotline. By collecting the complaints, respondent 5 hoped that it would alarm the government and mobilise them to act. He also thinks the municipality should defend the citizens and that also the regional and national levels of government should be there for its people.

In this regard, there is a solution offered by the municipality and the project developers. An app created on which people can file noise complaints based on location and time. It turned out that the windmills made more noise than recorded in the specifications. The energy company then made an alteration, so the noise was turned down. According to respondent 3 there was *“good contact about that with the locals.”*

5.3 The Process: from plan to reality

Perception on process

During the interviews, the involved parties – government, citizens, energy companies – were described from various perspectives. The Municipality of Midden-Groningen being the most directly involved with the local community. In consultation with the provincial and national government, the municipality is responsible for realising the installation of the wind turbines.

From a citizen's perspective there was a feeling that the provincial and national government decided against the municipality's will. Respondent 1 felt like they *"were pitted against the state."* He also said that the state took over tasks of the municipality and this led to friction between the different governmental levels. It was mentioned multiple times that the province could have played a bigger role in making decisions about the wind turbine park. Respondent 5 stated that *"the province should be in discussion with locals and take their responsibility and not just leave it at the local government."* Both respondents involved with Windtegen N33 saw their trust in government decrease during this process. Respondent 1 also stated that he thought that *"the state looks for places where relatively many lower lower-educated people. Who don't know all procedures, who are not capable of resisting structurally. Who do not have all networks to push things through."*

The energy companies that are mentioned are RWE, Essent, Eurus, and KDE. RWE is originally a German energy cooperation that is a partner of the Dutch government in the generation of wind energy. Essent was the precursor of RWE and was responsible at first for developing wind energy projects. Eurus is a similar party, also working for the national government. KDE (Koop Duurzame Energie) is also a developer who worked with the national government. Respondent 2 described KDE as *"mostly interested in wind park itself, creating value, less in establishing good relationship with local population."* Respondent 1 stated how it was difficult to get into contact with the operators. Mails and calls were left unanswered. Respondent 4 also stated that they approached the energy companies first and asked them about the specifics concerning the wind turbines. He recalled that *"they [Windtegen N33] have been very active, but rarely an involved party came to them to talk."* Only later in the process these parties were interested in talking, because *"they could not ignore them [protest groups] any longer."*

Collective versus local interest

Respondent 1 stated that the national government decides over the wind park. As soon as the Inpassingsplan was finished, the municipality was obliged to issue a permit. They did this because they had no other choice. In the years 2000 the province selected suitable 'search areas' for wind energy generation. According to respondent 1 it was almost impossible to change these search areas. According to respondent 2, who worked for an energy company during the period of the construction of wind park N33, this vision dated back to the end of nineties, beginning 2000. The current plans are partially based on the

circumstances of that period, and according to participant 1 also on old measurements of the windmills. But it was very hard to adjust the direction of the chosen path. The measurements of the wind park are part of the environmental requirements which were assessed in the M.E.R. The allowed noise levels left respondents involved with Windtegen N33 confused. According to them it is too loud and making too much noise. According to the MER the wind turbines' audible emissions comply with legal requirements. However, respondent 4 thinks they should review the current standards and adjust the sound standard to what is bearable to the majority of the residents.

In multiple conversations the friction between local and higher-level governments was mentioned. According to participant 1, the municipality fined the wind park for one million euros. The national government was not very pleased with this action. It *“sharpens the relations between the state and the municipality.”* Respondent 2 said she ‘struggles’ with what the municipality has done. She said *“they fed the protesters. Both financially as in their protest. But that is what happened. But with that, there is an extra societal discord created within the village.”*

Citizens knew how to find their way to local politicians and other locally figures involved in the wind park. Higher-level governments were harder to approach. Respondent 4 stated the following on his efforts to do so: *“the provincial government and national government are like bastions, as if there are walls built around them. The municipal politics is always approachable, those politicians live, they could be your neighbour. The provincial government, we feel, is so far from reality. Are those people or robots? It sounds a bit weird. But they just say that is the agreement and we made agreements.”*

This also ties back to the national government coordination regulation and the Chw. These allow the national government to make decisions, which could be unpopular decisions on local level. One of the participants, respondent 5, also mentions that the government should be in control of the final decision, because otherwise there will be too many interests that need to be considered.

View on energy transition

What becomes clear in all the conversations is that the energy transition is seen as necessary and obvious. There was no one who was against it or doubted the importance. Participant 1 does state that resistance in his environment was mainly caused by the size of the wind turbines. The respondent himself is not necessarily against the wind parks.

Another objection shared by multiple respondents is the criss-cross placement of the wind turbines. The turbines are placed across a vast region. Two respondents (4 and 5) would have preferred to see one wind turbine park in an already industrial area. The low-frequency noise and the sleeping problems it causes are the main points of frustration regarding the impact of the wind turbines. But respondent 1 thinks that the biggest source of sustainable energy is energy saving. According to him the transition should be mainly about decreasing the demand for energy, rather than continuing to consume the current amount but from 'green' energy sources. The protest group is also in favour of the energy transition. However, two respondents also mentioned that they think solar and wind energy is a temporary solution and that in the future there will be a different way of generating energy. Something that will make windmills redundant.

The current situation regarding our energy resources is mentioned by various participants. Because of the situation with high energy prices and Ukraine war, there is more attention for energy and the energy transition. For one respondent 1 these higher energy prices make it viable to accelerate the energy transition and push for decrease of fossil fuels. Respondent 2 stated that there is a surge of interest in energy security due to the current events. She hopes that this is not a temporary interest, but people will continue to be more aware of their energy consumption.

Groningen has always been an important player in energy supply in the Netherlands. The natural gas extraction has led to great discontent with the inhabitants of Groningen. Participant 1 mentions that the division of burdens and benefits of the gas extraction has also been divided unequally. He stated that *"there is a sentiment of yeah we are being forgotten and the West always dumps everything here."*

However, respondents 2, 3, 5 do not feel that the wind energy generation is part of an accumulation of previous energy resource extraction, such as gas. Respondent 5 mentions that *"due to geographic location certain areas are used for certain raw materials or resources."* Respondent 4 stated that in his region (Meeden) there were also earthquakes due to gas extraction. For him the wind park does add to the gas extraction, he got a feeling *"that in Groningen everything can take place."* Respondent 3 stated that in the early phase of this plan, Groningen was seen as interesting due to its open and spacious character. Also, the respondent who worked with the government during this phase mentioned how Groningen was marked suitable for wind energy due to the wide-open spaces. However, an inhabitant (respondent 4) said *"they ['people living in western*

part of the Netherlands] *say oh there are no houses anyway. Those people [people from Groningen] cannot be bothered.*” Respondent 2 said in this respect that *“in Groningen people feel that they do not get anything in return.”*

Attitude sustainability

What respondents also mention is that there needs to be less focus on economic growth and increasing wealth. Respondent 1 said: *“We are approaching the limits of how far the economy needs to expand. Policy is aimed at growing the economy and do the energy transition. And I think that is not possible.”* All the respondents were highly aware of the challenges we face in terms of sustainability, consumption, and climate mitigation and adaptation. Respondent 2, working at the province, mentioned how the youth branch of the Regional Energy Strategy is more radical in their views on ‘sacrificing’ certain areas for the energy transition.

6. Discussion and Conclusion

Discussion

As mentioned, the energy transition is likely to perpetuate existing inequalities. Even in a country like the Netherlands, where there are democratic procedures installed to ensure a just transition. But in a densely populated country such as the Netherlands, space is becoming increasingly scarce. Current renewable energy generators need a lot of space to be viable, such as solar fields and wind parks. It is expected that this will contribute to future conflicts and struggles over access to land (Scheidel & Sorman, 2012). But who decides how and what for public space will be utilised. The authority over making these decisions could contribute to an existing unequal distribution. In terms of wealth, but also power, one could state that this is skewed to the west of the country, mainly the Randstad (CBS, 2020). In north and eastern regions, some experience a sense of neglect. The gas extraction is an example of the discourse on how the province is exploited for its natural gas resources. Now, wind energy generation could be seen in that same light. The province of Groningen is marked 'suitable' for wind energy, as can be found in the Energietransitie Plan 2015-2019, as well as the Inpassingsplan. Just as the gas extraction, the wind generation leads to commodification of nature. The main financial benefits are reaped by the energy companies. Within the community, only farmers join in the benefits. But this is a small share compared to what energy cooperatives make.

There is, as described, a participation procedure. But for some it felt like as if this procedure did not lead to greater influence or adjustment of plans. This is apparent in more cases that directly concern people's living environment. Roth et al (2017) describe this in the case of flood risk management in the Netherlands. Participatory methods are often seen as good, without question (Cleaver, 1999). Including citizens as stakeholders should lead to inclusive development. But in their article, the authors illustrate, by the use of three cases, that "participatory processes tend to be coloured by power differences, hidden agendas, and perceived injustices that influence trust in the process" (Roth, Vink, Warner, & Winnubst, 2017). Some of this is also apparent in the case of the wind park N33 in Meeden, especially the latter. The distrust grew between all parties. Inhabitants distrusted each other, as shows in the quote by respondent 2 where citizens made secret calls to her to gain more information about the wind project so others would not know they might consent with the project. There is also distrust between the inhabitants and the energy cooperatives, as they were unavailable to inhabitants to give out information

about their plans. Respondents also indicated that this process led them to lose trust in the government, especially the national government. Trust is a vital part of perceptions on social justice (Zhang, 2017). Distrust between involving parties has blocked progress for a long period of time in the Meeden case. This has made it difficult to achieve justness in this energy transition project. For participation to have a chance of achieving satisfactory results, both local governments as well as inhabitants must be willing of participating in public participation and both can influence the setup and goals of participation (Uittenbroek, Mees, Hegger, & Driessen, 2019). What makes the participatory methods complicated as well, is that often the ones who disagree with the plan make use of them. In the process of wind park N33, perhaps some parts of the community were too firm in their views and indeed dominated the conversation and withheld more neutral citizens from joining the conversation. Respondent 2 also mentioned whether *“the focus should have been more on reaching a bigger group of people. And take away the attention from the loudest voices.”* For participation to have chance at successful results, the goals should be explicit in advance, the goals are discussed between participants (among others: local governments, citizens), and then based on the goals, a conscious and joint decision on the design of public participation is made (Uittenbroek, Mees, Hegger, & Driessen, 2019).

Achieving energy justice through participation also ties to questions of authority. In a process as complex as shifting to a new energy system driven by the increasingly noticeable and threatening impacts of the changing climate, it is difficult to determine who is allowed to determine the rules and make decisions. The national government is concerned with adhering to European and global agreed upon regulations for reaching sustainable energy objectives. Regional governments draft the practical plans and local governments are tasked with executing them. The latter is also charged with dealing with societal implications of, in this case, a wind turbine park. This leads to friction, as municipality and state do not always align. In the Meeden case, the municipality appeared to side with the local population. In terms of rules for the requirements of the park itself, it also has appeared to be difficult to be aligned. A good example of this is the regulation regarding the low-frequency noise. In the Inpassingsplan it is stated that *“in the Netherlands there are no specific legal norms, because the current norm system offers sufficient protection against low-frequency nuisance”* (p. 49). During the interviews, it appeared that the low-frequency noise is an important issue for the citizens as it is highly

disturbing to some. Respondent 4 said: *“they hid behind rules and norms. If you have low-frequency noise, you can set a standard, but that is no measurement of the level of hindrance of the noises.”* The lack of rules on low-frequency noise specifically makes it hard to base argumentation for both citizens and the government. In addition, there is no scientific evidence that low-frequency noise is a threat to health (Kamp & van den Berg, 2018). The level of annoyance is mostly determined by factors such as noise sensitivity, social acceptance, benefits and attitudes, and the conditions of the planning of the wind farm (Ibid.).

In terms of social acceptance, it becomes clear that the issue with the wind turbine park is deeper than a mere sense of ‘not in my backyard’. The conversations held with citizens of Meeden show that their protest comes from concern and engagement. The citizens of Meeden have certain views on procedures that were developed to increase participation and involvement in the project, so that there would be more acceptance and understanding of the project. Both participants who are involved with the citizens collective Windtegen N33 are first not against the energy transition, nor do they disagree with the need for renewable energy. Their main tenor is that they expressed their concerns from the beginning, but it seemed as if these concerns eventually did not weigh heavy enough to change the planning of the wind park.

Acknowledgement in process is more important than financial compensation. Participant 1 stated *“most people don’t have a feeling of just give me some money and then it’s all right.”* Acknowledgement, active engagement, and the feeling that people are being listened to appear to be of great importance in the process of wind energy parks. Respondents felt like they were approached as part of the procedure, but it did not feel like their input weighed in the decision-making process. Even when they did make suggestions, it felt like the path was already decided and there was no way of redirecting that path.

Energy justice in the analysed policy documents is encompassed as compensation and participation (p. 26, Inpassingsplan). In the policy documents, especially in the Energy Transition Plan 2016-2019, there is great emphasis on including local actors and supporting local initiatives. The province states they want to free space for locals to deliver input, but some of the interviewees did not feel like their suggestions were indeed considered. Perhaps, this was due to the fact that the plans for the wind park were already drafted early 2000 and back then participation was not a part of policy writing (as

mentioned by respondent 2, who was part of the whole process). Now, she said, it is mandatory to include participation in energy plan. This must be done in advance. So, there is awareness on the necessity to include locals from the first stage on (*“the challenge is mostly in the social-societal side”*, Energy Transition Plan 2016-2019, p. 7). And the citizens of Meeden have delivered input, for example, they suggested a bigger distance between their village and the wind park. According to respondent 2 there has been continuous contact with locals throughout the process. This is also confirmed by the interviewees who are with Windtegen N33. But they had mostly difficulty with contacting and reaching higher up levels such as the province and the state. And those are the governmental layers in which final decisions are made. There have been differences in approach between the different governmental levels. This surfaced both in the policy document Inpassingsplan 2017 and in the interviews. Two municipalities indicated they did not agree with the chosen locations. This issue arose in all the interviews. The plan was also not in line with local spatial planning, as stated in the Inpassingsplan 2017. But thanks to the Chw it was possible to overrule that.

In terms of compensation, this is related to equitably distribute the benefits and burdens of energy infrastructure and systems, there is of course mentioning of that in the policy documents. The division is mentioned just once in the Aanpassingsplan 2017, whereas this was a reoccurring theme in the interviews held with the respondents. This division of burdens and benefits is mainly envisioned as a financial compensation. However, initiatives like the area fund have not (yet) led to a balance of burdens and benefits. It is described as a fund to invest in public services. This area fund can contribute to the feeling of ‘receiving something in return.’ However, in the case of Meeden, the area fund became another issue of haggling between the different parties. Perhaps the document should have specified who is exactly in charge of the fund and citizens should be able to have a say in how the fund should be invested.

For a just transition in the Netherlands it is also essential to steer away from energy as a commodity. As Martinez (2017) states ‘shifting the paradigm from “energy as commodity” to “energy as commons” will be fundamental to achieving a sustainable, just, and democratic future.’ Now energy cooperatives have a significant share in the decision-making process, as they finance the project. But they often do not have local interests as their main priority. The province prides itself in the Energy Transition Plan with having been a provider of energy resources and being an energy region. Transitioning to

renewable energy and clear land to realise that, is based on this idea. This ties back to the concept of land grabbing, specifically green grabbing, where land is used for green goals, but the use is not in line with local perceptions on their environment. This also comes back in the interviews (“the burdens are dumped on us”, “In Groningen everything can be placed”). Some interviewees felt like, regardless the small(er) size of their villages, they should not be overlooked.

As Thombs (2019) rightfully states, new energy systems will not just be the function of new technologies to be deployed. They will be ‘fundamentally shaped by the social relations that configure societies as a whole (Thombs, 2019). Therefore, it is essential that the transition will not be driven by commercial interests, but by the sincere need for a renewable energy system in order to protect and preserve our environment, ourselves and future generations.

Conclusion

So, to answer the research question of how energy justice is envisioned by the Dutch government and how citizens of Meeden strategize the burdens and benefits, it can be concluded that both parties have roughly the same outlook on how energy transition should proceed. An equal distribution of burdens and benefits encompasses the general outlook. However, the intention differs from the eventual outcome. The government, the province of Groningen in this case, sees participation and compensation as the main pillars for creating an equal distribution of burdens and benefits. The process of the wind park N33 shows that this has proven to be more complex than just including people and give financial compensation. Citizens have responded in various ways. They made use of the offered possibilities, such as handing in their views during various stages of the planning process. They filed lawsuits, they set up a protest group, they collected signatures, they contacted national government officials, and they drafted a complaint form to strengthen their points. But they also deployed strategies that can be considered less desirable, especially for local authorities. They rejected the area fund. A small group occupied the townhouse, and some placed cement blocks in agricultural land to prevent construction. These are all strategies to attempting a certain control over the situation, thereby trying to achieve justness.

Public participation may support a just transition, but it does not automatically lead to inclusive development. It should be very clear beforehand what intention the

government has with involving citizens in the process. If they are asked to deliver input, but then these are not considered in the final decision-making, this will likely lead to dissatisfaction. This should be clear in advance of the planning process.

As shown in this case, it is difficult to undergo a transition that satisfies everyone's needs. Eventually, the impacts of wind energy generation are mostly local, whereas the output is enjoyed by the total population: we produce clean(er) energy that will contribute to a sustainable future that is needed for maintaining a liveable planet. Therefore, we must accept that there will be burdens and sacrifices to make. But it is necessary to divide these as equally as possible, otherwise the energy transition will deepen inequalities and cause social unrest. The energy transition also offers an opportunity to start approaching energy as a means to provide essential services for quality of life for everyone, rather than as an end to consume and make profit. Therefore, it is of utmost essence that the energy transition is not led by energy cooperatives or other profit seeking organisations. The goal must be to ensure accessible, clean, affordable, and safe renewable energy to citizens of the Netherlands, as well as the rest of our world.

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Appendices

Interview guide

Interview guide citizens

Introductie

1. Wat vind jij van de energietransitie?
 - a. Wat betekent dat voor jou?
2. Hoe belangrijk vind je hernieuwbare energie?
3. Wat vind je van de relatie tussen energie en Groningen?
4. Hoe zie je de rol van de burger in de energietransitie?
5. Hoe zie je de rol van de overheid?
6. Hoe zie je de rol van bedrijven?

Diepgang

7. Zijn er momenten geweest waarbij je inspraak had als burger?
 - a. Waar?
 - b. Wanneer?
 - c. Hoe?
8. Hoe zie je rechtvaardigheid in de energietransitie?
 - a. Is voor jou zo'n gebiedsfonds onderdeel van rechtvaardigheid?
 - b. En de lusten/lasten verdeling? Hoort dat erbij?
9. Hoe zie je het proces van het windpark N33?
10. Hoe zie je de overheid nu?
11. Wat vind je van het inpassingsplan?
 - a. Welke toets milieu-en waardenaspecten vind je het belangrijkste?
 - i. Geluid, slagschaduw, water, etc.
 - b. De conclusies die steeds worden gegeven, dat het geen impact heeft etc.
 - c.
 - d. En ook dat het inpassingsplan en het bestemmingsplan niet overeenkomen.
12. Hoe denk je over de NIMBY-discussie?
13. Het gaat vaak over lusten en lasten? Wat zijn deze volgens jou?
14. Wat drijft je ertoe om bij zo'n organisatie als Tegenwind N33 te gaan?
 - a. Heb je daarbij het gevoel dat je meer kan doen?
15. Ik heb ook nieuwsberichten voorbij zien komen dat er geweld is gebruikt. Wat vind je daarvan?
16. Wat zijn verdere bezwaren?

Afsluiting

17. Hoe zou je het wel graag zien? Hoe kan zo'n windmolenpark rechtvaardiger worden?
 - a. Burger participatie
 - b. Delen in financieel gewin?
18. Wat had er in deze zaak anders gekund?

Interview guide province employee

- Hoe lang bent u al werkzaam binnen energiesector?
 - o Hoe kijk je tegen Groningen aan als leverancier van energiebronnen?
- Hoe zag uw rol als ontwikkelaar voor windparken eruit?
 - o Waar werd op gelet tijdens proces van besluitvorming?
 - o Wie had er inspraak?

- Wie zijn er allemaal betrokken?
 - Werden burgers betrokken?
 - Wat voor burgers reageerden op verzoek tot participatie?
- Hoe verhoudt RWE zich tot burgers?
 - Hoe communiceert RWE naar burgers toe? Als zij dit doen
- Hoe verhoudt RWE zich tot overheden?
 - Hoe verloopt zo'n samenwerking?
 - Duurt dit lang? Zo ja, waarom? Waar ligt dat aan?
 - Welke partijen steunen elkaar?
- Wat wordt er gedaan met meldingen over geluidshinder?
 - Staat op de site van windpark N33
 - Is dit onderdeel van acceptatie vergroting?
- Hoe zien uw taken bij de gemeente eruit?
 - Wat betekent participatie precies?
 - Hoe wordt dat in praktijk gebracht?
 - Hoe wordt de burger betrokken?
 - Hoe kijkt de gemeente tegen weerstand?
 - Hebben mensen daar zin in
 - Denk jij dat dit te lang duurt?
 - Ik heb met mensen van WindtegenN33 gesproken. Hoe ziet u die boosheid?
- Hoe ziet u de energietransitie verder verlopen?
 - Op Groningse schaal
 - Op nationale schaal
- Wat is eerlijk in uw visie?
 - Hoe zou u het doen?
 - Los van kosten/andere belemmeringen.
- Van sommige burgers hoor ik dat zij het vertrouwen in de overheid verloren hebben, ministerie van EZK specifiek. Hoe ziet u dat?
 - Denkt u dat dat te herstellen is?
 - Hoe ziet u dat voor zich?

Code book semi-structured interviews

Categorie	Thema	Codes							
Rechtvaardigheid	Juridische aspecten	Crisis en herstelwet	Rijks coördinatie regeling						
	Lusten/lasten	Verdeling	Gebiedsfonds	Financiële lusten omgeving					
	Inspraak	Inspraak	Participatie	Draagvlak					
	Rechtvaardigheid								
	Besluitvorming	Besluitvorming	Perceptie op proces achteraf	Besluitvorming en samenwerking					
	Erkenning proces	Inspraak	Klachtenlijn	Gehoopte uitkomst klachtenlijnen	Verwachting overheid vanuit burger/actiegroep	Participatie	Gevraagd bij dit proces		
Betrokken partijen	Rol en functie: perceptie hierop								
	Rol provincie								
	Rol boeren	Hoe er over boeren wordt gesproken	Sentiment vanuit boeren	Reactie Essent bedreiging en richting boeren	Rol boeren	Houding jegens boeren die grond verhuren voor windmolens			
	Rol gemeente	Rol gemeente	Contact tussen gemeente en dorpsraad	Perceptie op rol gemeente					
	Projectontwikkelaars en omgeving	Houding t.o.v. type projectontwikkelaar	Relatie projectontwikkelaars met omgeving	Aanpassing op windmolens (kan ook erkenning?)	Perceptie op rol bedrijfsleven	Perceptie op contact initiatiefnemers en burgers			
Lokaal vs. Nationaal	Machtsverhouding overheidslagen	Macht om keuzes te maken							
	Lokaal/nationaal	Perceptie op algemeen belang vs. Lokaal belang	Lokale politiek	Crisis en herstelwet	Perceptie rijks coördinatie				
	Acties actiegroep	Windtegen N33	Coping strategieën						

Social acceptan ce	Houding t.o.v. actiegroep	Perceptie Storm Meeden							
	Houding burgers	Verhouding onderling	Houding burgers t.o.v. ontwikkelaars	Perceptie op reactie/houding van burgers	Luidstemmen in discussie	Verhouding boeren en bewoners	Dorp Meeden	Discourse over actievoerders	Alternatieven vanuit burger
	Vertrouwen overheid/politiek	Perceptie overheid	Vertrouwen nationale overheid	Redenering vertrouwen overheid	Perceptie overheid Groningen en windenergie				
Energietransitie	Houding energietransitie								
	Groningen energieregio	Sentiment Groningen als energieregio	Sporen van gaswinning op bevolking	Land grabbing/ Groningen als 'leeg land'					
	Impact windparken	Klachten	Zorgen	Effecten windpark	Impact windpark	Beleiden maatschappij			
	Houding windpark	Houding windpark	Houding plannen windparken	Visie op onderzoeksbureaus die MER uitvoeren					
	Visie maatschappij	Houding tegenover energie en energieverbruik	Visie op maatschappij	Houding jongere vs. Oudere generatie					