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'Energopolitics' of the Renewable Era: Analysing Cases of Local Energy Initiatives in the Gelderland Province of the Netherlands

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Abstract: The number of energy cooperatives in the Netherlands, like many other European states, is consistently on the rise, especially since the last decade. Local energy cooperatives have been observed as beacons of the promises of a renewable energy transition scenario, as they take community based initiatives for launching and owning more localized renewable energy systems. Since the Climate agreement in 2015 took place in the country, these cooperatives have now been legitimated as a stakeholder in the ongoing energy transition process. While this may secure these citizen initiated organizations a stable ground for operation, this entails new dynamics for energy cooperatives in the transition scenario. The present study considers certain aspects of the current process of renewable transition in the local level, through the conceptual lens of energopower and energopolitics.

1. Introduction

As of the twenty-first century, our age has been called 'Anthropocene'- a time when human-induced changes in the environment are slowly shifting the earth's climate toward a more unstable condition, making human beings one of the major agents of geological change. The force of this nomenclature has been felt strongly in the academia and environmental discourses worldwide, with scholars in diverse disciplines of the humanities and social sciences citing the term in their analysis of the new realities emerging under the auspices of climate change. In delving into the issues that Anthropocene brings forth, academics cannot help but notice its relation to the dependence of modern states on electricity and fossil-fuel based energy and the implications this has on our planet's environment.

The thrust of the Anthropocene discourse has also revived the subject of energy within the arena of anthropological research. Energy is being viewed as one of the crucial nodes of the current environmental crisis and its different manifestations in different societies urgently call for the attention of anthropologists, who have responded accordingly starting from early in the 2000s. Studies on renewable energies are on the rise with the trending of the different initiatives for renewables worldwide, especially in the Global North in recent times. Sensing the emergence of a new social phenomenon scholars of the social sciences are paying particular attention to the ways these technologies are being brought, albeit slowly, into communities in different countries and the ramifications the new energies bear for them (Szemen, 2014; High and Smith, 2019).

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While in the past more of a nascent alternative to the fossil fuel based energy sector, renewables have recently gained significant currency in the developed countries of the West, especially in Europe. Carbon emissions was singled out for being the largest contributor to global warming, and for the last two decades fossil fuels have been gradually losing their previous stronghold in the debate about climate change. The European Union's Renewable Energy Directive (RED) was committed to the goal of producing 20% energy from renewable sources by 2020, and a goal of producing 32% of energy from renewables by 2030. (Silva & Horlings, 2019) Despite the initiatives taken, the progress of constructing the renewable sector in the EU is generally slow. The Netherlands in particular was the farthest away from its 2020 goals among the EU nations and renewables constituted only 2.3% of the total energy consumption of the country (Ibid. p. 364).

However slow, the growth of the renewable energy sector is picking up pace in the energy scenario of the Netherlands. (HIER, 2020) Aside from the government and private enterprises that aim to generate energy via renewable sources, the country has also seen a rapid development of energy initiatives taken by citizens during the past decade. With the state that supports active citizenship, while striving for a sustainable energy future- these initiatives have been seen as harbingers of the successful energy transition of the coming years (Silva & Horlings, 2019). These small scale renewable energy initiatives have been also called 'revolution in disguise' (Hufen and Koppenjan, 2015) and being local and decentralized in their energy production and distribution, are seen to hold potential implications for the future of energy.

It is within this context that my research focused on the local energy initiatives or LEIs, led by common citizens of the Netherlands, especially those that own the infrastructure for producing and consuming green energy. I will now present the key identifying factors and features of these initiatives or cooperatives, charting out the vital outcomes that this mode of energy production anticipated initially.

2. Local energy cooperatives in EU and the Netherlands: Some Discerning Factors

The state's response to the pressing issues of carbon emissions became stronger since the transfer of energy policies to the Department of Economic Affairs in 2010 (Oteman et. al, 2014). This meant that policies would become more 'economy-oriented' leading to the roll-out of subsidy schemes, including SDE+ (Stimuleringsregeling Duurzame Energie or 'Stimulating Sustainable Energy') (Ibid, p.8) and tax relief schemes. SDE+ offsets the purchases of solar panels and compensates wind farms for net losses. It's a premium tariff that "covers the difference between the wholesale price of electricity from fossil sources and the price of electricity from renewable energy." (Proka et. al, 2018) These benefits for renewable energy entrepreneurs are compounded with tax relief arrangements, such as Post Code Area Regulation (PCR).

Apart from creating these notable schemes, the state also committed itself to energy and climate goals, following the European goals for carbon neutrality which aspires to transition to a climate neutral green economy (net-zero greenhouse gas emissions) by 2050. One of these agreements was the Energy Agreement of 2013, in which the government set out its strategies to achieve the EU targets. Another agreement that is of relevance here, is the Climate Agreement of 2015. As per the website of the Dutch

government, this agreement is "an agreement between many organisations and companies in the Netherlands to fight the climate change." The aim of the agreement is to limit global warming to 1.5 degrees Celsius (Report on Climate Agreement, 2019). This is aimed to be achieved by reducing greenhouse gas emissions 49% by 2030 compared to 1990 levels. One of the practical arrangements to implement these goals was devising a Regional Energy Strategy (RES), dividing the municipalities of the country into 30 regions.

All this development in the energy transition process was indeed slow and citizens of different countries in Europe started to take matters into their own hands, by financing, setting up and maintaining the energy infrastructures for powering their communities and homes. These bottom-up initiatives have been known by different names, Local energy initiative, community energy initiative, renewable energy cooperative/ energy cooperative and the like. These can be seen to follow a cooperative model of energy generation, while a cooperative is defined as- "…an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically controlled enterprise." (ICA, 2019)

As the terminology suggests, the renewable energy cooperative has certain criteria to fulfil, including being initiated by community people, empowering them with the means to power their own homes and institutions. The concept and practice of energy cooperatives, however, remain broad and elusive to researchers, as some social scientists find the term vague and problematic, and thus in need of continued observation and scrutiny by researchers (Soeiro and Dias, 2019). Some scholars have emphasized the democratizing potential of the energy cooperatives, due to the factor of collective ownership of the local renewable based energy system (Seyfang et. al, 2014). But as time progresses, the energy cooperative phenomenon in Europe has become more complex, often forming larger groups from bigger areas of countries and entailing more complex business models for generating renewable energy than the simpler and small scale community based solar or wind projects primarily envisioned.

Thus the emergent scenario of the energy cooperative as seen in Europe is gradually unfolding to be more complicated than initially imagined by scholars, who were hoping that the growth of the cooperative movement would ensure energy democracy by default, leading towards more autonomous communities who will produce energy for their own use (Stephens, 2019). These energy cooperatives were also envisioned as 'seedbeds of innovations' in renewable energy implementations, and prompting energy policies to shift toward renewables in the respective countries (Soeiro and Dias, 2019). They have also been called 'revolution in disguise' (Hufen and Koppenjan, 2015) and being local and decentralized in their energy production and distribution, are seen to hold potential implications for the future of energy.

There is, however, also a critical side to the debate on the role and contribution of LEIs to the overall energy transition process. Firstly, it was noted by researchers that these small scale community energy cooperatives cannot become a dominant part of the energy industry, for various reasons, which is still largely made up of fossil fuel companies (Arentsen & Bellekom, 2014). Critique of the cooperatives came also from the perspective of 'energy justice', further questioning whether the movement of citizen-led local energy cooperative or initiative contributes solely positively to a just transition

process. These studies highlighted issues of justice in the RE cooperative scenario- conflict regarding land attributed to projects, consent of involved parties, conflicts with other interest groups such as organizations/groups working on biodiversity conservation (Kluskens et. al, 2019).

Within the large body of social research on this nascent sector, there have also come suggestions from energy researchers to watch the intricacies in the current developments, as new stakeholders such as the state and professional developing agents negotiate the conditions and implementation strategies with the local partners of the energy initiatives (Creamer et. al, 2018). Nuancing the intricacies of the present realities that energy cooperatives are enmeshed in is therefore the urgent task of the energy researchers of today. It is to this end that I have strived to conduct my research on the local energy cooperatives, focusing on the issues of 'ownership' and 'autonomy' and detailing the negotiations involved in the planning and implementation process of the energy projects.

3. Setting and Methodology of the Research

This article is based on the research conducted for composing the Master's thesis, at Radboud University in the Netherlands in the year 2022. At the time of the study, there were 676 LEIs active in the country, according to the Local Energy Monitor 2021 report by the Dutch climate foundation Hier. The cooperatives have currently 112000 members altogether, the report states. Three quarters of them operate on an 'integrated' basis, meaning that they include multiple types of projects (solar, wind, hydro power, heating plant). There are also cooperatives that own and manage a single project. For my research I had contacted with the cooperatives operational in the Gelderland province, where I took residence during my stay in the country. Among them four initiatives had responded and agreed to talk with me about their renewable energy initiatives. For the purpose of facilitating the argument of this article, I will take two the case studies of two energy cooperatives- Rijn and Ijssel Energy Cooperative and Energy Cooperative Heumen.

For field data gathering, I had adopted qualitative research methodology which included semi-structured and structured interviews with respondents and key informants of the LEIs such as chairpersons and heads of running committees of the cooperatives. Quantitative data had been integrated where applicable to complement the first-hand data gathered from the field. This was used for facilitating the analysis of the data from fieldwork. Although employing ethnographic method was an aspiration, for two reasons the efforts to realize this were thwarted. First- I did not know Dutch, which is the language of the participants in the cooperatives. This proved to be an impediment for immersing and engaging myself deeply in the research settings, for example- following casual conversations among interlocutors during their meeting or an event hosted by a cooperative. Secondly, because the cooperatives were loosely organized and often lacked an office, it would be hard to be in the presence of many members except on occasions such as public events organized by the cooperatives.

However, the lack of these opportunities was mitigated to some extent by incorporating techniques of virtual ethnography. The cooperatives make extensive use of online platforms to disseminate current information among their members (and attract new ones) and communities involved and the perusal of these websites, project webpages and videos of the local energy cooperatives provided me with much of the concrete secondary data on their projects and their aims behind these endeavors. I also used the websites and

other associated outlets of the cooperatives to select the initiative that seemed most suitable for my fieldwork. Virtual ethnography was also engaged with in the form of interviews often times. Due to distance and busy schedule, some participants had asked that the interviews take place over online platforms such as Zoom or Meet. This form of interview would somewhat limited the opportunities for observing the setting and gathering more ethnographic detail.

Data analysis in this article is done through *qualitative interpretive data analysis*, in combination with important statistical and numeric data related to the renewable energy projects (e.g. members, size of output of energy, size of land used, revenue etc.) where applicable. Textual analysis of secondary data from online sources is done in a complementary fashion, mainly in order to supplement the claims of the interviewees regarding phases and procedures involved in the realizing of the projects. This assists in data triangulations and adds to the validity of the research process and conclusions of the study.

4. Theoretical Framework of the Study

For a theoretical lens, I have found the concepts developed within the anthropology of energy useful for elucidating the minutiae of the nascent energy transition scene. In the face of the contemporary Anthropocenic reality, energy in Anthropology has been revisited in the past decade with renewed enthusiasm. The results were comprehensive looks at the field's origins (from as far back as the works of Leslie White), tracing its developmental context as well as shortcomings. Alongside these revisitations, the field has generated some new concepts, of which two are the most relevant for analysing the intricacies of energy transition, bringing together the trio- electricity, power and politics. These concepts are proposed by anthropologist Dominic Boyer (2014), namely 'energopower' and 'energopolitics'.

The terms derive from the concepts of Foucault's now classic ideas of biopolitics and biopower, but also adding to the repertoire of their meanings, extending their previous scope to some extent. Foucault's ideas of biopower traces the particular mode of governmentality of the modern state with regard to its population, through the wielding of knowledge and discourses regarding fertility, health and management of populations (Rabinow, 1984). In his words, this is how power became entangled with 'life' to maintain control over its sprawling domain- "…an event bound up with the development of capitalism, was a different phenomenon, having perhaps a wider impact than the new morality; this was nothing less than the entry of life into history, that is, the entry of phenomena peculiar to the life of the human species into the order of knowledge and power, into the sphere of political techniques." (Ibid, p. 264)

Foucault's conceptualization of power in essence originates from 'enablement' (*pouvoire*), based on networks of different parts or institutions of society constituting a total apparatus as a system of relations. Modern 'power' is more "distributed, productive and discursive" than the previous centralized mode of power, which was repressive and retained its place through ascertaining its power over life through exercising 'right of death' (Foucault, 1976; Boyer, 2019). Foucault's formulation of modern power is alternatively famously known to be of 'capillary nature', it flows throughout the social body, operating at the level of everyday social practices (Fraser, 1981).

Energopower, as per Boyer's (2019) formulation, is more than just the addition of energy to the Foucauldian interpretations of power. In his words- "As a power concept, energopower draws attention toward the impacts of fuel and electricity upon the domain of the anthropolitical, including biopower, capital, and all its other force clusters." (Ibid, p. 14) Boyer's spin on the idea of biopower is therefore promising for analysing the happening arena of renewable energy and different possible arrangements of policy, capital and infrastructure that surrounds actors like LEIs working to meet their goals. Both 'energopolitics' and 'energopower' are also therefore concepts that are used in this study to analyse the power play active in the arena of renewable energy scenario, especially at the local level.

Alongside these concepts, the framework of 'energy democracy', often associated with small-scale energy initiatives, provides insights for analysis of the data derived from fieldwork with the cooperatives. Energy democracy is a theoretical and policy approach that advances democratic and decentralized energy systems based on clean energy that is available for all. It imagines renewable based energy future in light of distributed and decentralized ownership and control by people. For its proponents, this perspective or movement additionally "connects environmentalism with social justice and racial equity." (Stephens, 2019) The approach, however, accepts local energy cooperatives as the definitive solution for achieving the mentioned goals. Local energy cooperatives are perceived as being the harbingers of localized energy systems, with potentials for transitioning from the current centrally organized national grid-based electricity systems toward more decentralized ones. While these are noble predictions for these young ventures organized by people driven by environmentalist motive, it is crucial to examine the internal dynamics of the processes behind realizing these initiatives. Data from my fieldwork reveals the negotiations and differing approaches to visions and methods pertaining to different LEIs. I have applied the above mentioned concepts and framework to the two cooperative cases to delineate the similarities and differences between their contexts and activities and elucidate what these findings can tell us about the ongoing power play within the happening arena of locally based energy initiatives in the Netherlands, and by extension in European countries.

i). The Local Government as Ally: The Case of Rijn and Ijssel

Rijn and Ijssel Energy Cooperative is situated in Arnhem and works for sustainable energy generation within and around this municipality. It started around 2010 in the process of establishing the wind park Koningspleij. It was not until after 2014 that the citizen group who were working on the realization of the project would form a cooperative. The cooperative has gained 808 members as of now in January, 2023. In addition to the wind park, it has successfully completed three solar projects of different scales, of which two are roof-based and one is land-based. There are five other projects enlisted in the cooperative website that are in different phases of establishment.

'Energy cooperative Rijn and Ijssel' had started as a citizen initiative twelve years ago in response to the decision of the local council to develop wind projects in Arnhem. These individuals later formed their cooperative, three or four years after the wind power project in Koningspleij came up- Judith, the chairperson of the cooperative executive committee, was explaining to me the development of their cooperative. The wind park has been launched on June 10th, 2022 and is set up with 4 turbines, three of them are

owned by the citizens and one is going to serve the industrial park of Kleefse Waard, according to the website of the Wind Park Koningspleij and the newsletter of July 22 of the cooperative.

When asked about the reasons for forming the cooperative, the respondents mentioned two major motivations- the first was finding alternative to the current fossil fuel based energy system, and secondly, to generate and deliver energy on a local basis. In Judith's words- "We need to grow our own energy resources…We shouldn't be more dependent on commercial parties or foreign countries. We need to make sure we have our own energy and we provide it ourselves, rather than paid commercial parties, and pay for Russian gas, or wherever it comes from."

Judith's comment clearly demonstrates the cooperative's drive for the local ownership of sustainable energy. It should also be mentioned that Rijn and Ijssel ventures to make renewable energy a viable regional product. The municipality in Arnhem, as well as other municipalities in the region, has committed itself to purchase at least 50% of the energy delivered through the projects of local energy cooperatives. And in this way by choosing them over commercial parties, the municipalities also support the local cooperatives and in turn, the local economy- Judith explained. The emphasis on the region extends beyond the immediate 'local' purview to include the province of Gelderland. Producing energy locally helps retain the profits and hence keep the regional economy strong. How this development happened in the renewable energy scenario has its basis in the political negotiations in the past decade between groups of active citizens and the local authorities. These visions of Rijn and Ijssel closely align with the Regional Energy Strategies of the province, and that is producing clean energy to meet the renewable goals of 2030. Indeed the proposal from the local council indicate that the decision was made first from higher political level and then found its partners in fellow citizens. When inquired about the initiative's beginnings, another interviewee's comments indicated that there were already political negotiations taking place before this decision could be taken. According to this respondent, Derk-

> "The cooperative was founded by two people who were politically active in our municipality. They were from the left side of the political spectrum. They initiated a position in the city council that it take initiative to develop a wind powered energy project. And they decided to enable that by starting a cooperative that could actually provide the popular ownership of the project."

Derk is personally currently affiliated with the party 'Volt Nederland' and described his political position as 'centre left'. He also believes that a majority of the members of the cooperative are 'politically active or aware', many of whom take part in 'left-leaning' political organizations. However, he added that people from the opposite or other political orientations are also present in the cooperative and that it's not "an issue within the movement". Renewable energy transition is a shared concern for everyone in the cooperative regardless of their political orientation.

Now that the national plans for energy and climate change have been secured, the goals are in place, this may be the case. But these developments were not easily achieved and were partly the results of consistent lobbying for more favourable and fairer conditions for small scale energy initiatives. This was clear when the respondents mentioned the 'very strong lobby' of the cooperative movement for the inclusion of local ownership in

renewable projects, out of a 'fear' of commercial developers 'taking over and buying all the property'. The lobby worked out and an agreement was made that local people have to be included in the newly proposed projects. This lobby had been mentioned by interviewees from the other cooperatives as well.

According to the climate agreement, all the projects (wind, solar, and else) or their financial yields are required to be at least 50% shared by local people. The implications of this for cooperatives, as per Judith's words are as follows-

"So that's where cooperatives get into the picture, they're the ones who can provide local ownership. So developers come to us to include us in the whole development project because they are obliged to make sure that at least 50% of the financial results of the projects is spent or owned or (arranged in a way that) local people can benefit from."

Rijn and Ijssel's distinctive formative history, that is having the local authority's support from the beginning, was definitely helpful in making these visions realized. In a way, their visions originate from the local energy movement's negotiations and past lobbying, and can be seen as the result of these past political interactions between the state and citizens willing to opt for alternative energy sources. By making the citizens' share of the revenues a mandate, the state also makes them potential partners for the growing private sector of renewable energy. This development in the energy sector is recent and indeed very interesting. The fact that cooperatives that receive such explicit support of municipalities have more likelihood to be successful has been reported in the previous research already (Germes et al, 2021:10). But when local governments take the initiative and call on the citizens to join a venture, in order to contribute to the national climate and energy goals- it becomes a different kind of energopolitics than the fossil-fuel era. The state steps into its role as the facilitator of cleaner and more future-proof energy sources, trying to incorporate the citizens in its existing energy system with new financial provisions that sustains their entry and participation in the growing sector. The citizens, who can participate, stand to benefit from such decision of the local government, by being able to attain clean energy along with some interests on their investments.

The cooperative however, would seem to lose the autonomy that its name suggests. Its function is then reduced to fulfilling the requirement of 'ownership' in order to support the regional or national transition plans of the government, where 'ownership' is translated into profit-generating investment by interested individuals. In their article on the conflicted terrain of energy transition in the Netherlands, Proka et. al (2018:10) also brings up this issue. The authors mention that some cooperatives do not view the partnership with commercial parties in a positive light and expressed that they felt they are being 'used' in the process. Rijn and Ijssel is, however, not shy of such collaborations. As its July newsletter, titled "*Only together will we succeed*", states-

> "The energy cooperatives in the Arnhem Nijmegen region are working on the ambition with unbridled commitment; 1.62 TWh of sustainable electricity in 2030. We are doing this together with 18 municipalities, 3 water boards and the province. By sharing knowledge and experience, by offering support in taking care of the membership administration or by developing a pool of project leaders in our region. At REIJE, we are happy to contribute to this."

While this is indicative of a successful play of the energopolitics in the region, it can be questioned whether the cooperative can afford to be as 'local' as smaller scale

cooperatives or energy initiatives, especially when being partners in large scale wind power and solar projects that are often placed outside the city or in rural areas. The comments of the respondents also reflect a sense of reduction in the autonomy of the community members when the municipal authorities are directly involved in the operations of the cooperative.

5. The Case of Energy cooperative Heumen:

Energy cooperative Heumen developed out of their interest in local ownership of renewable energy projects, as per the words of Piet, one of the founding members of the cooperative. A small group of twelve to fifteen people started to meet in his living room in 2018 with the aim of forming a cooperative, which became an official entity in 2019. The principal vision of the cooperative is, as stated in their website, "to become the owner of sustainable energy projects together". Local ownership is expected to translate into the better implementation of the projects and distribution of their produce. The cooperative has about a hundred members now, but so far has not been able to launch any project successfully to date although it has recently obtained permission from the municipality for a land-based large solar park. The reasons for their failure or deferral were varied. The first project that the cooperative attempted was on the roof of a farmer's shed and it fell through as the farmer demanded more money than was initially offered to him. "It was either him or the shareholders. There would be not enough money for the members if we gave him what he wanted."

The second project he spoke of was a hydro project involving two cooperatives on either side of the Maas river that flows by the areas in the region and Wiek II, the professional company that facilitated the project development. The project failed to get the permission of Rijkswaterstaat, the executive agency of the Dutch ministry of infrastructure and water management. The proposed plan was found to be faulty in regard of its interaction with biodiversity, fish in particular that live or migrate through the river. The cooperative was advised to review the plan to comply with the environmental regulations for hydro powered projects, with slow turbines that are harmless for the fish, in an increased number than what was proposed. In some cases water pathways or canals are also made to separate the turbines from the route of the passing species of concern.

In addition to making these changes, the cooperative also plans to talk with the current minister for climate and energy Rob Jetten. The minister is from Nijmegen, a nearby city, where he also served the municipal council of Nijmegen before being elected, I was informed. They are hoping to talk with him about the project, with the hope that he might view this power plant in Heumen with more importance if they approach him. There is also another chance that arises in future with a dam in the river that will undergo renovation in 2026. The cooperative will propose to install the power plant at the time of renovation, thereby making the building of the plant easier.

> "So we have to try to get our own contacts or network… When you do it officially from under-up, it's very difficult. It's far more easy if you can find someone at the top who has some power.. but if you do it by the rules, the official way, it's very slow or it doesn't happen at all."

Piet's words illuminate their experiences as a cooperative that did not always find the explicit support of the municipality, not as much as cooperatives like Rijn and Ijssel as

discussed before. For example, the contact person of the local council, the assistant to the mayor, who was in charge of communication with the cooperative at first was enthusiastic about their initiative and even became a member of the cooperative. Piet also mentioned that he was from a 'left-wing' party. The man he was succeeded by however was the opposite. "When he came, we had to go out, we had to look for another place to meet." He also considered the cooperative to be 'just like other businesses' in Heumen. The cooperative disagrees about that- "We as a cooperative think we are different. Because we are from the people!"

These dynamics are therefore related to the higher levels of regional and national politics. Nijmegen is a more 'leftist' city, the student population is a contributing factor to that. The municipality had supported the local wind power initiative called 'Wind Power Nijmegen' which is currently running successfully. Arnhem is 'left-wing' governed, "and that means they have more enthusiasm for renewable energy". Heumen on the other hand had a 'right wing government' or municipality, and according to the cooperative they had to fight for their support.

Through their difficulties, Cooperative Heumen has learnt that political differences in the higher tier of politics matter for the development and success of local energy initiatives. As Piet's comments indicate, when cooperatives begin from the active initiative of ordinary citizens the process can be slowed down and have to wait for long to see projects achieve fruition. Even when the state's biopolitical project of transitioning to the greener future is firmly in position, power to enforce it is diffused amongst different institutions or agencies. In case of renewable energy transition, the municipal government becomes a principal agent of such enforcement and their cooperation or lack of it emerges to be a deciding factor in the development of LEIs as well as the function that they undertake in becoming their partners in transition.

Energopolitics surrounds the renewable energy transition process and appears to have different loci at which agents interact with their vested interests. In their championing of renewable energy and pursuit of local ownership, LEIs have long been entangled in this political arena in the Dutch energy transition scene. However, despite having a footing in the local level of energy transition, the case studies above demonstrate the complexities that remain in the current phase of this transition process. The influence of partisan politics and ideologies is still a significant factor for the successes of energy initiatives. Power, seems to take on a capillary nature as per Foucault's conceptualization of the phenomena, as it is exerted by not any sole authoritarian entity (such as the national or regional government) but is dispersed among different stakeholders and individual representatives of all involved parties. This can be made clear by the case of Heumen, whose projects saw several challenges and these came from different individuals and entities, since the transition process involves a number of concerned parties.

The case studies also reveal that the defining criterion of LEIs, ownership, manifests itself differently for the cooperatives. Cooperatives are expected to boost the realization of public ownership in the rise of renewable energy systems (Stephens, 2019). The two cooperatives in this study shows that there are differences in the levels of this aspiration- while Rijn and Ijssel is more driven toward a municipal/regionally based public ownership, its smaller cousin Heumen has more locally grounded aspirations for a locally governed and owned energy system. Cooperative Heumen retains more of the autonomy associated with cooperatives and their members actively engage in the struggle for

sustainable locally owned energy system through their renewable projects. The subtle differences in the scale of these aspirations are related to the respective matrix of energopolitics that surrounds the cooperatives.

6. Conclusion

While Local Energy Initiatives were promising in their potential and even practical in their activities regarding the popularization of renewable energy in European countries, such as the Netherlands, the more radical aspirations of such collectives, such as total decentralization of energy systems, can in the future become fringe possibilities. This is particularly relevant when the state steps in and turns into a major player in the renewable energy scenario, as we see in this study. As the pressure on the Western countries heightens to transition quickly to reduce their carbon emissions significantly than the past and present levels, direct collaboration of different state authorities and the energy collectives becomes a crucial part of the Dutch transition scenario. However, this presents the energy cooperatives with opportunities as well as a novel scenario. While government subsidies financially enable them to realize their energy projects, the involvement of municipalities in these projects manifest in different degrees for different cities. As the case-studies show, factors such as instrumental way of inclusion can arise, whereby cooperatives can find their role to be projected 'as providers of local ownership'. Or in the opposite scenario of a smaller cooperative, without the explicit support of the local council from the first stage, the journey toward project realization becomes fraught with difficulties. In such a case though, the drive for ownership of the energy projects by the people remains stronger and the cooperative is more engaged in devising and establishing them.

The case-studies endeavour to demonstrate also the complex nature of the energopolitics involved in the arena of sustainable energy transition. In the macro level, the cooperative movement in the Netherlands made a mark by consistently putting forward the necessity of energy generation at the local level, as well as people's participation in the local energy projects, which speaks to the democratizing potential of such establishments. Ownership by community people is seen to propagate social justice by preventing a profiteering few, often foreign entities, to have a definitive claim over energy prices. Right now the fossil fuel based electricity prices in the Netherlands, as well as many other European countries, is becoming exorbitant. This is pushing the people of lesser means to the brink of energy poverty, where the poor have to choose between food and keeping warm in the colder seasons. Taking back the energy system from the foreign fossil fuel powers is thus seen by the cooperatives to doubly benefit the society, both by wresting the system from the hands of the big corporations and saving the public from the ever rising costs of electricity.

By constantly emphasizing the benefits of espousing a renewable based energy system, LEIs have successfully established themselves in the current energy transition scenario as a legitimate stakeholder in the Netherlands. However, in the micro level the energopolitics surrounding sustainable energy initiatives can play out in a less centralized manner and depend upon more intricate forms of local politics. The present study thus strives to demonstrate that decisions from the central government can still be translated differently for different areas of the country, depending upon the political character of the respective municipality or city. Further studies in similar vein would contribute to

capturing the ongoing negotiations and dynamics within the multi-stakeholder scenario in European countries where the governments are now determined to include renewable sources in the energy sector. To reveal the intricacies of the energo-powerplay and politics, more anthropological studies in the nexus of the state, allied professional bodies and citizen organizations are thus essential.

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