

Exploring Renewable Energy Projects and The Role of Interest Groups in the Arctic Region

A Comparative Document Analysis

Bachelor Thesis Management of International Social Challenges

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Abstract

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Chapter 1: Introduction

Over the last decades global climate change has accelerated immensely and intensified the warming of the earth, causing the Arctic ice cap to melt up to almost half of its original capacity. Whereas in 1980 the Arctic ice comprised of roughly 7 million square kilometres, it has now declined to merely 4.1 million square kilometres (Hagelberg, 2019). The biggest culprit of the warming of the earth, and thus the melting of the ice cap, is the growing amounts of greenhouse gas emissions, which for 75% is made up of by the production of energy (Center for Climate and Energy Solutions (C2ES), n.d.). Currently, 84% of primary energy comes from extractive fuels still. And keeping in mind that the earth has already warmed up approximately 1 degree Celsius since 1906 (National Geographic, n.d.), and it will continue to warm up to 2 degrees Celsius or even higher if nothing is done, a natural response would be to lower the greenhouse gas emissions by turning to renewable energy (RE) sources (Ritchie & Roser, 2020). Especially when realising that the consequences of climate change are becoming more extreme, even more so for communities living in the Arctic region (Arctic Council, n.d.; Arctic WWF, n.d.), focusing on environmentally friendly energy sources seems like the best option to combat it.

Yet, these communities in the Arctic region, where temperatures are rising three times faster than the global rates, for roughly 80% still rely exclusively on diesel fuel for energy resources. Why? Because these Arctic communities need fuel what can cover the harsh weather conditions of the Arctic region and continuously provide reliable heating. Diesel used in the Arctic contains an additive that prevents the substance from solidifying so that the engines are able to tolerate temperatures up to minus 44 degrees Celsius (de Witt, Stefánsson, & Valfells, 2019). Logically, it is not as easy for these communities to singlehandedly transition to renewable energy. But more importantly, not all Arctic communities are as willing to transition to renewable energy as previous projects have violated their rights and have often been implemented without their knowing or consent. On the other hand, there are also Arctic communities who support the transition to more renewable energy sources and have even set up their own campaigns (Shah & Bloomer, 2018). The question that then arises is why do some Arctic communities support renewable energy projects and why do other groups oppose them? Where does this stem from? And what does this look like in practice?

When reviewing the literature, it is evident that a knowledge gap exists on the specific relationship of both support and opposition groups to renewable energy projects in the Arctic region. Previously conducted inquiries do explore the arguments in favour of or opposition of renewable energy projects, however, do not link it to the Arctic region directly. Additionally, most papers call on the need for transition to renewable energy by highlighting the severe consequences of climate change and illustrating feasible projects (de Witt, Stefánsson, Valfells, & Larsen, 2021; Chance & Andreeva, 1995), yet do not examine how interest groups play a role in these. Therefore, a focus on the specific topics as defined in this inquiry is lacking. This paper will investigate both support groups of renewable energy

projects as well as opposing groups of renewable energy projects in an Arctic country, giving a unique, comparative view on these Arctic communities.

The aim of this paper is thus to find out how both support and opposition groups of renewable energy projects in the Arctic view the situation and what their role is in the achievement of these renewable energy projects. Hence the research question is as follows:

How do the views of interest groups towards renewable energy projects affect the implementation of renewable energy projects in Canada?

Exploring this relationship may help local and national governments with the just implementation of sustainable energy projects, as they then understand the thought-processes of the opposition and can take their opinions and advice into account (Shah & Bloomer, 2018). Hopefully, opposition will then lower as they feel heard and appreciated and greenhouse gas emissions from energy extraction in the Arctic will slowly decrease.

Following the introductory part, the theoretical framework will be presented with an in-depth literature review and conceptualisation of the main variables. Subsequently the methods and operationalisation of this inquiry will be discussed in the methodology sections. Finally, the results of this research paper will be analysed before rounding off the paper with the conclusion.

Chapter 2: Theoretical Framework

In this chapter, first, the concepts of the variables will be defined and explained. Afterwards, the existing literature on the relationship between the two variables will be explored and thoroughly reported on. As this paper investigates two different interest groups in the renewable energy (RE) discussion, it would only be fair to explore both groups in an equal manner. Therefore, three arguments of the support group – in favour of renewable energy projects –, as well as three arguments of the opposition group – against renewable energy projects – will be discussed.

Conceptualisation of variables

The independent variable of this research looks at *the view of interest groups* and will be defined as opinions and outlooks of formally organised groups, also known as stakeholders. These groups aim to influence a shared issue and will try to achieve their goals or opinion through lobbying. For this research specifically the shared affair concerns the implementation of renewable energy projects in the Arctic region and the interest groups can be categorised into support and opposition groups of these projects. Support groups can be characterised by being in favour of the specific affair and acknowledging the value and advantages of it. Moreover, these groups have an optimist mindset and encourage public policies in favour of the shared affair (Zamfir, Colesca, Corbos, 2016). In this specific research, support groups recognise the urge to protect the environment and to replace conventional fuels with renewable energy sources. Therefore, these support groups are the representation of public acceptance towards RE projects. And although there are still some challenges, which the support group recognise, they believe these challenges will and can be overcome.

Opposite support groups are opposition groups. These are against the specific affair and acknowledge more problems and challenges with the affair than worthy advantages. These groups lobby against supportive policies and have a pessimist outlook on the shared matter. In this specific case, the opposition group represents public resistance to the implementation of renewable energy projects, and they believe more problems are paired with the implementation of RE projects than overall benefits. Their thought goes beyond costs of the transition to renewable energy, but also include concerns about inclusion and the lack of diverse opinions being considered in policymaking (Susskind, Chun, Hodgkins, Cohen, Lohmar, 2022).

The dependent variable of this research is the *implementation of renewable energy projects*. This variable covers the actual execution of previously planned and constructed clean energy and low-carbon initiatives (Rahmani, Murayama, Nishikizawa1, 2020) These projects can be local and small-scale, however, can also be large-scale and centralised. For this paper, both large-scale and small-scale projects will be considered, however, it is of importance that these projects merely apply to the Arctic region. Moreover, it can differ per project whether local communities ought to be involved or not. Some

projects want to focus on a bottom-up approach and therefore are appreciative of local participation (Hammami, Chtourou, & Triki, 2016). Other projects are more top-down oriented and do not necessarily take up on local contributions (Walker & Devine-Wright, 2008). Again, both top-down as well as bottom-up initiatives will be included. Furthermore, the projects can also be initiated by different actors, namely governmental actors, non-governmental actors, or industry-led actors. And renewable energy projects can centre around various sustainable energy sources. Common renewable energy sources include wind and solar energy, geothermal energy, hydro energy, and biomass energy. For this specific research, only renewable energy projects implemented at the local level, and more specifically within the Arctic region will be included. The sources for the RE projects are not predetermined, thus various sources of energy will be embraced.

Literature on relationship between variables: an overview of drivers for supporting and opposing renewable energy projects

Naturally, interest groups present different arguments behind their lobby to either support or oppose RE projects and policies. The arguments can be local, or more global, common, or relatively unknown and various dimensions of the RE process can be commented on. For this research, merely the most common and biggest drivers behind the opposition or support of renewable energy projects are presented and the drivers will touch upon various dimensions (economic, social, political etc.) to guarantee a diverse body of literature.

The grounds of support groups for renewable energy projects can come from a myriad of places and thoughts. Zamfir et al. (2016), though, argue that most benefits of renewable energy projects solely trace back to the environment and mitigation of climate change. They state that not only are renewable energy projects able to provide more overall energy than is currently provided globally, but renewable energy can also do this more sustainably and long-term than current conventional fuels. Therefore, less fossil fuels will be needed to cover the global energy needs and the emissions of carbon dioxide, methane, nitrous oxide, and more will lessen over time. In turn this helps the effects of climate change to become milder again, minimises the threats to human and other species and preserves natural resources (Zamfir et al., 2016). Support groups therefore use *climate change and environmental protection* as a reasonable argument in favour of renewable energy projects as all the aforementioned aspects contribute to environmental preservation, diversification of energy sources, and the mitigation of climate change (Olabi & Abdelkareem, 2022).

McKay, Parlee, and Parkins (2021) acknowledge the benefits to the environment when switching to renewable energy instead of conventional fuels and add onto this that renewable energy also contributes to *higher energy security* and *self-sufficiency* for local communities. As of now, many local communities are fully dependent on fossil fuels as well as projects generated by the national government. If the government decides not to install a gas pipeline where local communities are in

need, then energy will become even more expensive and scarce for these communities. Moreover, the local communities are not able to initiate renewable projects themselves as the national government will not finance it, being focused on their own unilateral policies and mindset (McKay et al., 2021). With local renewable energy projects, the dependency on finite sources of fossil fuels, will be lower and therefore the overall energy insecurity drops. Additionally, local projects will increase the energy autonomy of local communities, lower the level of energy costs and therefore support groups use this as an argument in their lobbying (Horne & Kennedy, 2019).

Next to energy security and self-sufficiency, renewable energy projects also generate extensive *socio-economic benefits*, such as sustainable economic development and green economy, which support groups also lobby for. Renewable energy projects have a major impact on national economies as they create many new jobs in the energy industry, both on the federal as well as regional level (Ruppert-Winkel & Hauber, 2014). Naturally this decreases the national unemployment rate, however, it also attributes to the self-sufficiency as mentioned by McKay et al. (2021) since locals can fill the created jobs for renewable energy projects locally and therefore source their energy locally, becoming less dependent on national policy. Moreover, operating costs for generating energy will decline as the costs of renewable energy are not affected by the state of the global economy, whereas costs for conventional fuels are heavily affected (Stigka, Paravantis, & Mihalakakou, 2014). Ultimately, renewable energy projects will, with all the aforementioned advantages, lead to a significantly more efficient energy industry.

On the other side of the debate, opposition groups lobby against renewable energy projects with their underlying reasoning being grounded in the economic and environmental dimension, but also adding a spatial dimension to the matter. For instance, Susskind et al. (2022) argue that transitioning to renewable energy also brings about a lot of *economic costs* and burdens. Firstly, the development and implementation of new renewable energy technologies are very costly. A high amount of initial capital needs to be put into the research on these technologies in order to make these applicable in practice. Additionally, investments in the energy industry and continuous funding on renewable energy technologies is necessary as the projects evolve over time. Moreover, Rennkampa et al (2017) argue that renewable energy instigates economic injustice as only developed economies are able to transition to renewable energy independently, whereas the economic costs for developing economies are significantly higher when transitioning to renewable energy.

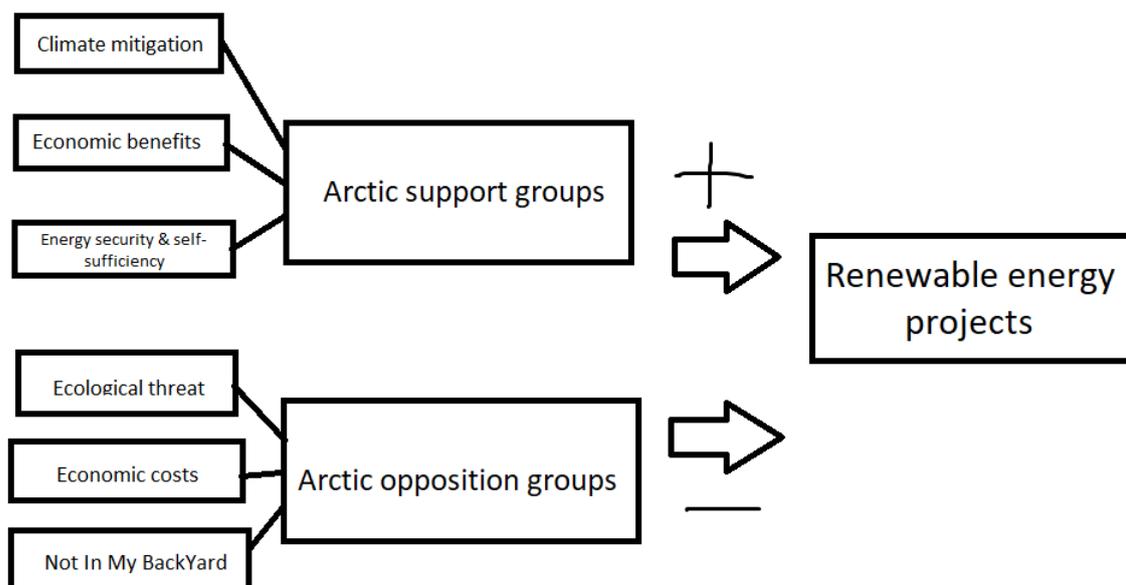
Moreover, whereas support groups argue that renewable energy benefits the environment, opposition groups feel they fail to acknowledge the harm these renewable energy projects can cause to the *ecological landscape and biodiversity*. The majority of these projects cover big portions of land or sea and can disturb wildlife and animal habitats as well as affect marine processes and flying routes. All in all, this forces land species to migrate to tranquil, uncovered lands, threatens the lives of birds and other flying animals and damages life cycles of marine organisms (Copping et al., 2020).

Additionally, the availability of food for some animal species will become scarcer and hiding places will disappear, threatening the livelihood of these species. However, not only animal habitats are affected, the land itself is severely damaged as well since it needs to be cleared of vegetation and various layers of soil need to be removed in order to prepare land for renewable infrastructures. This decreases the overall biodiversity of the land (Turney & Fthenakis, 2011).

The last argument with which opposition groups lead their lobby against renewable energy projects, can be traced back to the *Not In My Back Yard* theory (Cass & Walker, 2009). Some opposition groups are not necessarily against renewable energy projects entirely, however, also do not wish to see them in their own neighbourhood. These people are afraid that their community will lose its character, charm, values and potential by turning into an industry terrain with large renewable energy projects on their land (Susskind et al., 2022). Additionally, these new energy projects carry a lot of risks with regard to health and safety, such as explosions of power plants and noise hazards.

These themes to support or oppose renewable energy projects seem to be clear. Yet, these arguments are general to the renewable energy debate and do not cover the specific circumstances of Arctic communities. The exact drivers behind the train of thought of Arctic interest groups need to be identified in order to examine the essential perspective of the Arctic interest groups. Therefore, the following research question arises:

How do the views of interest groups towards renewable energy projects affect the implementation of renewable energy projects in Canada?



Chapter 3: Methodology

The purpose of this research paper is to see how interest groups frame renewable energy projects in the Arctic and how they differently seek influence over these projects. Both groups in favour of the renewable energy projects, support groups, and groups resisting renewable energy projects, opposition groups, will be examined. These predefined concepts determine the approach of this research, namely qualitative. Moreover, document analysis specifically is the dominant method for this research. The limited timeframe, availability of respondents or interviewees and lack of sensitive topics in the research discourage a quantitative approach (Babbie, 2014). It, moreover, predominantly focuses on the statistical relation between the variables, whereas it is more important for this research to understand broader themes and relationships more in-depth. Another limitation that will be avoided with using a qualitative approach, and more specifically document analysis, is the issue of anonymity and confidentiality with interviews and surveys. Moreover, using document analysis as the dominant research strategy allows for specialisation of the research and reduces the impact of potential biases that can surface when doing a single, case study (Gross, 2018).

Generally, all types of documents can be used for document analysis, including policies, newsletters, brochures, diaries, and book chapters. For this research however, solely publications of organisations will be used and serve as our primary data source (Gross, 2018). Both documents from opposition groups as well as support groups will be collected. These documents contain some criteria in order to be used, therefore key words will be identified and need to be included for proper data collection. Moreover, to increase and safeguard validity, 400 pages will be collected for the analysis. This translates into, roughly, 40 documents of 10 pages. The aim is to evenly distribute these pages or documents for advocacy groups and opposition groups. Thus, 200 pages will be allocated to the first, and 200 pages to the latter. The timeframe for the data will be from 2016 onwards, thus documents on the renewable energy projects of the last 6 years will be considered. The documents can include projects that are already finalised, but publications on future projects can also be used.

These documents will be analysed through a thorough coding process in Atlas.ti. In this research a deductive coding manner will be used. This means that a coding book will be published in advance and is based on the theories and themes from the theoretical framework; guaranteeing validity. First, all documents will be coded with the premade codebook, this constitutes to the first round of coding. Afterwards a process of axial coding, linking codes and data, and aggregative coding, creating main themes and codes, will occur.

One of the encountered limitations is the time constraint. Since the timeframe for this research is only ten weeks, data collection and coding had to be done quite hastily. There was no time to go over every document more times than necessary to check yourself and the codes. Moreover, the data collected is written by other parties and therefore might not be completely objective. This was important to keep in mind whilst analysing and asked for reflection on the information provided in the documents.

Chapter 4: Results

Codes

- affecting biodiversity
- animal kingdom
- capital
- decreased dependency
- economic burden
- economic costs
- economic development
- economic injustice
- employment
- energy autonomy
- energy costs
- energy industry
- energy insecurity
- energy provider
- energy security
- fondness for neighbourhood
- food scarcity
- global energy needs
- green economy
- health risks
- independent
- investment
- loss of character
- loss of value
- more jobs
- noise pollution
- potential risk to animals
- safety risks
- self sufficiency
- sustainability
- sustainable development
- sustainable energy
- threatening of animals
- unemployment
- vegetation removal

Chapter 5: Conclusion & Discussion

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