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Chasing Waterfalls

How a collective vision of self-sufficiency drives a green energy-transition in Greenland

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Regine-Ellen Møller & Anne Merrild Hansen

Introduction

This case study investigates the tipping processes that led to the development of hydropower plants in Greenland. The first of five hydropower plants was established in 1993 near the capital city Nuuk. The project was voted for by a unanimous vote in the Government of Greenland after a time Greenland experienced its first financial crisis.

The aim is to gain an understanding of how decisions were made through a framework of sustainable development and legitimacy, and how the hydropower plants have helped to promote a green energy transition.

This study is based on interviews with central actors and documentary studies to analyze the narratives regarding the adoption of a clean-energy development trajectory.

The findings suggest that collective visions of self-sufficiency and economic development drive a long-term political commitment to establish hydropower plants.

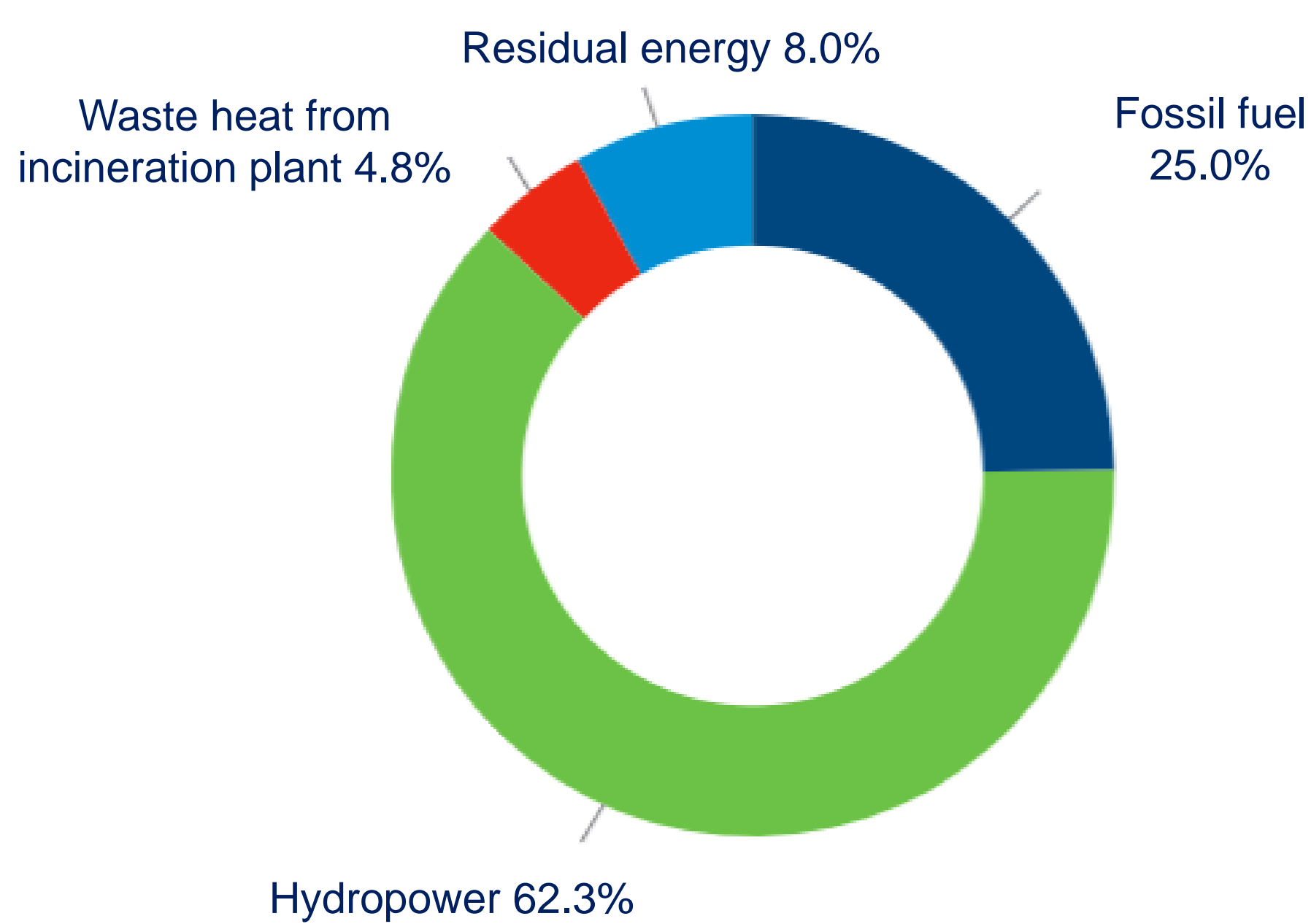


Figure 1: Public energy supply in Greenland (own translation), (Naalakkersuisut, 2018)

Research Methods

This case study is based on narrative analysis within decision-making processes in the Government of Greenland. Relevant documents and media content were scrutinized to gain a historic overview of the tipping processes and to identify central actors involved in decision-making. The main sources of empirical data were official materials such as government meeting transcriptions, feasibility studies for hydropower resources, and policy documents. Qualitative interviews were conducted with central actors and former politicians to gain detailed descriptions of their roles and motivations in decision-making processes. The data was analyzed in the theoretical framework of sustainable development and legitimacy to investigate how the hydropower projects were secured in Greenland.

Stakeholder Engagement

The stakeholder workshop was held in Sisimiut on November 4th 2021 with the title 'Towards a fossil free future in Greenland'. The focus was identifying challenges and opportunities for supporting a green energy transition in Greenland.

Stakeholder Engagement (Continued)

The stakeholders consisted of government representatives, local politicians, and organizations that work with energy and housing. The stakeholders were communicated with by phone and e-mail prior to the workshop. The stakeholders will be communicated again through e-mail to consult with the upcoming workshop report.



Photo 1: Stakeholder workshop in Sisimiut. Regine-Ellen is sitting with some of the stakeholders.

Processes of Transformation

- Before utilizing hydropower resources, nearly 100% of the source of energy in Greenland was imported oil (1).
- In 1975, the oil crisis prompted the Danish government to establish a workgroup to work on an energy plan that would use Greenland's natural resources (2).
- The European Commission (EC) financed the feasibility studies for hydropower resources because they were also interested in finding alternative energy.
- In 1985, the newly established Government of Greenland withdrew its membership from the EC largely due to fishing rights. The EC was no longer financing feasibility studies.
- In 1986, the Government of Greenland presented its first long-term energy plan based on feasibility studies with the aim to establish small-scale hydropower plants to supply citizens with energy (3).
- In 1988, despite Greenland's first financial crisis, the energy plan was not changed because the feasibility studies demonstrated that the investments in hydropower plants would benefit Greenland's overall economy (from an interview).
- In 1993, Greenland established its first hydropower plant near Nuuk. The investment is perceived as successful by politicians because it has paid back faster than expected.
- Between 2005-2012, four more plants were established.
- In 2021, the government decided to establish two more plants in the northern region of Greenland and increase the capacity of the plant that supplies energy to Nuuk (4).

Political Narratives:

The dominant political narratives from 1990s to 2021 are summarized below:

- To become less dependent on oil supply from abroad
- To build the infrastructural capacity that supplies cheaper and more secure energy
- To strengthen the trade balance by minimizing import
- To improve the overall economy
- To attract potential foreign investment to initiate large-scale industrial projects that would utilize hydropower resources
- To increase green energy production



Photo 2: Hydropower source near the capital city Nuuk. (Photo taken by Leiff Josefsen)

Next Steps

- **Stakeholder workshop report:** A stakeholder workshop for the first case-study is a work-in-process through which stakeholders will be engaged in the process. A reflection piece will be included in the workshop report.
- **Case-study report:** Finalization of the case-study report to be delivered in winter 2022.
- **Article:** An article from case-study 1 titled 'Chasing Waterfalls' to be published in a scientific peer-reviewed journal to be delivered in winter/spring 2023.
- **Book chapter:** A book chapter presenting results from the case-studies to be delivered in winter/spring 2023.

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