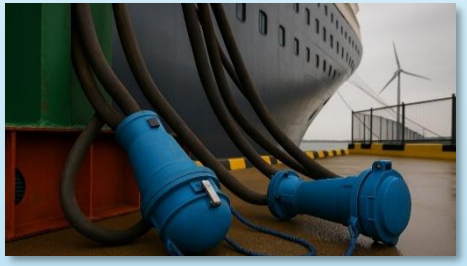
Sulisitsisut
Grønlands Erhverv
Greenland Business Association

Dansk Industri

CIP foundation

Sustainable investment opportunities in Greenland

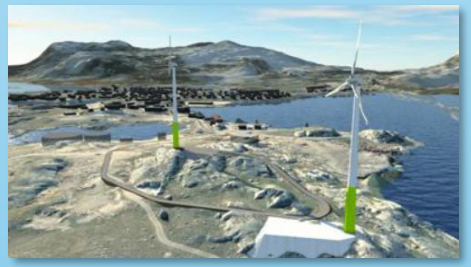













Purpose and context

The purpose of this idea catalogue is to **inspire dialogue between the business community and policymakers** by compiling examples of investments that can support development and economic growth in Greenland.

The senders are Greenland Business Association, the Confederation of Danish Industry (DI) and the CIP Foundation. Organisation information is on the back page.

The catalogue builds on a meeting in spring 2025 between the Chair of Naalakkersuisut, Jens-Frederik Nielsen, the Danish Prime Minister, Mette Frederiksen, and DI member companies. DI and the CIP Foundation committed to producing an **inspirational catalogue of investment ideas** based on Greenland's areas of strength. The catalogue has been developed over the past year with Greenland Business Association, drawing on 50 dialogue meetings with companies, experts and organisations in Greenland.

The ideas target public and institutional as well as private investors and require sustainable financing models.

The investment opportunities should primarily **meet Greenlandic societal needs**, including sustainable economic development, security of supply, job creation, skills development and improved living conditions. At the same time, **investments in Greenland can support the global green transition**, e.g. by reducing Greenland's climate footprint, producing sustainable products for export, or extracting raw materials that are critical to the transition.

A focus on environmental and social sustainability can strengthen project robustness and economic viability, provided projects are developed in interaction with Greenlandic interests and support long-term value creation in Greenland.

The document **compiles information on projects that stakeholders in Greenland have expressed interest in**. The documentation is based on external sources and interviews, and **figures from external sources have not yet been verified.**

The document contains nine ideas discussed with stakeholders. The ideas are divided into two sections: **ideas that can be initiated in the short term (<5 years), and ideas with a longer implementation horizon and greater capital needs**.

All ideas are assessed according to **economic potential, climate and environmental sustainability, social benefits for Greenland's citizens, and how realistic it is to attract financing.**

Based on the idea catalogue, we want to start an open dialogue at Future Greenland to better understand the needs and preferences of Greenland's population, the technical and logistical opportunities and challenges associated with each investment idea, and stakeholders' assessments of the ideas' economic potential. The guiding principle is: **Nothing about Greenland without Greenland.**

Our contribution to the further work is this inspirational catalogue with analyses of realistic investment opportunities with significant impact. In addition to concrete projects, we have examined investment models and framework conditions that can support implementation. We have taken the first step in compiling knowledge about the investment ideas and encourage policymakers to initiate deeper studies of the ideas assessed to have the greatest potential.

In developing the idea catalogue, we have sought input from commercial actors, political representatives and NGOs from both larger and smaller towns and settlements, and across all business sectors. We hope to inspire dialogue with all **types of investors - public, private and foundations.**

We look forward to an open and enriching dialogue!

Christian Keldsen, CEO, Greenland Business Association

Peter Dige Thagesen, Head of Geopolitics Danish Industry

Charlotte Jepsen, Managing partner, CIP Foundation

Summary

Greenland has unique resources that can form the basis for economic development and prosperity. These include natural resources, raw materials, and not least renewable energy sources in the form of large-scale hydropower. These valuable natural endowments already underpin business activity in Greenland today: fisheries, tourism, hydropower, and the extraction of raw materials.

However, there is **significant untapped potential for green energy production and the extraction of minerals that can create considerable value—both economically and for the green transition**.

Green energy production in Greenland primarily consists of hydropower as well as small solar installations. The country's natural resources include zinc, lead, iron ore, coal, molybdenum, gold, platinum, uranium, copper, nickel, gallium, and rare earth elements. Greenland holds 43 of the 50 minerals considered critical for the economy and national security, as well as the world's eighth-largest collection of rare earth elements used in the green transition and military technology.

To date, relatively few investments have been made in green energy and mineral extraction. This is due, not least, to limited available labour, infrastructure in many places that is not developed to support business investments, as well as political circumstances.

The same point of departure applied when the Prime Minister, Mette Frederiksen, and the Chair of Naalakkersuisut, Jens-Frederik Nielsen, met in spring 2025 with a number of companies at the Confederation of Danish Industry to discuss opportunities for development and economic growth in Greenland. That is where the idea emerged to develop this inspiration catalogue with proposals for sustainable investments in Greenland.

The investment proposals have been developed in **dialogue with a broad group of companies and organisations** in Greenland and Denmark, in order to build on the strong positions of Greenlandic and Danish companies—for example, hydropower and other green technologies.

The proposals we present have been selected with the aim that there is a reasonable likelihood they can be realised within a manageable number of years. This means we have focused on already known investment projects which, for one reason or another, have not been implemented. Our contribution has therefore been to **build on the considerations already made and to point to solutions that can advance the projects**.

Lack of risk capital

A lack of risk capital—together with uncertainty about framework conditions—is a key reason why the projects have not been realised. Some investments therefore have a **risk profile that requires a combination of traditional financing and risk-mitigating financing**, for example through loans with state guarantees or support schemes.

Therefore, in this report we have reviewed different financing models and provided guidance on how they can be applied in a Greenlandic context. In addition, we have mapped which EU support schemes could potentially support or finance the individual project ideas. This should be seen in light of the EU's increased interest in contributing to sustainable economic development in Greenland.

A combination of public catalytic capital and private investments could form the basis for financing several projects. Combined with EU funds, the potential would be even greater. Specifically, it is proposed to establish a dedicated Arctic energy and infrastructure fund that can mobilise earmarked resources for energy and infrastructure investments in Greenland. The structure could be based on the **model used in Denmark's SDG Fund, where state catalytic capital is combined with private investments**, including from pension funds.

Selection criteria

The investment projects have been selected based on criteria that reflect the purpose of developing the catalogue: to strengthen Greenland's economic resilience and sustainability, reduce global greenhouse gas emissions, and promote social sustainability in Greenland. A key part of the work has involved balancing the different considerations underlying each selection criterion. The criteria are listed below:

- **Economic potential**:
  The investments should help make Greenland's economy more resilient and self-sustaining. At the same time, investors must also be able to achieve a financial return.
- **Climate and environmental benefits**:
  The investments should make a positive difference for the climate and the environment, including reducing global greenhouse gas emissions.
- **Social sustainability**:
  The investments should create local value in the form of employment and improved living conditions
- **Scale**:
  Taken together, the investments should be of a scale that can create growth and prosperity in Greenland on a meaningful order of magnitude. At the same time, consideration should be given to how the investments can contribute to locally tangible and visible growth in different parts of Greenland.
- **Feasibility:**
  The project ideas should be based on an off-taker perspective and thereby build on a realistic business foundation. There are already a number of projects under development that can usefully be built upon.
- **Time horizon:**
  The investments should have a long-term perspective, while building on solutions that can be acted on here and now.

Proposed investment projects

In this inspiration catalogue, we present **9 ideas for investments in green energy and infrastructure in Greenland** that have the potential to make a significant difference both for Greenland's economy and for the climate. The table below provides an overview of the ideas. In the two boxes that follow, the investment ideas' overall economic and climate potential is summarised, along with what is required to realise them.

A common denominator across the investment projects is that they benefit Greenland and contribute to economic development, CO_2 reductions, employment, and social improvements in Greenland.

The section "Next steps" sets out a future development of the ideas anchored in Greenland. We hope our analyses can provide a basis for a continued lively dialogue on sustainable investments.

Table 1: Overview of identified investment opportunities and their contributions to various economic and social objectives. Resilience refers to Greenland becoming more resilient to challenges such as technical failures, supply disruptions or rising oil prices. Dual use refers to investments that benefit both defence and civilian purposes.

	INVESTMENT SIZE (DKK)	SELF-SUSTAINING ECONOMY	CO_2-REDUCTION	JOBS	HEALTH	RESILIENCE	DUAL USE
Opportunities that can be acted on within <5 years							
1 SHORE POWER IN PORTS	**38-100 m**	✓	✓	✓	✓	✓	✓
2 GRANT PROGRAMME / ATTRACTIVE LOANS FOR ENERGY RENOVATION & ELECTRIFICATION	**Per project: <10 m Total: >12 bn**	✓	✓	✓	✓	✓	
3 RENEWABLE ENERGY FACILITIES IN SMALLER TOWNS AND SETTLEMENTS	**6-160 m**	✓	✓	✓	✓	✓	
4 UTILISATION OF SURPLUS ENERGY	**Per project: 0.1-100 m Total: >200 m**	✓	✓	✓	✓	✓	
Investment opportunities in a longer term perspective							
5 NEW HYDROPOWER	**>24 bn**	✓	✓	✓			
6 GLACIAL FLOUR	**>50 m**	✓	✓	✓			
7 MOLYBDENUM MINE AND RELATED ENERGY & TRANSPORT FACILITIES	**The mine: 6.4 bn Related facilities: 0.1-2.5 bn**	✓	✓	✓			✓
8 GRAPHITE MINE AT AMITSOQ	**0.8-3 bn**	✓	✓	✓			✓
9 DATA CENTRES AND DATA INFRASTRUCTURE	**>0.7 bn**	✓		✓		✓	✓

The overall potential of the investment ideas

Potential investments exceeding DKK 40 billion have been identified, corresponding to approximately twice Greenland's GDP. This includes both smaller and larger projects, ranging from loans for energy renovations or electrification projects in the range of DKK 0.1–10 million, to investments of around DKK 3 million for establishing a greenhouse powered by surplus heat, and up to new hydropower plants requiring investments in the billions. In the short term (<5 years), projects amounting to more than DKK 12 billion can be initiated.

Taken together, the ideas have the potential to generate **tax revenues in the billions** for Greenland over a period of 20–30 years, driven by increased economic activity within energy, infrastructure, mineral resources, and related industries.

Over the same period, the investments—particularly through reduced consumption of fossil fuels—may generate substantial **socio-economic benefits**. The investments can both improve the financial situation of citizens and the public energy utility and reduce health-related costs through cleaner air.

At the same time, the ideas have the potential to **create sustainable jobs and apprenticeships, attract more tourists, and improve quality of life for the population** in both towns and settlements.

The potential for CO_2 savings **exceeds 300,000 tonnes of CO_2 per year** in total for those ideas for which estimates of climate impact are available. This corresponds to more than half of Greenland's current carbon footprint.

What is required to realise the potential?

Securing the necessary capital requires a **combination of public and private funding**, as well as framework conditions that support project implementation. Several of the projects are of a scale that makes full financing through public sources difficult. At the same time, investments in Greenland—particularly in long-term energy and infrastructure projects—have a risk profile that makes it challenging to attract private capital alone. Partnerships with public or institutional actors, including the EU, can provide catalytic capital that helps **de-risk** investments and thereby enable private investment.

For each investment idea, key challenges have been identified for **further analysis**. Across the ideas, several cross-cutting **framework conditions** have also been identified that could be addressed to increase the likelihood of implementation:

- **Education and workforce programmes** that can help upskill or attract and retain employees with the competencies required to realise the projects
- **Strengthening administrative capacity** to reduce processing and approval times.
- **Pilot projects or trial schemes** that make international investments more regulatory-friendly, while at the same time respecting the desire for local ownership.
- Adjusting **incentive and pricing structures** to make private investments—such as in energy renovations and electrification—more economically attractive.
- **Infrastructure robustness**, as logistics and a stable electricity supply constitute key challenges for several of the investments. A cross-cutting approach to investments in, for example, power grids and port infrastructure can strengthen the conditions for attracting investors.

Table of contents

1. Greenland's unique strengths

In the following, icons such as ① refer to the investment ideas from Table 1.

Greenland's **natural environment provides a unique basis for fisheries and tourism**. There is a tradition of robust fisheries, and the tourism sector is growing, with potential to accelerate further through investments in infrastructure. According to Visit Greenland, tourists and business travellers contributed 4.9% of Greenland's GDP in 2024 and approximately 1,800 jobs through their spending of up to DKK 3 billion.[1] This strength is reflected in investment idea ① on shore power.

Greenland has **significant untapped potential to produce renewable energy**, especially based on hydropower. More than 80 locations with unutilised hydropower resources have been identified, which studies by, among others, GEUS and DTU assess could form the basis for energy production on a scale that exceeds Greenland's own energy needs.[2] Near Lakes Tasersiaq and Tarsartuup Tasersua there are several hydropower sites in the order of 300 MW each. These are planned to be offered commercially at the end of 2026.[3] Hydropower is the starting point for investment idea ④ & ⑤.

The potential for solar energy is also substantial according to DTU and the national energy company Nukissiorfiit, among other reasons due to a high number of sunshine hours in summer and reflection from snow surfaces.[4]

Local microgrids with renewable energy generation have shown good results at pilot scale and are assessed by researchers and the energy company to have substantial potential to decarbonise energy supply in smaller towns and settlements.[5] Such systems can be based on a combination of solar and wind energy and, at some locations, micro-hydropower plants. Investment idea ③ describes a number of small-scale renewable energy projects.

Pilot testing has shown that solar energy combined with batteries can reduce annual diesel consumption by 46% and extend the lifetime of diesel generators.[6]

[1]Stakeholder dialogue meetings and Visit Greenland (2024)
[2]GEUS (2009, 2021), Naalakkersuisut Department of Business, Mineral Resources, Energy, Justice and Gender Equality (2025), Jakobsen (2016)
[3]Naalakkersuisut (2025c)
[4]Jakobsen (2016), ATCO Electric (2021), Nukissiorfiit (2019, 2025a,b)
[5]McKinley et al. (2025), ATCO Electric (2021), Nukissiorfiit (2019, 2025a,b)
[6]Nukissiorfiit (2019, 2025a,b)

Greenland is **rich in minerals**, including significant deposits of minerals that are critical for the green transition. For example, there are high occurrences of molybdenum, niobium, rare earth elements (both light and heavy), and strontium, which are crucial for the green transition and Europe's independent security of supply.[7] These strengths underpin investment idea ⑦ & ⑧.

The geological variation supports broad mineral potential, but before the potentials can realistically be utilised commercially, both technical and business maturity work is needed, including for example environmental assessments and development of robust investment models.[8]

Another resource that is widely available in Greenland is so-called "glacial flour", a material consisting of silt with a high surface area. This resource can potentially be exported for CO_2 capture and soil improvement.[9] This is described in more details in investment idea ⑥.

Greenland has **unique opportunities for research** in, among other things, Arctic conditions, ice cores, biodiversity, and CO_2 storage in the subsurface. This has the potential to support the development of sustainable technology and attract investments in knowledge-intensive sectors.[10]

The population's education level has been increasing over the past twenty years and remains a political focus area. Unemployment is low, but the employment rate varies significantly across different parts of the country and between seasons, as job opportunities in some local communities are highly seasonal. A large share of the talent pool seeks opportunities abroad or moves from smaller towns/settlements to Nuuk, which leads to a growing need for housing in Nuuk as well as labour challenges and declining population figures in smaller towns/settlements. The interviewed stakeholders highlight a **focus on job growth - especially in export industries and tourism - as a way to prevent declining population figures**.[11]

Building on Greenland's strengths, there is potential for the economy to grow and become more self-sustaining, while Greenland can contribute to the global green transition. **Realising this potential, however, requires significant investments in infrastructure and project development.** This inspiration catalogue presents ideas for how such investments can be initiated.

[7] *GEUS (2023), European Commission (2023), The Diplomatic Service of the European Union (2025)*
[8] *GEUS (2023)*
[9] *University of Copenhagen (2023a,b), Rosing (2025), Arentoft (2024); Bäcklund (2025), Brandt-Møller (2019), EIFO (2025b), Galacho (2025); Rivin (2024), Danish Technological Institute (2024), With (2025)*
[10] *Niels Bohr Institute (2025), The Diplomatic Service of the European Union (2025)*
[11] *Stakeholder dialogue meetings and Statistics Greenland (2025)*

2. Methodology

The figure below illustrates the process for collecting, selecting, and qualifying investment ideas for the inspiration catalogue.

Approximately 50 dialogue meetings have been held with companies and organisations in both Greenland and Denmark to gather ideas and background information. We are grateful for the engagement and openness we have met. The main guiding principle for the dialogues is: **Nothing about Greenland without Greenland.** Insights from local companies and organisations, as well as the political system, are key to determining which investments will have support in local communities and how the investments can realistically contribute to a stronger economy.

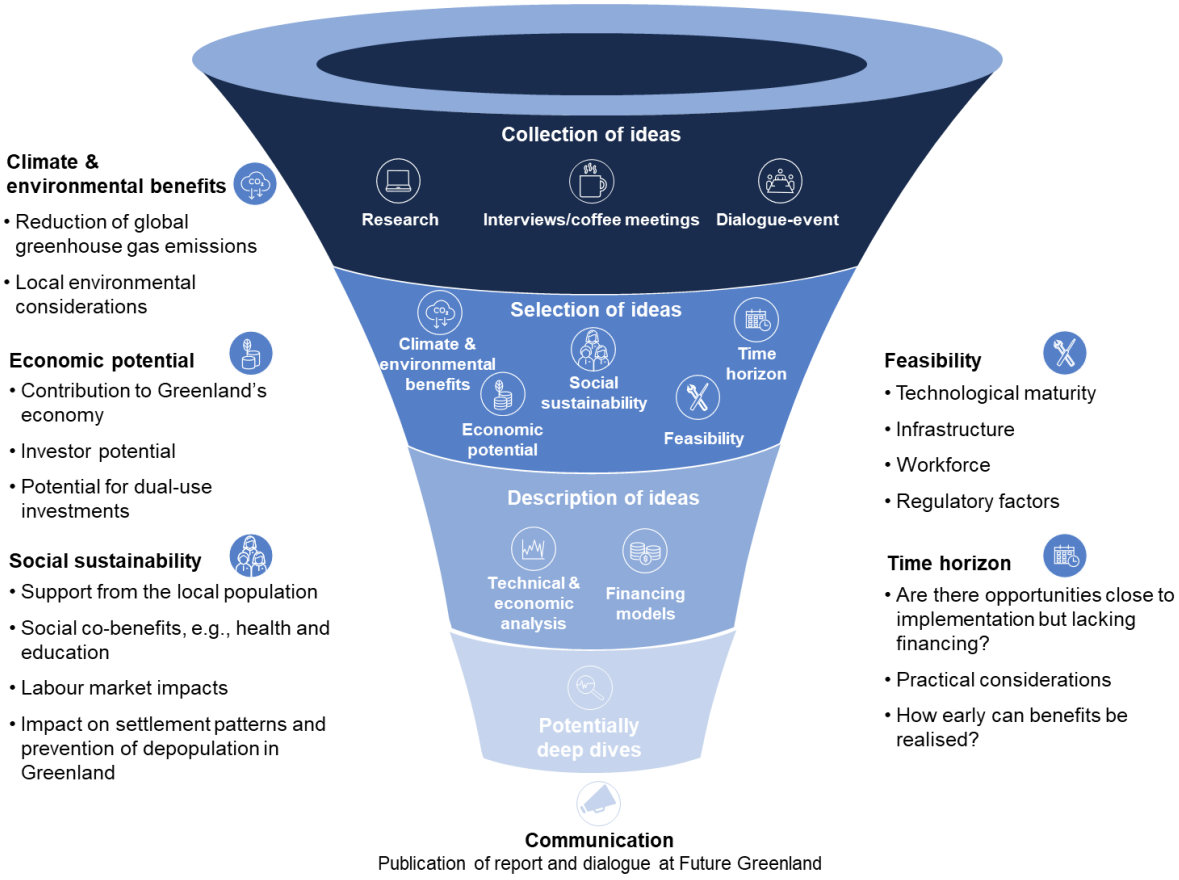


Figure 1: Process for developing the idea catalogue

Selected ideas have been analysed to identify the greatest potential to create positive effects for Greenland's economy, the climate, and everyday life for the population. It is also considered an advantage if the investment ideas can contribute to increased societal resilience and create synergies between civilian purposes and preparedness.

In selecting ideas for analysis, it has been prioritised that it is **realistic to take the next steps in the projects within a relatively short time horizon**. We view sustainability from a long-term and global perspective, but it must also be demonstrated that the first steps are technically, economically, and politically feasible.

In the following sections, each investment idea is described based on the inputs received. There are **subsections on investment scope, economic and social benefits, climate and environmental benefits, and challenges** that must be addressed before it is realistic to implement the project.

Table 2 explains terms used in the descriptions of the investment ideas.

We look forward to further dialogues on potentials and challenges related to these and other investment ideas. **Among other things, we want to inspire conversations about:**

- How large is the potential to create economic and environmental benefits?

- How realistic are the ideas in their current form? Is there a need for technology maturation, maturation of business cases and/or regulatory measures to realise the idea?
- What practical challenges exist for implementing the ideas (e.g., logistics), and what framework-condition challenges (e.g., regulation and access to labour)?
- What steps can be taken to overcome the challenges?
- How large is the investment need, and what investment models could be envisaged to make it realistic to attract investors?
- What role can public and private actors play, respectively?
- For which of the ideas could it potentially be relevant to collaborate on developing "deep dive" analyses?

Table 2: Explanations of terms

Term	Explanation
De-risking	Reducing the risk of investments - for example through guarantees, diversification across sectors, or sharing risk among multiple actors.
Dual use	When an investment can serve multiple purposes - for example if infrastructure can be used for both defence and civilian purposes.
GWh per year	Indicates a volume of energy that can be produced or consumed over a year. Note that this can differ from multiplying a production unit's capacity (MW) by the number of hours in a year, as production can vary over the year.
Catalytic capital	Financing (investments or grants) that accepts higher risk or lower returns to make an investment possible that would otherwise not be feasible on commercial terms - thereby catalysing other investors to participate.
Resilience	A system's ability to function stably under challenging external conditions - for example an energy system where availability and price have low vulnerability to storms, technical accidents, or fluctuations in oil prices.
Payback period	The number of years it takes to earn back an investment through increased revenue or, for example, savings in oil consumption.
Payback period including the value of CO_2	A payback-period calculation where CO_2 savings are assigned a monetary value. The indicator can be used to value CO_2 if (as in Greenland) there are targets for CO_2 reductions. It makes visible that CO_2 would otherwise have to be reduced through other measures that also cost money. In this report, an index for the price of high-quality CO_2 credits is used.[12]

[12] *Puro.Earth (2026)*

3. Investment ideas that can be implemented in the relatively short term

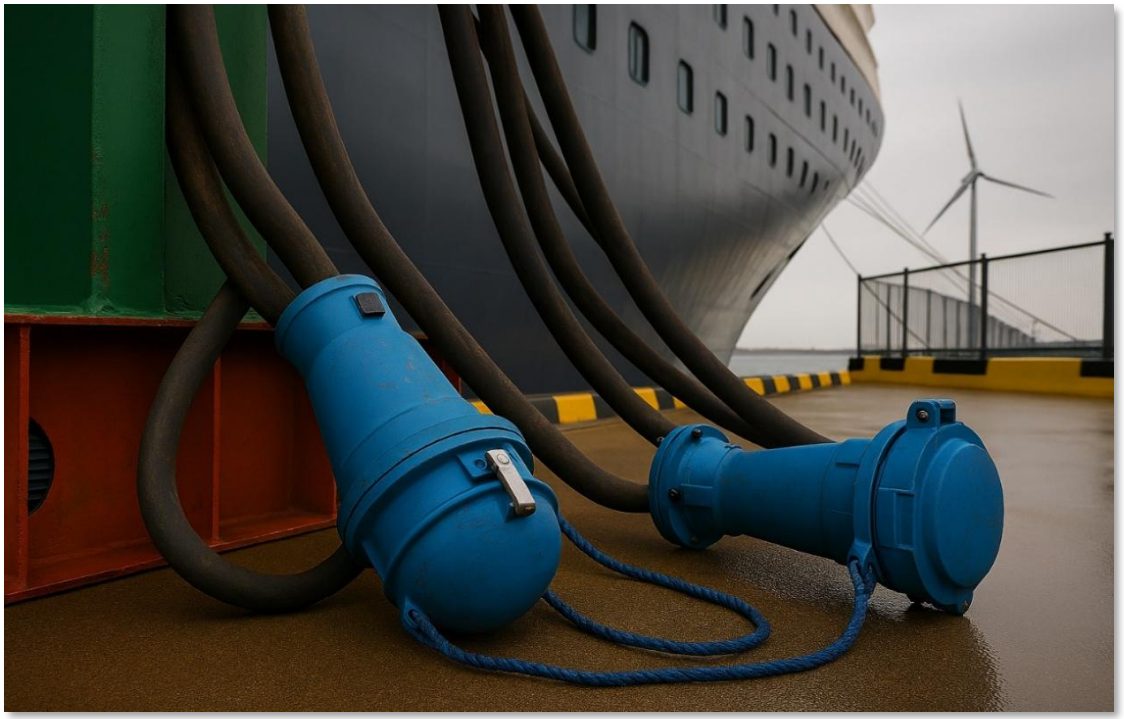
In the following sections, we review investment ideas that are **considered possible to implement in the relatively short term (under 5 years)**.

① **Shore power** can, according to reports from Sikuki and EA Energianalyse, advantageously be established in connection with the planned port expansion in Nuuk. In Qaqortoq, a port expansion with dual-use purposes is also planned, where it may be relevant to consider shore power, provided that investments are also made in renewable energy. According to Nukissiorfiit, surplus green energy is available in Sisimiut and Ilulissat, which is why shore power may be relevant—especially in connection with an expansion of the port in Ilulissat, which is being considered to create more space for the growing tourism. In Nanortalik, tourism is also increasing, and Nukissiorfiit has identified it as a promising location for wind energy, which is why shore power may also become relevant here.[13]

② **Energy renovations, electrification and** ③ **establishing renewable energy facilities in smaller towns and settlements** can be initiated in the relatively short term, as these investment ideas are based on well-known technologies that have been tested in an Arctic context.[14]

④ Nukissiorfiit aims for investments that will enable increased **offtake of surplus energy** to be ready for the expansion of the Buksefjord hydropower plant, which is expected to be completed in 2032. At present, surplus energy is available in Sisimiut, Ilulissat and Nuuk, where projects have been initiated with the first off-takers.[15]

For shore power and several of the other identified investments related to electrification, it may be appropriate to consider establishing a new **power cable between the Buksefjord hydropower plant and Nuuk**. This is because there is currently only one cable, which creates vulnerability to outages in the event of bad weather.[16]



[13] *Stakeholder dialogue meetings and EA Energianalyse (2025), Sikuki (2025), Maritime Denmark (2024), Veirum (2025)*
[14] *Aalborg University (2023), ATCO Electric (2021), Bengtsson (2022), DTU – Technical University of Denmark (2011, 2015a), EA Energianalyse (2018, 2023a,b, 2025), Jakobsen (2016), McKinley (2025), Nukissiorfiit (2019, 2025a,b)*
[15] *EA Energianalyse (2018), Binzer (2025), Nukissiorfiit (2024)*
[16] *Knudsen (2025)*

3.(1)Shore power in ports

In Ilulissat, Sisimiut and Nuuk there is a surplus of green energy. It has been decided that the Buksefjord hydropower plant near Nuuk will be expanded, which is why the surplus of electricity is expected to increase to 260 GWh annually in 2032.[17]

In towns where a future surplus of green electricity is expected, EA Energianalyse assesses that establishing **shore power facilities in ports can significantly contribute to reducing greenhouse gas emissions and air pollution**.[18] This can be achieved by connecting ships to shore power instead of producing electricity by burning the ship's fuel. Shore-power consumption is expected to be highest in summer, when the surplus of electricity is greatest due to lower demand for heating.[19]

In several international ports, including Rotterdam and Stockholm, **shore power is being established in combination with microgrids that include local generation of renewable energy**. In a Greenlandic context, hydropower will typically constitute the primary source of stable renewable energy. It may, however, be considered establishing shore power with associated local production of solar or wind energy at locations where there is no surplus hydropower—for example in connection with the planned expansion of the port in Qaqortoq and the considerations of establishing wind energy in Nanortalik.[20]

According to EA Energianalyse, investments in shore power in Greenland will reduce air pollution and thereby have **positive effects on public health**, as air pollution from ships increases the risk of a range of diseases, including cardiovascular and lung diseases, according to the Danish Council on Prevention (Vidensråd for Forebyggelse).[21]

In EA's stakeholder analysis, the Arctic Command expressed hope that **less noise from ships while in port** could reduce noise complaints from residents in the area. In the same study, Qajaq Trawl stated that it would be beneficial for the working environment of their crew if engine noise is reduced, so there is more calm for rest.[22]

Demand for shore power is expected to increase as traffic - especially from cruise ships - rises.[23]

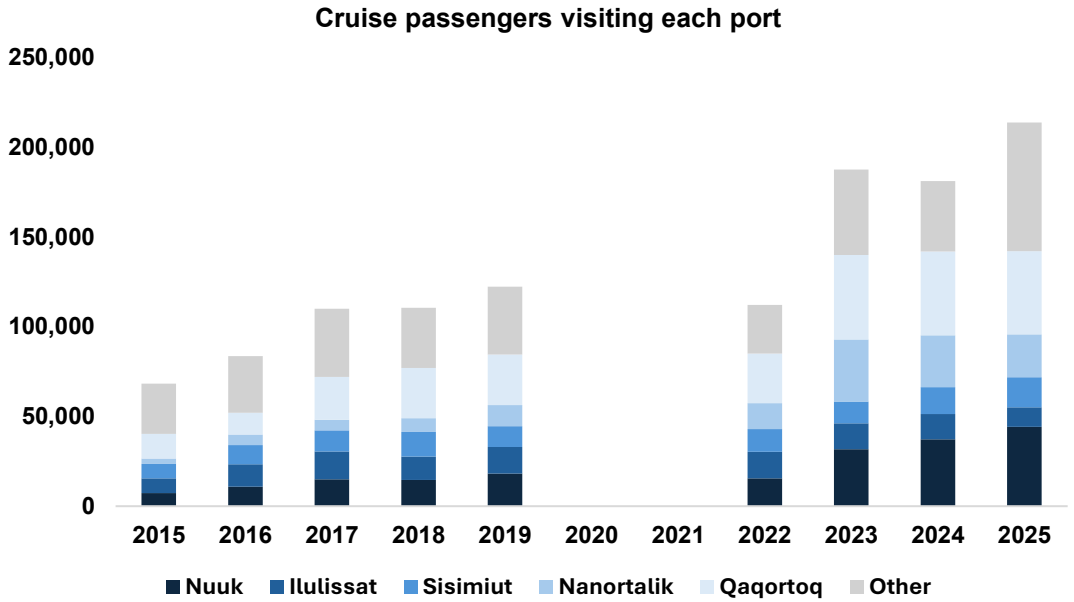


Figure 2: Cruise tourism is increasing. Based on Statistics Greenland (2026)

[17] *Binzer (2025); EA Energianalyse (2018), NunaGreen (2025), Krarup (2025)*
[18] *EA Energianalyse (2025)*
[19] *Dialogue with Nukissiorfiit and Nalik Ventures*
[20] *Interseas (2024), NunaGreen (2025), Krarup (2025), Merkel et al. (2023), Port of Rotterdam (2024), Ship & Bunker (2024), Binzer (2025), Nukissiorfiit (2025a), Veirum (2025), and dialogue with Nalik Ventures*
[21] *EA Energianalyse (2025), Danish Council for Prevention (2025)*
[22] *EA Energianalyse (2024a)*
[23] *Sikuki (2025), Nuuk Maritime Network (2025), EA Energianalyse (2025), BCG (2023)*

According to several of the interviewed stakeholders, shore power supports growth in the tourism industry by improving tourists' experience through reduced noise and pollution. In Ilulissat, where there is access to surplus electricity from hydropower around the clock and especially in summer, there is therefore considered to be potential to **combine investments in shore power with an upgrade of port facilities**. This can accommodate the increasing tourism-related traffic while continuing to ensure space for fishing vessels and cargo ships, which can also use shore power.[24]

In **Nanortalik and Qaqortoq**, tourism is also expected to increase, which is why shore power may become relevant in connection with considerations of future establishment of renewable energy in these towns.[25]

EA Energianalyse assesses that today there is capacity in Nuuk's power grid to establish shore power with a capacity of 3–3.5 MW in one part of the port. At the container terminal and the upcoming trawler terminal, Nukissiorfiit states that there is grid capacity to connect up to 10 MW. EA estimates that **within the next five years, demand for shore power in Nuuk is expected to rise to up to 10 MW on the busiest days**.[26]

Regulation of the tourism industry in Greenland makes it complicated for international actors to invest in tourism businesses. However, from a regulatory perspective, investments in shore power and other port infrastructure are not regarded as tourism businesses. Therefore, it is possible in these areas to make **international investments that support the growth of tourism**.[27]

Investment size:

The costs of establishing shore power facilities vary widely depending on a number of local conditions and are in the range of **DKK 7–100 million per port**. The investment size depends on the facility's capacity, the need to expand the power grid, any additional cable installations, and the need to establish supplementary renewable energy sources, for example solar PV with battery systems.[28]

In Nuuk port, the required investment is DKK 38 million. If an additional power cable is established from the Buksefjord hydropower plant to ensure resilient access to green electricity, this will increase the required investment by more than a billion DKK—but this cost would also enable several of the other investment opportunities described in the following sections.[29]

Economic and social benefits:

EA Energianalyse has estimated that shore power in Nuuk can provide **savings of up to DKK 18.5 million per year**, as establishing and using shore power based on electricity from the hydropower plant has lower costs than ships generating electricity themselves. EA recommends developing a regulatory framework and a tariff model that makes it attractive to use shore power and distributes the economic benefit among different actors.[30] This may be subject to a deeper analysis before the investment is realised.

Access to shore power is expected to **improve cruise tourists' experience through reduced noise and pollution**. In particular, modern cruise ships and expedition ships cite noise reduction as a wish for future port development, as noise is a stressor for both passengers and marine animals.[31] Improving tourists' experience has the potential to generate increased economic activity for local tourism businesses as well as the hotel, restaurant, and related sectors. Based on surveys, Visit Greenland estimates that **each cruise tourist spends DKK 2,000–3,700 during their stay in Greenland**.[32]

Selling a larger volume of electricity in towns with excess capacity in hydropower plants will **improve the finances of the national**

[24] *Binzer (2025), EA Energianalyse (2018,2024,2025), Sikuki (2025), Nuuk Maritime Network (2025), Clemmensen (2025)*
[25] *Statistics Greenland (2026) and interview with Nalik Ventures*
[26] *EA Energianalyse (2025) and dialogue with Nukissiorfiit*
[27] *Arctic Economic Council (2025), Nalik Ventures (2025), Naalakkersuisut (2024a,b)*
[28] *EA Energianalyse (2025), Skagen Port (2025), Interseas (2024), NunaGreen (2025), Krarup (2025), Merkel et al. (2023), Port of Rotterdam (2024), Ship & Bunker (2024)*
[29] *Stakeholder dialogue meetings and EA Energianalyse (2025)*
[30] *EA Energianalyse (2025)*
[31] *EA Energianalyse (2024a), Sikuki (2025)*
[32] *Visit Greenland (2023)*

energy company, as it can use surplus power and has low marginal costs of adding electricity supply in hydropower towns compared with other towns.[33]

Investment in shore power has **dual-use potential**—i.e., the possibility of synergies between civilian purposes and defence investments in protecting the Arctic. The Navy plans to co-finance the port expansion in Nuuk, and its vessels could potentially make use of shore power.[34]

Climate and environmental benefits:

Smaller fishing vessels can reduce emissions by 25–100 kg CO_2 per hour when using shore power based on renewable energy, compared with burning marine diesel, while **larger cruise ships can reduce emissions by up to 2 tonnes CO_2 per hour**. This is based on the power needs of ships calling at Nuuk port according to EA Energianalyse, and the IPCC emission factor for burning diesel oil with an efficiency of 40%.[35]

In Nuuk, Sikuki reports that more than 80 cruise ships call annually, and a significant increase in traffic is expected to go forward. The potential is therefore high especially if it can be made mandatory for ships to use shore power.[36]

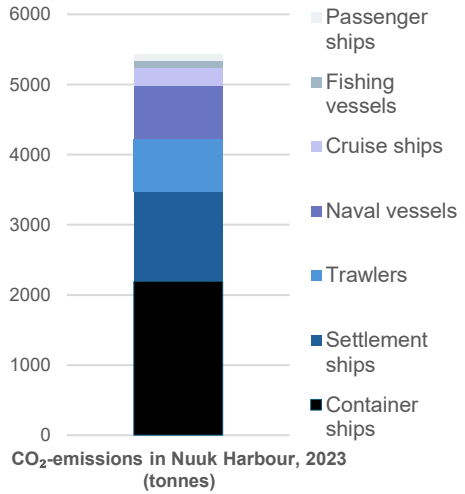


Figure 3: CO_2 emissions from ships in Nuuk Harbour in 2023 (Based on EA Energianalyse, 2025)

Challenges & development needs:

- **Stable power supply:** At present there is one power cable between the Buksefjord hydropower plant and Nuuk. This is vulnerable to outages in bad weather. It is assessed as appropriate to invest in an additional cable.[37]
- Development of **investment models**, especially considering the existing supply model based on a single public actor.
- Involving private actors in projects related to energy supply requires **partnerships with Nukissiorfiit**.[38]
- Development of appropriate **regulations, incentive structures, and communication efforts** so that ship owners choose to invest in the equipment needed to use shore power. This should include considerations of how the economic benefits of shore power are most appropriately shared among different actors (**tariff models**).[39]
- **Logistical conditions**, including securing suitable space for the facilities and ensuring that ships can access and use shore-power facilities efficiently.[40]
- Deeper analysis of the **economic and social benefits** to quantify health benefits for residents and estimate the economic value of improving tourists' experience.
- Costs and time requirements for **construction enabling site preparation** considering local weather conditions, labour-market conditions, and capacity for regulatory approvals.

[33]Binzer (2025), Nukissiorfiit (2024), BCG (2023)
[34]Maritime Denmark (2024), Sikuki (2025), Clemmensen (2025), Forsvarsministeriet (2025)
[35]EA Energianalyse (2024b), IPCC (2023), Marine Masters (2025), Elan Fuels (2025), BCG (2023)
[36]Sikuki (2025), EA Energianalyse (2025)
[37]Knudsen (2025) and stakeholder dialogue meetings with multiple stakeholders
[38]Binzer (2025), Sikuki (2025)
[39]EA Energianalyse (2025)
[40]EA Energianalyse (2025), Sikuki (2025)

3.2 Grant programme or attractive loans for energy renovation & small-scale electrification

Vestnordenfonden has gained positive experience providing loans of less than DKK 10 million with maturities of up to 30 years and a relatively simple application process for projects that support growth and development.[41] Nalik Ventures also has experience with small-scale loans for business development.[42] Based on these experiences, it could be relevant to establish a **green fund targeted at private households, small and medium-sized enterprises, and housing landlords**.

The fund could be designed as **grants or attractive loans for green initiatives e.g. energy renovations and electrification**. The initiative could potentially be established as a collaboration between several financial actors such as the West Nordic Fund, Grønlandsbanken, and mortgage institutions.

Energy renovation of buildings

Greenland has an **estimated renovation need of DKK 2.5 billion in publicly owned buildings alone**.[43] According to an expert from DTU, there is an additional renovation need of **up to DKK 10 billion in privately owned buildings**. This is particularly relevant in smaller towns and settlements, where the climate and environmental benefits of energy renovations are greatest because the energy supply is fossil-based.[44]

The Department of Housing and Infrastructure assesses that lack of renovations in some homes creates **health risks and a risk of damage to the housing stock, leading to higher future costs**.[45]

Renovations are important for residents' quality of life, as occupants experience issues due to, among other things, drafts and mould.[46] Renovations can also improve families' finances, as **heating bills can be reduced**.

Heating of homes accounts for **20% of Greenland's CO_2 footprint**.[47] Energy renovations are therefore an opportunity to create synergies between a lower climate footprint and a higher quality of life for residents.

Electrification of vessels, vehicles, and machinery

Electrification is relevant in towns with access to green electricity. There are **positive experiences with electrification of vessels in Arctic climates**, but some conservatism among owners is expected.[48]

[41] *Arctic Economic Council (2025), Vestnordenfonden (2024)*
[42] *Nalik Ventures (2025, 2026)*
[43] *Naalakkersuisut (2024d,e)*
[44] *Interview with Tove Landing, DTU*
[45] *Naalakkersuisut (2024d,e)*
[46] *Department of Housing, Infrastructure and Outlying Districts (2024)*
[47] *EA Energianalyse (2023a)*
[48] *Nordic Council of Ministers (2018), EA Energianalyse (2023a), WWF (2025)*

Several interviewed stakeholders expect owners of tourist vessels to be more likely first movers for electrification than owners of fishing vessels, as electrification can reduce noise and odour nuisance, improving tourists' experience. Electrification of tourist vessels can potentially pave the way for owners of fishing vessels to become inspired to electrify in the longer term. This is **only relevant for vessels that sail relatively short trips** - not longer routes where refuelling is necessary. To build the confidence that enables investments in electric vessels, it is essential that the relevant charging infrastructure is made available.[49]

In the business sector, EA Energianalyse identifies potential to support investments in, for example, **electric vans and construction machinery**, as well as electrification of airports, supermarkets, and facilities for processing fish. Icelandic and Faroese experiences with electrification in the fishing industry can serve as inspiration.[50]

According to EA, **79% of registered construction machines in Greenland are located in towns that have hydropower or an adopted plan to obtain hydropower**. This means green electricity will be available near around 900 machines that are currently diesel-powered. If renewable-energy projects in smaller towns and settlements are realised, the number of machines with access to green electricity will increase further. It remains to estimate what share of the machines are of types for which it is practically possible and economically attractive to choose an electric alternative. EA estimates this is often the case for machines up to 2.5 tonnes, but there is no data on the number of machines in different size classes. [51]

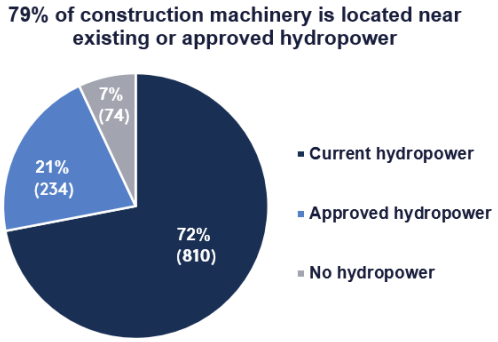


Figure 4: Location of registered construction machinery in Greenland. Based on EA Energianalyse (2023a).

It can be imagined that the electrification potential among medium-sized companies can be realised stepwise through a series of **pilot projects with small loans on attractive terms, rather than concentrating the risk in a single larger bank loan**.

Kalaallit Airports states in a survey that **most airport operations can be transitioned to renewable energy by investing a total of around DKK 100 million in various new equipment**.[52] According to the same source, the supermarket chains Brugseni and Pisiffik assess that transitioning their operations to renewable energy sources would involve investments in the high hundreds of millions of DKK in total. There is no information on which concrete investments this entails, but it could, for example, be installation of solar panels or electrification of vans—investments that would be realistic to finance as standalone projects with a moderate expected payback period.[53]

Investment size:

The **expected investment per individual project is in the range of DKK 0.1–10 million**.[54] The overall investment potential is assessed to be in the billions, including **up to DKK 12 billion for renovation of homes, DKK 100 million for electrification of operational equipment** at airports, and a high hundreds of millions for various electrification projects in supermarkets.[55]

Economic and social benefits:

Energy renovations can improve families' finances by reducing heating expenses. They can also improve housing companies' finances, as **lack of renovation creates a risk of greater damage over time and leads to "idle time"** in the housing stock,

[49] *Stakeholder dialogue meetings and Nalik Ventures (2025), WWF (2025)*
[50] *EA Energianalyse (2023a), Nordic Council of Ministers (2018), Wichmanngroup & Partners (2021), Arctic Economic Council (2025)*
[51] *EA Energianalyse (2023a)*
[52] *EA Energianalyse (2023a)*
[53] *EA Energianalyse (2023a) and dialogue with Nukissiorfiit*
[54] *EA Energianalyse (2023a), Arctic Economic Council (2025)*
[55] *EA Energianalyse (2023a), Naalakkersuisut (2024d,e)*

where no rental income is generated from dwellings that are in too poor condition to retain tenants.[56]

Investments in electric vehicles, machinery, and vessels are expected to yield a surplus over the product's lifetime. It would therefore be an economic benefit for citizens and companies if they gain access to invest in these through either grants, attractive loans, or adjustments to the tax and duty system.[57]

Electrification in industry and renovations of buildings are expected to reduce air pollution in workplaces and improve indoor air quality.[58] At a societal level, this could potentially create positive spill-over effects in the form of fewer sick days, higher productivity, and lower healthcare expenditures. The socio-economic effects remain to be quantified.

Climate and environmental benefits:

Experiences from Northern Norway show that **electric and hybrid vessels that can operate under Arctic conditions can reduce CO_2 emissions by 25–70%**[59] According to EA Energianalyse, coastal fishing vessels that can already be electrified account for more than one-sixth of the total volume of the fisheries sector.[60] It has not yet been estimated what share of CO_2 emissions stems from the types of vessels that can be electrified.

Figure 5: Hybrid fishing vessel in Norway reducing CO_2 emissions by up to 70% (EA Energianalyse, 2023a)

The potential CO_2 savings from energy renovations have not yet been estimated. However, since heating accounts for 20% of Greenland's climate footprint, there is substantial potential. For example, a **5% improvement in heat consumption in buildings where the heat source is fossil fuels could reduce Greenland's climate footprint by 1%**, corresponding to approximately 5,800 tonnes/year. The climate benefit is greatest for energy renovations in towns/settlements that do not have a surplus of hydropower and in buildings that are not connected to district heating or electric heating.[61]

EA assesses that it is often possible to replace smaller fossil-fuelled construction machinery (up to 2.5 tonnes) with electric alternatives by increasing the purchase price by approximately 50%. They estimate that the investment is typically repaid within 2–5 years through lower fuel and maintenance costs.[62] The total CO_2 savings from replacing the machinery for which the transition is economically viable have not yet been estimated.

Challenges & development needs:

- **Access to labour:** There is a high level of activity in new construction in the Nuuk area and low unemployment. To accelerate renovation efforts, several sources therefore assess that it is necessary to attract international

[56] Department of Housing, Infrastructure and Outlying Districts (2024)
[57] EA Energianalyse (2023a)
[58] EA Energianalyse (2023a), Nordic Council of Ministers (2018), Department of Housing, Infrastructure and Outlying Districts (2024), Danish Council for Prevention (2025)
[59] EA Energianalyse (2023a)
[60] EA Energianalyse (2023a)
[61] EA Energianalyse (2023a) and dialogue with Nukissiorfiit
[62] EA Energianalyse (2023a)

skilled labour in the short term, combined with initiatives to upskill local unskilled workers. [63]

- **Transport of construction materials:** This poses challenges both in terms of project timelines and cost levels for renovation projects. [64]

- **Incentive structure and pricing**: Fuel prices are kept artificially low due to cross-subsidisation, which makes it less attractive for private actors to invest in the green transition. There is therefore a need to develop models that ensure households and businesses have clear economic and practical incentives to participate in the initiatives. This includes keeping the administrative burden of applying for grants or loans low, as well as ensuring that reduced heating costs can generate tangible economic benefits for homeowners, landlords, and tenants alike.

- **Communication:** Achieving a high impact, both economically and in terms of climate benefits, requires support from private building owners as well as small and medium-sized enterprises, particularly in local communities where the electricity supply is not green. This calls for an effective communication effort. In this context, experience from Nalik, Vestnordenfonden, and regional business organisations can be drawn upon. These actors have experience engaging with smaller businesses and residents in local communities.

[63] *Grønlands Statistik (2024), Knudsen (2025), Danmarks Nationalbank (2025), DTU (2011,2015), Aalborg Universitet (2023)*

[64] *DTU (2011,2015), Aalborg Universitet (2023)*

3. ③ Renewable energy in smaller towns and settlements

While Nuuk is planning to establish enough hydropower to transition to 100% renewable energy in the public supply, **many smaller towns and settlements are still dependent on diesel and heating oil**.[65] This applies to places where there are no hydropower plants, or where the hydropower plant's capacity is not sufficient to supply the town. Therefore, this section presents a number of examples of potential investments in renewable energy facilities in smaller towns and settlements.

The table below provides an overview of the examples. After a general introduction to the potential for small-scale renewable energy production in Greenland, there is a subsection on each concrete example of a potential facility.

Pilot projects show that small-scale renewable-energy facilities have significant decarbonisation potential: Heating of homes accounts for 20% of Greenland's CO_2 footprint, and electricity production accounts for 16%.[66] Nukissiorfiit assesses that this can be reduced substantially through establishing small-scale renewable-energy facilities, microgrids and battery systems in smaller towns and settlements.[67]

Experience from pilot projects combining solar panels with batteries is positive. In Igaliku, the need for diesel was reduced by 46% of annual consumption and by more than 90% in June.[68] At some locations, in addition to solar energy, there is potential to use wind energy or micro-hydropower.[69]

The business case for replacing diesel with renewable energy combined with batteries is positive due to fuel savings and extended generator lifetime. Existing generators are retained and used as backup, which makes the energy system more resilient. Existing assets can be depreciated more slowly, as they wear less when operated fewer hours.[70]

In addition to reducing CO_2 emissions, air pollution and noise, Nukissiorfiit assesses that a reduced diesel need can make the **energy supply more independent and resilient** to supply disruptions and price fluctuations.[71]

The examples below have been developed by Nukissiorfiit.[72] The estimates for investment sizes and CO_2 savings have not

Table 3: Examples of renewable energy projects in smaller towns and settlements. Based on data from Nukissiorfiit. Intervals reflect uncertainty regarding the size of the savings. The calculation of the payback period, including the value of CO_2, is explained below.

Project	Investment (million DKK)	CO_2 savings (t/year)	Tonnes CO_2 saved per year per DKK million	Payback period (years)	Payback incl. value of CO_2 (years)
Expansion of solar energy, Qeqertarsuatsiaat (planned)	6	94	16	13	11
Heat pumps for district heating, Qaqortoq	8	520-750	65–94	5-7	3-5
District heating from surplus heat, Upernavik	6	383	64	7	5
Wind energy, Nanortalik	45	1,345	30	15	11
Expansion of hydropower, Tasiilaq	100	1,000-3,500	10-35	14-42	10-30

[65] *Nukissiorfiit (2024c), Josefsen (2024)*
[66] *EA Energianalyse (2023a)*
[67] *Nukissiorfiit (2019,2025a,b)*
[68] *Nukissiorfiit (2019,2025b)*
[69] *Nukissiorfiit (2019,2024a,2025a,b)*
[70] *Binzer (2025) and dialogue with engineers from Nukissiorfiit*
[71] *Nukissiorfiit (2025a), Binzer (2025)*
[72] *Binzer (2025)*

been verified by the authors of this idea catalogue.

The indicator "tonnes CO_2 saved per year per DKK million invested" makes it possible to compare the climate benefits of the different projects relative to their size.

For comparison, high-quality carbon credits can be purchased that save on the order of 1,000 tonnes of CO_2 per DKK million invested.[73] Carbon credits, however, generate no operating-cost savings and only save CO_2 once, rather than every year.

For each project, both a payback period based on OPEX savings (primarily fuel savings) and an alternative payback period are estimated, where an economic value of CO_2 savings is included based on the CORC index.[74] These are indicative estimates that do not account for, for example, potential differences in maintenance costs.

[73] *SEGES (2023)*
[74] *Puro.Earth (2026)*

3.3.A Expansion of solar with battery in Qeqertarsuatsiaat

Unlike the other projects, this project has already been initiated. Nukissiorfiit states that it can serve as an example of a number of similar solar-energy projects that could be invested in for other settlements.

Qeqertarsuatsiaat is a West Greenlandic settlement with 170 inhabitants. Local business is dominated by fisheries and related industries; for example, Royal Greenland has facilities for landing and processing fish.[75]

Qeqertarsuatsiaat has rooftop-installed solar panels of 100 kW that supplement 3 × 200 kW diesel generators. A project has now been initiated to expand solar capacity to 280 kW and install a battery system with a capacity of 705 kWh. Nukissiorfiit expects this to result in annual savings of 35,300 litres of diesel.[76]

The battery can function as a no-break system / UPS, which reduces vulnerability to generator outages.[77]

Investment size:

The total investment is estimated at DKK 6 million. This corresponds to 16 tonnes of CO_2 saved per year per DKK million invested.[78]

Economic and social benefits:

Fuel savings are expected to amount to around DKK 210,000 per year, and reduced wear on diesel generators around DKK 250,000 per year. Therefore, the investment pays back in around 13 years. If an economic value of CO_2 savings is included, the payback period is reduced to around 11 years. The battery can function as a no-break system / UPS, which reduces vulnerability to generator outages.[79]

The reduced burning of diesel is also expected to improve air quality and make the energy supply more resilient. Installing a battery that can function as a no-break system further contributes to resilience against generator outages or challenges in fuel supply.[80]

Climate and environmental benefits:

Nukissiorfiit estimates that the project can save around 94 tonnes of CO_2 per year. This corresponds to 0.02% of Greenland's emissions.[81]

Challenges & development needs:

- Accommodation for external labour during the construction period.
- Training local labour for future operations.
- Logistics for deliveries to achieve a short and cost-effective construction period.

[75] *Royald Greenland (2026)*
[76] *Nukissiorfiit (2025a)*
[77] *Nukissiorfiit (2025a), Binzer (2025)*
[78] *Nukissiorfiit (2025a), Binzer (2025)*
[79] *Nukissiorfiit (2025a), Binzer (2025), Polaroil (2025)*
[80] *Nukissiorfiit (2025a), Binzer (2025)*
[81] *Nukissiorfiit (2025a), EA Energianalyse (2023a)*

3.3.B Heat pumps for district heating in Qaqortoq

Qaqortoq is, with just over 3,000 inhabitants, the largest town in South Greenland. Local business includes tourism, agriculture, fisheries, and production of skin products. An expansion of the port has been approved, intended for dual use, i.e., both defence and civilian business.[82]

Qaqortoq is supplied with electricity from the Qorlortorsuaq hydropower plant, which has a capacity of 7.6 MW and also supplies the nearly 1,300 inhabitants of Narsaq.[83]

In 2025, Nukissiorfiit initiated trials with a heat pump to improve heat production at the power plant. This will free up more electricity for other purposes. This is particularly relevant given that a new airport is expected to come into operation in 2026, leading to increased demand for electricity.[84]

The heat pump currently being tested has a capacity of 110 kW. Nukissiorfiit sees potential to expand with additional units so that total capacity increases to 1,200 kW. This could result in annual savings of 190,000–280,000 litres of oil.[85]

Investment size:

The total investment is estimated at DKK 8 million. This corresponds to savings of 65–94 tonnes of CO_2 per year per DKK million invested.[86]

Economic and social benefits:

The estimated fuel savings make it possible to repay the investment in 5–7 years. If an economic value of CO_2 savings is included, the payback period is reduced to 3–5 years. The reduction in oil combustion is also expected to improve air quality and make the heat supply more resilient.[87]

Climate and environmental benefits:

Nukissiorfiit estimates that the project can save 520–750 tonnes of CO_2 per year, corresponding to about one per mille of Greenland's emissions.[88]

Challenges & development needs:

There is a need for more detailed analyses of the following:

- Impacts on the power grid from connecting the heat pumps.
- Potential need for defrosting to ensure stable operation of the system.
- Impact on noise levels.
- Investment models, especially in light of the supply model with one public actor.
- Possibility of establishing additional renewable-energy capacity with a view to future establishment of shore power.

[82] *Innovation South Greenland (2026), Veirum (2025), and dialogue with Nalik Ventures*
[83] *Verkís (2024)*
[84] *Nukissiorfiit (2025a)*
[85] *Nukissiorfiit (2025a)*
[86] *Nukissiorfiit (2025a), Binzer (2025)*
[87] *Nukissiorfiit (2025a), Binzer (2025), Polaroil (2025)*
[88] *Nukissiorfiit (2025a), EA Energianalyse (2023a)*

3.3.C District heating from surplus heat in Upernavik

This town in Northwest Greenland has around 1,100 inhabitants. Local business is dominated by fisheries and tourism. Both Royal Greenland and Polar Seafood have facilities for landing and processing Greenland halibut and crab.[89]

The town's electricity is produced at a diesel-powered power plant, where 75% of the surplus heat is unused, while building heating is produced by separate installations.[90]

By building a 330-metre district-heating pipeline, Nukissiorfiit estimates that it is possible to utilise around 1,070 MWh of surplus heat per year for heating, among others, the school, the sports hall, the fire station, the police station, and a number of private homes. They assess that this can reduce diesel consumption by more than 140,000 litres per year.[91]

Investment size:

The total investment is estimated at DKK 6 million. This corresponds to savings of 64 tonnes of CO_2 per year per DKK million invested.[92]

Economic and social benefits:

The estimated fuel savings make it possible to repay the investment in 7 years. If an economic value of CO_2 savings is included, the payback period is reduced to around 5 years.

The reduction in diesel combustion is also expected to improve air quality and make the heat supply more resilient.[93]

Climate and environmental benefits:

Nukissiorfiit estimates that the project can save around 383 tonnes of CO_2 per year, corresponding to 0.7 per mille of Greenland's emissions.[94]

Challenges & development needs:

There is a need for more detailed analyses of the following:

- Access to qualified labour both during installation and for maintenance.
- Logistical challenges and risk of delays, especially given that Northwest Greenland is difficult to travel to during parts of the year.
- Investment models, especially in light of the supply model with one public actor.

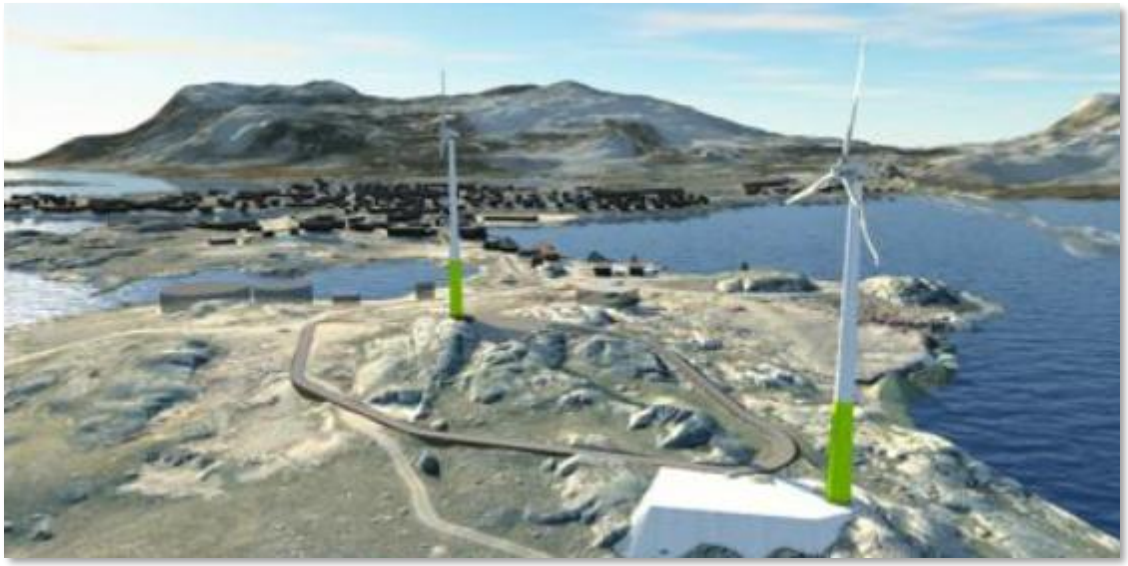
[89] *Polar Seafood Upernavik ApS (2025), Royal Greenland (2026), Visit Greenland (2022)*
[90] *Nukissiorfiit (2025a)*
[91] *Nukissiorfiit (2025a), Binzer (2025)*
[92] *Nukissiorfiit (2025a), Binzer (2025)*
[93] *Nukissiorfiit (2025a), Binzer (2025), Polaroil (2025)*
[94] *Nukissiorfiit (2025a), EA Energianalyse (2023a)*

3.3.D Wind energy in Nanortalik

This town in South Greenland has around 1,070 inhabitants. Wind measurements indicate that it would be advantageous to establish wind energy in the area. Nukissiorfiit has prepared a project description with technical specifications, carried out environmental studies, and obtained the necessary approvals.[95]

Based on simulations, two wind turbines with a total capacity of 1.6 MW are needed to supply the town. The proposed turbines are 100 m tall. To enable using energy from the turbines for heating, it is additionally necessary to expand the district-heating infrastructure. The project is estimated to be able to save 500,000 litres of oil per year.[96]

Tourism in Nanortalik is increasing, thus it can be considered in the future to establish shore power based on wind energy. In this way, investments in renewable energy can both make residents' energy supply greener and more resilient and at the same time generate positive effects for local business. Electricity consumption for shore power would be highest in summer, when demand for heating is lowest.[97]



[95]*Nukissiorfiit (2025a)*
[96]*Nukissiorfiit, (2025a), Binzer (2025)*
[97]*Interview med Nalik Ventures*
[98]*Nukissiorfiit (2025a), Binzer (2025)*
[99]*Nukissiorfiit (2025a), Binzer (2025), Polaroil (2025)*
[100]*Nukissiorfiit (2025a), EA Energianalyse (2023a)*

Investment size:

The total investment is estimated at DKK 45m. This corresponds to savings of 30 t CO_2 per year per million invested.[98]

Economic and social benefits:

The estimated fuel savings make it possible to repay the investment in 15 years. Including an economic value of CO_2 savings reduces the payback period to 11 years.

The reduction in oil combustion is also expected to improve air quality and make the energy supply more resilient to challenges in fuel supply.[99]

Climate and environmental benefits:

Nukissiorfiit estimates that the project can save 1,345 t of CO_2 per year, corresponding to 0.2% of Greenland's emissions.[100]

Challenges & development needs:

- Assessment of local access roads.
- Accommodation for external labour during the construction period.
- Training local labour for future operations.
- Logistics to achieve a short, cost-effective construction period.
- Investment models, especially in light of the public energy supply model.

3.3.E Expansion of hydropower in Tasiilaq

This town in East Greenland has around 1,930 inhabitants. Local business is dominated by fisheries and tourism. Royal Greenland has a factory in the town.[101]

There is a hydropower plant producing 6.72 GWh per year. By expanding the hydropower plant to produce an additional 4 GWh per year, Nukissiorfiit estimates that 400,000–1,200,000 litres of diesel can be saved per year.[102]

Investment size:

The total investment is estimated at DKK 100 million. This corresponds to savings of 10–35 tonnes of CO_2 per year per DKK million invested.[103]

Economic and social benefits:

The estimated fuel savings make it possible to repay the investment in 14–42 years depending on whether fuel savings are at the high or low end of the expected range. If an economic value of CO_2 savings is included, the payback period is reduced to 10–30 years. This is a relatively long payback period compared with the energy projects in small towns/settlements described above, but not compared with payback periods for infrastructure or projects in energy-intensive industries.[104]
The reduction in diesel combustion is also expected to improve air quality and make the energy supply more resilient to generator outages and challenges in fuel supply.[105]

Climate and environmental benefits:

Nukissiorfiit estimates that the project can save 1,000–3,500 tonnes of CO_2 per year. This corresponds to 2–6 per mille of Greenland's emissions. This is relatively high given that 3.5 per mille of Greenland's population lives in the town.[106]

Challenges & development needs:

- Access to qualified labour for both installation and maintenance.
- Logistical challenges due to the location being difficult to access.
- Investment models, especially in light of the supply model with one public actor.

[101] *Royal Greenland (2026), Visit Greenland (2025)*
[102] *Nukissiorfiit (2025a)*
[103] *Nukissiorfiit (2025a), Binzer (2025)*
[104] *Ministry of Transport (2024), McKinsey (2004)*
[105] *Nukissiorfiit (2025a), Binzer (2025), Polaroil (2025)*
[106] *Nukissiorfiit (2025a), EA Energianalyse (2023a)*

3. ④ Utilisation of surplus energy

In Nuuk, Sisimiut, and Ilulissat, surplus energy is available in the form of electricity from hydropower and/or surplus heat from waste incineration and industry. In Nuuk, the amount of surplus electricity is expected to rise to 260 GWh/year after the expansion of the Buksefjorden plant in 2032.

This creates potential to use surplus energy to **reduce oil and diesel consumption and generate new economic activity**.[107]

The table below provides an overview of options for allocating surplus energy to different purposes. In the subsequent figure, the order of magnitude of the off-take options is compared with how challenging they would be to implement in a Greenlandic context.

Nukissiorfiit has established a working group on utilisation of surplus energy and has received an appropriation from the Self-Government, which they expect will enable them to realise the electrification potential in Nuuk in 2032 (see forecast in **Figure 7**). In Ilulissat and Sisimiut, there is already potential today to increase investments in off-taking green energy.

Table 4: Estimates of the potential for absorbing surplus energy. Based on stakeholder dialogue meetings and the following sources: Special tabulation by Statistics Greenland (2022) processed by the Government of Greenland's energy division and Nukissiorfiit, Bill (2024), Binzer (2025), EA Energianalyse (2018, 2023a, 2024a, 2024b, 2025), NIRAS & PwC (2021), Nukissiorfiit (2024c), Ravnshøj-Davidsen (2025)

	Nuuk	Sisimiut	Ilulissat
Surplus energy after 2032 (GWh)	260 electricity + several smaller heat sources from industry	60 heat, of which 27 can be used to free up electricity from existing electric heating customers	12.5 electricity
Electric heating potential (GWh/year)	67.5 through conversion of private oil boilers	27 (new electric boilers can absorb electricity that becomes available if district heating is expanded)	Can absorb all surplus electricity in winter
District heating potential (GWh/year)	12.5 through installation of electric boilers in the district heating network	27	Electric heating is more profitable
Shore power in ports (GWh/year)	22	Not estimated	Not estimated
Electrification of road transport (GWh/year)	29	2	2
Electrification of small vessels (GWh/year)	10	3	3
Greenhouses (GWh/year)	5	1	1
Other electrification in existing industry (GWh/year)	12	Not estimated	Not estimated
Aquaculture	Can absorb all remaining capacity (can consume 50+ MW)		
Hydrogen / e-fuel production	Can in principle absorb remaining capacity, but establishing larger plants in connection with new hydropower is considered more economically attractive		Not profitable

[107] *EA Energianalyse (2018), Krarup (2025), Binzer (2025), Nukissiorfiit (2024c), NunaGreen (2025)*

Surplus heat creates opportunities in Nuuk and Sisimiut:
In 2025, waste-incineration plants have been established that can deliver up to 7 MW of heat each (~60 GWh per year), provided that all residual waste from Nuuk and surrounding areas is incinerated in Nuuk, and all residual waste from the rest of the country is incinerated in Sisimiut.[108]

All heat from waste incineration in Nuuk is currently utilised for district heating, but Nukissiorfiit assesses that there is potential to utilise more surplus heat from industry.[109] In the longer term, there is potential for the amount of surplus heat to increase if considerations of establishing energy-intensive facilities such as data centres are realised.[110]

In Sisimiut, according to Nukissiorfiit, the waste-incineration plant has created potential to free up up to 27 GWh of electricity per year for new electrification projects, as customers can transition from receiving heat from electric boilers to receiving district heating from waste incineration.

In Ilulissat, electric heating is an obvious off-taker of surplus electricity in winter:
The existing hydropower plant near Ilulissat has up to 12.5 GWh of surplus electricity per year, which can be utilised without significant additional costs for the energy producer.

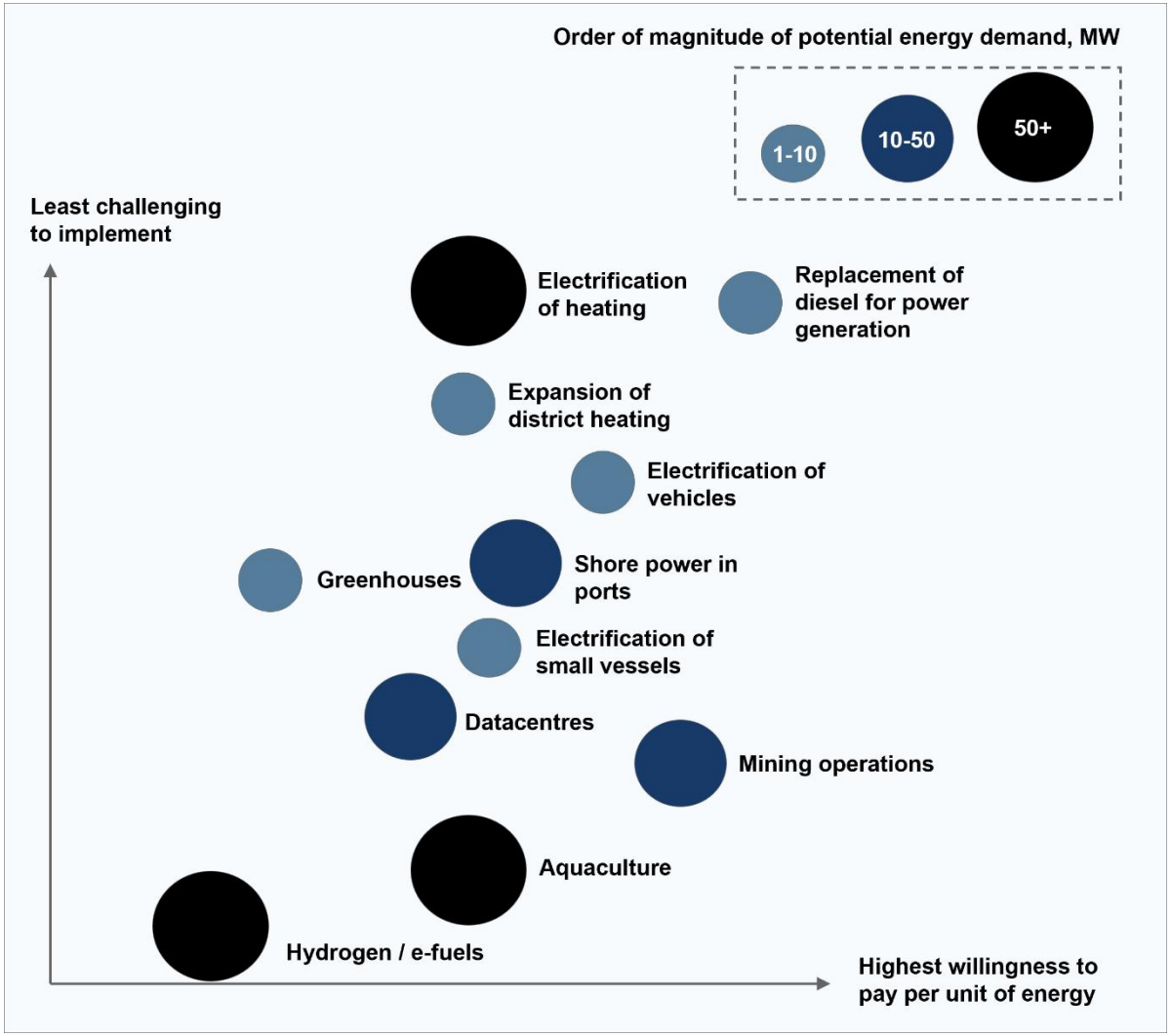


Figure 6: Potentials for the use of energy. Based on stakeholder dialogue meetings and the following sources: Special tabulation by Statistics Greenland (2022) processed by the Government of Greenland's energy division and Nukissiorfiit, Bill (2024), Binzer (2025), EA Energianalyse (2018, 2023a, 2024a, 2024b, 2025), NIRAS & PwC (2021), Nukissiorfiit (2024c), Ravnshøj-Davidsen (2025)

[108] *Bill (2024)*
[109] *Binzer (2025)*
[110] *Binzer (2025)*

1,500 households and some larger commercial buildings in Ilulissat are heated with oil boilers. EA Energianalyse assesses that this is sufficient to off-take all surplus electricity in winter by installing interruptible electric heating.[111] In summer, it will be possible to use surplus energy for other purposes, e.g., greenhouses.

In Nuuk, there is significant potential for transitioning heating as well as electrifying transport and industry:
In Nuuk, according to Nukissiorfiit, there is potential to off-take 80 GWh/year through investments in electricity-based heating: 67.5 GWh by converting oil boilers and 12.5 GWh by installing electric boilers in the district-heating network. In addition, there is potential to allocate 12 GWh by converting other customers' oil consumption to electricity.[112]

In Nuuk, electrification of all road transport could potentially off-take up to 29 GWh per year; shore power in the port 22 GWh per year; and electrification of small vessels 10 GWh per year. However, Nukissiorfiit is currently not technologically prepared to offer charging for all small vessels. Electric fishing vessels do not exist in Greenland and only to a limited extent globally. They are only relevant for shorter trips—not longer trips where refuelling would be required along the way.[112]

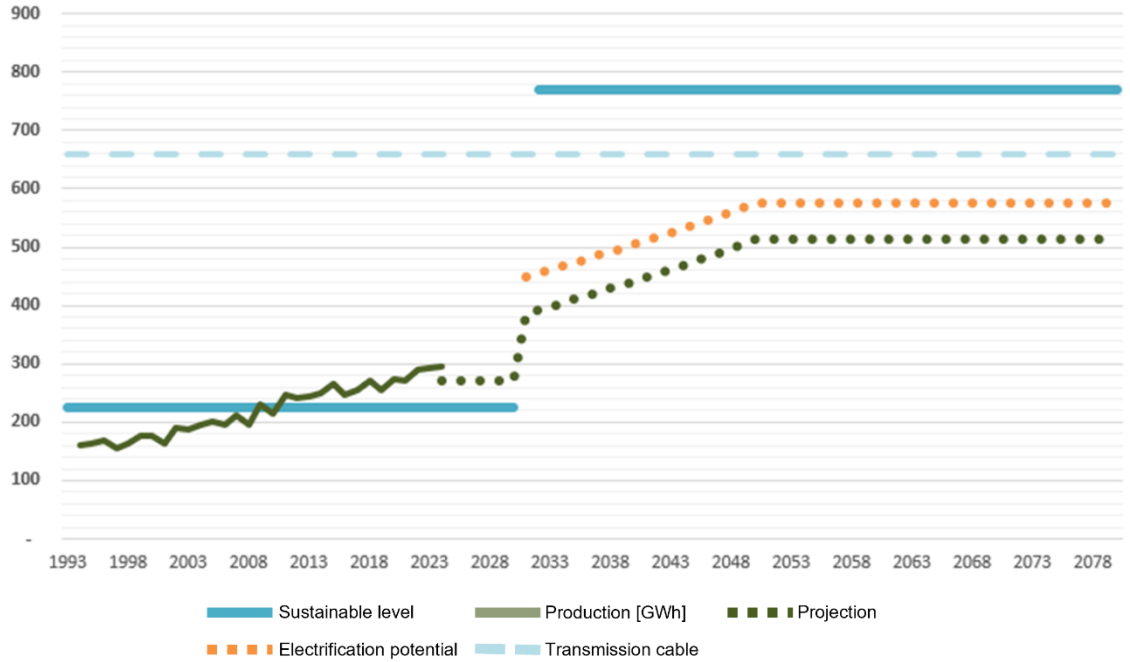


Figure 7: Nukissiorfiit's projection of hydropower generation capacity in Nuuk (GWh per year) and the potential for electrification. Note that following the expansion of the Buksefjorden hydropower plant, expected to be completed in 2032, the sustainable utilisation level of hydropower will exceed the capacity of the existing transmission line.

Greenhouses can be a flexible off-taker of surplus energy:
Experiences from other countries, e.g., England, indicate that co-location between renewable-energy production and vertical greenhouses can have business advantages. Access to low-cost energy is essential to greenhouse profitability, and for the renewable-energy producer it is beneficial that greenhouses can off-take energy flexibly during periods of surplus.[113]

Local production of tomatoes, cucumbers, peppers and lettuce in heated greenhouses could potentially off-take up to 4 GWh/year in Nuuk. The corresponding potential in Sisimiut and Ilulissat is around 1 GWh/year in each town.[114]

Experience from Canada and Iceland indicates that local vegetable production

[111] *EA Energianalyse (2018)*
[112] *Special tabulation by Statistics Greenland (2022) processed by the Government of Greenland's energy division and Nukissiorfiit, and dialogue with Nukissiorfiit*
[113] *Eastlake (2024), GrowUp (2024)*
[114] *EA Energianalyse (2018)*

can facilitate communities, promote health, and create a tourist attraction.[115]

To grow vegetables in greenhouses in Greenland, it is necessary to use artificial lighting in winter, and it can be advantageous to use hydroponic systems to avoid using soil. In Nuuk, a start-up has been established that is planning small-scale greenhouse production of vegetables based on surplus heat. The main challenges are to build technical and business capabilities and ensure access to energy at competitive prices, as greenhouses do not have the same opportunity to buy energy at a reduced price as the fishing industry does.[116]

A pilot project in Sisimiut indicates that source separation of organic waste for compost production is an option with potential both to reduce the need to import fertiliser and to improve the calorific value of the waste in the waste-incineration plants.[117]

Investment size:

Both larger and smaller projects have been identified with investment needs in the range **DKK 55,000-100 million**.[118]

According to Nukissiorfiit, interruptible electric boilers that can replace oil boilers cost between DKK 55,000 and DKK 550,000 depending on size. This excludes administration and reinforcement of the power grid.[119]

In Nuuk, there are already plans for conversion to electric heating financed by the Self-Government. There is potential to invest up to DKK 60 million in 756 electric boilers in Ilulissat and up to DKK 50 million in 573 electric boilers in Sisimiut. In Sisimiut, the electric boilers could off-take up to 28 GWh of electricity per year. In Ilulissat, up to 31 GWh per year can be off-taken. These potentials exceed the currently available surplus energy, which is why a combination with additional renewable-energy production may be relevant.[119]

EA Energianalyse estimates that greenhouses with capacity to off-take 1 GWh of surplus energy per year require an investment of around DKK 3 million. Therefore, there is **potential to invest up to DKK 18 million in greenhouses** if the ambition is to replace all consumption of tomatoes, cucumbers, peppers and lettuce in Nuuk, Sisimiut and Ilulissat. This is expected to be able to off-take up to 6 GWh of heat per year.[120]

[115]EA Energianalyse (2018), Fridheimar (2017), Growing North (2017), Agriteam Canada Consulting LTD (2013)
[116]Stakeholder dialogue meetings and EA Energianalyse (2018), Growing North (2017), Agriteam Canada Consulting LTD (2013), Kristensen (2024)
[117]Jungersen (2014), Nielsen & Skadborg (2015)
[118]EA Energianalyse (2018), NIRAS & PwC (2021), and Nukissiorfiit estimates of prices for the conversion of heat customers from 2023, projected using the construction cost index from Statistics Greenland
[119]Nukissiorfiit estimates of potential off-take volumes and prices for electric boilers from 2023, projected using the construction cost index from Statistics Greenland
[120]EA Energianalyse (2018)

Nukissiorfiit's 2024 annual report describes some framework conditions that are important in relation to their ability to initiate investments: **Nukissiorfiit is not allowed to take up loans through ordinary capital markets** but only through the Self-Government.[121] Further, the ability to differentiate prices between customers or geographic areas is strongly limited due to a politically regulated pricing model aimed at ensuring uniform prices for all consumers. However, there is legal basis for making agreements on special terms concerning the use of surplus energy.[122]

Economic and social benefits:

EA (2018) assesses that converting from oil boilers to interruptible electric heating can provide a **significant socio-economic surplus**. They assess that the surplus from this is greater than from investing in electrification of cars. It will also reduce the heat supply's vulnerability to fluctuating oil prices. Customers are expected to keep oil boilers as backup, increasing robustness in the event of power outages.[123]

EA estimates the **socio-economic benefit of converting from oil boilers to interruptible electric heating at around DKK 16,000 per household per year**, primarily driven by savings on oil purchases. According to their method, allocating surplus electricity to electric boilers in Nuuk can yield a socio-economic surplus of **DKK 48 million per year**. This corresponds to 5% of Nukissiorfiit's annual revenue or 80% of the company's deficit in 2024.[124] Due to the politically determined pricing structure, where all customers pay the same heat price, the economic benefit primarily accrues to Nukissiorfiit rather than households.[125]

Figure 8: Deployment of an electric boiler at Hotel SØMA in Nuuk, replacing fuel oil and reducing CO_2 emissions by 142 tonnes annually (Nukissiorfiit, 2024b)

Nukissiorfiit estimates that they can increase their annual earnings in Nuuk by DKK 21.4 million per year by investing around DKK 60 million in electric boilers. In Sisimiut, the expected possible increased earnings are DKK 18.6 million for an investment of under DKK 50 million. In Ilulissat, the ratio between investment and increased revenue is similar, but it remains to be validated how large a share of the surplus energy can be sold to heat customers. In all three towns, the **expected payback period for investments in electric boilers is around 3 years**. These estimates do not account for any expansion of the power grid or changes in maintenance costs.[126]

[121] *Nukissiorfiit (2024c)*
[122] *Nalunaarutit (2022)*
[123] *EA Energianalyse (2018)*
[124] *EA Energianalyse (2018), Nukissiorfiit (2024c)*
[125] *EA Energianalyse (2018)*
[126] *Nukissiorfiit estimates of potential off-take volumes and prices for electric boilers from*

EA Energianalyse assesses that installing heat pumps has the potential to reduce electricity consumption for heating and thereby free up surplus energy for other purposes.[127] However, it has not yet been analysed whether this is economically more profitable than installing interruptible electric heating.

Nukissiorfiit estimates that other possible uses of surplus electricity in Nuuk would also yield a positive economic return, primarily driven by fuel savings. This can benefit both the energy company and the businesses that choose to electrify machinery. The economic return of each possible investment has not been published.[128]

Reducing diesel and oil combustion will also have a positive socio-economic effect by **reducing the risk of a range of diseases, including cardiovascular and lung diseases**.[129] The magnitude of these effects in the context of Greenlandic towns has not been estimated.

Greenhouses can **reduce the need for imports and thereby increase security of supply**. EA Energianalyse estimates that vegetables can be produced at a price of DKK 30–35 per kg, which is lower than the price of vegetables imported to Greenland.[130] This indicates favourable conditions for selling locally produced vegetables. From a socio-economic perspective, cheaper local vegetables can have a positive effect by contributing to increased vegetable intake. The magnitude of this potential effect has not been estimated. In addition, greenhouses can create **job opportunities for young people without education**.[131]

Figure 9: The waste incineration plant in Sisimiut produces climate-friendly heat while simultaneously reducing the accumulation of waste at the landfill. Source: Qeqqata Kommunia (2025)

Climate and environmental benefits:

The total climate benefit of fully utilising surplus energy in Nuuk, Sisimiut and Ilulissat to replace fossil fuels is assessed at **more than 20% of Greenland's total CO_2 emissions**.[132]

Displacing oil and diesel consumption through the use of **surplus electricity in Nuuk could save 114,000 tonnes of CO_2 per year from 2032**.[133]

Using surplus electricity from hydropower in Ilulissat can result in annual savings of more than 4,000 tonnes of CO_2. **In Sisimiut, more than 7,000 tonnes of CO_2 can be saved** if surplus heat from the waste-incineration plant is used to serve current electric-heating customers, and the electricity freed up is utilised.[134]

2023, projected using the construction cost index from Statistics Greenland
[127]EA Energianalyse (2018)
[128]Binzer (2025)
[129]Danish Council for Prevention (2025)
[130]EA Energianalyse (2018)
[131]EA Energianalyse (2018), Growing North (2017), Agriteam Canada Consulting LTD (2013)
[132]EA Energianalyse (2018, 2023a) and Nukissiorfiit estimates of CO_2 savings from conversion to electric boilers
[133]EA Energianalyse (2018, 2023a), Nukissiorfiit (2024c)
[134]Conservative estimates based on EA (2018) as well as an internal estimate from Nukissiorfiit from 2023

Nukissiorfiit estimates that each larger company that replaces an oil boiler with an electric boiler yields a CO_2 saving on the order of 100 kg per year.[135]

Greenhouses based on surplus heat can reduce the need to import food. The reduction in emissions from transport can save around 50–100 kg CO_2 per tonne of vegetables. If all consumption of cucumbers, tomatoes, peppers and lettuce in Nuuk, Sisimiut and Ilulissat is produced locally, this would correspond to 25–60 tonnes of CO_2 per year.[136]

Comparing the potential CO_2 savings with the investment sizes shows that greenhouses can save 1–3 tonnes of CO_2 per year per DKK million invested, whereas electric boilers can save 140–230 tonnes of CO_2 per year per million invested. **Electric boilers are therefore a more climate-effective investment.** However, the boilers can only off-take electricity, whereas greenhouses can also off-take surplus heat and are flexible with respect to variation in the amount of energy over time.[137]

Vertical greenhouses also have potential to reduce the vegetables' land-use footprint and avoid the use of pesticides.[138]

Figure 10: In the event of power grid failures, technicians must wait for weather conditions that allow the use of helicopters to repair the cables.

[135]*Nukissiorfiit (2024c)*
[136]*CarbonCare (2025), EA Energianalyse, (2018, 2023a)*
[137]*EA Energianalyse (2023a), Eastlake (2024), GrowUp (2024)*
[138]*Eastlake (2024), GrowUp (2024)*

Challenges & development needs:

- **Resilience of access to electricity:** Today there is only one transmission line between the Buksefjord hydropower plant and Nuuk, which creates vulnerability to breakdowns. To ensure stable power supply, it is assessed as appropriate to invest in an additional cable.[139] This becomes increasingly relevant as expected growth in Nuuk increases energy consumption. As shown in Figure 7, there is around 260 GWh of surplus energy in 2032, but from around 2050 the projection shows a 100 GWh increase in energy demand. If investments are made to utilise the full potential of surplus energy, it will therefore also be necessary to invest in transmission capacity.

- **Variation in the amount of surplus energy** over the day and year: Because most surplus energy is available at night and in summer, it can be challenging to plan investments in electrification and use of surplus heat so that consumption matches the production of surplus energy as closely as possible.[140]

- Entering into **agreements with private actors**: This involves practical challenges (it can be time-consuming to approach customers and conclude agreements), regulatory challenges, and incentive challenges. The current

[139]*Knudsen (2025)*
[140]*EA Energianalyse (2018), Binzer, (2025)*

regulation of energy prices means that the incentive to switch from oil boilers to district or electric heating is low. The politically adopted pricing model stipulates that the price of heat must be the same for all consumers. The heat price is set based on, among other things, the oil price. The intention is to treat consumers equally, regardless of whether they live in a town with hydropower or diesel-based energy. However, the explanatory notes to the Finance Act provide an opportunity for Nukissiorfiit to enter into individual agreements on special terms when it concerns surplus energy.[141]

- **Access to labour:** Skilled labour is needed to establish and maintain new installations. Towns with surplus energy typically have lower unemployment than the rest of Greenland.[142] Thus, to carry out extensive projects, it may be necessary to combine targeted upskilling of local wotkers with initiatives to attract international workers. The need for education and recruitment efforts is reinforced by the already high activity level in Nuuk's construction sector.[143]
- Potential to invest in **heat pumps**: With a heat pump, more heat can be produced per kWh electricity compared to electric heating.[144] Thus, it can be considered whether this could be a relevant medium-term investment if Nukissiorfiit aims to allocate the surplus electricity. The relevance of investments that increase the efficiency of the utilised surplus energy is expected to increase over time, as the amount of surplus electricity is expected to fall in line with expected population growth in Nuuk.[145]
- **Economic and environmental cost-benefit analysis:** To prioritise the most appropriate investments, deeper analyses of the economic and environmental consequences should be carried out. For example, scenarios should be analysed where waste is transported from smaller towns to the waste-incineration plants—does this remain environmentally attractive, or are transport emissions too high?
- **Competence development:** For example, greenhouses are a possible new use of energy that does not only require access to energy at a favourable price, but also skills in business development. It will therefore be necessary to invest in competence development to establish and scale businesses that can supply a high volume of locally produced vegetables.
- Costs and time requirements for **construction enabling / site preparation**: Weather conditions, access to specialised labour, and waiting times for permits can create uncertainty about both costs and timelines.

[141] *Nalunaarutit (2022), Nukissiorfiit, (2024c), Binzer (2025)*
[142] *Statistics Greenland (2024)*
[143] *Valentin & Karlsen (2025), Building Greenland (2024), Sandahl (2024)*
[144] *EA Energianalyse (2018)*
[145] *NIRAS & PwC (2021) Binzer (2025)*

Investment ideas that can be implemented in the longer term

In the following sections, we review ambitious visions for investments that can be implemented in the long term. The ideas have in common that they support the long-term ambitions Naalakkersuisut has expressed for a more self-sustaining Greenlandic economy that contributes to the global green transition through exports of, for example, critical raw materials and products based on green energy.[146]

For all the investment ideas, the first steps can be initiated in the short term, but it is expected to take a number of years before the projects can be implemented.

3.5 New hydropower

At the end of 2026, hydropower projects at Lakes Tasersiaq and Tarsartuup Tasersua are expected to be put out to tender for commercial exploitation. They include several potential locations for hydropower plants with a capacity of 300 MW each.[147]

For the business case of establishing new large-scale hydropower, it is crucial to plan for an off-taker of a stable high-volume energy supply. Previously, there were considerations to establish hydropower at Tasersiaq, among other things to supply an aluminium smelter under Alcoa.[148]

Earlier business-case calculations indicated that aluminium production, Power-to-X (P2X), or a power cable to Canada could potentially be economically viable investments.[149] It remains to verify the previous calculations and to conduct new calculations with updated assumptions. Establishing hydropower plants is **high-complexity projects where costs are strongly dependent on local conditions**.[150]

Previous plans to establish hydropower plants at Tasersiaq were shelved, among other reasons due to long processing times and uncertainty about permits to flood areas with cultural heritage. Alcoa subsequently sold the data it had used in feasibility studies to Naalakkersuisut.[151]

[146] *Naalakkersuisut (2025b)*
[147] *Naalakkersuisut (2025c); Naalakkersuisut – Ministry of Business, Mineral Resources, Energy, Justice and Gender Equality (2025); Krarup (2025).*
[148] *Hviid (2022), Hviid & Wille (2022), Lyberth (2010)*
[149] *Pund (2024), AECOM Tecsult Inc. (2009a, 2009b)*
[150] *FDE (2025)*
[151] *Lyberth (2010), Hviid (2022), Naalakkersuisut (2022), Hansen (2024)*

Table 5 illustrates that there was a long process with political considerations about approving the hydropower plant, and that the construction phase was expected to take at least six years.[152]

The upcoming **tender emphasises environmental protection, societal sustainability, high energy utilisation, and revenues for Greenland**. Thus, it is crucial to identify how the energy will be off-taken. Several companies have expressed interest during initial market dialogues.[153]

Investment size:

A hydropower plant with an associated aluminium smelter has previously been estimated to require an investment of DKK 29 billion, of which DKK 16 billion are costs for establishing the hydropower plant and related infrastructure, while DKK 13 billion are costs for establishing the aluminium smelter.[154] In addition, there are estimates indicating that it is possible to reduce the costs of establishing the power plant including related infrastructure to DKK 11 billion by using a terrace system.[155]

Previous studies estimate that a power cable to Canada can be established for DKK 30 billion, and that it is possible to deliver electricity from a hydropower plant at Tasersiaq to Canada at a competitive price.[155] This is subject to substantial uncertainty, as the cost of establishing cables is strongly dependent on local conditions. In particular, it should be noted that in a Greenlandic context there is no experience with such an extensive establishment of power cables.

Table 5: Timeline for a previously considered hydropower project at Tasersiaq (Based on Hansen, 2013)

Spring 2006	First inquiry from Alcoa
July 2006	Joint Action Plan between Greenland and Alcoa
April 2007	First public political decision in the Inatsisartut on the project (to proceed)
May 2007	Memorandum of Understanding (MoU) between Greenland and Alcoa
May 2008	Political decision in the Inatsisartut: Maniitsoq selected
2014 (exp.)	Political discussions in the Inatsisartut: partnership/concession
2014 (exp.)	Expected political decision in the Inatsisartut: go or no-go
2020 (exp.)	Earliest possible start of production if the project is approved

Previous estimates of the potential to produce ammonia based on hydropower at Tasersiaq indicated that it could potentially become profitable to establish a P2X plant, provided that green ammonia can be sold at a price between USD 350–580 per tonne, depending on assumptions.[155] This falls within the broad range of different global forecasts for the price of green ammonia in 2030–2040. However, these forecasts are subject to significant uncertainties.[156]

Economic and social benefits:

Previous calculations showed an expected return (IRR) above 15% both for scenarios with a power cable to Canada and scenarios with aluminium production.[157] Ammonia produced with P2X is not economically competitive with conventional ammonia. For P2X, the economic return will therefore depend on whether off-takers can be found who are willing to pay a premium for ammonia with a low climate footprint.[158]

Climate and environmental benefits:

No precise calculations have yet been carried out of the climate benefit of establishing hydropower at Tasersiaq or Tarsartuup Tasersua. The benefit will depend on the production volume and on how the electricity is used - i.e., whether it replaces electricity on the Canadian grid, conventionally produced ammonia, or aluminium.

Both aluminium and ammonia are energy-intensive to produce, thus the climate footprint of the energy used is decisive for the product's footprint[159]

[152] *Hansen (2024)*
[153] *Naalakkersuisut (2025c); Naalakkersuisut – Ministry of Business, Mineral Resources, Energy, Justice and Gender Equality (2025), Krarup (2025).*
[154] *Pund (2024), AECOM Tecsult Inc. (2009a,b)*
[155] *Pund (2024)*
[156] *The Oxford Institute for Energy Studies (2024), FutureBridge (2022), IRENA (2022)*
[157] *Pund (2024)*
[158] *Pund (2024), The Oxford Institute for Energy Studies (2024), FutureBridge, (2022), IRENA (2022)*
[159] *Pedneault et al. (2032), FutureBridge (2022), Mingolla & Rosa (2025)*

Challenges & development needs:

- International investors assess the opportunities to bid for hydropower projects in Greenland in comparison with similar projects in other countries. It is therefore crucial that there is **confidence in the political framework**. In previous considerations regarding the establishment of hydropower in the same area, uncertainty arose about obtaining the necessary permits, particularly in relation to cultural heritage and the local environment. The processing time was long, and in the meantime it proved more economically attractive for potential investors to choose another project outside of Greenland.[160]

- **The assumptions underlying the previous business cases** should be revisited. In particular, it should be analysed whether it is realistic to achieve sales of green ammonia at a profitable price, and whether the costs of establishing a cable connection to Canada are sufficiently low for electricity exports to be considered economically sustainable.

- Final clarifications are still pending regarding the potential impacts impacts of hydropower plants on the local **environment and cultural heritage**. Once these issues have been clarified, **communication** with the local community is essential in order to secure support and prevent complaints or appeals.

- If a private actor is to establish energy production and supply parts of the electricity to consumers in Greenland, this would require either an adjustment of the existing regulatory framework or the establishment of a public–private partnership.[161] At present, a single public entity is responsible for the energy supply, and there is no **clear framework for how a potential public–private partnership in energy production could be structured**.

- As with other major infrastructure projects, a comprehensive risk assessment is required, addressing financial and schedule-related **uncertainties related to new infrastructure development** and the availability of **specialised labour.**

.

[160] *Lyberth (2010), Hviid (2022), Naalakkersuisut (2022), Hansen (2024), Pund (2024), Bengtsson (2022)*

[161] *Nalunaarutit (1997)*

3.6 Glacial flour

Information in this section is based on a combination of academic literature and news articles, as well as interviews with Professor of Geology Minik Rosing, who originated the glacial-flour idea, and Samuel Bäcklund, Business Development Manager at the Danish start-up Rock Flour Company. Estimates of the economic and climate potential of glacial flour remain to be validated. In addition to Rock Flour Company, another company aiming to extract glacial flour is Arcticulture ApS.

Glacial flour is a natural material that can be used as an additive in fertiliser as well as for CO_2 capture. Glacial flour consists of silt formed beneath glaciers**. The movement of glaciers produces around a billion tonnes of glacial flour in Greenland each year.**[162]

The material has a high surface area because it consists of fine particles. This surface area means that the natural process of CO_2 uptake from the atmosphere can occur faster than with other materials.[163]

When glacial flour is spread in warmer areas than Greenland, e.g., Danish or even better suited African fields, it absorbs larger amounts of CO_2 directly from the atmosphere, as the reaction is temperature-dependent. Studies show that **one tonne of glacial flour can absorb up to 250 kg of CO_2.** However, the process takes several decades.[164]

In a scenario where glacial flour is applied to 20% of Denmark's current agricultural area, more than 5 million tonnes of CO_2 could be sequestered.[165] This corresponds to 40% of what agriculture currently emits in a year—i.e., more than 1% of agriculture's projected emissions over the period it takes to achieve the full climate effect of glacial flour. This scenario would consume 20 million tonnes of glacial flour, which is less than one per mille of what would be produced in Greenland over the same period.[166]

In addition to the climate benefit, glacial flour has potential economic benefits for agriculture: **blending glacial flour can improve crop yields and reduce the need for traditional fertiliser**. Glacial flour contains nutrients, including phosphorus, potassium, magnesium, sulphur, calcium, silicon oxide, and aluminium oxide.[167]

In Ghana, trials have shown that glacial flour can increase yields by 30–50%.[168] In Denmark, on land where the soil is not

[162] *EIFO (2025b), Rivin (2024)*
[163] *University of Copenhagen (2023a,b)*
[164] *Sjøgren (2023), Rivin (2024)*
[165] *University of Copenhagen (2023a,b)*
[166] *EIFO (2025b), Rivin (2024)*
[167] *Brandt-Møller (2019)*
[168] *University of Copenhagen (2023a,b) Rivin (2024)*

depleted, trials show that glacial flour can increase yields by 15–30%.[169]

According to Rock Flour Company, the business case for selling glacial flour is based on the farmer being able to both reduce the need for fertiliser and sell high-quality climate credits. “High quality” means that the CO_2 reduction is well documented and permanent.[170]

Globally, Rock Flour Company estimates that there are 40 million hectares of land where glacial flour can improve soil quality, and which are also located no more than 250 km from a coastline.[171] This corresponds to more than nine times Denmark’s current agricultural area. Proximity to a coastline is important for the climate effect, as overland transport entails higher CO_2 emissions than sea transport. At longer transport distances, there will still be climate benefits, but the reduced CO_2 savings per tonne of glacial flour lowers the earning potential from climate credits.[172]

In addition to capturing CO_2, glacial flour improves soil structure and **reduces nitrogen leaching by up to 20%** compared with achieving a similar growth improvement using synthetic fertiliser.[173]

This can be particularly valuable in areas with runoff from agricultural land into sensitive aquatic environments - where a reduced agricultural production would otherwise be required to avoid oxygen depletion.

Rock Flour Company is working to develop glacial flour into a commercial product. In its most recent capital raise, the company received investments of DKK 45 million from Novo Holdings, Denmark’s state export and investment fund EIFO, Nalik Ventures, and the Greenlandic pension fund SISA. The funds are intended to finance the next project phase, which includes further documentation of glacial flour’s soil-improving properties in countries with varying degrees of depleted soils, measurements of CO_2 uptake over time, and development of logistics plans for collection and dewatering of glacial flour.[174]

It is not necessary to establish mines to collect glacial flour, as it lies on the ground surface or in the water. In the longer term, however, it may be considered whether there is a need to expand port capacity to enable scaling of collection and distribution.[175]

Rock Flour Company estimates the potential global sales volume at millions of tonnes, with an expected price per tonne in the double-digit euro range.[176]

Figure 11: Glacier flour (powdered material) has a very high surface area. The larger contact surface is the reason why the reaction with CO_2 proceeds faster than on the surfaces of other rocks.

[169] *Sjøgren (2023)*
[170] *Bäcklund (2025)*
[171] *Bäcklund (2025)*
[172] *Bäcklund (2025) CarbonCare (2025)*
[173] *Technological Institute (2024)*
[174] *EIFO (2025b), With (2025), Bäcklund (2025)*
[175] *Rivin (2024), Bäcklund (2025)*
[176] *With (2025), Bäcklund (2025)*

Willingness to pay is subject to significant uncertainty, as it primarily depends on the value of climate credits.

Glacial flour may also be relevant in the context of development assistance, as trials have measured substantial yield improvements on agricultural land when applying glacial flour to different areas with depleted soils in Africa. In addition to the soil-improvement potential being greater in Africa than in Denmark, the rate of CO_2 uptake is also higher in warmer regions.[177]

Investment size:

The costs for the next phase of product development and maturation of the business plans (DevEx) are on the order of DKK 45 million, assuming the next phase is comparable to the investment round Rock Flour Company completed in 2025.[178]

The start-up costs for production are relatively limited, as there is no need to establish major fixed facilities. The required installations primarily include mobile machinery for collecting the material and smaller dewatering facilities.[179]

If production is scaled to collect a larger volume of glacial flour, it may in the longer term be considered to upgrade port capacity near major glacial-flour deposits. It is expected that a floating quay can be used.[180]

Economic and social benefits:

The cost of collecting the material is not expected to be high compared to producing the fertilizer that glacier flour can replace. In addition, the CO_2 captured can be included in the agricultural sector's carbon footprint and sold as carbon credits. Based on this, Rock Flour Company estimates that buyers will be willing to pay a double-digit euro amount per ton of glacier flour.[181]

So much glacier flour is generated each year that, in practice, it can be considered an unlimited resource with the potential to launch a sustainable export industry.[182]

The jobs that the project can create in Greenland do not require skilled labor. Therefore, there is an opportunity to hire young people who have not completed their education after elementary school.[183]

Climate and environmental benefits:

Studies indicate that each ton of glacial flour can absorb approximately 250 kg of CO2. However, the process takes several decades. In addition to the direct absorption of CO2, climate and environmental benefits are achieved by reducing fertilizer use in fields and improving crop yields. This could potentially result in a lower climate and environmental footprint per ton of food produced.[184]

If glacial flour is applied to 20% of Denmark's current agricultural land, and assuming it takes 30 years to absorb the full amount of CO_2, this would be equivalent to offsetting over 30% of Greenland's CO_2 emissions over the same period. This is without assuming that Greenland's emissions will decrease over the period.[185]

Challenges & development needs:

- This is a new type of industry for which there is no regulatory precedent. Permits for collecting the material have previously been processed using the same procedure as for a mining project, even though no mines are to be established—the material is collected from the water or a layer on top of the ground surface, without the need to dig into the ground. It can be examined whether the administrative burden can be reduced.[186]
- It should be investigated whether there is the expected willingness to pay among buyers. The soil-improving effect of glacial flour has been documented, but agriculture is a conservative sector. Interest would likely be stimulated if a major buyer took the lead and demonstrated the product's usefulness.[187]
- The trend in willingness to pay for CO_2 credits is uncertain. It is therefore particularly important to identify buyers

[177] *Rivin (2024), Bäcklund (2025)*
[178] *EIFO (2025b)*
[179] *Rivin (2024), Bäcklund (2025)*
[180] *Rivin (2024)*
[181] *With (2025), Bäcklund (2025)*
[182] *Rivin (2024)*
[183] *Rosing (2025)*
[184] *Rivin (2024), Sjøgren (2023)*
[185] *Rivin (2024), Sjøgren (2023), EA Energianalyse (2023a)*
[186] *Rivin (2024), Rosing (2025)*
[187] *Københavns Universitet (2023a,b), Bäcklund (2025), Rivin (2024), European Commission (2025a), Bromley (2024), Wreford et al. (2017)*

in countries where stricter requirements for agricultural climate action are expected.[188]

- In developing countries with depleted soil, where the soil-improving effects of glacial flour can make the greatest difference, farmers' ability to pay is typically low. To create a market that allows farmers with low purchasing power to buy glacial flour, consideration could be given to drawing inspiration from previous development projects, such as CARE Denmark's efforts to enable farmers in Kenya to purchase products that improve soil fertility.[189]
- It should be documented whether the glacial flour collected in different areas contains impurities. This is essential for obtaining approval to use glacial flour on fields.[190]
- The potential sources of revenue for the Greenlandic community should be analyzed. This could include taxes from the company extracting the glacial flour, as well as potential fees for collecting the material. It could also include potential positive economic contributions to the community resulting from unemployed young people without formal training finding employment.
- A communication strategy should be developed that takes into account the fact that the project involves the extraction of a natural resource. It would be beneficial to target an international audience, as glacial flour has so far primarily received attention from the Danish public. Coverage in international media, supported by studies from various universities, could potentially increase interest from both commercial and philanthropic actors abroad.

[188] *Bromley (2024), Barbato & Strong (2023), Giles (2025).*

[189] *Sonnichsen (2017)*

[190] *Restsinformation (2024)*

3.⑦ Molybdenum mine and related energy- and transportation facilities

The information in this section is primarily based on material from a meeting at the European Commission, a feasibility report provided by Greenland Resources, and a report on the potential for installing renewable energy in connection with the mine prepared by COWI.[191]

There is potential to establish a mine at Malmbjerget in Northeast Greenland. The site is located 33 km from a small military airfield in Mestersvig and is **relatively far from inhabited or heavily trafficked areas.** This reduces the risk of negatively impacting local communities or hunting grounds.[192]

An initial public meeting indicates that there are no significant fishing or hunting activities that would be affected by the establishment of a mine.[192]

The mine has the potential to meet up to **23% of the EU's demand for molybdenum, which is a critical raw material for both the green transition and the defence sector.** The mine will also produce magnesium as a byproduct.[193]

In June, a 30-year mining license was granted to the Canadian company Greenland Resources. Feasibility studies have been completed, and several off-take agreements have been signed with European buyers of molybdenum.[193]

The project requires an investment of approximately $1 billion. Commitments have been secured for $700 million in AAA-rated loans from, among others, the Canadian export bank EDC. EIFO has signed a Letter of Intent, which is a statement of intent regarding possible future involvement without committing to the scope or nature of such involvement, if any.[194]

The EU has decided to invest in the mine, subject to positive results from environmental studies.[195] The Canadian government has provided a conditional commitment of a $7 million grant for feasibility studies, including studies on the potential for processing molybdenum, magnesium, and other by-products from the mine using various technologies. The grant is contingent upon the successful fulfilment of certain documentation requirements.[196]

Investors have the option of investing in the mining operations themselves, or separately in several key components of the project, which are summarized in table 6.[197]

According to Greenland Resources, the project will strengthen infrastructure on Greenland's east coast and contribute to skills development among the local

[191] *European Commission (2025d), Greenland Resources Inc. (2025), COWI (2023)*
[192] *Greenland Resources Inc. (2025)*
[193] *European Commission (2025d), Greenland Resources Inc. (2025)*
[194] *Greenland Resources Inc. (2025)*
[195] *Thorsson (2025)*
[196] *Business Wire (2026)*
[197] *Greenland Resources Inc. (2025), COWI (2023)*

population. The foreign workforce employed during the construction phase will primarily consist of Inuit from Canada, and emphasis will be placed on training locals to operate the mine.[198]

From a European perspective, it is a significant advantage if molybdenum can be produced in Greenland, as this **reduces Europe's dependence on Chinese minerals.** This is particularly important for molybdenum, which is essential for both the green transition and the defence industry.[199]

Investment size:

Greenland Resources plans to raise approximately **$300 million in equity investments**, in addition to $700 million expected to be financed through debt.[200]

External investors may choose to invest separately in various infrastructure projects that do not necessarily have to be owned by the company operating the mine. This includes approximately $150 million for the establishment of a renewable energy supply, $215–235 million for a transportation facility, and approximately $10 million for facilities to process the byproduct magnesium.[201]

Economic and social benefits:

Greenland Resources expects **annual revenue of approximately $700 million and tax payments in Greenland of up to $1 billion over a period of 20–30 years.** This corresponds to 2–4% of the Greenlandic government's budget during the same period.[202]

Greenland Resources estimates **an internal rate of return (IRR) of over 20% and a payback period of three years.**[203]

The project focuses on **training local unskilled workers** for mine operations. In addition, the energy infrastructure and port

Table 6: Overview of potential investments related to the Malmbjerg mine. Sources: Greenland Resources (2025), COWI (2023)

Investment opportunity		Amount (USD million)	Description
	**The mine itself**	300 equity + 700 debt	Investment in the establishment and operation of the mine over a 30-year period.
	**Transport system (RopeCon conveyor)**	215–235	26 km long conveyor system between the mine and a storage area near the port. As the mine is located at high elevation, material transport can be driven by gravity. The system generates 1.3 MW of electricity, which is used in mining operations.
	**Renewable energy solution (33–43 MW)**	Approx. 150	The mine's energy supply is expected to be tendered to a third party rather than operated by Greenland Resources. The energy supply may be based on diesel generators or a combination of solar and wind energy.
	**Magnesium processing facilities**	Approx. 10	Magnesium is extracted as a byproduct and can advantageously be processed on-site.

[198] *Greenland Resources Inc. (2025)*
[199] *European Commission (2025d), Greenland Resources Inc. (2025)*
[200] *European Commission (2025d), Greenland Resources Inc. (2025)*
[201] *Greenland Resources Inc. (2025), COWI (2023)*
[202] *Greenland Resources Inc. (2025), Naalakkersuisut (2024e)*
[203] *Greenland Resources Inc. (2025)*

improvements that are necessary for the mine, can strengthen other parts of the local economy.[204]

In East Greenland, unemployment is higher than in the rest of the country, which is why the potential for improving living conditions by investing in upskilling and job opportunities there is particularly high.[205]

In addition to the local economic and social benefits, the project represents a **strategic opportunity to make a significant contribution to Europe's independent supply** of raw materials that are critical to both the energy and defense sectors. This has the potential to strengthen Greenland's position in relation to the EU.[206]

Climate and environmental benefits:

The mine can supply minerals that are essential for the green transition, indirectly contributing to phasing out of fossil fuels.[207]

The figure below summarizes Greenland Resources' arguments regarding the mine's potential environmental benefits.

According to Greenland Resources, it is possible to establish an open-pit mine at the selected location with a lower environmental footprint than many alternative sites. The transport of material can also be carried out with a lower footprint than elsewhere, as the conveyor system utilizes gravity while simultaneously generating electricity during transport.[208]

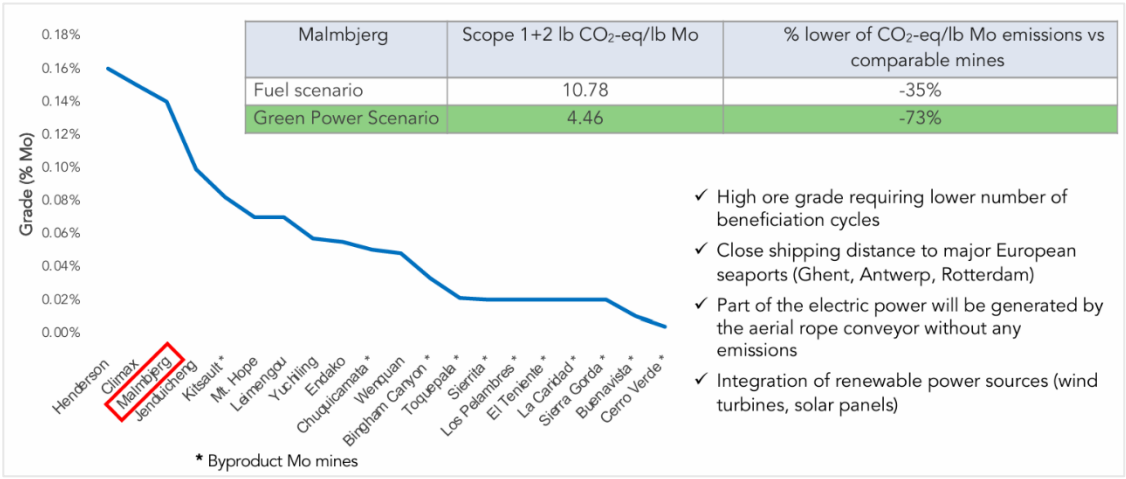


Figure 12: Greenland Resources' summary of arguments for the mine's climate and environmental benefits (European Commission, 2025d)

Without assuming the establishment of renewable energy production in connection with the mine, CO_2 emissions per ton of molybdenum will be 35% lower than in the production of the mineral elsewhere in North America. In addition to the factors mentioned above, this is due to the fact that the ore contains 0.14% Mo, which is high compared to other mines. This reduces the volume of ore that needs to be extracted and processed to obtain the same amount of finished product.[209]

If a combination of solar and wind energy is established in connection with the mine, the carbon footprint per ton of molybdenum produced can be reduced by up to 73% compared to similar mines. In its pre-feasibility study, COWI has identified suitable locations for energy production that have sufficient flat land and avoid environmentally sensitive areas.[210]

In addition to supplying the mine with renewable energy, there is potential to establish sufficient capacity to supply Ittoqqortoormiit (population 324) and Nerlerit Naat Airport.[211] However, there is not yet a calculation of whether it is most attractive to lay cables between the mine's renewable energy sources and these locations, or whether it is more attractive (economically or climatically) to establish smaller local renewable energy plants with microgrids.

[204] *Greenland Resources Inc. (2025)*
[205] *Grønlands Statistik (2024)*
[206] *European Commission (2025d), Greenland Resources Inc. (2025)*
[207] *Greenland Resources Inc. (2025)*
[208] *Greenland Resources Inc. (2025)*
[209] *Greenland Resources Inc. (2025)*
[210] *Greenland Resources Inc. (2025), COWI (2023)*
[211] *Greenland Resources Inc. (2025)*

Challenges & development needs:

- In addition to the significant **capital expenditures**, the main challenges in establishing the mine are expected to relate to **logistics and infrastructure development** in the remote region of Northeast Greenland, where access by ship is impossible due to ice for much of the year.[212]
-
- A more thorough analysis of the technical options for transporting, **storing, and processing** the ore is needed. This should include a closer examination of the effects of local glacier movements.

- Mining projects have a **long payback period.** To attract the necessary start-up capital, it is essential that the **framework conditions** are predictable. See further discussion of this in the section *Framework conditions and investment models*.

- Several aspects of the expected **climate and environmental benefits should be examined more closely**: Can sufficient consideration be given to the local environment in all aspects of the mine's operations and the establishment of the associated infrastructure? Is it feasible to install power lines to use the same renewable energy plant to supply the mine, Ittoqqortoormiit, and the airport, or would it be more appropriate to establish small-scale renewable energy microgrids at each individual location?

- A **communication strategy** should be developed that takes into account the fact that the project involves the extraction of a resource.

[212] *Greenland Resources Inc. (2025)*

3.⑧Graphite mine near Amitsoq

On the island of Amitsoq in South Greenland lies **one of the world's largest and purest graphite deposits**.[213] There used to be a mine here that was in operation between 1915 and 1922. The mine closed because the technology at the time was not advanced enough to separate graphite from the ore efficiently enough to remain profitable.[214]

In December 2025, the British company GreenRoc Strategic Minerals PLC obtained a license to resume mining operations in the area.[215] The project has been designated a **strategic project under the EU's Raw Materials Act,** because graphite is a critical material for the green transition, defense systems, and digitalization.[216]

Graphite is used, among other things, in batteries for electric vehicles, energy storage, and mobile phones. It accounts for 25% of the weight in lithium-ion batteries. Flexible graphite components also play an important role in defense systems and high-temperature processes. The ore found in Amitsoq contains flake graphite with high crystallinity, which is advantageous for use in lithium-ion batteries.[217]

At present, China dominates the global graphite supply chains, with **80% of the world's graphite mining and 99% of refining being Chinese-owned.** NATO and

the EU have classified graphite as a critical material. Against this backdrop, EIFO has issued a convertible loan facility of EUR 5.2 million for the development of the mine and a pilot plant to process graphite into anode material.[217]

GreenRoc expects global demand for graphite to quadruple over the next 10 years.[218] Based on their preliminary measurements, they estimate that the mine at Amitsoq contains approximately 23 million tons of ore with a graphite content of 20%. They expect to extract this over a period of 20 years. This is equivalent to **producing enough graphite annually to power the batteries in approximately 1 million electric vehicles.** In addition, they have been granted a license to explore the possibility of extracting graphite in adjacent areas.[219]

In addition to reopening the graphite mine, GreenRoc is working to establish a **graphite processing plant in Europe.**[220] They have entered into an agreement with the Norwegian battery manufacturer Morrow Batteries to collaborate on building a regional supply chain.[221]

[213] *GreenRoc (2025a)*
[214] *EIFO (2025a)*
[215] *GreenRoc (2025a)*
[216] *GreenRoc (2025b)*
[217] *GreenRoc (2025a,b), EIFO (2025a)*
[218] *GreenRoc (2025b)*
[219] *GreenRoc (2025a,b)*
[220] *GreenRoc (2025b)*
[221] *EIFO (2025a)*

GreenRoc expects to be able to reopen the mine in 2030. They expect to be able to limit the construction phase to two years, as mining has taken place in the area before, and transportation conditions are relatively advantageous. There is a **deep harbor next to the mine that does not freeze over in the winter.** The island on which the mine is located is far enough from populated areas to minimize the risk of noise pollution, but close enough to allow for commuting for employees who live in Nanortalik. [222]

In 2026, GreenRoc plans to conduct pilot tests in Hørsholm of the technology it intends to use at a processing plant it plans to establish in Norway.[222]

GreenRoc has established a subsidiary in Nuuk, Greenland Graphite A/S, which will be responsible for operating the mine and ensuring that the financial returns benefit Greenland.[223]

Investment size:

A preliminary study by SLR Consulting has estimated that **establishing the mine will require an investment of USD 131 million.** This figure includes a 25% buffer. They estimate that the cost of operating the mine is USD 121 per ton of ore (approx. USD 600 per ton of graphite). This corresponds to 8.6–12.1% of the expected selling price. This includes transportation to Northern Europe but not the costs of processing the graphite.[224]

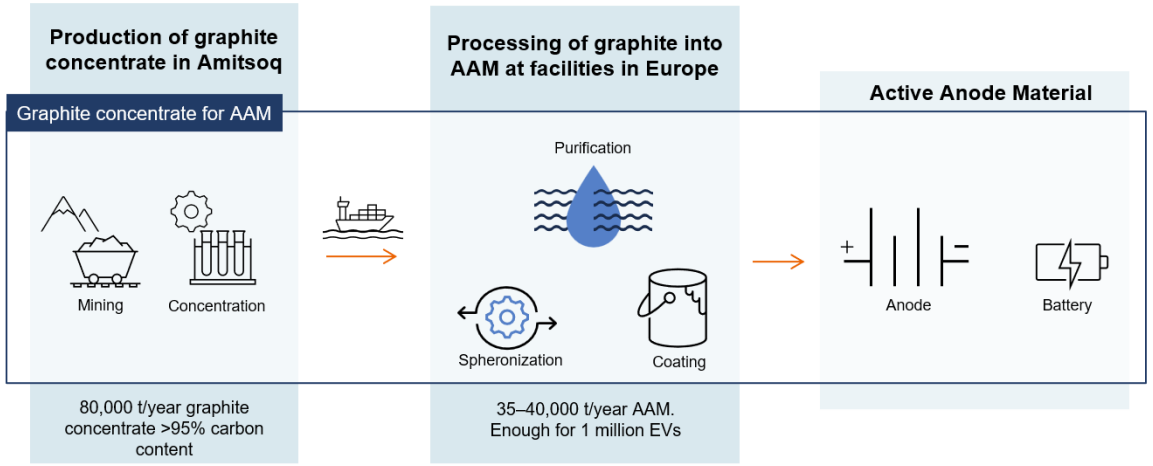


Figure 13: Process for the production of active anode

A preliminary study by SLR Consulting has estimated that a **plant capable of processing approximately half of the graphite from the mine could be established in Norway for USD 340 million.** This figure includes a 25% buffer. They estimate that the processing cost is USD 1,872 per ton of graphite (27–37% of the expected selling price). The estimate is subject to significant uncertainty, as GreenRoc has not yet initiated its planned pilot test.[224]

A preliminary study by SLR Consulting has estimated that the **payback period for both the mine and the processing plant is four years**, and that both yield **an after-tax IRR of over 25%**.[224]

Economic and social benefits:

Based on the selling price GreenRoc anticipates for the finished product, **annual revenue is expected to be between DKK 2.5-3.6 billion.**[225] However, the price of graphite is volatile, so revenue is subject to significant uncertainty.[226]

GreenRoc expects the mine's operations to generate **200 jobs**. While it will be necessary to recruit some specialists from outside the region, the company expects to be able to recruit a significant portion of its workforce in Greenland and train them through **on-the-job training and courses organized in collaboration with the School of Mineral Resources**. GreenRoc plans to establish a **boat service between mine and Nanortalik** to enable residents to commute there.[227]

[222] *GreenRoc (2025a,b)*
[223] *GreenRoc (2024)*
[224] *GreenRoc (2025a)*
[225] *GreenRoc (2025b)*
[226] *Industrial Minerals (2023)*
[227] *GreenRoc (2025b)*

In Nanortalik, 37 people were unemployed in 2024, representing 5.6% of the town's labor force. In two other towns in South Greenland, Qaqortoq and Narsaq, there were 70 and 62 unemployed people, respectively, corresponding to unemployment rates of 4.5% and 8.2%. By comparison, Greenland's average unemployment rate was 3.3%.[228] The project is thus expected to create **jobs and training opportunities in an area with relatively high unemployment, but it will also be necessary to recruit a significant portion of the workforce from other towns** due to the limited local labor pool.

GreenRoc plans to build **housing near the mine**, where up to 60 employees can be accommodated. The rest are expected to find housing in Nanortalik.[229]

Climate- & environmental benefits:

The mine can supply a material that is critical to the green transition, indirectly contributing to the phase-out of fossil fuels. The project is ESG-certified by Digbee™.[230]

The refining of graphite is very energy- and chemical-intensive.[231] Therefore, it is essential to prioritize environmental considerations, efficiency, and renewable energy supply when planning the processing plants. The first processing plant is planned for Longum, where 98% of the electricity supply comes from hydropower.

Based on preliminary calculations, Greenroc expects to **save up to 120,000 tons of CO_2 per year compared to importing graphite from China.** They have engaged an LCA calculation provider to provide a robust external estimate. Located in the same area is battery manufacturer Morrow, which aims to build a local supply chain.[232]

Challenges & development needs:

- A **feasibility study** based on a more detailed project plan has yet to be conducted. GreenRoc expects this to take two years.[231]
- **China** is able to supply graphite at a lower cost than can be mined at this mine. It may therefore be challenging to secure supply agreements. This requires buyers to see value in entering into agreements with a producer that is independent of China.
- Graphite refining requires **specialized equipment and expertise** that are difficult to come by in Europe, as China accounts for 99% of the world's graphite processing. This could mean that developing efficient graphite production in Europe will take several years. Initially, GreenRoc plans to establish a pilot plant in Hørsholm based on Chinese and Japanese technology.[233]
- **The estimate of the costs associated with processing** the graphite must be considered highly uncertain, as the pilot project has not yet been launched. GreenRoc expects the pilot plant in Hørsholm to be operational in July 2026 and the first finished product to be ready for quality testing in November.[233] The plans for a full-scale facility in Norway should then be updated to provide a reliable estimate of the expected financial performance.
- The processing plant planned for Norway has the capacity to process approximately half of the graphite that the mine is expected to produce in a year.[233] The **climate and environmental footprint of the final product depend significantly on whether the remaining graphite is also processed at facilities that use a high proportion of renewable energy.**
- The mine requires 8 MW of electricity to operate. GreenRoc plans to rely on diesel generators initially but intends to explore options for **using renewable energy sources in the long term**.[229]
- A **communication strategy** should be developed that considers the fact that the project involves resource extraction.

[228] *Grønlands Statistik (2024)*
[229] *GreenRoc (2024)*
[230] *EIFO (2025a)*
[231] *GreenRoc (2025b)*
[232] *GreenRoc (2025b), Andersen (2021a)*
[233] *GreenRoc (2025a)*

3.⑨ Data centers and data infrastructure

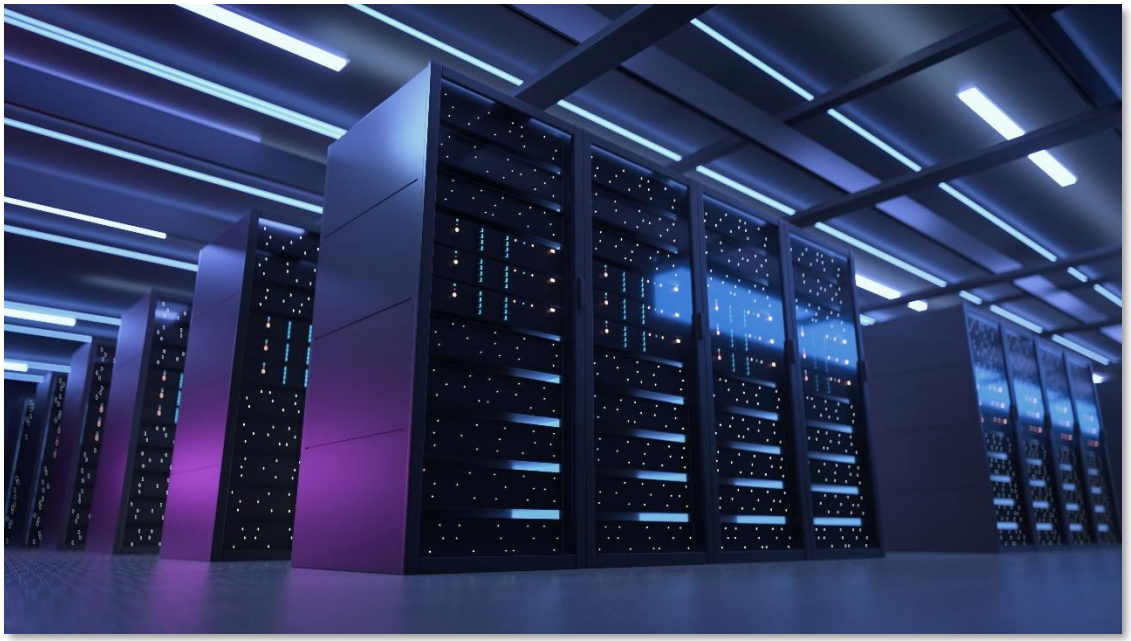
As part of the development of the ideas catalogue, preliminary studies have been conducted regarding data centers and data infrastructure. The analysis is at a preliminary stage.

Data centers require large amounts of energy and efficient cooling. Several of the stakeholders interviewed therefore emphasized that it is important to explore the possibilities of establishing a data center in connection with the expansion of hydropower capacity or the development of new hydropower in Greenland.[234]

However, attracting a global tech company is challenging, as they typically have stringent uptime requirements that necessitate redundancy in both electrical and data infrastructure, as well as access to on-site technical support at short notice year-round. Due to Greenland's geography, interviewed stakeholders expect that establishing the necessary infrastructure to set up a large-scale data center will be expensive compared to other potential locations. Given Greenland's labor market situation and transportation options, it will also be challenging to make technicians available on short notice - this will likely require a locally based technician with on-call compensation.[235]

However, there are types of customers with lower uptime requirements than large technology companies. These include, for example, the National Archives, research institutions, or certain types of cryptocurrency miners.[236] It may be worthwhile to conduct further studies into the feasibility of establishing a smaller data center focused on customers without high uptime requirements.

To make the **data infrastructure more resilient**, a decision was made in 2025 to lay a new international submarine cable to Greenland with support from the Danish Armed Forces. Similarly, a decision was made, with support from the EU, to lay a cable between Qaqortoq and Aasiaat. At several of the dialogue meetings, interest was expressed in establishing **additional cables along the coast to create better data connectivity** for citizens and businesses. However, there are currently no estimates of the extent to which investments in data infrastructure can be expected to yield economic returns in the form of increased business activity.[237]



[234] *Dialogue meetings as well as Ivanova & Farkhatdinov (2025)*
[235] *Dialogue meetings as well as LCL Data Centers (2024)*
[236] *Dialogue meetings as well as Braiins (2021)*
[237] *Dialogue meetings as well as the Ministry of Foreign Affairs and Research (2025) and Tusass (2025a)*

Investment size:

The size of the investment depends on the size of the data center and the scope of the necessary investments in related infrastructure. The stakeholders interviewed estimate that a **data center requires a minimum investment of 0.7 billion Danish kroner, and that a data cable requires an investment of over one billion**.

Economic and social benefits:

Access to cost-effective green electricity can strengthen the business case for establishing a data center. No calculation of the expected financial return is available yet. The business case could be further strengthened if a data center is integrated with the establishment of other production facilities that can utilize excess heat, such as greenhouses.

If the data of Greenlandic citizens is stored in the data center, this could contribute to more resilient and independent access to data for the local population.

After the construction phase, the stakeholders interviewed expect that the number of jobs associated with a data center will be limited.

Climate- & environmental benefits:

A calculation of the potential climate benefits of locating a data center in Greenland rather than in other locations has yet to be conducted. The cold climate can reduce the need for cooling, which is a significant factor in a data center's carbon footprint. Additionally, a data center in Greenland can be powered by green energy from hydropower. However, during the construction phase itself, the climate footprint of establishing a data center is expected to be relatively high due to the need for extensive infrastructure at locations where transportation is associated with relatively high CO_2 intensity.[238]

Challenges & development needs:

- **Reliable power supply:** The operation of the data center requires a high degree of supply reliability. It is estimated that additional power cables will need to be installed to ensure sufficient capacity and redundancy in the power supply.

- **Access to skilled labor:** Specialized technicians are needed to operate and maintain the data center, and they must reside near the facility. Given the shortage of skilled labor in Greenland, this requires special training or recruitment efforts.

- **Logistical challenges:** Transporting equipment and personnel to and from Greenland can entail significant costs and requires robust supply chain planning. Spare parts must be stored locally to prevent prolonged downtime.

- **Comparative business case:** Further investigation is needed to determine whether there are entities for which establishing a data center in Greenland would be more economically attractive than establishing it at another location. In this context, it is essential to analyze the risk-adjusted expected economic return in light of the differences in risk factors across different geographic regions.

- **Cybersecurity:** To attract entities that handle sensitive data, regulations governing data security and the capacity to enforce data protection must be in place.

- Costs and time required for **site preparation:** Local weather conditions, access to specialized labor, and delays in obtaining regulatory approvals mean that the site preparation phase can create uncertainty regarding both costs and the timeline.

[238] *Dialogmøder samt Ivanova & Farkhatdinov (2025) og CarbonCare (2025):*

4. Framework conditions and investment models

In discussions with stakeholders regarding potential investments in Greenland, a number of challenges and opportunities have been identified for strengthening the investment framework. The identified challenges are described below. Subsequently, potential measures that could promote investment are presented. The measures are divided into investment models, education and workforce programs, as well as opportunities to strengthen administration and regulation.

Identified challenges

In addition to statements from the nearly 50 dialogue meetings held in connection with the project, a number of literature sources have been consulted. Overall, there is consistency between the challenges identified in the dialogue meetings and those summarized in the table below from a previous study.

Many of the investment ideas require significant start-up capital. Therefore, it is necessary to mobilize not only public funds but also private capital. It is important to consider the extent to which the administrative, regulatory, and structural frameworks support private investors - including potentially international ones - in engaging to create growth in Greenland.

Table 7: Challenges in attracting investment to Greenland according to stakeholders interviewed by Bengtsson (2022). The anonymous respondents were Greenlandic government officials, civil society representatives, and investors who have considered investing in Greenland. Productive capacity refers to access to labor and infrastructure. Red = High level of challenges, yellow = Some level of challenges, green = Low level of challenges, gray = Not mentioned.

Respondent		Economic	Technical	Social / Environmental	Productive capacity	Regulatory, institutional, political
Government of Greenland	1					
	2					
	3					
	4					
	5					
	6					
	7					
Stakeholders	8					
	9					
	10					
	11					
	12					
	13					
	14					
Investors	15					
	16					
	17					
	18					
	19					
	20					

The stakeholders interviewed **support the goal of ensuring that investments benefit Greenland** and of avoiding becoming tied to infrastructure investments from countries on which Greenland does not wish to be dependent. However, many emphasize that **predictable framework conditions** are essential for attracting private and institutional capital, particularly for high-risk, long-term innovative projects.[239] This is necessary to ensure that projects meet the risk management

[239] *Dialogue meetings as well as DIIS (2024), Bengtsson (2022), CIP Foundation (2023, 2024a,b), Copenhagen Economics (2023a,b), SEGES (2023), Yunis (2021), Hu et al. (2018)*

standards applied in investors' decision-making processes.

A lack of predictability leads to higher costs for risk hedging, and this can be a decisive factor in determining whether investment opportunities are deemed profitable or not.[240] For example, the report highlights the need for predictable tax rules and clarity on whether investments can be classified as green under the EU's taxonomy.[241]

Predictability is essential throughout the value chain and therefore concerns both expectations regarding demand and expectations regarding the regulatory framework.[242] Several stakeholders expressed concerns that **regulations are hindering international investments** in certain sectors, particularly fisheries and tourism [243]. In addition, it can be a challenge for some that companies not owned by Greenlanders or Danes are required to submit a special application in order to purchase property or obtain the right to use land. [244] There is also a risk that new tax rules could put companies in Greenland at a disadvantage if their CEO moves abroad.[245] The section "Possible Investment Models" describes various measures that can reduce investment risk and make it more attractive for private investors to contribute to the financing of sustainable energy and infrastructure projects in Greenland. However, all these models require predictability in regulations.

Several of the stakeholders interviewed expressed concerns that projects are being delayed and, in the worst-case scenario, cancelled due to lengthy **approval processes. Labor shortages** and high turnover in the administration are prolonging wait times and creating uncertainty among potential investors.[246] A mining project that was initially approved but was subsequently stalled by new regulations is further contributing to caution among potential investors.[247] Possible initiatives to improve turnaround times, predictability, and access to skilled labor are described in the sections below on *Education and workforce programs* and *Administration and regulation*

Regarding investments in energy production and supply, some of the stakeholders interviewed have expressed uncertainty about how private investors can be involved. The stakeholders do not question Nukissiorfiit's important role as the entity responsible for supply, but they are seeking **clarity on how private entities can engage as subcontractors or co-investors** to enable a faster transition to renewable energy than if Nukissiorfiit were to make the investments alone. It is our understanding, based on the dialogue meetings, that public -private partnerships for financing new energy facilities are not possible under current law, but that agreements with subcontractors are possible in certain cases, provided that Nukissiorfiit purchases the energy at a price that corresponds to a corresponding reduction in Nukissiorfiit's expenses.[248]

For some of the investments, challenges related to **incentive structures** have been identified. Several stakeholders interviewed pointed out that relatively low prices for oil and diesel reduce the benefits of investing in, for example, energy retrofits, electrification, and the phase-out of oil-fired boilers. It was also noted that there is not always a connection between the actors who have the opportunity to make investments in, for example, energy renovations and electrification, and the actors who can derive economic benefits from the investments. This perspective should be kept in mind in future considerations regarding business models and the sharing of the value that these investments can create for society.

---

[240] Dialogmøder samt Bengtsson (2022), CIP Foundation (2023,2024a,b), Copenhagen Economics (2023a,b), SEGES (2023), Kabel & Bassim (2020), Hu et al. (2018), Viegand Maagøe, Adelphi & Technopolis (2025)
[241] Bengtsson (2022), Sørensen (2026), Directorate-General for Financial Stability, Financial Services and Capital Markets Union (2025)
[242] Dialogue meetings as well as Bengtsson (2022), CIP Foundation (2023, 2024a,b), Copenhagen Economics (2023a,b), SEGES (2023), Hu et al. (2018)
[243] Dialogue meetings as well as Sørensen (2024), Valentin (2025), Bengtsson (2022), Toft & Rose (2024)
[244] Nalunaarutit (2025)
[245] Sørensen (2025a,2026)
[246] Danmarks Nationalbank (2026b), Høgedahl & Ravn (2021), Brix (2022), Grønlands Erhverv (2022), Bengtsson (2022)
[247] Dialogue meetings as well as Danmarks Nationalbank (2026b), DIIS (2024), With & Nielsen (2025)
[248] Nalunaarutit (1997, 2013, 2022) as well as dialogue meetings.

Possible investment models

As described in the sections on each investment idea, there are a number of uncertainties associated with the investments. Several of the ideas involve areas where there is no established industry in Greenland, as well as areas where relatively high infrastructure investments are required at the outset of the project in order to generate a long-term return.

Thus, some of the investments have a risk profile that requires a combination of traditional investors and risk-mitigating financing instruments, such as public investments, government-guaranteed loans, or support schemes - so-called blended finance.

Certain forms of financing—such as catalytic capital—help reduce the risk for other investors, thereby enabling conventional commercial actors to invest in projects that would otherwise not have been feasible. The inclusion of catalytic capital is particularly important when attracting investors to build new value chains in areas where Greenlandic actors do not already have strong existing partnerships.[249]

The following sections present various possible models within blended finance, EU funding opportunities, fund structures, loans, guarantees, green bonds, power purchase agreements, share classes, and ownership agreements. By combining these options, project risks can be reduced, and private capital is more likely to be attracted to Greenland.

Table 8: Overview of proposed solutions in the sections on investment models and framework conditions.

INVESTMENT-MODELS	EDUCATION AND WORKFORCE	ADMINISTRATION AND REGULATION
Blended finance and catalytic capital	**Education and apprenticeships in smaller towns**	**Strengthening administrative capacity**
Greenlandic land development company	**On-the-job training / mentoring**	**Insourcing of experts**
Renewable energy development company (separate entity or unit within NunaGreen)	**Continuing education and upskilling**	**Cross-ministerial task force & investment plan**
EU funding opportunities	**International workforce**	**Public participation**
Arctic Energy and Infrastructure Fund	**Return migration**	**Pilot projects with more flexible regulation**
Loans and guarantees		**Greenland Sustainable Development Areas**
Green bonds		
Offtake agreements and similar contracts		
Governance structures and ownership agreements		

Blended finance

Blended finance is a financing strategy that combines public, institutional, or philanthropic funds with conventional commercial investments to mobilize capital for projects with social, environmental, or development impacts. The aim is to **reduce risk and improve the return profile** for private investors, making projects in areas such as renewable energy, climate adaptation, and sustainable infrastructure more attractive to investors.[250]

Blended finance is particularly relevant in sectors where risks (market-related,

[249] *Invest for Impact Denmark (2025), CIP Foundation (2023,2024a,b), Copenhagen Economics (2023a,b), SEGES (2023)*

[250] *Invest for Impact Denmark (2025), Fleta-Asín & Muñoz (2021), Greve & Hodge (2017)*

technological, political, or institutional) make projects difficult to finance commercially. In many green projects, the challenge is precisely that the expected short-term return profile does not match investors' perceived risk, as projects in areas such as renewable energy require a high initial investment and generate a long-term income stream. Therefore, it is crucial to mitigate the risks of these projects from the perspective of commercial investors by involving riskier capital and/or capital from actors who have lower short-term return requirements.[251]

There are a number of instruments within blended finance. **Concessional loans** are offered at interest rates below market levels to reduce financing costs. Guarantees protect investors against risks such as political instability or credit default, and **first-loss capital** means that public or philanthropic funds absorb any initial losses, thereby reducing uncertainty for private investors. In addition, **technical assistance** from public, institutional, or philanthropic actors is often used to strengthen project preparation and capacity building so that projects meet the requirements of private investors. [252] Technical assistance may include funding for preliminary studies, feasibility studies, the development of business cases, environmental and social assessments, regulatory clarification, and access to research institutions and experts.[253]

One example of technical assistance is the EU's support for the development of PtX in Greenland under the Horizon Europe program. In this context, the EU identified the technology as being at Technology Readiness Level 0–4 and supported research through a consortium that included Aarhus University. The goal is to develop a compact ammonia production unit that requires only water and green electricity as inputs to produce green ammonia, which can be used as fertilizer or fuel. The technology aims to achieve efficiency in smaller plants that can match the economies of scale of other plants.[254]

Another example of catalytic capital is that EIFO has provided a €5.2 million loan facility for the development of GreenRoc's graphite mine in Amitsoq. The loan was granted to support the export of Danish equipment, which reduces the risk for other investors and signals public backing for the project.[255] At the same time, the EU has designated the project as strategic under the ERMA raw materials alliance and is providing technical assistance and matchmaking to attract European buyers and investors.[256] The combination of public venture capital and EU-backed financing enabled GreenRoc to plan a major capital

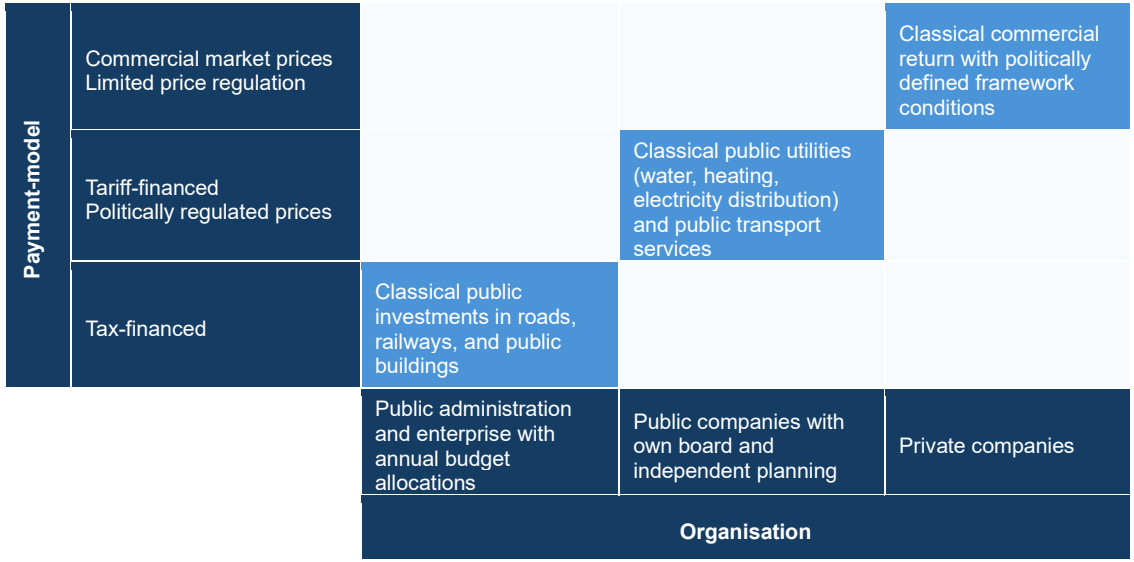


Figure 14: Organization and financing of energy and infrastructure projects with varying degrees of involvement from public and private actors. Source: CIP Foundation memo (not yet published, 2026)

[251] *Tilsted & Hunt (2024), Pinilla-De La Cruz, Rabetino & Kantola (2022), Hu et al. (2018), Viegand Maagøe, Adelphi & Technopolis (2025)*

[252] *Invest for Impact Denmark (2025)*
[253] *OECD (2025a,b)*
[254] *Interview med Anori*
[255] *EIFO (2025a)*
[256] *Reuters (2025)*

raise and enter agreements with industrial partners.[257]

The figure below illustrates that public and private capital can be combined in a variety of ways, with different balances between public and private actors. The figure is based on examples from energy and infrastructure projects.

In practice, blended finance functions as a mechanism that creates "investable asset classes," in which risk is partially shifted from private to public or philanthropic actors. This enables the mobilization of larger amounts of institutional capital, such as pension funds and infrastructure funds.[258]

Pension funds have significant capital resources at their disposal and a long-term investment horizon, making infrastructure a suitable investment for them. However, they are also obligated to deliver predictable returns to their members, which is why they have a lower risk appetite than, for example, private equity funds. Therefore, it is important for pension funds to use structures that minimize risk. Pension funds use diversification across a wide range of industries as a tool to reduce their overall risk, but they typically do not have in-house experts in all the sectors in which they invest. Consequently, investments from pension funds are typically secured only after other investors have committed to long-term involvement - or after investors with specialized technical and business expertise in the project type have committed, which can reassure other investors regarding the project's risk level. Pension funds' investments in Greenland have thus been very limited to date.[259]

Catalytic capital refers to capital invested with the aim of making it more attractive for other investors to join the project. These are concessional investments, meaning that capital is made available on more favorable terms than the market typically offers.

These investments are deliberately structured to achieve social impact by accepting lower returns, greater flexibility, or higher risk than commercial investors would normally accept. Catalytic capital thus serves as an active tool to bridge the profitability gap in projects and sectors where traditional investors are more reluctant to participate, typically due to an expected mismatch between their risk and return expectations.[260] Catalytic capital can take the form of both financial instruments (e.g., equity or loans) and non-financial instruments (e.g., guarantees), see the figure below.

What these instruments have in common is that they improve the risk-return profile for other investors. One method involves taking

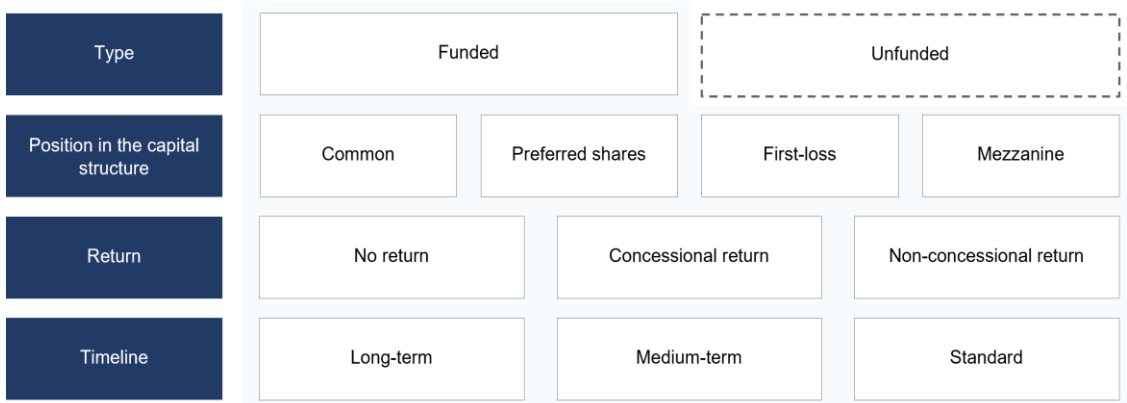


Figure 14: Overview of the catalytic capital concept (CIP, 2025). The overview illustrates how the funded capital can be structured with different requirements regarding placement in the capital structure, return, and timeline (indicated by colored backgrounds). Financed catalytic capital involves a direct investment (e.g., loans, grants, or equity), while unfunded catalytic capital can take the form of guarantees. No return, also known as capital preservation, means getting the invested money back but without a return. Concessional return means accepting a lower expected return than a conventional investor would accept for a similar risk profile.

[257] *Reuters (2026)*
[258] *Gabor & Sylla (2023)*
[259] *Interviews med formanden for SISA og den tidligere CEO for Pension Danmark, samt PensionDanmark (2026), Finansforbundet (2020)*
[260] *CIP (2025a)*

a more exposed position in the capital structure than the other investors. This could, for example, be a **first-loss position**, where the investor agrees to absorb the initial losses should problems arise in the project. One can also provide mezzanine capital, which is a hybrid instrument—a cross between a loan and equity.[261]

An example of catalytic capital is the By & Havn model, in which the City of Copenhagen and the Danish government have contributed land as capital to a land development company. Revenues from the sale of building lots in Ørestad and Nordhavn are used to finance metro construction and port infrastructure.[262] This model leverages the appreciation of urban-developed land to pay down public debt and is an example of how public assets can be used as catalytic capital. In a Greenlandic context, where there is no private ownership of land but only the possibility of a right of use, a similar model could be adapted by basing financing on the leasing of land rather than its sale.

For example, a **Greenlandic land development company could develop port or energy infrastructure and finance the investments through rental income from the right to use adjacent land.** With a government guarantee, Greenlandic municipal entities can also obtain loans through KommuneKredit, which offers financing on favorable terms to municipalities and companies with a public guarantee.[263] In this way, public entities in Greenland can use catalytic capital to implement socially beneficial projects in smaller towns and villages, where traditional private financing can be difficult to secure. [264]

Another example of public sector involvement in de-risking investments in renewable energy is the City of Albertslund's establishment of a company, **Albertslund Municipality Climate Company ApS**, to install solar panels. The company is 100% municipally owned, operates on a non-profit basis, and aims to promote the green transition without requiring a financial return. Since the company is municipally owned, it can obtain loans through KommuneKredit.[265] This reduces financing costs and enables investments that would otherwise be insufficiently profitable for private actors. Another **advantage of a separate company is that its board of directors can focus on a single task.**

If such new companies, established for the purpose of building renewable energy plants, shore power facilities, or similar projects, are being considered in a **Greenlandic context, it may be worth considering whether it would be advantageous to establish them as subsidiaries of NunaGreen**. On the one hand, this could avoid contributing to the complexity that separate companies can create. On the other hand, it could add complexity to NunaGreen's project portfolio, placing increased demands on the company's capabilities. At present, it falls under Nukissiorfiit's purview to construct any new renewable energy facilities in smaller towns and settlements. This has the advantage that, as a utility company, they have strong local knowledge. However, it has the disadvantage that, as a public enterprise, they are not permitted to take out their own loans. This may mean that it takes longer to raise the necessary capital compared to a public-private partnership.[266]

EU funding opportunities

Greenland is not a member of the EU, but through its membership in the Danish Realm, it falls into a category of countries that are nevertheless eligible to apply for funding from certain EU initiatives:

Overseas Countries and Territories (OCTs). EU funding can play a significant role in mitigating the risks associated with investment, particularly in projects focused on sustainability or innovation. [267]

In light of the geopolitical situation, the EU has shown increased interest in contributing to sustainable growth in Greenland, as

[261] CIP (2025a)
[262] By & Havn (2026)
[263] Retsinformation (2023), KommuneKredit (2026)
[264] Naalakkersuisut Departementet for Boliger og Infrastruktur (2025), samt interviews med Grønlandsbanken, Sikuki og en advokat med erfaring fra ejendomsudvikling i Grønland
[265] Retsinformation (2023), KommuneKredit (2026)
[266] Dialogmøder med forskellige interessenter samt årsrapporter fra NunaGreen og Nukissiorfiit
[267] Nissen & Friis (2026), European Commission (2024), Overseas Countries and Territories Association (2025)

evidenced by the establishment of a permanent representation in Nuuk, the EU's Arctic strategy, and several new investments.[268]

The EU has demonstrated a willingness to engage in closer cooperation with Greenland, particularly in the areas of sustainable development and raw materials. In 2023, the EU and Greenland entered into a strategic partnership on critical raw materials necessary for the green transition, and in 2025, a potential graphite mine at Amitsoq was designated a strategic project under the EU's Raw Materials Act.[269]

The table below shows which EU programs could potentially support or fund the individual project ideas. The table includes a series of notes (I, II, etc.) that provide further details on reservations, limitations, or clarifications related to the EU programs.

I. Interreg can support collaborative projects on PtX expertise and feasibility studies in the Arctic, but not the facility itself.[270]

II. Horizon can support the development of integrated renewable energy solutions for Arctic communities, provided there is a focus on innovation—such as efforts to improve resilience or the development of technologies designed to function optimally in an Arctic context.[271]

Table 9: EU programmes that could potentially support different types of investments

Project idea	Interreg NPA – Regional Partnerships	Horizon Europe – Research & Innovation	LIFE Programme	InvestEU (via EIB / NIB)	Connecting Europe Facility – Arctic Digital Connectivity	Bilateral cooperation on green growth
Green shore power in ports				✓		✓
Energy renovation and electrification			✓	(✓)[VI]		✓
Green energy facilities in small towns/settlements	✓	(✓)[II]	✓	✓		✓
Use of surplus energy		(✓)[III]		✓		✓
New hydropower				✓		✓
Glacial flour	✓	✓	(✓)[V]	✓		(✓)[IX]
Mines and associated infrastructure		✓		✓		(✓)[X]
Power-to-X	(✓)[I]	✓		✓		✓
Data centres		(✓)[IV]			(✓) [VIII]	(✓)[XI]
Roads				(✓)[VII]		

[268] *Nissen & Friis (2026), High North News (2023), The Diplomatic Service of the European Union (2025), Departementet for Finanser og Skatter (2023), Berthelsen (2024),* Inatsisartut (2024), *Europa-Kommissionen (2023), European Commission (2024)*

[269] *Europa-Kommissionen (2023), GreenRoc (2025b)*

[270] *Interreg Northern Periphery and Arctic Programme (2025)*

[271] *European Commission (2024, 2025c)*

III. Horizon can support research and pilot projects on, e.g., use of surplus energy, energy storage, or greenhouses in the Arctic, but not the actual deployment of existing technology.[272]

IV. Horizon can support Greenlandic data centers, but this will require that the project be designed as an innovation project. For example, the development of more energy-efficient or resilient solutions for data centers in an Arctic context.[272]

V. LIFE can support the demonstration of glacial flour as a climate mitigation measure and soil improver, but not the commercialization. LIFE will be particularly relevant in connection with a large-scale pilot project.[273]

VI. Greenlandic entities may obtain loans or guarantees from InvestEU through EIB or NIB for energy renovation or electrification; however, this requires a sound repayment model and public co-financing.[274]

VII. The EIB, but not the NIB, has indicated that, in certain cases, it may invest in roads with support from Invest EU.

VIII. The Connecting Europe Facility has supported fiber-optic infrastructure in Greenland, which indirectly enables data centers, but does not support the data centers themselves.[275]

IX. Bilateral aid is primarily provided in the form of budget support and multiannual programs agreed upon between the EU and Greenlandic authorities. This means that there are no open calls for proposals for private companies, but local actors may participate as partners or suppliers in projects funded through these programs.[276]

X. Mining may be relevant to cooperation on green growth if it involves raw materials that are necessary for the green transition or that can be extracted with a particularly low climate or environmental footprint in Greenland.[277]

XI. Through bilateral cooperation, the EU may support feasibility studies but not invest directly in data centers.[277]

In addition to the options mentioned above, the EU has a number of thematic initiatives that provide opportunities to receive support on an ad hoc basis. For example, Greenland has received support for ESG-standards and procurement processes.[278] Including EU funding can make projects more feasible, not only through the capital it provides but also through the signal it sends to investors.

Arctic Energy and Infrastructure Fund

It can be considered to establish an investment fund focused on investments in the Arctic. This could have several advantages: A fund structure could provide dedicated funding for a thematic area (e.g., a geographic region, sector, or social issue such as sustainability) while also raising awareness of the investment area among other investors.[279] A fund structure can also help mitigate risk for investors by spreading the fund's risk across projects of different types and with different risk profiles.[279]

Establishing a fund structure can also be a way to engage investors with a long-term horizon and a desire for risk diversification, including pension funds. **In this regard, the Danish SDG Fund I and the UN initiative Joint SDG Fund serve as good examples.** SDG Fund I used public funds as catalytic capital and generated significant interest among private investors and pension funds. It mobilized 3.8 billion DKK. In the Joint SDG Fund, every DKK invested has led to the mobilization of an additional 19 DKK, totalling $6.6 billion.[280]

One could envision the Danish government and Naalakkersuisut jointly establishing an Arctic Infrastructure Fund, which would serve as a strategic, long-term financial tool

[272] *European Commission (2025c)*
[273] *Energistyrelsen (2025)*
[274] *European Commission (2024)*
[275] *High North News (2023)*
[276] *The Diplomatic Service of the European Union (2025), Departementet for Finanser og Skatter (2023), Berthelsen (2024), Inatsisartut (2024), Europa-Kommissionen (2023), European Commission (2024)*
[277] *Dialogmøder samt Europa-Kommissionen (2023), European Commission (2024)*
[278] *Dialogue meetings and The Diplomatic Service of the European Union (2025), Departementet for Finanser og Skatter (2023), Berthelsen (2024), Inatsisartut (2024)*
[279] *Invest for Impact Denmark (2025)*
[280] *Impact Fund Denmark (2026), Danish SDG Investment Fund (2021), UNSDG (2025), Danish SDG Investment Fund (2024)*

focused on projects in Greenland that are critical to society and promote sustainability. The fund's purpose could be to create a sustainable, competitive, and more resilient Greenlandic economy with a stronger business sector, increased social cohesion, and greater freedom of action. The fund can take a cross-cutting view of potential investments in energy, companies' sustainability-focused projects, and the infrastructure needed to create the conditions for realizing these projects. Such a fund would be particularly relevant for projects that cannot be realized solely on commercial terms.[281]

The fund can be established as a joint Greenlandic-Danish partnership with equal ownership, where decisions are made jointly based on Greenlandic proposals. The fund should be professionally managed by an independent board of directors with the aim of reducing risk and mobilizing additional capital from pension funds, the EU, and private investors. For example, the fund could be organizationally anchored in EIFO, but with an independent unit in Greenland to ensure a local presence and strong coordination with authorities and local stakeholders.[282]

To achieve better risk diversification and enable the fund to scale, it may be worth considering a "fund of funds" model, as used by other asset managers. A fund of funds means that the capital investors contribute to a fund is invested in several different other funds. This provides diversification, which means that risk is spread across multiple types of investments. In the private equity sector, this has been shown to improve risk-adjusted returns. Furthermore, it is simpler for investors to have a single point of entry rather than having to research and manage investments in various funds themselves. Thus, through a fund of funds, capital can be mobilized from investors who lack the knowledge and resources to invest in the various funds separately.[283]

Loans and guarantees

State-guaranteed loans can be a key instrument for reducing project credit risk. In this setup, the state provides a guarantee for the loan and acts as a "backstop" if something goes wrong in the project that renders the project owner unable to meet its obligations to the lender. This makes it possible to finance large infrastructure or energy projects at lower cost. Lenders have greater confidence in repayment when the state stands behind the loan and can therefore typically offer both larger loan amounts and more favourable terms. [284]

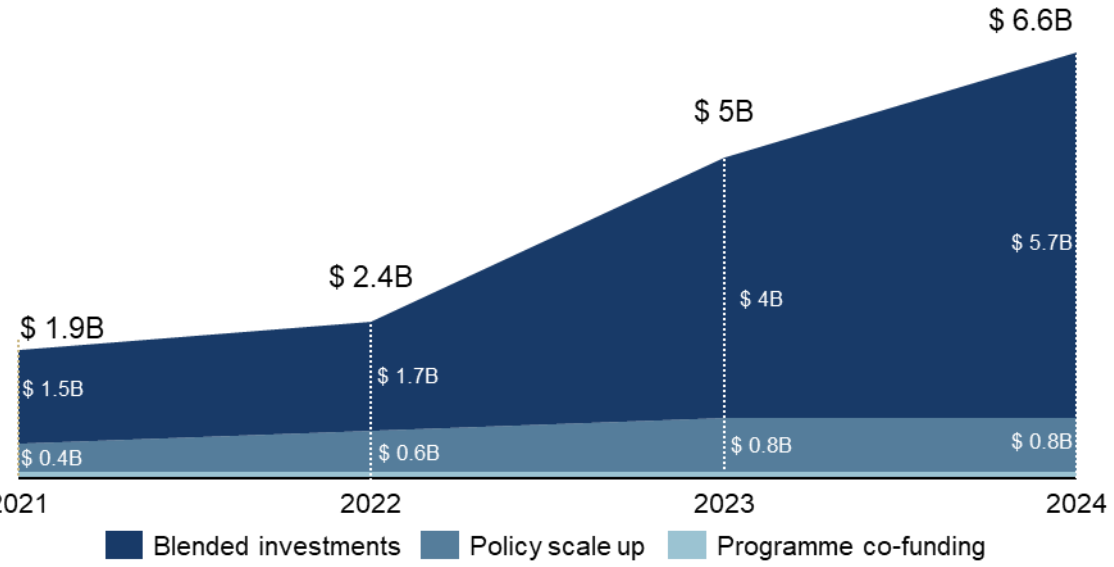


Figure 15: The Joint SDG Fund scaled up rapidly and acted as a catalyst for mobilising other types of capital to the projects it invested in. Each dollar invested in the fund now attracts 19 external dollars. The figure is from the Fund's 2024 annual report and shows the types of external financing that its investments have mobilised at the project level.

[281] *DI (2026)*

[282] *DI (2026)*

[283] *Vanguard (2025)*

[284] *Finansministeriet (2019)*

A key complement to state-guaranteed loans is **EIFO's role as a development and export finance institution.** EIFO acts as the state's risk-tolerant financial arm and can provide loans, guarantees, and quasi-equity instruments to projects of societal or strategic importance. By combining commercial assessments with a public mandate, EIFO engages in projects where private lenders are hesitant, e.g., due to low technological maturity, long time horizons, or high risk profiles. In this way, EIFO helps mobilise additional private capital and accelerate investments in areas such as the green transition, critical infrastructure, and new export-oriented initiatives.[285]

Loans or guarantees provided by the state, EIFO, or KommuneKredit can pave the way for other lenders or investors. This is due both to the fact that the loan or guarantee reduces the project's risk and to the signalling effect of these actors' involvement, which indicates that the project is credible.[286] For example, EIFO's Letter of Intent to Greenland Resources is used as a strong argument vis-à-vis potential equity investors.[287]

The European Investment Bank (EIB), the EU's investment bank, only engages in projects that have already secured substantial co-financing or other forms of support. EIB typically finances no more than 50% of a project's total costs, meaning that the remainder must be covered by other investors or sources (e.g. private banks, companies, investment funds, or public funding). This practice ensures risk-sharing and reflects EIB's principle of additionality: the Bank's participation should complement, not replace, other financing and thereby attract additional capital. EIB emphasises that its involvement acts as a "quality label" that enhances a project's credibility and helps attract other investors. To ensure quality, it is often the case that EIB only becomes involved once a project already has backing from other parties, for example in the form of state guarantees or grants through EU programmes, which provides assurance that the project is sound and aligned with EU priorities. [288]

In Greenland EIB has been involved in e.g., expansion of port infrastructure and Greenland Resources' project for a molybdenum mine at Malmbjerget.[289]

The Nordic Investment Bank (NIB) provides loans to projects that benefit the environment and productivity in the Nordic and Baltic countries. Its criteria for approving loans are similar to those of the EIB. NIB typically provides financing of up to around half of a project's total funding and requires the remaining capital to be sourced from other parties. The Bank's financing therefore complements other available funding and is intended to *"crowd in"* investment, i.e. to mobilise additional capital.[290] Before becoming involved, NIB assesses whether the project has substantial backing from other solid actors in order to ensure that it is financially robust. Overall, the investment criteria of both institutions reflect that their engagement presupposes and catalyses other forms of support, thereby reducing risk and building confidence among other financial partners.[291]

NIB has been involved in a wide range of projects, primarily large-scale projects in Greenland (EUR 2.9–60 million). Examples include hydropower plants in Nuuk, Sisimiut, and Ilulissat, the subsea fibre-optic cable "Greenland Connect" between Greenland, Canada, and Iceland, as well as a loan programme in cooperation with Grønlandsbanken that enabled energy-efficiency measures in private households.[292]

Green bonds

In the green transition, green bonds play an increasingly important role. These bonds allow issuers to raise capital specifically for environmentally friendly projects, such as energy efficiency, renewable energy, or sustainable transport. The bonds can be issued for both public- and private-sector projects. Green bonds are attractive to some investors because they combine financial returns with documented environmental impact, and they can often be supported by credit enhancements or guarantees from public institutions to attract institutional investors. [293]

[285] *Finans Danmark (2025)*
[286] *CIP (2025a), EIB (2026), NIB (2026a)*
[287] *Dialog med interessenter samt European Commission (2025d)*
[288] *EIB (2026)*
[289] *EIB (2025), ArticToday (2025), EIB (1973)*
[290] *NIB (2026b)*
[291] *NIB (2026a)*
[292] *NIB (2008, 2010,2011,2012)*
[293] *World Bank (2024)*

Danish green government bonds are used in a targeted manner to support the green transition, e.g., renewable energy and sustainable transport. The proceeds are, earmarked for, e.g., subsidies for electricity generation from solar energy, support for household wind turbines, and investments in onshore and offshore wind power. Green bonds also contribute to investments in the Danish green transmission network, which is delivered through Energinet.[294]

Ørsted is an example of how green bonds can be issued by companies. They secured investor commitments with a total nominal value of DKK 15 billion through the issuance of green senior bonds to finance the company's global expansion of renewable energy in order to achieve its ambition of 50 GW of installed capacity by 2030.[295]

In a Greenlandic context, green bonds are relevant because large investments often require risk-sharing and the combination of public, institutional, and private funds. In this setting, green bonds can form part of a broader blended finance structure and **mobilise capital from private or institutional investors with a preference for green, long-term investments**.[296]

It should, however, be noted that investments in green bonds do not constitute risk-tolerant capital as such. Although investors in green bonds often have a relatively long investment horizon, such as pension funds and insurance companies, and although these investors typically accept slightly higher risk in return for a stronger sustainability profile, bond investors generally still have a more conservative risk profile than equity investors.[297]

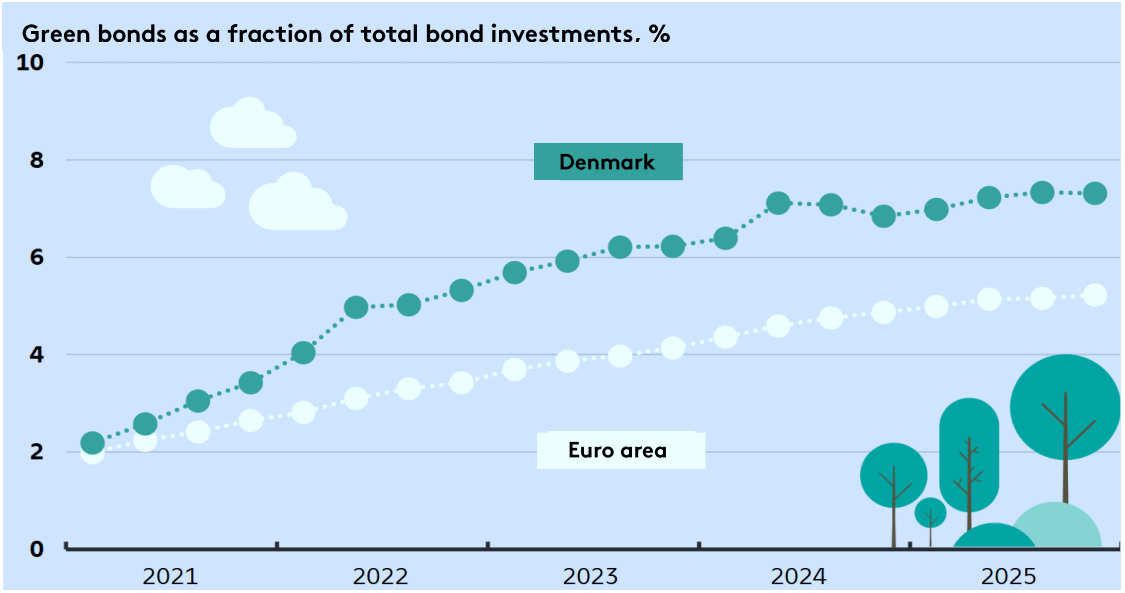


Figure 16: Green bonds account for a growing share of total bond investments, both in Denmark and Europe. Source: Danmarks Nationalbank (2026c)

Offtake agreements and similar contracts

Predictability is crucial for attracting investors – both predictable regulatory frameworks and certainty regarding the ability to sell the products/services in which investments are made. Offtake agreements are a way of reducing investment risk by creating a secure future cash flow. This can take the form of commitments to purchase a certain volume of a product and/or commitments to pay a specified price. This is particularly important in sectors where high upfront capital investment is required to generate long-term returns, such as mining and renewable energy. Offtake agreements can also be critical to the business case for new products, where expectations regarding price developments and global demand volumes are uncertain, such as green fuels or glacial rock flour.[298]

In the energy sector, power purchase agreements (PPAs) are an example of offtake agreements. A PPA is a long-term contract, often spanning five to twenty years, that sets a fixed price for, for example, electricity. A PPA is concluded

[294] *Danmarks Nationalbank (2025c)*
[295] *Ørsted (2023)*
[296] *Climate Bonds (2026)*
[297] *Nordea (2023)*
[298] *Finansdanmark (2025), PwC (2025a), MiningWorld (2025)*

between a producer and a consumer. Buyers of PPAs are typically utilities, data centres, manufacturing companies, or other firms with substantial electricity consumption.[299]

New PPA models such as Virtual PPAs and Sleeved PPAs make it possible to attract investments in renewable energy assets even in markets characterised by monopoly structures or strong regulation. Virtual PPAs function as purely financial contracts without physical energy delivery, where the producer and the buyer settle the price difference between an agreed strike price and the market price, making them applicable even in regulated "single buyer" systems.[300]

Sleeved PPAs involve an intermediary, typically a utility, which "sleeves" the energy into the consumer's existing supply agreement. This makes the model suitable for monopoly-like networks where direct trading is not possible, while still ensuring price stability and handling regulatory requirements through the energy supplier. These models enable new investments in renewable energy and related infrastructure by creating long-term financial predictability (typically around 15 years) and reducing risk in markets where traditional PPAs cannot be applied.[301]

New PPA models may be relevant in Greenland, where the energy system is dominated by the publicly owned utility Nukissiorfiit, and electricity supply consists of 71 isolated grids, with no liberalised market for direct electricity trading.[302]

Contracts for difference (CfDs) are a type of agreement that can be particularly relevant for new renewable energy. The CfD model guarantees a minimum price per MWh for a given producer. If the wholesale market price fluctuates to a level below the agreed minimum price, the producer receives a subsidy. CfDs can be one-sided, meaning that they only provide a price floor, or they can be two-sided, meaning that they also include a price cap. If the wholesale market price fluctuates to a level above the agreed price, the producer pays part of the excess revenue above the fixed price back to the state.[303]

In a Greenlandic context, CfDs could be considered as a means of attracting investors to energy infrastructure by ensuring a fixed minimum price and potentially agreeing on a higher degree of profit-sharing with Greenlandic society if energy prices rise above a certain level. The same logic can also be applied to products other than energy, or to products where the sale of climate credits forms part of the business model, such as glacial rock flour. If the Danish state commits to purchasing the climate credits at a certain minimum price, this could reduce some of the uncertainty in the business models that stems from unclear expectations regarding price developments in the climate credit market.

Another type of agreement involves prepayment for products or for the lease of, e.g., buildings or quay space over an extended period. This is particularly relevant for large investments in infrastructure or buildings with long payback

In the United Kingdom, CfDs have played a crucial role in the deployment of renewable energy. Contracts are awarded for 15 years through auctions in order to enable competition between technologies and help keep costs low. The government sets a budget, after which developers submit sealed bids for strike prices. The winners of the auction enter into a private-law contract with a state-owned company, the Low Carbon Contracts Company. Since 2014, CfDs have facilitated investments in energy projects totalling 39 GW.[304]

A concrete example of how the CfD programme operates is Ørsted A/S's offshore wind farm Hornsea Project Two in the North Sea. With a capacity of 1,386 MW, it became the world's largest offshore wind farm in 2022 and supplies electricity to approximately 1.4 million UK households. In 2017, Ørsted won a CfD contract in allocation round 2 with a record-low strike price of £57.50/MWh, which enabled the final investment decision.[305]

[299] *PwC (2025b)*
[300] *KPMG (2023), Our New Energy (2025)*
[301] *Duncan & Stollard (2025); Sharpe Pritchard (2024)*
[302] *Nukissiorfiit (2024c)*
[303] *FinansDanmark (2025), UK Parliament (2024)*
[304] *UK Parliament (2024)*
[305] *Renewables Now (2017), Ørsted (2022)*

periods, where a major institutional or public customer anticipates making long-term, ongoing use of the infrastructure or a related product. **There are examples, also in Greenland of public actors prepaying rent 20–30 years in advance to make an investment possible.** This contributes to greater security in the project's cash flow and can make it cheaper to obtain financing. If such an agreement is concluded within the EU market, however, it is important to structure it in a way that avoids constituting unlawful state aid. This can, for example, be ensured through a transparent tender process or by keeping the contract below the de minimis threshold (DKK 22.5 million over a three-year period).[306]

Governance structures, ownership agreements, and share classes

In connection with Greenland's ambition to attract more international investment, particularly in raw materials, energy, and infrastructure, a central question arises: **how can foreign capital be attracted without losing local control?** Greenland has an interest in maintaining ownership and decision-making power over strategic resources and companies, while at the same time recognising the need to attract external financing and expertise to support the country's economic and social development.[307] In this context, corporate governance structures can be a key instrument.

One option is to enter into **agreements with international investors under which Greenlandic actors retain a greater degree of control over companies or projects than their share of the invested capital would otherwise imply**. This can be achieved through A/B share structures or through shareholder agreements.[308]

A/B shares are a governance structure in which different share classes are assigned different rights, typically voting rights or economic rights. A shares often carry full voting rights, while B shares may have limited or no voting rights, or be granted special economic rights. The purpose is to **separate ownership from control, thereby making it possible to attract capital without diluting decision-making power.**[308]

An example of using share classes to separate capital ownership from control over a company is Novo Nordisk A/S, which applies an A- and B-share structure. The voting weight of the A shares is ten times higher than that of the B shares. The Novo Nordisk Foundation owns both A and B shares in Novo Nordisk A/S, representing a total of 28% of the share capital but 77% of the voting rights. The A shares are unlisted and not traded. This means that, in principle, the Novo Nordisk Foundation could sell a large share of its B shares while retaining majority voting control. [309]

Whereas share classes and associated rights are set out in a company's articles of association, shareholder agreements govern the relationships between the owners. A shareholder agreement typically establishes principles for cooperation among the shareholder base, including voting agreements, pre-emption rights, transfer restrictions, and governance mechanisms. The articles of association and shareholder agreements function as complementary layers of control: the articles govern the company's external, legal structure, while the shareholder agreement regulates internal, contractual relationships.[310]

Specific dividend structures can be applied under which profit distributions are deferred to later stages of a project. Instead of early dividend payments, a higher degree of profit-sharing can be agreed once the project becomes profitable. This can be particularly relevant in capital-intensive sectors such as mining, where it often takes many years before positive cash flow is achieved. Such a model can ensure that Greenland captures a share of long-term value creation without placing a burden on the project during its start-up phase. [311]

Greenlandic actors can, in some cases, obtain an ownership stake in a project without contributing capital during the start-up phase. Foreign commercial investors may cover the initial development costs, while Greenlandic actors only begin to

[306] *Copenhagen Economics (2018), Erhvervsstyrelsen (2026) samt Interviews med Grønlandsbanken og Sikuki*
[307] *Naalakkersuisut (2025b)*
[308] *PwC (2025a), Nordea (2023), Saxo Bank (2026b)*
[309] *Novo Nordisk Fonden (2024)*
[310] *PwC (2025a)*
[311] *Natural Ressource Governance Insitute (2019), GoGo Mongolia (2016)*

share in profits once the project becomes profitable. An example is Nunaoil A/S, which participated as a "**carried partner**" in oil exploration with a 6.25–12.5% ownership stake without paying for the exploration activities. If a discovery was made, Nunaoil received a share of the production.[312]

It is, however, important to note **that far from all investors will find the above models attractive.** When investors contribute the majority of the required capital, they often also expect, for example, to receive a proportional share of both profits and voting rights at the company's general meeting, or a majority of seats on the project's board. This reflects a desire for security in relation to their investment. It is therefore **necessary to carefully consider where the optimal balance lies between requiring a certain degree of Greenlandic control over projects and attracting capital at a cost that makes projects viable.**

A concrete example of a deferred profit structure can be found in the Oyu Tolgoi mine in Mongolia. In this case, the Mongolian state owns 34% of the mine through the company Erdenes Mongol, but has accepted that dividend payments will only commence once the investor (Rio Tinto) has recovered its investments. This model – known as a "free carried interest" – was chosen to ensure state ownership without burdening the project during its start-up phase. In the meantime, Mongolia receives revenues from taxes and royalties, while dividend payments are deferred until at least the 2030s. The model illustrates how a state can share in long-term value creation without deterring investment in capital-intensive projects.[313]

Education and workforce programs

New education and training opportunities

54% of Greenland's population aged 25–64 does not have either vocational, higher, or professional education.[314]

On the one hand, this means that several of the investment ideas raise questions about whether it will be a challenge to attract sufficiently qualified labour. On the other hand, it also means that the investments create an opportunity to establish new education and training opportunities in Greenland. Several of the actors behind the projects emphasise that they intend to create training opportunities linked to the projects, through **on-the-job training, apprenticeships, or cooperation with education institutions**.[315]

Several of the proposed investment ideas create opportunities to establish **apprenticeship placements in smaller towns and settlements**.[316] Local education and training opportunities can potentially **strengthen social and geographical balance in Greenland**, as the distance to education and training provision is highlighted by some sources as one of the key factors explaining why a relatively large share of the Greenlandic population does not pursue education.[317]

In connection with large-scale projects, it may be an option to establish new vocational education programmes in the local area. CIP has positive experience showing that this can create local ownership of projects while also delivering an important social co-benefit to the community. CIP has played a central role in strengthening education and training within renewable energy in both Taiwan and South Africa.[318]

In Taiwan, CIP initiated a collaboration between DTU and NTU to establish a new master's programme in offshore wind as well as to develop **targeted continuing education courses** for the upskilling of the growing workforce in the country's rapidly expanding offshore wind sector. The

[312] *Inatsisartut (2017)*
[313] *Natural Ressource Governance Insitute (2019), GoGo Mongolia (2016)*
[314] *Grønlands Statistik (2025)*
[315] *Interviews with several companies, as well as Greenland Resources Inc. (2025) and GreenRoc (2024, 2025a,b)*
[316] *Interviews with several companies, as well as Binzer (2025), Greenland Resources Inc. (2025) og GreenRoc (2024, 2025a,b)*
[317] *Grønlands Erhverv (2022), Andersen (2021b), Møller Lennert & Demant-Poort (2021), Høgedahl & Ravn (2021)*
[318] *EnergyWatch (2018), CIP (2025b)*

collaboration is intended to support Taiwan's ambition of 5.5 GW of offshore wind by 2025 and to address the need for thousands of new specialised employees.[319]

In South Africa, through the Mulilo platform and the Danish-supported Danish Vocational Program (DVP), CIP has invested in vocational education for young people in communities with low levels of educational attainment. The programme sends South African students to Denmark for advanced technical and agricultural training, including wind turbine blade manufacturing, turbine and electrical maintenance, and agribusiness, before they return to paid apprenticeship placements in their home country. The initiative strengthens both local employment opportunities and the future energy workforce.[320]

With improvements in internet connectivity in smaller towns, it is also possible to expand access to online education. For example, occupational health and safety courses will be offered online in Greenlandic from 2026.[321]

Workforce programs

Access to qualified labour is a key consideration in many of the proposed projects. In addition to a focus on creating local education and training opportunities, it may therefore be appropriate to implement measures that improve access to international labour.

Here, reference can be made to the Faroe Islands and Iceland, where there have been positive experiences both with attracting international labour and with persuading a larger share of young people who leave the country to study to return (so-called "return migration"). Low administrative barriers to immigration are one factor, but access to good housing, high-quality schools for children, and strong, diverse local communities also play an important role.[322]

[319] *EnergyWatch (2018)*
[320] *CIP (2025b)*
[321] *Tusass (2025b), Arbejdstilsynet (2026)*
[322] *Nationaløkonomisk Forening Sept. 3rd 2025 contributions from chairs of the economic councils in Greenland and the Faroe Islands, stakeholder meetings, and Sæhl & Hybel (2018), Rigsombudsmanden på Færøerne (2022), Danmarks Nationalbank (2026a), Færøernes Landsstyre (2021), Sørensen (2025b), Danmarks Nationalleksikon (2021), Tran (2023)*

Administration and regulation

Strengthening administrative capacity and resources

In parts of the administration, the number of staff is low relative to the scope of tasks, combined with high staff turnover and therefore limited institutional experience in managing, for example, large energy, raw materials, and infrastructure projects.[323]

To strengthen capacity and learn from international best practices, an **exchange scheme involving the insourcing of experts from Norway or Canada** could be considered, as these countries have extensive experience and robust processes for managing large-scale investments in energy, raw materials, and infrastructure. It would be advantageous if such staff exchanges were conducted over multi-year periods, so that companies do not experience uncertainty in tendering and permitting processes due to high staff turnover. Stakeholders indicate that there have been positive experiences with initiating such knowledge-exchange arrangements in other areas of public administration.[324]

A **cross-ministerial task force with responsibility for a long-term investment strategy** can ensure a sustained focus on attracting investors, regardless of volatility in other policy areas. With a long-term mandate and strong cross-party political backing, such a task force can **strengthen international investors' confidence in Greenland's long-term investment climate.** Trust in the process is essential for investors' willingness to invest, as political and institutional uncertainty is priced in as a risk that weakens the business case and may deter investors from prioritising investment in a country or sector. [325]

In a previous analysis, it was found that the resignation or absence of just two staff members could risk derailing the process for tendering new hydropower projects. Allocating a sufficient number of staff on a permanent basis to the task, drawn from different departments, can help **anchor knowledge across a broader group and reduce vulnerability** to individual employees resigning or falling ill.[326]

If the task force ensures robust and transparent **public engagement**, this can also reduce the risk of local communities developing mistrust towards international investors and thereby increase public support.[327]

Several of the stakeholders interviewed recommended that **strong organisation should be established with a dedicated mandate to prepare permits** in the raw materials and energy sectors. Some suggested that tendering processes and the issuance of licences should be organised to a greater extent in line with **international best practices**.

This can help prevent uniqueness bias, reassure investors about the robustness and efficiency of the processes, and provide clarity that investments can be regarded as green in accordance with the EU taxonomy. Some noted that such an organisation could advantageously be separate from the rest of the public administration, while still being subject to public oversight or governed by a board with partial public appointment. The advantage of an arm's-length structure is that it can reassure investors that political volatility need not be factored into the process to the same extent. A separate budget and dedicated staffing could also make the organisation less vulnerable to workload pressures and frequent staff turnover, which have previously been challenges within the administration. However, it is essential especially if the organisation is separate from the public administration that it operates transparently and prioritises public engagement to ensure legitimacy and broad public support. A strong focus on public participation and on streamlining regulation would be well aligned with several of the objectives set out in Greenland's raw materials strategy.[328]

---

[323] *Bengtsson (2022) and stakeholder meetings*
[324] *Departementet for Fiskeri, Fangst, Landbrug og Selvforsyning (2025) and stakeholder meetings*
[325] *Bengtsson (2022), Hu et al. (2018)*
[326] *Bengtsson (2022)*
[327] *Bengtsson (2022), Andersen (2021b), Seetharaman et al. (2019), Wilson (2016), Pelaudeix, Basse & Loukacheva (2017), Bowles & MacPhail (2022), Susskind et al. (2022)*
[328] *Dialogmøder med forskellige interessenter samt Bengtsson (2022), Yunus (2021), Flyvbjerg (2021), Directorate-General for Financial Stability, Financial Services and Capital Markets Union (2025), Naalakkersuisut (2025a)*

Pilot projects with more flexible regulation, including "Greenland Sustainable Development Areas"

To address some stakeholders' concerns regarding administrative burdens and waiting times associated with investments, various models for streamlining regulation could be considered, without compromising the objective of maintaining Greenlandic control over critical infrastructure.[329]

The simplification of regulation can take several forms, including:

- Pilot schemes with exemptions that allow first-mover companies to test new initiatives.
- Time-limited pilot schemes in which regulation is temporarily relaxed for an entire sector in order to promote its development. In this context, inspiration could, for example, be drawn from the "open door scheme" and the adjustments that were considered to ensure compliance with EU rules.[330]
- Geographically delineated pilot schemes in which specific towns or settlements are designated as hubs aimed at attracting investors to multiple co-located projects. In a Greenlandic context, such areas could be referred to as *Greenland Sustainable Development Areas*. Inspiration could, for example, be drawn from the Danish "free municipality experiments".[331]

The co-location of multiple projects within Greenland Sustainable Development Areas can create synergies,[332] for example:

- More efficient use of infrastructure, as well as a stronger basis for maintaining and further developing that infrastructure.
- Sharing of surplus energy and by-products.
- A stronger basis for building an ecosystem of smaller companies in related and supporting industries.
- Better opportunities for attracting labor and preventing outmigration of families. This can be achieved through the development of a more diverse local business environment, as well as through positive spillover effects for social institutions such as schools and cultural offerings.

To make decisions on the expansion of infrastructure needed to support business development in towns and settlements, a process inspired by "open season" procedures can be applied. Such a process typically involves an initial non-binding market dialogue to assess stakeholders' interest in using the infrastructure, followed by the conclusion of contracts governing the use of infrastructure capacity. This type of process can help reduce "chicken-and-egg" problems, where investors are hesitant due to a lack of infrastructure, while public authorities are reluctant to develop infrastructure due to a lack of confirmed investors.[333]

5. Next steps

It is our hope that this catalogue of inspiration is only the beginning of an ongoing and lively dialogue on sustainable investments in Greenland.

For each idea, there is a section outlining the need for further analysis and clarification of uncertainties, which can serve as a starting point for future studies. At the same time, it is our hope that the sections on framework conditions and investment models can inspire democratic discussions on how Greenland can improve access to start-up capital for sustainable investment projects and strengthen other framework conditions through, for example, education and labour market programmes.

We look forward to the upcoming dialogues at Future Greenland and to any potential future collaborations on analysing the investment ideas in greater depth. Please do not hesitate to reach out to Greenland Business Association!

[329] Dialogmøder med forskellige interessenter samt Bengtsson (2022), Seetharaman et al. (2019), Carruth (2016), Madurai Elavarasan et al. (2020)
[330] Energistyrelsen (2021, 2023)
[331] Indenrigs- og Sundhedsministeriet (2021)
[332] For inspiration om synergierne ved samlokalisering af bæredygtige investeringer se fx GreenLab i Skive (GreenLab, 2026), industrisymbiosen i Kalundborg (Kalundborg Symbiosis, 2025) og Hydrogen Hubs i USA (U.S. Department of Energy, 2023)
[333] Copenhagen Economics (2023b)

Sources

Informationerne i dette dokument er indsamlet gennem op mod 50 interviews med virksomheder og organisationer i og omkring Grønland. Derudover er anvendt informationer fra en række kilder:

Aalborg Universitet (2023*): Mod en fossilfri fremtid i Grønland*

AECOM Tecsult Inc. (2009a): *Tarsartuup Tasersua, 6g, Greenland Hydropower, Prefeasibility report* https://hydropower.gl/emner/data-and-reports?sc_lang=en Besøgt 14/12/2025

AECOM Tecsult Inc. (2009b): *Tasersiaq, 7e, Greenland Hydropower, Prefeasibility report* https://hydropower.gl/emner/data-and-reports?sc_lang=en Besøgt 14/12/2025

Agriteam Canada Cunsulting LTD (2013): *Understanding Sustainable Northern Greenhouses Technologies for Creating Economic Development,Opportunities and Supporting Food Security.* Calgary: Agriculture and agri-food Canada.

Albertslund Kommune (2024): *Albertslund Kommune stifter klimaselskab.* Albertslund Kommune stifter klimaselskab | Albertslund Kommune Besøgt 4/2/2026

Andersen, L. G. (2021a): *Longum* Longum besøgt 18/12/2025

Andersen, Torben M. (2021b): *Grønland, en selvbærende økonomi – krav og muligheder.* Samfundsøkonomien 4. Besøgt 29/1/2026

Arbejdstilsynet (2026): *Ny forbedret AMU går online i Grønland.* Arbejdstilsynet. Besøgt 22/2/2026

Arctic Economic Council (2015): *Arctic Investment Protocol Guidelines for Responsible Investment in the Arctic*

Arctic Economic Council (2022): *Sustainable investment opportunities in the Arctic*

Arctic Economic Council (2025): *Interview med direktør Mads Qvist*

ArcticToday (2025): *EU to fund Greenland mining project for the first time.* EU to fund Greenland mining project for the first time - ArcticToday

Arentoft, T. (2024, 10. juni): *Magisk mudder – nyt afsnit om gletsjermel i Naturgeografiportalen.* SystimeNyt.
Besøgt 12/11/2025

ATCO Electric. (2021): *Old Crow Solar Project.* Old Crow Solar Project | ATCO Electric Besøgt 24/11/2025

Barbato, C. T., Strong, A., L. (2023): *Farmer perspectives on carbon markets incentivizing agricultural soil carbon sequestration* npj Climate Action Besøgt 15/12/2025

Bäcklund, S. (2025): *Interview med business development manager hos Rock Flour Company* CG (2023): *Ingoing perspectives as input to: "Partnership for development of Danish commercial ports"*

Bengtsson, Nina Möger (2022): *Independence by renewables: Overcoming barriers to largescale renewable investments in Greenland.*

Berlingske. (2024, 19. juni). *Canadisk selskab får lov til at udvinde kritisk metal i Grønland.* Berlingske Business.
Besøgt 12/11/2025

Berthelsen, Jensine (2024): *Grønland og EU. Nye aftaler til mere end 700 millioner kroner.* Sermitsiaq.
Besøgt 19/2/2026

Berthelsen, Jensine (2025, 2. januar). *Naalakkersuisut: Tarifstigninger var en rigtig beslutning.* Sermitsiaq.AG
Besøgt 12/11/2025

Bill, T. (2024): *Kom med indenfor på Nuuks nye affaldsanlæg.* KNR. Besøgt 12/11/2025

Binzer, H. (2025*): Interviews med konsulent tilknyttet Nukissiorfiit angående overskudsenergi samt mulige vedvarende energiprojekter i bygder*

Bowles, Paul & MacPhail, Fiona (2022): *Social Licence Comes to Greenland's Mining Sector: Will Communities Be Empowered?* ARCTIC 74(4): 496–508. Besøgt 13/3/2026

Braiins (2021): *Optimizations for Bitcoin Mining with Intermittent Energy Sources.* Braiins. Besøgt 13/3/2026

Brandt-Møller, I. (2019, 15. juli). *Mel, der ligner cement, kan måske være god plantenæring* Økologisk nu.
Besøgt 12/11/2025

Brix, L. (2022): *Grønland hungrer efter akademikere.* Djøfbladet. Besøgt 26/1/2026

Bromley, H. (2024): *Unlocking Agricultural Carbon Market Opportunities* BloombergNEF Besøgt 15/12/2025

Building Greenland (2024): *Manglende Arbejdskraft Påvirker Byggeboom I Grønland* epage-building-greenland.pdf Besøgt 13/12/2025

Business Wire (2026): *Greenland Resources Conditionally Approved for up to $7 Million From the Government of Canada.* Greenland Resources Conditionally Approved for up to $7 Million From the Government of Canada. Besøgt 10/3/2026

By&Havn (2026): *By & Havns forretningsstrategi 2024 – 2027. Forretningsstrategi 2024-2027 - By & Havn*

CarbonCare (2025): *CO_2 Emissions Calculator* Calculator besøgt 12/12/2025

Carruth, Susan J. (2016): *Developing Renewable Energy in Discontiguous Greenland: An Infrastructural Urbanism of "Material Practices"*. Journal of Landscape Architecture 11(1): 66–79 Besøgt 31/1/2026

Cfp energy (2025): *Sleeved PPAs.* Sleeved PPA | CFP Energy

CIP (2024): *Mapping of public funding opportunities*

CIP (2025a): *Unlocking private capital to finance Germany's energy infrastructure*

CIP (2025b): *Empowering communities through vocational training.* DVP case.pdf

CIP Foundation (2023): *Markedsvurdering.* Markedsvurdering-Danmarks-muligheder. Besøgt 28/1/2026

CIP Foundation (2024a): *Forretningsmodel og værdikæder for biokul.* Baggrundsnotat. Besøgt 26/1/2026

CIP Foundation (2024b): *Vejen til effektiv CO_2-lagring med biokul.* Fuld-rapport.pdf. Besøgt 26/1/2026

Clemmensen, N. (2025): *Interview med Royal Arctic Line*

Climate Bonds (2026): *Channelling trillions into climate solutions.* Homepage | Climate Bonds Besøgt 28/01/2026

Copenhagen Economics (2018): *Economics in State Aid.* https://www.copenhageneconomics.com/dyn/resources/Publication/publicationPDF/0/460/1538460846/economics-in-state-aid.pdf Besøgt 15/4/2026

Copenhagen Economics (2023a): *A market design fit for purpose.* A-fit-for-purpose-market-design-for-the-North-Sea-03MAY2023.pdf Besøgt 28/1/2026

Copenhagen Economics (2023b): *A market design fit for purpose – deep dive.* DeepDive-slides03MAY2023.pdf Besøgt 28/1/2026

COWI (2023): *Renewable energy generation Malmbjerget*

Craig, R. (2023). *Vestas veteran plans 15GW wind to floating ammonia Greenland.* Windpower Monthly. Besøgt 12/11/2025

Danish SDG Investment Fund (2021): *Danish SDG Investment Fund Impact Report 2021.* final-danish-sdg-investment-fund-impact-report-2021.pdf Besøgt 15/4/2026

Danish SDG Investment Fund (2024): *Danish SDG Investment Fund Impact Report 2024.* /impact-fund-denmark-sdg-fund-i-impact-report-1.pdf Besøgt 15/4/2026

Danmarks Nationalbank (2025a): *Reformer kan gøre grønlandsk økonomi mere selvbærende*

Danmarks Nationalbank (2025b): *Staten forbereder udstedelse af en 10-årig europæisk grøn obligation under et opdateret grønt obligationsprogram.* Nationalbanken. Besøgt 15/4/2026

Danmarks Nationalbank (2025c): *Kingdom of Denmark European Green Bond Factsheet Booklet.* kingdom-of-denmark-eugb-booklet.pdf. Besøgt 15/4/2026

Danmarks Nationalbank (2026a): *Fremgang i færøsk økonomi trods stor global usikkerhed*. Nationalbanken. Besøgt 22/2/2026

Danmarks Nationalbank (2026b): *Opbremsning i væksten og store udfordringer forude.* Nationalbanken. Besøgt 26/1/2026

Danmarks Nationalbank (2026c): *Stigende danske og europæiske investeringer i grønne obligationer.* Statistiknyhed Besøgt 30/4/2026

Danmarks Nationalleksikon (2022): *Befolkning og bolig på Færøerne.* Trap Færøerne | Lex. Besøgt 22/2/2026

Departementet for Boliger, Infrastruktur og Yderdistrikter (2024): *Sammen om sunde boliger – Renoveringsindsats af Selvstyrets boligmasse* 'Sammen om sunde boliger' Besøgt 12/12/2025

Departementet for Finanser og Skatter (2023): *Nyt grønt samarbejdsområde i partnerskabsaftalen mellem Grønland og EU*. Naalakkersuisut. Besøgt 19/2/2026

Departementet for Fiskeri, Fangst, Landbrug og Selvforsyning (2025): *"FÆLLESERKLÆRING" Første møde i Grønland-Nunavut fiskerikomité.* Naalakkersuisut. Besøgt 31/1/2026

Departementet for Udenrigsanliggender og Forskning (2025): *Delaftale 2 om Arktis og Nordatlanten sikrer et nordatlantisk søkabel mellem Danmark og Grønland og nye initiativer til styrket samfundssikkerhed og beredskab.* Naalakkersuisut. Besøgt 14/04/2025

de Witt, Magnus; Stefánsson, Hlynur; Valfells, Ágúst; Larsen, Joan Nymand (2021): *Availability and Feasibility of Renewable Resources for Electricity Generation in the Arctic: The Cases of Longyearbyen, Maniitsoq, and Kotzebue*. Sustainability 13(16). Besøgt 3/2/2026

DI (2026): *Arktisk infrastrukturfond.*

DIIS (2024): *Wooing foreign investors. Greenland should prepare for the next dispute.* investor-protection-gb-web.pdf. Besøgt 26/1/2026

DIIS (2025): *Dilemmaer i rigsfællesskabet*

Directorate-General for Financial Stability, Financial Services and Capital Markets Union (2025): *EU taxonomy for sustainable activities.* European Commission. Besøgt 19/2/2026

DTU (2011): *Energirenovering af en- og tofamilie træhuse i Grønland*

DTU (2014): *Arctic Shipping – Green Technology and Regulation.*

DTU (2015a): *Barriers and drivers for energy-efficient homes in Greenland*

DTU (2015b): *Environmental Impact Assessment of Arctic Shipping.*

Duncan & Stollard (2025): *A deep dive in the key variations and considerations in terms of drafting and legal principles between a Direct PPA and a Sleeved PPA.* Direct & Sleeved PPA contracts: Key variations & considerations

EA Energianalyse (2018*). Udnyttelse af overskudsel i Ilulissat.*

EA Energianalyse (2023a). *Baggrundsrapport: Konsekvensanalyse af Parisaftalen for det grønlandske samfund.*

EA Energianalyse (2023b): *Konsekvensanalyse af Parisaftalen for det grønlandske samfund*

EA Energianalyse (2024a): *Landstrømsanalyse i Nuuk Havn - Interessentanalyse*

EA Energianalyse (2024b): *Landstrømsfaciliteter i Sikuki Nuuk Harbour - Teknisk Analyse*

EA Energianalyse (2025): *Landstrømsfaciliteter i Sikuki Nuuk Harbour - sammenfattende analyse*

Eastlake, Donna (2024): *Vertical farming breakthrough could save industry from failure*. FoodNavigator. Besøgt 9/2/2026

EIB (1973): *Greenland Ports.* GREENLAND PORTS. Besøgt 15/4/2026

EIB (2025): *Greenland hydro power plant.* GREENLAND HYDRO POWER PLANT. Besøgt 15/4/2026

EIB (2026): *Loans for the public sector.* Loans for the public sector. Besøgt 15/4/2026

EIFO (2025a): *EIFO udsteder lån til genåbning af Grønlandsk grafitmine* EIFO Besøgt 18/12/2025

EIFO (2025b): *Rock Flour Company får investering til at udnytte grønlandsk gletsjermel til CO_2-fangst og gødning.* Nyhed besøgt 2/12/2025

Elan Fuels (2025): *Diesel Generator Efficiency: How To Boost Performance Fast* Diesel Generator Efficiency (Calculations & Key Factors) Besøgt 12/12/2025

Energistyrelsen (2021): *Analyse af åben dør-ordningen.* https://ens.dk/sites/ens.dk/files/Vindenergi/analyse_af_aaben_doer-ordningen.pdf Besøgt 2/3/2026

Energistyrelsen (2023): *Redegørelse om forløbet frem mod berostillelse af åben dør-ordningen.* Energistyrelsen Besøgt 2/3/2026

Energistyrelsen (2025): *EU's LIFE Program.* EU's LIFE Program Besøgt 28/01/2026

Energywatch (2018): *Taiwanese university teams up with Danish specialists to offer MSc in offshore wind.* Taiwanese university teams up with Danish specialists to offer MSc in offshore wind

Erhvervsstyrelsen (2026): *Hvad er de minimis-støtte* *Virksomhedsguiden* Besøgt 15/4/2026

Europa-Kommissionen (2023): *EU og Grønland indgår strategisk partnerskab om værdikæder for bæredygtige råstoffer.* Pressemeddelelse. Besøgt 12/12/2025

Europa-Kommissionen (2025): *EU bliver stor udsteder af grønne obligationer.* EU bliver stor udsteder af grønne obligationer. Besøgt 15/4/2026

European Commission (2021): *InvestEU Programme: Regulation (EU) 2021/523.* Publications Office of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0523 Besøgt 28/1/2026

European Commission (2024): *EU–Greenland Partnership: Fact Sheet.* https://ec.europa.eu/commission/presscorner/api/files/attachment/877811/Factsheet%20EU-Greenland%20Partnership%20EN.pdf Besøgt 02/02/2026

European Commission (2025a): *Carbon Removals and Carbon Farming* Carbon Removals and Carbon Farming - Climate Action - European Commission Besøgt 15/12/2025

European Commission. (2025b): *Greenland – International Partnerships.* https://international-partnerships.ec.europa.eu/countries/greenland_en Besøgt 02/02/2026

European Commission (2025c): *Horizon Europe Work Programme 2023–2025: General Annexes.* https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-13-general-annexes_horizon-2023-2024_en.pdf Besøgt 02/02/2026

European Commission (2025d): *Invitation – Presentation on Greenland Resources Inc. and the Malmbjerg Project*

FDE (2025): *The Price of Power: What Goes Into Hydropower Project Costs?* Hydropower Project Costs Besøgt 14/12/2025

FinansDanmark (2025). *Analyse af barrierer for øget finansiering og investeringer i den grønne omstilling.* *Cowi - Analyse af barrierer for øget finansering og investeringer i den grønne omstilling*. Besøgt 15/4/2026

Finansforbundet (2020): *Pensionskasser må tænke alternativt.* https://finansforbundet.dk/dk/nyheder/2020/pensionskasser-maa-taenke-alternativt/. Besøgt 15/4/2026

Finansministeriet (2019): *Kortlægning af statslige garantier og genudlån.* Kortlægning af statslige garantier og genudlån. Besøgt 15/4/2026

Finansministeriet (2025): *Danmark bliver første stat i verden til at lancere en EU Green Bond.* Danmark bliver første stat i verden til at lancere en EU Green Bond. Besøgt 15/4/2026

Filbert, A. (2021): *Grønlandske Anori skal hente tocifret milliardbeløb til 1,5 GW.* Energiwatch. Besøgt 21/11/2025

Fleta-Asín, Jorge & Fernando Muñoz (2021): *Renewable Energy Public–Private Partnerships in Developing Countries: Determinants of Private Investment*. Sustainable Development 29(4):653–70 Besøgt 31/1/2026

Flyvbjerg, Bent (2021):*Top Ten Behavioral Biases in Project Management: An Overview*. Project Management Journal 52(6): 531–46. Besøgt 2/2/2026

Forsvarsministeriet (2016): *Forsvarsministeriets fremtidige opgaveløsning i Arktis*

Forsvarsministeriet (2025): *Ny orlogskaj skal etableres i Nuuk.* FMN besøgt 12/12/2025

Fridheimar (2017): *Tourist Services*.

FutureBridge (2022, 3. november*). Green Ammonia – An Alternative Fuel.* FutureBridge Besøgt 12/11/2025

Færøernes Landsstyre (2021): *Fast Track Aftalen*. aftale-om-fast-track-med-færøerne.pdf Besøgt 22/2/2026

Gabor & Sylla (2023): *Derisking Developmentalism: A Tale of Green Hydrogen*

Galacho, C. B. (2023, 17. oktober). *Gletsjermel skaber nye muligheder for grønlandsk landbrug.* DCA – Nationalt Center for Fødevarer og Jordbrug. Besøgt 12/11/2025

GEUS (2009): *Ocean, Is og Klimaændringer*. GEOVIDEN. Besøgt 12/12/2025

GEUS (2023): *Critical raw material resources in Greenland*. Geology and Ore. Besøgt 16/10/2025

Giles, J. (2025): *These 4 trends are driving the carbon market toward higher prices* Trellis Besøgt 15/12/2025

GoGo Mongolia (2016): *Mongolian Government Unlikely to Receive Dividends from Oyu Tolgoi until 2035.* Mongolian Government Unlikely to Receive Dividends from Oyu Tolgoi until 2035. Besøgt 15/4/2026

GreenLab (2026): *GreenLab.* Frontpage Besøgt 3/2/2026

Greenland Resources Inc. (2025). *Malmbjerg Molybdenum Project.* Greenland Resources. Besøgt 12/11/2025

GreenRoc (2024): *Kommissorium; Amitsoq grafitprojekt* projekt-kommissorium-dk.pdf Besøgt 18/12/2025

GreenRoc (2025a): *Amitsoq: Graphite Supply for Europe*

GreenRoc (2025b): *Grafit fra Grønland skal Styrke Europas råstofuafhængighed.* Børsen magasin 17/12 produceret i samarbejde med Grønlands Erhverv

Greve, Carsten & Hodge, Graeme A. (2017): *Private Finance: What Problems Does It Solve, and How Well?* The Oxford Handbook of Megaproject Management. Oxford Handbooks. Oxford University Press

Growing North (2017): *Growing North* Inuit Tapiriit Kanatami. Besøgt 12/12/2025

GrowUp (2024): *Our impact*. GrowUp Farms. Besøgt 9/2/2026

Grønlands Erhverv (2022): *Mangel på arbejdskraft 4. Markedsanalyse december 2022.* 2022-12-27 mangel på arbejdskraft 4. Besørg 26/1/2026

Grønlands Selvstyre, Departementet for Boliger og Infrastruktur, WSP Arctic A/S & Rambøll A/S. (2021). *Fly-, vej- og færgeforbindelser i Sydgrønland: Samlet trafikprojekt i Narsarsuaq, Qaqortoq og Narsaq området.*

Grønlands Statistik (2024) *Ledighed og arbejdsstyrke i 2024.* Ledighed og arbejdsstyrke i 2024 besøgt 8/12/2025

Grønlands Statistik (2025): *Grønland i tal*. Grønland i tal 2025.pdf Besøgt 11/2/2026

Grønlands Statistik (2026): *Antal krydstogtpassagerer fordelt på havn efter havn og tid.* PxWeb. Besøgt 15/4/2026

H2Carrier. (2025). *The P2X Floater.* H2Carrier. Besøgt 12/11/2025

Hansen (2023): *The aluminium smelter project in Greenland – New aspects of an industrialisation process?* Nordregio Besøgt 14/12/2925

Heyes, Adam (2025): *Understanding Dual Class Stock: Structure, Benefits, and Controversies.* Understanding Dual Class Stock: Structure, Benefits, and Controversies Besøgt 28/01/2026

High North News (2023, December 19): *The EU allocates millions to Arctic infrastructure.* https://www.highnorthnews.com/en/eu-allocates-millions-arctic-infrastructure Besøgt 2/2/2026

House of Commons (2024): *Contracts for Difference*. *CBP-9871.pdf*

Hu, Jing; Harmsen, Robert; Crijns-Graus, Wina; Worrell, Ernst (2018): *Barriers to Investment in Utility-Scale Variable Renewable Electricity (VRE) Generation Projects*. https://doi.org/10.1016/j.renene.2018.01.092. Besøgt 27/1/2026

Hviid, H. V. (2022, 14. maj). *Bekymringer om vandkraftværk: Det kan ødelægge kulturarv.* KNR – Kalaallit Nunaata Radioa. Besøgt 12/11/2025

Hviid, H. V., & Wille, A. (2022, maj). *Vandkraftværk sættes i udbud.* KNR – Kalaallit Nunaata Radioa. Besøgt 12/11/2025

Høgedahl, Laust & Ravn, Rasmus Lind (2021): *Fremtidens arbejdsudbud i Grønland*. Samfundsøkonomen 4. Besøgt 20/2/2026

Impact Fund Denmark (2026): *SDG Fund 1*. SDG Fund I Archives - Impact Fund Denmark

Inatsisartut (2017): *FM2017/139 Bemærkninger til forslaget.* pkt139_fm2017_nunaoil_bem_da.pdf. Besøgt 20/2/2026.

Inatsisartut (2024): *82.30.01 EU-projekter vedrørende "Grøn Vækst".* pkt7_em2023_ffl2024_aefl_3beh_rettblad_bilag1_da.pdf. Besøgt 20/2/2026.

Indenrigs- og Sundhedsministeriet (2021): *Frikommuneforsøg*. Frikommuneforsøg | Indenrigs- og Sundhedsministeriet Besøgt 2/3/2026

Industrial Minerals (2023): *Graphite price volatility set to continue, says Industrial Minerals Data* MINING.COM Besøgt 18/12/2025

Interreg Northern Periphery and Arctic Programme (2025): *Interreg Northern Periphery and Arctic – Our Programme (2021–2027)*. https://www.interreg-npa.eu/our-programme/ Besøgt 02/02/2026

Interseas (2024): *Solar and wind energy: Implementation in port facilities*. Interseas. Besøgt 16/10/2025

Inuit Ataqatigiit Folketingimi (2025): *Finansloven 2026-29*

Invest for Impact Denmark (2025): *Blended Finance - Skalering af impactinvesteringer til løsning af samfundets udfordringer lokalt og globalt*

Innovation South Greenland (2026): *About Innovation South Greenland.* About. Besøgt 11/3/2026

IPCC (2023): *Emission Factor Database*

IRENA (2022): *Decarbonisation pathways* Chemicals and petrochemicals Besøgt 14/2/2025

Ivanova, Mariya & Farkhatdinov, Nail (2025): *The Arctic Is Becoming a Hot Spot for Data Centers.* Arctida. Besøgt 10/3/2026

Jakobsen, K. R. (2016): *Renewable Energy Potential of Greenland with emphasis on wind resource assessment* DTU besøgt 12/12/2025

Josefsen H. (2024): *Dansk milliardlån til vandkraft – nu bliver Grønlands forsyning 90 procent grøn.* Ingeniøren. Besøgt 12/11/2025

Jungersen, M. (2014): *Qeqqata Kommunia Pilotprojekt Med Kompostering.* Ramboll. Besøgt 27/11/2025

Kabel, Tarek Safwat & Bassim, Mohga (2020): *Reasons for Shifting and Barriers to Renewable Energy: A Literature Review.* International Journal of Energy Economics and Policy 10:2. Besøgt 29/1/2026

Kalundborg Symbiosis (2025): *En symbiose bygget på overskud.* Forside - Kalundborg Symbiose. Besøgt 2/3/2026

Klimapartnerskabet for den finansielle sektor (2025): *Baggrundsrapport 2025.* Finans Danmark. Besøgt 28/01/2026

Knudsen, A. K. (2025): *Interview med Aviaaja Karlshøj Knudsen, CEO for NunaGreen og Chair for Arctic Economic Council*

Krarup, P. (2025, 2. august). *Ny vandkraft skal udnyttes kommercielt.* Sermitsiaq.AG. Besøgt 12/11/2025

Kristensen, K. (2024): *Greenlandic Greenhouse nomineret til miljøpris.* Sermitsiaq. Besøgt 12/11/2025

Kuitse, M. (2025, 19. juni). *Greenland Resources A/S skal udvinde metaller i Nordøstgrønland.* KNR. Besøgt 12/11/2025

KPMG (2023): The opportunity for VPPAs in regulated markets. The opportunity for VPPAs in regulated markets

KommuneKredit (2026): *Fortællingen om os.* *Fortællingen om os | KommuneKredit*

Kristensen, Kurt (2025): *Grønlands økonomiske Råd opfordrer: Debatten om udenlandsk kapital er vanskelig, men nødvendig.* Sermitsiaq Besøgt 19/2/2026

Københavns Universitet (2023a). *Ekstremt små gletsjer-partikler kan optage CO_2 og være med til at bekæmpe klimaforandringer.* sund.ku.dk. Besøgt 12/11/2025

Københavns Universitet (2023b). *Grønlandsk gletsjermel kan hjælpe i kampen mod klimaforandringer*. via Ritzau. Besøgt 12/11/2025

LCL Data Centers (2024): *The critical importance of redundancy in data center.* Data Center University. Besøgt 12/3/2026

Liu, X. og Amgad, E. (2019): *Life-Cycle Analysis of Green Ammonia and its Application as Fertilizer Building Block.* 20191112.0912-Liu-Ammonia-Energy-Conference-2019.pdf Besøgt 21/11/2025

Lyberth, J. (2010, 15. januar). *Nationalmuseet kæmper for Tasersiaq*. KNR – Kalaallit Nunaata Radioa. Besøgt 12/11/2025

Madurai Elavarasan, Rajvikram; Afridhis, Syed; Vijayaraghavan, Raghavendra Rajan; Subramaniam, Umashankar; Nurunnabi, Mohammad (2020): *SWOT analysis: A framework for comprehensive evaluation of drivers and barriers for renewable energy development in significant countries.* Energy Reports 6. Besøgt 2/2/2026

Marine Masters (2025): *Fuel Efficiency Tips for Auxiliary Engines on ship* Fuel Efficiency Tips for Auxiliary Engines on ship Besøgt 12/12/2025

Maritime Denmark (2024): *Ny trawlerterminal i Nuuk godkendt.* Ny trawlerterminal i Nuuk godkendt Besøgt 12/12/2025

McKinley, P. C., Wilber, M., & Whitney, E. (2025). *Learning from Arctic Microgrids: Cost and Resiliency Projections for Renewable Energy Expansion with Hydrogen and Battery Storage*

McKinsey (2004): *When payback can take decades.* When payback can take decades | McKinsey. Besøgt 27/1/2026

Merkel, A., Nyberg, E., Ek, K., & Sjöstrand, H. (2023): *Economics of shore power under different access pricing*.

MiningWorld (2025): *Offtake agreements and why they unlock financing.* *Offtake agreements and why they unlock financing – MiningWorld*

Mingolla S. & Rosa, L. (2025): *Low-carbon ammonia production is essential for resilient and sustainable agriculture*. Nature Food, 6. Nature Food Besøgt 14/12/2025

Møller Lennert, Mîtdlârak & Demant-Poort, Lars (2021): *Uddannelse – nøglen til Grønlands fremtid.* Samfundsøkonomien 4. Besøgt 20/2/2026

Naalakkersuisut (2017): *Sektorplan for energi- og vandforsyning*

Naalakkersuisut (2022): *The Government of Greenland releases large amounts of data relevant for investments in Greenland's largest hydropower potentials that are now exposed to competition* hydropower.gl Besøgt 14/12/2015

Naalakkersuisut (2023): *Holdbarheds- og Vækstplan 2*

Naalakkersuisut (2024a)*: Et stort skridt mod bæredygtig og lokalt forankret turisme* Departementet for Erhverv, Handel, Råstoffer, Justitsområdet og Ligestilling Besøgt 12/12/2025

Naalakkersuisut (2024b)*: Finansieringsplan – forudsætninger og økonomiske konsekvenser*

Naalakkersuisut (2024c): *Grønlands selvforsyningsstrategi 2025-2030*

Naalakkersuisut (2024d): *Sammen om sunde boliger – en renoveringsindsats af Selvstyrets boligmasse*

Naalakkersuisut (2024e): Landskassens Regnskab 10-landskassens-regnskab-2024-dk.pdf Besøgt 15/12/2025

Naalakkersuisut (2025a): *Grønlands råstofstrategi 2025-2029. Et bæredygtigt råstofområde.* Grønlands RÅSTOFstrategi 2025-2029. Besøgt 28/2/2026

Naalakkersuisut (2025b): *Koalitionsaftale mellem Demokraatit, Inuit Ataqatigiit, Siumut og Atassut.* Vi står sammen om et trygt og frit Grønland der er under udvikling. Besøgt 19/2/2026

Naalakkersuisut (2025c): *Status på udbuddet af Grønlands største vandkraftpotentialer*. Departementet for Erhverv, Råstoffer, Energi, Justitsområdet og Ligestilling Besøgt 12/12/2025

Naalakkersuisut Departementet for Erhverv, Råstoffer, Energi, Justitsområdet og Ligestilling (2025): *Greenland Hydropower Potentials*. Greenland Hydropower Potentials. Besøgt 16/10/2025

Naalakkersuisut Departementet for Boliger og Infrastruktur (2025):
Nye regler om køb af fast ejendom og brugsret til area ler. Nye regler om køb af fast ejendom og brugsret til arealer Besøgt 4/2/2026

Nalik Ventures (2025): *Interview med Thomas Mogensen*

Nalik Ventures (2026): *Lån og investering.* Lån og investering - Nalik Ventures. Besøgt 16/3/2026

Nalunaarutit (1997): *Landstingsforordning om energiforsyning* ltf 14 1997 Besøgt 15/12/2025

Nalunaarutit (2013): *Selvstyrets bekendtgørelse om levering og salg af overskudselektricitet fra vedvarende energi anlæg til forsyningsvirksomheder (egenproduktionsbekendtgørelsen).* bkg 21 2013 Besøgt 02/02/2026

Nalunaarutit (2022): *Finanslov 2023, Bilag 2, tekstanmærkninger samt bemærkninger til tekstanmærkninger.* l_33 bilag2_dk.pdf. Besøgt 27/11/2025

Nalunaarutit (2025): *Naalakkersuisoq for Boliger og Infrastruktur - Aktivitetsområde 70 – 72.* Tekstanmaerkning. Besøgt 16/1/2026

Natural Ressource Governance Institute (2019): *Wild Growth: An Assessment of Erdenes Mongol.* wild-growth-an-assessment-of-erdenes-mongol.pdf. Besøgt 15/4/2026

Nemselskab (2025): *Aktionæroverenskomst.* Aktionæroverenskomst | For et velfungerende samarbejde Besøgt 28/01/2026

NIB (2008): *NIB finances Greenland's fibre optic link.* NIB finances Greenland's fibre optic link - Nordic Investment Bank. Besøgt 15/4/2026

NIB (2010): *NIB finances new hydropower station in Greenland.* NIB finances new hydropower station in Greenland - Nordic Investment Bank. Besøgt 15/4/2026

NIB (2011): *NIB to finance Bank of Greenland's environmental loan facility.* NIB to finance Bank of Greenland's environmental loan facility - Nordic Investment Bank. Besøgt 15/4/2026

NIB (2012): *Greenland Self Rule Government.* Greenland Self Rule Government (Denmark) - Loan - Nordic Investment Bank. Besøgt 15/4/2026

NIB (2026a): *Financing.* *Financing - Nordic Investment Bank*. Besøgt 15/4/2026

NIB (2026b): *Lending products.* *Lending products - Nordic Investment Bank*

Nielsen, M. & Skadborg, M. (2015): *Assessment of kitchen waste compost from Sisimiut for use as plant growth medium or landfill biocover*. DTU Arctic Technology Centre. Besøgt 27/11/2025

NIRAS & PwC (2021): *Samfundsøkonomisk konsekvensvurdering. Vandkraftprojekter i Grønland.*

Nissen, Christine & Friis, Lykke (2026): *Grønland: Hvilke kort har Europa på hånden over for USA?* Tænketanken Europa. Besøgt 26/1/2026

Nordic Council of Ministers (2018): *Energy in the West Nordics and the Arctic.* Case Studies. Besøgt 12/12/2025

Nordea (2025): *Den danske stat lancerer banebrydende grøn statsobligation med støtte fra Nordea***.** Den danske stat lancerer banebrydende grøn statsobligation med støtte fra Nordea | Nordea

Novo Nordisk Fonden (2024): *Ejerskab*. Ejerskab - Novo Nordisk Fonden. Besøgt 12/2/2026

Nukissiorfiit (2019): *Hybridanlæg i Igaliku,* Hybridanlæg i Igaliku. Besøgt 13/10/2025

Nukissiorfiit (2024a): *Ammassivik får medvind.* Nukissiorfiit. Besøgt 12/11/2025

Nukissiorfiit (2024b): *Så blev der trykket start!* Så blev der trykket start! - Nukissiorfiit Besøgt 15/4/2026

Nukissiorfiit (2024c): *Årsregnskab 2024*

Nukissiorfiit (2025a): *Development Projects*

Nukissiorfiit (2025b): *Igaliku Data*

NunaGreen (2025): *Projekter.* NunaGreen. Besøgt 12/11/2025

Nuuk Maritime Network (2025): *Interview med Cuno Jensen*

OECD (2025a): *Core concepts in blended finance: assessment of uses and implications for evaluation*. *Core concepts in blended finance (EN) Besøgt 4/2/2026*

OECD (2025b): *OECD DAC Blended Finance Guidance 2025.* *OECD DAC Blended Finance Guidance 2025 (EN) Besøgt 4/2/2026*

Overseas Countries and Territories Association (2025): *LIFE Programme*. https://www.overseas-association.eu/programme/life/ Besøgt 2/2/2026

Our New Energy (2025): PPA Insights Monthly. PPA Insights

Oxford Global Projects (2021): *Risk Assessment of Sisimiut–Kangerlussuaq Road Project*

Pedneault, J., Majeau-Bettez, G., Krey, V., Margni, M. (2021): *What future for primary aluminium production in a decarbonizing economy?* Global Environmental Change Vol. 69 doi.org/10.1016/j.gloenvcha.2021.102316 Besøgt 14/12/2021

PensionDanmark (2026): *Dit afkast.* Dit afkast - PensionDanmark. Besøgt 15/4/2026

Pelaudeix, Cécile; Basse, Ellen Margrethe & Loukacheva, Natalia (2017): *Openness, transparency and public participation in the governance of uranium mining in Greenland: A legal and political track record*. Polar Record. Besøgt 30/1/2026

Pinilla-De La Cruz, Giovanna Andrea ; Rabetino, Rodrigo; Kantola, Jussi (2022): *Unveiling the shades of partnerships for the energy transition and sustainable development: Connecting public–private partnerships and emerging hybrid schemes*. Sustainable Development 30(5) Besøgt 31/1/2026

Polaroil (2025): *Priser på brændsel i Grønland* Gasolier, Flybrændstoffer og Benzin Besøgt 12/12/2025

Polar Seafood Upernavik ApS (2025): *Årsrapport 2024*. CVRAPI. Besøgt 12/3/2026

Port of Rotterdam (2024*): Shore power user instructions*. Port of Rotterdam. Besøgt 16/10/2025

Pund, M. (2024): *Tasersiaq Hydropower Concept*. Tasersiaq Lake Greenland Hydroelectric Project Concept. Besøgt 12/11/2025

Puro.Earth (2026): *CORC Carbon Removal Indexes.* CORC Carbon Removal Price Indexes. Besøgt 10/3/2026

PwC (2025a): *Ejeraftale - Hvad er det, og hvad skal den indeholde?* Ejeraftale - Hvad er det, og hvad skal den indeholde? Læs her. Besøgt 28/01/2026

PwC (2025b): Stabilisér prisen på energi med PPA. PPA | Stabiliser prisen på energi med Power Purchase Agreement. Besøgt 15/4/2026

Qeqqata Kommunia (2023): *Rapport fra Arbejdsgruppen om Kangerlussuaqs fremtid.* 20230421-rapport-fra-arbejdsgruppen-om-kangerlussuaqs-fremtid-d.pdf besøgt 1/12/2025

Qeqqata Kommunia (2025): *ESANI's nye forbrændingsanlæg i Sisimiut brænder kun husholdningsaffald og småt brændbart affald*. ESANI-p Sisimiuni ikuallaavia nutaaq... Besøgt 15/4/2026

Qeqqata Kommunia og Arctic Circle Business (2019): *Turismeudvikling via Arctic Circle Road.* Rapport Besøgt 1/12/2025.

Qvist Frederiksen, M. (2024): *Arktiske økonomer: Udenlandske investorer skal kunne tjene penge i Grønland.* Altinget. Besøgt 26/1/2026

Renewables now (2017): *UPDATE - Dong to build Hornsea 2 after CfD win at GBP 57.5/MWh.* UPDATE - Dong to build Hornsea 2 after CfD win at GBP 57.5/MWh | Offshore Wind News | Renewables Now

Ravnshøj-Davidsen, Thomas (2005): *Foreløbig analyse af offtake potentialer for energi i Nuuk*

Retsinformation (2023): *Lov om Kreditforeningen af kommuner og regioner i Danmark.* *Lov om Kreditforeningen af kommuner og regioner i Danmark*. Besøgt 15/4/2026

Retsinformation (2024): *Bekendtgørelse af lov om miljøbeskyttelse* Miljøbeskyttelsesloven Besøgt 15/12/2025

Reuters (2025): *Greenland approves 30-year mining permit for EU-backed graphite project.* *Greenland approves 30-year mining permit for EU-backed graphite project | Reuters* Besøgt 4/2/2026

Reuters (2026): *Europe falling behind in critical minerals race.* *Europe falling behind in critical minerals race | Reuters* Besøgt 4/2/2026

Richard, Craig (2023*): Vestas veteran plans 1.5GW wind-to-floating ammonia in Greenland*

Rigsombudsmanden på Færøerne (2022): *Beretning*. beretning-2022.pdf. Besøgt 22/2/2026

Rivin, D. (2024): *I de grønlandske fjorde fandt en stjerneforsker 'magisk' mel. I fremtiden kan det få planter til at spire og CO_2 til at forsvinde.* Zetland besøgt 3/12/2025

Rosing, M. T. (2025): *Interview med professor Minik Rosing*

Royal Greenland (2026): *Produktionssteder i Grønland.* Grønland - Royal Greenland A/S. Besøgt 11/3/2026

Sandahl, M. W. (2024): *Grønlandsk byggeboom: Vi skal ikke foregribe udviklingen, før vi kender den* Bygge- & Anlægsavisen Besøgt 13/12/2025

Saxo Bank (2026 a): *Hvordan udbytte fungerer: En omfattende guide til udbytteinvestering.* Hvordan udbytte fungerer: En omfattende guide til udbytteinvestering | Saxo Besøgt 19/2/2026

Saxo Bank (2026 b): *Guide: Hvad er forskellen på A- og B-aktier?* Hvad er forskellen på A- og B-aktier? | Saxo Besøgt 19/2/2026

Seetharaman, Krishna Moorthy, Nitin Patwa, Saravanan, Yash Gupta (2019): *Breaking Barriers in Deployment of Renewable Energy.* Heliyon 5(1). Besøgt 3/2/2026

SEGES (2023): *Analyse af mulighederne for at forretningsgøre CO_2-lagring i biokul.* Analyse-af-mulighederne-for-at-forretningsgoere-CO2-lagring-i-biokul-SEGES.pdf. Besøgt 26/1/2026

Sharpe Pritchard (2024): Sleeved Power Purchase Agreements. Sleeved Power Purchase Agreements - Sharpe Pritchard. Besøgt 22/2/2026

Ship & Bunker (2024*): Shore Power Now Available for River Cruises in Ghent*. Ship & Bunker. Besøgt 21/10 2025

Sikuki (2025): *Interview med John Rasmussen*

Sjøgren, K. (2023, 10. september): *Knuste grønlandske klipper kan redde klimaet og hjælpe landmænd i Afrika.* ScienceNews.dk. Besøgt 12/11/2025

Skagen Havn (2025): *Skagen Havns bestyrelse godkender investering af landstrøm til krydstogtskibe* Nyhed besøgt 12/12/2025

Sonnichsen, A. (2017): *CARE og Chr. Hansen sammen i satsning for det kenyanske landbrug.* Globalnyt. Besøgt 2/12/2025

Susskind, Lawrence; Chun, Jungwoo; Gant, Alexander; Hodgkins, Chelsea; Cohen, Jessica; Lohmar; Sarah.(2022): *Sources of Opposition to Renewable Energy Projects in the United States*. Energy Policy 165. Besøgt 3/2/2026

Sæhl, Marie & Hybel, Mette (2018): *Færøske unge fravælger Danmark: Vi kan se en fremtid på Færøerne.* Indland | DR. Besøgt 22/2/2026

Sørensen, Bent Højgaard (2025a): *Erhvervslivet fortsætter kritik af lovforslag om ny skat*. Sermitsiaq. Besøgt 3/11/2025

Sørensen, Bent Højgaard (2025b): *Stigende udvandring lægger stærkt pres på politikerne.* Stigende udvandring lægger stærkt pres på politikerne. Besøgt 22/2/2026

Sørensen, Bent Højgaard (2026): *Fortsat stor modstand mod lovforslag om fraflytterbeskatning.* Sermitsaq. Besøgt 30/1/2026

Sørensen, Helle Nørrelund (2024): *Krav om grønlandsk ejerskab i turistvirksomheder: Vi spænder ben for udviklingen.* KNR. Besøgt 26/1/2026

Teknologisk Institut (2024): *GreenLandbrug: Grønlandsk gletsjermel som naturligt supplement i dansk landbrug*. Teknologisk Institut. Besøgt 12/11/2025

The Diplomatic Service of the European Union (2025): *The EU in the Arctic*. EEAS, Besøgt 12/12/2025

The Oxford Institute for Energy Studies (2024): *Fueling the future: A techno-economic evaluation of e-*

ammonia production for marine applications ET40-Fuelling-the-future-final.pdf Besøgt 14/12/2025

Thorsson, Elias (2025): *EU to fund Greenland mining project for the first time.* ArcticToday. Besøgt 21/4/2026

Toft, Tilde & Rose, Mathias (2024): *Ny turismelov i Grønland deler vandene*. Børsen. Besøgt 28/1/2026

Tran (2023): *Iceland: new measures to attract foreign workers.* RH. Besøgt 22/2/2026

Transportministeriet (2024): *Infrastrukturplan 2035.* TRU Almdel Bilag 99. Besøgt 27/1/2026

Tusass (2025a): *EU støtter udviklingen af nationalt søkabel.* Artikel – Nyheder & Presse – Tusass. Besøgt 14/4/2026

Tusass (2025b): *Nye internethastigheder i Østgrønland.* Article – News & Media. Besøgt 22/2/2026

U.K. Government (2025): *Contracts for Difference.* Contracts for Difference - GOV.UK. Besøgt 15/4/2026

UNSDG (2025): *UN's Best-Kept Secret: How One Fund is Turning $1 into $19 and Transforming Development.* Unsdg | UN's Best-Kept Secret: How One Fund is Turning $1 into $19 and Transforming Development. Besøgt 15/4/2026

U.S. Department of Energy (2023): *Regional Clean Hydrogen Hubs.* Regional Clean Hydrogen Hubs | Department of Energy Besøgt 3/2/2026

Valentin, Martin (2025): *Ny investeringslov kan skabe retslig usikkerhed: kritikere kalder loven halvfærdig.* KNR. Besøgt 26/1/2026

Valentin, M. & Karlsen,S. R. (2025): *Stort fald i arbejdsløshed - problemer venter om hjørnet* KNR Besøgt 12/12/2025

Vanguard (2025): *Benefits of a fund-of-funds strategy in private equity.* Benefits of a fund-of-funds strategy in private equity. Besøgt 15/4/2026

Veirum, T. M. (2023, 3. januar): *Anori indgår samarbejde – vil producere ammoniak med grønlandsk vind.* Sermitsiaq.AG. Besøgt 12/11/2025

Veirum, Thomas Munk (2024): *Skærer en halv milliard af efterslæb*. Sermitsiaq. Besøgt 13/10 2025

Veirum, Thomas Munk (2025): *Milliard-aftale: Danmark vil finansiere ny lufthavn, en dybvandshavn og visse sundhedsudgifter i Grønland.* Sermitsiaq. Besøgt 11/3/2026

Veirum, Thomas Munk, & Jørgensen, Trine Juncher (2025): *Dansk regering vil afsætte 1,6 mia. kr. til initiativer i Grønland*. Sermitsiaq. Besøgt 3/11/2025

Verkís (2024): *Qorlortorsuaq vandkraftværk.* Projekter. Besøgt 18/2/2026

Vestnordenfonden (2024): *Årsrapport.* Årsregnskab 2024 od.pdf Besøgt 12/12/2025

Vidensråd for Forebyggelse (2025): *Luftforurening_sundhedskonsekvenser og strukturel forebyggelse* 1-96 Besøgt 12/12/2025

Viegand Maagøe, Adelphi & Technopolis (2025): *Study on Possible Policy Actions to Enhance Private Capital Mobilisation in the EU to Finance the Climate Transition*

Visit Greenland (2022): *Upernavik*. Upernavik - Visit Greenland Besøgt 12/3/2026

Visit Greenland (2023): *Turismestatistik Rapport 2023.* Turismestatistik-rapport-Gronland-2023.pdf Besøgt 12/12/2025

Visit Greenland (2024): *Tourism satellite account Grønland 2024* Rapport besøgt 11/12/2025

Visit Greenland (2025): *Arctic Wonderland Tours.* Visit Greenland. Besøgt 12/3/2026

Wichmanngroup & Partners (2021): *Færøernes længste havkabel til akvakultur installeret.* Nordfra. Besøgt 12/12/2025

Wilson, Emma (2016): *Negotiating uncertainty: Corporate responsibility and Greenland's energy future*. Energy Research & Social Science 16. Besøgt 30/1/2026

With, L. (2025, 2. september). *Grønlandsk mudder har superkræfter – nu rykker tunge investorer ind.* Børsen Perspektiv. Besøgt 12/11/2025

With, L. & Nielsen, H. B. (2025): *Mineboss: Bøvl og usikkerhed bremser Grønland.* Børsen. Besøgt 26/1/2026

World Bank (2024): *What are green bonds?* Green Bonds Besøgt 28/01/2026

Wreford, A., A. Ignaciuk and G. Gruère (2017): *Overcoming barriers to the adoption of climate-friendly practices in agriculture*, OECD Food, Agriculture and Fisheries Papers, No. 101, OECD Publishing, Paris. Besøgt 15/12/2025

WWF (2025): *Interview med Malene Lynge og Agnete Schønau Winther*

Yunis (2021): *Fraser Institute Annual Survey of Mining Companies*

Ørsted (2023): *Ørsted successfully issues green bonds.* Ørsted successfully issues green bonds. Besøgt 15/4/2026

Ørsted (2022): *Hornsea 2, the world's largest windfarm, enters full operation.* Hornsea 2, the world's largest windfarm, enters full operation. Besøgt 15/4/2026

About the authors of the document

Grønlands Erhverv

Greenland's largest business and labour organisation. GE represents more than 320 companies across all of Greenland's leading sectors. As an employers' organisation, GE negotiates collective agreements and contributes to stability in the labour market. GE also serves as an interest organisation for the majority of Greenland's private sector. In addition, it acts as a knowledge centre and strengthens its members' professional community through analyses and reports, networks, industry associations, courses, and conferences

CIP Foundation

A non-profit organisation that works to advance the green transition. The foundation does not award grants, but instead finances think- and do-tank projects that contribute to identifying sustainable solutions for the future. The primary focus is on challenges where it is necessary to bring together knowledge institutions, public actors, and private companies in order to develop solutions that benefit the next generation

Dansk Industri

Dansk Industri is Denmark's largest employers' and business organisation. It represents more than 20,000 small and large companies in Denmark and also contributes to strengthening the business community through industry networks and knowledge generation. Dansk Industri has a collaboration with Grønlands Erhverv, which among other things focuses on promoting sustainable growth.

Disclaimer

This inspiration catalogue does **not constitute investment advice**. The document contains financial estimates and estimates of CO_2-savings that have been provided by external sources and have not been verified by the authors of the document. More thorough analyses should be conducted before any investment decisions are considered.