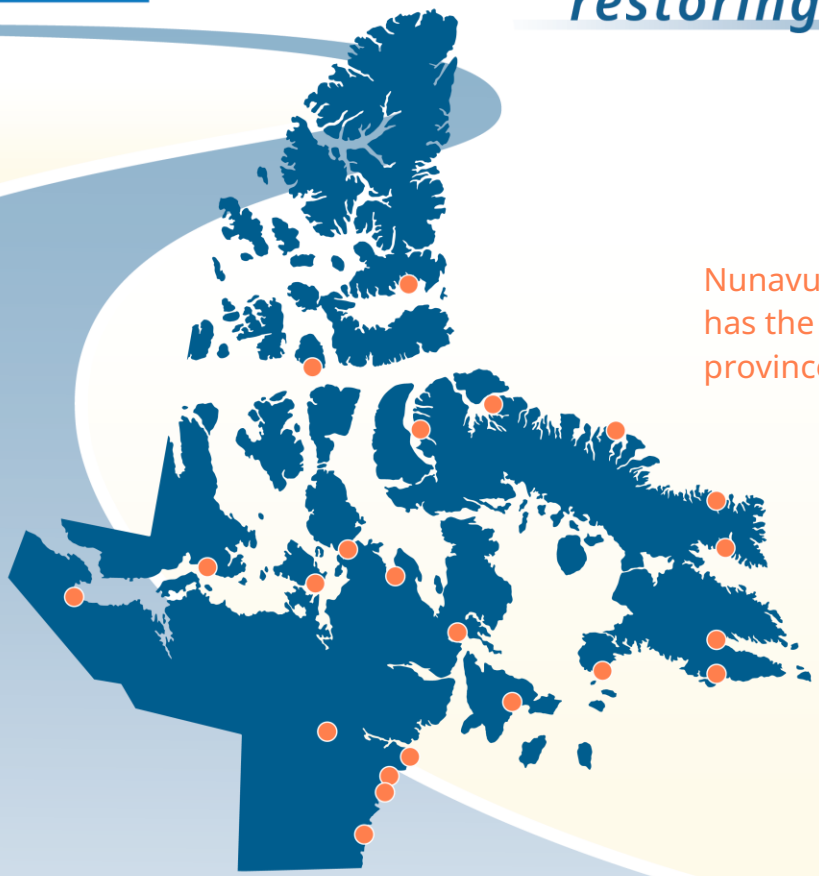

Diesel Microgrid Community

Nunavut

Nunavut is home to 25 isolated communities and has the highest diesel dependency of any province or territory.

Despite significant logistical, economic, and technical challenges with developing clean energy in the territory, Inuit in Nunavut are pursuing clean energy development and the Government of Nunavut is advancing innovative policies to support diesel-reducing projects.

Collaboration with rights-holders	Platforms exist for collaboration, but more capacity support, consensus building and focus on community energy is needed.
Plans and strategies	Promising umbrella policy on renewable energy, but a formal clean energy strategy is yet to be released.
Funding and financing	No dedicated territorial funding for community clean energy projects.
Programs for efficient buildings	Energy efficiency programs exist but upfront costs limit uptake.
Independent power producer (IPP) market	Clear policy with good incentive for clean energy, new subsidy is a strong step towards creating a successful IPP market.

Restoring the flow: Nunavut

Nunavut is home to 25 remote communities, known as hamlets, with no interconnections to neighbouring communities, provinces, or territories.[113] The territory is nearly 100% dependent on diesel to meet its electricity and heating needs, the highest diesel dependency of all the territories and provinces.[114] Inuit in Nunavut have been pursuing clean energy through their major development corporations and have ambitious plans for implementing renewables, though projects have faced major roadblocks and progress has been slow. Bringing renewable energy online in Nunavut is a major challenge for both proponents and the utility, with myriad technical, logistical and political barriers to overcome.

Significantly reducing diesel use in Nunavut is a complex challenge due to geographic isolation, high material costs, short construction seasons, aging infrastructure, limited funding, and constrained capacity for all actors. Policy reform to overcome these obstacles requires collaboration among many diverse actors, including the Government of Nunavut through its Climate Change Secretariat (CCS); the government-owned utility, Qulliq Energy Corporation (QEC); the regional Inuit associations and development corporations; and individual communities.

The CCS creates policies that enable partnerships among them to advance mutual goals. Notably, in May 2025 the Government of Nunavut implemented the Sustainable Energy Support Policy (SESP) which both triggers the evaluation of the climate change impacts of Government of Nunavut projects and activities and provides funding for renewable energy projects.

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[113] Nunavut Tunngavik, *Nunavut's Infrastructure Gap* (2020), 11. https://www.tunngavik.com/files/2020/10/2020.10.20-Nunavuts_Infrastructure_Gap_Report_vf.pdf

[114] Dave Lovekin et al., Diesel Reduction Progress in Remote Communities: Research Summary (Pembina Institute, 2020). https://www.pembina.org/pub/diesel-reduction-progress-remote-communities

Qulliq Energy Corporation, "Power in Nunavut." https://www.qec.nu.ca/power-nunavut

Photo: Emily He, Pembina Institute, Iqaluit, NU.

Collaboration with rights-holders

Nunavut became a territory in 1993 through the Nunavut Land Claims Agreement (the Nunavut Agreement) between the area's Inuit and the Government of Canada.[115] The Nunavut Agreement affirms the government's commitment to support the self-determination and economic, cultural and social development of Inuit in Nunavut.[116] The Nunavut Agreement also established Nunavut Tunngavik Incorporated (NTI) to represent Inuit across the territory and ensure that the promises made under the agreement are carried out.

Nunavut is made of three regions — Qikiqtaaluk, Kivalliq, and Kitikmeot — each with a regional Inuit association and an Inuit-owned regional development corporation. The NTI, regional associations, and regional development corporations actively work with the Government of Nunavut and industry on energy development, in addition to work in other sectors.

The Government of Nunavut implements energy policy in the territory, which involves regular meetings with NTI, the regional development corporations, and hamlets. These meetings are part of the requirements under Article 32 of the Nunavut Agreement, which establishes the right of Inuit to participate in the development of social and cultural policies, though the purview of these meetings is broad and not focused on clean energy policy.[117]

Despite these formal structures, there is not an efficient forum for collectively advancing energy policy reforms. Instead, engagement on clean energy occurs through bilateral working relationships and other informal channels. Given the presence of numerous rights-holders and stakeholders with potentially differing and occasionally competing priorities, this lack of a unified engagement structure makes consensus building difficult. As a result, the pathway to progress is unclear, slowing the pace of overarching reform.

Platforms for collaboration exist, but more capacity support, consensus building and focus on community energy is needed.

[115] Nunavut Tunngavik, "The Nunavut Agreement." https://nlca.tunngavik.com/

[116] Nunavut Tunngavik, *Nunavut's Infrastructure Gap* (2022). https://www.tunngavik.com/files/2020/10/2020.10.20-Nunavuts_Infrastructure_Gap_Report_vf.pdf

[117] Nunavut Tunngavik, "Article 32 Nunavut Social Developmental Council." https://nlca.tunngavik.com/?page_id=2659

Plans and strategies

Nunavut's most recent energy strategy was developed in 2007 and does not set an emissions or diesel reduction target for the territory.[118]

In spring 2025, the government passed the SESP, which creates an overarching framework for policies that shift the province away from diesel and towards renewable energy. It provides a new government subsidy to QEC to support community clean energy projects through higher power purchase agreement rates for clean energy. It also implements review processes to ensure that Government of Nunavut actions and decisions are aligned with sustainable energy considerations and the Government of Nunavut's strategic goals.[119] The umbrella policy signals the desire of the government to align government actors on community-led diesel reduction and could be a first step towards a more comprehensive strategy.

The utility, QEC, does not have a formal diesel reduction or renewable energy strategy but has been given the mandate from government to explore transitioning away from diesel wherever possible.[120]

Promising umbrella policy on renewable energy, but a formal clean energy strategy is yet to be released.

[118] Government of Nunavut, *Ikummatiit: The Government of Nunavut Energy Strategy* (2007). https://climatechangenunavut.ca/sites/default/files/ikummatiit_energy_strategy_english.pdf

[119] Nunavut Department of Energy, *Sustainable Energy Support Policy* (2024). https://www.gov.nu.ca/sites/default/files/policies-legislations/2025-04/Sustainable_Energy_Support_Policy_03__25.pdf

[120] Joelie Kaernek, minister responsible for the QEC, letter to Keith Peterson, September 26, 2023. Available at https://assembly.nu.ca/sites/default/files/2023-11/QEC%20Letter%20of%20Expectation%202023-2024%20-%20ENG.pdf

Community project funding and financing

Funding clean energy projects is a consistent challenge in Nunavut. Maintaining energy affordability and reliability has taken precedence over funding clean energy, the Government of Nunavut currently highly subsidizes the cost of diesel.

Funding for clean energy projects in the territory largely comes from federal programs, though some funding is provided directly to the Government of Nunavut, Inuit organizations like the NTI, and regional Inuit associations to disburse, though this funding is not dedicated to community clean energy and often not available for community projects.

The SESP does allocate some of the territory's budget towards clean energy, though the funding is not directly available for project development, instead it is a subsidy to the utility, QEC, to negotiate higher rates for clean energy, thus the impact is largely seen in the IPP market. The SESP also includes provisions for future programs supporting innovative energy solutions in the territory, but there is no funding to support the capital investments necessary to develop community-scale renewable energy projects.

No dedicated territorial funding for community clean energy projects.

Programs for efficient buildings

The Nunavut Housing Corporation, a public agency of the Government of Nunavut, offers programs for building upgrades, with financial assistance available. These programs include the Home Renovation Program, which offers forgivable loans for renovation work or a grant of 50% of eligible project costs if the homeowner does the work themselves; and the Renewable Energy Homeowner Grant Program, which supports home solar and storage installations.[121]

There are also programs to support small scale generation on buildings. Net Metering Program allows residential customers and one municipal account per community to generate their own electricity from renewable energy systems smaller than 15 kW.[122] The CCS offers the Renewable Energy Cabin Grant, which provides up to $5,000 for small solar installations on off-grid cabins.[123]

While these programs form a solid foundation to incentivize energy efficient upgrades, they are more commonly leveraged by residents in the larger population centres due to high upfront costs.

The Nunavut Housing Corporation has been carrying out a plan to significantly increase housing with new builds and is prioritizing procuring energy efficient materials, but there are no territorial standards for energy efficiency or harmonization with existing programs or funding.[124]

Energy efficiency programs exist but upfront costs limit uptake.

[121] Nunavut Housing Corporation, "Homeownership Support - Suite of Programs." https://www.nunavuthousing.ca/programs/homeownership

[122] Qulliq Energy Corporation, *Net Metering Frequently Asked Questions*. https://www.qec.nu.ca/sites/default/files/2020-07_qec_net_metering_frequently_asked_questions_cw-july2.pdf

[123] Nunavut Climate Change Secretariat, "Renewable Energy Cabin Grant Program Guide." https://climatechangenunavut.ca/en/renewable-energy-cabin-grant-program-guide

[124] Nunavut Housing Corporation, *Igluliuqatigiingniq Today and Tomorrow: Implementing the National Housing Strategy for Nunavut Housing Action Plan 2025-2028*, 25. https://different-basket-89cd87b086.media.strapiapp.com/CMHC_NHC_Action_Plan_CHB_SGBV_1745d6b803.pdf

Independent power producer (IPP) market

Nunavut's IPP policy came into effect in late 2023, with an additional price support measure introduced in 2025.[125] Project proponents argued that the original IPP policy had an unsustainable cost model that constrained project development; the price of clean energy was set at the avoided cost of diesel, which was too low to make renewable projects viable since the diesel fuel was heavily subsidized.

A 2021 study commissioned by QEC outlined a series of recommendations for increasing revenue for renewable energy projects. These included factoring in avoided government subsidies for diesel, raising purchase rates for Inuit-owned projects, and valuing broader economic and social benefits.[126]

The SESP has introduced a top-up subsidy for QEC to enable the utility to provide higher power purchase agreement (PPA) rates for renewable energy than the avoided cost of diesel.[127] The expected price set out under PPAs with the SESP subsidy is expected to be in the range of $0.55 per kilowatt-hour, which is more than double the rate under the initial IPP policy, and the CCS will publish and maintain a cost calculator to assist with setting a baseline fair rate for project negotiations.

QEC is supportive of bringing renewable energy online, but faces challenges related to grid stability. For this reason, the utility has a limit on the amount of renewable energy penetration on each community microgrid and requires project proponents to pay for any system upgrades or storage needed to integrate their project. Even with these constraints, the expected price under the SESP-subsidized IPP policy is unlocking financial viability for many planned projects in the territory.

Clear policy with good incentive for clean energy, new subsidy is a strong step towards creating a successful IPP market.

[125] Qulliq Energy Corporation, *Independent Power Producer Policy* (2023). https://www.qec.nu.ca/sites/default/files/ipp_policy_final_19dec2023_eng_0.pdf

[126] InterGroup Consultants, *Specialized Pricing Strategy for Renewable Energy Suppliers to QEC*, prepared for Qulliq Energy Corporation (2021). https://www.assembly.nu.ca/sites/default/files/2023-05/QEC%20Pricing%20Strategy%20Renewable%20Energy%20-%20Final%20Report7305843009215668480.pdf

[127] Nunavut Department of Environment, *Sustainable Energy Support Policy*. https://www.gov.nu.ca/sites/default/files/policies-legislations/2025-04/Sustainable_Energy_Support_Policy_03__25.pdf

Community outcomes

Renewable energy development in Nunavut requires hamlets, development corporations, and the territorial government to collaborate. Despite the persistent challenges with developing projects in Nunavut, many hamlets have been actively engaged in community energy planning, and several ambitious generation projects are being spearheaded by the regional development corporations, supported by federal funding and negotiating PPAs made possible by the SESP.

In the Qikiqtani region, the Sanikiluaq High Displacement Renewable Energy Demonstration Project will see 1 MW of wind generation coupled with 800 kWh of battery energy storage installed in the hamlet of Sanikiluaq, which is expected to reduce diesel consumption by over 50%.[128] There is also an initiative in Iqaluit to determine the best mix of solar, wind, and energy storage for a more efficient and sustainable electricity system.[129] Both of these are being led by the Nunavut Nukkiksautiit Corporation, a subsidiary of the Qikiqtaaluk Corporation.

In the Kivalliq region, Sakku Investments Corporation is planning a 1 MW solar and battery facility in Naujaat, providing 30% of the community's electricity needs.[130] A similar facility is planned for Coral Harbour.

[128] Government of Canada, "Clean Energy for Rural and Remote Communities funded projects." https://natural-resources.canada.ca/reducingdiesel/clean-energy-for-rural-and-remote-communities-funded-projects/22524

[129] "Clean Energy for Rural and Remote Communities funded projects."

[130] Sakku Investments Corporation, "Renewable energy project to cut Naujaat's diesel dependence by 30 per cent," 2024. https://www.sakkuinvestments.ca/news/renewable-energy-project-to-cut-naujaats-diesel-dependence-by-30-per-cent/

Photo: Green Sun Rising, Rec Complex 10kW, Coral Harbour, NU, 2018

Priorities for action

The introduction of the PPA rate price subsidy in 2025 is expected to play a major role in addressing a key economic barrier preventing projects in the territory from going forward. The subsidy signals government support for investing in renewable energy and should ease negotiations between project proponents and QEC.

However, significant technical and economic challenges remain to achieving high-penetration renewable energy. The limits on renewable penetration are set to maintain grid stability and can be bypassed with advanced microgrid technologies and energy storage options, but the cost is put on the project proponent, affecting project viability.

To address this and other challenges, the territory would benefit from comprehensive, inclusive planning to coordinate energy activities among stakeholders and rights-holders. Renewable energy provides a pathway to community-led economic growth and could lead to other economic opportunities for the territory such as the development of critical minerals mining.

A coordinated energy plan, in addition to creating opportunities, could be used to secure additional federal funding, and create stronger avenues for decarbonization through technologies like long-term battery energy storage and advanced microgrid control systems.

Photo: Green Sun Rising, Kugluktuk, NU, Rec Complex. 2017