NORTHWEST TERRITORIES

# Energy Initiatives Report

Reporting on Actions under the *2030 Energy Strategy*

# Rapport sur les initiatives énergétiques

DES TERRITOIRES DU NORD-OUEST

Rapport sur les mesures prises dans le cadre de la *Stratégie énergétique 2030*

2024-2025

Le présent document contient la traduction française du sommaire et du message de la ministre.

Government of Northwest Territories
Gouvernement des Territoires du Nord-Ouest

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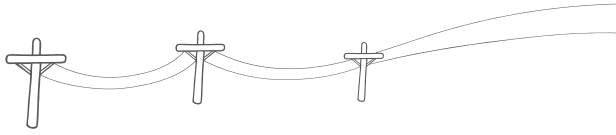


# MINISTER'S MESSAGE

**The Honourable Caroline Wawzonek**
*Minister Responsible for Strategic Infrastructure, Energy, and Supply Chains*
**Madame Caroline Wawzonek,**
*ministre responsable de l'infrastructure stratégique, de l'énergie et des chaînes d'approvisionnement*

The Government of the Northwest Territories (GNWT) continues to support the implementation of the NWT *2030 Energy Strategy* to help NWT communities, and their residents reduce their dependence on fossil fuels and transition towards lower-carbon energy resources that improve the quality of life and economy across all 33 NWT communities.

At the same time, our government seeks to foster energy actions to create a Territory where people are supported in how they want to live, work, and grow. Two key priorities enshrined in the Mandate of the GNWT 2023-2027 for the 20th Legislative Assembly are:

- A strong economic foundation – seeks to leverage federal funding to close the infrastructure gap through investments in green power generation and transmission, transportation, and communications networks.
- Safe residents and communities – supports innovative climate change mitigation and investing in robust and redundant energy infrastructure.

In this regard, in the Fall of 2024, the GNWT committed to achieving net-zero greenhouse gas emissions by 2050. The drivers behind this commitment include doing our part to reduce greenhouse gas emissions and investing in energy systems to improve affordability and energy security. These goals are the rationale for having a new, whole-of-government strategy for energy and climate change. This new strategy will be designed to improve energy affordability and security, support community safety and resilience, and unlock new economic opportunities through the clean energy transition.

The GNWT is committed to building a stronger and more resilient future for the territory and its residents. As we look back on progress related to energy policies, programs and projects that impact the lives of the northerners, this commitment sets the path for more ambitious targets that benefit the North of Canada as a whole.

*The Honourable Caroline Wawzonek*
*Minister of Infrastructure*

# MESSAGE DE LA MINISTRE

Le gouvernement des Territoires du Nord-Ouest (GTNO) continue de soutenir la mise en œuvre de la Stratégie énergétique 2030 afin d'aider les 33 collectivités des Territoires du Nord-Ouest (TNO) et leurs habitants à réduire leur dépendance aux combustibles fossiles et à passer à des ressources énergétiques à faible teneur en carbone qui améliorent la qualité de vie et l'économie.

Par la même occasion, le gouvernement cherche à favoriser les mesures énergétiques afin de créer un territoire où les gens sont soutenus dans la façon dont ils veulent vivre, travailler et grandir. Deux priorités essentielles sont inscrites dans le mandat 2023-2027 du GTNO pour la 20e Assemblée législative :

- Base économique solide : Obtenir un financement du fédéral pour combler le manque d'infrastructures en investissant dans la production et la distribution d'électricité verte, le transport et les réseaux de communication.
- Sécurité des résidents et des collectivités : Soutenir les mesures novatrices d'atténuation du changement climatique et l'investissement dans une infrastructure énergétique robuste et redondante

À cet égard, à l'automne 2024, le GTNO s'est engagé à réduire à zéro les émissions de gaz à effet de serre (GES) d'ici 2050. Les facteurs qui sous-tendent cet engagement comprennent la contribution à la réduction des émissions de GES et l'investissement dans les systèmes énergétiques afin d'améliorer l'accessibilité et la sécurité énergétiques. Ces objectifs justifient la mise en place d'une nouvelle stratégie pangouvernementale axée sur l'énergie et le changement climatique. Elle sera conçue pour améliorer l'accessibilité et la sécurité énergétiques, soutenir la sécurité et la résilience des collectivités et ouvrir de nouvelles possibilités économiques grâce à la transition vers l'énergie propre.

Le GTNO s'est engagé à construire un avenir plus fort et plus résilient pour le territoire et ses habitants; il fait le point sur les progrès réalisés en matière de politiques, de programmes et de projets énergétiques qui ont une incidence sur la vie des gens, et trace la voie vers des cibles plus ambitieuses qui profiteront à l'ensemble du Nord canadien.

*Madame Caroline Wawzonek, ministre responsable de l'infrastructure stratégique, de l'énergie et des chaînes d'approvisionnement*

# LIST OF ACRONYMS AND ABBREVIATIONS

This page lists and spells out the acronyms and abbreviations used throughout the Report.

| | |
|---|---|
| AEA | Arctic Energy Alliance |
| CARF | Capital Asset Retrofit Fund |
| CIRNAC | Crown-Indigenous Relations and Northern Affairs Canada |
| CMIP6 | Coupled Model Intercomparison Project Phase 6 |
| ECC | GNWT Department of Environment and Climate Change |
| EIR | Energy Initiatives Report |
| EV | Electric Vehicle |
| GHG | Greenhouse Gas |
| GJ | Gigajoule |
| GNWT | Government of the Northwest Territories |
| GREP | GNWT Rate Equalization Program |
| ICIP | Investing in Canada Infrastructure Program |
| INF | GNWT Department of Infrastructure |
| kt | kilotonnes |
| kW | kilowatt |
| LCELF | Low Carbon Economy Leadership Fund |
| LED | Light-emitting Diode |
| LNG | Liquefied Natural Gas |
| MOI | Memorandum of Intent |
| MOU | Memorandum of Understanding |
| MW | Megawatt |
| NAKA | Naka Power Utilities (NWT) |
| NTPC | Northwest Territories Power Corporation |
| NWT | Northwest Territories |
| PPA | Power Purchase Agreement |
| REACHE | (Northern) Responsible Energy Approach for Community Heat and Electricity (Program) |
| Strategy | 2030 Energy Strategy |
| TJ | Terajoule |
| TPSP | Territorial Power Support Program |
| ZEV | Zero Emission Vehicle |

# EXECUTIVE SUMMARY

The *2024–2025 Energy Initiatives Report* (EIR) highlights key actions and investments made over the past fiscal year to advance the goals of the *2030 Energy Strategy*, including reducing greenhouse gas (GHG) emissions, stabilizing energy costs, and enhancing energy security across the NWT. Released in 2018, the *2030 Energy Strategy* serves as a roadmap for a secure, affordable, and sustainable energy system in the Northwest Territories (NWT) and aims to achieve a 30% reduction in GHG emissions from 2005 levels by 2030.

## KEY HIGHLIGHTS

- **NWT Net-zero by 2050:** In August 2024, the GNWT adopted Canada's target to reach net-zero emissions by 2050. This aspirational target underscores the Government of the Northwest Territories' (NWT's) commitment to urgent climate change mitigation and to supporting a prosperous and resilient North. These efforts support Canada's commitments and integrates feedback from various stakeholders, including local and Indigenous governments and industry partners.
- **Investments and Outcomes:** In 2024-2025, the GNWT invested $10.4 million in energy initiatives aimed at reducing GHG emissions by 54.7 kilotonnes of $CO_2$ equivalent (kt $CO_2e$) by 2030. These efforts are aligned with the 2022-2025 Energy Action Plan, which prioritizes renewable energy development, energy efficiency, and GHG emissions reductions.
- **GHG Emissions Reductions:** The NWT accumulated a 19.9 kt $CO_2e$ reduction in GHG emissions from 2018- 2023, thanks to a combination of individual, business, and government actions. In 2024-2025, emissions were further reduced by approximately 12.4 kt $CO_2e$.

## STRATEGIC OBJECTIVES:

The report outlines strategic objectives to guide energy initiatives across the NWT:

1. **Work Together:** Enhance collaboration between the GNWT, communities, Indigenous organizations, and the private sector to develop local energy solutions. In 2024-2025, the AEA helped Whatì and Inuvik to develop new community energy plans, where they hired a community energy champion to help with planning activities. The GNWT also participated in engagements organized by the community of Paulatuk to support their plan to transition to clean energy in the first annual Dehcho Regional Energy Planning event.

2. **Reduce Diesel:** Invest in renewable energy projects and infrastructure improvements that contribute to the goal of reducing diesel power generation by 25%. In 2024–2025, the GNWT started developing 11 directions for the Public Utilities Board (PUB) to increase the penetration of renewable power across the NWT.

3. **Transportation:** Reduce transportation emissions by 10% per capita with initiatives such as promoting electric vehicles (EVs) and alternative fuels. As part of the GNWT's commitment to installing a corridor of 19 fast EV chargers from Yellowknife to the Alberta border. Additional fast chargers at five different locations were installed in 2024-2025, with only one remaining to be completed at Buffalo Junction in 2026.

4/5. **Heat & Efficiency:** Increase the use of renewable energy for heating to 40% and improve building energy efficiency by 15% per capita. To advance this objective, the GNWT invested $5.7 million in various energy efficiency and renewable energy programs. This funding includes $2.7 million allocated to the AEA, whose funding is expected to reduce emissions by about 460 tonnes of $CO_2e$ annually. As an achievement, currently, INF is providing 40% of space heating through renewable energy to GNWT buildings.

6. **Long-term Vision:** Advance long-term projects, including the Taltson Hydro Expansion, to provide clean, affordable energy to NWT residents. In 2025-2026, the GNWT will also update the approach to energy with the renewal of the *2030 Energy Strategy*. The GNWT will continue to explore low-carbon pathways through to 2050, with a focus on improving energy efficiency and conservation, reducing reliance on diesel to support energy security, and enhancing the use of renewable energy sources to reduce GHG emissions and contribute to addressing the unprecedented threat posed by climate change.

## LOOKING AHEAD:

The GNWT remains committed to meeting its 2030 climate targets and fostering a pathway toward net-zero emissions by 2050, while advancing partnerships with the federal government, Indigenous governments, and stakeholders. In terms of opportunities, the electrification of transportation has the potential to significantly reduce GHG emissions and to help stabilize electricity costs in the NWT. Additional biomass heating will contribute to reducing GHG emissions in the NWT.

In 2025-2026, the GNWT is developing a whole-of-government strategy to address energy and climate change challenges. Centered on people and communities, the strategy aims to create conditions for businesses, governments, and residents to thrive amid climate pressures and the transition to lower-carbon energy systems. An accompanying roadmap will outline GNWT's goal of net-zero emissions by 2050, focusing on issues such as energy affordability, energy security, economic development, and addressing infrastructure deficits.

In conclusion, the EIR highlights the GNWT's ongoing efforts to transition the NWT to a more sustainable energy system reducing GHG emissions and increasing low carbon energy use, while striving for energy affordability and security for residents and businesses across the territories.

# SOMMAIRE

Le Rapport 2024-2025 sur les initiatives énergétiques met en évidence les actions et les investissements clés réalisés au cours du dernier exercice financier pour faire avancer les buts et les objectifs de réduction des émissions de GES, de lutte contre les changements climatiques, de stabilisation des coûts de l'énergie et de renforcement de la sécurité énergétique dans l'ensemble des TNO, tels qu'ils sont décrits dans la Stratégie énergétique 2030. Publiée en 2018, la Stratégie énergétique 2030 est une feuille de route pour aboutir à un réseau énergétique sécuritaire, abordable et durable aux TNO. Elle vise une réduction de 30 % des émissions de GES d'ici 2030, par rapport au niveau de 2005.

## FAITS SAILLANTS

- **Engagement pris par le GTNO pour atteindre la carboneutralité d'ici 2050 :** En août 2024, le GTNO a adopté l'objectif du Canada d'atteindre la carboneutralité d'ici 2050. Cette cible ambitieuse favorisera les mesures d'atténuation du changement climatique requises de toute urgence et démontrera un engagement ferme à soutenir un Nord prospère et résilient. Les efforts en ce sens intègrent les commentaires des différentes parties prenantes, y compris les gouvernements locaux et autochtones et les partenaires de l'industrie, ainsi que les engagements essentiels pris par le Canada en tant que pays.
- **Investissements et résultats :** En 2024-2025, le GTNO a investi 10,4 millions de dollars dans des initiatives énergétiques visant à réduire les émissions de GES de 54,7 kilotonnes (kt) d'équivalent dioxyde de carbone (éq. CO2) d'ici 2030. Ces efforts s'inscrivent dans le cadre du plan d'action énergétique 2022-2025, qui priorise le développement des sources d'énergie renouvelable, l'efficacité énergétique et la réduction des émissions de GES.
- **Réduction des émissions de GES :** Les TNO ont accumulé une réduction de 19,9 kt d'éq. $CO_2$ des émissions de GES entre 2018 et 2023 grâce à une combinaison de mesures visant les particuliers, les entreprises et les gouvernements. En 2024-2025, les émissions ont encore été réduites d'environ 12,4 kt d'éq. CO2.

## OBJECTIFS STRATÉGIQUES

Le rapport définit des objectifs stratégiques pour orienter les initiatives énergétiques aux TNO :

1. **Travailler ensemble :** Il s'agit d'améliorer la collaboration entre le GTNO, les collectivités, les organisations autochtones et les membres du secteur privé pour mettre au point des solutions énergétiques à l'échelle locale. En 2024-2025, l'Arctic Energy Alliance (AEA) a aidé deux collectivités (voir le tableau à la page 29) à élaborer de nouveaux plans énergétiques communautaires. Elles ont embauché un spécialiste de l'énergie communautaire pour les aider à planifier des activités. En outre, la collectivité de Paulatuk a organisé des échanges publics avec le GTNO pour soutenir son plan de transition vers l'énergie propre dans le cadre du premier événement annuel de planification énergétique régionale du Dehcho.

2. **Réduire la consommation de diesel :** Le GTNO cherche à réduire de 25 % la consommation de diesel servant à la production d'électricité en appuyant des projets d'énergie renouvelable et des améliorations infrastructurelles. En 2024-2025, le GTNO a commencé à élaborer 11 orientations pour la Régie des entreprises de service public afin d'accroître la pénétration de l'énergie renouvelable dans l'ensemble des TNO.

3. **Moderniser le transport :** L'une des priorités consiste à réduire les émissions liées au transport de 10 % par habitant, au moyen d'initiatives telles que la promotion de véhicules électriques et de combustibles de remplacement. Dans le cadre de l'engagement pris par le GTNO d'établir un couloir de 19 bornes de recharge rapide pour véhicules électriques entre Yellowknife et la frontière avec l'Alberta, des bornes de recharge rapides supplémentaires ont été installées à cinq endroits différents en 2024-2025. Il ne reste qu'une borne à installer à Buffalo Junction en 2026.

4/5. **Mettre l'accent sur le chauffage et l'efficacité énergétique :** Il s'agit de porter à 40 % le recours aux sources d'énergie renouvelable pour le chauffage et d'améliorer de 15 % par habitant l'efficacité énergétique des bâtiments. Pour parvenir à cet objectif, le GTNO a investi 5,7 millions de dollars dans divers programmes d'efficacité énergétique et d'énergies renouvelables. Cet investissement comprend 2,7 millions de dollars alloués à l'AEA, dont le financement devrait permettre de réduire les émissions d'environ 460 tonnes d'éq. $CO_2$ par an. À l'heure actuelle, le ministère de l'Infrastructure assure 40 % du chauffage des bâtiments du GTNO par l'entremise de sources d'énergie renouvelable.

6. **Concrétiser l'ambition à long terme :** Le GTNO s'efforce de poursuivre ses projets à long terme, y compris l'agrandissement de la centrale hydroélectrique Taltson, pour fournir une énergie propre et abordable aux Ténois. En 2025-2026, le GTNO actualisera également son approche en matière d'énergie avec le renouvellement de la Stratégie énergétique 2030. Le GTNO continuera d'explorer des voies à faible émission de carbone jusqu'en 2050, en mettant l'accent sur l'amélioration de l'efficacité énergétique et la conservation de l'énergie, la réduction de la dépendance au diesel pour soutenir la sécurité énergétique, et le renforcement de l'utilisation des sources d'énergie renouvelable pour réduire les émissions de GES et contribuer à la lutte contre la menace sans précédent que représente le changement climatique. La lutte contre le changement climatique montre que le gouvernement est déterminé à agir de façon responsable et à renforcer la gérance environnementale dans le Nord.

## REGARD VERS L'AVENIR

Le GTNO reste déterminé à atteindre ses objectifs climatiques pour 2030 et à favoriser une voie vers la carboneutralité d'ici 2050, tout en recherchant activement des partenariats avec le gouvernement fédéral, les gouvernements autochtones et les parties prenantes. En ce qui concerne les possibilités, l'électrification des transports pourrait aider à réduire considérablement les émissions de GES et permettre de stabiliser les coûts de l'électricité aux TNO. Les systèmes de chauffage à la biomasse peuvent également contribuer à réduire les émissions de GES aux TNO.

En 2025-2026, le GTNO travaillera à la mise à jour de la Stratégie énergétique 2030 et à son harmonisation avec sa stratégie sur le changement climatique, afin d'avoir une seule stratégie en matière de changement climatique et d'énergie. L'objectif est d'élaborer une stratégie pangouvernementale d'atténuation du changement climatique et d'adaptation à celui-ci aux TNO, afin de contribuer à l'atteinte de la carboneutralité d'ici 2050, d'avoir un Nord plus résilient et de soutenir l'accessibilité et la sécurité énergétiques.

En conclusion, le Rapport 2024-2025 sur les initiatives énergétiques souligne les efforts en cours fournis par le GTNO pour aboutir à un réseau énergétique plus durable aux TNO, l'accent étant mis sur la réduction des émissions de GES, le recours accru aux sources d'énergie renouvelable et la garantie d'une énergie abordable pour les résidents et les entreprises.

# INTRODUCTION

The Northwest Territories (NWT) is on track to meet its goal of reducing emissions by 30% by 2030. The latest data from 2023 shows that annual emissions were 1,360 kilotonnes of carbon dioxide equivalent (kt of $CO_2e$). This corresponds to an approximately 22% reduction in greenhouse gas (GHG) emissions since 2005.

*The 2024-2025 Energy Initiatives Report (EIR) details actions under the 2030 Energy Strategy (Strategy) summarizing the key energy actions and initiatives undertaken by the GNWT and its partners over the last fiscal year. While many projects directly or indirectly reduce GHG emissions, the Strategy is also committed to stabilizing energy costs and increasing energy security across the NWT.*

## *2030 ENERGY STRATEGY*

Released in 2018, the Strategy sets out the GNWT's long-term approach to supporting secure, affordable, and sustainable energy for transportation, heat, and electricity in the NWT. This includes support for energy efficiency and conservation programs, local renewable and alternative energy solutions, and larger-scale energy projects. The 2024-2025 period marked the seventh year of implementing the Strategy. The Strategy has six Strategic Objectives to reach the 2030 overarching vision:


1. Work together to find solutions: community engagement, participation, and empowerment.
2. Reduce GHG emissions from electricity generation in diesel-powered communities by an average of 25 percent.
3. Reduce GHG emissions from road vehicles by 10 percent per capita.
4. Increase the share of renewable energy used for space heating to 40 percent.
5. Increase residential, commercial, and government building energy efficiency by 15 percent.
6. A longer-term vision: develop the NWT's energy potential, address industrial emissions, and do our part to meet national climate change objectives.

# ORGANIZATIONAL ROLES

The GNWT leads the implementation of the Strategy in conjunction with Northwest Territories Power Corporation (NTPC) and the Arctic Energy Alliance (AEA). All three organizations work with NWT communities, Indigenous governments, Indigenous organizations, and private sector partners on shared objectives that advance the Strategy.

## GOVERNMENT OF THE NORTHWEST TERRITORIES

The GNWT's Energy Division of the Department of Infrastructure (INF) develops energy policy, secures federal funding for energy initiatives, and administers application-based funding programs that support NWT communities, northern businesses, and industry to reduce their energy use and costs.

The Energy Division works with other Infrastructure divisions to support internal energy initiatives, such as the Capital Asset Retrofit Fund (CARF) program, as well as other GNWT departments and agencies to support energy initiatives such as policy development, technical studies, rebate programs, public housing upgrades, and community energy planning.

The Energy Division also works closely with other levels of government, including the federal government, community governments, as well as Indigenous governments and Indigenous organizations, to facilitate engagement, provide advice, partnership opportunities, and funding for energy projects throughout the territory.

## HOUSING NORTHWEST TERRITORIES

As a Crown Corporation, Housing NWT is an integral part of the GNWT. Its mandate focuses on increasing the well-being of individuals and communities by providing fair access to quality housing for people most in need. Its priority is to conduct its business towards a sustainable future that is less dependent on the use of fossil fuels and contributes to the economic, social, and environmental well-being of the NWT and its residents. To achieve this, the Corporation has strategic objectives to reduce the energy use intensity of its portfolio by 15% below 2016 levels, and to increase the use of renewable energy for space heating to 40% by 2030. Its approach is outlined in the *2030 Energy Management Strategy* and the *Energy Blueprint*. Housing NWT's portfolio covers over 2,700 housing units, spanning five regions and 32 NWT communities.

## ARCTIC ENERGY ALLIANCE

The AEA is a non-profit society that, for the last 28 years, has helped NWT residents, businesses, and communities improve their energy efficiency by providing hands-on energy conservation and efficiency programs and services on behalf of the GNWT. Almost entirely funded by the GNWT and operating through six regional offices, the AEA is the GNWT's primary delivery agent for services such as energy audits, household appliance rebates, biomass boilers, and woodstoves funding that increase the use of renewable energy for heating. An overview of AEA's performance in 2024-2025 is included in this report as part of the NWT 2030 strategic objectives results.

## NORTHWEST TERRITORIES POWER CORPORATION

NTPC is a Crown Corporation that owns and operates the NWT's hydroelectric facilities and most of the territory's diesel power plants. Through its capital plan, and in partnership with communities and other utilities, NTPC leads conventional, alternative, and renewable electricity projects to maintain a reliable and affordable electricity system, while working to reduce GHG emissions from diesel-generated electricity.

# 2025 ELECTRICITY POLICY DIRECTION TO THE NWT PUBLIC UTILITIES BOARD

Electricity systems around the world are undergoing major transformations, with a shift toward renewable energy, electrification, self-generation, and grid modernization. The NWT is experiencing these same pressures compounded by its unique challenges, including cold climate, remote communities, lack of economies of scale, and high operating costs.

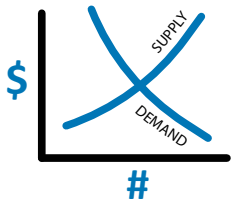
To respond, the GNWT has issued a major policy direction to the Public Utilities Board (PUB), the territorial public utilities regulator, to support renewable energy growth while protecting utilities and ratepayers. This approach aims to balance the financial impacts of self-generation with the opportunities from surplus hydroelectric and renewable energy sales.

Ultimately, the policy direction supports the NWT's transition to low-carbon electricity, helping to address climate change while promoting energy security and affordability for residents across the territories.

To support this strategic direction, the GNWT instructed the PUB to implement 11 key directives:

## 1 Integrated Power Systems Planning (IPSP)

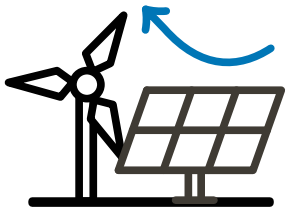
**What this means:** Utilities will work together on long-term plans to modernize the power system and reduce reliance on fossil fuels.




**Why this matters:** These plans will look at future electricity needs, new technologies that work in the North, and how climate change will affect energy use, while keeping power affordable.

## 2 Community Renewable Limits

**What this means:** Diesel (thermal) communities can now get up to 30% of their power from intermittent renewables like wind and solar.



**Why this matters:** Utilities can approve even higher levels if studies show the system can handle it and battery storage is in place. This supports cleaner energy without risking outages.

## 3 Renewable Generation Programs

**What this means:** Anyone generating renewable power and connecting to the grid must join either the Net Metering program or the Independent Power Producer (IPP) program.

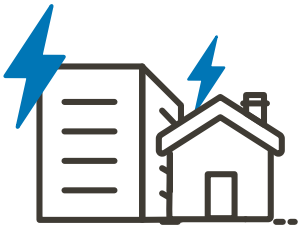
**Why this matters:** It ensures every generator follows the same rules, keeps the grid stable, and makes sure rates are fair for all customers.

## 4 Compensation for Renewable Power

**What this means:** Some renewable power is currently paid at a higher rate than the actual savings it provides to the power system. New rules will make sure payments better reflect real fuel and operating cost savings.

**Why this matters:** The PUB will set new compensation rules based on actual cost savings. Net Metering rates will be the same within each zone, while IPP rates may vary by community.

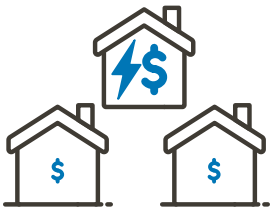
## 5 Net Metering Program Updates



**What this means:** Net Metering will continue as a key option for people who want to install solar or other renewables.

**Why this matters:** Homes will keep the 15 kW limit, and new limits for commercial customers will better match their energy use.

## 6 Independent Power Producers (IPP)



**What this means:** NWT based Indigenous governments, Indigenous organizations,communities, and their subsidiaries will have a clear path to develop renewable energy projects and sell power to the grid.

**Why this matters:** Projects can go beyond normal renewable limits if they include solutions to keep the grid stable and pay for those costs. Payments will match real system savings. Everyone will now have the same clear and fair rules.

## 7 Fixed Charges

**What this means:** Utilities may adjust monthly fixed charges so they better reflect the true costs of running the power system.

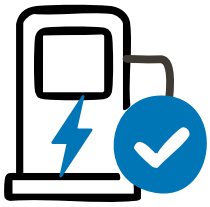
**Why this matters:** Any changes will be gradual and consistent across regions and will still encourage customers to save energy.

## 8 Government Rates

**What this means:** Government electricity rates in diesel communities will no longer vary by individual community.

**Why this matters:** Rates will be standardized by customer type within each zone, with a clear transition plan from the PUB.

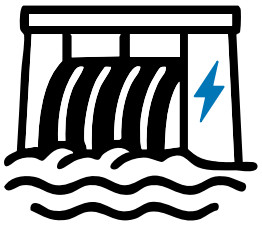
## 9 Electric Vehicle Charging



**What this means:** Utilities can include the cost of building and maintaining EV charging stations in their rates.

**Why this matters:** This ensures EV charging prices are fair, transparent, and backed by evidence, while supporting EV growth in the North.

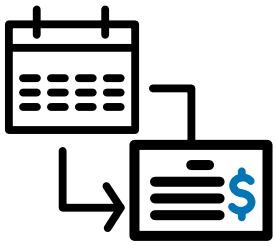
## 10 Hydro Zone Heating Rates



**What this means:** Communities with surplus hydro power should use it to replace fossil fuels for heating and other needs.

**Why this matters:** Utilities will plan for this and create stable, incentive-based electricity rates that encourage people to switch from oil or propane to cleaner electric heating.

## 11 Fuel and Water Stabilization Funds



**What this means:** Separate funds will be created for diesel and hydro zones to help manage unexpected fuel price changes or low-water conditions.

**Why this matters:** Each fund will have limits, clear rules on how money can be used, and annual public reporting.

You can read the full PUB Directives at:
www.inf.gov.nt.ca/en/services/energy/energy-policy-directions

# PROGRESS TOWARDS NWT 2030 CLIMATE TARGET

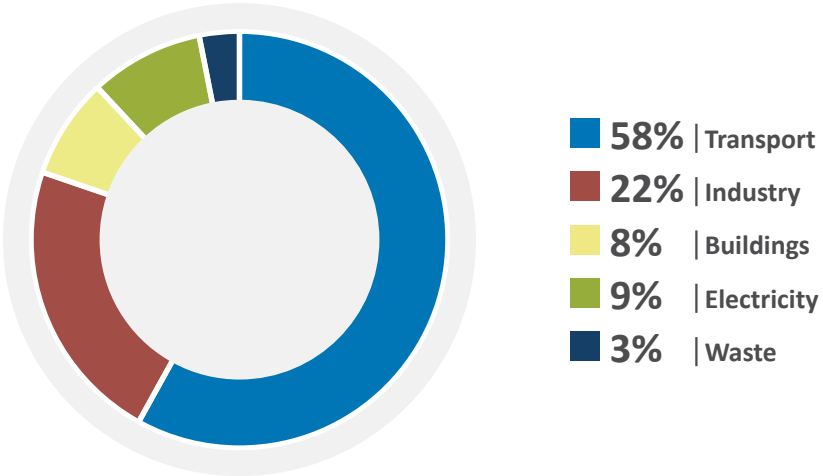
The NWT is dedicated to reducing GHG emissions by 30% below 2005 levels by the year 2030, translating to an absolute target of 1,094 kt of $CO_2e$. This section presents a comprehensive overview of GHG emissions and sector-specific trends, tracks progress towards the 2030 target and provides a detailed breakdown of anticipated direct GHG emission reductions from key programs and initiatives. The most recent emissions data available is from 2023.

## GREENHOUSE GAS EMISSIONS IN 2023

The NWT's overall annual emissions were 1,360 kt of $CO_2e$. Transportation, building heating and power, and industrial activities use fossil fuels that result in the majority of GHG emissions in the NWT.

Historically, the transportation sector has dominated NWT's GHG emissions, and 2023 continued this trend. Driven primarily by industrial activities, transportation contributed 58% of the territory's emissions. The industrial sector followed, with on-site energy use responsible for 22% of NWT's GHG emissions. Buildings, electricity, and waste are respectively responsible for 8%, 9%, and 3% of overall territorial emissions (Figure 1).

**Figure 1. NWT Greenhouse Gas Emissions by Sector in 2023**

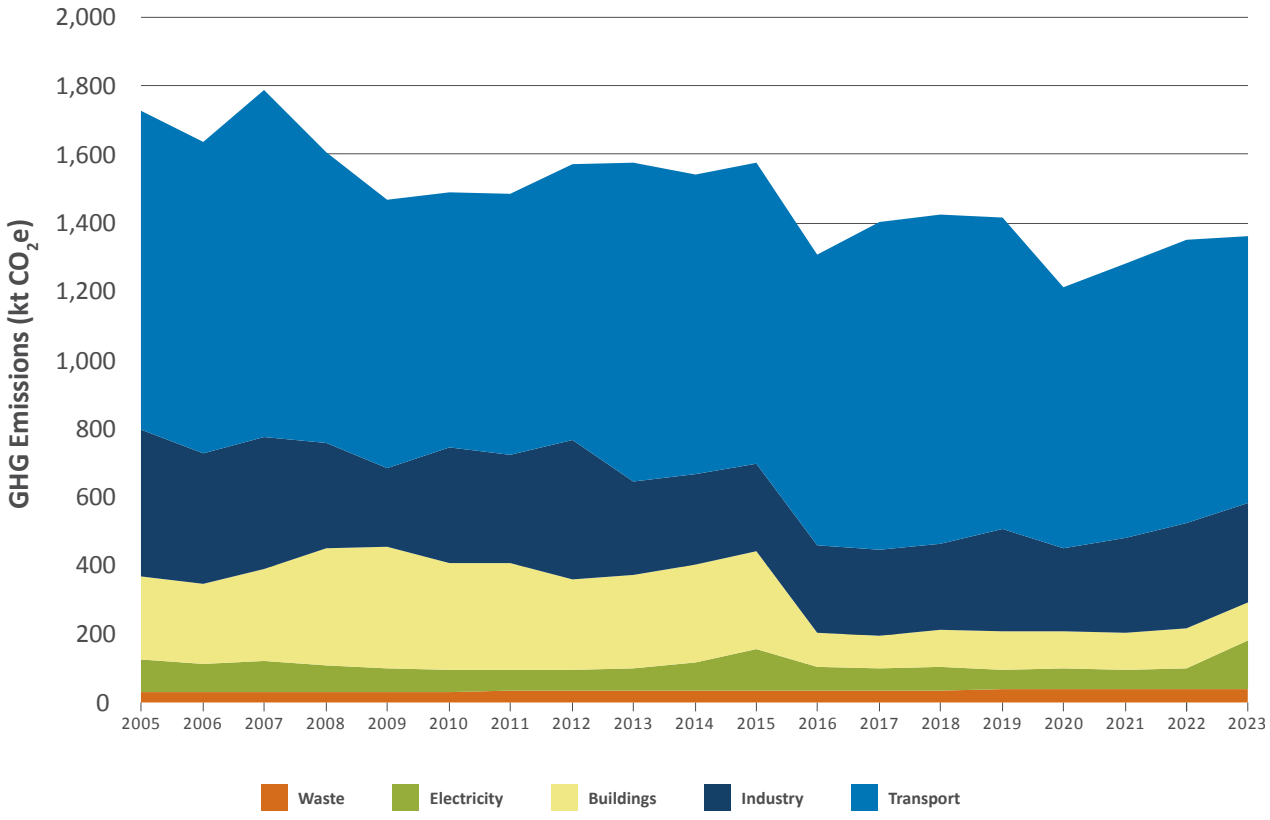



***Source:*** *Environment and Climate Change Canada*
***Note:*** *When accounting for transportation emissions occurring at mine sites, industrial emissions represent 37% of NWT GHG emissions, and transportation emissions are reduced to 46%.*

# HISTORICAL GREENHOUSE GAS EMISSIONS

Territorial emissions fluctuate each year due to economic activity and climate conditions, both of which affect the total demand for fossil fuels. Figure 2 depicts the overall decline in NWT emissions since 2005. Notably, in 2023, the NWT emitted approximately 22% fewer GHGs compared to 2005, which serves as the baseline for the 2030 territorial target. Territorial emissions increased by 0.6% between 2022 and 2023, with an increase in electricity emissions being one main contributor. This is explained by a decreased availability of hydropower, due to the low-water levels in the North Slave hydropower systems and the refurbishment of the Taltson hydropower facility in the South Slave, requiring NTPC to rely on diesel generators.

**Figure 2. NWT Greenhouse Gas Emissions between 2005 and 2023**




***Source:*** *Environment and Climate Change Canada, NTPC, NAKA*
***Note:*** *Emissions from agriculture are close to zero.*

## BREAKING DOWN EMISSIONS REDUCTIONS FROM NWT ENERGY INITIATIVES

Over the next several years, the GNWT and its partners will continue to make significant investments to improve the reliability of the NWT's energy system, stabilize energy costs, and reduce GHG emissions. Table 1 forecasts GHG emissions reductions expected from various energy initiatives and projects conducted by the GNWT and its partners through to 2028. This table does not include an estimate of the emission reductions resulting from the NWT Carbon Tax which now only applies to large emitters like mines.

Activities planned and funded under the 2022-2025 Energy Action Plan are anticipated to reduce 54.6 kilotonnes of emissions in 2030. Annual GHG emissions reduction estimates are expected to continually increase through to 2030 as new initiatives are launched and as residents and businesses improve energy efficiency and shift to low-carbon technologies, such as electric vehicles and biomass heating.

**Table 1. Emissions reductions from projects and initiatives under the *2030 Energy Strategy* (in kt $CO_2e$)**

| STRATEGIC OBJECTIVE | ENERGY INITIATIVE | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Actual* | *Actual* | *Actual* | *Actual* | *Actual* | *Actual* | *Forecast* | *Forecast* | *Forecast* | *Forecast* | *Forecast* | *Forecast* | *Forecast* |
| 1 | Community Projects: heating | - | - | - | - | - | - | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| 1 | Renewable Energy Community Projects and Net-metering Program | 0.2 | 0.5 | 0.8 | 0.8 | 0.7 | 0.9 | 2.3 | 2.5 | 2.6 | 2.7 | 2.9 | 2.8 | 2.9 |
| 2 | Diesel Plant Replacement | - | - | - | - | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 2 | Inuvik Wind | - | - | - | - | - | 1.5 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| 2 | Transmission lines | - | - | - | - | - | - | - | - | 3.0 | 3.0 | 4.4 | 4.4 | 4.4 |
| 2 | Liquefied Natural Gas Projects | - | - | - | - | - | - | - | - | - | - | 1.8 | 1.8 | 1.8 |
| 3 | Electrification of Transportation (including AEA's EV Rebates) | - | - | - | - | 0.1 | 0.2 | 0.3 | 0.5 | 0.7 | 1.0 | 1.3 | 1.7 | 2.1 |
| 3 | Marine Vessels Upgrade | - | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 4and5 | GHG Grant Program | - | - | 0.1 | 0.6 | 1.2 | 2.2 | 5.4 | 5.4 | 6.6 | 7.7 | 8.8 | 9.9 | 9.9 |
| 4and5 | AEA Programs (Excludes EV Rebates) | 0.6 | 2.0 | 3.3 | 4.3 | 5.2 | 6.7 | 7.8 | 8.9 | 10.0 | 11.1 | 12.2 | 13.1 | 13.1 |
| 4and5 | Capital Asset Retrofit Fund | 3.0 | 4.6 | 6.6 | 5.9 | 5.5 | 6.6 | 7.7 | 8.7 | 9.8 | 10.9 | 12.0 | 10.5 | 11.6 |
| 4and5 | NWT Housing Corp | - | - | - | 0.3 | 0.6 | 0.6 | 0.9 | 1.2 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| 6 | Hydro Upgrades | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 6 | Taltson Hydro Expansion | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | **Total (kt $CO_2e$):** | **3.9** | **7.5** | **11.2** | **12.2** | **13.7** | **16.9** | **27.5** | **30.1** | **37.3** | **41.4** | **48.8** | **53.0** | **54.6** |
| | *Fuel Savings Equivalent (M of L)* | 1.4 | 2.7 | 4.1 | 4.4 | 5.0 | 6.1 | 10.0 | 10.9 | 13.5 | 15.0 | 17.7 | 19.2 | 19.8 |
| | *Millions Saved (@$1.50/L)* | 2.1 | 4.1 | 6.1 | 6.6 | 7.4 | 9.2 | 15.0 | 16.4 | 20.3 | 22.6 | 26.6 | 28.8 | 29.7 |

**Note:** *Emissions reductions are cumulative (they capture reductions from previous years) and calculated above 2018 levels, the year the Strategy was launched.*

# NWT ENERGY SNAPSHOT

## NWT Energy Supply and Demand

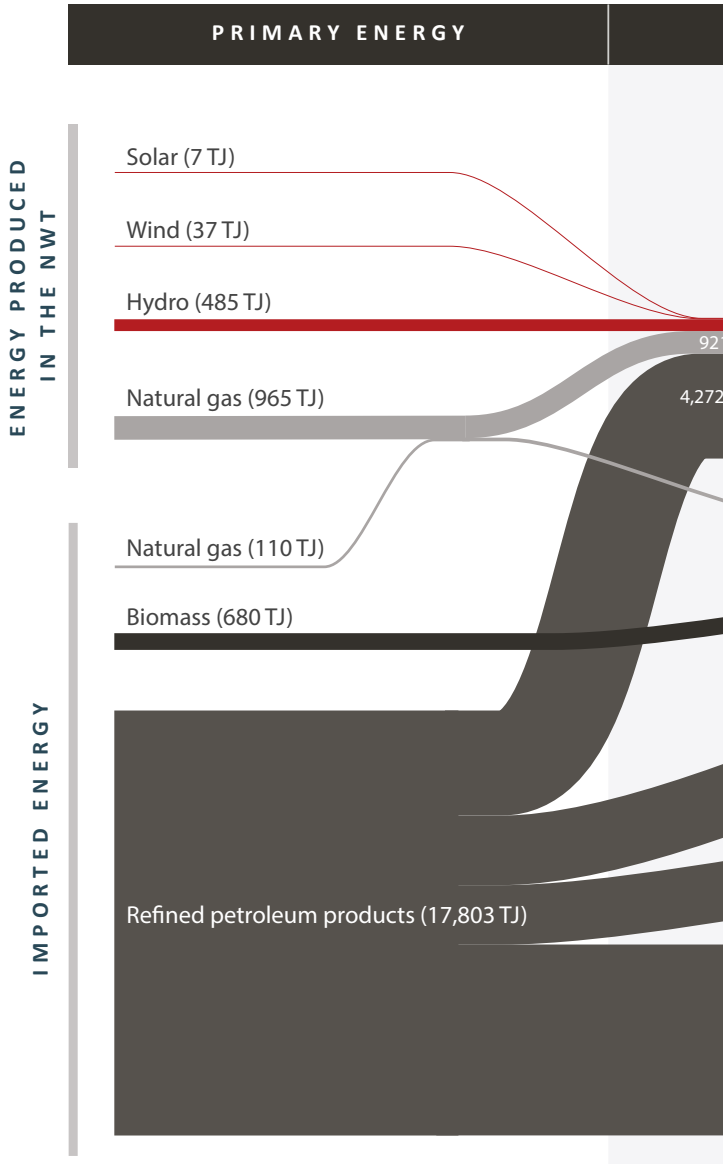
In 2023, the latest year for which data is available for this data source, the NWT's primary energy supply amounted to 20,088 TJ. This represents the equivalent of approximately 500 million liters of diesel fuel. Fossil fuels were the main source of energy, accounting for 97% of the overall territorial energy supply.

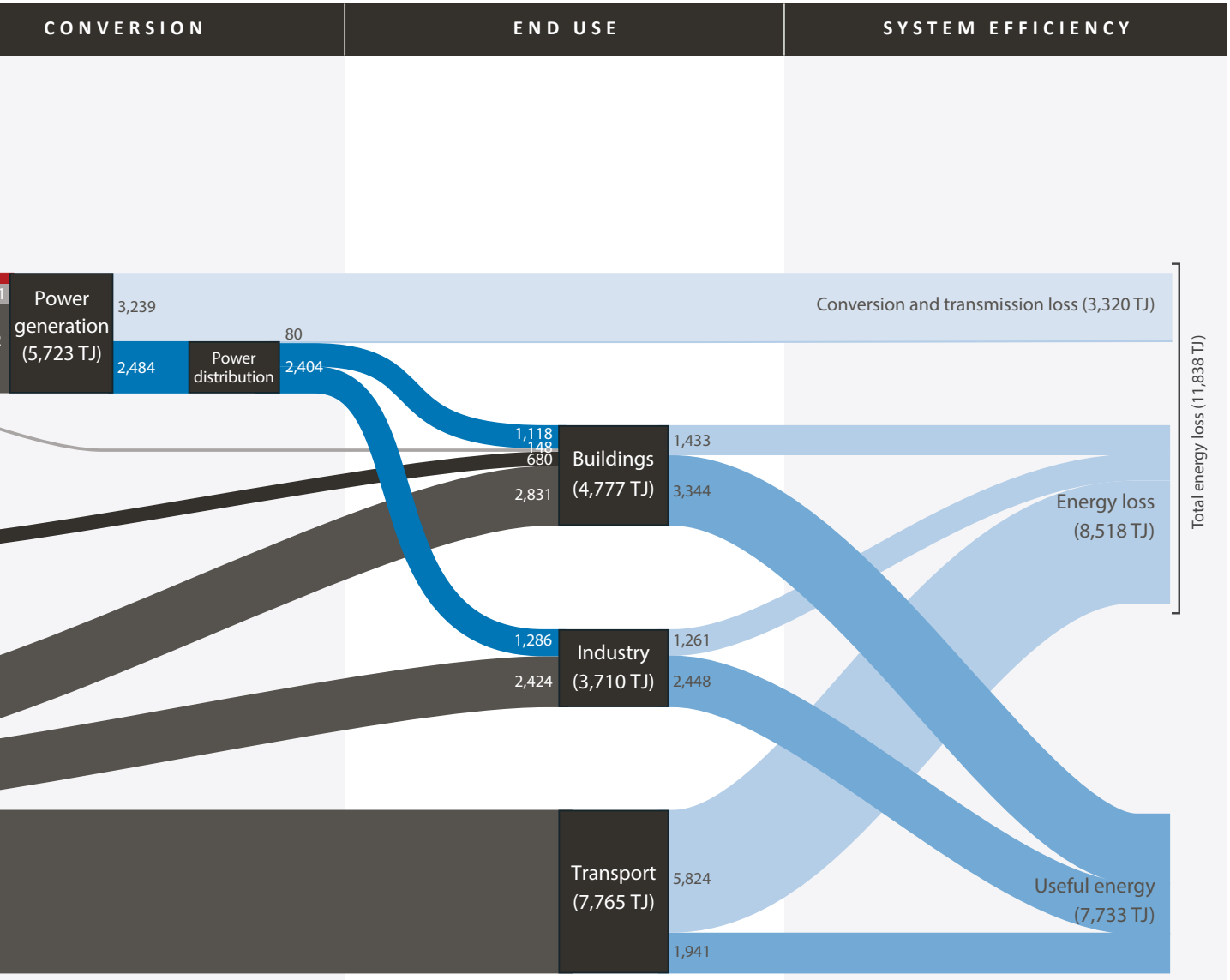
The diagram to the right shows the flow of primary energy sources to deliver heating and lighting, and to move people and goods. The width of each line shows the amount of energy used. The left side of this diagram highlights the difference between local (top) and imported (bottom) energy in the NWT. Meanwhile, the right side (under System Efficiency) depicts where energy is most efficiently used (buildings and industry) and sectors relying on less efficient technologies (fossil fuels-based power generation and transportation).

Transportation accounts for most of the energy used, with industry driving a large share of the demand Refined petroleum products, such as gasoline and diesel, are the industry's primary source of energy. Buildings primarily use a mix of electricity and petroleum products like heating oil and propane, with biomass becoming an emerging alternative for heating. For the fiscal year 2024- 2025, the GNWT played an important role by supplying 34.6 million litres of fuel to the public in 16 communities and to NTPC in 20 NWT communities. This was particularly relevant given the context of low water levels affecting electricity generation.

The diagram also shows on the right that there is a significant amount of energy loss in every sector, particularly in Transport. This results in economic cost on households and businesses that could be improved by using more efficient and less carbon-intensive technologies.

**Figure 4. Energy flows in the NWT in 2023 (in terajoules)**





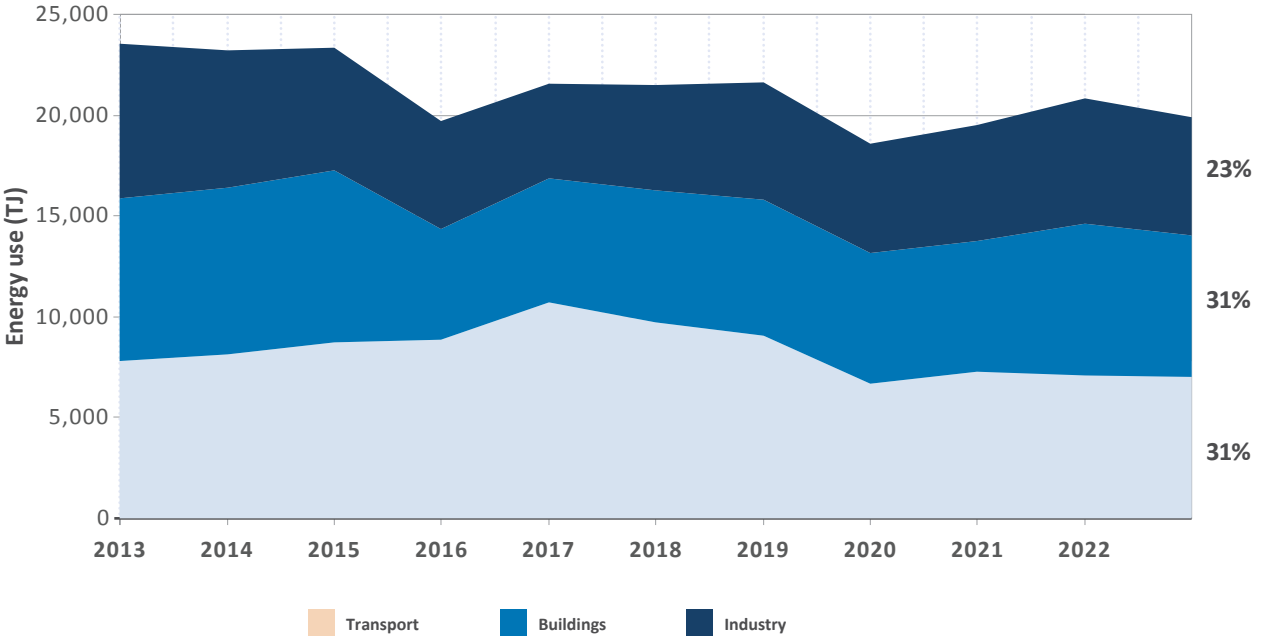

**Source:** *Statistics Canada, GNWT, NTPC, NAKA*

**Notes:** *Imported natural gas corresponds to liquified natural gas imported for Inuvik's power plant. Energy loss from the end use is estimated using the average conversion efficiency of technologies for a given sector in North America. Biomass fuel use was estimated by the GNWT and this is currently being reviewed.*

# PRIMARY ENERGY DEMAND

Figure 4 shows NWT primary energy use for each sector between 2013 and 2023. The NWT's energy demand decreased by 5% between 2022 and 2023, primarily due to a decrease in energy requirements for industry (-7%), buildings (-1%), and transport (-7%).

**Figure 4. Primary energy demand by sector between 2013 and 2023**



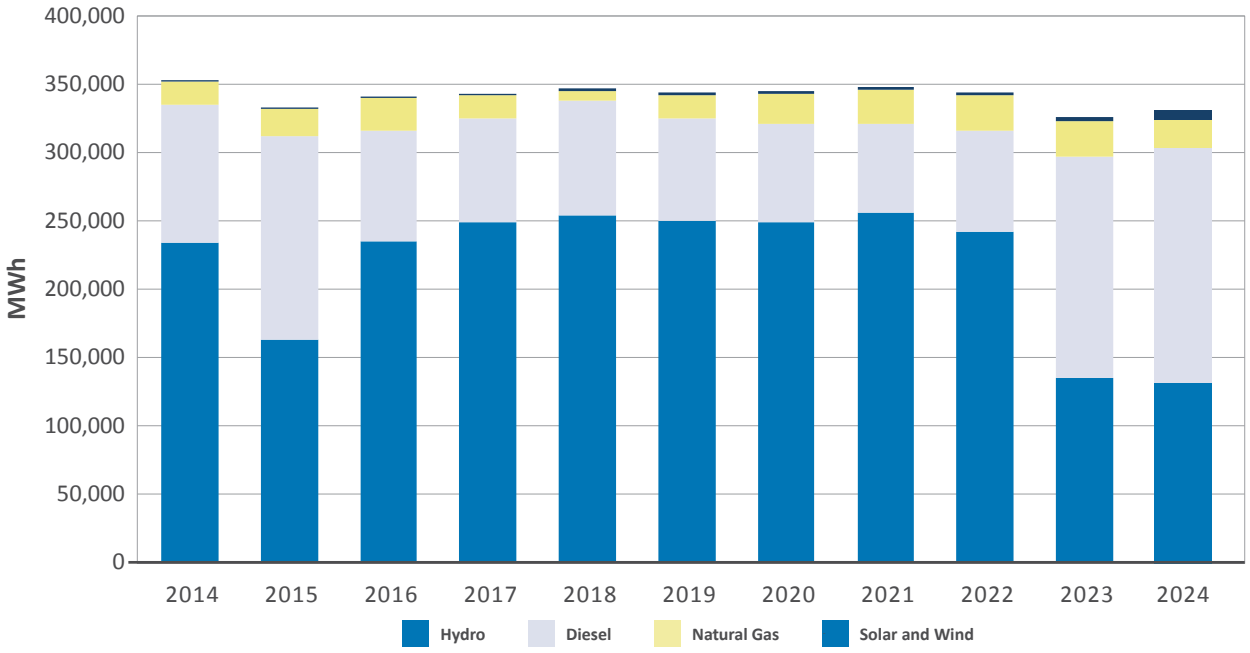

***Sources:*** *Statistics Canada, GNWT*

***Note:*** *Buildings' energy demand includes power and biomass consumption. Industry's energy demand includes energy used in the agricultural sector.*

The NWT faces unique challenges in generating and managing electricity due to isolation from the North American electricity grid. Figure 5 illustrates the breakdown of energy sources used for electricity generation in NWT communities from 2014 to 2024. In 2024, communities used a total of 332,512 megawatt-hours, which is approximately 2% higher than in 2023.

The increase in diesel generation reflects reduced hydropower availability in 2023 and 2024 due to low water levels and the refurbishment of the Taltson hydropower facility. Similar increases have occurred during previous periods of low water levels, such as in 2014 and 2015.

**Figure 5. Community power generation by type between 2014 and 2024**




***Sources:*** *NTPC, NAKA*

***Note:*** *While utilities provide most NWT communities with electricity, industrial sites in the territory—such as mines— generate their own electricity on-site, primarily from diesel generators. Power generation from industry is excluded from this chart, except for electricity sold by Imperial Oil to NTPC in Norman Wells.*

Communities not connected to one of the NWT's two hydroelectricity grids rely on diesel and natural gas for their electricity needs. In 2024, due to low water flows in the Snare system and refurbishment work at the Taltson generating facility, diesel generation was increased to compensate for reduced hydroelectric output, which provided only 39% of the electricity needs. As a result, fossil fuels led electricity generation in 2024, with diesel contributing 52% and natural gas 6%. Community-scale solar and wind power contributed 2% to the total generation mix, which was an increase from previous years. Notably, in 2023, wind power began contributing to the energy mix for the first time with the Inuvik wind project starting operations. Wind generation contributed to renewables by 5,603 MWh, whereas solar contributed 2,156 MWh, which equates to approximately 2.34 million liters of displaced diesel.

# ENERGY TRANSITION INVESTMENTS

The GNWT and its partners, including the federal government, NTPC, Naka Power Utilities (NWT) (NAKA), and AEA, as well as residents, communities, businesses, and industry, are making significant investments to implement the Strategy. Between 2018 and 2025, the GNWT invested $206.8 million to advance the objectives of the Strategy. This figure does not account for subsidies and capital investments provided by the GNWT to help stabilize the cost of energy (see box below).

## STABILIZING THE COST OF ENERGY

In addition to the energy transition investments outlined in this report, the GNWT also provides ongoing program, and one-time funding support to help stabilize the cost of energy and support low-income households. In 2024-2025 ongoing GNWT funding amounted to $18 million. This included the following program subsidies:

**The Territorial Power Support Program (TPSP)**
This program offers a subsidy on power costs to reduce the financial burden on residents outside of Yellowknife. This subsidy totaled $8.8 million in 2024-2025.

**The GNWT Rate Equalization Program (GREP)**
This program is designed to equalize power rates across the territory by providing financial support to offset higher electricity rates in NAKA communities as compared to NTPC communities. This subsidy totaled $0.15 million in 2024-2025.

**Senior Home Heating Subsidy**
This subsidy is designed to provide financial aid to eligible clients for home heating. This subsidy totaled approximately $2.1 million in 2024-2025.

**Government Electricity Rates**
Governments in NTPC communities can pay as much as 20% higher electricity rates to reduce rates for other clients. This subsidy totaled approximately $6.9 million in 2024-2025.

In addition to the ongoing subsidies, the GNWT provides one-time capital and fuel cost subsidies. **Recent subsidies include**:

- Under the NWT's allocation from the federal Investing in Canada Infrastructure Program, the GNWT has allocated up to $250.5 million to NTPC through to 2030 to help offset the cost of major infrastructure upgrades and mitigate rate increases.
- The GNWT also provided on-time support of $38 million to offset the Inuvik Wind project capital costs increases.
- In addition, in 2024-2025 the GNWT announced a four-year subsidy program worth $48 million to the NTPC between 2025 and 2028. This support is designed to limit rising electricity rates exacerbated driven by inflation, energy price volatility, as well as higher project costs overrun on certain project.

In 2024-2025, the GNWT invested $10.4 million to support energy projects and initiatives across the NWT. This represents a 67.2% reduction in budget when compared to the previous fiscal year ($31.7 million), due to sunsetting in federal program funding and GNWT fiscal restraint actions.

Table 2 provides a breakdown of energy-related investments made by Strategic Objective since the fiscal year 2018-2019 until 2024-2025.

**Table 2. GNWT Energy-Related Investments by Strategic Objective**

| STRATEGIC OBJECTIVE | 2018-2019 | 2019-2020 | 2020-2021 | 2021-2022 | 2022-2023 | 2023-2024 | 2024-2025 |
|---|---|---|---|---|---|---|---|
| 1. Working Together | N/A | $103,000 | $807,000 | $585,000 | $422,000 | $664,000 | $681,000 |
| 2. Electricity | | $12,444,000 | $21,480,000 | $36,287,000 | $11,188,000 | $8,419,000 | $2,230,000 |
| 3. Transportation | | $421,000 | $530,000 | $823,000 | $872,000 | $1,911,000 | $1,109,000 |
| 4 and 5. Energy Efficiency and Space Heating | | $9,379,000 | $10,368,000 | $12,480,000 | $11,619,000 | $18,738,000 | $5,739,000 |
| 6. Long Term Vision | | $3,492,000 | $4,872,000 | $2,716,000 | $2,817,000 | $1,985,000 | $693,000 |
| **Total** | **$21,000,000** | **$25,837,000** | **$38,007,000** | **$52,891,000** | **$26,917,000** | **$31,718,000** | **$10,452,000** |

**Note:** *Breakdown for investments made in 2018-2019 is not available. Figures may not add up due to rounding.*

Table 3 provides a breakdown of $10.4 million in energy-related investments by funding stream that the GNWT made during 2024-2025.

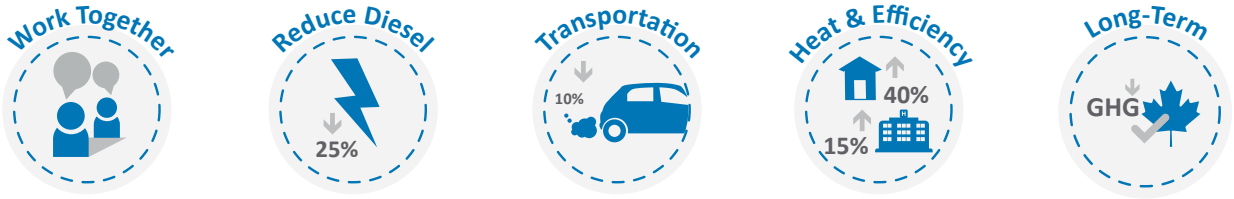
**Table 3. GNWT Energy-Related Investments by Funding Stream**

| FUNDING STREAM | 2018-2019 | 2019-2020 | 2020-2021 | 2021-2022 | 2022-2023 | 2023-2024 | 2024-2025 |
|---|---|---|---|---|---|---|---|
| GHG Grant Programs | N/A | $159,000 | $331,000 | $1,369,000 | $2,000,000 | $6,376,000 | 0 |
| Arctic Energy Alliance (core funding and LCELF funding) | | $4,990,000 | $5,191,000 | $4,117,000 | $4,240,000 | $7,089,000 | $2,796,000 |
| Federal Low Carbon Economy Leadership Fund Portfolios (excluding AEA supplement) | | $449,000 | $1,239,000 | $2,923,000 | $206,000 | $400,000 | 0 |
| Federal Investing in Canada Infrastructure Program Projects | | $11,814,000 | $20,469,000 | $34,556,000 | - | $8,110,000 | $98,000 |
| Crown-Indigenous Relations and Northern Affairs Canada (Taltson Expansion) | | $2,288,000 | $3,995,000 | $2,228,000 | $2,300,000 | $1,384,000 | $1,390,438 |
| Energy Core Funding | | $843,000 | $1,146,000 | $1,982,000 | $1,750,000 | $3,004,000 | $1,008,228 |
| Capital Asset Retrofit Fund | | $3,800,000 | $3,800,000 | $3,800,000 | $3,800,000 | $3,800,000 | $2,332,110 |
| Salaries and Administrative Expenses | | $1,494,000 | $1,836,000 | $1,916,000 | $1,900,000 | $1,555,000 | $2,096,523 |
| Zero Emission Vehicle Infrastructure Program (ZEVIP) | | - | - | - | - | - | $360,000 |
| REACHE funding to AEA | | $1,494,000 | $1,836,000 | $1,916,000 | $1,900,000 | $1,555,000 | $371,000 |
| **Total** | **$21,000,000** | **$25,837,000** | **$38,007,000** | **$52,891,000** | **$26,917,000** | **$31,718,000** | **$10,452.00** |

***Note:*** *Breakdown for investments made in 2018-2019 is not available. Figures may not add up due to rounding.*

Funding from Housing NWT, INF, and Communities Canada (HICC), formerly called Infrastructure Canada, is provided through a 10-year agreement signed between HICC and the GNWT in 2018. In total, $334 million of federal-territorial funding is available (from 2018 to 2032) to support projects that reduce reliance on diesel fuel and reduce GHG emissions. Investments in the NWT's electricity system will also help improve system reliability and stabilize electricity costs.

# SIX STRATEGIC OBJECTIVES




The *NWT Energy Strategy* has six strategic objectives to reach the overarching vision for 2030. The strategic objectives guide actions and initiatives undertaken by the GNWT and its partners. This section of the report summarizes the actions and results achieved under each strategic objective in 2024-2025.


## STRATEGIC OBJECTIVE 1 – WORK TOGETHER

### *WORK TOGETHER TO FIND SOLUTIONS: COMMUNITY ENGAGEMENT, PARTICIPATION, AND EMPOWERMENT*

*By improving communication and increasing support, the GNWT is working to ensure communities can partner in developing solutions, undertake projects independently, and stay updated on local initiatives. This section showcases some projects and initiatives the GNWT is actively contributing to.*

### COMMUNITY PROJECTS

The GNWT recognizes that community and Indigenous governments are increasingly interested in being directly involved in local energy planning and projects. The GNWT works directly with community and Indigenous governments, or through the AEA's community energy planning programs, to help them identify and implement energy projects. For instance, in Spring 2024, the GNWT attended an engagement organized by the community of Paulatuk to support their plan to transition to clean energy. In Summer 2024, the GNWT participated in the 1st Annual Dehcho Regional Energy Planning Event to foster collaboration and support community energy planning with relevant energy data. This is an effort to create a regional energy plan, based on individual communities' energy profiles and concerns, and with the objective of empowering the participating Indigenous governments.

Additionally, the GNWT continued to recognize communities that take meaningful steps towards energy efficiency and lower-carbon energy by funding NWTAC's Energy Excellence Award, a $5,000 prize. In March 2025, this award went to the community of Fort McPherson.

## COMMUNITY ENERGY PLANNING

Community energy planning is about identifying local solutions to challenges around energy use (the types of energy that are used to heat and power a community) as well as energy conservation and efficiency, and finding ways to implement them Community energy planning also aims to build local capacity and energy literacy, while adhering to local values.

The GNWT encourages communities to develop and implement energy plans. To do this, a community can apply to the AEA's community energy planning program or work independently with a consultant. In 2024-2205, AEA is helping two communities (see table to the right) to develop new community energy plans, where they hired a community energy champion to help with planning activities. These champions are key to the success of the project because, apart from guiding the community engagement process, they ensure the project is grounded in the community's traditions and that local governance and protocols are respected. In addition, the AEA helped another community by guiding their Wind Energy Working Group and helped them with a funding application for their proposed wind energy project.

| COMMUNITY | YEAR |
|---|---|
| Community Government of Whatì | 2025 |
| Town of Inuvik | 2025 |
| Hamlet of Ulukhaktok - funding application | 2024 |

Currently, the Community Government of Whatì is in the planning stages and the process is expected to be completed next year. The Town of Inuvik completed a draft community energy plan, which is expected to be formally adopted next year.

Additional information on community energy planning can be found on the AEA website. Resources include a guide to energy planning, existing community energy plans, and energy profiles for each NWT community.

## GHG GRANT PROGRAM

The Greenhouse Gas Grant program, funded by the GNWT and Environment and Climate Change Canada, aimed to reduce GHG emissions in the Northwest Territories. Designed for NWT governments, organizations, and businesses, the program supported projects like biomass boilers, biomass district heating systems, renewable electricity, and transportation initiatives like electric vehicle charging infrastructure. Federal funding has sunsetted, and the program ended in 2024. However, construction of previously approved projects continued during 2025.

## INDEPENDENT POWER PRODUCERS

As part of the Strategy, the GNWT established a participation model to allow NWT residents, communities, and Indigenous governments to participate in the supply of renewable electricity to the grid. As part of the participation model, communities and Indigenous governments can pursue larger renewable generation projects to sell power to utilities as Independent Power Producers (IPP) by negotiating a Power Purchase Agreement (PPA).

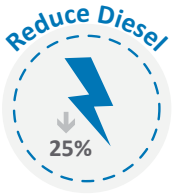
The participation model is being replaced by GNWT policy direction to the NWT Public Utilities Board, which includes enhancements to the net metering program and the introduction of a formal IPP policy (see "2025 Electricity Policy Direction to the NWT Public Utilities Board" section on page 14).

To date, four PPAs have been signed in the NWT, all with NTPC. These PPAs are listed in Table 4 below.

**Table 4. Power Purchase Agreements signed with utilities in the NWT**

| LOCATION | PROPONENT | PROJECT TYPE | INSTALLED CAPACITY (kW) | YEAR PPA WAS SIGNED | YEAR PROJECT CONNECTED TO NTPC GRID | ESTIMATED ANNUAL GHG DISPLACEMENT (t $CO_2e$) ** |
|---|---|---|---|---|---|---|
| Łutselk'e | Łutselk'e Dene First Nation | Solar | 36 | 2015 | 2016 | 50 |
| Aklavik | Nihtat Energy Ltd. | Solar | 150 | 2020 | 2025* | 168 |
| Tulita | Tulita Forest Products Ltd. | Solar | 45 | 2021 | 2023 | 57 |
| Inuvik | Nihtat Energy Ltd. | Solar | 1,000 | 2022 | 2024 | 1,189 |

** Tentative* *** Estimate based on the carbon emissions intensity of local electricity grid*




# STRATEGIC OBJECTIVE 2 – REDUCE DIESEL

*REDUCE GHG EMISSIONS FROM ELECTRICITY GENERATION IN DIESEL COMMUNITIES BY 25%*

## TRANSMISSION LINES

### FORT PROVIDENCE AND KAKISA TRANSMISSION LINE

The GNWT is permitted to construct a 170km transmission line from Hay River to Fort Providence, Kakisa, and Dory Point. These communities are accessible by road and relatively close to the existing Taltson hydroelectric system. This project will reduce diesel fuel consumption for power generation by approximately one million litres and reduce GHG emissions by 3,000 tonnes of $CO_2e$ per year. Replacing diesel electricity with hydroelectricity will help stabilize the cost of power in these communities going forward.

The GNWT submitted the Land Use Permit application to the Mackenzie Valley Land and Water Board in the fall of 2023 and received a Land Use Permit in December 2023. The GNWT is permitted to build the transmission line within existing highway corridors to minimize disturbances and impacts.

In 2021, 75% of the funding had been secured for the project under the Investing in Canada Infrastructure Program (ICIP). GWNT funds the remaining 25%). In 2024, the GNWT sought additional ICIP funding, with a decision from the Government of Canada anticipated in 2025–2026.

The electricity distribution within the communities of Fort Providence, Kakisa, and Dory Point will continue to be provided by the existing local utility. The hydroelectricity will be provided by NTPC to the local utility, NAKA, for sale in the community. The Fort Providence diesel power plant will remain in place to serve as back-up power generation in the event of a power outage on the new transmission line. The utility providers will need to collaborate to complete an acceptable design.

Construction of the proposed transmission line is planned to begin in fall 2026.

### WHATÌ TRANSMISSION LINE

This proposed project involves the construction of a 55km transmission line to connect Whatì to the North Slave hydroelectric system. The hydro line extension has the potential to annually save 500,000 litres of diesel, reduce GHG emissions by 1,400 tonnes and reduce operating costs by $600,000.

The project is located almost entirely on Tłı̨chǫ lands and is supported by the Tłı̨chǫ Government. In 2021-2022, the GNWT and Tłı̨chǫ Government initiated discussions and committed to working in partnership to advance the project. In 2022-2023, updates to previous technical studies were completed to identify an acceptable routing corridor for the project. In 2023-2024, the GNWT and Tłı̨chǫ Government continued collaboration to identify and initiate additional technical and environmental studies. In 2024–2025, the GNWT applied for planning dollars through the ICIP. Transmission design work is anticipated to commence in 2025-2026.

## DIESEL PLANT REPLACEMENTS AND EFFICIENCY IMPROVEMENTS

### FORT SIMPSON PLANT RELOCATION AND LNG PROJECT

In 2021-2022, the GNWT completed a climate adaptation study that recommended the existing diesel power plant be relocated due to flooding risks. In 2022-2023, NTPC estimated the scope of work and capital cost to relocate the existing diesel power plant alongside the Fort Simpson LNG project. The Fort Simpson LNG project is estimated to begin construction in April 2027 and be completed by March 2028.

Using a more efficient and lower emissions energy source is expected to result in an 85% reduction in diesel use, avoiding 1,800 tonnes of GHGs per year, or a 27% reduction.

## LOOKING AHEAD

### HYDROGEN STUDY

The GNWT commissioned the development of a study on hydrogen to identify if there are niches where hydrogen technology could potentially provide a cost-effective alternative to fossil fuels and complement renewable energy technologies. The research evaluated the potential of producing, importing, exporting, and using hydrogen in the NWT to support the decarbonization of the territories. In some scenarios, hydrogen may be able to compete with fossil fuel-based technology. However, the study was unable to provide a clear indication that future hydrogen technologies would be adapted to our scale or could compete with currently available alternatives to fossil fuels. No clear path forward for a pilot project was identified at this time. The study is available on the INF website, and we will continue to monitor the evolution of this technology.

### SMALL MODULAR REACTOR (SMR) NUCLEAR TECHNOLOGY

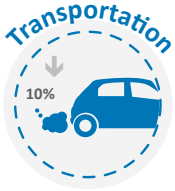
In 2018, the Government of Canada released a document entitled A Call to Action: A Canadian Roadmap for Small Modular Reactors, outlining the status of initiatives for the implementation of modular reactors in Canadian energy systems. Based on this, through 2024-25, the GNWT has been engaging with the federal government in a dialogue about the role the technology could eventually play to support GHG mitigation, price stability and energy security.

This technology is not yet commercially available and at a scale of 300 MW is oversized to meet northern energy demands. The GNWT will continue to monitor the progress of SMR and micro reactor technology, applications, and regulatory compliance in Canada and elsewhere. Moreover, the GNWT sits on the national SMR Leadership Table for specific policy and regulation development, as well as assessment of feasible opportunities for the North. This means considering diverse challenges specific to the north, such as the current lack of human resources likely necessary for the deployment of such new and advanced technology and the lack of a power grid to connect communities and industry together.

### UPDATE OF THE NORTH SLAVE HYDROELECTRIC RESILIENCY STUDY

In 2024-2025, modelling of the North Slave hydroelectric water systems, specifically the Snare River basin and the Yellowknife River basin, will help provide an updated data set and include a hydroclimatic assessment based on the Coupled Model Intercomparison Project Phase 6 (CMIP6) global climate models.

In addition to modeling and hydroclimatic assessment, a range of infrastructure-based and non-infrastructure-based resiliency options will be investigated. This report will help the GNWT understand potential shortfalls in the North Slave hydropower generation system and provide options and recommendations for policies and programs to reduce impacts on the GNWT and customers during future drought events.




# STRATEGIC OBJECTIVE 3 – TRANSPORTATION

## *REDUCE EMISSIONS FROM TRANSPORTATION BY 10% ON A PER-PERSON BASIS*

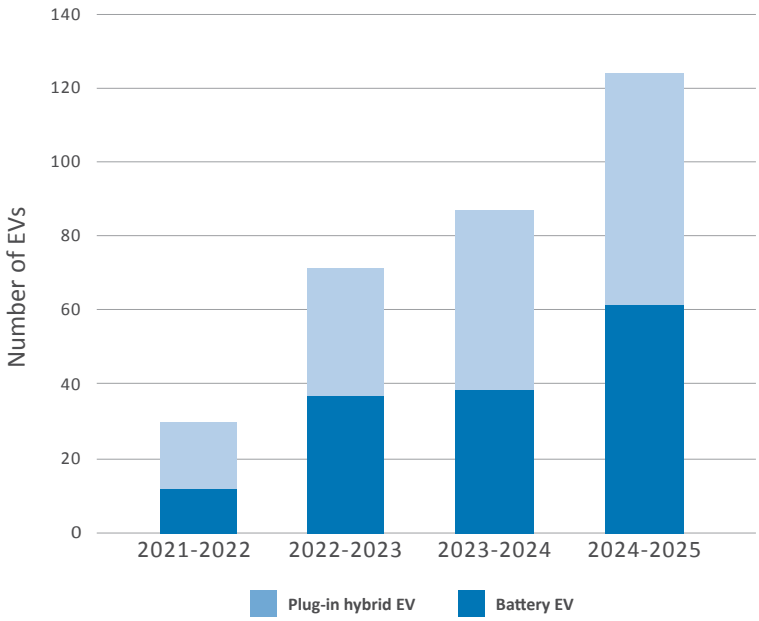
*Reducing emissions from transportation by 10% per capita is a strategic objective of the Strategy. Transportation accounted for 58% of GHG emissions in the NWT in 2023. Increasing electric vehicle (EV) use is one of the main ways the NWT intends to reduce emissions from vehicles.*

### PROMOTING EV ADOPTION IN THE NWT

This year, the AEA continued offering its EV incentive program but paused its delivery due to funding reductions. Nevertheless, in 2024-25, this popular program provided incentives for 19 EVs and three chargers. It is estimated that the acquired EVs contribute to a reduction of 33 tonnes of $CO_2e$ per year, with an estimated annual fossil fuel consumption avoided of 14,000 Liters of gasoline.

In 2024-2025, the NWT experienced continued growth in EVs, with a total of 125 EV registrations, representing a 42% increase compared to the previous year (6). Of these 125 EVs, 62 are fully electric, relying solely on a battery to operate the vehicle, while 63 are plug-in hybrids. The latter category combines a smaller battery with a gasoline engine to extend the range of the vehicle.

**Figure 7. Electric Vehicles in the NWT**




***Source:*** *GNWT, Driver and Motor Vehicle*

## FIVE FACTS ABOUT EVs IN THE NWT

- EVs are two to four times less expensive to operate than their gasoline equivalent on a per-kilometer basis in the NWT.
- EVs work well in the extreme cold despite a known decrease in battery range (similar to the decrease in gasoline cars and trucks operating in extreme cold, with reduced fuel efficiency).
- Most modern EVs use heat pumps to efficiently heat the cabin and offer a comfortable experience in winter.
- Fast charging stations can fully charge an EV in less than an hour.
- The GNWT completed a corridor of fast-charging stations to connect communities around Great Slave Lake in 2025.

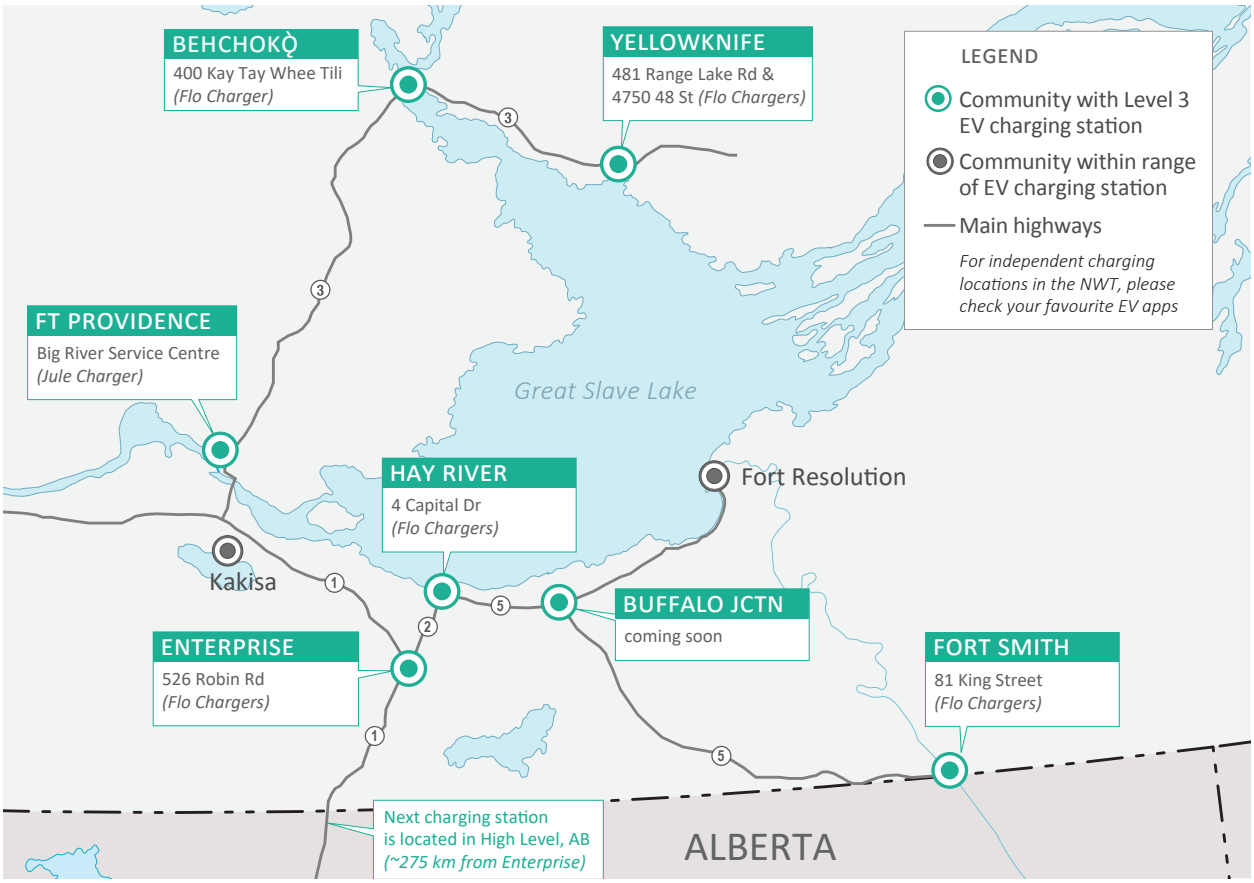
### DEVELOPING EV CHARGING INFRASTRUCTURE

As a result of joint funding efforts by the GNWT and AEA, Yellowknife currently has Level 2 and 3 chargers available for public use. Level 2 chargers operate faster than Level 1 chargers, which run on regular 110-volt outlets, and can fully charge an EV in five to 12 hours (depending on several factors such as battery size). While Level 1 and 2 chargers can effectively serve the daily commuting needs within a community, faster chargers (Level 3) become essential for longer trips, such as travel between communities.

Since 2021-2022, the GNWT has been developing a corridor of fast chargers in communities around Great Slave Lake, connecting the NWT to Alberta. This corridor is largely complete (Figure 7). The selection of charger locations was informed by practical considerations such as the availability of utility infrastructure, as well as insights derived from a 2020 study focused on EV adoption and corresponding EV infrastructure requirements.

The corridor currently includes fast charging stations situated at six locations around Great Slave Lake. A seventh station in Buffalo Junction is planned for 2026. Each location has been outfitted with at least one Level 3 charger, known for its capability to recharge an EV in less than an hour. In some instances, a combination of Level 3 and Level 2 chargers has been provided, adding flexibility and safety for EV users.


**Figure 7. Map of Level 3 charging stations**



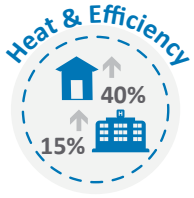

The EV corridor represents a $4.1 million investment, made possible by combining the following three funding sources:

1. GNWT funding, including new funding requested under the GNWT's 2022-25 Energy Action Plan ($1.9 million)
2. The GNWT's GHG Grant Program, supported by the Government of Canada's Low Carbon Economy Leadership Fund ($1.5 million)
3. The GNWT's Electric Vehicle Infrastructure Program (see the box on next page), supported by the Government of Canada's Zero Emission Vehicle Infrastructure Program ($360,000)

The fast chargers forming the EV corridor are owned and operated by NTPC and NAKA.

## GNWT'S ELECTRIC VEHICLE INFRASTRUCTURE PROGRAM

Since 2022, the GNWT has operated an application-based funding program to provide rebates for businesses, governments, utilities, and organizations to install Level 2 and Level 3 chargers in the NWT. By targeting organizations, this program complemented the AEA's pilot program, which solely offered rebates for Level 2 chargers for residents and small businesses. The GNWT received $414,000 from Natural Resources Canada (NRCan) to administer the programs. The GNWT recently signed an agreement with NRCan for additional funding to continue the program for the fiscal years 2025-2026 and 2026-2027, totalling $460,000. More information on the program can be found on INF's website.




# STRATEGIC OBJECTIVES 4 & 5 – HEAT & EFFICIENCY

*Increase the share of renewable energy used for community heating to 40% and increase commercial, residential, and institutional building energy efficiency by 15%.*

## ARCTIC ENERGY ALLIANCE (AEA) PROGRAMS AND SERVICES

In 2024-2025, the AEA delivered programs and services in communities across the NWT through its regional offices.

The AEA provided 1,437 incentives, worth $630,000 in total. These programs helped reduce energy use by about 270 MWh and avoided about 4,300 gigajoules of fossil fuel use, reducing GHG emission by approximately 460 tonnes of $CO_2e$, This level of energy savings is roughly equivalent to 85 percent of the electricity used each year in the community of Jean Marie River. Most of this support benefitted smaller communities, with 86 percent of rebates delivered outside of Yellowknife.

Although results were similar to pre-2020 levels, demand for the AEA programs continues to exceed available funding following the end of a federal funding program that had supported the AEA over the past five years.

In addition to its programs, the AEA completed eight special projects this year, including testing cold-climate air-source heat pumps (see box on next page), supporting community energy planning, developing Indigenous-language energy literacy tools, such as the Energy Word Book, and improving access to firewood for home heating, among others.

*Participants learn how to operate chainsaws as part of a course in Norman Wells under the Firewood Access project.*

*Participants in our biomass boiler operator training course check out a large boiler that heats the Łıwegòatì Building in Yellowknife.*

## AEA'S COLD-CLIMATE AIR-SOURCE HEAT PUMP PROJECT

Air-source heat pumps usually are a highly efficient way to heat a home using electricity across southern Canada. When using a renewable source of electricity, like hydropower, they can eliminate GHG emissions related to home heating. Traditionally, however, air-source heat pump technology has not been well-suited to the NWT's climate, since cold temperatures reduce the efficiency, and we have some of the highest electricity costs in the country.

In recent years, more cold-climate air-source heat pumps have come on the market, but there is still limited information on how they work in the North and how well they interact with existing heating systems. For these reasons, the AEA started a special project to test cold-climate heat pumps in Yellowknife.

With financial support from the GNWT departments of Environment and Climate Change and Infrastructure, the AEA partnered with Housing NWT to install heat pumps and monitoring equipment in two homes in a single building, with a third home serving as a control (i.e., without a heat pump). Two-year field monitoring of the two mini-split cold-climate air-source heat pumps to evaluate their performance, energy efficiency, and GHG reduction potential finished in December 2024, and the AEA expects to produce a final report on the results in 2025-2026. The second phase of the project is underway to test central-split heat pumps that tie into existing furnace systems, and the evaluation of this phase will take place 2025-2026 informing the feasibility of this technology for the North.

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The Energy Word Book is a notable special project aimed at increasing the energy literacy in Indigenous communities, specifically in their languages. It aims to bridge language barriers by developing and sharing energy-related terminology in Indigenous languages, thereby fostering informed discussions about energy conservation, efficiency, and renewable energy use. To accomplish this, the AEA worked with local partners to hold energy terminology workshops with experts in the Tłı̨chǫ and Gwich'in languages. The resulting information was used to produce energy word books, with 29 energy-related terms and flash cards with ideas for possible games to be used in schools and community spaces. The resources will be available to the public in 2025-2026.

Also, the AEA hosted a Chainsaw Operator course, small-business seminar, and Burn-it-Smart workshop in Norman Wells and produced a supplemental booklet. The goal was to increase awareness of how to properly use high-efficiency wood stoves, increase firewood harvesting capacity and knowledge of running a firewood-related small business, and ultimately to help community members use their stoves more often.

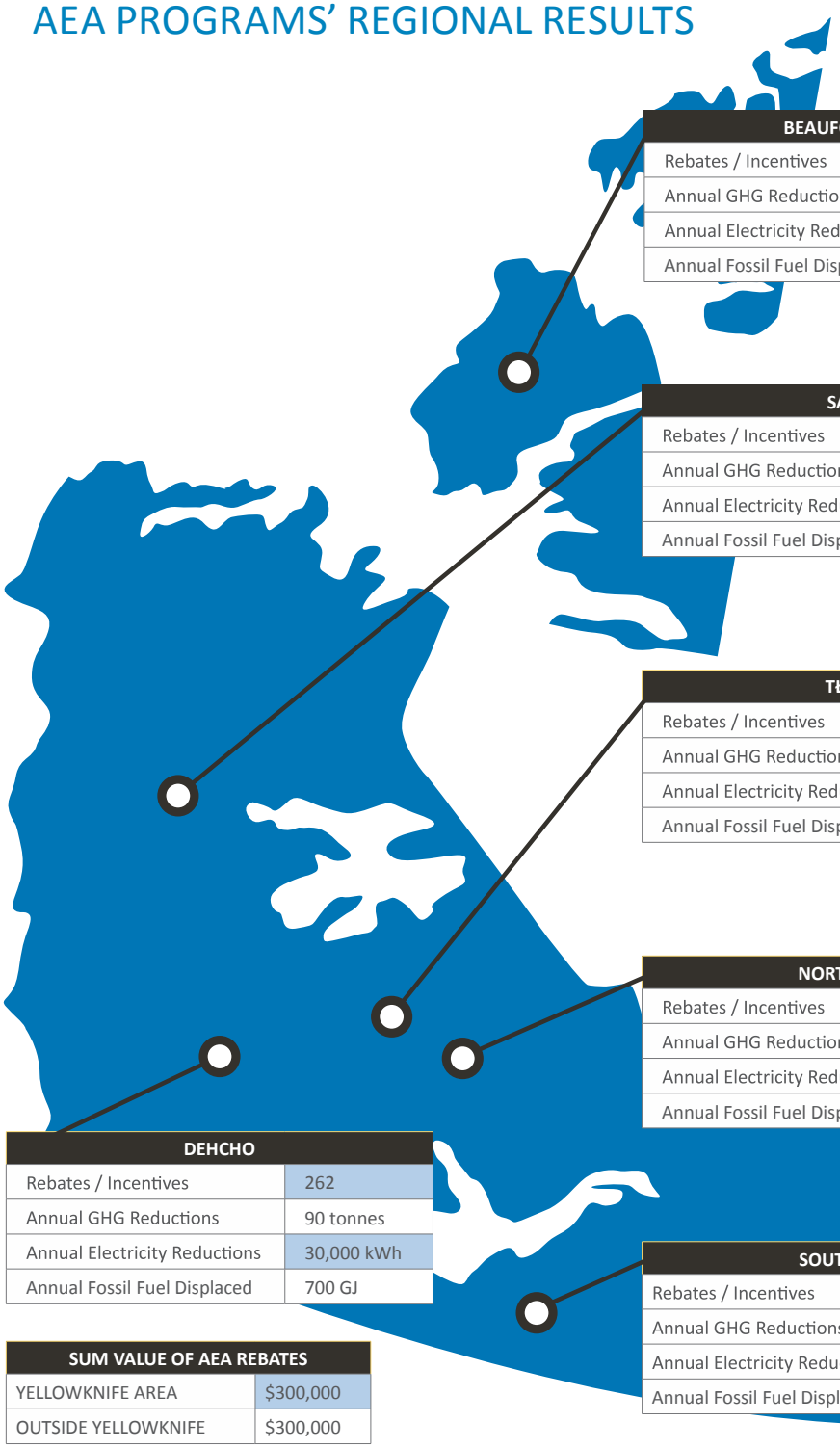
In January 2026, the AEA and the Wood Pellet Association of Canada will co-host the Arctic Bioenergy Summit and Tour-Sustainable Bioenergy for Northern Communities: Reliable, Affordable, Local, in the City of Yellowknife. The conference will focus on bioenergy in the context of the North by covering lessons learned from projects both domestically and internationally. Also, it will showcase the supply chain challenges and opportunities, as well as the practical skills and support needed to incorporate bioenergy into the North.

To learn more about individual programs and special projects, visit the AEA website.

*Nicolina talks to people about community energy profiles at a mini-energy fair in Inuvik.*

*At a mini-energy fair in Wekweètì, Taylor shows people how to use a moisture meter to check whether the firewook is dry enough to burn in a wood stove.*

# AEA PROGRAMS' REGIONAL RESULTS



| BEAUFORT-DELTA | |
|---|---|
| Rebates / Incentives | 472 |
| Annual GHG Reductions | 60 tonnes |
| Annual Electricity Reductions | 60,000 kWh |
| Annual Fossil Fuel Displaced | 190 GJ |

| SAHTÙ | |
|---|---|
| Rebates / Incentives | 397 |
| Annual GHG Reductions | 40 tonnes |
| Annual Electricity Reductions | 50,000 kWh |
| Annual Fossil Fuel Displaced | 140 GJ |

| TŁĮCHǪ | |
|---|---|
| Rebates / Incentives | 3 |
| Annual GHG Reductions | -4 tonnes |
| Annual Electricity Reductions | 3,000 kWh |
| Annual Fossil Fuel Displaced | -5 GJ |

| NORTH SLAVE | |
|---|---|
| Rebates / Incentives | 213 |
| Annual GHG Reductions | 200 tonnes |
| Annual Electricity Reductions | 100,000 kWh |
| Annual Fossil Fuel Displaced | 2,300 GJ |

| DEHCHO | |
|---|---|
| Rebates / Incentives | 262 |
| Annual GHG Reductions | 90 tonnes |
| Annual Electricity Reductions | 30,000 kWh |
| Annual Fossil Fuel Displaced | 700 GJ |

| SOUTH SLAVE | |
|---|---|
| Rebates / Incentives | 90 |
| Annual GHG Reductions | 60 tonnes |
| Annual Electricity Reductions | 20,000 kWh |
| Annual Fossil Fuel Displaced | 900 GJ |

| SUM VALUE OF AEA REBATES | |
|---|---|
| YELLOWKNIFE AREA | $300,000 |
| OUTSIDE YELLOWKNIFE | $300,000 |

# CAPITAL ASSET RETROFIT FUND (CARF)

Initiated in 2007, the CARF program delivers energy efficiency projects for GNWT facilities to reduce their GHG emissions, energy use, and operating costs. In 2024-2025, approximately $2.3 million was assigned to energy retrofit projects, resulting in an estimated $79,000 of annual savings.

## 2024-2025 CARF PROJECT HIGHLIGHTS

Appendix B includes projects completed during 2024-2025.

## YELLOWKNIFE – PRINCE OF WALES NORTHERN HERITAGE CENTRE CONTROLS UPGRADE

Jointly funded by CARF and ICIP, this energy project replaced and relocated the cooler/freezer condensers, replaced the Direct Digital Control (DDC) system. Previously located inside the building, the cooling condensers were overheating the space because they were releasing heat into the building. By replacing and relocating the condenser units outside, the space cooling requirements and utility usage have been reduced. Replacing the DDC system provides improved building control, scheduling, and remote monitoring. Additionally, six variable speed drives for the air handling unit were replaced, providing improved control of airflow and improved energy savings by reducing fan speed when full capacity is not required.

The total project aims to save $17,000 annually as well as offset approximately 5,000 Litres of fuel and 19 tonnes of GHGs.

## SACHS HARBOUR - LED LIGHTING UPGRADE

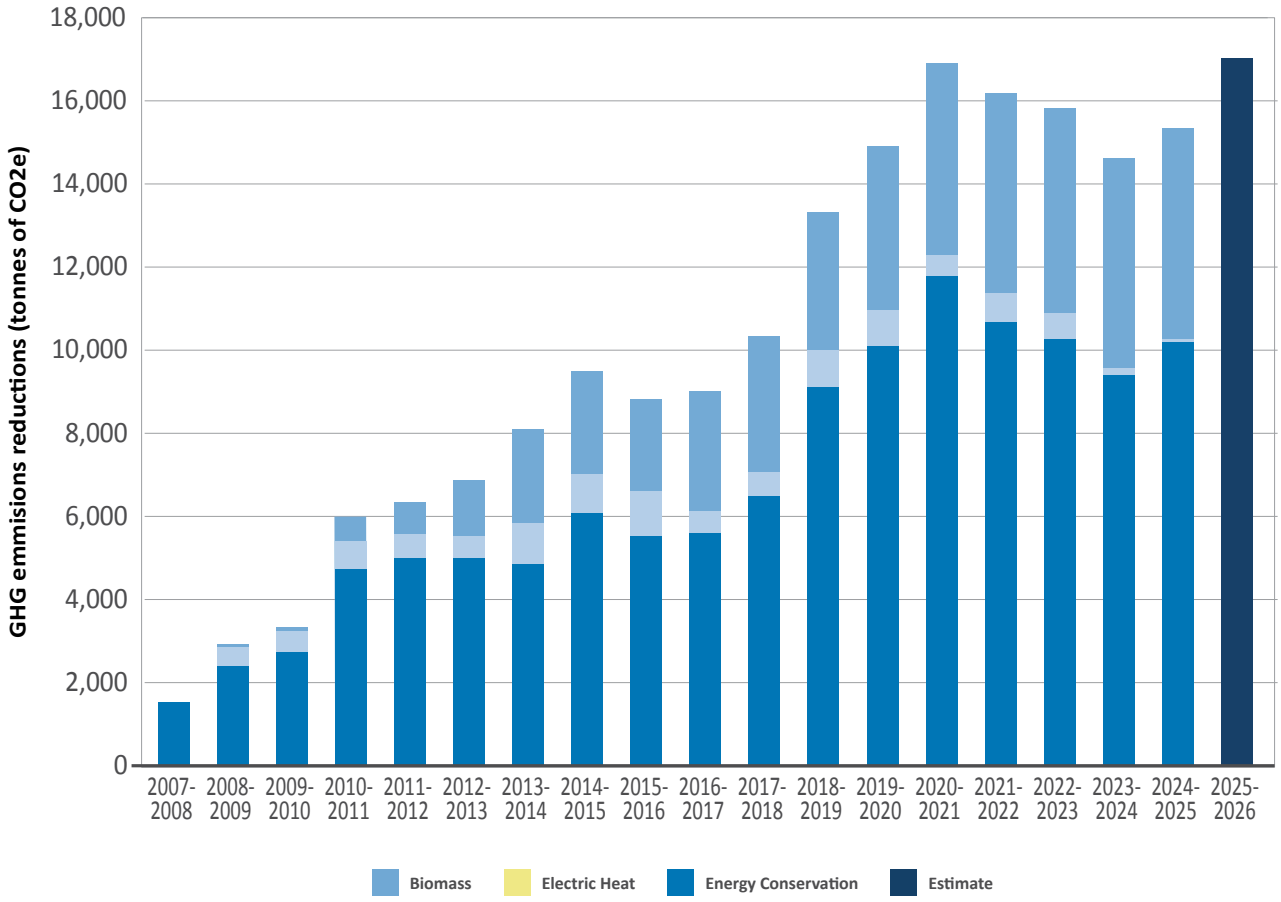
Funded by CARF, an LED lighting retrofit was completed at the Sachs Harbour Health Centre. This project will reduce annual electrical consumption by 23,300 kWh. Also, it will result in estimated savings of $50,000 per year and provide a payback period of approximately four years. As Sachs Harbour is a thermal zone community (meaning electricity is provided from diesel generation) there is a direct annual reduction in GHG emissions of 19.4 tonnes.

The benefits of replacing older lighting technologies with LEDs include reduced power consumption, increased lifespan, reduced maintenance, and short payback periods. The use of LEDs reduces costs for replacement, labour, and shipping to remote communities.

## CARF CONTRIBUTION TO EMISSIONS REDUCTIONS

Projects deployed through the CARF program since 2007-2008 have reduced GHG emissions by 15,323 tonnes of $CO_2e$ 2024-2025, resulting in annual cost savings of $5.47 million for the GNWT. While the reduction in GHG emissions is slightly higher than last year, it remains lower than the peak of 16,896 tonnes in 2020-2021. This is due to a combination of factors such as warmer weather, downtime for maintenance, and limited capacity for electrical heating during the Taltson hydro facility overhaul.

**Figure 8. GHG Reductions from Initiatives in GNWT Buildings since 2007-2008**




See Appendix A for an inventory of GNWT buildings' energy use and GHG emissions.

# HOUSING NORTHWEST TERRITORIES

In 2022-2023, Housing NWT developed and released its *2030 Energy Management Strategy* (EMS). The EMS' vision by 2030, and its accompanying three-year *Energy Management Blueprint*, is for Housing NWT to realize a sustainable housing portfolio that is less reliant on fossil fuels and contributes to the economic, social, and environmental well-being of the NWT and its residents.

The Strategy focuses on four Strategic Objectives:

Reduce the energy use intensity of our portfolio by 15% below 2016 levels

Increase the use of renewable energy for space heating to 40% by 2030

Increase capacity to manage and maintain energy solutions

Increase partnership opportunities in energy projects

## MEASURING AND REPORTING ON PROGRESS

Housing NWT commits to annual reporting on the progress of its EMS. Housing NWT highlights efforts and initiatives under each of the strategic objectives in the 2024-2025 year.

## REDUCE ENERGY USE INTENSITY - ENERGY EFFICIENT HOUSING

**Decrease the energy used per square meter of housing by 15% compared to 2016 levels. This involves improving energy efficiency through capital replacements, retrofits, and other measures.**

Housing NWT continues to develop energy-efficient housing, with innovative designs that aim to exceed the requirements of the 2020 National Energy Code (NECB) by up to 20%. All new housing models undergo energy modeling workshops during the design phase to ensure that a balance is reached between cost and complexity of construction and maximum energy efficiency.

The addition of 81 Housing units during 2024-2025 marks substantial progress towards reducing the overall energy use intensity of Housing NWT's Portfolio. By incorporating modern, energy-efficient design, these new assets contribute to a lower average energy consumption per unit, improving the portfolio's overall energy performance.

During 2024-2025, Housing NWT completed the design of a 50-unit mixed-use building in downtown Yellowknife. The project, funded in part by CMHC's Rapid Housing Initiative, will include 25 barrier-free singles units and 25 two-bedroom units, as well as a ground-floor commercial space.

The 50-plex includes several energy-saving and GHG emission reduction design elements. It features a 100% renewable energy heating system that eliminates fossil fuel appliances, using wood-pellet boilers as the primary heat source, along with heat pumps for cooling and electric heating for transitional seasons and backup.

Figure 10: 50-Plex Renderings

As more new public housing builds come online, Housing NWT will measure and monitor the operational and maintenance costs associated with the units, expecting to quantify the utility savings associated with our advanced envelope and efficient systems, when compared to aging assets.

## INCREASE RENEWABLE ENERGY - BIOMASS INITIATIVES

**Increase the use of renewable energy sources for space heating to 40% by 2030. This involves transitioning from fossil fuels to cleaner alternatives, including biomass and electrification.**

Significant progress has been made towards Housing NWT's renewable heating goals. A number of assets are in the process of being upgraded to wood pellet boiler heating systems and are in the planning stages.

| Asset | Location | Housing Units | New-build or Retrofit | Installed Capacity | Completion | Estimated Annual Savings ($) | Estimated Annual GHG offset (tonnes) |
|---|---|---|---|---|---|---|---|
| Stanley Isaiah Srs. Home | Fort Simpson | 20 | Retrofit | 150kW | 2024 | $59,323 | 147 |
| Aspen Apartments | Yellowknife | 36 | Retrofit | 100kW | 2025 | $17,682 | 43 |
| Fort Providence Seniors Centre | Fort Providence | 14 | Retrofit | 114kW | 2025 | $32,600 | 66 |
| Victorian Suites | Yellowknife | 19 | Retrofit | 75kW | 2026 | $22,500 | 90 |
| 50-plex | Yellowknife | 50 | New Build | 200kW | 2026 | $43,150 | 105 |
| Moyle Drive Apartments | Yellowknife | 19 | Retrofit | 75kW | 2026 | $20,317 | 97 |
| 30 unit Apartments | Hay River | 30 | New Build | 100kW | 2027 | TBD | TBD |

## PROJECT FEATURE BIOMASS COMMUNITY PROJECT OF THE YEAR – SISSONS COURT

Sissons Court Biomass District Heating Plant was recognized for the Community Project of the Year Award from Canadian Biomass. In 2022, Sissons Court's biomass heating plant replaced 45 aging fuel-oil furnaces and now provides renewable heating to 53 public housing units. This transition to wood pellets has lowered energy costs and reduced GHG emissions, advancing the GNWT's mandate to deliver affordable and sustainable housing. The project was a local initiative relying on partnerships between government and the private sector. The system was designed by a northern consultant team, TAG Engineering, with assistance from the technical team at the GNWT, and was installed by Hay River-based contractor Taylor & Company. The Yellowknife Housing Authority, with assistance from local contractor J&R Mechanical, are dedicated to the ongoing operation and maintenance of the heat plant to ensure reliable heat for residents.

## INCREASE CAPACITY FOR MANAGEMENT AND MAINTENANCE - BIOMASS BOILER OPERATOR TRAINING COURSE

**Enhance Housing NWT's ability to manage and maintain its energy systems effectively. This includes improvements to monitoring, maintenance, and staff training.**

One of the key challenges in expanding the use of biomass heating systems in the NWT is ensuring sufficient local capacity to operate and maintain these systems. To address this, the AEA, the Department of Municipal and Community Affairs, Housing NWT, INF and the NWT Association of Communities began collaborating in 2023-2024 to enhance this capacity. The group has launched a Biomass Boiler Operator Training (BBOT) program to equip staff and community members with the necessary skills to operate and maintain biomass heating systems. The first course, held in Fall 2024, was well-received, with positive feedback indicating a significant need for continued training opportunities.

*BBOT Group at Sisson's Court District System*

## INCREASE PARTNERSHIPS – CIER INSITES PROGRAM

Housing NWT has partnered with the Centre for Indigenous Environmental Resources (CIER) to further their mission of working with Indigenous communities to support and build sustainable Indigenous communities. CIER is working in the Beaufort Delta region through their Energy InSites Program to perform energy audits and assessments at various assets in Inuvik, including some of Housing NWT's larger multi-unit residential buildings. This partnership reflects Housing NWT's commitment to collaborating with diverse partners on energy projects.

# STRATEGIC OBJECTIVE 6 – LONG-TERM

*A longer-term vision: develop the NWT's energy potential, address industry emissions and do our part to meet national climate change objectives. Tackling climate change shows that the GNWT is committed to acting responsibly and bolstering environmental stewardship in the North.*

## HYDROELECTRIC SYSTEMS UPGRADES

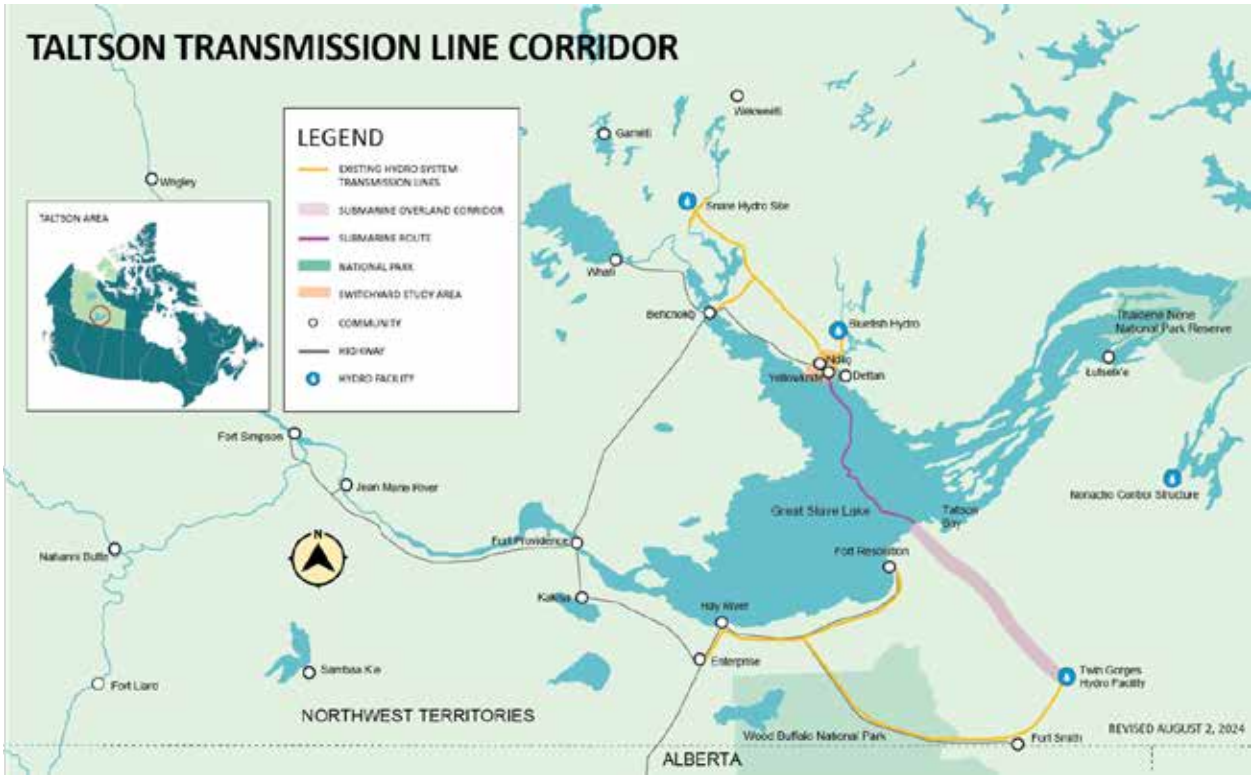
### TALTSON HYDRO OVERHAUL PROJECT

Components of the existing Taltson hydroelectric generating facility were approaching or had already exceeded their useful life. This project was a multi-year initiative to refurbish the turbine and generator components and extend the facility's operating life. $23.8 million in funding has been secured, which includes 75% from HICC and the remaining 25% from NTPC.

The project was completed in April 2025.

### NWT HYDROELECTRIC POTENTIAL REVIEW

The GNWT conducted a comprehensive review and update of prior work on potential hydroelectric sites across the NWT. The study used a modern approach to hydro development in order to assess prior work and will be published in near future. The results of this study will be used in guiding hydroelectric development going forward.



# TALTSON HYDRO EXPANSION PROJECT

## TWICE AS MUCH CLEAN POWER

The Taltson Hydro Expansion Project will more than double the hydroelectric capacity in the NWT and connect 11 NWT communities and over 70% of the NWT's population to a unified grid. The project is being delivered as an Indigenous partnership as part of a Memorandum of Understanding (MOU) signed in 2021. The expansion will integrate 120MW of capacity between the Taltson and Snare hydro systems and advance community electrification while catalyzing economic growth by providing clean energy to communities and industry north and south of Great Slave Lake.

## BUILDING INDIGENOUS PARTNERSHIPS

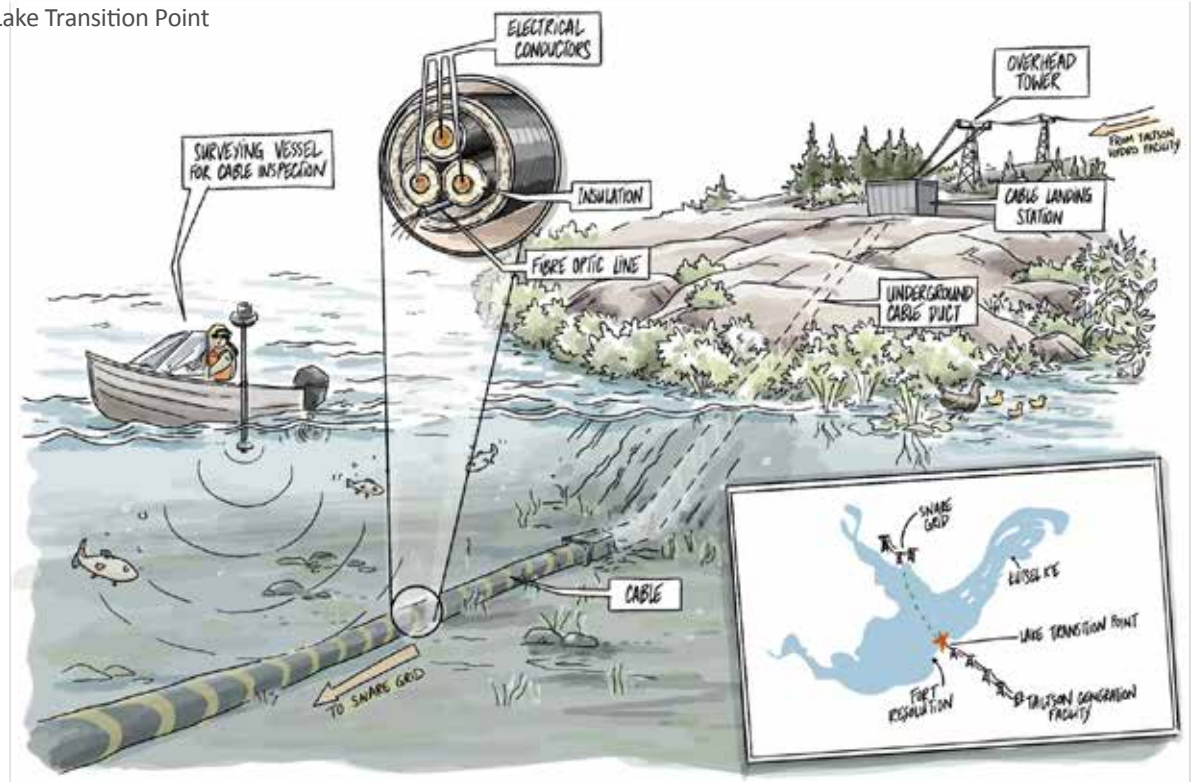
The GNWT's partnership with the Akaitcho Dene First Nation (ADFN) and Northwest Territory Métis Nation (NWTMN) and Salt River First Nation (SRFN) has been guided by an MOU that signifies a shared commitment to exploring Taltson's potential.

Indigenous partner involvement has been a central focus of the project with more than 50 Working Group Meetings, nine Steering Committee Meetings, and numerous technical briefings to the partner leadership of the ADFN, GNWT, and NWTMN.

## REFINING THE ROUTING

The Steering Committee has selected the submarine-overland route as the preferred transmission line route based on a comprehensive comparison of options. Next steps include routing refinement to explore landing and substation options in the Yellowknife area to connect to the Jackfish Power Plant. As well as preparing a regulatory application in the south slave, the corridor from Twin Gorges on the Taltson River to a landing area east of Fort Resolution.

Lake Transition Point



## ADVANCING COMMERCIAL ARRANGEMENTS

Initial discussions have begun on a Memorandum of Intent (MOI) to define the legal entities interested in partnering on the project. Commercial arrangements are also informed by discussions on risk allocation, benefit-sharing, procurement strategies, and project delivery models. Discussions are underway.

## PREPARING FOR REGULATORY PROCESSES AND NEXT STEPS

As the focus shifts towards formalizing commercial agreements, the partners are defining the conditions necessary to proceed to construction. This work will ensure that the NWT is best positioned to meet the energy demands from communities and industry with clean, reliable energy. Over the next year, Indigenous partners will contribute to and lead baseline information gathering to prepare for an Environmental Assessment (EA), a critical step in obtaining the necessary regulatory permits and authorizations to support construction. In 2024-2025, NRCan approved $25 million in funding for the project through its Critical Minerals Infrastructure Fund (CMIF) to support the project up to 2028-2029.

## LOOKING AHEAD

The GNWT will continue community and partner engagement and work to define commercial agreements and prepare a regulatory application. As commercial arrangements progress, project partners will need to consider and endorse a more defined delivery model that goes beyond an MOU towards legally binding arrangements between those that wish to proceed.

## ANTICIPATED BENEFITS

- **Better Connectivity:** The new transmission lines will connect the Taltson system to the Snare system, enhancing reliability and resiliency for both.
- **Partnership and Economic Opportunities:** The project will create partnerships and other economic opportunities for Indigenous governments and job opportunities for NWT residents.
- **Climate Change:** The project will reduce GHG emissions by up to 240,000 tonnes annually, helping the territory meet its climate change commitments.
- **Economic Growth:** Access to affordable and reliable energy sources will benefit NWT residents and businesses, particularly in the mining and natural resource industries.
- **Stabilized Electricity Costs:** The integrated system will stabilize electricity rates, benefiting over 70% of northern residents.

## ENGAGEMENT EFFORTS

- Over 50 Working Group Meetings
- Nine Steering Committee Meetings: including Leadership representatives from GNWT, ADFN, and NWTMN
- Numerous technical briefings delivered
- Objective: Developing trust and shaping project trajectory based on partner input

## CLIMATE CHANGE CONSIDERATIONS

- Ongoing climate impact studies on project design
- Recognition of Taltson Expansion to replace diesel back-up during Snare drought/low water events
- Evaluation of new federal climate policies: including the upcoming 2035 ban on the sale of internal combustion vehicles, and the impact on future energy demand in the territory
- Exploration of climate change-related challenges on the evolving energy landscape

## FEDERAL FUNDING

- Amount: $48 million
- Source: NRCan and CIRNAC, Government of Canada
- Timeline: Provided since 2019
- Key workstreams: Building Indigenous partnerships; design engineering; advancing commercial arrangements; preparing for regulatory processes

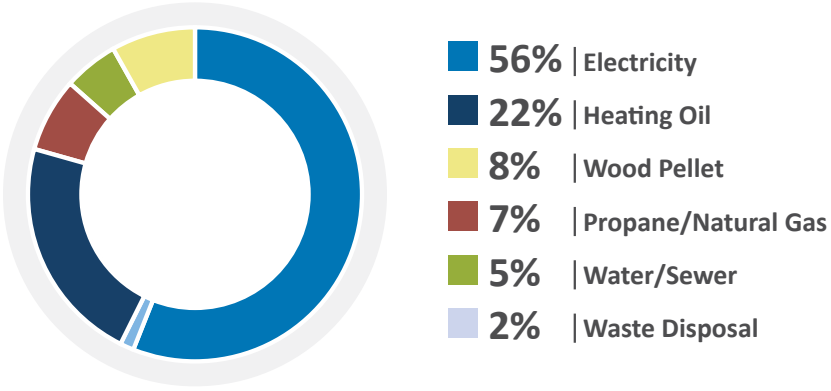
# **APPENDIX A:** GNWT BUILDINGS ENERGY USE AND GHG EMISSIONS

## GNWT BUILDINGS ENERGY EXPENDITURES

In 2024-2025, the cost of heat and power for the GNWT facilities totaled $43.6 million, which is higher than in 2023-2024 by 4%.

As shown in Figure 12, electricity expenditures represent more than half the energy cost for the GNWT, followed by the heating fuels (heating oil, wood pellets, propane, and natural gas). Expenditure increases in 2024-2025 in heating oil and waste disposal were almost exactly counterbalanced by reductions in water/sewer and propane/natural gas, resulting in a marginal increase in total expenditures compared with 2024-2025.

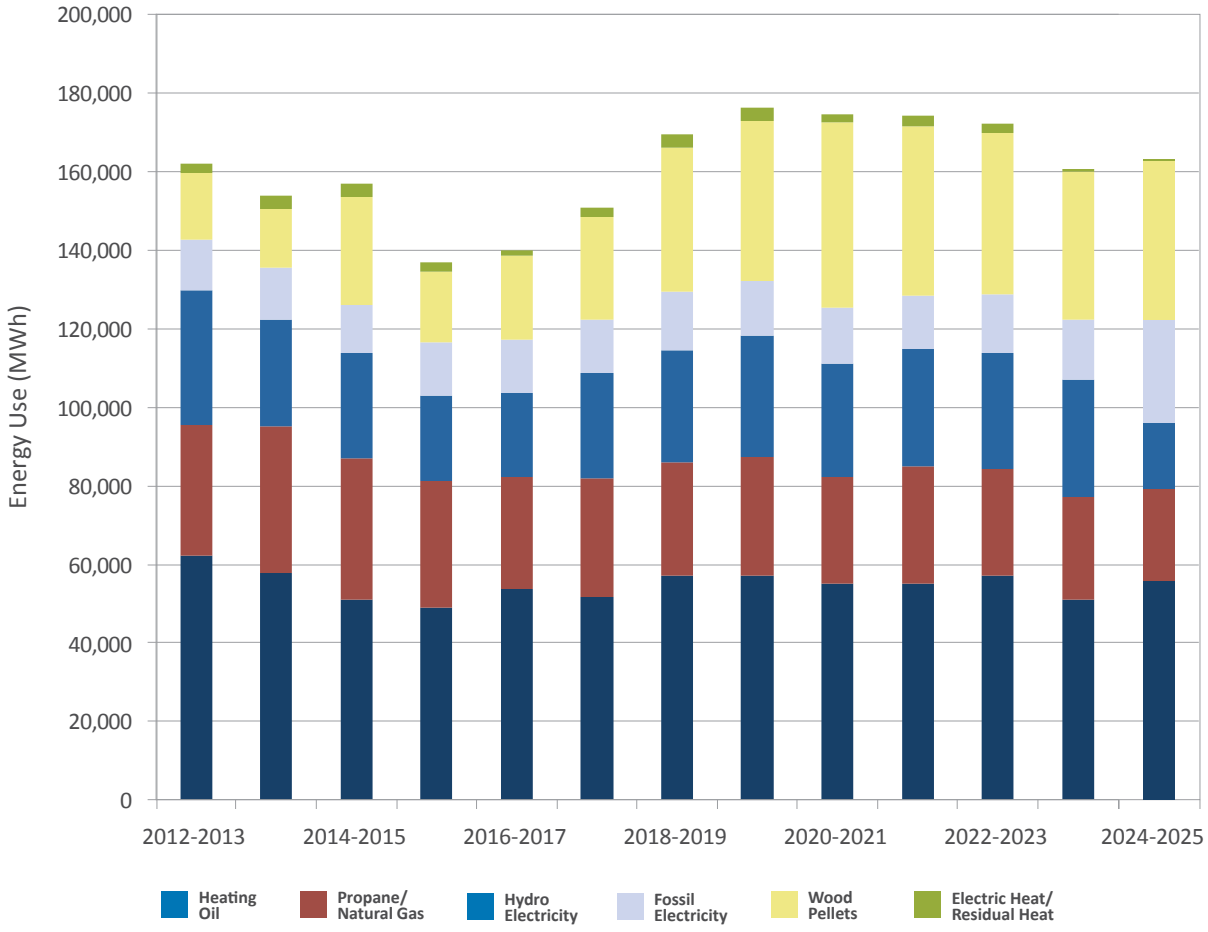
**Figure 12. GNWT Utility Expenditures in 2024-2025**



## GNWT BUILDINGS ENERGY USE

Figure 13 shows the composition of the GNWT's energy use by fuel type, every year since 2012-2013. The total consumption of energy in 2024-2025 of the GNWT increased by 5.5% compared with 2023-2024, caused by an increase in heating oil, fossil electricity and wood pellets consumption, while the rest were reduced substantially by 28.3%.

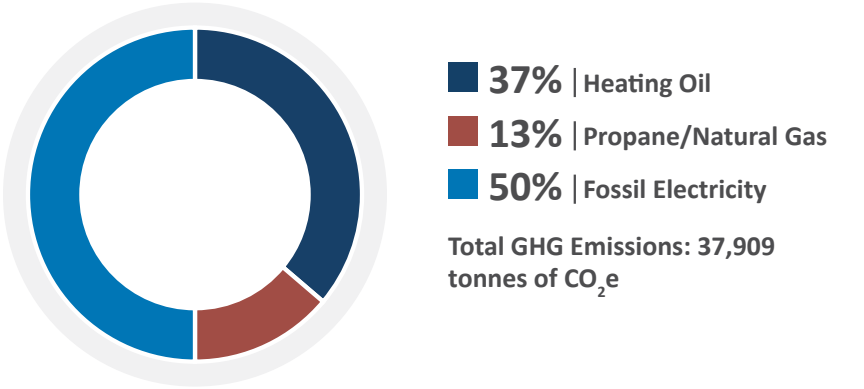
**Figure 13. GNWT Energy Use by Fuel Type in 2024-2025**



## GNWT BUILDINGS GHG EMISSIONS

In 2024-2025, GNWT buildings emitted 37,909 tonnes of GHG due to the burning of fossil fuels to provide space heating, be it directly using heating oil or propane/natural gas, or using electricity produced from fossil fuels.

**Figure 14. GNWT Greenhouse Gas Emissions by Fuel Type in 2024-2025**



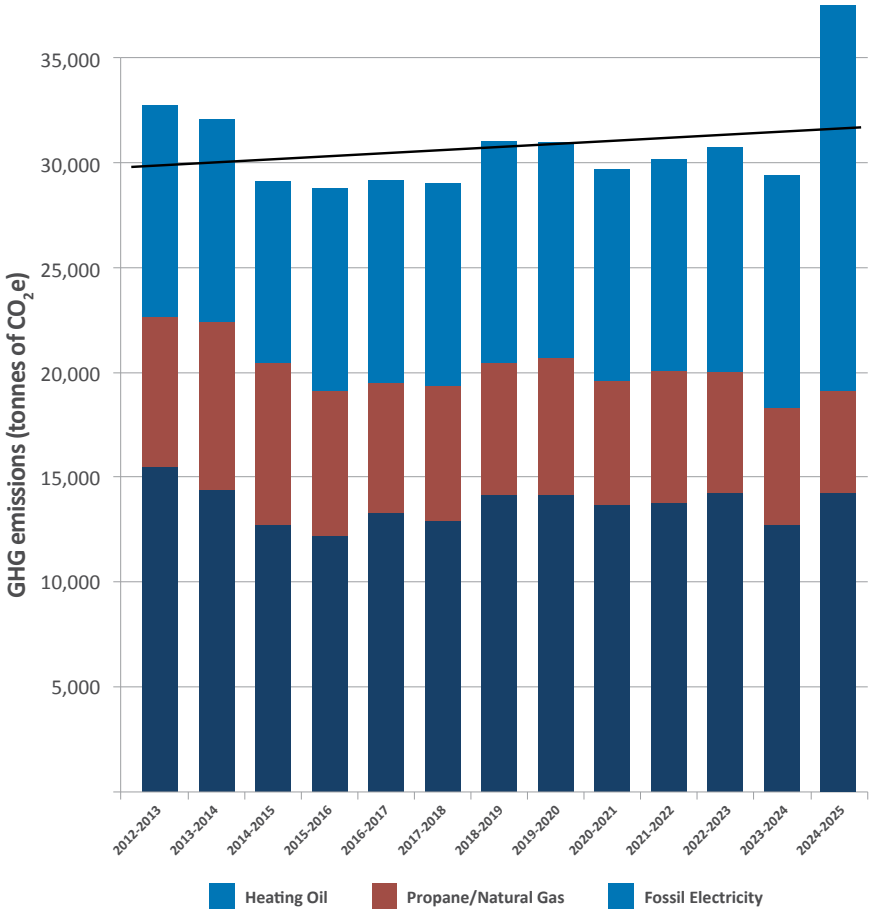

***Note: Emissions from biomass are not accounted for because biomass is a renewable source of energy.***

## GHG EMISSIONS REDUCTIONS TREND

Emissions from 2024-2025, increased 29% compared with 2023-2024, weakening the reduction trend observed since 2012-2013. This increase in GHG emissions is primarily explained by the reduced availability of hydroelectricity in the Southern part of the NWT, which had to be compensated by diesel generation.

***Note: Emissions from biomass are not accounted for because biomass is a renewable source of energy.***

**Figure 15. GNWT Buildings GHG Emissions Trend from 2012 to 2025**



## SPACE HEATING BY FUEL TYPE

The energy required to heat GNWT buildings in 2024-2025 totalled 431,875 GJ. As shown in Figure 16, 34% of this total was sourced from biomass energy, while the remaining was covered with fossil fuels such as heating oil (47%) and propane and natural gas (19%). With less than 1%, electric heat and residual heat played a very marginal role in heating buildings, due to the Taltson hydro system being shut down temporarily. In 2024-2025, GHG caused by space heating amounted to 18,859 tonnes of $CO_2e$, representing a 3% increase compared with the previous year.

## RENEWABLE HEATING

As shown in Figure 17, 147,929 GJ of renewables heat was used in 2024-2025, corresponding to 10,235 tonnes of $CO_2e$ reduction, assuming heating oil is displaced.

**Figure 16. GNWT Space Heating Energy Sources in 2024-2025**

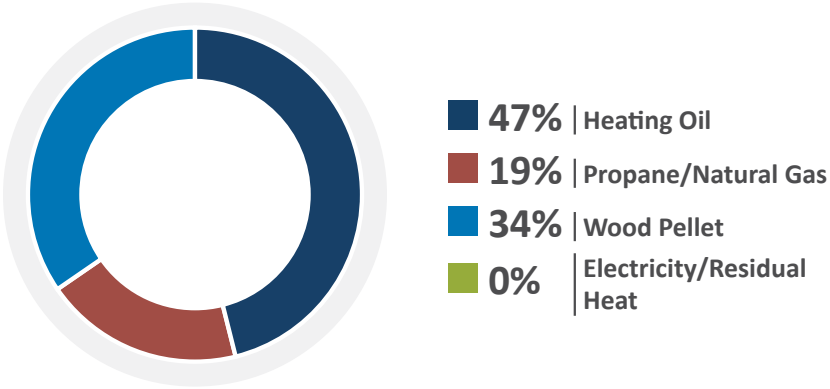
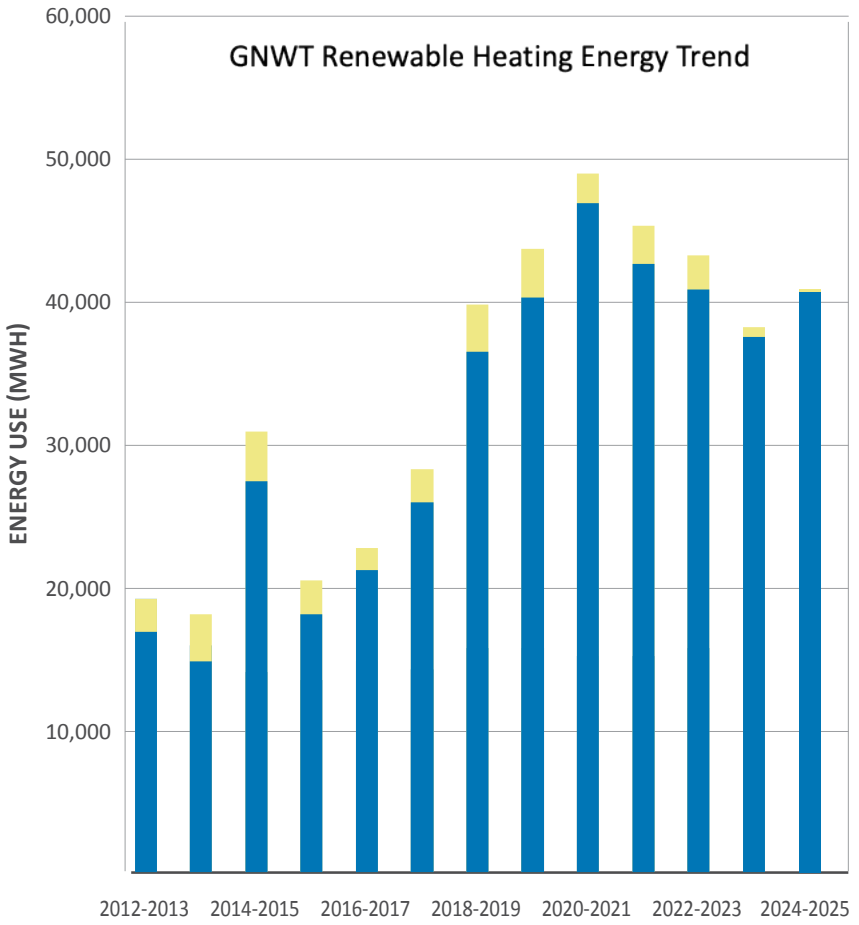



**Figure 17. GNWT Space Heating Provided by Renewable Energy from 2012 to 2025**



# **APPENDIX B:** 2024-2025 CAPITAL ASSET RETROFIT FUND PROJECTS

| FACILITY | LOCATION | DETAILS |
|---|---|---|
| **North Slave Region** | | |
| Yellowknife | CS Lord | DDC and heating upgrades |
| Yellowknife | Prince of Wales Northern Heritage Centre | Controls, VFD, and condenser upgrades |
| Yellowknife | Data Centre | Controls upgrade - dry coolers |
| Whatì | FSD Tank Farm | LED lighting upgrade |
| **Beaufort Delta Region** | | |
| Sachs Harbour | Health Centre | LED lighting upgrade |
| **Deh Cho Region** | | |
| Fort Liard | ECC Warehouse | LED lighting upgrade - exterior |
| Fort Simpson | Łíídlíí Kúę Elementary School | LED lighting upgrade |

# APPENDIX C:
# BIOMASS PROJECTS COMPLETED BY GNWT SINCE 2006

| FACILITY | LOCATION | COMPLETION YEAR | SIZE (KW) |
|---|---|---|---|
| Moose Kerr School | Aklavik | 2023 | 300 |
| École St. Patrick High School | Yellowknife | 2023 | 300 |
| GNWT Central Warehouse* | Yellowknife | 2022 | 200 |
| Range Lake North School | Yellowknife | 2022 | 300 |
| Prince of Wales Northern Heritage Centre | Yellowknife | 2022 | 300 |
| MTS Maintenance Garage | Hay River | 2022 | 144 |
| Thebacha College and Health Centre | Fort Smith | 2022 | 720 |
| Range Lake North School | Yellowknife | 2022 | 300 |
| Mildred Hall School | Yellowknife | 2022 | 300 |
| Stanton Legacy | Yellowknife | 2021 | 2500 |
| Chief Sunrise School | Kátł'odeeche (Hay River) | 2020 | 150 |
| ENR Lab/Warehouse | Fort Simpson | 2019 | 40 |
| Woman's Territorial Corrections Centre | Fort Smith | 2019 | 300 |
| Inuvik Territorial Hospital | Inuvik | 2019 | 1250 |
| Ecole Alain St. Cyr | Yellowknife | 2019 | 540 |
| Construction Mining Institute Training (CMIT) | Fort Smith | 2018 | 300 |
| Inuvik School Biomass | Inuvik | 2018 | 950 |
| Stanton Territorial Hospital | Yellowknife | 2018 | 2500 |
| Behchokǫ̀ Long Term Care Facility* | Behchokǫ̀ | 2017 | 100 |
| Fort McPherson Health Centre* | Fort McPherson | 2017 | 40 |
| Health Centre | Fort Resolution | 2017 | 100 |
| Health Centre/Long term care facility | Norman Wells | 2017 | 400 |
| Infrastructure Maintenance Shop | Norman Wells | 2017 | 100 |

*(*) These facilities purchase heat from a third-party biomass boiler.*

| FACILITY | LOCATION | COMPLETION YEAR | SIZE (KW) |
|---|---|---|---|
| ENR Workshop/Office | Tulita | 2017 | 58 |
| Whatì Health Centre (heat purchase) | Whatì | 2017 | 30 |
| Chief Ts'elehye School | Fort Good Hope | 2016 | 150 |
| Chief Albert Wright School | Tulita | 2016 | 200 |
| Prince of Wales Northern Heritage Centre | Yellowknife | 2016 | 400 |
| New Health Centre | Fort Providence | 2015 | 75 |
| Deninoo School | Fort Resolution | 2015 | 200 |
| New Health Centre | Hay River | 2015 | 950 |
| Airport Terminal Building | Yellowknife | 2015 | 400 |
| South Mackenzie Correctional Centre | Hay River | 2014 | 224 |
| Airport Combined Services Building | Norman Wells | 2014 | 224 |
| Airport Terminal Building | Norman Wells | 2014 | 168 |
| Mackenzie Mountain School | Norman Wells | 2014 | 224 |
| New Office Building | Yellowknife | 2014 | 650 |
| Deh Gah School | Fort Providence | 2013 | 300 |
| Elizabeth MacKenzie Elementary School | Behchokǫ̀ (Rae) | 2012 | 540 |
| Central Heating Plant | Fort Simpson | 2012 | 980 |
| Fort Smith Health Centre | Fort Smith | 2012 | 750 |
| Combined Service Building (Department of Infrastructure) | Yellowknife | 2012 | 540 |
| P.W. Kaeser High School and Recreation Centre | Fort Smith | 2010 | 750 |
| Thebacha College (GNWT) | Fort Smith | 2010 | 720 |
| Highways Maintenance Garage | Hay River | 2010 | 300 |
| Central Heating Plant (for 4 Hay River Schools) | Hay River | 2010 | 1000 |
| Legislative Assembly Building | Yellowknife | 2010 | 300 |
| Chief Jimmy Bruneau School | Behchokǫ̀ (Edzo) | 2009 | 720 |
| K'alemi Dene School | Ndilǫ | 2009 | 60 |
| École St. Joseph School | Yellowknife | 2009 | 540 |
| Sir John Franklin High School* | Yellowknife | 2008 | 750 |
| North Slave Correctional Facility* | Yellowknife | 2006 | 1500 |

*(*) These facilities purchase heat from a third-party biomass boiler.*