



2030 ENERGY STRATEGY ENERGY ACTION PLAN 2022-2025 DECEMBER 2022

#### **TABLE OF CONTENTS**

Intro	duction	. 3
	stments	
Strat	egic Objectives	. 7
1.	Work together to find solutions: community engagement, participation and empowerment	. 7
2.	Reduce greenhouse gas emissions from electricity generation in diesel communities by 25%	. 8
3.	Reduce emissions from transportation by 10% on a per person basis	. <u>c</u>
4.	Increase the share of renewable energy used for community heat to 40% by 2030	10
5.	Increase commercial, residential and institutional building energy efficiency by 15% over 2016 levels by 2030	10
6.	A longer term vision: develop the NWT's energy potential, address industry emissions, and do our part to meet national climate change objectives	12
Head	ding to the Five-Year Review of the 2030 Energy Strategy	14

#### **LIST OF ACRONYMS**

This is the list of acronyms used throughout the report.

AEA Arctic Energy Alliance	Infrastructure GNWT Department of Infrastructure
CARF Capital Asset Retrofit Fund	<b>LCELF</b> Lower Carbon Economy Leadership Fund
CCSF Climate Change Strategic Framework	NRCan Natural Resources Canada
<b>CIRNAC</b> Crown-Indigenous Relations and Northern Affairs Canada	NTPC Northwest Territories Power Corporation
<b>GHG</b> Greenhouse Gas	<b>NWT</b> Northwest Territories
<b>GNWT</b> Government of the Northwest Territories	PUB Public Utilities Board
ICIP Investing in Canada Infrastructure Program	

#### **INTRODUCTION**

The Northwest Territories (NWT) is four years into implementing its 2030 Energy Strategy (Strategy), which sets out the Government of the Northwest Territories' (GNWT) long-term approach to supporting energy supply and use in the NWT. The goal of the Strategy is to guide the development of secure, affordable and sustainable energy for transportation, heat, and electricity; support energy efficiency and conservation; and promote renewable and alternative energy solutions for the NWT.

This 2022-2025 Energy Action Plan (Action Plan) describes the ongoing and new Actions and Initiatives needed for the GNWT and its partners to achieve the six **Strategic Objectives** set out in the **Strategy**:

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

This 2022-2025 Action Plan is the second three-year action plan developed since the Strategy was released in 2018. It builds on the actions undertaken since the 2019-2022 Energy Action Plan was published and describes the ongoing and new Actions and Initiatives to be undertaken in the next three years.

#### WHAT WE ACHIEVED IN THE 2019-2022 ENERGY ACTION PLAN

The 2019-2022 Action Plan contained 44 initiatives focused on implementing new energy efficiency and GHG emissions reduction incentive programs and taking steps to position the territory to complete larger infrastructure projects by 2030. A status update for each of the projects and initiatives under the 2019-2022 Action Plan is provided in the 2021-2022 Energy Initiatives Report. As of March 31, 2022, 95% of projects initiated under the 2019-2022 Action Plan were complete or ongoing, and 5% were partially complete or not implemented. Projects and initiatives contained in the first Action Plan will reduce GHG emissions by 47.3 kilotonnes (kt) of CO<sub>2</sub>e by 2025. Many of the actions and initiatives advanced under the 2019-2022 Action Plan will continue in the 2022-2025 Action Plan.

*The previous 2019-2022* Energy Action Plan put us on track to reduce 47.3 kt of emissions by 2025.

#### HOW THE 2022-2025 ENERGY ACTION PLAN WAS DEVELOPED

The 2019-2022 Energy Action Plan ended on March 31, 2022. The GNWT conducted several activities during Fall 2021 and Winter 2022 to support the development of the 2022-2025 Energy Action Plan.

The GNWT first reviewed projects and initiatives included in the 2019-2022 Energy Action Plan to identify projects that could be replicated, technologies that should be further invested in, and research that should be conducted in the new Action Plan. The GNWT initiated an assessment to estimate a realistic range of GHG emissions reductions required by 2025 to put the NWT on track to meet the 2030 target. Additional analysis was conducted to estimate and compare the pertonne cost of various programs and initiatives.

The GNWT also reviewed funding available through existing federal programs (e.g., ICIP, LCELF) and investigated potential new funding streams available to help finance energy projects and initiatives across the NWT.

The GNWT then conducted a public engagement campaign in 2022 to get feedback that informed the development of the 2022-2025 Energy Action Plan. The engagement included:

- A call for public input on the GNWT engagement portal (from Feb 22 to March 22, 2022), which was pushed through social media channels, targeted emails to specific organizations/individuals, as well as paid media advertisements.
- Meetings with other GNWT departments, agencies and Crown corporations, the AEA as well as select stakeholder groups.
- In addition to the call to the public, the GNWT sent a letter to Indigenous governments to request input and help craft the 2022-2025 Energy Action Plan.

Seven submissions from industry, non-profits and individuals were received during the engagement. Most of these submissions contained extensive ideas aimed at reducing energy costs for Northerners and businesses while advancing GHG emissions reductions in the electricity, transportation, buildings, and industrial sectors.

Analysis and feedback were used to assess the success of initiatives, incorporate lessons learned, and keep up with emerging technologies, potential energy sources, and the ever-evolving social, political, and economic landscape. Engagement results were communicated in a briefing to the Standing Committee on Economic Development and Environment (SCEDE)—with an opportunity for questions—in April 2022.

#### **OUR ADAPTIVE APPROACH**

The GNWT has set realistic and achievable *Strategic Objectives* and supporting *Actions and Initiatives*—based on current technology and costs. Technologies improve and costs for energy solutions change over time. In the last three years, costs have mostly increased across the NWT, adding to the need to focus on the most proven and cost-effective solutions in the *2022-2025 Action Plan*. Because of this, the GNWT maintains a flexible approach to the *Strategic Objectives* and *Actions and Initiatives*. Over the course of the *Strategy*, the GNWT is committed to continuously reassessing and validating options and costs of solutions, and adapt its approach to find the best and most economical solutions. The GNWT committed to review the *Strategy* every five years, with the first review scheduled to take place in 2023. The *2022-2025 Action Plan* puts in motion early actions that need to be taken to prepare for this review. The GNWT will continue to update the three-year *Action Plan* detailing its investments in the *Actions and Initiatives* to meet the *Strategy's Strategic Objectives*.

The 2022-2025 Energy Action plan is the second three-year plan developed since the Strategy was released in 2018.

#### **EXAMINING OUR LONGER-TERM ENERGY FUTURE**

In 2021, Canada committed to reaching a net-zero emissions target by 2050. Preliminary analysis conducted by the GNWT indicates this target will be hard to reach in the NWT given the limited availability of demonstrated zero-carbon technologies in the North. The challenge is particularly prominent for remote communities, where moving to electricity-based technologies is either not an option or would not necessarily reduce GHG emissions due to their reliance on fossil fuels for power generation. It is understood that any deep decarbonization effort in the North will be tied to the availability of zero-carbon technologies, as well as the cost and social acceptance of such technologies.

In 2021-2022, the GNWT initiated modelling work to better understand what low-carbon pathways could look like in the North. The first phase of the project includes an assessment of how the carbon tax, along with policy and programs (both territorial and federal) will impact the NWT's energy mix, emissions trajectory, and economy through to 2030. Scenarios will examine the potential for existing technologies to further reduce emissions in the transportation, buildings, and industrial sectors. This work will help to evaluate and manage our progress towards the 2030 target, as well as contribute to support initiatives under the 2022-2025 Action Plan.

In a following phase, the GNWT will work with its partners to estimate the technical feasibility and cost of the NWT potentially committing to a greater GHG emissions reduction target, including investigating whether a net-zero target by 2050 is possible in the North. In this phase, some of the scenarios being developed will include a portion of emerging technologies and energy sources that are not currently commercially available or not currently available at the scale we need such as hydrogen, advanced biofuels, and small module nuclear reactors.

Findings from the modelling work—to be made public—will be instrumental to inform the five-year review of the Strategy—a key initiative occurring under this Action Plan and scheduled to start in 2023-2024.

#### INVESTMENTS

The GNWT and its partners, including the federal government, Indigenous governments and Indigenous organizations, Housing NWT, the Arctic Energy Alliance (AEA), the NWT Power Corporation (NTPC), Northland Utilities Ltd., as well as residents, business, communities, and industry will make significant investments to implement this Action Plan.

Table 1 provides a summary of government multi-year investments to implement this Action Plan. Many of the 68 proposed **Actions and Initiatives** in this Action Plan are dependent on federal funding support. **Over** the next three years, the GNWT and its partners plan to invest approximately \$194 million to implement the Strategy. New investments in the 2022-2025 Action Plan are expected to reduce NWT emissions by an additional 3.3 kt of CO<sub>2</sub>e. When combined with the existing Actions and Initiatives under both action plans, the GNWT expects to reduce NWT GHG emissions by a combined total of 51 kt by 2025.

Some actions and initiatives conducted under the 2022-2025 Action Plan will not directly lead to GHG emissions reductions by 2025; rather they will explore the potential for longer-term transformational projects as well as emerging technologies to provide the sustainable, secure, and affordable energy the NWT needs in the decades to come.



#### **ENERGY ACTION PLAN**

Table 1: Summary of investments per source of funding

Comment from the		Funding (\$1,000)	T-+-1 (\$4,000)	GHG Reduction	
Source of Funding	2022-2023	2023-2024	2024-2025	Total (\$1,000)	in 2025 (t CO <sub>2</sub> e)
CARF	\$3,800	\$3,800	\$3,800	\$11,400	6,596
GNWT Core	\$1,800	\$1,890	\$1,750	\$5,440	-
GNWT-LCELF	\$5,775	\$3,275	-	\$9,050	8,639
GNWT-NRCan	\$212	\$212	-	\$424	-
GNWT-ICIP	\$12,500	\$27,000	\$54,000	\$93,500	10,100
New GNWT Core	\$375	\$1,830	-	\$2,205	859
New Federal Funding	-	-	\$5,475	\$5,475	3,854
ICIP	\$500	\$9,400	\$38,600	\$48,500	2,000
CIRNAC (Taltson Hydro Expansion)	\$4,000	\$6,765	-	\$10,765	-
CIRNAC (other projects)	\$2,050	\$2,550	-	\$4,600	-
Housing NWT/CIRNAC/NRCan	\$1,450	\$1,500	-	\$2,950	-
Total	\$32,462	\$58,222	\$103,625	\$194,309	32,048

Table 2: Summary of investments by Strategic Objective

	Number of		Funding (\$1,000)		GHG Reduction	
Strategic Objective	Initiatives	2022-2023	2023-2024	2024-2025	Total (\$1,000)	in 2025 (t CO <sub>2</sub> e)
1. Working together	10	\$3,185	\$975	\$2,150	\$6,310	3,297
2. 25% Electricity	13	\$14,060	\$37,500	\$93,600	\$145,160	12,100
3. 10% Transport	11	\$512	\$1,502	\$250	\$2,264	525
4. & 5. 40% Heat & 15% Energy Efficiency	23	\$8,380	\$8,500	\$7,375	\$24,255	16,126
6. Long-term Vision and Industry	11	\$6,325	\$9,745	\$250	\$16,320	-
Total	68	\$32,462	\$58,222	\$103,625	\$194,309	32,048



#### **STRATEGIC OBJECTIVE 1: WORK TOGETHER TO FIND SOLUTIONS: COMMUNITY ENGAGEMENT, PARTICIPATION, AND EMPOWERMENT**

During the public engagement sessions to develop the Strategy, we heard that communities want to be more engaged and to be part of the solution. This included being partners in developing solutions, undertaking projects independently, and simply being kept updated on local solutions.

The number, scope and scale of energy projects being undertaken independently by communities, individuals and Indigenous Governments and Organizations across the NWT are increasing rapidly—primarily encouraged by the availability of federal funding. The GNWT agrees that our collective know-how and effort is needed, and will work to ensure better communication,

engagement, and support for communities.

For Strategic Objective 1, the GNWT will continue **Actions and Initiatives** conducted under the previous Action Plan, with additional funding to implement community energy plans and the GHG Grant Program for Governments.

The following 10 Actions and Initiatives will be undertaken over the next three years to meet this Strategic Objective:

A CTUDAYS AND INITIATIVES		Funding		GHG Reduction		
ACTIONS AND INITIATIVES	Lead	Source	2022-2023	2023-2024	2024-2025	in 2025 (t CO <sub>2</sub> e)
Continue to involve and engage communities on energy projects	GNWT	GNWT Core	-	-	-	-
Continue outreach and communication with stakeholders	GNWT	GNWT Core	\$50	\$50	\$50	-
Develop a corporate GHG inventory	GNWT	GNWT Core	\$25	\$75	-	-
Create partnership opportunities in local renewable energy projects for community and Indigenous Governments and Organizations that support local capacity development	GNWT/NTPC	GNWT Core	-	-	-	-
Expand support for community-based energy planning	AEA	New GNWT Core	-	\$200	TBD	-
Energy mentorship for community representatives	GNWT/AEA	New GNWT Core	-	\$50	TBD	-
Update and communicate the Renewable Electricity Participation Model for Diesel Communities	GNWT	GNWT Core	\$10	-	-	-
Support community-based energy projects by providing technical and financial support to help communities advance renewable energy and energy savings projects	GNWT	GNWT Core	\$100	\$100	\$100	-
Continue to administer the application-based GHG Grant Program for Governments	GNWT	GNWT-LCELF	\$3,000	\$500	-	2,237
Re-invest in an application-based GHG grant program for governments and communities pending federal funding	GNWT	New Federal Funding	-	-	\$2,000*	1,060
			\$3,185	\$975	\$2,150	3,297

<sup>\*</sup> conditional on availability of funding.



## STRATEGIC OBJECTIVE 2: REDUCE GREENHOUSE GAS EMISSIONS FROM ELECTRICITY GENERATION IN DIESEL COMMUNITIES BY 25%

During the public engagement sessions to develop the *Strategy*, we heard that reducing reliance on diesel electricity generation in communities was a priority. Community diesel electricity generation produces on average 72 kt of GHG emissions, accounting for about 4% of the NWT's annual total. The GNWT and its partners will implement renewable and alternative energy solutions appropriate to each community and region to reduce GHGs from diesel electricity by 25% by

2030. A 25% reduction equates to a reduction of 18 kt by 2030, over average historical levels.

#### The following 13 Actions and Initiatives will be undertaken over next three years to meet this Strategic Objective:

A CTIONS AND INITIATIVES		Funding		GHG Reduction		
ACTIONS AND INITIATIVES	Lead	Source		2023-2024	2024-2025	in 2025 (t CO <sub>2</sub> e)
Give policy direction to the PUB to address intermittent renewable generation community capacity limits	GNWT/NTPC	GNWT Core	\$30	-	-	-
Give policy direction to the PUB to address Net Metering and Community Power Producer Policy	GNWT/NTPC	GNWT Core	-	-	-	-
Provide direction to the PUB to implement load growth initiatives	GNWT	GNWT Core	-	-	-	-
Continue to assess emerging energy technologies and undertake technical and engineering feasibility studies	GNWT	GNWT Core	\$1,000	\$1,000	\$1,000	-
Investigate anaerobic digestion for heat and power generation	GNWT	GNWT Core	\$30	\$100	-	-
Continue NTPC hydro asset overhauls	GNWT/NTPC	ICIP	-	\$2,300	\$20,000	-
Examine renewable solutions for off-grid diesel	GNWT/NTPC	GNWT-ICIP	-	\$4,000	-	-
Community LNG projects for electricity generation	GNWT/NTPC	ICIP	\$500	\$1,000	\$8,600	1,800
Continue diesel efficiency upgrades	GNWT/NTPC	ICIP	-	\$6,100	\$10,000	200
Complete the Inuvik Wind Project	GNWT/NTPC	GNWT-ICIP	\$10,300	-	-	6,000
Initiate construction of transmission line to Fort Providence and Kakisa	GNWT/NTPC	GNWT-ICIP	\$ 2,200	\$18,000	\$39,000	2,750
Advance technical work to build a transmission line from the Snare electricity system to Whatì	GNWT/NTPC	GNWT-ICIP	-	\$4,500	\$14,000	1,350
Assess the potential for community-based mini-hydro projects	GNWT	GNWT-ICIP	-	\$500	\$1,000	-
			\$14,060	\$37,500	\$93,600	12,100



## STRATEGIC OBJECTIVE 3: THE GNWT WILL REDUCE EMISSIONS FROM TRANSPORTATION BY 10% ON A PER PERSON BASIS

During the public engagement sessions to develop the *Strategy*, we heard that even though it will be challenging in the NWT context, the GNWT should address emissions from the transportation sector. Large distances between communities and from southern markets means that goods and people must travel much farther than in most southern jurisdictions. Distances and cold weather are challenges for alternative fuel options such as electric vehicles and biofuels.

In general, to reduce costs and emissions for transportation, the following range of initiatives are possible: drive less, use alternative modes of transportation such as cycling, walking, or public transit or less air transportation and more marine transportation, use smaller vehicles and more efficient electric or hybrid vehicles for commuting, and move towards less GHG-intensive fuel sources, such as hydrogen, renewable electricity, or suitable liquid biofuels.

The following 11 *Actions and Initiatives* will be undertaken over the next three years to meet this *Strategic Objective*:

A CTIONS AND INITIATIVES		Funding	F	GHG Reduction		
ACTIONS AND INITIATIVES	Lead	Source	2022-2023	2023-2024	2024-2025	in 2025 (t CO <sub>2</sub> e)
Continue and expand a rebate program for electric vehicles and installing fast charging stations	GNWT/AEA	New GNWT Core	\$100	\$200	TBD	
Continue to build a zero-emission vehicles corridor in the NWT hydro zones	GNWT	New GNWT Core	\$200	\$1,000	TBD	512
Develop a program funding public, commercial and multi-unit residential electric vehicle charging infrastructure	GNWT	GNWT-NRCan	\$212	\$212	-	
Create a rebate for electric bikes in hydro zones	GNWT/AEA	New GNWT Core	-	\$10	TBD	4
Explore the potential of a pilot program to provide rebates for on-the-land electric vehicles (e.g., electric snowmobiles, electric boats)	GNWT/AEA	New GNWT Core	-	\$20	TBD	8
Continue to assess the status of emerging low-carbon transportation technologies, such as electric, hydrogen and suitable advanced liquid biofuels	GNWT	GNWT Core	-	\$30	\$250	-
Assess the potential for a GNWT electric vehicles procurement policy and investigate funding options for incremental costs	GNWT	GNWT Core	-	\$30	-	-
Continue to work with the federal government on emissions reduction in the transportation sector	GNWT	GNWT Core	-	-	-	-
Monitor the implementation of the federal Clean Fuel Regulations and the availability of Arctic-grade biofuels for the North	GNWT	GNWT Core	-	-	-	-
Support community-based transportation initiatives through the GHG Grant Program for Governments	GNWT	GNWT-LCELF	-	-	-	-
Support industrial vehicle efficiency through the GHG Grant Program for Buildings and Industry	GNWT	GNWT-LCELF	-	-	-	-
			\$512	\$1,502	\$250	524



# STRATEGIC OBJECTIVES 4 AND 5: INCREASE THE SHARE OF RENEWABLE ENERGY USED FOR COMMUNITY HEAT TO 40% BY 2030 / INCREASE COMMERCIAL, RESIDENTIAL, AND INSTITUTIONAL BUILDING ENERGY EFFICIENCY BY 15% OVER 2015 LEVELS BY 2030

During the public engagement sessions to develop the *Strategy*, we heard that supporting building energy efficiency is key in addressing energy affordability and reducing GHG emissions in the NWT. In fact, energy efficiency and conservation are often the least costly solution and the easiest to implement. For this reason, energy efficiency is being pursued as an objective in the *Strategy*, and will help meet the other *Strategic Objectives*. Energy efficiency—in heating and electricity in particular—will help the NWT reach

its objectives and targets. Community space heating is a significant contributor to the cost of living and GHG emissions in the NWT. Community heating with fossil fuels produces about 108 kt of GHG per year, or approximately 13% of total NWT emissions. Space heating in the NWT is primarily fueled by heating oil, propane, and renewable biomass (such as cordwood and wood pellets). We heard from the public that the GNWT should support the greater use of renewables for heating to make heating more affordable and

sustainable. The 2019-2022 Action Plan was marked by a significant increase in funding for the AEA as well as Housing NWT. This funding was made possible by the federal LCELF program and was confirmed in October 2018. The programs announced gained traction in the last Action Plan and have led to many projects and programs being funded between 2019 and 2022. Many of these projects will be continued under the 2022-2025 Action Plan.

The following 23 **Actions and Initiatives** will be undertaken over the next three years to meet these **Strategic Objectives**:

ACTIONS AND INITIATIVES	Load	Funding Course	F	GHG Reduction		
ACTIONS AND INITIATIVES Lead		Funding Source	2022-2023	2023-2024	2024-2025	in 2025 (t CO <sub>2</sub> e)
Create a new program for low-income households to address energy poverty	GNWT/AEA	New GNWT Core	-	\$200	TBD	334
Fund additional energy auditor capacity	AEA	New GNWT Core	\$75	\$150	TBD	-
Enhance the Energy Efficiency Rebate/Incentive Program	AEA	GNWT-LCELF	\$400	\$400	-	1,336
Re-invest in funding for enhancements to the Energy Efficiency Rebate/Incentive Program	AEA	New Federal Funding	-	-	\$400*	668
Continue and expand the GNWT Capital Asset Retrofit Fund (CARF)	GNWT	CARF	\$3,800	\$3,800	\$3,800	6,596
Review energy efficiency and conservation programs as part of the five-year review of the 2030 Energy Strategy	GNWT/AEA	GNWT Core	-	-	\$100*	-
Conduct a wood pellet supply chain assessment and expansion study	GNWT	GNWT Core	\$100	-	-	-
Explore potential for large scale centralized heating systems in communities	GNWT	GNWT Core	\$180	\$75	-	-

Continue to administer the GHG Grant Program for Buildings and Industry	GNWT	GNWT-LCELF	\$1,400	\$1,400	-	4,352
Deep Home Energy Retrofit Program (ERS follow-up and implementation support)	AEA	GNWT-LCELF	\$50	\$50	-	36
Energy efficiency and conservation retrofits for non-government organizations	AEA	GNWT-LCELF	\$100	\$100	-	120
Enhancement to the Alternative Energy Efficiency Technologies Program	AEA	GNWT-LCELF	\$300	\$300	-	311
Enhancement to the Commercial Energy Conservation and Efficiency Program	AEA	GNWT-LCELF	\$175	\$175	-	123
Enhance the Community Government Program	AEA	GNWT-LCELF	\$50	\$50	-	83
Continue the Community Woodstove Program	AEA	GNWT-LCELF	\$300	\$300	-	42
Re-invest in an application-based GHG grant program for buildings and industry, pending federal funding	GNWT	New Federal Funding	-	-	\$2,000*	1,733
Re-invest in a Deep Home Energy Retrofit Program, pending federal funding	AEA	New Federal Funding	-	-	\$100*	7
Re-invest in energy efficiency and conservation retrofits for non-government organizations after LCELF funding sunsets, pending federal funding	AEA	New Federal Funding	-	-	\$100*	60
Re-invest in Enhancement to the Alternative Energy Efficiency Technologies Program after LCELF funding sunsets, pending federal funding	AEA	New Federal Funding	-	-	\$300*	155
Re-invest in Enhancement to the Commercial Energy Conservation and Efficiency Program after LCELF funding sunsets, pending federal funding	AEA	New Federal Funding	-	-	\$175*	67
Re-invest in Enhancements to the Community Government Program after LCELF funding sunsets, pending federal funding	AEA	New Federal Funding	-	-	\$100*	83
Re-invest in Community Woodstove Program after LCELF funding sunsets, pending federal funding	AEA	New Federal Funding	-	-	\$300*	21
Develop and implement an energy management strategy for Housing NWT	Housing NWT	Housing NWT/ CIRNAC/NRCan	\$1,450	\$1,500	-	-
			\$8,380	\$8,500	\$7,375	16,126

<sup>\*</sup> conditional on availability of funding.

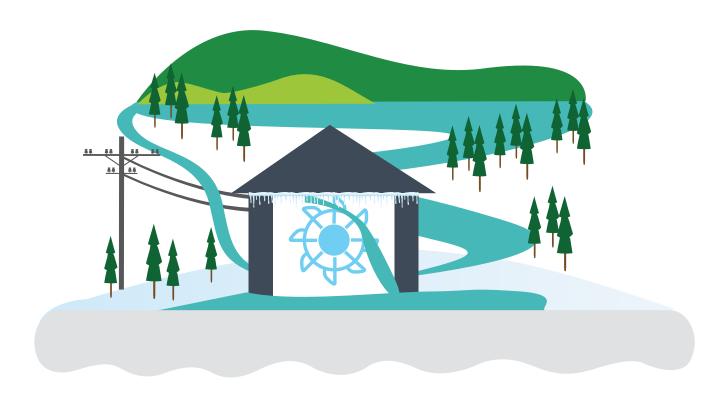


## STRATEGIC OBJECTIVE 6: A LONGER-TERM VISION: DEVELOP THE NWT'S ENERGY POTENTIAL, ADDRESS INDUSTRY EMISSIONS, AND DO OUR PART TO MEET NATIONAL CLIMATE CHANGE OBJECTIVES

The NWT has significant mineral, renewable and distributed energy potential. Developing this potential improves our economy, creates jobs, and ensures a more sustainable energy system for the NWT and Canada.

We heard consistently from the public that the GNWT must do more and be more innovative to address industrial emissions. Connecting the NWT to the North American electrical grid, connecting the North

and South Slave electrical systems, and connecting industry to renewable energy are initiatives that would significantly reduce GHG emissions, and reduce the cost of living and doing business in the NWT. Developing the Taltson hydroelectric system would enable the NWT to make a significant contribution to the national GHG reduction targets agreed to under the 2015 Paris Agreement.



The following 11 *Actions and Initiatives* will be undertaken over the next three years to meet this *Strategic Objective*:

A CTIONS AND INITIATIVES		Funding		GHG Reduction		
ACTIONS AND INITIATIVES	Lead	Source	2022-2023	2023-2024	2024-2025	in 2025 (t CO <sub>2</sub> e)
Hydro and transmission development	GNWT/NTPC	CIRNAC	\$2,050	\$2,550	-	-
Develop approach to the five-year review of the 2030 Energy Strategy, complete review, and update the Strategy	GNWT	GNWT Core	-	\$200	-	-
Conduct a techno-economic assessment of pathways to net-zero emissions for the NWT	GNWT	GNWT Core	\$100	-	-	-
Utility energy storage concept	GNWT	GNWT Core	\$100	-	-	-
Assess technical feasibility of wide electrification of end-uses (e.g., transportation, heating, industry) in hydro communities	GNWT	GNWT Core	-	-	\$250	-
Assess the potential for hydrogen production and use in the NWT (e.g., transportation)	GNWT	GNWT Core	\$75	\$100	-	-
Assess the potential contribution of negative emissions technologies (e.g., carbon offsets) to net-zero pathways for the NWT	GNWT	GNWT Core	-	\$100	-	-
Assess the potential for legislation to advance energy and climate objectives	GNWT	GNWT Core	-	-	-	-
Continue to monitor the development of small modular reactors	GNWT	GNWT Core	-	-	-	-
Conduct an organic waste study and landfill gas assessment	GNWT	GNWT Core	-	\$30	-	-
Taltson Hydroelectricity Expansion Project	GNWT/NTPC	CIRNAC (Taltson Expansion)	\$4,000	\$6,765	TBD	-
			\$6,325	\$9,745	\$250	-

#### **REPORTING ON OUR SUCCESS**

The GNWT will continue to prepare and publicly release annual reports to track and communicate its activities and progress towards its Strategic Objectives. The Department of Infrastructure's *Energy Initiatives Report*—released annually—contains the latest update on activities conducted by the GNWT and its partners under the *Strategy*.

### HEADING TO THE FIVE-YEAR REVIEW OF THE 2030 ENERGY STRATEGY

Under the 2022-2025 Action Plan, we will continue to advance existing transformational infrastructure projects, with milestones expected for some initiatives, such as the completion of the Inuvik Wind Project. We will continue to invest in initiatives that have proven to be effective, such as energy efficiency programs, biomass heating, and rebates for electric vehicles. We will also need to adapt energy policy to reflect current realities, while continuing to encourage individual, industrial and organizational action to reduce our reliance on fossil fuels—a balancing act that will require trade-offs.

One key activity included in the 2022-2025 Action Plan is the five-year review of the Strategy, scheduled to occur in 2023-2024. The GNWT will start planning for this review in 2022-2023, by conducting additional analysis as well as crafting a plan to engage with partners, stakeholders, Indigenous Governments and Organizations, industry, NGOs, and the public. Some initiatives conducted in 2021-2022 and 2022-2023, such as the low-carbon pathway work and the hydrogen workshop, will be instrumental to inform the five-year review of the Strategy. We also anticipate this review to dovetail with the review of the NWT Climate Change Strategic Framework, which is planned for 2024.

Though it will take thoughtful planning and hard work, the good news is that there are untapped opportunities to reduce GHG emissions without sacrificing energy affordability or reliability. Efficient access to local energy sources (e.g., hydro, wind, solar, natural gas) combined with adoption of electrified transportation, can help us make big gains toward achieving the objectives of the *Strategy*—and do our part to address climate change.







If you would like this information in another official language, call us.  English  ———————————————————————————————————
Si vous voulez ces informations dans une autre langue officielle, contactez-nous.  French
Kīspin ki nitawihtīn ē nīhīyawihk ōma ācimōwin, tipwāsinān.  Cree
Tłįchǫ yatı k'ę̀ę̀. Dı wegodı newǫ dè, gots'o gonede. ———————————————————————————————————
Perıhtł'ís Dëne Sųłıné yatı t'a huts'elkër xa beyáyatı thezą zat'e, nuwe ts'ën yółtı
Edı gondı dehgáh got'ıe zhatıé k'éé edatł'éh enahddhe nıde naxets'é edahlí. South Slavey
K'áhshó got'ıne xədə k'é hederi zedihtl'é yeriniwę nídé dúle. North Slavey
Jii gwandak izhii ginjìk vat'atr'ijąhch'uu zhit yinohthan jì', diits'àt ginohkhìi. Gwich'in
Uvanittuaq ilitchurisukupku Inuvialuktun, ququaqluta. Inuvialuktun
$\overset{-}{\text{C}^{\text{b}}\text{d}}\text{d} \cap \cap^{\text{c}\text{b}}\text{d}^{\text{c}} \wedge \text{d} \cap \wedge^{\text{c}}\text{d}^{\text{c}} \wedge^{\text{c}}\text{d}^{\text{c}}\text{d}^{\text{c}}$
Hapkua titiqqat pijumagupkit Inuinnaqtun, uvaptinnut hivajarlutit. Inuinnaqtun