



# 2030 ENERGY STRATEGY ENERGY ACTION PLAN REPORT

AUGUST 2019



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**August 2019**

# EXECUTIVE SUMMARY

The first year of implementing the *NWT's 2030 Energy Strategy* (Strategy) through the GNWT's three-year *Energy Action Plan* was a success. It has been a banner year for the GNWT in securing funding for energy initiatives. Under the Low Carbon Economy Leadership Fund (LCELF) the GNWT secured \$31.2 million over four years, including \$8 million over three years for the GHG Grant Program for Buildings and Industry, \$7.2 million for the GHG Grant Program for Governments, and an additional \$9.2 million in combined LCELF and GNWT support for the AEA.

Under the Government of Canada Investing in Canada Infrastructure Program (ICIP) the GNWT secured \$30 million for the Inuvik Wind Project, \$15 million for a new generator in Sachs Harbour, and \$10.7 million for upgrades to the Snare Forks hydropower generator. Late in the year, the GNWT secured a commitment from the Government of Canada for \$18 million to advance the Taltson Hydroelectricity Expansion Project.

This funding will contribute to stabilizing the cost of energy while reducing GHG emissions. The Energy Action Plan has been updated to reflect the next three years (2019 to 2022), when the GNWT and its partners will spend up to \$227 million to support actions and initiatives that support secure, affordable and sustainable energy in the NWT.

Specific funding allotted to the *2030 Energy Strategy's* six Strategic Objectives includes:

1. \$8.2 million to support working together to find solutions.
2. \$134.4 million to reduce greenhouse gas emissions from electricity.
3. \$5.9 million to reduce transport emissions.
- 4/5. \$33.0 million to increase energy efficiency and support renewable heating.
6. \$45.5 million to overhaul aging hydro assets, advance the Taltson Expansion Project and address industrial emissions reductions.

In the first year of this updated three-year action plan, the GNWT and its partners will invest up to \$64 million to:

- Roll out enhanced programs and services for the AEA;
- Launch the \$8 million GHG Grant Program for Buildings and Industry;
- Initiate construction of the Inuvik Wind Project;
- Secure federal funding for new electricity transmission;
- Advance the Taltson Hydroelectricity Expansion Project;
- Continue supporting the GHG Grant Programs for Governments;
- Launch an electric vehicle rebate program;
- Complete major energy retrofits in a Marine Transportation Services vessel; and
- Build a biomass district heating system for 45 public housing units in Yellowknife.

***This updated 2019 – 22 Energy Action Plan is expected to result in close to 57,000 tonnes of GHG reductions by 2022. This represents approximately 11% of the total target reduction of 517,000 tonnes by 2030.***

## INTRODUCTION

*The GNWT has had a successful first year of implementing the NWT's 2030 Energy Strategy (Strategy) through its three-year 2018 – 21 Energy Action Plan. The first section of this report summarizes the actions and initiatives undertaken in the past year to contribute to the following six strategic objectives set out in the Strategy:*

- 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%.**
- 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.**

The GNWT will continue to implement the Strategy, building on the actions undertaken in the past year. The second section of this report details the actions and initiatives that will be undertaken toward each strategic objective in the next three years (2019 – 22).



# STRATEGIC OBJECTIVE 1

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

During public engagement surrounding the development of the Energy Strategy, we heard that communities want to be more engaged and to be part of the solution. This included a range of options including being partners in developing solutions, undertaking projects independently, and simply being kept updated on local solutions.

The GNWT agrees that our collective know-how and effort is needed, and will work to ensure better communication, engagement, and support to the communities.

### Summary of 2018 – 19 Actions

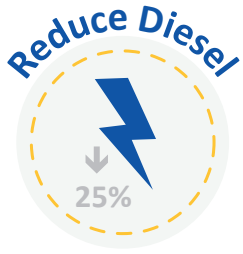
In 2018–19 the GNWT and its partners undertook many **Actions and Initiatives** to work together with communities and stakeholders. We continue to involve and engage with communities on energy projects.

The GNWT and NTPC engaged with the communities of Fort Simpson, Gameti, Inuvik, Norman Wells and Tulita on a range of energy projects, including community solar in Tulita, the Inuvik Wind Project, and a proposed biodigester project in Gameti. A significant outcome of this engagement was a partnership created between the Tulita Land Corporation and NTPC to support a 40-KW solar project to be owned and operated by the community land corporation and to be paid by NTPC for every litre of diesel displaced. This was an example of a Power Purchase Agreement under the GNWT 2030 Energy Strategy's Renewable Electricity Participation Model for Diesel Communities. The GNWT also provided an additional \$70,000 to the Arctic Energy Alliance to support community energy planning so communities can better understand the energy options available to them.

To support energy education, literacy and outreach, the GNWT developed eight energy-specific lesson plans for teachers in the NWT that support outcomes in High School Experiential Science. The lessons examine energy sources used in the NWT and the relation between fossil fuels and climate change.

The GNWT also secured \$7.2 million under the federal Low Carbon Economy Leadership Fund to fund application-based GHG reduction projects under the GNWT's GHG Grant Program for Governments. This program was officially launched in October 2018, and provides up to 75% grants to empower community and Indigenous governments to develop their own solutions.



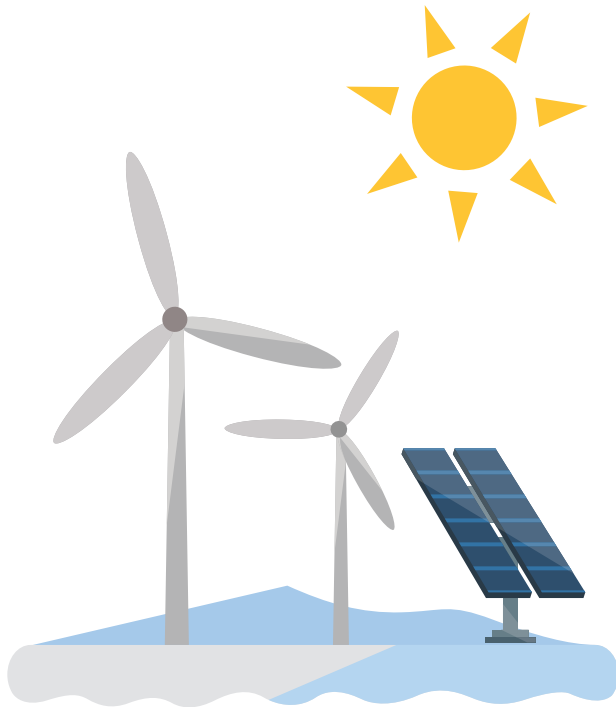


# STRATEGIC OBJECTIVE 2

## REDUCE GREENHOUSE GAS EMISSIONS FROM ELECTRICITY GENERATION IN DIESEL COMMUNITIES BY 25%

During the regional engagement sessions 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 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.

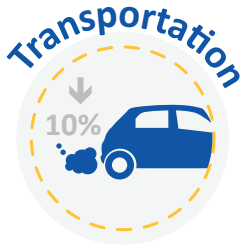
### Summary of 2018 – 19 Actions



Last year, the GNWT focused on setting the stage to achieve a reduction in GHG emissions from electricity by 25% below historical levels by 2030. The GNWT secured up to \$30 million in funding from the federal government for the Inuvik Wind Project, a significant milestone for this key electricity project in the NWT's largest fossil fuel-based community. The GNWT also developed the Inuvik Wind Project's business case, completed technical feasibility work, and started the procurement and regulatory processes.

To assess the feasibility of installing wind turbines in other communities, the GNWT erected a wind monitoring station in Norman Wells and is continuing to collect wind speed data in Sachs Harbour and at Snare Rapids north of Yellowknife. The GNWT is also currently monitoring a water gauging station installed near Gameti in 2017 – 18, to assess the viability of a mini-hydro project for that community.

Additional federal funding was secured by the GNWT to support the affordability, reliability and sustainability of electricity in the NWT. The GNWT secured \$15 million for a new and more efficient generator in Sachs Harbour that will use less diesel and allow for the integration of wind power should it be feasible.



# STRATEGIC OBJECTIVE 3

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

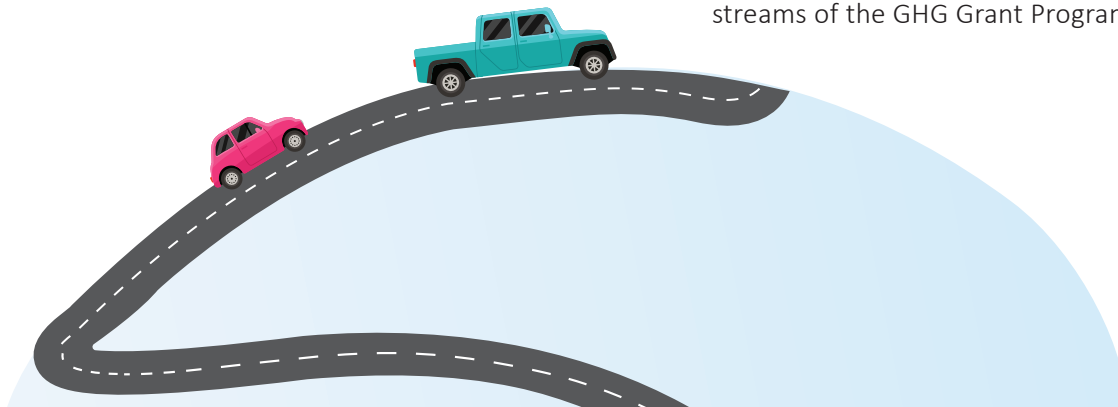
During our public engagement sessions, we heard that, although it will be challenging in the NWT context, the GNWT should address emissions from the transportation sector. Large distances between communities, and from southern markets, means that goods and people must travel much farther than in most southern jurisdictions. Distances and cold weather are challenges for alternative fuel options such as electric vehicles and biofuels. In general, a number of travel alternatives to reduce costs and transportation emissions are possible, including: drive less, use alternative modes of transportation such as cycling or public transit or less air transportation and more marine transportation, use smaller vehicles and more efficient electric or hybrid vehicles for commuting, and use less GHG-intensive fuel sources, such as renewable electricity or biofuels.

### Summary of 2018 – 19 Actions

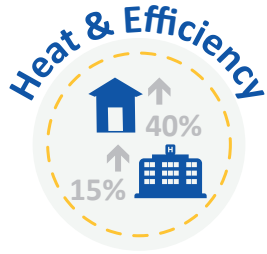
In 2018 – 19 the GNWT initiated preliminary work to reduce transportation emissions in the NWT. The GNWT and the Arctic Energy Alliance designed the electric vehicle and charging station rebate program to be launched in 2019 – 20. The GNWT secured \$3.8 million in federal funding under the Low Carbon Economy Leadership Fund for the energy retrofit of a GNWT Marine Transportation Services (MTS) tug and two ferries over the next three years. The GNWT will also now support community-based transportation initiatives and energy retrofits for industrial vehicles through both the Government, and Buildings & Industry streams of the GHG Grant Program.

The GNWT was actively involved in the federal-provincial-territorial Clean Fuel Standards Working Group and provided input into the federal clean fuel standards regulations, as well as ensuring the NWT's northern and remote context were considered by the federal-provincial-territorial Zero Emissions Vehicle (ZEV) Working Group—tasked with developing a strategy to promote the uptake of ZEV in Canada.

The GNWT also examined the technical and economic feasibility of an electric conversion for the Peel River Ferry, which would include solar panels and batteries to convert the Ferry from diesel power to renewable energy.







# STRATEGIC OBJECTIVES 4 AND 5

**INCREASE THE SHARE OF RENEWABLE ENERGY USED FOR COMMUNITY HEAT TO 40% BY 2030, AND INCREASE COMMERCIAL, RESIDENTIAL AND INSTITUTIONAL BUILDING ENERGY EFFICIENCY BY 15% OVER 2015 LEVELS BY 2030**

During the regional public engagement, we heard that supporting building energy efficiency is a key factor in addressing energy affordability and reducing greenhouse gas emissions in the NWT. In fact, energy efficiency and conservation are often the least costly solution and the easiest to implement. 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 fuelled by heating oil, propane and renewable biomass. We heard from the public that the GNWT should support greater use of renewables for heating, to make heating more affordable and sustainable.

## Summary of 2018 – 19 Actions

In 2018 – 19, the GNWT built on its commitment to increase energy efficiency and the share of heating provided through renewable sources. The GNWT secured approximately \$7.1 million under the federal Low Carbon Economy Leadership Fund and contributed an additional \$2 million in GNWT funds over four years to provide the Arctic Energy Alliance with over \$9.1 million in new funding—more than doubling the organization’s budget.

This funding is being used for a variety of new programs and services, including new support for low income home owners, a deep energy retrofit program, new support to implement community energy plans, an electric heat rebate to take advantage of the reduced rate for electric heating available in the South Slave hydropower system, as well as top-ups to existing rebate programs for energy efficiency and renewable energy for communities, residents and businesses.

The GNWT also secured \$4 million over the next three years to undertake renewable energy and energy efficiency upgrades in public housing. The Northwest Territories Housing Corporation set the stage to begin installing a biomass district heating system for 45 public housing units at Sissons Court in Yellowknife, and in future years will undertake efficiency upgrades in other units across the NWT.





# 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 small-scale 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, be more innovative, and address industrial emissions. Connecting the North and South Slave electrical systems, connecting industry to renewable energy, and eventually connecting the NWT to the North American electrical grid are initiatives that would significantly reduce GHG emissions and stabilize the cost of living and the cost of 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 Paris Agreement.

Achieving a transformative reduction in the NWT's GHG emission requires a transformative solution targeted at our largest emitting sector. Bringing 60 MW of renewable hydroelectricity from Taltson to industry will allow us to reduce industrial GHG emissions by about 224 kt. This is 44% of the required 517 kt required to meet our Pan-Canadian Framework target of 30% below 2005 levels by 2030. The Taltson development requires the Government of Canada support to proceed. Without federal support for Taltson, the NWT will not be able to reach its target.

### Summary of 2018 – 19 Actions

In 2018 – 19, the GNWT is advancing its longer term visions to develop the NWT energy potential and reduce industrial emissions by securing \$8 million over the next three years to fund the GHG Grant Program for Buildings and Industry. This application-based program can provide 25% grants to larger building owners and industry to undertake GHG emission reduction projects.

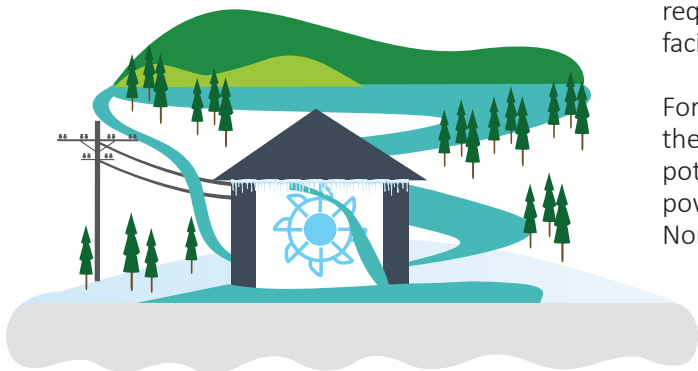
In 2018, the GNWT secured \$10.7 million to fund required upgrades to the Snare Forks hydroelectricity facility, which will reduce pressure on electricity rates.

For the Taltson Hydroelectricity Expansion Project, the GNWT undertook a conceptual review of the potential for using a high-voltage, direct-current power line under Great Slave Lake to connect the North Slave and South Slave hydropower systems.

The GNWT secured just under \$2 million to support the Taltson Project last year, which included \$225,000 provided to Indigenous governments to develop capacity to participate in the process.

In March 2019, the federal government announced an \$18 million commitment to advance the Taltson Project and fund the engineering and environmental assessment work required before the project can be sanctioned.

The GNWT has also investigated emerging technologies, including supporting the Aurora Research Institute (ARI) for wind monitoring initiatives in Inuvik, Sachs Harbour and Norman Wells. Partnerships were also established with the NWT Association of Communities (NWTAC) to host its Climate Change Forum and Charrette, as well as with the Town of Inuvik to support the Arctic Emerging Energy Technology Conference.



**2019 – 22 ENERGY ACTION PLAN  
UPDATE**



## 2019 – 22 ACTION PLAN INVESTMENTS

The GNWT and its partners, including the federal government, NWT Housing Corporation (NTWHC), the Arctic Energy Alliance (AEA), the NWT Power Corporation (NTPC), as well as residents, business, communities, and industry, will make significant investments over the next three years. Table 1 provides a summary of government multi-year investments to implement this Plan. Many of the proposed **Actions and Initiatives** in this Plan are dependent on federal funding. **Over the next three years, the GNWT and its partners are planning to invest approximately \$227 million to implement the Strategy.**

**Table 1: Short-Term Government Investments in the 2030 Energy Strategy**

| Funding Sources                                 | Yearly Investment (Thousands of \$) |                 |                 |                  | Estimated 2022 GHG Reduction in Annual Emissions (Tonnes of CO <sub>2</sub> ) |
|---|-------------------------------------|-----------------|-----------------|------------------|---|
|   | 2019 – 20                           | 2020 – 21       | 2021 – 22       | TOTAL            |   |
| Capital Asset Retrofit Fund (Ongoing)           | \$3,800                             | \$3,800         | \$3,800         | \$11,400         | 3,000   |
| Arctic Energy Alliance (Ongoing)                | \$2,700                             | \$2,700         | \$2,700         | \$8,100          | 2,000   |
| GNWT Projects and Studies (Ongoing)             | \$1,670                             | \$1,670         | \$1,670         | \$5,010          | 0   |
| Infrastructure Canada Funding                   | \$29,400                            | \$38,760        | \$56,000        | \$124,160        | 25,000  |
| Matching GNWT/NTPC INFC Funding                 | \$9,800                             | \$12,920        | \$18,670        | \$41,390         |   |
| Federal Low Carbon Economy Fund                 | \$12,650                            | \$8,900         | \$8,300         | \$29,850         | 26,000  |
| GNWT LCELF                                      | \$2,450                             | \$1,200         | \$1,000         | \$4,650          |   |
| New Core GNWT Funding                           | \$-                                 | \$800           | \$300           | \$1,100          | 0   |
| Crown-Indigenous Relations and Northern Affairs | \$1,280                             | \$-             | \$-             | \$1,280          | 0   |
| <b>Total</b>                                    | <b>\$63,750</b>                     | <b>\$70,750</b> | <b>\$92,440</b> | <b>\$226,940</b> | <b>56,000</b>   |

## 2019 – 22 ACTION PLAN INVESTMENTS

*Table 2: Summary of Short Term Investments by 2030 Energy Strategy by Strategic Objective*

| Strategic Objective                      | Yearly Investment (Thousands of \$) |                 |                 | TOTAL            | Estimated 2022 GHG Reduction in Annual Emissions (Tonnes of CO <sub>2</sub> ) |
|--|-------------------------------------|-----------------|-----------------|------------------|---|
|  | 2019 – 20                           | 2020 – 21       | 2021 – 22       |                  |   |
| 1. Working Together                      | \$2,660                             | \$2,800         | \$2,780         | \$8,240          | 3,000   |
| 2. 25% Electricity                       | \$29,800                            | \$45,900        | \$58,700        | \$134,400        | 18,000  |
| 3. 10% Transport                         | \$4,210                             | \$1,390         | \$250           | \$5,850          | 1,000   |
| 4. & 5. 40% Heat & 15% Energy Efficiency | \$12,030                            | \$10,590        | \$10,370        | \$32,990         | 11,000  |
| 6. Long-term Vision and Industry         | \$15,050                            | \$10,070        | \$20,340        | \$45,460         | 23,000  |
| <b>Total</b>                             | <b>\$63,750</b>                     | <b>\$70,750</b> | <b>\$92,440</b> | <b>\$226,940</b> | <b>56,000</b>   |

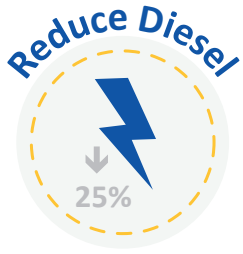


# STRATEGIC OBJECTIVE 1

## THREE-YEAR ACTION PLAN 2019 – 22

For Strategic Objective 1, the GNWT will continue with same action areas, with additional funding used to implement Community Energy Plans and the Government GHG Grant Program. Below are the **Actions and Initiatives** to be undertaken over the next three years to meet this **Strategic Objective**:

| Actions and Initiatives   | Resources |                    |                    |                    |                   |  |
|---|-----------|--------------------|--------------------|--------------------|-------------------|--|
|   | Lead      | 2019 – 20          | 2020 – 21          | 2021 – 22          | Funding Source(s) | Estimated 2022 GHG Reduction in Annual Emissions (Tonnes of CO2) |
| Continue to involve and engage communities on energy projects   | GNWT/NTPC | Core               | Core               | Core               | GNWT              | 0  |
| Energy mentorship for community representatives   | NTPC      | \$25,000           | \$25,000           | \$25,000           | GNWT              | 0  |
| Provide community participation framework   | GNWT      | -                  | -                  | -                  | GNWT              | 0  |
| Undertake education, energy literacy and outreach initiatives   | GNWT/AEA  | \$25,000           | \$25,000           | \$25,000           | GNWT              | 0  |
| Support community-based energy projects by providing technical support to help communities advance renewable energy and energy saving projects          | GNWT/NTPC | Core               | Core               | Core               | GNWT              | 0  |
| Create partnership opportunities in local renewable energy projects for community and Aboriginal governments that support local capacity development    | GNWT/NTPC | Core               | Core               | Core               | GNWT              | 0  |
| Support the development and implementation of community energy plans  | GNWT/AEA  | \$230,000          | \$302,000          | \$289,000          | GNWT/LCELF        | 0  |
| Implement a new application-based GHG Grant Program for Governments* to support government energy efficiency, renewable and alternative energy projects | GNWT      | \$2,380,000        | \$2,444,000        | \$2,444,000        | GNWT/LCELF        | 3,400  |
| *Formerly 'Energy Fund'   |           |                    |                    |                    |                   |  |
| <b>TOTAL</b>  |           | <b>\$2,660,000</b> | <b>\$2,796,000</b> | <b>\$2,783,000</b> |                   | <b>3,400</b>   |

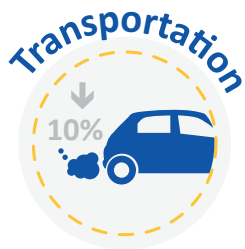


# STRATEGIC OBJECTIVE 2

## THREE-YEAR ACTION PLAN 2019 – 22

Two new activities were included in the revised **Action Plan**; major efficiency upgrades to one diesel plant and funds to assess a community-scale mini-hydroelectricity project in 2021 – 22. The following **Actions and Initiatives** will be undertaken over the next three years to meet this **Strategic Objective**:

| <i>Actions and Initiatives</i>   | <i>Resources</i> |                     |                     |                     |                          |   |
|--|------------------|---------------------|---------------------|---------------------|--------------------------|---|
|  | <b>Lead</b>      | <b>2019 – 20</b>    | <b>2020 – 21</b>    | <b>2021 – 22</b>    | <b>Funding Source(s)</b> | <b>Estimated 2022 GHG Reduction in Annual Emissions (Tonnes of CO2)</b> |
| <b>Inuvik Wind Project</b>   | NTPC/GNWT        | \$18,000,000        | \$20,599,000        | \$0                 | GNWT/INFC                | <b>6,500</b>  |
| <b>Community wind/diesel hybrid (2 communities)</b>  | NTPC/GNWT        | \$7,400,000         | \$7,600,000         | \$0                 | GNWT/INFC                | <b>1,900</b>  |
| <b>Community lng projects (2 communities)</b>  | NTPC/GNWT        | \$500,000           | \$6,500,000         | \$8,000,000         | GNWT/INFC                | <b>1,700</b>  |
| <b>Transmission (2 communities)</b>  | NTPC/GNWT        | \$1,000,000         | \$5,500,000         | \$41,000,000        | GNWT/INFC                | <b>3,300</b>  |
| <b>Various community solar (7 communities)</b>   | NTPC/GNWT        | \$1,000,000         | \$1,500,000         | \$0                 | GNWT/INFC                | <b>4,600</b>  |
| <b>Community scale hydroelectricity</b>  | NTPC/GNWT        | \$0                 | \$0                 | \$500,000           | GNWT/INFC                | <b>0</b>  |
| <b>Diesel efficiency upgrades</b>  | NTPC/GNWT        | \$700,000           | \$3,000,000         | \$8,000,000         | GNWT/INFC                | <b>200</b>  |
| <b>Continue to undertake research and feasibility work on alternative and renewable energy</b> | GNWT             | \$1,200,000         | \$1,200,000         | \$1,200,000         | GNWT                     | <b>0</b>  |
| <b>TOTAL</b>   |                  | <b>\$29,800,000</b> | <b>\$45,899,000</b> | <b>\$58,700,000</b> |                          | <b>18,200</b>   |



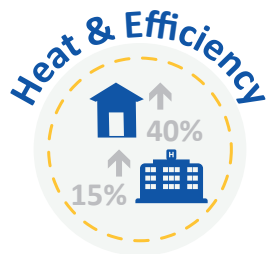
# STRATEGIC OBJECTIVE 3

## THREE-YEAR ACTION PLAN 2019 – 22

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

| <i>Actions and Initiatives</i>   | <i>Resources</i> |                    |                    |                  |                   |  |
|--|------------------|--------------------|--------------------|------------------|-------------------|--|
|  | Lead             | 2019 – 20          | 2020 – 21          | 2021 – 22        | Funding Source(s) | Estimated 2022 GHG Reduction in Annual Emissions (Tonnes of CO2) |
| Implementing GNWT fleet management and efficiency improvements for vehicles, heavy equipment and marine fleet through the GHG Grant Program*   | GNWT             | \$4,214,751        | \$640,000          | \$0              | GNWT/<br>LCELF    | 680  |
| Initiate a rebate program for low- or zero- emissions vehicles and charging stations in hydro communities  | GNWT/AEA         | Core               | \$100,000          | \$100,000        | GNWT              | 150  |
| Create program to support efficiency in long-haul trucks and the installation of in-line auxiliary heaters for fleet vehicles and heavy duty vehicles to reduce idling   | GNWT/AEA         | Core               | \$150,000          | \$150,000        | GNWT              | 200  |
| Support community-based transportation initiatives through the GHG Grant Program* that reduce emissions, such as active transport, public transportation, community fleet efficiency, and car sharing programs | GNWT             | Core               | Core               | Core             | GNWT/<br>LCELF    | 0  |
| Undertake an education and awareness campaign to encourage efficient vehicle choice, “Smart Idling”, efficient driving practices, and alternative transportation choices                                       | GNWT             | Core               | Core               | Core             | GNWT              | 0  |
| Assess the feasibility and complete Zero-Emission Vehicle Transport Corridor NWT/Alberta Border to Yellowknife   | GNWT             | Core               | \$500,000          | \$0              | GNWT              | 0  |
| Assess the status of LNG and biofuels for transportation in the NWT context, including availability, price, long-term storage and cold weather stability   | GNWT             | Core               | Core               | Core             | GNWT              | 0  |
| Work at the national level to ensure that renewable fuel standards are applicable to the North   | GNWT             | Core               | Core               | Core             | GNWT              | 0  |
| Work at the national level to improve vehicle efficiency standards   | GNWT             | Core               | Core               | Core             | GNWT              | 0  |
| Support industrial vehicle efficiency and retrofits through the GHG Grant Program for Buildings and Industry   | GNWT             | Core               | Core               | Core             | GNWT/<br>LCELF    | 0  |
| *Formerly ‘Energy Fund’  |                  |                    |                    |                  |                   |  |
| <b>TOTAL</b>   |                  | <b>\$4,214,751</b> | <b>\$1,390,000</b> | <b>\$250,000</b> |                   | <b>1,030</b>   |





# STRATEGIC OBJECTIVES 4 AND 5

## THREE-YEAR ACTION PLAN 2019 – 22

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

| <i>Actions and Initiatives</i>  | <i>Resources</i> |                     |                     |                     |                          |   |
|---|------------------|---------------------|---------------------|---------------------|--------------------------|---|
|   | <i>Lead</i>      | <i>2019 – 20</i>    | <i>2020 – 21</i>    | <i>2021 – 22</i>    | <i>Funding Source(s)</i> | <i>Estimated 2022 GHG Reduction in Annual Emissions (Tonnes of CO2)</i> |
| Enhancements to Energy Efficiency Rebate/Incentive Program                            | AEA              | \$310,000           | \$339,000           | \$318,000           | GNWT/LCELF               | 650   |
| Enhancement to the Alternative Energy Efficiency Technologies Program                 | AEA              | \$400,000           | \$448,000           | \$398,000           | GNWT/LCELF               | 800   |
| Enhancement to the Commercial Energy Conservation and Efficiency Program              | AEA              | \$460,000           | \$460,000           | \$405,000           | GNWT/LCELF               | 900   |
| Deep Home Energy Retrofit Program (ERS Follow-up and Implementation Support)          | AEA              | \$350,000           | \$320,000           | \$293,000           | GNWT/LCELF               | 400   |
| Low-Income Home Energy Assistance   | AEA              | \$320,000           | \$292,000           | \$284,000           | GNWT/LCELF               | 400   |
| Energy Efficiency and Conservation Retrofits for Non-Government Organization (NGOs)   | AEA              | \$300,000           | \$315,000           | \$285,000           | GNWT/LCELF               | 1,700   |
| Electric Heat Incentive South Slave (to Take Advantage of Reduced Electric Heat Rate) | AEA              | \$100,000           | \$100,000           | \$87,000            | GNWT/LCELF               | 100   |
| Continue Community Wood Stove Program   | AEA              | \$200,000           | \$350,000           | \$350,000           | GNWT/LCELF               | 400   |
| Enhancements to Community Government Program  | AEA              | \$170,000           | \$145,000           | \$135,000           | GNWT/LCELF               | 100   |
| Ongoing AEA Programs and Services   | AEA              | \$2,700,000         | \$2,700,000         | \$2,700,000         | GNWT                     | 2,100   |
| Continue the GNWT Capital Asset Retrofit Program                                      | GNWT             | \$3,800,000         | \$3,800,000         | \$3,800,000         | GNWT                     | 2,900   |
| NWT Housing Corporation Energy Efficiency and Heating Improvements                    | NWTHC            | \$2,923,000         | \$1,317,000         | \$1,317,000         | GNWT/LCELF               | 800   |
| <b>TOTAL</b>  |                  | <b>\$12,033,000</b> | <b>\$10,586,000</b> | <b>\$10,372,000</b> |                          | <b>11,250</b>   |



# STRATEGIC OBJECTIVE 6

THREE-YEAR ACTION PLAN 2019 – 22

| Actions and Initiatives   | Resources |                     |                     |                     |                   |  |
|---|-----------|---------------------|---------------------|---------------------|-------------------|--|
|   | Lead      | 2019 – 20           | 2020 – 21           | 2021 – 22           | Funding Source(s) | Estimated 2022 GHG Reduction in Annual Emissions (Tonnes of CO2) |
| Implement the GHG Grant Program* for Buildings and Industry                                 | GNWT      | \$2,666,666         | \$2,666,666         | \$2,666,666         | LCELF             | 16,000   |
| Exploring Partnerships and Emerging Technologies  | GNWT      | \$470,000           | \$470,000           | \$470,000           | GNWT              | 0  |
| Taltson Expansion Project   | GNWT/NTPC | \$3,000,000         | Core                | Core                | GNWT              | 0  |
| NTPC Hydro Asset Overhauls  | NTPC      | \$10,340,000        | \$6,435,000         | \$16,707,000        | GNWT/INFC         | 7,000  |
| Hydro and Transmission Development  | GNWT/NTPC | \$300,000           | \$500,000           | \$500,000           | GNWT/INFC         | 0  |
| Seek opportunities to replace diesel with liquefied natural gas for heating and electricity | GNWT      | Core                | Core                | Core                | GNWT              | 0  |
| *Formerly 'Energy Fund'   |           |                     |                     |                     |                   |  |
| <b>TOTAL</b>  |           | <b>\$15,051,666</b> | <b>\$10,071,666</b> | <b>\$20,343,666</b> |                   | <b>23,000</b>  |

## 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 Goals. Please see the Department of Infrastructure's Energy Initiatives Report for more details on the actions that were completed in the past Fiscal Year.



