



WHAT WE HEARD

Housing NWT Energy Management Strategy

April Avril | 2023

CE QUE NOUS AVONS ENTENDU

Habitation TNO Stratégie de gestion de l'énergie
Le présent document contient la traduction française du sommaire

Government of
Northwest Territories



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English

Si vous voulez ces informations dans une autre langue officielle, contactez-nous.

French

Kĩspin ki nitawih̄tĩn ē nĩhĩyawih̄k ōma ācimōwin, tipwāsĩnān.

Cree

Tłıchq̄ yatı k'èè. Dı wegodi newq̄ dè, gots'ō goneɗe.

Tłıchq̄

ʔerih̄t'ıs Dēne Sųlĩné yatı t'a huts'elkēr xa beyáyatı theʔą ʔat'e, nuwe ts'ēn yółtı.

Chipewyan

Edı gondı dehgáh got'ıe zhatıé k'éé edat'éh enahddhę nıde naxets'é edahłı.

South Slavey

K'áhshó got'ıne xadā k'é hederı ʔedjht'é yerınıwę nıde dúle.

North Slavey

Jii gwandak izhii ginjik vat'atr'ıjáhch'uu zhit yinothan jı', diits'at ginohkhii.

Gwich'in

Uvanittuaq ilitchurisukupku Inuvialuktun, ququaqłuta.

Inuvialuktun

Ĉ^bđĀ nŋ^{sb}Δ^c ʌɹLJΔɹ^c Δ^obŋD^c ʔ^{sb}ɹLɔŋ^b, D^oɹ^cN^oΔ^c D^ıɓ^cɹ^oΔ^{sb}ɔŋ^c.

Inuktitut

Hapkua titiqqat pijumagupkit Inuinnaqtun, uvaptinnut hivajarlutit.

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Executive Summary

Housing Northwest Territories (Housing NWT) is taking a proactive and adaptive approach to mitigating the impacts of climate change through the reduction of energy usage and the adoption of renewable energy for space heating within its housing portfolio. We will accomplish this by developing an Energy Management Strategy (Strategy) and Energy Blueprint (Blueprint). The Strategy outlines the Vision, Goals, and Objectives for the future of the housing portfolio while staying true to the organization's values. The Blueprint is a three-year plan that describes the first set of actions and initiatives to be undertaken by Housing NWT towards achieving our Strategic Objectives by 2030.

To inform the development of the Strategy and Blueprint Housing NWT engaged with various stakeholders, including the public, subject matter experts, maintenance staff, local housing organizations, Indigenous governments, Indigenous organizations and the Indigenous Council of Leaders' Housing working group. Site visits and interviews, technical workshops, a dedicated email address, an awareness campaign, and an online survey were used to elicit feedback from stakeholders.

The engagement allowed Housing NWT to deepen its understanding of the current state of its housing portfolio, listen to valuable insight on current and past challenges with energy management initiatives, and hear about people's concerns and interests in energy management. The engagement also enabled Housing NWT to inform and raise the public profile of the Strategy and Blueprint, demonstrating its commitment to transparency and accountability.

The feedback from this engagement pertained to the following key themes:

- Increasing energy efficiency through retrofits and replacements;
- Encouraging renewable energy, while upholding reliability;
- Securing adequate and dependable funding sources to support the implementation;
- Encouraging partnerships and initiatives with local communities and groups; and
- Making sure that actions are effectively implemented.

Housing NWT appreciates all the comments, concerns, suggestions, and ideas provided throughout the process of developing our Energy Management Strategy and Energy Blueprint.



Sommaire

Habitation Territoires du Nord-Ouest (Habitation TNO) adopte une approche proactive et plus souple pour atténuer les effets du changement climatique. Pour ce faire, elle réduira la consommation d'énergie et utilisera des sources d'énergies renouvelables pour chauffer ses logements. Pour atteindre son objectif, Habitation TNO a élaboré une stratégie de gestion de l'énergie et un Plan détaillé en matière de gestion de l'énergie. La stratégie expose les ambitions, les buts et les objectifs d'Habitation TNO concernant ses logements, tout en restant fidèle aux valeurs de l'organisme. Le plan détaillé, qui s'échelonne sur une période de trois ans, définit la première série de mesures et d'initiatives qu'Habitation TNO prendra, d'ici 2030, pour atteindre les objectifs stratégiques énoncés dans la stratégie.

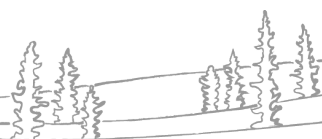
Pour orienter l'élaboration de la stratégie et du plan détaillé, Habitation TNO a consulté diverses parties concernées, notamment le public, des spécialistes, le personnel d'entretien, les organismes locaux d'habitation, les gouvernements autochtones et le groupe de travail sur le logement du Conseil des dirigeants. Pour obtenir des commentaires de leur part, Habitation TNO a offert des ateliers techniques, a dédié une adresse électronique à la soumission de commentaires, a mené une campagne de sensibilisation et une enquête en ligne. Son personnel s'est également rendu sur place pour effectuer des entretiens.

Les échanges avec le public ont permis à Habitation TNO de mieux comprendre l'état actuel de ses logements, d'obtenir des informations précieuses sur les difficultés actuelles et antérieures liées aux initiatives de gestion de l'énergie, et de connaître les préoccupations et l'intérêt de la population en ce qui concerne la gestion de l'énergie. Ces échanges ont également permis d'informer le public et de mieux faire connaître la stratégie et le plan détaillé. Habitation TNO démontre ainsi son engagement envers le public à agir de façon transparente et responsable.

L'objectif principal de ce rapport est de faire état des commentaires du public qui ont été recueillis par l'entremise du portail d'échanges avec le public « Exprimez-vous » du GTNO. Le rapport répond aux commentaires et aux questions en les regroupant par thèmes. De nombreux commentaires étaient déjà prévus dans le plan détaillé et beaucoup d'autres y ont été intégrés par la suite. Les commentaires en dehors de la portée de la stratégie ont été inscrits à la fin du présent rapport.

Voici certains des principaux thèmes abordés :

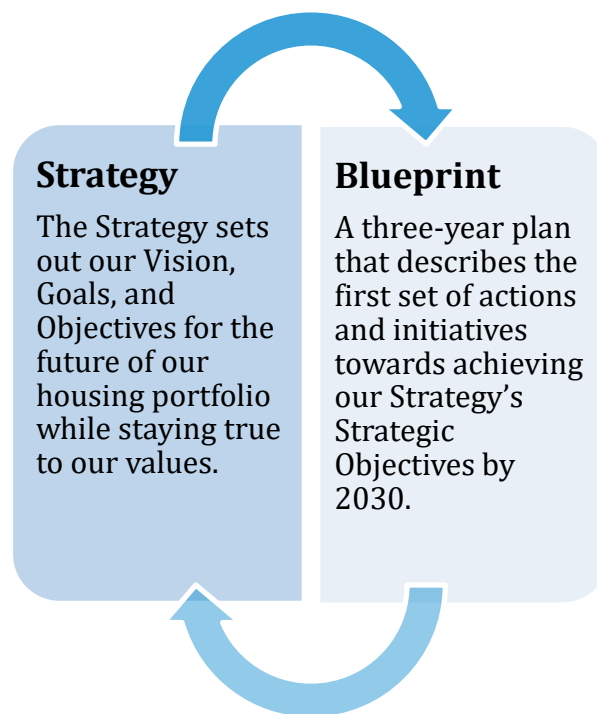
- Améliorer l'efficacité énergétique par des rénovations et le remplacement de logements;
- Encourager l'utilisation des sources d'énergie renouvelable, sans perdre en fiabilité;
- Garantir un financement adéquat et fiable pour soutenir la mise en place de sources d'énergie renouvelable;
- Encourager les partenariats et mettre sur pied des initiatives avec les communautés et les groupes locaux;
- S'assurer que les mesures sont effectivement mises en œuvre.



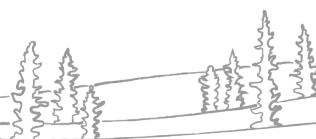
Introduction

Our climate is changing. The Northwest Territories (NWT) is estimated to be warming at three times the global rate. These rapid changes have already caused significant impacts on our natural environment which has affected the health and safety of our communities, the plants and animals Northerners have depended on for generations, and the demands put on our infrastructure. In addition to climate change, global events continue to put further pressure on our operations. These pressures include rising costs, labour and energy shortages, and limited material availability.

The challenges that we face require everyone, Housing NWT included, to cooperate and coordinate on solutions to tackle climate change and its impacts. Sustainability and innovation are core values of Housing NWT; as the territory's largest housing provider, we know that we have the responsibility to stand by our values and do our part to have a positive impact, both locally and globally. We also have a responsibility to ensure that we operate with accountability and within our means. That is why in the spring of 2022 we began developing two new, realistic, achievable, and cost-effective energy roadmaps for our housing portfolio: the Energy Management Strategy (Strategy) and the Energy Blueprint (Blueprint).



As a part of this process, we engaged an array of stakeholders, including the public, subject matter experts, maintenance staff, local housing organizations (LHOs), Indigenous governments, Indigenous organizations, and the Indigenous Council of Leaders' Housing working group. This report provides an overview of the feedback received throughout the process. Information on why we engaged, who was engaged, how the engagement was conducted, and a summary of what was heard is provided within this report.



1.0 Why Did We Engage?

Housing NWT believes that the success of this Strategy and Blueprint is rooted in partnerships. Engaging throughout the process allowed us to deepen our understanding of the current state of our housing portfolio, listen to valuable insight on current and past challenges with energy management initiatives, and hear about peoples' concerns and interests related to energy management.

By engaging on this topic, we are enabling Housing NWT's actions and initiatives to align with the collective energy priorities and capabilities of our stakeholders. This strengthens the feasibility of our Strategy.

It also allowed us to inform and raise the public profile of the Strategy and Blueprint, demonstrating our commitment to transparency and accountability.

These two documents will identify opportunities for collaboration with Indigenous governments and housing stakeholders, including Indigenous organizations, community governments, the private and not-for-profit sectors, and our federal funding partners to create a system that is more environmentally, socially, and financially sustainable.



2.0 Who and How We Engaged Overview

Housing NWT’s housing portfolio spans over five regions and 32 communities in the NWT. The development of the Strategy and Blueprint was informed by a detailed analysis of the energy performance of our residential portfolio, followed by several engagements.

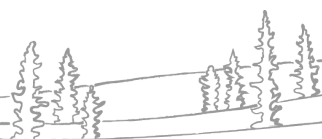
To assess the condition of our buildings, technical staff conducted on-site visits and interviews with maintenance staff in six communities across the NWT. To collect technical information, solicit feedback and reinforce partnership, Housing NWT held multiple technical presentations and workshops with subject matter experts attending from Arctic Energy Alliance, NWT Association of Communities, Government of the Northwest Territories (GNWT) Climate Change and Energy Management, Municipal and Community Affairs, NT Energy, NWT Hydro, LHOs, Housing NWT maintenance, and other stakeholders.

Housing NWT also engaged in an awareness campaign with the public, facilitating a call for feedback on the GNWT’s “Have Your Say” online engagement portal. Concurrently, letters were sent to Indigenous governments and Indigenous organizations seeking their feedback.

Finally, Housing NWT delivered a presentation to the Standing Committee on Social Development, offering them the chance to provide feedback and comments on the draft Strategy and presented the draft Strategy to Cabinet. The table and sections below provide additional details on the engagement process.

Table 1: Engagement to Date

Time Period	Delivery Method	Audience	Topic/Intent
Summer, 2022	Site visits and Interviews	Local maintenance staff	To assess the housing portfolio and speak with local maintenance staff about energy management.
Sept., 2022	Technical Round Table Meetings	Internal and external Subject Matter Experts	To speak with subject matter experts regarding the draft Strategy and potential actions and initiatives.
Nov., 2022	Presentation	Council of Leaders	Informational presentation about the Strategy and advising the Council of the opportunity for feedback in early 2023.
Dec., 2022	Technical and Maintenance Workshop	Housing NWT Technical and LHO Maintenance Staff	To discuss the draft Strategy and potential actions and initiatives with the technical and maintenance staff.
Jan -Mar, 2023	GNWT Public Engagement Portal online survey promoted by radio, newspaper, and social media advertising; posters	NWT Public, Indigenous governments, Indigenous organizations, community governments, Members of the Legislative Assembly, and	To elicit feedback on the draft Strategy.



Time Period	Delivery Method	Audience	Topic/Intent
	sent to all communities; a Bear Net article; and a public service announcement and social media posts on GNWT and Housing NWT social sites.	other energy champions across the NWT	

2.1 Data Gathering, Analysis, and Verification

The data gathering, analysis, and verification process was essential to assess the state of Housing NWT's buildings. The team's approach involved inspecting a total of 58 housing units in Yellowknife, Behchokò, Norman Wells, Inuvik, Tuktoyaktuk, and Fort Simpson and conducting interviews with key stakeholders to gather information on common issues and concerns.

The site visits provided valuable insights into the needs and priorities of Housing NWT's housing portfolio. In addition, the team utilized technical analysis tools and equipment to gather data on the energy consumption and emissions of the buildings. This allowed us to establish a baseline level of emissions for the portfolio and identify initiatives that would have the largest impact on energy management.

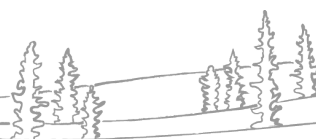
To ensure the accuracy and reliability of the data gathered, the team conducted thorough data verification processes. This involved cross-checking data from multiple sources, including interviews with maintenance staff, site visits, and technical analysis results. The data verification process ensured that the data was consistent and reliable, providing a solid foundation for the development of the Strategy.

Overall, the data gathering, analysis, and verification process provided a comprehensive understanding of the condition of Housing NWT's buildings. The insights gained from this process were used to develop the necessary next steps for developing the Strategy. These steps included identifying priority actions, setting targets and goals, and creating an action plan to guide the implementation of energy efficiency measures across the portfolio. The data gathered and verified during the process will enable Housing NWT to prioritize its resources effectively and implement sustainable energy management actions to improve the condition of its buildings.

2.2 Technical Round Table Meetings

An initial technical roundtable was conducted on September 21, 2022, to discuss and elicit feedback from stakeholders and subject matter experts. The roundtable session discussed various initiatives related to infrastructure design and technical services, including biomass, net metering, and specifics about power production in the NWT.

The roundtable also brought forward solutions and concerns regarding the sourcing of funding for energy management solutions, opportunities for the building of capacity in communities, and the need for positive legacies related to projects. This was followed by multiple follow-up meetings and information



sessions between Housing NWT, stakeholders, and subject matter experts. The meetings occurred to add clarity, and confirm technical information related to the Strategy.

Information was also compiled regarding the status of various large-scale infrastructure projects and greenhouse gas (GHG) reduction initiatives, and their possible implications for Housing NWT. This included information on the possibility of a net zero target, the status of district biomass projects, the status of the feasibility study of wood pellets, heat pumps and other energy alternatives, and potential collaborations between Housing NWT, the GNWT, and other stakeholders.

2.3 Technical and Maintenance Staff Workshop

The technical and maintenance staff workshop related to energy management was a component of Housing NWT's annual technical and maintenance meeting and took place on December 9, 2022.

The workshop engaged Housing NWT technical staff and LHO maintenance staff on the proposed objectives being considered for the draft Strategy. The workshop also aimed to receive feedback on the applicability of the actions and initiatives on proposed Strategic Objectives, including: reducing energy use (energy conservation), increasing the use of renewable energy, supporting community-level energy projects, and increasing the capacity to manage and maintain energy systems.

While most Energy Conservation Measures (ECMs) were positively received, some concerns were raised about introducing biomass heating systems (particularly concerns about the increased maintenance resulting from biomass in individual buildings), technical requirements for solar panels including staffing constraints, and potential concerns with reduction of water set point temperatures. These concerns have been addressed in the Blueprint.

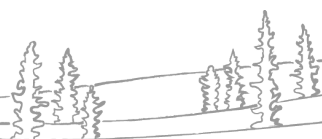
Feedback was also given on specific initiatives such as the increase of insulation and retrofitting of all lighting with LEDs, and resistance to low flow fixtures. Participants also mentioned challenges with smart thermostats for elders, finding staff or contractors to clean ducts, and technical and temperature restraints related to spray foam insulation.

In summary, the feedback received from the workshop provided valuable insights which were taken into consideration while developing Strategy and Blueprint.

2.4 Awareness Campaign and Call for Feedback

A public survey on the "Have Your Say" component of the GNWT website took place from January 25 to February 21, 2023. The intent was to create awareness around the draft Strategy and provide an opportunity for feedback.

Housing NWT promoted the GNWT Engagement Portal online survey with radio, newspaper, and social media advertisements, as well as a public service announcement and social media posts on GNWT and Housing NWT social sites. An article was published in the GNWT's BearNet newsletter and a poster was sent to all District and LHO offices to post in their office to encourage feedback. Housing NWT created a

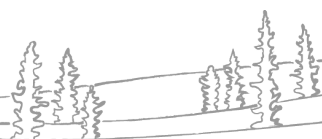


dedicated email address, providing another avenue to share feedback and to ask questions regarding the draft Strategy. Additionally, letters were sent to Indigenous governments, Indigenous organizations, community governments, Members of the Legislative Assembly, and energy champions across the NWT, requesting their valuable input.

A draft Strategy document was provided as a file at the beginning of the survey and the following questions were asked:

1. What is your most important energy issue in your community related to housing? How could it be addressed?
2. What actions should Housing NWT take to reduce greenhouse gas emissions?
3. What actions should Housing NWT take to improve energy efficiency in our housing units?
4. What actions should Housing NWT take to increase the use of renewable energy?
5. Do you have any questions about the draft Strategy?
6. Do you have any other feedback related to the draft Strategy or the action plan that will be developed to support the Strategy?

A total of 259 comments from 53 visitors were received along with one written response to the letters sent. All of the feedback received was carefully reviewed and appropriate feedback integrated into the Strategy and Blueprint.



3.0 What We Heard

This section presents a summary of the key points which were raised during the engagement process and were pertinent to the Strategy and Blueprint. The feedback has been categorized into overarching themes, and we have also included details on how it was incorporated. While some of the feedback may not be feasible to integrate at this time, it has been included for documentation purposes.

The word cloud below highlights general themes that emerged from the feedback we collected. The size of each word corresponds to its relative significance within the responses received.



The next section is organized into broad themes according to their level of importance within the feedback gathered during the engagement process. Increased details related to the actions mentioned in this report, will be shared in the Blueprint.



3.1 Renewable and Alternative Energy

What we heard

- Integration of renewable energy is important and should be implemented as part of the Strategy.
 - A variety of potential energy sources were mentioned including:
 - Wind;
 - Solar;
 - Hydro-Electricity;
 - Nuclear;
 - Geothermal;
 - Heat Pumps; and
 - Biomass.
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What we have done or are currently doing

- Implemented district biomass systems, as well as biomass in individual buildings.
 - Installed solar panels on some buildings within our portfolio.
 - Collaborated with Arctic Energy Alliance to conduct trials for heat pumps in select units.
 - Researching and analyzing options for energy development.
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What are we planning to do within the Strategy and the Blueprint?

- Convert oil-fired boiler and furnaces to renewable energy sources where possible, (i.e., biomass or heat pumps).
- Investigate renewable energy projects such as small-scale wind and solar, district biomass, and geothermal projects through feasibility studies.
- Promote and support partnerships in the development of community-led renewable energy development.
- Support purchasing cost-effective renewable energy for our units from local renewable energy projects.
- Continuously explore and research emerging renewable energy options as the energy landscape evolves.



3.2 Energy Efficiency and Retrofits

What we heard

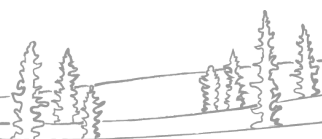
- Energy efficiency should be prioritized.
- More building energy retrofits should be completed:
 - Insulation (e.g., increase insulation, R-Value to surpass national standards, rigid insulation applied to the exterior); and
 - Windows and Doors (e.g., improve the quality of windows, replace cracked windows promptly, upgrade windows to triple-paned).
- Air tightness should be increased.
- Design to a cost-effective, high energy efficiency standard, including net zero where possible.
- Sustainable building materials should be used including those that support net zero principles.

What we have done or are currently doing

- Continuing to invest a portion of our annual capital budget to improve our housing portfolio through renovations, including the upgrade of key housing components such as windows, doors, appliances, faucets, and lighting.
- Exceeding the requirements of the National Energy Code of Canada by at least 20% when designing and constructing new housing units or when replacing deteriorated units.

What are we planning to do within the Strategy and the Blueprint?

- Invest in a combination of housing unit replacements and energy retrofits to improve the overall energy performance and stabilize the cost of operating and maintaining our housing portfolio.
- Complete more energy evaluations on our housing portfolio to determine the cost-effective approaches to improve energy performance.
- Target units with poor energy performance to receive energy retrofits that will reduce energy use. These upgrades could include increasing insulation values, upgrading windows and doors, and improving air tightness.
- Target replacement of units that have reached the end of their service life with high energy-efficient units.
- Increase the efficiency of our heating and ventilation systems through ongoing effective maintenance.
- Ongoing awareness campaigns for our tenants on energy conservation and management.



3.3 Costs

What we heard

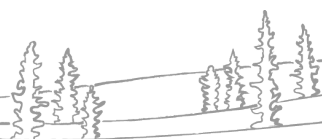
- Concerns exist regarding the cost of energy and fuel.
 - Concerns exist with the implementation cost of the Strategy and Blueprint actions.
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What we have done or are currently doing

- Continuing to invest in energy projects to help stabilize energy costs.
 - Investigating housing units with higher-than-normal energy use to determine the causes and implements corrective actions.
 - Implementing energy efficiency changes such as energy efficient appliances, LED lighting, low-flow fixtures, etc., which improves energy use and stabilizes cost.
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What are we planning to do within the Strategy and the Blueprint?

- Improve the overall energy performance and help stabilize the cost of operating and maintaining our housing portfolio.
- Invest in a combination of building unit replacement and energy efficiency retrofits.
- Invest in renewable energy projects for space heating.
- Create tenant outreach campaigns on energy management best practices.
- Fund actions and initiatives identified in the Blueprint through various sources such as the Housing NWT operating budget, grants (federal, territorial, etc.), etc.
- Seek long-term cost sharing opportunities to lower capital and long-term operating costs.



3.4 Partnerships and Initiatives

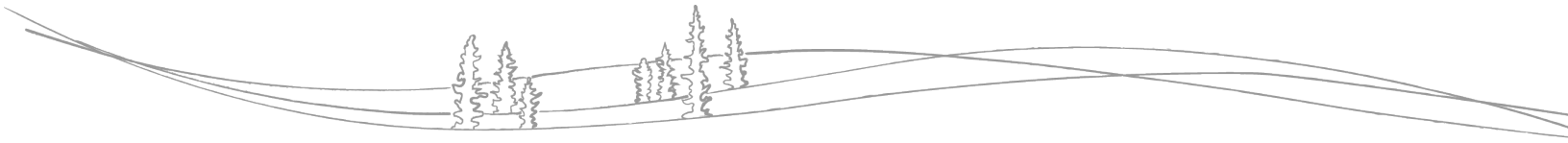
What we heard

- Increase partnerships to benefit the long-term success of this Strategy.
 - Work with community partners or contractors to supply heat and energy, avoid putting additional maintenance burden on LHOs.
 - Provide energy incentives/rebates to tenants.
 - Support Indigenous development corporations to undertake clean energy projects.
 - Partner with other departments on energy projects to stabilize energy costs and reduce energy usage.
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What we have done or are currently doing

- Investing in community-led projects (including energy projects) through our Community Housing Support Initiative.
 - Partnering to leverage funding with the federal and territorial governments for energy projects.
 - Actively seeking partnerships and providing support for energy projects across the NWT.
 - Working closely with a wide range of stakeholders across the NWT, including Indigenous governments Indigenous organizations, and local communities.
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What are we planning to do within the Strategy and the Blueprint?

- Increase partnership opportunities in energy projects (one of the four Strategic Objectives in the Strategy).
 - Prioritize the development of long-lasting partnerships with Indigenous organizations, Indigenous governments, local communities, the Power Corporation, and others looking to undertake community energy projects.
 - Prioritize supporting energy projects that are partner-focused. These projects will result in lower energy use and increase renewable energy for space heating.
 - Maximize the hiring of local contractors and workers, when partnering on energy projects. This will ensure that we are giving the industry in the NWT the opportunity to grow, and workers the opportunity to learn.
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3.5 Building Capacity

What we heard

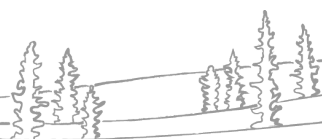
- Existing systems are not working well and not repaired fast enough.
- Expertise should be built among Indigenous and local communities to manage their own housing and build capacity in the construction industry.
- More staff should be hired in remote communities.
- Hire those that are most qualified for the job, regardless of location.

What we have done or are currently doing

- Ensuring that contracts consistently maximize the use of local and northern businesses and staffing for our projects.
- Providing full financial support for LHOs to hire up to 12 apprentices, building capacity in areas such as maintenance, carpentry, and oil burner mechanics (OBM).
- Providing training and creating opportunities for our maintenance staff to develop professionally.

What are we planning to do within the Strategy and the Blueprint?

- Continue to participate on energy-focused committees and working groups.
- Continue to deliver training focused on energy management topics for our technical and maintenance staff. Training will also be enhanced to be applicable to new energy systems.
- Increase capacity to manage and maintain energy solutions (one of the four Strategic Objectives in the Strategy).
- Leverage federal funding to support hiring a pilot energy management position to analyze, track, monitor, and report on our energy use. The position will also provide expert advice on design and system enhancements to lower energy use in a cost-effective way.
- Complete energy evaluations on targeted units in our portfolio to evaluate the performance of existing energy systems and develop recommended improvements. Housing will be actively seeking partnerships to complete these evaluations.
- Support and encourage training and capacity building among businesses in the NWT by providing opportunities to build new energy projects and to repair and maintain existing energy projects.



3.6 The Built Form

What we heard

- Increase building density (including multiplexes and apartments) to improve heating efficiency.
 - Design energy efficient units.
 - Consider housing orientation to optimize sun exposure.
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What we have done or are currently doing

- Focusing on building multifamily units for public housing.
 - Continuing to actively seek funding to construct more multiplexes that will increase density.
 - Engaging with Indigenous governments and Indigenous organizations and seeking support for multi-unit buildings when planning construction of multifamily builds.
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What are we planning to do within the Strategy and the Blueprint?

- Establish design criteria for new and replacement buildings that are energy efficient, and in line with the overall Strategy, including exceeding the requirements of the National Energy Code of Canada by at least 20%.
- Develop and implement a high-efficiency housing pilot project (duplex).



3.7 Incentives and Subsidies

What we heard

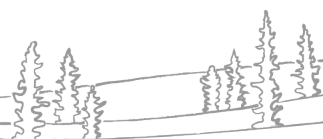
- Renewable and other energy products and systems should be incentivized through grants, rebates, and other funding sources.
 - Use of carbon tax funds to subsidize energy projects.
 - Incentivize/subsidize the use of electric heat in hydro communities.
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What we have done or are currently doing

- Although homeownership programs are not included as part of this Strategy, many of Housing NWT's programs include energy components. After health and safety repairs, energy upgrades are the next priority under Housing NWT programs.
 - Providing funding to Arctic Energy Alliance to support their operation. The GNWT provides funding for a variety of homeowner incentives and programs directly related to energy efficiency.
 - Paying the heat for our public housing clients, reducing the costs for our tenants.
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What are we planning to do within the Strategy and the Blueprint?

- Provide subsidy funding to support community energy projects through our Community Housing Support Initiative program. This program is available for both Indigenous and local community organizations, lowering the capital required by the organization constructing the project.



3.8 Accountability

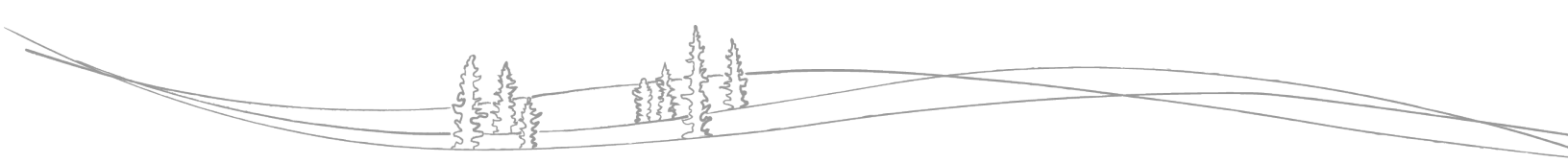
What we heard

- Housing NWT should remain committed to reaching our goals and prevent the Strategy documents from sitting on a shelf.
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What we have done or are currently doing

- Committed and confirmed funding for the implementation of many of our identified actions.
 - Actively pursuing and applying for funding opportunities to carry out the implementation of the identified actions.
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What are we planning to do within the Strategy and the Blueprint?

- Implement an energy management position who will be responsible to ensure actions related to our Strategy are implemented, monitored, and evaluated.
 - Maintain our commitment to an adaptive approach to reviewing and updating our Strategy at least every three years and reporting on our actions every year.
 - Report annually on the results related to our Strategy, summarizing the status of our actions, including any changes made to either the Strategy or Blueprint.
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3.9 Engagement

What we heard

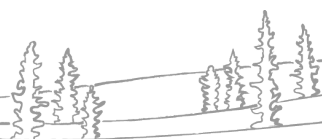
- More effort should be placed on the engagement of Indigenous groups in the development and implementation of the actions and initiatives.
- Engage and inform tenants through outreach programs, to reduce preventable energy loss (e.g., open windows in the winter).
- Listen to and act on feedback received from tenants regarding the state of their units.
- Develop more partnerships with industry, Indigenous governments and communities, and other agencies on renewable energy projects.

What we have done or are currently doing

- Communicating with LHOs to understand concerns about Housing NWT units.
- Conducting unit assessments with the assistance of LHOs to plan energy upgrades.
- Engaging Indigenous governments, Indigenous organizations, and community organizations in design and construction.
- Monitoring social media and tenant feedback to resolve concerns.
- Integrating feedback received throughout community leadership engagement into capital planning.

What are we planning to do within the Strategy and the Blueprint?

- Continue to share information about energy-related initiatives and actions through the Council of Leaders Housing working groups.
- Build upon existing partnerships and create new partnerships with Indigenous communities and governments, industry and various agencies to collaboratively work on energy management and renewable energy initiatives.
- Uphold our Memorandum of Understanding with many Indigenous governments, which is an agreement to collaborate on housing-related projects, including energy projects.
- Work with Arctic Energy Alliance and our LHOs to evaluate and implement the best approach to inform our tenants on energy management best practices.
- Keep the public informed by measuring, reporting, and communicating our progress.
- Adapt engagement approaches to ensure our objectives are met as we progress with our Strategy and Blueprint to 2030.



3.10 Wood Stoves

What we heard

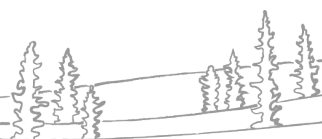
- Install wood stoves in rental units or implement them in a pilot program.
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What we have done or are currently doing

- Exploring partnership opportunities under the Community Housing Support Initiative to expand the use of wood stoves or other renewable energy heating sources for private homes.
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What are we planning to do within the Strategy and the Blueprint?

- Support increasing renewable energy (wood biomass) for space heating in public housing units but will focus on larger biomass district heating systems for the next three years.
- Continuously investigate other forms of renewable energy as the landscape evolves.



3.11 Research

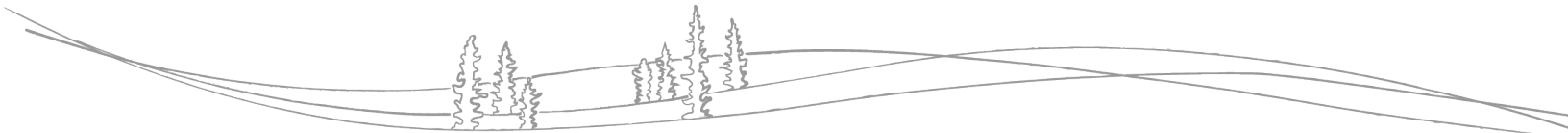
What we heard

- Housing NWT should conduct research for energy efficient building standards.
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What we have done or are currently doing

- Involved in multiple trials for renewable energy projects, building standards, and new technologies to make our portfolio more energy efficient into the future and help other housing providers through sharing our findings.
 - Completed over 230 energy evaluations of our housing portfolio.
 - Partnered with Arctic Energy Alliance to test two cold weather heat pumps in Yellowknife.
 - Attending conferences and workshops to learn about leading energy-related technologies that are evaluated for possible inclusion into future projects.
 - Serving on several committees and working groups with a focus on climate change and energy efficiency, including a Tri-Territorial Technical committee comprised of the three Territorial Housing Corporations and CMHC to discuss and action research related to housing including energy projects.
 - Participating as an active member on Arctic Energy Alliance Board of Directors.
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What are we planning to do within the Strategy and the Blueprint?

- Continue to evaluate potential energy projects and technologies that contribute to improved energy efficiency and energy supply.
 - Continue to be actively engaged on all current technical committees, working groups, and boards, to stay up to date on new and evolving technologies related to energy efficiency.
 - Keep engaging in the ongoing conversation about energy management.
 - Develop and implement a high-efficiency housing pilot project (duplex).
 - Conduct various feasibility studies around renewable energy.
 - Complete more energy audits which will help determine where to target cost-effective energy upgrades.
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3.12 GHG Emissions Priorities

What we heard

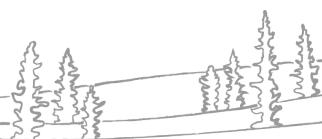
- Will Housing NWT move towards net zero?
- Concerns over the scope of GHG emissions.
- Why was the Baseline set to 2016?

What we have done or are currently doing

- Working with the GNWT at large (along with all other GNWT departments) to help the GNWT meet the GHG emissions targets set in the larger scale 2030 Energy Strategy (30% below 2005 levels).
- Participating in measurement and reporting related to the GNWT 2030 Energy Strategy.
- Setting a baseline of 2016 for reducing energy use for space heating to align with the GNWT's 2030 Energy Strategy's baseline set for increasing commercial, residential, and institutional building energy efficiency by 15% over 2016 levels by 2030.
- Designing and building new units to be at least 20% better than the current National Energy Code, resulting in less energy use and less GHG emissions.
- Constantly assessing and analyzing potential projects and technologies that can enhance our energy efficiency and supply, aligning with our performance goals for improved operations.
- Installing district biomass heating systems and working with Arctic Energy Alliance to trial low carbon energy options and fixtures, such as cold weather heat pumps.
- Implementing ongoing energy retrofits and replacements to increase energy efficiency.

What are we planning to do within the Strategy and the Blueprint?

- Set clear goals of reducing energy use intensity of our portfolio by 15%, and increasing the use of renewable energy for space heating to 40% by 2030. The actions to reach these goals will help decrease the energy consumption of our portfolio which will, in turn, reduce GHG emissions.
- Continue to design and build to a high energy standard.
- Continue to invest in energy efficiency upgrades as part of our annual capital plan.
- Align with building and energy codes as they are strengthened in the coming years to meet federal goals of net zero by 2050.
- Develop and implement a high-efficiency housing pilot project (duplex).
- Report on GHG emissions as part of our annual reporting in this Strategy.



3.13 Housing Supply

What we heard

- Priority should be put on increasing housing supply and quality first before focusing on energy efficiency.
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What we have done or are currently doing

- Completing the construction of 100 additional Public Housing units for the territory by 2023-2024, in support of the 19th Legislative Assembly's Mandate.
 - Continuing to provide investments to improve our housing quality throughout the Northwest Territories.
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What are we planning to do within the Strategy and the Blueprint?

- Continue to replace older inefficient units with more energy efficient units.
- Invest in retrofitting our housing portfolio to improve its overall condition and energy performance.
- Support Indigenous organizations to improve and/or expand their housing portfolio through our Community Housing Support Initiative program.



3.14 Reliability

What we heard

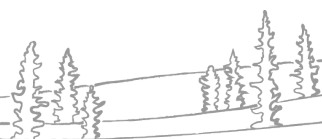
- Balance changes to energy sources with reliability and the extreme temperatures of the North.
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What we have done or are currently doing

- Diversifying our energy mix through the addition of renewable energy projects.
 - Working with Arctic Energy Alliance to test the operation, reliability, and efficiency of cold weather heat pumps.
 - Piloting the installation of electric boilers in Fort Smith.
 - Actively seeking partnership opportunities to increase our use of renewable energy for space heating. Currently, public housing units are connected to third party biomass district heating systems in Aklavik and Behchokò.
 - Installing redundancy (either propane or oil) when providing heating for multiple units through a biomass district heating system.
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What are we planning to do within the Strategy and the Blueprint?

- Continue to explore, evaluate, and implement other proven and cost-effective renewable energy solutions.
- Continue to build capacity among our staff and throughout our communities to ensure these systems will be properly maintained to improve reliability.
- Complete feasibility studies of renewable energy projects for many communities.
- Increase the use of renewable energy for space heating up to 40% of all space heating by 2030. This will require significant investment and support from outside of Housing NWT.



3.15 Reconciliation

What we heard

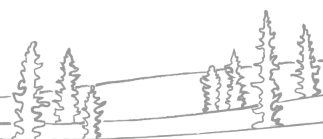
- Housing NWT should prioritize consultation and collaboration with Indigenous Nations, governments, communities, and people.
- How reconciliation is addressed should be communicated in the Strategy and Blueprint.
- Housing NWT should make a clear commitment to a goal surrounding the amount of energy that is purchased from Indigenous communities.

What we have done or are currently doing

- Actively engaging in the Council of Leaders Housing working group to share information about housing in the NWT.
- Upholding Memorandums of Understanding and Memorandums of Agreement with various Indigenous organizations that are aimed at cultivating the government-to-government relationship, promoting effective communication and constructive dialogue on mutual priorities, and facilitating cooperation and collaboration to find solutions to housing-related issues.
- Facilitating design workshops with community organizations seeking feedback and input into designs of our housing units. Most recently, Housing NWT held multiple design workshops for our planned senior's duplex design.
- Agreements are in place with the Hamlet of Aklavik to purchase heat from their community-owned biomass plant. Housing NWT is open to and actively pursuing similar arrangements in other communities.

What are we planning to do within the Strategy and the Blueprint?

- Continue to invest in training and capacity building in areas such as maintenance and construction, including Indigenous Nations.
- Continue to proactively engage and consult with communities.
- Work closely with community partners, including Indigenous governments and Indigenous organizations, when planning, designing, and constructing or repairing units in NWT communities.
- Support community energy projects which include projects from Indigenous governments and Indigenous organizations in NWT communities.



4.0 Conclusions

Throughout the development of the Strategy and Blueprint, Housing NWT has sought feedback from a variety of stakeholders throughout the NWT. This feedback had been accumulated during outreach events including two workshops and a call for feedback on the GNWT’s “Have Your Say” platform. Feedback was also solicited through communication directly sent to various stakeholders, Indigenous governments, and Indigenous organizations.

The feedback we received was wide-reaching and supportive of a shift towards renewable energy and increases in energy efficiency through actions such as energy retrofits. Concerns were raised regarding cost, capacity, continued engagement and commitments regarding implementing the Strategy’s actions. We heard there needs to be increased incentives, as well as opportunities for local and Indigenous communities to be more involved in energy projects.

Housing NWT values the opinion of Northerners and has committed to many of the suggestions they have brought forth. The initial three-year actions and initiatives will be highlighted in our 2023-2026 Energy Blueprint, a companion document to our 2030 Energy Management Strategy.

Housing NWT will be taking an adaptive approach to both our Strategy and Blueprint. Should our goals and objectives change due to a change in GNWT’s mandate, a shift in technology related to energy performance, or if additional targeted funding become available, Housing NWT will adapt and shift accordingly. As our plans change, we will continue to engage with our partners, including Indigenous and federal governments, to ensure that changes are relevant to our goals and meet the needs of our communities.

4.1 Contact

If you have any questions about this report, you can contact:

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