



ENABLING EFFICIENCY

Pathways and recommendations based on the perceptions, barriers, and needs of Indigenous people, communities, and organizations

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About Indigenous Clean Energy

Indigenous Clean Energy Social Enterprise (ICE) is the leading platform in accelerating First Nations, Inuit, and Métis participation in clean energy projects from coast to coast to coast. ICE supports Indigenous communities to be clean energy change agents through capacity-building, career training, and mentorship with high-quality and hands-on programming. ICE promotes Indigenous leadership and inclusion in Canada's energy futures economy through meaningful collaboration with energy companies, utilities, governments, development firms, cleantech innovators, the academic sector, and capital markets.

ICE's offices are located on the unceded lands of the Algonquin Nation in what is now called Ottawa. ICE is proud to have team members working across Turtle Island and is grateful to all Nations across this land.



Acknowledgments

We would like to thank Natural Resources Canada's Office of Energy Efficiency for initiating this project and undertaking the work to improve how they work with Indigenous people and communities and deliver programs. We would also like to thank Trevor Trainor, Richard Hall, Jordyn Burnouf, and Alex Cook, who served as an Advisory Group to this research, providing feedback on the questions asked and the insights gained. Recognition must also go out to the entire ICE community and the countless organizations and individuals working tirelessly to push forward change and improve housing and infrastructure for First Nations, Inuit, and Métis people from coast to coast to coast. Most importantly, this work would not have been possible without the survey respondents, focus group participants, and interviewees, who graciously shared their time, insight, and experiences. We have done our best to reflect the wide range of your great ideas.

Miigwech, Maarsii, Nakurmiik, Woliwon, Háw'aa, Qujannamiik, Mahsi-cho, Marsi, Míkwec, Îsní'yes, T'ooyak̓siy' n̓iin

“There is no concept of justice in Cree culture. The nearest word is *kintohpatatin*, which loosely translates to ‘you’ve been listened to.’ But *kintohpatatin* is richer than justice – really it means you’ve been listened to by someone compassionate and fair, and your needs will be taken seriously.

- Edmund Metatawabin in
**Up Ghost River: A Chief's Journey
Through the Turbulent Waters of
Native History**



Using this Report

This report was prepared by ICE for Natural Resources Canada's Office of Energy Efficiency. While this research is primarily designed to guide the Office of Energy Efficiency's work, the findings and recommendations apply to a wide range of people and groups. This includes other federal government departments and agencies, provincial and territorial bodies, private and philanthropic sector organizations, and more. We encourage all these groups and more to apply the lessons and recommendations regardless of whether they are working on energy efficiency programming or not. We also encourage Indigenous people, communities, and partners to use the recommendations when advocating for changes they want to be realized.

When referencing and applying insights gained from this report, you are encouraged to be mindful of co-opting or appropriating what has been shared. Acknowledging source inspiration reinforces the valuable contribution of Indigenous people and allies.

You are also invited to share feedback about how the report has helped you with ICE and/or NRCan. This feedback is valuable when assessing impact.

You may provide feedback to ICE by email at info@indigenoucleanenergy.com and to NRCan at oe-indigenousrelationsautochtones@nrcan-rncan.gc.ca.



Executive Summary

With the potential to cut national greenhouse gas emissions by up to one quarter and save upwards of \$12.7 billion annually, energy efficiency is a critical tool in the fight against climate change and the transition to a clean energy future¹. Nowhere is the need for energy efficiency greater than in Indigenous communities where the impacts of high energy costs, poor-quality housing, and climate change are felt most significantly. To create lasting benefits for Indigenous people, communities, and Canada as a whole, the uptake of energy efficiency needs to be accelerated.

This research, commissioned by Natural Resources Canada's (NRCan) Office of Energy Efficiency, explored the perceptions, barriers, and needs of First Nations, Inuit, and Métis people related to energy efficiency projects and careers. To ground this research, a detailed literature review, survey, one-on-one interviews, and focus groups were all carried out. The outcome is a set of recommendations for how to design programs and policies that truly enable Indigenous energy efficiency efforts.

Findings

Participants in this research shared that energy efficiency was extremely important with nearly 90% of survey respondents ranking it a four or more on a scale of one to five. The importance was first and foremost linked to the need to reduce energy costs. However, it is also connected with Indigenous values of stewardship and the benefits it can have on occupant health.

However, several key challenges exist that make it difficult for Indigenous people, communities, and organizations to pursue energy efficiency projects and careers. These are outlined in the diagram below.

“Energy efficiency is extremely important for Mother Earth and human health. For these reasons and more it is extremely important.

- Survey Respondent

“Energy prices [are] rising when people are already strapped. To take care of the land and Mother Earth, we can't afford not to be building efficiently.

- Interviewee

¹ Clean Energy Canada & Efficiency Canada. (2018). *Less is More: A win for the economy, jobs, consumers, and our climate: energy efficiency is Canada's unsung hero*. Vancouver.

Project Barriers

Costs

The upfront costs were the biggest barrier faced by participants. It is hard to choose energy efficiency over groceries.

Capacity

Staff of many housing providers are already stretched thin. There may be more immediate needs that take priority.

Awareness & Knowledge

There is a lack of awareness about energy efficiency programs, what measures to take, and how to move forward with a project.

Accessing Funding

Funding applications and reporting processes were found to be burdensome and complicated, especially with existing capacity issues.

Partners & Contractors

Cultural insensitivity, a lack of qualified contractors, and difficulty building trust are all challenges participants shared about partners.

Career Barriers

Discrimination

Discrimination continues to affect women and gender-diverse people, as well as Indigenous people as a whole.

Career Sustainability

Short-term projects do not entice people to switch careers. Initiatives must provide a solid medium- to long-term career strategy.

Financial & Wrap-Around Supports

The cost to take training and transition careers can be high. Wrap-around supports are needed for tuition, lost wages, childcare, travel and more.

Awareness

In many regions, people may not know the energy efficiency careers that exist or how to pursue them.

Knowledge & Support

Supports like tutoring and coaching are needed as part of training programs as many people feel they do not have the skills needed.

Training Approaches

Training programs are often not designed for Indigenous ways of learning. Programs delivered out of community are often less accessible and less effective.

Recommendations

Based on the insights gained, the following 10 recommendations were made to ensure NRCan programs can enable more energy efficiency efforts. Cutting across these recommendations are three overarching principles to guide decisions:

1. Work to fill regional program gaps and replicate successful programs.
2. Identify pathways that embrace Indigenous decision-making about how funding is spent.
3. Move beyond 'Indigenous Set Asides' to programs designed entirely and specifically for Indigenous people.

Build Relationships

Communities need a go-to person they can reach out to when it comes to funding. There are disconnects between people, organizations, and government, at the community level and nationally. Fostering and strengthening relationships is essential for Indigenous energy efficiency futures.

1

Actions

- ☐ Learn from other government departments and agencies
- ☐ Identify regions sized for developing meaningful relationships
- ☐ Deepen learning about historical and on-going impacts of colonialism
- ☐ Invest in face-to-face relationships

Diversify Outreach Strategies

To support more people, more people need to know what is available. This can be done by leveraging relationships, working with Indigenous publications and radio, and making information available in Indigenous languages where possible.

2

Actions

- ☐ Focus on mediums Indigenous people use most: Facebook, community radio, Indigenous news, and community service providers
- ☐ Connect energy efficiency to other benefits (costs, health, etc.)
- ☐ Create material in Indigenous languages

Collaborate on Holistic Funding

Housing is viewed holistically by residents and families – it is all about home. The fragmented nature of supports for housing durability, operations and energy efficiency capital and maintenance is a barrier to effective change.

3

Actions

- ☐ Ensure programs take a 'Better Homes' approach to provide holistic funding
- ☐ Engage other departments and agencies to fill gaps
- ☐ Provide energy efficiency "top-up" funding to programs focused on other housing issues

Simplify and Support Applications and Reporting

Simplifying funding processes will make it easier for communities and individuals to access funding and take energy efficiency action.

4

Actions

- ☐ Establish standardized application and reporting forms
- ☐ Provide sample answers to application questions
- ☐ Support proposal development by providing feedback or guidance
- ☐ Use expressions of interest to reduce time investment from projects that are not fit for the funding

Engrain Flexibility

Given the capacity issues faced by communities, the more flexibility that can be offered, the better. Programs that are overly prescriptive can make it challenging for communities to access or even want to pursue funding.

5

Actions

- ☐ Implement longer or open application periods
- ☐ Make use of Appendix K of the Directive on Transfer Payments
- ☐ Make advance payments the norm
- ☐ Ensure wrap-around supports are eligible expenses
- ☐ Design multi-phased funding programs to support the whole project life cycle

Expand Support for Groups Providing Capacity Building and Training

It cannot be overstated how important sustained and intensive Indigenous capacity-building is for advancing energy-efficient housing and facilities. Capacity-building is a foundational building block facilitating energy efficiency projects at scale.

6

Actions

- ☐ Invest in capacity-building organizations like:
 - Indigenous Clean Energy
 - Aboriginal Housing Management Association
 - First Nations National Building Officers Association
 - First Nations Housing Professionals Association

Power Up Regional Efforts

Regional projects enable shared project development, collaborative learning and energy efficiency action at scale. This can reduce costs, accelerate deployment, augment Indigenous/local employment, and mitigate risks through contingency management.

7

Actions

- ☐ Engage communities or regional organizations to explore options
- ☐ Focus on projects that unlock:
 - Long-term employment
 - Shared models
 - Regional development in underserved areas
 - Economies of scale

Fund Capacity, Not Just Training

Supporting training efforts without secure positions in the community to lead the work will not lead to success. There is a need to develop a cadre of Indigenous energy-efficient project planners/leaders who are a core element of community management/administrators.

8

Actions

- ☐ Create programs or integrate funding for dedicated project leads in community
- ☐ Identify ways to support regional experts who can support multiple communities

Enable Career Pathways

Indigenous youth cannot pursue careers they do not know about. A comprehensive approach is needed to empower more youth to pursue careers in the energy efficiency sector. This approach can also benefit adults and elders who may want to enter the workforce.

9

Actions

- ☐ Support career fairs at school and community events like Pow Wows and land camps
- ☐ Empower training and mentoring programs
- ☐ Support internships and apprenticeships
- ☐ Promote employer equity training to create safe workplaces

Invest in Financing Innovation

Community-scale, deep-energy efficiency needs a major infusion of capital – for energy auditing, project planning/development and implementation. It is essential that the federal government supports the exploration of innovative financing approaches.

10

Actions

- ☐ Fund research or projects pursuing innovative financing
- ☐ Establish a federal loan guarantee to backstop private sector investment
- ☐ Support blended financing approaches

NRCan's Response to Report Findings

As we move toward a more sustainable future, communities across Canada are accelerating their climate actions. Indigenous Peoples in particular are leaders of many of these developments, and it is essential that the Government of Canada support these activities while increasing opportunities for further Indigenous climate leadership to achieve this country's net-zero goals.

Energy efficiency is an essential part of Canada's net-zero future. It is connected to many challenges faced by Indigenous Peoples, including affordability, comfort and health, energy sovereignty, cultural benefits, climate resilience, and sustainability of homes. As Minister of Energy and Natural Resources, I see firsthand the significant advantages enabled by increasing energy efficiency—from cost savings to healthier spaces and greenhouse gas emissions reductions.

In 2022, Natural Resources Canada (NRCan) commissioned Indigenous Clean Energy Social Enterprise to explore the barriers and opportunities related to energy efficiency projects and careers in Indigenous communities. Their report compiles and synthesizes findings and experiences of Indigenous Peoples across various regions of Canada, providing 10 foundational recommendations to guide NRCan's program and policy thinking, as well as the federal government more broadly.

Strengthening Relationships and Better Understanding of Indigenous Needs

Several of the recommendations echo previous feedback and are priorities that we are already working to address. For example, the Canada Greener Homes Grant is actively implementing more diverse outreach strategies, increasing flexibility in program administration, and supporting more collaborative proposal development. Specifically, the Canada Greener Homes Grant has an Indigenous community application stream that, among other flexibilities, enables advance payments, offers multiple ways for recipients to confirm eligibility, and leverages direct, one-on-one collaboration between communities and program officers.

In developing the upcoming Canada Green Buildings Strategy, NRCan is working with national and regional Indigenous organizations and governments. To inform these discussions, officials first canvassed other federal government departments—to ensure NRCan understood the insights that Indigenous groups had already shared—and held discussions that included Indigenous partners and colleagues from these other departments. This model of relationship-building with Indigenous organizations, guided by the report's recommendations, has helped highlight important considerations and point out areas we can work on together. We look forward to continuing these conversations and advancing reconciliation through the launch and implementation of the strategy.

Several recommendations from the report are already being implemented, namely in relationship-building and program design and delivery. In the spirit of collaboration, the federal programs that support clean energy initiatives in Indigenous, rural, and remote communities—i.e., Crown-Indigenous Relations and Northern Affairs Canada's Northern Responsible Energy Approach for Community Heat and Energy program, NRCan's Clean Energy for Rural and Remote Communities program, and NRCan's Indigenous Off-Diesel Initiative—were collectively gifted the name Wah-ila-toos in 2023, following a sacred naming ceremony held by grandmothers and elders.

The name Wah-ila-toos represents our collective responsibility to uphold our good relations with each other. A distinctions-based Indigenous Council has also been formed to provide guidance on how to better support strategic projects, form relationships, and guide work on improving program design and transitioning off diesel in the long-term. Wah-ila-toos allows for the centrality of Indigenous voices in the clean energy space and enables departments to build meaningful relationships that reflect our commitment to reconciliation.

Launched in 2018, NRCan's Clean Energy for Rural and Remote Communities program strives to support projects led by communities to help them build the knowledge and experience to transition away from diesel reliance, while helping advance community economic development and energy sovereignty. Since the program's beginning, NRCan has worked with Indigenous proponents, rights-holders, and other partners to simplify application and administrative processes and support more than 100 clean energy projects from across Canada.

NRCan's Indigenous Off-Diesel Initiative is designed and delivered with the principles of relationship-building at its core. Delivered in collaboration with Indigenous Clean Energy Social Enterprise and the Pembina Institute, the program uses an all-Indigenous external jury for decision-making. In addition, the initiative has been celebrated by participants for its ability to fill gaps in existing programming and the supports available to communities.

Filling Gaps and Elevating Indigenous Decision-Making

While many of the report's recommendations are already being put into action, others will take more time. Several actions will require NRCan to deepen linkages with federal and other governmental counterparts and collaborate with multiple Indigenous partners to effectively tackle issues, such as:

- » funding local community capacity via full-time energy efficiency project leads and specialists;
- » implementing innovative energy efficiency financing mechanisms at a local level; and
- » identifying and implementing regional efforts specific to Indigenous energy efficiency.

Other recommendations more directly within NRCan's mandate will require continued policy and program development and identification of incremental resources to be applied alongside advancing existing priorities, such as the Canada Green Buildings Strategy (e.g., approaching Indigenous housing-related support in a holistic way and providing an energy efficiency top-up).

I would like to close by thanking Indigenous Clean Energy Social Enterprise for preparing this report and sharing its findings across its network. I would also like to thank the advisory group and the interviewees who contributed their perspectives, which, along with background research, directly resulted in the recommendations. I recognize that, for some participants, this is not the first time they have shared their experiences and offered advice on this topic, and I thank them for their patience and commitment.

We understand that the impacts of high energy costs, poor quality housing, and climate change are felt most significantly in Indigenous communities. While progress is being made to support Indigenous Peoples in pursuing energy efficiency projects and careers, we know there is much more to do.

Yours sincerely,



The Honourable Jonathan Wilkinson, P.C., M.P.
(he/him/il)

Report Overview

There is no denying the role energy efficiency plays in the transition to a net-zero future. Increasing the energy efficiency of our homes and buildings provides a trifecta of benefits.

Environmentally, this one action could reduce Canada's greenhouse gas emissions by up to a quarter.² According to the International Energy Agency, energy efficiency and electrification are two of four key climate actions needed to keep a 1.5°C stabilization in global temperature.³

Economically, energy efficiency can make a significant impact too. Increasing the adoption of energy efficiency measures could lead to a 1% yearly boost to Canada's GDP – a net increase of between \$356-595 billion depending on measures taken.⁴ Retrofits that include electrification could save Canada \$12.7 billion per year – approximately \$114 - \$151 per household per year.^{5,6} For Indigenous communities, where energy costs tend to be higher due to the quality of homes and rural and remote energy costs, those estimates rise to \$255 - \$1,275 per year.⁷

Socially, energy efficiency can be a major job creator. Investments in the sector could generate up to 220,000 new jobs, with over 47,000 of those coming from Indigenous energy efficiency efforts.^{8,9} Energy cost savings and improving the quality of home heating have major positive impacts on occupants' physical and mental health.¹⁰

Despite the clear benefits energy efficiency can have for individual home occupants, communities, and the country – the implementation of energy efficiency projects has been slower than what is needed.

This report explores how to increase the uptake of energy efficiency projects specifically by Indigenous people, organizations, and communities. It will explore the needs, barriers, and opportunities relating to:

- » Accessing and applying energy efficiency services, tools, and technologies for homes and buildings.
- » Participating in federal, provincial, and territorial energy efficiency programs.
- » Participating in the energy efficiency workforce.

Through a thorough research process incorporating a literature review, interviews, surveys, and focus groups, insights and recommendations were gathered to inform how government programs can be better designed to support the needs of Indigenous people. The sections below detail:

- » The research approaches taken,
- » An overview of perceptions about the importance of energy efficiency held by research participants,
- » A description of the common challenges faced by Indigenous people, communities, and organizations, when it comes to pursuing energy efficiency projects,
- » Details on what can be done to encourage and support more Indigenous people to pursue careers in energy efficiency, and
- » Recommendations for improving government programs to better support Indigenous people pursuing energy efficiency.

2 Clean Energy Canada & Efficiency Canada, 2018
3 International Energy Agency. (2021). *World Energy Outlook 2021*.

4 Clean Energy Canada & Efficiency Canada, 2018
5 Torrie, R., & Bak, C. (2020, April 22). *Building Back Better with a green renovation wave*. Retrieved from Corporate Knights.

6 Clean Energy Canada & Efficiency Canada, 2018
7 Indigenous Clean Energy. (2021). *Energy Foundations: The value proposition for financing energy efficient homes in Indigenous communities Canada-wide*. Ottawa.

8 Torrie, R., & Bak, C., 2020

9 Indigenous Clean Energy, 2021

10 Anderson, G. (n.d.). *Tackling energy poverty in Indigenous communities on-reserve*. Retrieved 02 24, 2022, from Ecotrust Canada: <https://ecotrust.ca/latest/blog/701-2/>

1 Acknowledgement of Unique Characteristics

Before delving into the outcomes of this work, it is critical to acknowledge the limitations of this type of research. This project identified recommendations that would benefit all Indigenous people. However, there is no single pan-Indigenous experience. There are nuances to the specific challenges and needs of First Nations, Inuit, and Métis people. There are inherent cultural differences between and within these groups. There are also legal differences imbued by the Indian Act, land settlements, and other ongoing forces of colonization. For instance, while individual First Nations communities generally receive annual funding for housing and infrastructure through Indigenous Services Canada, that is not the case for Métis and Inuit communities.

Differences are also experienced between geographic locations. Urban, rural, and remote communities each have unique challenges and different access to opportunities. An urban Indigenous person has virtually immediate access to construction supplies. However, if someone in a remote community misses the summer shipping window to bring materials up by barge, their project could be a full year delayed or face exponentially higher costs required to fly in the supplies.

Even at a community level, there can be differences from community to community. Two neighbouring First Nations may have different governance practices, different housing priorities and practices, different availability of skills, etc.

Additional differences are experienced by individuals and organizations operating Indigenous housing and facilities off-reserve compared to on-reserve. For example, off-reserve housing may have easier access to financing tools like mortgages and loans, however, they may not have access to all the federal programs available to on-reserve First Nations.

The differences described above are by no means comprehensive. They are meant to highlight the diverse realities faced by Indigenous people and communities. While this report aims to identify common threads that can be braided together to strengthen support for all Indigenous people, not every insight will be equally applicable to all. Therefore, the findings of this work should be seen as the starting point to improve policies, programs, and approaches. While certain recommendations are straightforward to implement, such as extending application periods. Others, like supporting regional efforts, require the ongoing engagement of Indigenous people for more nuanced input on how those programs are designed.

2 A Note on 'Community'

As discussed in the previous sections, this report is meant to reflect a range of Indigenous experiences pursuing energy efficiency projects or careers. This includes First Nations on-reserve, Métis settlements, and Inuit hamlets but also urban Indigenous housing providers and individual homeowners. To simplify the discussion about these various groups, the term 'community' is used frequently throughout this report. This term was chosen as it reflects the communal connection Indigenous people have regardless of whether or not they live in a specifically designated Indigenous community. Therefore, when reading this report, unless otherwise specified, the term 'community' is meant to reflect:

- » A formal First Nation, Métis, or Inuit community
- » Indigenous people living in housing provided by an urban Indigenous housing provider
- » Urban Indigenous people who are connected through local groups or Friendship Centres
- » Métis people living across a region as members of a Métis Nation or a Métis Local
- » And more.

3 Research Methodology

The findings and recommendations identified in this report were arrived at through a four-pronged research approach.

A detailed review was conducted of existing research and literature related to Indigenous energy efficiency efforts, housing, infrastructure, and careers. This stage of research established the current landscape of the space and built a more robust understanding of the realities that Indigenous communities face across Canada. This phase looked at reports, news articles, case studies, and conference proceedings from sources such as:

- » **Indigenous Organizations** – organizations with first-hand experience working with Indigenous housing on- and off-reserve. This includes the First Nations National Building Officers Association (FNNBOA), First Nation Housing Professionals Association (FNHPA), Aboriginal Housing Management Association (AHMA), the National Collaborating Centre for Aboriginal Health, and others.
- » **Sector non-profits** – organizations with engrained knowledge of energy and efficiency such as Eco Canada, Efficiency Canada, Ecotrust, and Clean Energy Canada.
- » **Government and Crown Corporations** – sources such as utility reports, Senate Committees on Housing, and more, to gain an understanding of how Government policies and programs interact with Indigenous housing policies, community needs, and employment.

The findings of this literature review informed the design of questions used in the remainder of this research to delve further into specific areas, verify insights with on-the-ground experiences, and identify solutions to issues that were raised by the literature. Where appropriate, findings from the literature have been integrated throughout this report.

Following the literature review, three forms of direct outreach and engagement were completed with a range of participants:

- » **One-on-one Interviews** – 29 semi-structured interviews were completed by video/teleconference to delve deeper into participants' specific experiences pursuing energy efficiency projects or careers. Interviewees included people working directly on projects as well as individuals working for organizations that support Indigenous communities pursuing energy efficiency efforts. Efforts were made to ensure interviewees reflected a range of demographics and regions to get a comprehensive view of needs and ideas.
- » **Focus Groups** – Three focus groups were held to gain insight into shared experiences, related to energy efficiency, of specific groups that are often underrepresented in the sector. Each group consisted of 2-5 participants representing a range of geographies and identities. The groups included:
 - Youth
 - Women and 2SLGBTQIA+¹¹
 - Remote communities
- » **Survey** – A voluntary survey was developed and distributed through Indigenous Clean Energy's network, social media, and partner organizations. This anonymous survey helped reach a broader range of people across the country, gaining quantitative insight to inform research outputs. Some participants that completed the survey were also offered the chance to participate in an interview or focus group as described above.

¹¹ Women and people who identified as Two-spirit, Indigiqueer, and non-binary/non-conforming (sometimes referred to in the report as gender diverse and sometimes as members of the 2SLGBTQIA+ community), were grouped in the focus group, and the survey analysis, with the intention to amplify their voices.

These diverse approaches to engagement maximized opportunities for input from the broadest range of people possible – engaging many individuals who may not normally have a chance to give input on the development of programs and funding.

Lists of the questions asked in each of these engagement methods can be found in Appendices A, B, and C. A description of the individuals engaged through the research is provided in more detail in section 3.1 – Participant Demographics.

3.1 Participant Demographics

This research aimed to reach a broad range of Indigenous individuals, organizations, and allies interested in energy efficiency whether they have completed projects or training for careers or are just starting on their journey. Nearly 110 people from coast-to-coast-to-coast participated in this research through the various streams of engagement. This included:

- » Individuals – Elders, youth, and adults
- » Housing managers
- » Community leaders
- » Architects, building scientists, energy advisors and others in the housing industry
- » People who work for regional housing bodies and technical service groups
- » Urban Indigenous organizations
- » Professional associations

To create a safe space for people to share their thoughts and opinions, all data has been kept anonymous. However, the charts below reflect the demographic range of people who participated. This includes:

- » **Indigenous identity** – People’s experiences being First Nation, Inuit, or Métis, can have an impact on the programs they have access to, their worldviews, and priorities.
- » **Location** – The province or territory has a significant impact due to the varying availability of additional regional programs such as provincially-run energy efficiency programs. Efforts were made to engage participants in every province and territory, unfortunately, there were no respondents from Newfoundland and Labrador or Prince Edward Island.
- » **Community type** – The context someone is living and working in – urban, rural, or remote – has a significant impact on accessibility to materials and experts among other factors.
- » **Age, Gender, and Disability Status** – These pieces of demographic information provided insight into the experiences of people who may often be marginalized and face additional barriers when trying to pursue work or projects.

This demographic information allowed the research to take an intersectional lens, identifying potential trends across different groups of people. Where relevant, intersectional findings have been identified in section 4.0 - Findings.



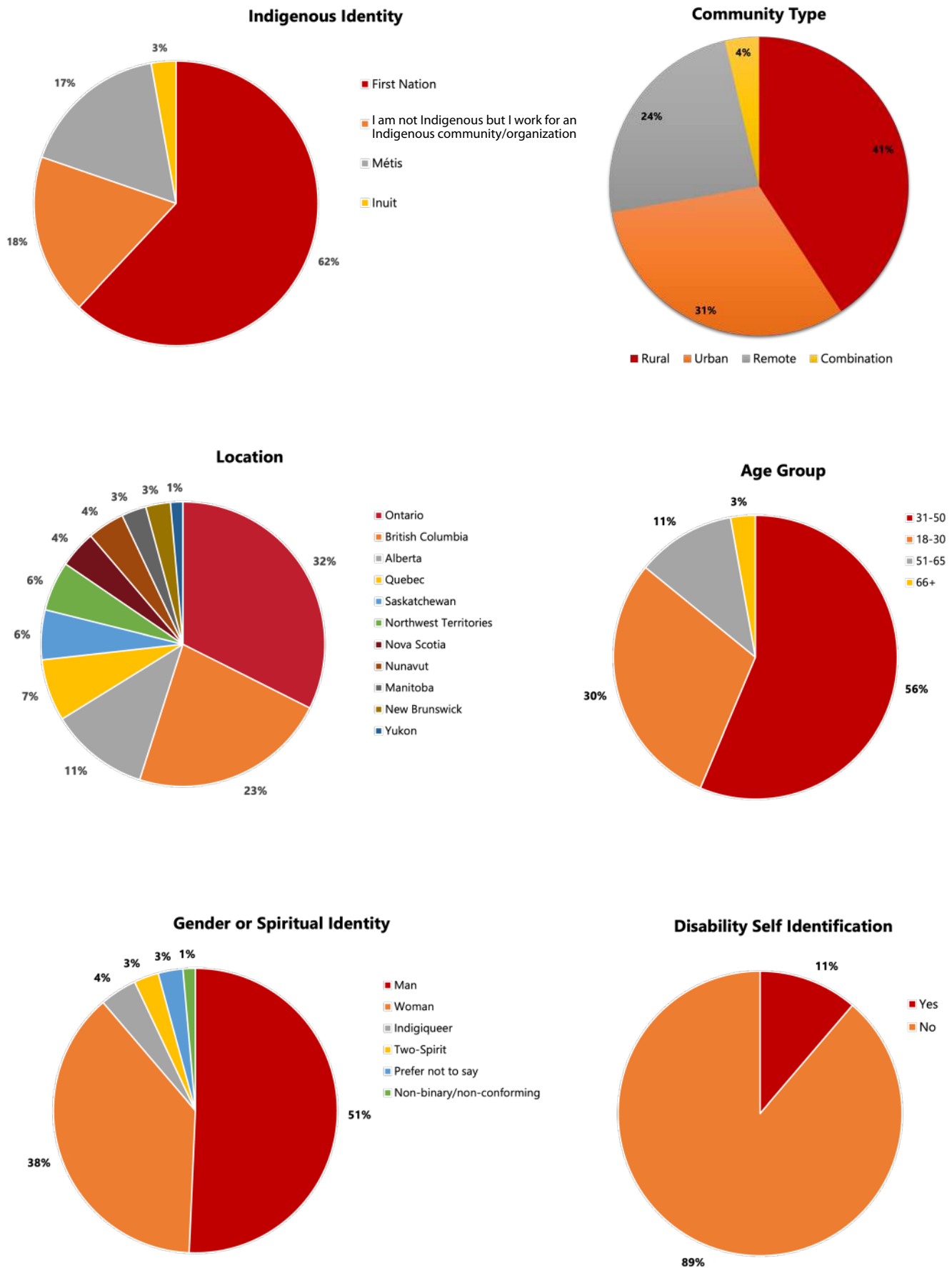


Figure 1. Demographic breakdown of research participants.

3.2 Data Analysis

Information gathered through the interviews, focus groups, and open-ended questions of the survey, was analyzed using a thematic analysis. Under this approach, answers to questions were gathered to identify common themes. Importance was then given to answers that showed up most frequently. Certain answers were also highlighted if they reflected a particular point of view that was unique to the demographic the individual represented. This approach provides more equity to underrepresented voices.

From there, common themes were identified across all answers. For example, funding may have been a common challenge for project development as well as training and raising general awareness about energy efficiency opportunities.

Survey responses were also analyzed using standard quantitative analysis approaches examining the frequency of responses. An intersectional analysis was also done isolating specific demographics to gain insights into experiences or needs that are unique to different groups.

These findings were then compared to the findings of the literature review to draw out additional support for the insights or points that seemed to contradict the available research and commentary.

4 Findings

The analysis described above allowed for a range of insights to be found. The sections below describe the cross-cutting themes as they relate to the key research questions.

4.1 Indigenous Perceptions of Energy Efficiency

Despite offering a variation in opinions as to why, it is evident that study participants believe energy efficiency is very important. Approximately 90% of survey respondents rated it as a four (17%) or five (72%) out of five in terms of importance. For individual and focus group interviewees nearly 100% of participants expressed energy efficiency as being very important.

For many Indigenous people and communities, energy efficiency holds a connection to core cultural values for stewardship of the land and planning for future generations.¹² Energy efficiency offers Indigenous people an opportunity to express these cultural values in their homes, communities, and as part of employment. Where renewable energy systems still rely on the extraction of natural resources, energy efficiency is simply using less overall and getting the most out of what is used¹³. As David Chartrand, President of the Manitoba Métis Federation, stated when receiving funds for energy efficiency projects.¹⁴

“Prioritizing our lands, waters and air goes hand in hand with conservation and sustainability and is a key component of our Citizens’ relationship to the Métis Nation Homeland.”

12 Fineblit, E. (2015). *Indigenizing Housing: A guide to providing culturally-appropriate housing for aboriginal communities in British Columbia*. Aboriginal Housing Management Association.

13 Mercer, N., Hudson, A., Martin, D., & Parker, P. (2020). *“That’s Our Traditional Way as Indigenous Peoples”: Towards a conceptual framework for understanding community support of sustainable energies in NunatuKavut, Labrador*. Sustainability.

14 Environment and Climate Change Canada. (2021, June 29). *The Manitoba Métis Federation takes on two climate action initiatives with about \$5 million in support from the Government of Canada*. Retrieved from Government of Canada: <https://www.canada.ca/en/environment-climate-change/news/2021/06/the-manitoba-metis-federation-takes-on-two-climate-action-initiatives-with-about-5-million-in-support-from-the-government-of-canada.html>

Communities may also view energy efficiency as directly related to energy security and sovereignty – reflecting the core energy goals of many communities.¹⁵ While energy goals may differ from community to community and region to region, for remote communities in particular, energy efficiency solutions were seen as an immediately accessible way to meet some of these goals and develop energy security and sovereignty. With many remote communities “already running up on energy and water consumption limits”, energy efficiency provides a viable way to reduce load demands and ultimately make electrification easier. This would reduce the scale of renewable energy systems needed in these isolated communities.¹⁶

Figure 2. charts the relative prioritization of housing characteristics identified by survey respondents. Over 60% of overall respondents indicated affordability as one of their top three priorities related to housing. Affordability was particularly important for youth, people in urban areas, and people with disabilities, over 70% of respondents in these demographics placed it among the top three priorities.

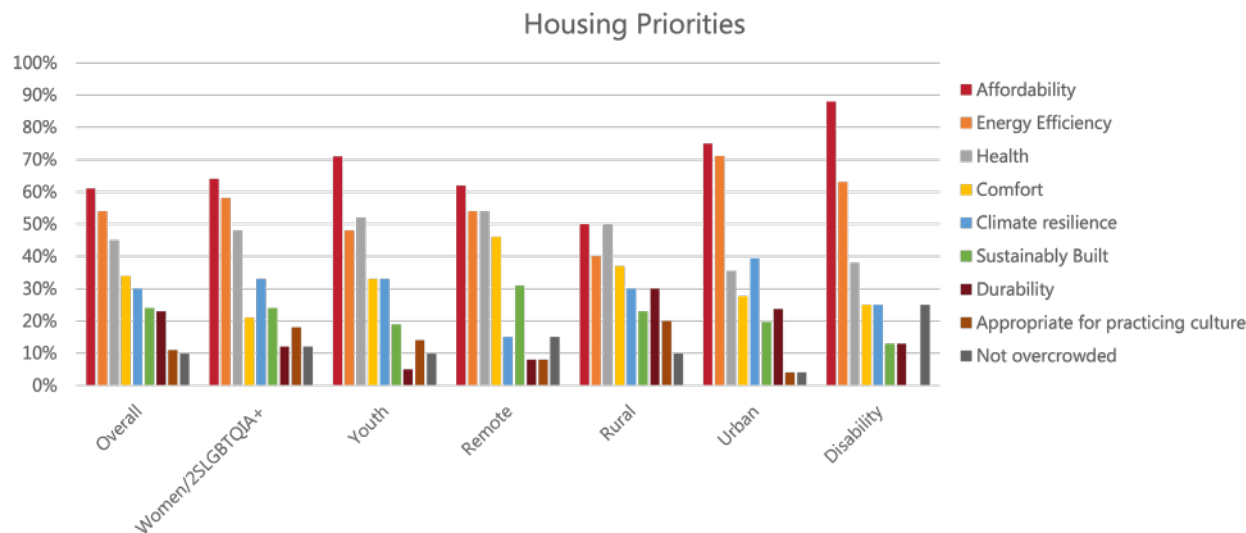


Figure 2. Selections of top three housing priorities overall and by demographic. (Note: Group identifications are not mutually exclusive.)

The link between the importance of affordability and energy efficiency was reinforced through the interviews, focus groups, and the literature review. When interviewees and focus group participants were asked why energy efficiency was important, reducing energy costs was the first response from nearly every interviewee. As one youth noted, Indigenous people experience a “high percentage of energy poverty – energy efficiency can create more disposable income.”¹⁷

Many interviewees also shared that this need is only getting worse as inflation increases energy costs for everyone. For Indigenous people using woodstoves as their primary heating source, savings also come in the shape of time and spirit. “Energy Efficiency is hugely important. If it’s not efficient, it is a waste of time and energy, including spiritual energy. You’re spending time chopping wood instead of with your kids.”¹⁶

Beyond the financial benefits, many people recognize that energy efficiency can bring additional benefits related to health, comfort, and the environment.^{18,19,20} This extends to the impacts of climate change. When survey respondents were asked about appealing characteristics when considering a career in energy efficiency, a “Tangible way to make a difference on climate change” was the top choice amongst all respondents, followed closely by “Makes a difference to housing for my people.” Furthermore, Figure 3. demonstrates that for youth and remote participants, the perception of energy efficiency careers as having an impact on climate change was particularly appealing.

15 Mercer, Hudson, Martin, & Parker, 2020
16 Interviewee
17 Youth focus group participant
18 Ecotrust Canada (Director). (2018). *Reducing heating costs and improving health in Bella Bella homes* [Motion Picture].
19 Mercer, Hudson, Martin, & Parker, 2020
20 Lumos Clean Energy Advisors. (2019). *Scan of Indigenous energy efficiency initiatives in Canada*. Ottawa: Lumos Clean Energy Advisors.

Most Appealing Characteristic of a Career in the Energy Efficiency Sector

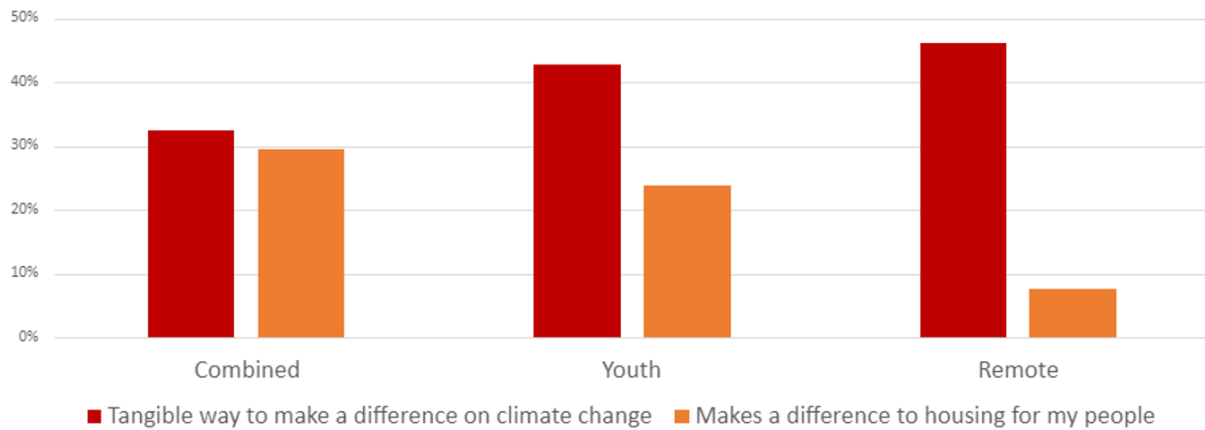


Figure 3 Survey respondents' top choices for appealing characteristics when considering a career in energy efficiency. (Note: Group identifications are not mutually exclusive.)

Several participants shared that as temperatures get more extreme (communities are experiencing +40°C to -40°C), permafrost melts, and other climate impacts are felt, there is a greater need for more durable homes. This durability can be achieved in part through energy efficiency measures.

Ecotrust Canada, which works on energy efficiency with Indigenous communities in BC, emphasizes the connection between energy efficiency, affordability, and health. They note that the average household in a First Nations reserve spends three times more on energy as a proportion of income compared to the average BC resident. They go on to share that “these excessively high energy costs exacerbate the social distress and impact of poverty on people, while inadequate heating systems lead to negative health impacts due to lower air quality and mold.”²¹ These impacts are amplified for those that are already vulnerable such as elders, young children, and those with pre-existing health conditions, as well as those living in overcrowded conditions and homes requiring major repairs.²²

Below are three quotes that reflect how these issues intersect from the perspectives of Indigenous participants of this research.



As time goes on, people will also understand the human health aspect – durability and quality could change people’s COPD, asthma, and other health issues.

- Interviewee



Energy efficiency is critical for a safe and secure future. Climate change is real and needs to be mitigated at every angle.

- Survey Respondent



I think [it’s] all related. For instance, mold issues point to other issues – air leakage (heat loss), health, and durability.

- Interviewee

²¹ Anderson, n.d.

²² Kovesi, T., Creery, D., Gilbert, N., Dales, R., Fugler, D., Thompson, B., . . . Miller, J. (2006). Indoor air quality risk factors for severe lower respiratory tract infections in Inuit infants in Baffin Region, Nunavut: a pilot study. *Indoor Air*, 266-275.

Some communities are leveraging energy efficiency to address these challenges. This is demonstrated through the Indigenous Off-Diesel Initiative (IODI), an Impact Canada initiative led by Natural Resources Canada with support from ICE, where approximately 85% of community energy plans include energy efficiency as a core action to reduce diesel reliance. In many cases, energy efficiency was included in the energy plans because community members expressed a strong interest in energy efficiency to reduce energy costs and address unhealthy living conditions.

This evidence demonstrates that energy efficiency must be considered holistically alongside other housing issues – an approach that connects to Indigenous values of interconnectedness.

Finally, this research found that it was important that energy efficiency play a role in building local economies. One interviewee pointed out how traditional Métis dovetailed log homes were built using materials found within 40 kilometers of the home. They translated the benefits of that approach to modern-day opportunities to build up local economies by ensuring that the materials needed to construct and repair are available locally. This would further reduce the climate impacts related to shipping building supplies for homes and facilities.

As author Clavin Helin describes in his book *Dances with Dependency*: “Since there are few businesses in most [Indigenous] communities, the monies flowing in are not recycled through the community economies (as occurs with most [non-Indigenous] small town communities), but flow right back out.”²³ Energy efficiency presents an opportunity to build up self-reliance by enabling more local skills, careers, and economic development.

The Nuxalk Nation has provided a model for this type of opportunity. They combined building science, trades training, and a conscious local approach, which has led to the development of a local mill. This mill will eventually supply wood for high-performance homes and other projects in the community.²⁴

Viewed this way, energy efficiency becomes a true economic multiplier. When approached holistically, it can build up local economies while reducing individual and community costs through energy savings.

Evidently, energy efficiency is critically important to communities for a wide range of highly interconnected reasons. These reasons and this interconnectedness should be used to guide the design and communication of future funding programs or policy initiatives. A holistic approach must be taken to maximize uptake and impact.

What’s a community energy plan?

Community energy plans are a way for communities to assess their current energy situation and identify a path to reduce energy costs, reliance on fossil fuels, and greenhouse gas emissions. The path might include renewable energy projects, energy education, energy efficiency, and even vehicle electrification. The path is based on each community’s needs and vision. Community energy plans help build support for actions and help make projects easier to fund, as much of the feasibility work has been completed.

“We need to link everything – energy efficiency, durability, indoor air quality, etc. – rather than just focusing on energy efficiency. Maybe we need a “Better Homes” initiative. It can be a mistake to try and separate energy efficiency from other aspects from a practical and a marketing standpoint.

- Interviewee

“It’s not just about building energy efficient homes. It’s about building prosperous communities.

- Interviewee

²³ Helin, C. (2008). *Dances with Dependency: Out of poverty through self-reliance*. Ravencrest Publications.

²⁴ Indigenous Clean Energy. (2021). *Training and employment in Nuxalk*. Ottawa: Indigenous Clean Energy. Retrieved from <https://icenet.work/spaces/11/energy-efficiency/files/5156/nuxalk-case-study>

4.2 Actioning Projects

Over 75% of survey respondents in total shared that they had either been or are currently involved (38%), or are thinking about being involved (38%), with an energy efficiency project. When analysed with demographic information, considerable differences show up in relation to which group of respondents are carrying out and considering energy efficiency projects as represented in Figure 4. Notably, close to 70% of survey respondents from the “Remote” group have been or are currently involved in an energy efficiency project. For “Women/2SLGBTQIA+” and “Youth”, there was a fairly even distribution between the response categories. For “Rural” respondents, most either had been involved or were considering an energy efficiency project.

For survey respondents who answered “No” they were not currently or planning to be involved in a project, 50% selected “I don’t make decisions about my home/building or the homes/buildings in my community/ organization”. Notably, the majority of these were people who identified as women and gender diverse, or youth. This is likely because a high percentage of people in these groups are renters (34% for women and gender diverse and 47% for youth). There was an option to select “I don’t think energy efficiency is important”, however, no survey respondents selected this option as a reason for not pursuing an energy efficiency project.

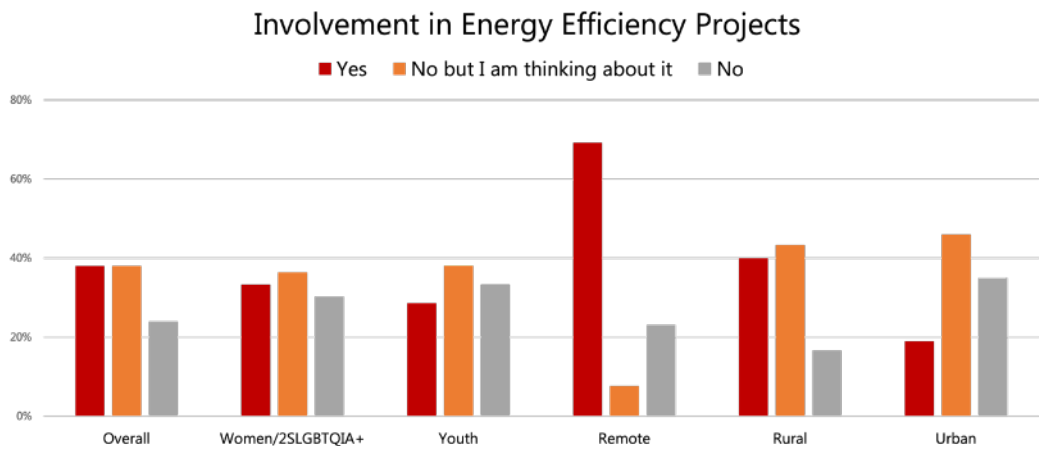


Figure 4. Rates of involvement in energy efficiency projects by survey respondents. (Note: Group identifications are not mutually exclusive.)

While it is evident that energy efficiency is important and many Indigenous people are working to pursue projects, there are an array of challenges that Indigenous communities, organizations, and individuals face when trying to take on energy efficiency projects.

4.2.1 Costs

Cost is one of the greatest barriers to doing energy efficiency work. Over 50% of survey respondents indicated, “How do we pay for the measures?” as one of their top two questions when it came to doing energy efficiency work. This was further reinforced by interview and focus group participants who consistently noted it as one of the top challenges for projects.

Interview respondents shared that the upfront costs are a major challenge. Even with programs like Greener Homes, having to put the money upfront and wait for a reimbursement can make it inaccessible for communities and their members. This is especially true for those living paycheck to paycheck who would likely benefit the most from the measures. It is difficult for people to choose energy efficiency when it means “deciding between groceries and lightbulbs.”²⁵ In discussing this finding with NRCan, it was noted that a policy was introduced to the Greener Homes Grant program to allow Indigenous communities to request advance or interim payments to reduce upfront costs.

“
Most members are low-income. Rebates are good but [still] competing with the cost of living which is going up. It’s hard to save even though it’s rewarding.
- Interviewee

For Indigenous communities and housing organizations, the costs to implement energy efficiency measures compete with the need to build more homes and keep up with basic repairs. Ontario Aboriginal Housing Services currently provides services to 11,000 Indigenous people but estimates the actual need is closer to 90,000.²⁶ In 2013, the Assembly of First Nations estimated an 80,000-unit backlog for housing on reserve.²⁷ Nunavut's housing strategy is focused on addressing "a severe housing shortage and staggering overcrowding rates."²⁸

Close to 30% of survey respondents chose, 'Can we afford to do energy efficiency when we need to build more homes?' as one of their top two questions related to doing energy efficiency work. The need is significant with 1 in 6 Indigenous people living in homes in need of major repairs and the estimated life span of homes on-reserve as short as eight to ten years.^{29,30} For some of these homes, communities are hesitant to invest in any energy efficiency efforts because it would cost more to get them up to a standard than it would to tear them down.

One interviewee explained that when electricity bills are transferred to tenants, there is a less immediate incentive for bands to implement energy efficiency measures. They went on to explain the need to connect the long-term co-benefits of tenants saving on their electricity bills, and the band saving due to the increased durability connected to energy efficiency measures.

Cost barriers are compounded for rural and remote communities in terms of shipping materials and having to bring in experts. One interviewee, who supports several rural Indigenous communities, explained that it would cost them nearly \$1,800 to have an energy advisor audit a home. With a financial incentive of only \$600 through the Greener Homes Grant, this individual could not make the economic case for this work and therefore could not move forward with a project.

For people with disabilities, especially those living with social assistance as their primary income, the basic cost of living can be a challenge, let alone implementing energy efficiency measures and accessing funding.

“*I don't think it's a priority for most people because there's a lack of housing and they don't have enough funding and there's major renovations needed. There's a lot of needs with regards to housing, so energy efficiency comes after because they see it as an additional expense.*

- Interviewee

“*For a lot of people, it's hard to even access a computer. You have to get Ontario Disability Support Program case workers involved and inform them of the programs. That might help reduce some of the barriers.*

- Interviewee

26 Graf, C. (2022, January 25). \$10 million more per year from Ontario to build new Indigenous housing hailed by service groups. *Toronto Star*. Retrieved from <https://www.thestar.com/news/canada/2022/01/25/10-million-more-per-year-from-ontario-to-build-new-indigenous-housing-hailed-by-service-groups.html?rf>

27 Assembly of First Nations. (2013). Fact sheet - *First Nations housing on-reserve*. Ottawa: Assembly of First Nations.

28 Nunavut Housing Corporation. (2016). *The blueprint for action on housing: Implementation plan for the GN long-term comprehensive housing and homelessness strategy*. Iqaluit: Government of Nunavut.

29 Statistics Canada. (2022). *Census in Brief: Housing conditions among First Nations people, Métis and Inuit in Canada from the 2021 Census* Ottawa: Government of Canada. Retrieved from <https://www12.statcan.gc.ca/census-recensement/2021/as-sa/98-200-X/2021007/98-200-X2021007-eng.cfm>

30 First Nations National Building Officers Association. (2011). *An Exploratory study on the life cycles of First Nations homes*. Shannonville: FNNBOA.

4.2.2 Capacity

Speaking to almost anyone who works in Indigenous housing, one of the first challenges that comes up is the capacity to manage housing in terms of personnel and training. An assessment in BC found that “almost half of the housing societies were under-resourced and needed more staff” and “30% [of First Nations] had either no housing manager or a part-time manager only to develop and manage the housing portfolio”.³¹

Study participants also identified housing managers, housing coordinators, and other roles devoted to supporting housing, as being strained or in need of additional support to take on energy efficiency projects. Sentiments such as the one described in the quote to the right were extremely common.

Several participants also pointed to poor workmanship in the initial construction of buildings being a key driver in the amount of work required of housing departments. Others shared challenges around maintenance skills, costs, and division of responsibilities (e.g., whether something is the responsibility of the home occupant or housing provider and if that division was honoured). Adding to the technical demands, housing managers often must deal with the social side of housing.

These pressures result in a high turnover rate for housing managers in many communities. One participant estimated that there was a new housing manager every 1.5 years in their community. Housing data and other essential knowledge is frequently lost in the turnover making it difficult to build up strong practices.

Given this lack of capacity within existing housing departments, taking on an energy efficiency project (which requires significant staff time to coordinate with community members, consultants, and contractors to schedule audits and retrofits) is simply not feasible without bringing on more staff. The impact can be magnified for smaller nations as highlighted in the quote below. One participant described having to spend over a month coordinating with a home occupant to arrange an audit. The need for project managers (or equivalent training) was often expressed as a key skill to develop in communities and organizations.



There's a lack of capacity in the community. They are just working to keep their head above water. [It's] difficult to look at taking on more work. There is so much premature breakdown. They're doing maintenance on buildings that are only a few years old.

- Interviewee



The challenge for smaller nations is that they get no funds simply because of paperwork and they do not have the resources to access funds, nor to build or simply address contractors.

- Interviewee

Finally, participants identified a need to develop local skills and jobs that included: energy auditors, tradespeople, HVAC technicians, building envelope specialists, and project managers. Challenges to developing these roles are discussed further in section 4.3 – Pursuing Careers.

31 Catherine Palmer & Associates Inc. (2015). *Aboriginal Housing in British Columbia: needs and capacity assessment*. BC Office of Housing and Construction Standards., 38-39.

4.2.3 Awareness and Knowledge

Study participants suggested education, awareness, and simplification of energy efficiency information as another key to moving projects forward. Participants explained that the community first needs to understand why it is important. Building support for energy efficiency projects and implementation then requires accessible knowledge about how to proceed with projects; how to carry out assessments; how to write reports; how to find and apply for funding, etc. At each step of building awareness, there are challenges.

When it came to awareness of funding opportunities, it was apparent that many people that were in roles that dealt with housing or energy were aware of different programs and funding, but many individuals were not. For example, one interviewee works for a crown corporation, lives in an urban environment, and was actively trying to make energy efficiency improvements to their home, and yet they had not heard of the Greener Homes Grant.

It was suggested that simplifying information about energy efficiency options, programs, and funding opportunities, and making accessible information readily available, would help to:

- » offset current misinformation about energy efficiency solutions (such as “LED lights are dangerous because they contain lead”)
- » reduce the burden on local governments and housing professionals by giving them tools they can easily share
- » broaden common understandings of what energy efficiency is and how people can be more energy efficient
- » make energy efficiency more engaging and appealing

It was also shared that centralization of resources through organizations (like the Aboriginal Housing Management Association in BC and ICE) that can then support communities and organizations would be beneficial as many communities and organizations already turn to these groups for support on projects. Within the federal government, people in roles that already work closely with communities (such as regional CMHC and ISC representatives) must be aware of funding opportunities so they can support communities in accessing them.

When asked where they turn when they have questions about their homes/buildings, “experts and sector organizations” and “websites” were the top two responses from survey respondents, as seen in Figure 5. “Government resources/sites” were sourced at about the same frequency as more informal sources such as “Family and/or Friends” and “Social media (YouTube, Instagram, TikTok, etc.)”.

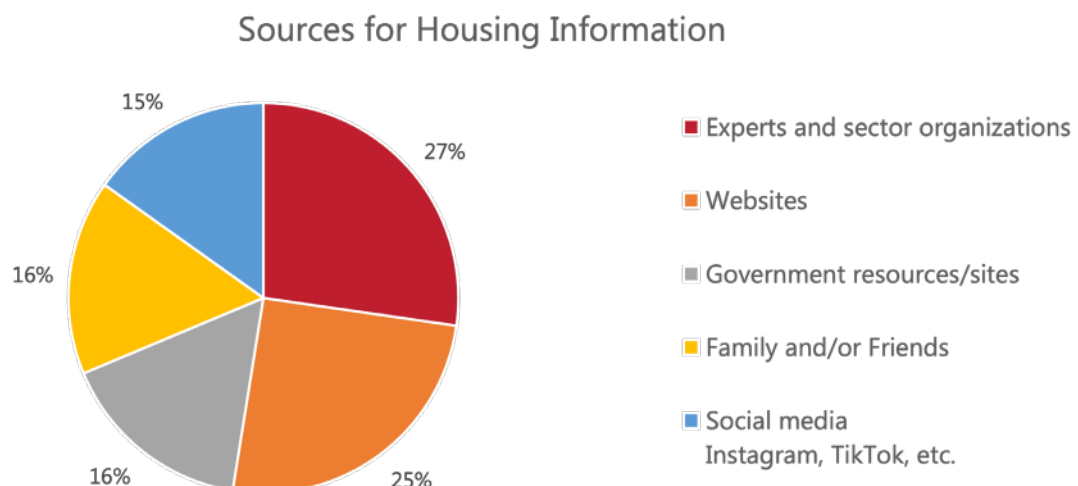


Figure 5 . Survey respondent's top two sources for housing information.

To get a better understanding of how to reach different demographics, the same responses were analysed by survey respondents' group identifications. Figure 6. shows that people from Urban areas are far more likely to turn to "Family and/or Friends" than any other demographic.

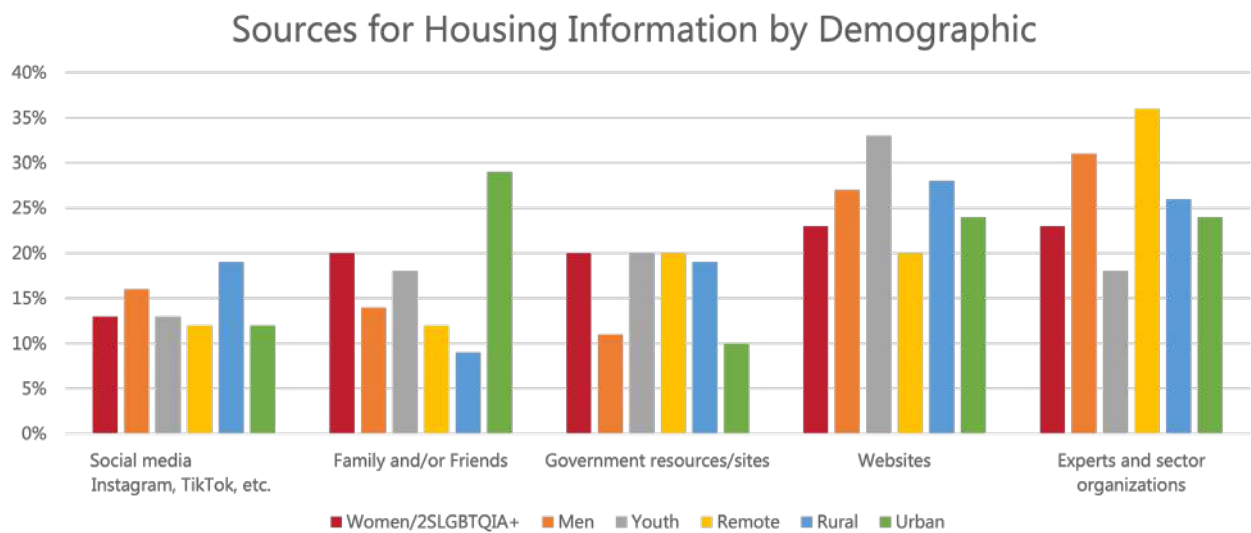


Figure 6. Survey respondent's top two sources for information about their home/building by demographic. (Note: Group identifications are not mutually exclusive.)

When asked the open-ended question about where they look for information about energy efficiency and housing, interview and focus group participants shared a large variety of different sources. Beyond the category sources listed in Figures 5. and 6., interviewees added community radio and newsletters, Indigenous newspapers, capacity-building organizations, and word of mouth.

4.2.4 Funding

Capacity shortages and a lack of awareness were common challenges faced when trying to access government funding programs. However, it was repeatedly noted that the funding process itself did not make it any easier for communities.

The complexity of applications was one of the major barriers related to funding as reflected in quotes like:

“
Reading some of the questions, it would take someone with no education forever to fill it out. They may not even know where to start.
- Interviewee

“
Even the contact email they provide is long and confusing!
- Focus Group Participant

Several participants shared for example, that they were not able to get through the first three pages of the 34-page "Toward Net-Zero" application form. One rural individual described how they "tried to apply to [Greener Homes Grant] funding for their own home but gave up because of an issue with [their] rural address." As they described: they've "got a master's degree and [do] paperwork for a living... Then think about it for someone who is working off a phone or tablet with poor internet access."³² This points to issues about density and length as challenges with funding applications. Participants already have limited time, energy, and resources so barriers in an application process (even small ones) can derail interest in moving forward.

UPDATING PROGRAM DESIGNS

It was shared that some federal programs, such as the Greener Homes Grant, may go through revisions during the application period. When this happens, it is critical that promotions are doubled down to inform potential applicants. Through conversations with interviewees, it was clear that once a program was deemed “not a fit”, they moved on. Practically, this is done due to lack of capacity. However, it means they could miss out on opportunities if program designs change. Therefore, the funders must put in extra effort to make people aware of program changes.

Several participants noted that it would be beneficial to have sample responses in the application form and if possible, a feedback process where they can get input on their proposal. This is a practice the Independent Electricity System Operator in Ontario uses for their funding which has been a significant benefit to the Community Energy Champions they support. It is especially helpful for those who are new to proposal writing which is often the case for people taking up these roles.

It was also shared that applying for multiple funding streams, potentially with multiple funders, when trying to develop a multi-year project is cumbersome and time-consuming. It creates more barriers to entry for communities and increases timelines significantly for projects. One participant shared that although they have been able to access single-source funding, they lack knowledge about how it integrates with existing funding. They went on to share that they do not think housing managers have the time, skills, or awareness to apply to these other programs. They are primarily focused on accessing and managing the funds available through their regional ISC and CMHC representative.³³ There is potential for NRCan to streamline the process by adding energy efficiency funding to the existing pots in ISC or CMHC, where people are already used to accessing funds.

Participants also shared challenges trying to figure out how to make their projects “fit” what the funder was looking for. Some communities and individuals fall into grey zones of funding programs as they are not designed with these groups specifically in mind. For example, rural communities may be in great need but are not diesel-dependent communities and so they do not qualify for that funding, but other funding is not effectively set up for them (as exemplified by the auditor costs of Greener Homes). Similarly, it was found that while efforts were made to streamline the Greener Homes Program for Indigenous communities, the new approach did not allow for effective Métis participation as many Métis Nations do not “own” the houses of their membership and so they could not access the program on scale. Again, NRCan has noted that changes have been made to the eligibility criteria of the program to allow for organizations such as Métis Nations to apply for the members they represent.

“*[Staff] are so overworked and overstressed providing essential support to their communities. People are hard to reach even by phone. People are going on stress leave. It makes it hard to stick to deadlines and reporting. You feel stuck between colonial and community realities.*”

- Interviewee

The rigidity of programs and application processes is yet another barrier for individuals and communities working on projects. One interviewee expressed that they hoped that COVID-levels of flexibility could become the norm. This includes:

- » **Application periods that were too short** – Participants appreciated longer timelines or, better still, rolling processes.
- » **Restrictive funding eligibility** – As noted above, it can be difficult for communities to find ways to fit their project ideas to the funding requirements.
- » **Contribution agreement constraints** – Timelines can often shift, especially for remote communities, so more flexibility for funding carry-over between fiscal years.
- » **Multiple Funding Streams** – In addition to funding for fleshed-out projects, it is important to have funding that supports communities that are just starting to think about projects – often there is a gap for this early stage funding when it comes to energy efficiency projects.

Finally, participants found the delays in review, approval, and signing of contribution agreements to be a barrier to keeping the momentum up on projects. As one focus group participant described, the slow timelines on hearing about funding can lead to the community losing confidence in the project, the project lead, as well as whether the government truly cares. Delays in approvals can also lead to rushed implementation as projects try to stick to original timelines. This can lower the impact and success of these projects. As one youth shared: “You’ve been approved but you have three months to build.”³⁴

To alleviate these issues, many interview participants pointed to relationships with funder contacts as a potentially powerful aid to successfully completing government funding applications. Benefits shared by participants included:

- » Trust building (someone cares and wants to provide support),
- » Familiarity (reduces the need to repeatedly explain projects and needs to different representatives),
- » Clarity (relatively immediate answers to specific questions),
- » Nuance (availability of regional expertise and understanding), and
- » Criteria adjustment (support with translating or tweaking the project to fit funder requirements).

“*Rush and stop. Rush and stop. It just doesn’t give you confidence to move forward.*”

- Interviewee



4.2.5 Working with Partners & Contractors

When it came to working with partners, survey respondents identified challenges related to:

- » Partners being in different time zones/regions,
- » Lack of cultural understanding and alignment with community vision,
- » The cost of services, and
- » Challenges managing timelines.

Participants further emphasized the impact of a lack of cultural awareness by noting that consultants from urban settings often do not understand how small Indigenous communities function and the level of engagement and support needed. Cultural awareness and sensitivity are integral to building the trust communities need. One interviewee shared the quote, “change happens at the speed of trust,” and explained that years of intergenerational trauma means building trust takes a lot of work.

Other participants shared histories of broken trust, where contractors have done the bare minimum work – at times hardly up to building codes. This legacy of shoddy work leads communities to be “more cautious and distrustful of bringing in partners or anyone else to support them because they’ve been burned one too many times.”³⁵ One participant suggested that regional organizations could help bridge this gap by helping identify qualified, trusted contractors communities can turn to.

Trust is especially important for work happening in someone’s home. Having someone in your home can feel intrusive. People living in poverty and/or with mental health issues may feel especially vulnerable in these situations. Several respondents shared that community members need to know they are not going to be judged or intruded upon.

In rural and remote communities, external contractors mean major cost increases for projects due to travel, accommodations, and more time spent on the project. Moreover, these experts may not be familiar with the specific needs, challenges, and cultural practices of communities.³⁶ One interviewee from Nunavut described how they “went through a whole RFP process and found someone they thought had the right portfolio and experience working with Indigenous people but ultimately didn’t work out because he didn’t have Northern experience and was suggesting ideas that flat out wouldn’t have worked. This is a common thing across the board in Nunavut, where people in the South try to just copy what they’ve done in the South.”³⁷ These sentiments regarding contractor experience and building standards being ill-fitted to the needs of the community were reiterated again and again by participants.



Cultural safety with contractors is another big one. I hear horror stories...where men were like ‘get in, get out’...Community members mention ‘[Contractors] don’t talk to us when they’re here.’ You need to go in and not judge, to understand where the trauma is, and be open.

- Interviewee

³⁵ Interviewee

³⁶ MacTaggart, L., Heerema, D., & Ashcroft, A. (2021). *Transforming income-qualified home energy retrofit programs in BC*. Ecotrust Canada.

³⁷ Interviewee

When it comes to the trades to do the energy efficiency work, several interviewees shared that they are facing a major shortage of qualified builders in the construction industry overall (Indigenous and non-Indigenous). This is a significant barrier inhibiting high-efficiency projects from moving forward through the contracting stage or adding significant costs to the project.

However, communities still see tremendous value in partnerships. Participants acknowledge the critical role good partners can play by providing necessary expertise, building community capacity, and enabling communities to achieve their visions.

“*Good partners go above and beyond – energy efficiency isn’t just about energy. The connectedness of all things is more important for Indigenous people. It connects to food, elders, youth, governance, and the land. That all takes energy too.*

- Interviewee

4.3 Pursuing Careers

In 2018, ECO Canada estimated that the energy efficiency sector employed approximately 436,000 workers, generating \$82.6 billion in operating revenues. The report projected this number to grow by 8.3% in 2019.³⁸ In the Energy Foundations report, ICE estimates that investments for Indigenous energy efficiency efforts could yield 47,190 full-time equivalent jobs over the \$5.4 billion investment needed to achieve energy efficiency improvements in Indigenous communities in Canada.³⁹

Most survey respondents knew of a wide range of energy efficiency career opportunities. Participants generally saw energy efficiency careers as a way to fight climate change, support housing in their communities, and as an emerging sector with job growth. When it came to challenges people saw in transitioning to energy efficiency careers, participants indicated five key challenges:

1. Awareness of career opportunities
2. Cost of completing training programs
3. Availability of training programs
4. Base knowledge/education required
5. Lack of technical skills/aptitudes (e.g., using computer programs, etc.)

“*It’s just amazing. I get to promote program services to the community. Trying to [get] their bills lowered, save them some money, and make them a little bit conscious of what’s going on.*

- Interviewee

Interview participants reinforced these insights and added several other challenges they have experienced.

³⁸ Eco Canada. (2019). *Energy Efficiency Employment in Canada*. Eco Canada.

³⁹ Indigenous Clean Energy, 2021

4.3.1 Discrimination

Beyond the challenges identified in the survey, discussing discrimination in the sector is essential. While the industry has made progress, Indigenous people continue to experience discrimination. As one interviewee who self-described as white-passing questioned: “To a degree, the racism is subconscious – how do you even educate against that? To respect knowledge, not even Traditional Knowledge, just knowledge.”⁴⁰

Regarding gender discrimination, some interviewees (women and men alike) expressed that in some cases women were more successful than men. In some cases, this was due to respect enforced through matriarchal societies. In others, it was a result of societal norms that saw men dropping out of school at a young age to get jobs. As a result, women were more formally educated and therefore better positioned to take advanced training.

Nevertheless, women continue to face discrimination in the workplace. Some research has asserted that the disparity in the number of women in the energy efficiency sector is likely because the sector can be viewed as largely technical and trades-based, which both carry gender stereotypes that may deter women.⁴¹ Participants also acknowledged that childcare support availability impacted women and primary caregivers (often youth) in a way that impacted their participation in training programs and energy efficiency careers.⁴²

Similarly, individuals who identify as 2SLGBTQIA+ also face discrimination in the construction sector where many energy efficiency jobs fall.⁴³ A sentiment shared by study participants.

To overcome some barriers women and gender-diverse people face when transitioning careers, one interviewee shared details of a hands-on trades program open only to women and gender-diverse people. During the program, trainees completed energy efficiency retrofits on cabins and heard from women and gender-diverse role models working in the sector. This program helped launch the interviewee onto the career path they are on today.⁴⁴

4.3.2 Career Sustainability

Multiple interviewees noted community members are not interested in receiving training for one-off or pilot projects. There is a need to demonstrate at least medium-term career potential for people to be interested in training or changing careers.



For women, there's a lot of misogyny in the trades, and for queer folks, so LGBTQIA2S+, there's so much homophobia and transphobia in straight male-dominated fields, I wouldn't feel safe working in a trade. I'd be worried about hate crimes. I've experienced hate crimes just walking down the street. I wouldn't want to put myself in a trade. I'd be worried about my safety.

- Women/2SLGBTQIA+ Focus Group Participant



People are excited about any opportunities that are good and improve their economic situation, but it needs to acknowledge the economic realities. Transitioning careers can be risky. They need to see [a] multi-year payoff, not just a one-off.

- Interviewee

⁴⁰ Interviewee

⁴¹ Cheryan, S., Ziegler, S. A., Montoya, A. K., & Jiang, L. (2017). Why are some STEM fields more gender balanced than others? *Psychological Bulletin*, 143, 1-5.

⁴² Interviewees

⁴³ Barnard, S., & Dainty, A. (2017, December). Coming out and staying in industry: How sexual orientation and gender identity matters in construction employment. *ICE Proceedings Municipal Engineer*, 1-24.

⁴⁴ Interviewee

Enabling careers requires multi-year projects or broader planning to ensure that the investment in training pays off – both for the trainee and the community. This may require communities to look outside of their bounds and potentially collaborate regionally to provide a sustainable career pathway. For example, a community with 100 homes would not be enough to sustain a full-time energy advisor. However, if they can service the five surrounding communities, it may be a viable opportunity that keeps work local and reduces costs for those communities. Alternatively, communities could support individuals in developing multiple skills that together create a full-time role.

In doing this planning, the pay for the role must be competitive. Several interviewees described investing in training only to have the trainee go work in the nearest urban centre or a nearby mine because the pay was better.

This level of planning does require time, money, and certainty about being able to move forward with energy efficiency work. This is work best done on a community or regional level to understand what kind and how many trades or other energy efficiency careers can be sustained.

For youth, many people appreciated the approach taken in the Generation Power program, which is jointly run by ICE, Student Energy, and SevenGen. Through this program, youth received training in the clean energy sector and were guaranteed an internship placement. Meanwhile, employers receive equity training and wage subsidies to help cover the salaries of the Indigenous interns. This holistic approach ensures trainees have a pathway from training to employment. It is an approach that is critical for everyone, regardless of age, that is looking to transition careers.

4.3.3 Awareness

In many regions, individuals may have no knowledge that certain careers exist. One interviewee noted that the only reason they are on the path they are today was that someone happened to give them a documentary about Indigenous architect Douglas Cardinal when they were a teen. Before that they had no idea architecture was a career.

Another participant acknowledged that they just came upon this career by accident. They were looking for a job that was a “9-5” type of job that allowed them to care for their four children, and someone shared a job post with them.

Across the board, participants expressed a need to expose more Indigenous youth to career pathways. Many people suggested clean energy career fairs in high schools. Others recommended programs like Generation Power, described above. Ideally, this would be done by Indigenous people working in the industry, however, at this stage, any amount of exposure would be beneficial. As one participant describes:

“Part of it is just letting them know what a career looks like in the field. Show them what the type of work looks like on a day-to-day basis and how meaningful it can be, especially for housing.

- Interviewee

In addition to bringing awareness to youth, adults and elders should be considered. As one interviewee pointed out: “Elders often get forgotten about when it comes to employment. Some elders still want to be working or even need to be working.”⁴⁵

4.3.4 Financial & Wrap-Around Supports

As reflected in the survey, support is needed to make training programs more financially accessible. One interviewee noted that part of the reason he was able to take the training needed to transition fully into the sector was that he was fortunate to live in a double-income home. Even current professionals in the field face cost challenges when trying to pursue further education.

Another participant shared that their company gave them the time off to complete their master's degree, and while the company paid for two of the courses, the participant said if they had "not been given that opportunity to take those courses during work hours, it wouldn't have been accessible for me."⁴⁶

Participants acknowledged that in addition to financial support, wrap-around support would greatly benefit people in successfully taking on training for energy efficiency careers. Wrap-around support includes:

- » Childcare
- » Training stipends
- » Travel allowances
- » Rent subsidies
- » Tutoring and mentoring
- » Funding for computers or tools
- » Access to elders and/or councillors
- » Other things as needed

Several study participants also acknowledged the importance of wrap-around supports in recognition of social challenges such as substance use disorders, intergenerational trauma, racism, homelessness, access to transportation, etc. They explained that stability in the home is vital, especially if homes are overcrowded. If one person is doing well, but someone in their home is struggling, then they can all be affected, a sentiment that again reinforces the need for interconnected approaches. Wrap-around support can help address these issues.

4.3.5 Prerequisites to Training

Research from the Conference Board of Canada asserts: "Many Indigenous learners leave high school inadequately prepared to continue in post-secondary science, technology, engineering, and mathematics (STEM) studies." They note that those from under-resourced rural and remote schools are worse off than those from urban environments.⁴⁷

Extra support is needed to fill the gaps for potential trainees interested in pursuing careers in energy efficiency. One interviewee explained that they repeatedly faced self-defeating trainees, making it difficult for them to succeed and often resulting in them dropping out. The interviewee shared that they hired tutors and mentors to help trainees with math and language skills. These measures helped the trainees find the confidence and skills to succeed.⁴⁸

Participants also shared that some training institutions and programs have set the bar too high, considering Indigenous students compete for spots against people with much more privilege. One interviewee described being laughed out of the entrance interview of a top-ranked Canadian university because they did not fit the university's model and design style. This candidate had never met an architect before the interview. However, they persevered and were later commissioned for work by that same university.

“*The day and age we're living in is expensive. We support them to be their best without any stress. We removed all the barriers – gave them living wages, child expenses, travel, etc.*

- Interviewee

⁴⁶ Women/2SLGBTQIA+ focus group participant

⁴⁷ The Conference Board of Canada. (2020). *Indigenous STEM access programs*.

⁴⁸ Interviewee

Both Indigenous and non-Indigenous participants critiqued the Energy Advisor certification process in particular. Participants explained that the process seemed to test for English proficiency rather than understanding building systems and energy auditing.

As an alternative to extensive training options, several participants expressed the potential value of developing micro-credentials. Many communities face the same housing/building issues again and again. They identified a need to have people trained and accredited to complete a smaller range of jobs. The ability to take training for a micro-credential would be a practical way to meet the immediate needs of communities, while simultaneously making training more accessible.

4.3.6 Training Approaches

Interviewees also offered that “how” training is delivered impacts the efficacy of Indigenous people transitioning into the sector. This research found three core approaches that generally make for the most successful programs.

In-Community Training

The benefits of in-community training were reinforced time and again. For example, a training program run in northern Saskatchewan saw great success in its first year when it was run in the host community. The second year the program had to be hosted in Prince Albert (the nearest urban centre) and saw a much higher failure rate. Hosting programs in the community reduces costs for trainees and means they can stay connected to their support network and culture. This need was especially emphasized by participants in the Remote Focus Group:

“It costs \$1,000 just to leave the community, and that’s not even including living expenses. Folks don’t want to leave the community. Recently, I [arranged] a pre-employment training that was supposed to take place in the community, but it had to change to outside the community. I had 18 people sign up and 14 people dropped out because it was no longer in the community. It was very discouraging. That’s one of the biggest things in relation to careers and getting people interested.”

- Remote Communities Focus Group Participant

Hands-On Training

This approach was affirmed in the survey where 76% of respondents rated hands-on training as “very effective.” One interviewee described “observing how it’s done, then doing it” as central to Inuit culture. A sentiment that is likely felt by many First Nations and Métis people as well.

While the rise of online education has enabled more people to take training while staying in their community, the success of these programs is limited as people easily lose focus, lack stable access to the internet, and miss out on the peer support that comes with in-person learning.

Program Pace

While many training programs happen in intensive weekends or blocks of time, participants explained that more successful training is incremental, building over time. With an equity focus, this style would give space for the following benefits:

- » Building relationships and incorporating culturally relevant practices such as proper introductions
- » Giving room for trainees with different levels of base knowledge to acclimate
- » Providing more equitable access to training for family caregivers (often women and youth)
- » Allowing for extra time and support for challenging areas (even redoing certain segments without shame)
- » Accommodating different learning styles

As the Aboriginal Housing Management Association states in their *Response to the National Housing Strategy*: “Job opportunities and an emphasis on purpose are critical to strengthening communities.”⁴⁹ Investing in programs and policies that address the many barriers while incorporating the values and worldviews shared by the Indigenous participants of this study has the potential to create impacts and benefits well beyond reducing energy consumption.

5 Recommendations for NRCan

The interviewees, focus group participants, survey respondents, and literature yielded many insights. Based on these insights, a series of core actions have been developed to guide future government programs and policies that support Indigenous energy efficiency efforts. These actions will help Indigenous communities, organizations, and people take on energy efficiency projects and pursue careers in the field. The recommendations are clustered into three categories:

- » Relationship Building and Collaboration
- » Improving Program Design
- » Supporting Strategic Projects

When acting on these recommendations, three overarching considerations should be kept in mind:

- 1. Work to fill regional program gaps.** Ensure there continues to be coordination with provincial, territorial, and regional organizations and governments to ensure that new programming provides support where there currently is none or helps replicate programs in areas where they do not currently exist. For instance, the Community Energy Champion (ON) and Climate Action Coordinator (BC) programs have been very successful however they are limited in where they operate. Funding to support these types of programs in other jurisdictions may prove incredibly beneficial.
- 2. Identify pathways that embrace Indigenous decision-making about how funding is spent.** Indigenous communities and organizations know what they need. These needs may not match what is laid out in a funding program but may still achieve the same ends. Therefore, consideration should be given to establishing programs that invite self-determination about the process with an agreement to a shared set of goals. For example, one interviewee expressed the need to “continue to support programs like the Indigenous Off-Diesel Initiative where communities have full autonomy over decision-making for clean energy transition projects.”⁵⁰ ICE is replicating this approach through the new Energy Efficiency Project Accelerator program that has been launched. This flexibility centres the power in the community’s hands to achieve outcomes in the way that is best for their people.
- 3. Move beyond ‘Indigenous Set Asides.’** Many funding programs take the approach of carving out a dedicated portion of funding for Indigenous applicants. This is a positive step. However, taking it further will allow for more flexible designs that more effectively meet the needs of and recognize the unique realities of Indigenous people and communities. Creating programs dedicated only to Indigenous applicants allows them to have “an Indigenous agenda.”⁵¹ That is, supports, approaches, and requirements tailored to Indigenous communities. For examples of this in practice, look at the impacts of the Indigenous Off-Diesel Initiative and the Indigenous Homes Innovation Initiative. These two programs could not have been structured the way they were if they were also trying to reach a non-Indigenous audience.

49 Aboriginal Housing Management Association. (2016). *AHMA national housing strategy recommendations*. West Vancouver: Aboriginal Housing Management Association.

50 Interviewee

51 Interviewee

5.1 Relationship Building & Collaboration

One of the most significant factors to success that participants shared was relationships. Relationships were critical for moving forward with projects and learning about and accessing funding.

5.1.1 Build Relationships

Building direct relationships with communities and the people leading work on the ground is critical. Many participants expressed how beneficial it is for them when they can pick up the phone and talk to their go-to contact at a funding agency who can guide them. Building these relationships has several benefits:

- » It increases trust and collaboration between Indigenous individuals, communities, organizations and NRCan,
- » It enables NRCan to have more direct communication when promoting new programs,
- » Indigenous groups can more directly express their needs so that programs can be better designed to support their work,
- » NRCan contacts can guide how best to position projects – increasing the quality of applications.

A prime example of how this can work in practice is through Crown-Indigenous Relations and Northern Affairs Canada's Northern REACHE program. Within REACHE, each northern region has a dedicated representative who builds relationships with communities in their respective areas. This approach allows the Northern REACHE staff to understand their region's needs better and advocate for projects they know will bring benefits.

The path to building relationships should include:

1. Learning promising practices from other departments (such as Northern REACHE).
2. Identifying regions sized for building meaningful relationships. Sizing could follow: provincial/territorial boundaries, number of communities in an area (e.g., 20 to 30 communities per representative), type of community and organization (e.g., urban, rural, remote), or even by Indigenous culture/language (e.g. Tlingit, Dene, etc.) or treaty territories (with inclusions made for communities who have never signed treaties).
3. Extensive cultural awareness training and learning for government staff to understand historical and ongoing colonial traumas Indigenous communities experience and appreciate the worldviews and values that guide Indigenous people.
4. Funding to ensure representatives can travel to communities to build relationships face-to-face.

By taking these actions, NRCan will develop an ecology of relationships central to taking action. This ecology includes community governance and leadership, housing authorities and managers, residents and families, community administration, energy efficiency proponents and services, climate change action planning, and housing funders and agencies. These relationships form a cornerstone for comprehensive planning for deep energy efficiency action.



5.1.2 Diversify Outreach Strategies

One significant challenge observed through this research is that many were unaware of the available programs. NRCan should diversify where and how outreach is done for programs and initiatives. This includes:

1. Sharing information with the relationships built in Action #1 (section 5.1.1.). Key contacts in communities and organizations will often be the ones submitting applications or can share program information with their community members directly through word of mouth or through community newsletters.
2. Taking out ads, where relevant, in Indigenous publications. See the box to the right for an initial list of relevant publications and platforms.
3. Circulating ads to Indigenous and community radio stations which are often a primary source of information for people, especially in rural and remote communities.
4. Connecting with Indigenous Friendship Centres and other support providers, such as disability workers and employment support workers, who can help guide those most in need to programs and supports to reduce energy costs.
5. Investing in ads translated into Indigenous languages. Not only is this critical for reaching people for whom English and French are second languages, but it is also an act of reconciliation in supporting the vital preservation and ongoing growth of Indigenous languages.

List of Indigenous Publications

Below is a list of Indigenous news publications (print and digital). This list is not comprehensive.

- » Nunatsiaq News
- » APTN
- » Windspeaker
- » First Nations Drum
- » Alberta Native News
- » Turtle Island News
- » Aboriginal Business Report
- » Ku'ku'kwes News
- » Wawatay News

When considering the approaches above, keep in mind that conventional, non-interactive mechanisms like brochures that focus on energy efficiency do not generally engage Indigenous communities and peoples. It is more effective to develop outreach strategies that:

- a. Place a premium on in-person engagement and sustained local information sharing which utilizes story telling, hands-on examples, social media and locally accessible sources (like community radio) by champion personalities and respected Elders and leaders,
- b. Focus on energy efficiency impacts that speak to benefits like healthier living environments, housing safety and long-term building durability,
- c. Employ Indigenous traditions, languages, traditional laws and even fun and humour in outreach efforts.

5.1.3 Collaborate to Offer Holistic Funding for Housing

Energy efficiency can not simply be done for the sake of energy efficiency. Adding insulation to an attic with a leaking roof is a recipe for health issues and a poor investment. Given that one in six Indigenous people and up to one in four Inuit,⁵² live in housing that needs major repairs, it is essential that NRCan works with partner departments and regional bodies to provide holistic funding support for housing.

As one participant recommended, there is a need for a 'Better Homes' program that enables individuals and communities to access funding that supports energy efficiency, health, structural, and climate resilience measures, along with the necessary local training and capacity development.⁵³ An initiative like this could be co-funded through a collaborative network of government agencies, including: NRCan, Indigenous Services Canada, Crown Indigenous Relations and Northern Affairs Canada, Health Canada, Environment and Climate Change Canada, and the Canada Mortgage and Housing Corporation (CMHC).

52 (Statistics Canada, 2022)StatsCanada, 2022; *Housing conditions among First Nations people, Métis, and Inuit in Canada from 2021 DCensus*; <https://www12.statcan.gc.ca/census-recensement/2021/as-sa/98-200-X/2021007/98-200-X2021007-eng.cfm>

53 Interviewee

An immediate action that could be taken on this path is for NRCan to partner with CMHC to ensure that any homes receiving funding through their Residential Rehabilitation Assistance and Section 95 programs receive additional funds specifically to implement energy efficiency measures. A similar strategy could be taken for any new builds supported through Indigenous Services Canada.

As long as funding for durability, operations, energy efficiency, and construction remain fragmented, meaningful impacts will not be possible. The integrated approach described here would enable deep housing improvements that address critical housing issues and help Canada meet its climate action goals. It would also streamline access for Indigenous housing providers. This represents a new way of looking at housing that will achieve what ICE refers to as “Healthy Energy Living”.

5.2 Improving Program Designs

Access to funding was noted as one of the most significant barriers to pursuing projects. How programs are designed makes a huge impact on the accessibility of programs for Indigenous people. The recommendations below will improve how government programs are designed and run.

5.2.1 Simplify and Support Applications and Reporting

Several participants shared how burdensome the application and reporting processes were. They also shared many recommendations on what this would look like in practice:

- 1. Establish consistent applications.** Having to figure out new application form setups and questions for each fund requires the investment of additional time and effort by Indigenous people who are already at max capacity. Establishing a standard application template across NRCan programs would ease entry for many organizations and communities. A select number of questions could be customized for specific program needs.
- 2. Establish consistent reporting frameworks.** Similar to the need for a consistent application form, a single approach to reporting would also reduce the burden on communities. Ideally, this could enable communities to have just one report to fill out that satisfies multiple funding programs.
- 3. Provide sample answers.** Including example answers in application forms gives applicants a better sense of what funders are looking for in a given question. This is especially helpful for people who may be new to proposal writing. This is an approach the Independent Electricity System Operator in Ontario takes.
- 4. Support proposal development.** Several participants shared how beneficial it was to talk through their proposal with someone at the funding agency, even so far as getting feedback on drafts. NRCan does offer this for several programs, however, there is not enough awareness about it, or about the depth of support communities need. This is where regional support (see section 5.1.1) would be beneficial. The approach taken recently by the Towards Net Zero program where funding is being provided through a third party to support proposal development could also be helpful (the impact of this approach was not available at the time of writing).
- 5. Leverage Expressions of Interest.** Expressions of interest should be used in funding programs that require more extensive application forms or processes. Although an expression of interest process extends the length of the application period, it enables communities to get more immediate feedback as to whether or not their idea is a match for the funding before investing so much time into a full proposal. This also allows NRCan to identify which communities may need further support in developing their proposals.

5.2.2 Engrain Flexibility

Indigenous communities, whether urban, rural, or remote, can face any number of hurdles while trying to implement a project or pursue training. Therefore, flexibility is a must when it comes to program designs and contribution agreements. This includes:

- 1. Longer or open application periods.** Putting together a quality application takes time and resources between having to coordinate with partners, get internal approvals, and gather quotes for budgets. Therefore, giving as much time as possible for application periods make it easier for Indigenous people to participate. Where possible, open application periods with no specific deadline are even more beneficial.
- 2. Making use of Appendix K of the Directive on Transfer Payments.** Contribution agreements can impose many restrictions on projects. Appendix K of the Directive on Transfer Payments provides NRCan with greater flexibility in how contributions are made and how unexpended funds are used or carried forward by recipients. Every contribution agreement should consider how they can leverage this directive to maximize flexibility for Indigenous communities. This is especially important for remote communities where missing transportation on an ice road or barge could mean a year-long project delay.
- 3. Make advance payments the norm.** As identified repeatedly throughout the research, cashflows can be a significant barrier for communities and individuals (especially low-income individuals who may benefit the most from energy efficiency savings). Therefore, processes that enable advances on contributions to cover up-front costs will help increase the uptake of energy efficiency measures. Alternatively, the ability for transfers to go directly to contractors was proposed as a way to reduce financial burdens. This is especially true for programs that support individual homeowners.
- 4. Ensure eligible expenses cover a range of wrap-around supports.** Make it clear to applicants that funding can be used to cover costs that may be required to enable individuals to participate in programs. This includes child-care, training stipends, mentorship and tutoring, prizes for community engagement, and access to Elders for cultural guidance. It also may include higher costs related to bringing trainers to communities. These are all factors that are essential in supporting successful training initiatives.
- 5. Implement multi-phased funding programs.** Often, funding results in a positive feedback loop, further benefiting communities that have the capacity to write proposals that “fit the mold” or have project momentum. A phased approach to funding could help overcome this tendency. An initial phase with a very low barrier to access would allow communities that are just getting started, to build a strong foundation. As milestones are met or project ideas are fleshed out, the communities can access further, guaranteed sums of funding. This approach provides more equity in programs, supports those who may need it the most, and helps remove the sense of competition – something many communities are eager for.



5.3 Supporting Strategic Projects

Based on the input received through this research, several recommendations have been identified related to strategic areas where dedicated funding could catalyze major benefits for energy efficiency uptake and impact.

5.3.1 Expand Support for Groups Providing Capacity Support and Training

To address the lack of knowledge about energy efficiency opportunities, project development, and careers, it is important to expand support for organizations providing capacity-building training and unbiased technical support. Indigenous clean energy capacity building is an essential requirement for energy efficiency project planning and implementation. It cannot be overstated how important sustained and intensive Indigenous capacity building is for advancing energy efficiency housing and facilities reflecting cultural imperatives and community practices. Capacity-building is a foundational building block facilitating energy efficiency projects at scale, recognizing the prime role played by community champions and facilitators. Such efforts should support and build on existing functions in areas such as housing, clean energy and community services. Groups providing this type of support include:

- » Indigenous Clean Energy which provides clean energy capacity-building nationally including the recently launched Project Accelerator focused specifically on catalyzing energy efficiency projects,
- » The Aboriginal Housing Management Association which provides technical expertise and project support to its members,
- » The First Nations National Building Officer's Association which provides training, tools, and access to expertise for Indigenous building inspectors and housing staff,
- » Fraser Basin Council which provides training, funding, and support for communities,
- » The First Nation's Housing Professionals Association which provides training and accreditation for housing managers, and
- » Regional technical service providers like the Ontario First Nations Technical Service Corporation.

Organizations like these provide:

- » Training for people who are new to the sector to ensure they can learn best practices to move their work forward.
- » Resources communities can share with their members to engage and learn.
- » An avenue to promote government programs, and support to access those programs.
- » A relationship they can connect with to discuss project ideas and challenges.

5.3.2 Power Up Regional Efforts

There appears to be utility in designing projects and programming for regional initiatives, by geographic distinction or based on tribal council or other regional Indigenous bodies. Emphasizing shared project development, collaborative learning and energy efficiency action at scale can reduce costs, accelerate deployment, augment Indigenous/local employment, and mitigate risks through contingency management. Incentivizing regional initiatives can help address several barriers to energy efficiency uptake:

- » **Long-term employment** – Working on energy efficiency projects in multiple communities increases the amount of work available for local community members. This is an important factor for people looking to join the energy efficiency workforce. Becoming a heat pump specialist in a community with 100 homes may not provide stable enough employment but reaching five or six communities could become a career.
- » **Shared models** – Many communities are hesitant about the applicability of the National Building Code to their specific area. A regional approach allows communities to come together with a shared model, thereby reducing costs when compared to designing solutions independently.
- » **Regional expertise** – Regional approaches allow for more expertise to be developed locally, reducing the cost to bring in consultants and contractors, and ensuring experts have nuanced local expertise.
- » **Economies of scale** – A regional approach may allow for a reduction in material costs by hitting bulk quantities and rates from suppliers. It may also strengthen the business case for opening local manufacturing facilities.

5.3.3 Fund Capacity, Not Just Training

After funding, capacity is the biggest barrier faced by communities and individuals. It is critical then, to not only support training initiatives but also to directly fund the creation of positions that can lead this work full-time. Without support for these roles, the training will not lead to impact. Two specific roles that should be supported are:

1. **Local project leads** who can plan and coordinate projects within Indigenous communities and organizations; and
2. **Regional experts** who have deeper energy efficiency expertise and can be resources for groups of communities or individuals within communities.

The aim of supporting these positions is to develop a cadre of Indigenous energy efficiency project planners/leaders who are a core element of community management and administration. For maximum success, these individuals need to be: a) affirmed by the community; b) hold ongoing or longer-term dedicated positions, and c) be connected to a national network of like-focused individuals.

Two examples of this have already been mentioned - Community Energy Champions and Climate Action Coordinators – however, a third example is in the Indigenous Off Diesel Initiative, which is providing funding for local champions to focus entirely on developing community energy plans, facilitating community engagement, and leading project implementation.

5.3.4 Enable Career Pathways

To support more Indigenous youth to enter the energy efficiency workforce, a comprehensive support approach is recommended. While not all of these actions must be fulfilled by NRCan, being able to guide communities to the right resources will support the growth of Indigenous people in the energy efficiency sector. This includes:

1. **Supporting career fairs** – Many participants expressed a need to expose youth to career possibilities earlier in life and to expose them to Indigenous people working in the sector. This can be done through career fairs in schools, booths at Pow Wows, integration with land camps, and other pathways.
2. **Empower training and mentoring programs** – Once youth are aware of career opportunities, it is essential to ensure there is a pathway for them to pursue these careers. This may mean bringing training to communities, providing wrap-around support for trainees, and more.
3. **Supporting internships and apprenticeships** – Ensuring communities and companies have the capacity to bring on young Indigenous workers will ensure they can complete their journey into the field. CMHC's Housing Internships for Indigenous Youth and ICE's Generation Power provide examples of this work in practice.
4. **Promote employer equity training** – It would be beneficial to establish best practices whereby companies are encouraged to participate in equity training to prioritize safer work environments for Indigenous youth. This is an integral part of ICE's Generation Power Program and should be considered more widely.

5.3.5 Invest in Financing Innovation

The scale of funding required to achieve deep energy efficiency outcomes is likely beyond the reach of current government funding structures. It is therefore critical that the federal government explore ways to support innovative financing approaches. This work may include:

1. **Funding research or specific project innovations** – This could be communities pursuing unique approaches to finance projects in their community or among the members they represent. This might include models such as a revolving loan program or a version of property-assessed clean energy that works for Indigenous realities.

2. **Establishing a federal loan guarantee** – A loan guarantee or federal backstop could open doors for existing financing institutions to come to the table to support projects. This could reduce risks for communities and lending institutions.
3. **Enabling blended financing** – The scale of funding needed to implement energy efficiency projects on scale nationally exceeds what is realistic from federal funding. Therefore, it is timely and highly important to catalyze a national design process including multiple Indigenous, national, finance and energy efficiency stakeholders, and the federal and provincial/territorial government to collaborate to determine how a 'Blended Finance' strategy for financing Indigenous energy efficiency retrofits and new builds can be taken forward. The ICE analysis [*Energy Foundations*](#) provides an in-depth categorization of the business case and impacts that can be realized through a national financing strategy, which could include a set of innovative arrangements and mechanisms, as well as intentional and intensive multi-stakeholder collaboration.

Regardless of which approaches are taken, it is critical that the risks are limited for Indigenous communities and organizations given that many housing programs are already operating in a deficit. To address some of these concerns, organizations like the First Nations Market Housing Fund have training in place to ensure communities understand the risks and have the capacity to manage the financing structures related to market housing. Similar capacity development could be put in place for energy efficiency financing.

6 Conclusion and Further Action

This report reflects the insights and experiences of a wide range of Indigenous people. For some, it was their first time being able to give this type of input. Others were veterans, having shared their suggestions many times, hoping for action. For some, they were only just learning about energy efficiency. Others had already completed several projects and gone through extensive training. Across the board, there were consistent themes:

- » Energy efficiency is critical for Indigenous people primarily for cost reductions but also as stewards of the land.
- » The cost to complete energy efficiency projects is out of reach for many Indigenous people and communities, especially with competing priorities.
- » A lack of capacity both in terms of knowledge and time makes it incredibly challenging for Indigenous communities, organizations, and individuals to take on projects, pursue training, or even write funding applications.

These, among others, are insights shared by Indigenous people from coast-to-coast-to-coast, not just when it comes to energy efficiency but also in many other sectors. They are stories told time and time again. It is time to hear their voices and to act on their needs.

Based on the insights graciously shared by over 100 Indigenous people and allies representing nearly every region across the country, 10 priority recommendations with clear actions have been made to help NRCan and any other funding body improve their programming and policies. The next step is to act on these recommendations to empower Indigenous people to take energy efficiency action and pursue careers in the sector. Some of the actions may be harder than others. Some can be implemented immediately. Others should move forward with the engagement of the Indigenous groups they hope to serve so the program will effectively meet their needs.

Rather than recommend areas for further research as would be typical for a report like this, it is recommended that NRCan take time to turn the recommendations into an action plan. Only by taking action can we enable efficiency.

7 Appendix A – List of Survey Questions

Survey Intro

Welcome to the Indigenous Energy Efficiency Needs and Opportunities survey. This survey is part of a research project being completed by the Indigenous Clean Energy Social Enterprise for Natural Resources Canada. The input you provide in this survey will be used to design government programs and policies that better support Indigenous people and communities in taking on energy efficiency projects and pursuing careers in the energy efficiency sector.

This survey is open to all Indigenous people, regardless of whether you know a lot or nothing at all about energy efficiency. Our aim is to get the broadest input possible so we can develop recommendations that will help the most people.

The survey will stay open until August 5th, 2022. We welcome you to share the survey with your friends, family, and colleagues until that date.

The survey is designed to take 15 minutes or less to complete. The survey is completely voluntary – you can skip any questions you do not wish to answer.

The answers you provide here will be kept anonymous and used only in aggregate in the report. If a specific quote from your response provides particularly clear insight, it may be used in the report, however, no identifying information will be included alongside it.

At the end of the survey, you will have the chance to volunteer to participate in a follow up interview or focus group.

In recognition of your time, we are raffling off four (4) \$200 Visa gift cards. To enter, all you have to do is submit your email at the end of this survey.

If you have any questions or concerns, please email Ian Scholten, Program Director at Indigenous Clean Energy, at ischolten@indigenoucleanenergy.com.

Awareness and Perceptions of Energy Efficiency

1. How would you rate your overall awareness of energy efficiency for homes and buildings? (1-5)
2. How important is having an energy efficiency home/building to you? (1-5)
3. Why did you give it that ranking?
4. People often have a number of priorities when it comes to housing. What is most important to you when it comes to your home? Please pick your top three (3).
 - a. Affordability
 - b. Health
 - c. Comfort
 - d. Energy Efficiency
 - e. Climate resilience
 - f. Sustainably built
 - g. Durability
 - h. Appropriate for practicing culture
 - i. Not overcrowded
 - j. Other:
5. What are your top questions when you think about doing energy efficiency work on your home(s) or building(s)? Select your top two (2).
 - a. How do we pay for energy efficiency measures?
 - b. What measures should be taken?
 - c. Who do I turn to for advice on what to do?
 - d. Where to get the equipment or materials?
 - e. What will the pay back period be for my investment?
 - f. Is special training needed to do the work?
 - g. Can we afford to do energy efficiency when we need to build more homes?
 - h. Other:
6. Where do you turn to when you have questions about your home/building? Select your top two (2) sources.
 - a. Family and/or Friends
 - b. Social media (YouTube, Instagram, TikTok, etc.)
 - c. Websites
 - d. Government resources/sites
 - e. Experts and sector organizations
 - f. Other:

Projects

1. Have you been or are you currently involved in an energy efficiency project?
 - a. Yes
 - b. No but I am thinking about it
 - c. No

If they answer 'Yes':

2. Which best describes you and your project:
 - a. I'm an individual homeowner/occupant and the project was, or is being, done on my house.
 - b. I'm a contractor involved in doing retrofits and/or energy efficient new builds.
 - c. I work for a community or housing organization and the project was done on housing or buildings we oversee.
 - d. Other:
3. What type of energy efficiency project is/was it?
 - a. Energy efficient new build
 - b. Minor energy efficiency upgrades (such as: switching to LEDs, air sealing using caulking and weather stripping, replacing home appliances, installing smart thermostats, etc.)
 - c. Deep energy retrofit (such as: replacing heating systems, adding insulation, whole-home air sealing, etc.)
 - d. Other:
4. How many homes/buildings are/were included in your project?
 - a. Just my own
 - b. One demonstration home
 - c. 2-10
 - d. 10-30
 - e. 31-100
 - f. 101+
5. At the start of the project, how confident were you in the process you needed to follow to complete the project? (1-5)
6. What was the biggest barrier you faced/are facing in completing your project? Please select your top three (3).
 - a. Accessing funding/financing to pay for the project
 - b. Knowledge of what process to follow to do the project
 - c. Knowledge of which energy efficiency actions to take
 - d. Access to necessary experts or consultants
 - e. Access to the materials and tools needed
 - f. Access to qualified trades/technical skills to do the work
 - g. Community/organizational support for the project
 - h. Competing demands related to housing needs
 - i. Project management skills
 - j. Permission from the people responsible for my home/building
 - k. Other:
7. What supports would make it easier for you to do your project? Please pick your top two (2).
 - a. Training (about things like project management, general energy efficiency, and/or trades)
 - b. Access to an energy coach or mentor to answer questions
 - c. Support with planning and designing the project
 - d. Easier access to qualified contractors to do the work
 - e. Easier access to funding/financing when planning the project
 - f. Easier access to funding/financing for implementing the project (e.g., capital costs)
 - g. Other:
8. If you worked with any experts, how easy was it to find the help you needed to complete the project? (1-5)
9. What types of experts did you work with? Select all that apply.
 - a. Energy advisor
 - b. Building scientist
 - c. Architect
 - d. Engineer
 - e. Trades people with energy efficiency knowledge
 - f. Project management consultants
 - g. I didn't work with any experts
 - h. Other:

10. What, if any, challenges did you have working with these partners? Select all that apply.
 - a. Lacked alignment with community vision for projects
 - b. Geography (i.e., experts were in a different region and/or time zone)
 - c. Lacked cultural understanding and awareness
 - d. Services were too expensive
 - e. Transparency of work being done
 - f. Challenges managing timelines
 - g. Other:
 - h. There were no challenges.
11. When it came to paying for the project, which of the following funding sources did you draw on? Select all that apply.
 - a. Own-source funds/Out-of-pocket
 - b. Utility programs
 - c. Provincial government programs
 - d. Federal government grants
 - e. Private investment
 - f. Other:
12. If you used a funding program from a utility and/or government, how did you learn about that funding? Select all that apply.
 - a. Word of mouth
 - b. Social media (YouTube, Instagram, TikTok, etc.)
 - c. Websites
 - d. Government resources/sites
 - e. Project Partners
 - f. Other:
13. If you used provincial, territorial, or federal funding, how easy was it to access the funding? (1-5)
14. What would have made the process easier?
15. If you didn't access any funding programs, why not?
 - a. I applied but my project was not approved
 - b. I didn't have capacity (time or knowledge) to apply
 - c. The application process was too confusing
 - d. There were no programs available that fit with my project
 - e. The timeline for the funding didn't fit for my project
 - f. Other:
16. If you could make one recommendation to NRCAN, or other federal departments, to create programs and policies that more effectively support Indigenous energy efficiency projects, what would it be?

If they answer 'No, but I am thinking about it'

 1. Which best describes you and your project idea:
 - a. I'm an individual homeowner/occupant and the project would be done on my house.
 - b. I'm a contractor who wants to be involved in doing retrofits and/or energy efficient new builds.
 - c. I work for a community or housing organization and the project would be done on housing or buildings we oversee
 - d. Other:
 2. What type of energy efficiency project would it be?
 - a. Energy efficient new build
 - b. Minor energy efficiency upgrades (including: switching to LEDs, air sealing using caulking and weather stripping, replacing home appliances, installing smart thermostats, etc.)
 - c. Deep energy retrofit (including: replacing heating systems, adding insulation, whole-home air sealing, etc.)
 - d. Other:
 3. How many homes/buildings are you thinking would be included in your project?
 - a. Just my own
 - b. One demonstration home
 - c. 2-10
 - d. 10-30
 - e. 31-100
 - f. 101+
 4. How confident are you in the process for completing the project? (1-5)
 5. What do you see as your biggest barriers preventing you from doing this project? Select your top three (3).
 - a. Accessing funding/financing to pay for the project
 - b. Knowledge of what steps to take to do the project
 - c. Knowledge of which energy efficiency actions to take

- d. Accessing the necessary experts or consultants
 - e. Accessing the materials and tools needed
 - f. Accessing qualified trades/technical skills to do the work
 - g. Community support for the project
 - h. Competing demands related to housing needs
 - i. Project management skills
 - j. Permission from the people responsible for my home/building
 - k. Other:
6. Which of the following funding sources do you hope to draw on? Select all that apply.
- a. Own-source funds
 - b. Utility programs
 - c. Provincial government programs
 - d. Federal government grant programs
 - e. Private investment
 - f. Other:
7. What supports would make it easier for you to do your project? Please pick your top two (2).
- a. Training (such as project management, about energy efficiency, and/or trades)
 - b. Access to an energy coach or mentor
 - c. Support with planning and designing the project
 - d. Easier access to qualified contractors
 - e. Easier access to funding/financing when planning the project
 - f. Easier access to funding/financing for implementing the project (e.g., capital costs)
 - g. Other:
8. If you could make one recommendation to NRCan for creating programs and policies that more effectively support Indigenous energy efficiency projects, what would it be?
- c. I have more important priorities I have to deal with
 - d. I don't think energy efficiency is important
 - e. Other:
2. What would make you more interested in doing an energy efficiency project?
3. If you could make one recommendation to NRCan about creating programs and policies that more effectively support Indigenous people, communities, and organizations in pursuing energy efficiency projects, what would it be?

Training & Careers

1. Are you responsible for or involved in organizing or delivering training programs and/or career support as part of your work in your community or organization?
- a. Yes
 - b. No
2. Which of the following are you aware of as potential career pathways linked to the energy efficiency sector? Select all that apply.
- a. Trades & construction
 - b. Energy efficiency consulting and services (energy advisor, building scientist, etc.)
 - c. Equipment manufacturing & installation
 - d. Energy efficiency product sales and wholesale trade
 - e. Utility program design/delivery
 - f. Project management
 - g. I was not aware of any
3. When you think about a career in the energy efficiency sector what characteristic would be most appealing to you? Select your top choice.
- a. Makes a difference to housing for my people
 - b. Tangible way to make a difference on climate change
 - c. Connects to cultural values of using only what you need
 - d. A lot of opportunities as the sector grows
 - e. Other:
 - f. There is no appeal.
- If they answer 'No'**
Jump to next section.
1. Why are you not currently interested in doing an energy efficiency project? Select all that apply.
- a. I don't know enough about energy efficiency
 - b. I don't make decisions about my home/building or the homes/buildings in my community/organization

4. What do you feel are the top barriers for pursuing a career in energy efficiency? Select your top three (3).
 - a. Awareness of career opportunities
 - b. Base knowledge/education required
 - c. Cost of completing training programs
 - d. Lack of technical skills/aptitudes (e.g., using computer programs, etc.)
 - e. Availability of training programs
 - f. Training programs require travel away from home
 - g. Family responsibilities make it difficult to attend training
 - h. Concern that training won't lead to a long term job
 - i. Concern that energy efficiency careers won't pay as much as other careers
 - j. Lack of connections to potential employers
 - k. Training means missing out on earning money
 - l. Accessing apprenticeship opportunities
 - m. A lack of one-on-one personal supports
 - n. Lack of access to the equipment/materials needed to complete the training
 - o. Workplaces don't seem inviting for someone like me for cultural or other reasons
 - p. I don't see other people like me in the industry
 - q. Other:
5. What supports, programs, or policies do you think would help address these barriers?
6. In your experience, how effective do you find the following kinds of training? ('Very effective', 'Somewhat effective', 'Unsure', 'Somewhat ineffective', 'Very ineffective')
 - a. Online
 - b. In-person at a training centre
 - c. In-person in my community
 - d. On-the-job training
 - e. Led by Indigenous instructors
 - f. Hands-on with tours of example projects
 - g. Indigenous-specific program
7. Have you or your community accessed any government (federal and/or provincial/territorial) programs related to job training/transitions?
 - a. Yes
 - b. No
8. If yes, how easy was it to access the funding? (1-5)
9. What would have made the process easier?
10. If you didn't access any funding programs, why not?
 - a. I applied but my project was not approved
 - b. I didn't have capacity (time or knowledge) to apply
 - c. The application process was too confusing
 - d. There were no programs available that fit with my project
 - e. Other:
11. What, if any, existing programs/services do you think could be replicated to help more Indigenous people pursue energy efficiency careers? If possible, please provide the names of the programs or organizations providing the services.
12. If you could make one recommendation to NRCan to help them create programs and policies that more effectively support Indigenous energy efficiency training and careers, what would it be? Why?

Demographic Information

As part of this research, we are looking at barriers and opportunities that might affect certain groups more than others. With this in mind, we ask that you share some information about how you identify.

1. How would you best describe your role within your community/organization?
 - a. I work in leadership (e.g. on Council, Board Member, etc.)
 - b. I'm responsible for housing (e.g., Housing Manager, Maintenance worker, etc.)
 - c. I support the housing efforts of other communities/organizations (e.g., Technical services, tribal council, contractor, consultant, training provider, etc.)
 - d. I'm an individual community member not directly involved with any of the above

2. Which of the following best describes the community you live in or serve:
 - a. Urban
 - b. Rural
 - c. Remote
 - d. Combination
3. Which of the following best describes your housing situation?
 - a. Rental
 - b. Privately owned
 - c. Rent-to-own
 - d. I don't have my own home (I live with family/friends)
 - e. Combination of the above
 - f. Other:
4. Please select your Indigenous identity:
 - a. First Nation
 - b. Inuit
 - c. Métis
 - d. I am not Indigenous, but I work for an Indigenous community/organization
 - e. None of the above
 - f. Other:
5. Which province do you live in?
6. Which age group do you fall in?
 - a. Less than 18 years old
 - b. 18-30
 - c. 31-50
 - d. 51-65
 - e. 66+
7. What gender do you identify with?
 - a. Woman
 - b. Man
 - c. Transgender
 - d. Two-Spirit
 - e. Indigiqueer
 - f. Non-binary/non-conforming
 - g. Self-describe:
 - h. Prefer not to say
8. What is the highest level of education you've achieved?
 - a. Grade school up to 12th grade
 - b. Graduated high school
 - c. Some college/university
 - d. Trade or Vocational Certificate
 - e. Associate degree
 - f. Bachelor's Degree
 - g. Post-Graduate degree
9. What is your household income?
 - a. Less than \$29,999/year
 - b. \$30,000 – 49,999/year
 - c. \$50,000 - \$74,999/year
 - d. \$75,000 - \$99,999/year
 - e. Greater than \$100,000/year
10. Do you identify as someone with a disability?
 - a. Yes
 - b. No

Interview and Draw Entry

1. Are you interested in participating in a one-on-one interview or a focus group as part of this research? (Note: Not everyone who expresses interest will be contacted to participate)
 - a. Interview only
 - b. Focus Group only
 - c. Either an interview or a focus group
 - d. I'm not interested in either
2. Would you like to be entered to win one (1) of four (4) \$200 Visa Giftcards?
 - a. Yes
 - b. No
3. Are you interested in knowing the results of this research?
 - a. Yes
 - b. No
4. If you expressed interest in any of the above, please provide your email below so we can contact you.

8 Appendix B – List of Interview Questions

The following is the set of questions used to guide conversations with interviewees. The interviews were semi-structured meaning these questions were only a starting point. Interviewees were asked a selection of these questions based on their personal experience and the conversations were able to delve into specific topics in more detail. The interviews took approximately one hour.

General Perceptions & Knowledge

1. How would you assess your understanding of energy efficiency?
2. How important is energy efficiency to you and why?
 - a. And to your community?
3. What barriers do you see to pursuing energy efficiency for you personally or people you know?
4. In addition to energy efficiency, there are other qualities people find important when it comes to homes like health, durability, affordability, its impact on the earth, climate resilience, availability (so homes aren't overcrowded), etc. What would be your top three priorities when it comes to these qualities?
5. Do you see links between those other qualities and energy efficiency?
6. Where do you look for information about energy efficiency and housing?
7. What government programs, initiatives, and resources are you aware of related to energy efficiency?
8. Do you think developing local or regional building energy requirement standards would be helpful? If so, what supports do you think are needed to get us there?

Project Focused

1. How is your housing managed? I.e., Who is responsible for building new homes? Who is responsible for what when it comes to maintenance? Who pays the utility bills?
2. What, if any, energy efficiency projects have you tried to undertake in your community (or on your home)?
 - a. Why did you decide to take on the project?
 - b. Was it a one-off project or is it part of a larger initiative?
 - c. What kind of impact has it had in terms of energy use, cost savings, greenhouse gas reductions?
3. What challenges have you faced in moving your project forward?
 - a. If your project involves supporting individuals carrying out energy efficiency actions, do you find different people within your community (e.g. youth, women, etc.) face additional barriers? If so, what do those look like?
4. Did you work with any partners or experts on your project? If so, who were they?
 - a. Was it easy to find the partners and experts you needed? Was there expertise that would have been helpful, but you couldn't find or access it?
 - b. What barriers did you face working with these partners?
5. What kind of capacity, skills, or roles would it be helpful for you to have locally or regionally to be able to do projects like this?
6. How did you pay for your project?
 - a. Was it easy to secure the money needed?
 - b. Did you access any government funding? If so, which programs? How easy or hard did you find that process?
 - c. What would make it easier to access the funding you needed?
7. Did your project create any local jobs or training opportunities related to energy efficiency?
 - a. What did that process look like?
 - b. Are those people still working in the sector?
8. What supports would you have found helpful when trying to get started with your energy efficiency work?
9. If you could make one recommendation to NRCAN to create programs and policies that more effectively support Indigenous energy efficiency initiatives, what would it be? Why?

Career Focused

For Individual Workers

1. What drew you to working in the energy efficiency sector?
2. How did you first hear about the career you have now?
3. What training did you have to go through to get your current job?
4. What supports helped you along the way? (Funding, mentors, additional training, etc.)
5. What barriers did you face in making the transition to working in the energy efficiency sector?
 - a. Have you seen or experienced anything that helps address these barriers?
6. Did you access any government programs in your journey? What was your experience accessing these programs?
7. What do you think would help more Indigenous people pursue careers in energy efficiency?
8. If you could make one recommendation to NRCan to create programs and policies that more effectively support Indigenous energy efficiency careers or training, what would it be? Why?

For Those Supporting Trainees

1. How familiar are you with career opportunities in the energy efficiency sector?
2. What approaches do you take to recruit trainees?
3. What barriers do you run into when trying to help people gain skills or transition careers?
 - a. Do you find different people within your community (e.g. youth, women, etc.) face additional barriers? If so, what do those look like?
 - b. Have you seen or experienced anything that helps address these barriers?
4. What supports do you find most effective for successful training efforts? (Funding, mentors, additional training, etc.)
5. Have you accessed any government programs to support your work? What was your experience like accessing these programs?
6. What do you think would help more Indigenous people (in your community or beyond) pursue careers in energy efficiency?
7. If you could make one recommendation to NRCan to create programs and policies that more effectively support Indigenous energy efficiency careers or training, what would it be? Why?

9 Appendix C - List of Focus Group Questions

The following are the questions used to guide focus group discussions. The questions are written to generally apply across all groups. However, specific components of the questions will be tailored to each group. The focus groups ran for approximately an hour and a half each.

1. What words or feelings come to mind when you think about energy efficiency?
2. In addition to energy efficiency, there are other qualities people find important when it comes to homes like health, durability, affordability, its impact on the earth, climate resilience, availability (so homes aren't overcrowded), etc. Do you feel any other characteristics resonate with you?
3. When it comes to taking on energy efficiency work, we know that people and communities generally face some common challenges. From your perspectives:
 - a. What barriers have you or people you know faced in trying to take energy efficiency action?
 - b. Do you feel any of these barriers affect you as [INSERT GROUP] more than others?
 - c. Have you seen any successful examples of any of these barriers being addressed?
4. When it comes to funding or paying for projects, what do you think would make it easier for people to access the money needed to do a project?
5. When it comes to careers in the energy efficiency sector:
 - a. What sorts of job opportunities, if any, are you aware of that people could pursue?
 - b. What do you think would make a job in this sector appealing for someone to transition into it?
 - c. From your perspective as [INSERT GROUP], what barriers exist that would prevent someone from pursuing a career in the energy efficiency sector. This can include hurdles to making the transition and also issues with the jobs themselves.
 - d. Have you seen any successful examples of any of these barriers being addressed?
 - e. What kind of capacity, skills, or roles would it be helpful for you to have locally or regionally to be able to do projects like this?
6. What is one thing you think would help more Indigenous [INSERT GROUP] participate in the energy efficiency sector – whether that is doing energy efficiency projects or pursuing careers in the sector?
7. What government programs, initiatives, and resources related to energy efficiency are you aware of? Things like a drive to get to net-zero energy and net-zero carbon?
8. If you could make one recommendation to NRCan to create programs and policies that more effectively support Indigenous energy efficiency initiatives, what would it be? Why?

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