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Home Labelling

Informing Canadians on Home
Energy Performance

Discussion Paper

Canada



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Introduction

Home energy labels help tell the story about the energy used in our homes. It takes 16% of all the energy we consume to power the 16 million buildings in Canada that are used for residential purposes¹. This comes at a cost, with the average household paying \$2,200 annually on energy bills².

Lowering energy consumption and bills can go a long way to making our lives more affordable. Fortunately, there are steps that Canadians can take to make energy efficient changes to their home. Unfortunately, homes are complex systems, and it is not always easy to know where to start.

A well-designed home energy label can help by:

- Increasing understanding of how each home uses energy;
- Suggesting retrofit choices that makes sense for a specific home;
- Making it possible to compare a home's energy consumption to similar homes;
- Providing prospective home buyers or occupants with reliable information on a home's energy performance and retrofit options that can help inform their decisions;
- Integrating climate resiliency information that can help Canadians understand and improve the resiliency of their homes; and
- Collecting home energy data to inform policy and program development, track progress and measure results.

The EnerGuide Rating System (ERS) has served as the Canadian standard for home energy assessment and label generation for over two decades. Since the early 2000s, over 2.5 million homes have been labelled, influencing important retrofit decisions across the country; however, there are many more Canadians that could benefit from this information and the current ERS is insufficient to meet this objective.

Momentum on home energy labelling is growing in the public and private sectors, making a future where all Canadians have access to reliable and meaningful information an achievable reality.

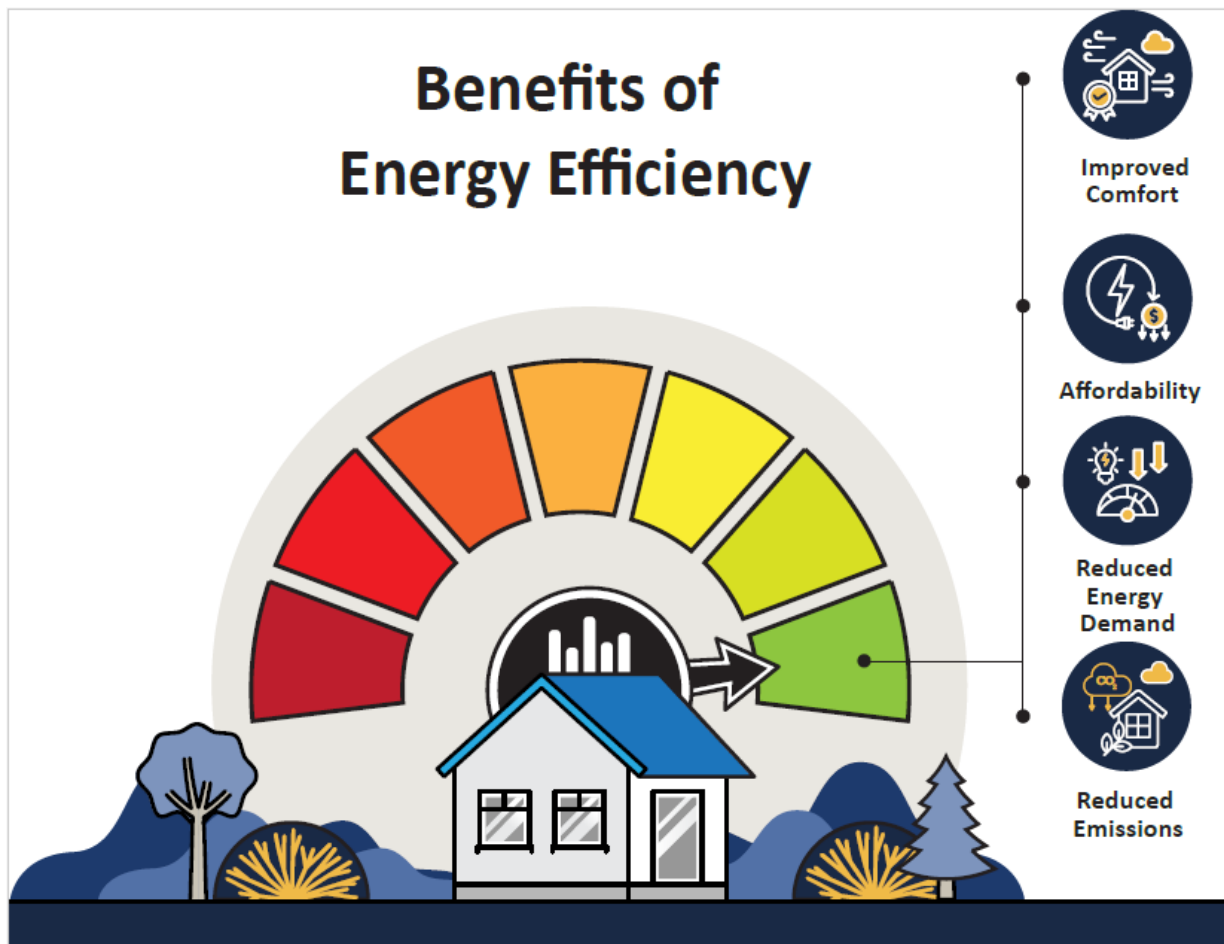
- Jurisdictions across Canada are taking action to deliver home energy labels to their citizens for a variety of reasons, such as for increasing education and awareness;
- Financial institutions are seeking home energy and resiliency information to support their services and products for Canadians;
- The real estate industry has proposed design criteria for successful home labelling initiatives.

¹ Natural Resources Canada (2023), *Residential Energy Efficiency Trends in Canada: 2000 to 2020*.

² Government of Canada (2024), *The Canada Green Buildings Strategy: Transforming Canada's buildings sector for a net-zero and resilient future*.

- Canadian companies are developing services to make rapid, widespread label creation possible.
- Housing sector stakeholders are seeking new opportunities to engage in home energy labelling, support innovation and create partnerships.

The momentum has largely resulted from a shared recognition of the benefits of home energy labelling and the information that can be provided to Canadians. These activities are welcome, but there is risk of relying on momentum alone. Primarily, it could lead to a patchwork of inconsistent labelling approaches being implemented across the country, with little ability to compare ratings and other performance data from province-to-territory-to-city.



In Budget 2024, the Government announced an investment of \$30 million over 5 years to develop a National Approach to Home Labelling (NAHL). This initiative will strive to achieve the following goals:

1. Providing jurisdictions with the guidance and tools to implement home energy labelling programs that meet their objectives;
2. Fostering consistency and comparability across all Canadian home energy labelling approaches; and

3. Increasing the number of Canadians that have information about how their home, or prospective home, uses energy and what they can do to improve its energy performance, climate resiliency and affordability.

The NAHL will be collaboratively developed, bringing governments, industry and other stakeholders together to achieve our collective objective of empowering Canadians with more information about their homes, and opportunities to lower energy bills and reduce emissions. We will also be looking to international approaches and experiences with home labelling.

Purpose of this Paper

The purpose of this paper is to launch engagement on the NAHL and solicit feedback on the proposed vision, principles and objectives for this initiative and its initial workstreams.

This paper outlines the current context for home labelling in Canada, which informs the elements of the NAHL and provides a rationale for the proposed approach.

We invite you to review the information and ideas presented in this paper and share your comments and responses to the discussion questions.

Current Status

The goals of the NAHL have been informed by the current status of home energy labelling in Canada. Achieving these goals serves as the Government's plan to implement the [Minister of Energy and Natural Resources](#) 2021 Mandate Letter Commitment to take action on requiring EnerGuide labelling of homes at the time of sale.

Governments and organizations across Canada have steadily made progress on home energy labelling and disclosure. Their efforts have produced an accumulation of research, pilots, programs and policies that have strengthened our collective home labelling experience and understanding. This provides us with insights on the current challenges associated with achieving the NAHL goals and opportunities we can pursue in overcoming them.

The following is a high-level assessment of four key aspects of the current home energy labelling landscape that inform our proposed approach:

1. **EnerGuide Rating System for Homes** – Canada's longstanding approach to home energy labelling;
2. **Virtual Home Labelling Services** – an emerging market of innovative approaches to home energy labelling;
3. **Initiatives by Canadian Jurisdictions** – leading provinces, territories and municipalities that are advancing efforts to provide home energy labels to their citizens; and,

4. **International Activities** – leading countries with similar goals for home energy labelling.

EnerGuide Rating System for Homes

The [EnerGuide Rating System](#) for homes (ERS) has been Canada’s home energy labelling standard since it was developed and introduced by Natural Resources Canada (NRCAN) in 1998. ERS provides detailed onsite assessments of home energy use to generate a rating and custom recommendations for improving home energy performance. It is a nationally recognized and trusted brand that is used by governments, utilities and industry partners across the country.

LEARN ABOUT YOUR HOME'S ENERGY rating

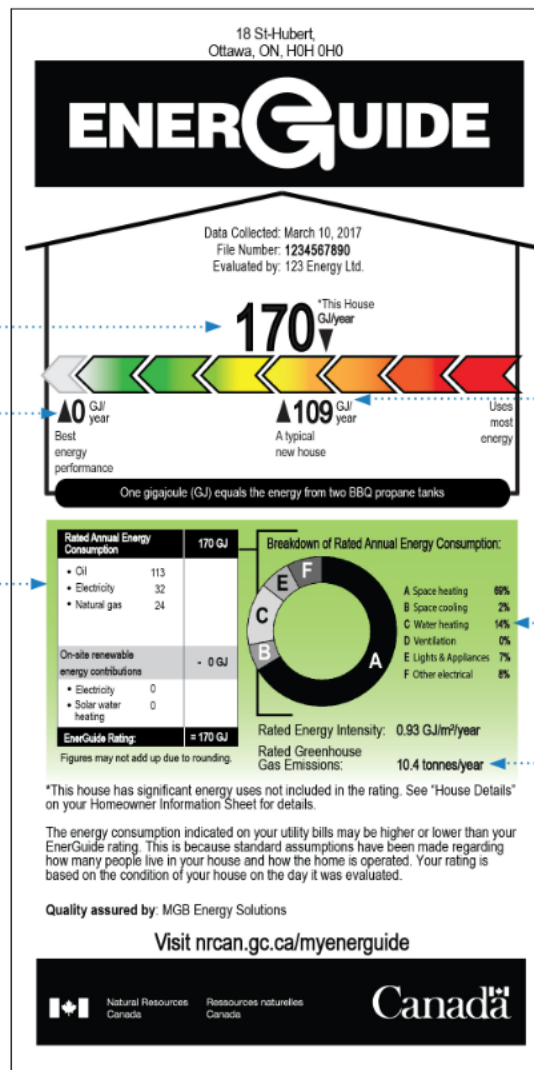
You will receive a rating of the home's energy consumption in gigajoules

AIM TOWARDS zero

The lower the number on the new **EnerGuide** scale, the better the energy performance of your home

UNDERSTAND HOW YOU USE energy

The label breaks down energy consumed by source



COMPARE YOUR HOME'S performance

The label shows how your home's performance compares to a benchmark home

FIND OUT WHERE MOST ENERGY IS consumed

The label shows proportion of energy consumed by heating, cooling, ventilation, etc.

SEE YOUR IMPACT ON THE environment

The label shows your home's Greenhouse Gas Emissions

ERS helps Canadians understand energy use and make informed decisions when buying, selling, renovating or renting a home. It is a critical tool for informing decisions about home energy upgrades for participants of home retrofit programs. ERS also enables homebuilders to evaluate their plans for the energy performance of new homes they are building and can be used as a path to meet building code requirements and measure energy efficiency for the ENERGY STAR® for New Homes standard.

ERS is delivered by a national network of licenced service organizations and registered energy advisors, professionals who conduct onsite assessments to collect data on home features that impact energy performance and use NRCan's modeling software (HOT2000) to calculate the EnerGuide rating, produce the label and reports, and provide advice to homeowners. NRCan maintains a database that supports secure data transfers to jurisdictions and others to support programs, policy development and research. ERS data has strengthened our understanding of Canada's building stock.

While the strengths and benefits of ERS have been demonstrated, there are challenges to using the current process for widespread home labelling. For example, it is seen as too expensive, time consuming and difficult to scale. We have been hearing that experience with ERS and HOT2000 also points to opportunities for improvements. NRCan sees this as a critical step to strengthen the NAHL and looks forward to engaging with partners and stakeholders on a review of existing labelling tools as part of the NAHL.

Building on the lessons learned from ERS, NRCan will continue to work with government and industry partners to draw on their experience and expertise as new home labelling tools, services and practices are developed and implemented. ERS has become a foundation for many of the current home labelling initiatives in Canada and it needs to evolve and continue to serve that role.

Virtual Home Labelling Services

Over the last several years, innovative Canadian companies have leveraged emerging technology to develop new home labelling services. Virtual Home Labelling (VHL) services combine building science with artificial intelligence (AI) technology to provide insights into home energy use. These services can deliver information and labels to homeowners at a lower cost and in less time than traditional on-site energy assessments such as ERS. While virtual assessments have some limitations, such as verification of a home's suitability for energy efficiency retrofits, they can be used to raise awareness about home energy performance, identify eligible participants for energy efficiency programs and complement in-person services to provide customized retrofit recommendations.

A growing number of jurisdictions are turning to VHL and working with VHL service providers to develop and deliver their home energy labelling initiatives. Through these initiatives, it is apparent that VHL has the potential to advance home labelling dramatically. However, there is widespread recognition that consistency across VHL services is critical to inspiring confidence in this home labelling approach. This is an area where NRCan is well placed to support these services through the NAHL in collaboration with jurisdictions, industry and other stakeholders.

Initiatives by Canadian Jurisdictions

In recent years, momentum around home labelling has been growing in jurisdictions across Canada, complemented by the federal commitment to home energy labelling. An increasing number of jurisdictions are taking action on home labelling through policy commitments, pilots and programs. Many of these partners are working with industry to deploy new labelling and disclosure tools, often

taking advantage of virtual home labelling technology. Some initiatives have also received funding through NRCan's [Towards Net Zero Homes and Communities Program](#).

There is much to be learned from these initiatives about how home labelling is best developed and implemented in Canada. Through NRCan's Federal-Provincial-Territorial-Municipal Home Labelling Working Group, jurisdictions across Canada have been sharing updates and lessons learned on their home labelling initiatives, which has helped to inform the development of the NAHL and will continue to provide important insights and direction.

Below is a list of some existing and upcoming home labelling initiatives across Canada.

- British Columbia's [BC Home Energy Planner](#) pilot.
- Calgary's [Home Energy Label Program](#) and upcoming launch of a Home Energy Map.
- Edmonton's [Home Energy Map](#), displaying ERS labels.
- Saskatoon's [Home Energy Map](#).
- Toronto's development of a residential carbon awareness and engagement program as part of their [Net Zero Strategy](#).
- Durham Region and Windfall Ecology's launch of a [Virtual Home Energy Assessment Tool](#).
- Ottawa's upcoming [Better Homes Ottawa Portal](#).
- New Brunswick's Home Energy Labelling Pilot Program as part of their [Climate Change Action Plan](#).
- Nova Scotia's [Remote Home Energy Assessments](#) pilots by EfficiencyOne.
- Prince Edward Island's development of a labelling program as part of their [Net Zero Framework](#).
- Whitehorse's [EnerGuide Labelling](#) requirement for newly constructed homes.
- Yellowknife's [EnerGuide Labelling](#) requirement for newly constructed homes.

International Activities

Home energy labelling and disclosure is in place in jurisdictions around the world. The European Union (EU) introduced [Energy Performance Certificates](#) (EPCs) in 2002. The EU most recently updated their directives in 2024 to refine requirements for labelling systems. All 27 EU states have implemented national regimes with some differences in approaches and outcomes. EPCs have been in place in the

United Kingdom since 2007 with distinct approaches in [England and Wales](#), [Scotland](#) and [Ireland](#). Considerable research has been done on EPC practices, lessons and results.³

Australia is developing a national approach to home energy labelling and disclosure within a jurisdictional context that is comparable to Canada. Their Nationwide House Energy Rating Scheme ([NatHERS](#)) for new homes and major renovations was updated in 2022 to include a [Whole of Home](#) rating. NatHERS will be expanded to existing homes by 2025. Australia's national science agency is working with industry on a new [RapidRate](#) tool to estimate energy ratings for existing homes. Australia recently released the first version of their [Home Energy Ratings Disclosure Framework](#).

The United States have a [Home Energy Rating Score](#)[®] that is similar to EnerGuide and a simplified version ([Home Energy Score](#)) that was developed by the Department of Energy. While there is no national approach to disclosure, some cities have requirements (e.g. [Berkeley](#), [Portland](#) and [Austin](#)) and some states have voluntary initiatives (e.g. [Oregon](#) and [Vermont](#)). The [California Energy Commission](#) is developing a new home energy rating and labelling program.

National Approach to Home Labelling

Working with provinces, territories, municipalities, partners, industry and other stakeholders, we will develop the NAHL to respond to and leverage this current context. The NAHL aims to develop a suite of labelling standards, tools and guidelines that will support home labelling and disclosure initiatives across Canada and empower households with consistent information about home energy performance that will support smart decision making, helping to reduce their energy use and lower energy bills.



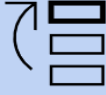


Vision, Principles and Pillars

To meet these goals through a collaborative process, we need a clear plan for how we will develop, implement and maintain the NAHL. We start with the following proposed vision for the initiative to focus all participants and foster a common understanding of what we see as the future of home energy labelling in Canada:

The vision for the National Approach to Home Labelling is to create a consistent approach that will support labelling for all homes across Canada with energy performance ratings, energy efficiency recommendations and climate resilience information that will inform Canadians.

To deliver on that vision, we propose that the NAHL initiative be guided by the following principles that will be fundamental to its success:

³ Buildings Performance Institute Europe (2020), *Energy Performance Certificates in Europe: Assessing their Status and Potential*.

	Collaborate. Engage and work with partners and stakeholders to support home labelling initiatives in provinces, territories and communities.
	Guide and support. Work towards best practices that will enable adoption of home labelling initiatives, while balancing flexibility and consistency across the country.
	Enhance tools. Develop and improve tools that will deliver an energy rating, guide energy efficiency improvements and integrate climate resiliency information.
	Help households. Encourage widespread home energy labelling and disclosure to inform and empower homeowners, homebuyers and renters.
	Learn and adapt. Follow an iterative process that will create opportunities for ongoing learning and improvement.

Taking account of the current context of home energy labelling in Canada, as well as our proposed vision and principles, we propose that the NAHL must initially focus its efforts on three pillars:



1. **National Guidelines for Home Labelling:** these collaboratively developed guidelines are intended to provide the necessary support to explore, launch or expand labelling initiatives. The Guidelines will outline best practices and suggested policy parameters for home labelling that can be adopted and implemented by provinces, territories and communities.
2. **Virtual Home Labelling Standard:** this voluntary standard will be developed and introduced to increase confidence and consistency of the information provided by virtual assessments for jurisdictions and Canadians. The standard will set minimum requirements for public and private virtual home labelling services and assessments.
3. **Simplified Energy Assessment:** the simplified assessment will be based on EnerGuide and will respond to needs and requests from jurisdictions and other partners for simpler labelling tools,

that provide more detailed and reliable information than what is offered by a virtual assessment, through the involvement of a qualified professional.

The NAHL will be developed and improved over time as we learn from pilot projects and other experiences of our partners, and as the labelling ecosystem evolves. We recognize this approach is necessary because home energy labelling is complex and there are potential pitfalls and challenges to be identified and overcome. We will prioritize learning and remain open to new ideas and innovation that can help achieve widespread home labelling. With time, we expect to build on the three pillars above and collectively take on new challenges and make further enhancements to the approach.

To follow is a more detailed description of these pillars, their objectives, and how we intend to achieve them.

National Guidelines for Home Labelling

The Guidelines will offer best practices and guidance for home labelling initiatives to support flexibility for jurisdictions and partners while fostering national consistency.

The proposed objectives for the Guidelines are to:

- Articulate a vision for home labelling in Canada, with the objective of increasing home energy efficiency.
- Provide guidance and recommendations on how to support labelling initiatives and define roles for jurisdictions and stakeholders.
- Identify measures that will empower households and decision makers.
- Bring together best practices and examples of home labelling initiatives that are specific to the Canadian context.
- Introduce new and redesigned tools and standards for labelling and clarify the role of different assessment tools in an increasingly complex space.

The first iteration of the Guidelines will set out principles for home labelling, outline the home labelling ecosystem and roles, and begin to articulate a set of parameters for home energy labels and initiatives.

The Guidelines will benefit jurisdictions, stakeholders and households. Jurisdictions will be able to learn from each other and access consolidated guidance and recommendations. Stakeholder roles and needs will be recognized. Households will have more information on home labelling and how it can help them make important decisions about to become more energy efficient.

Work on the Guidelines includes a review of home labelling opportunities and challenges, particularly for under-resourced homeowners and buyers, and the development of recommendations that address the perspectives of those Canadians.

We are launching engagement on the Guidelines with the release of this discussion paper. The Guidelines will be developed through engagement in fall 2024. The Guidelines will also draw upon lessons from ongoing pilots, programs and research.

Draft Guidelines will be available for public review in early 2025. The first iteration of the Guidelines is expected in 2025.

Virtual Home Labelling Standard

The VHL Standard will outline the minimum requirements for virtual labelling services to receive federal recognition as being compliant with national standards.

The proposed objectives for the VHL Standard are to:

- Encourage consistent outcomes from different service providers and approaches.
- Support confident decision-making as virtual labelling initiatives are developed and implemented.
- Promote and support innovation while prioritizing feasibility.
- Identify user privacy and liability protections.
- Discourage ineffective services in the market.

We believe the VHL Standard will benefit jurisdictions, stakeholders and households. Jurisdictions will have clear standards for procurement and programs. Providers will be able to receive federal endorsement that recognizes their virtual home labelling service. Households will benefit from consistent and comparable labels that can help them understand energy efficiency.

NRCan conducted a benchmarking study in 2023 with VHL service providers in Canada to understand the consistency of VHL technology and alignment with ERS. The study will help inform the development of the VHL Standard.

NRCan recently launched engagement on the VHL Standard with the creation of advisory teams comprised of jurisdictions and virtual labelling service providers. NRCan will draft proposed VHL Standard requirements for consideration by the advisory teams. Other partners and stakeholders will also have an opportunity to review the draft requirements and provide input through upcoming engagement. The development of the VHL Standard will also leverage the work to develop a Simplified Assessment and review the current ERS program and HOT2000 tool, as described in the section below.

A draft VHL Standard will be available for public review in early 2025. The first iteration of the VHL Standard is expected to be published in 2025.

Simplified Energy Assessment

The Simplified Assessment will build on the success of ERS but respond to needs and requests from jurisdictions and other partners for a simple labelling tool, that provides verified information through the involvement of a qualified energy assessment professional.

The proposed objectives for the Simplified Assessment are to:

- Support jurisdictions seeking new tools to support their initiatives.
- Assist homeowners who have virtual labels and want to validate retrofit options.
- Strengthen the ability to meet labelling demand across Canada.
- Provide a faster assessment than the existing ERS.
- Leverage the ERS network to deliver assessments and provide professionally verified data.

The Simplified Assessment will benefit jurisdictions, stakeholders and households. It will offer more choice and flexible service offerings for home labelling and retrofit recommendations. We see the Simplified Assessment as an added tool that will bridge the gap between virtual assessments and the existing ERS. A Simplified Assessment will improve access and offer a new tool to meet the needs of homeowners, homebuyers and renters.

As part of the work to achieve a Simplified Assessment and respond to the feedback from jurisdictions and stakeholders to improve the existing ERS and HOT2000, this is an opportune time to review the existing ERS and HOT2000 modelling tool. This is a significant undertaking that will set up the NAHL and the Simplified Assessment for success. NRCan is putting together a plan for carrying out this work in conjunction with the Simplified Assessment. We will develop an engagement plan and share it with ERS partners and stakeholders by early 2025.

Work on the Simplified Assessment also includes behavioural science research to identify label features that maximize understanding and interest in home energy performance and energy efficient choices. This will involve focus groups and an online survey experiment with Canadian homeowners and prospective homebuyers to understand current perceptions and test specific label designs.

We will launch engagement on the Simplified Assessment with ERS partners and stakeholders, including jurisdictions, service organizations and energy advisors, to understand their views and needs for a Simplified Assessment. We are continuing to scope and plan work on the Simplified Assessment and will share more details when they are available. Advisory teams will be established to seek input on the requirements. A Simplified Assessment is anticipated in 2026.

Discussion Questions

Now we want to hear from you! This paper presents our proposed starting point for the NAHL, which is informed by our assessment of the current status of home energy labelling in Canada and views we have collected from provinces, territories, municipalities, partners, industry and other stakeholders in recent months. To be successful, we need your input and your views on what the NAHL can be and how we can work together to build it.

We welcome input and suggestions on any aspects of this paper. We also have a list of initial questions for you to consider in your review and preparation of comments. Please send your responses to homelabelling-etiquetageresidentiel@nrcan-rncan.gc.ca by **December 31st, 2024**. We look forward to your feedback!

1. What do you see as the federal role in home labelling? Does your organization support the proposed NAHL as presented? Why or why not?
2. What do you see as your role in home labelling and the proposed NAHL?
3. What does your organization/industry see as the largest opportunity and/or challenge for the adoption and implementation of home labelling in Canada?
4. Are we establishing the right guiding principles for widespread home labelling? What are we missing?
5. Are there other areas of work that you would like the NAHL tackle now or in the future?

Engagement and Next Steps

In addition to welcoming your written comments, we are planning to continue working directly with interested provinces, territories, municipalities, Indigenous partners and industry stakeholders.

NRCan is organizing new opportunities for industry engagement on the NAHL with key sectors and partners such as the Canadian Real Estate Association and the Canadian Association of Consulting Energy Advisors.

Industry partners and stakeholders will be invited to participate in roundtable discussions on the Guidelines throughout fall 2024. Engagement on the VHL Standard is planned for early 2025. Engagement on the Simplified Assessment will be launched in the coming months and continue into early 2026.

The proposed objectives of the NAHL engagement are to:

- Exchange information and perspectives with partners and stakeholders as the NAHL is developed and implemented.

- Collaborate with governments, partners and stakeholders to support consistency and minimize confusion in the market.
- Respect jurisdictional roles and responsibilities, and industry experience and expertise.
- Provide meaningful and timely opportunities for input and advice to be considered and reflected in the NAHL.
- Understand perspectives, interests, input and insights. Find common ground and opportunities to collaborate.
- Identify barriers to home labelling and seek solutions that will inform, strengthen and support home labelling approaches and initiatives.

Engagement will build on the Canada Green Buildings Strategy engagement in 2022 and 2023, which provided an opportunity to hear directly from Indigenous partners, provinces, territories, municipalities, industry stakeholders and the public through engagement sessions and written submissions.⁴

Early engagement on the NAHL began in spring 2023 with the creation of a new federal, provincial, territorial and municipal Home Labelling Working Group. All provinces and territories participate in the Working Group as well as municipalities who are engaged in home labelling, including Montreal, Ottawa, Durham Region, Toronto, Saskatoon, Edmonton, Calgary and Vancouver. The Working Group will continue to meet and discuss the NAHL.

NRCan will also continue to engage with National Indigenous Organizations to better understand the home labelling needs and perspectives of Indigenous Peoples and communities.

The home labelling ecosystem is a complex set of roles, responsibilities and relationships that provides rich opportunities for learning and collaboration. Engagement with all partners and stakeholders is essential to gather information, discuss issues, seek feedback and build understanding that will strengthen the NAHL and our collective work to advance home energy labelling.

For more information on engagement opportunities, please contact us at homelabelling-etiquetageresidentiel@nrcan-rncan.gc.ca.

⁴ Natural Resources Canada (2023), *Toward a Canada Green Buildings Strategy: What we heard from the public and buildings sector stakeholders*, and *Summary of Engagement with Indigenous Partners*.