Building Heating Decarbonization

Jurisdictional Scan

September 2024 – Version 2.0

Building Decarbonization Alliance
pour la décarbonation des bâtiments

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About the Building Decarbonization Alliance:

An initiative of the Transition Accelerator, the **Building Decarbonization Alliance (BDA)** is a non-partisan cross-sectoral coalition that works to inspire and inform industry and government leadership, accelerate market transformation, and get the building sector on track to meet Canada's emission reduction goals. The BDA convenes conversations, conducts original analysis, and identifies structural barriers to building decarbonization—we then work with our partners to overcome them. Our vision is to create a future where electrified buildings are part of an affordable and resilient energy systems that contributes to a **prosperous, sustainable and decarbonized Canada**. One of the BDA's primary market transformation strategies is to enhance the analytical capacity of the building sector.

About The Transition Accelerator

The Transition Accelerator is a pan-Canadian organization that exists to support Canada's transition to a net-zero future while solving societal challenges. Using our four-step methodology, The Accelerator works with innovative groups to create visions of a socially and economically desirable net-zero future. We then work to build out credible, capable and compelling transition pathways to make these visions a reality. The Accelerator's role is that of an enabler, facilitator, and force multiplier that forms coalitions to take steps down these pathways and get change moving on the ground.

Join Us!

If you support BDA's mission and wish to be included in future research, newsletters and events, please visit www.buildingdecarbonization.ca to learn how to become a Partner, or reach out to us at info@buildingdecarbonization.ca to find out how you can help accelerate building electrification.

Introduction

In January 2024, we released our inaugural Jurisdictional Scan, which reviewed policy efforts aimed at transitioning building heating away from fossil fuels. This report is an updated version, representing our understanding of active policies as of August 2024, with all updates detailed in Appendix A.

The growing popularity of heat pumps highlights the importance of setting an appropriate regulatory framework to facilitate the transition to decarbonized heating. Numerous initiatives are emerging to promote all-electric buildings and the transition away from fossil fuel heating equipment. Provinces and municipalities across Canada are implementing measures to restrict or prohibit fossil fuel heating usage or installation, such as fossil fuel bans and phase-outs. In this context, this paper:

- Provides a **jurisdictional scan of policies related to building heating decarbonization and electrification.** This scan inventories efforts at the municipal and provincial levels in Canada that aim to phase out fossil fuels and accelerate building electrification.
- Aims to **identify jurisdictional authority and potential avenues for engaging** in fossil fuel bans and accelerated electrification.
- Reveals a **variety of solutions to reduce reliance on fossil fuel heating in buildings**, with no clear preference for a specific phase-out pathway. Various policy approaches target the energy source, equipment, or greenhouse gas emissions. Despite these differences, these initiatives collectively aim to decrease fossil fuel usage and accelerate building decarbonization.

A detailed list of current initiatives is provided in Appendix B, outlining each initiative and its corresponding time frame. This database highlights that certain municipalities and a few provinces are strengthening their climate action by phasing out fossil fuels, although at different paces. Other initiatives taking place in the US and in Europe were also listed through this scan, to provide insights into key approaches adopted in other regions.

Preliminary results indicate a positive correlation between robust local government actions and provincial codes, but further analysis is needed to evaluate the effectiveness of these building heating decarbonization initiatives.

Overview in Canada

Many Canadian jurisdictions have implemented or are discussing initiatives that encourage fuel-switching or require all-electric buildings, with **municipalities leading the way** (see Figure 1).

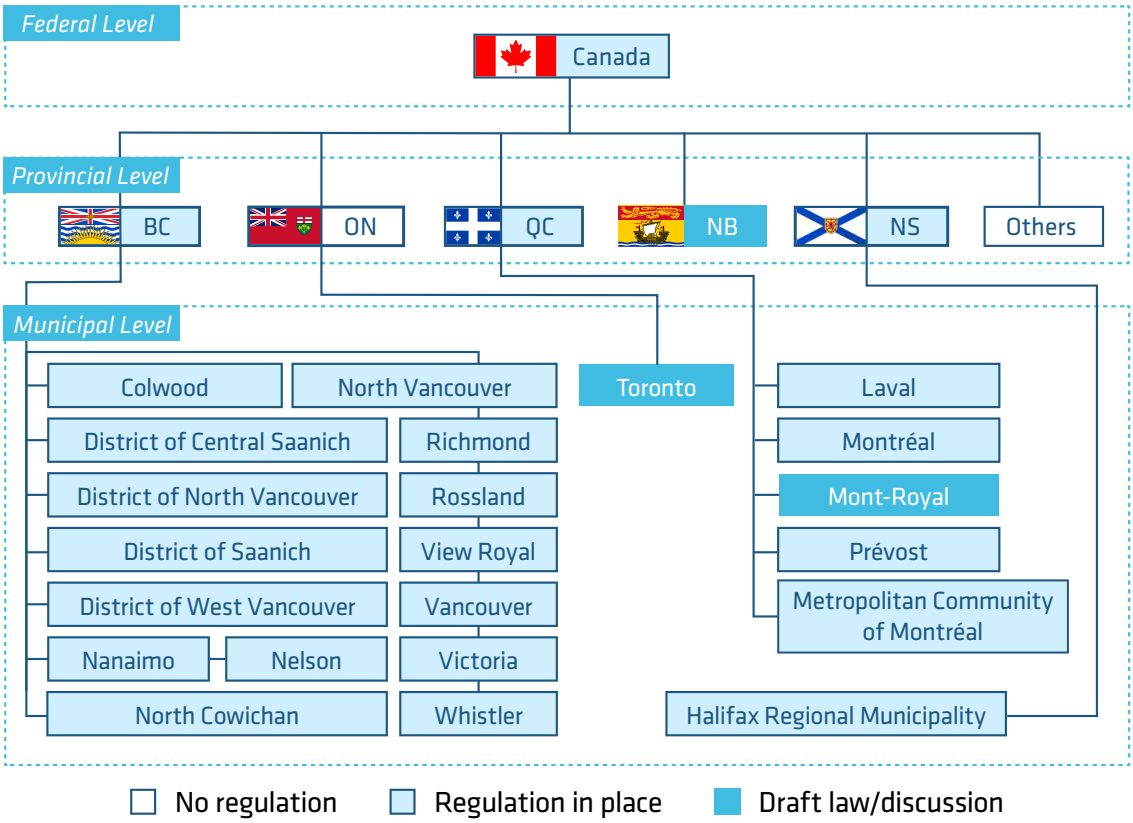

Figure 1: Building heating decarbonization regulation initiatives among the different government levels.

Various policy approaches are employed to promote building heating decarbonization:

- **Focusing on the energy source** by prohibiting new buildings from connecting to the gas grid (recommended in Montréal's roadmap), or from using oil heating (Montréal, QC), or gas heating (ongoing discussions at Laval, QC).
- **Focusing on the equipment** by banning the installation of oil, coal, and/orv gas heating systems (Central Saanich, BC; Laval, QC; province of Québec), or requiring the installation of zero-emission equipment (Vancouver, BC).
- **Focusing on energy performance** by setting energy efficiency performance levels, including the use of low-carbon energy systems, and providing guidance to transition to zero-carbon new buildings (British Columbia).
- **Focusing on emissions** by requiring buildings or space heating equipment to be zero-emissions (Victoria, BC; Prévost, QC), or setting maximum levels of GHG emissions through building performance standards (BPS) (Toronto, ON).

Federal Level

The federal government has the authority to set national standards and building decarbonization regulations. It provides regulatory frameworks and support, while implementation is left to provincial and municipal governments.

The federal government is taking steps to decarbonize the buildings sector through the **Canada Green Buildings Strategy**. In the Strategy, the government committed to introducing a regulatory framework to phase out the installation of oil heating systems in new construction by 2028. Additionally, new amendments to the Energy Efficiency Regulations under Canada's Energy Efficiency Act (EE Act) are planned between 2024 and 2026. Amendment 18 will be reviewed, to introduce or update standards for energy-using products such as air conditioners, heat pumps, and water heaters. The federal government also provides funding and incentives through different programs listed in the Strategy, to support provincial and municipal actions.[1]

Moreover, Canada has developed the National Building Code (NBC) and the National Energy Code of Canada for Buildings (NECB), which specify minimum energy efficiency standards for residential, commercial, industrial, and agricultural buildings. Several provinces have adopted the national code, aligning with federal guidelines.[2]

On top of this, the federal government is committed to addressing climate change through the development of a net-zero emissions code, and is likely to be published end of 2025. This commitment involves creating a comprehensive regulatory framework aimed at achieving carbon neutrality across various sectors and being a lever to accelerate climate action.

Provincial Level

Provincial governments have notable authority over energy policy and building codes. They can pass laws to regulate emissions, set energy efficiency standards, or phase out fossil fuel heating systems. At the same time, they must align with federal laws and regulations.

Only British Columbia and Québec have adopted regulation to phase out fossil fuel in buildings at a provincial level. Québec deployed provincewide regulation restricting oil usage, while British Columbia set energy efficiency performance levels through the BC Energy Step Code and developed tools for local governments to encourage or require lower emissions in new buildings through the Zero Carbon Step Code. Ultimately, British Columbia will require all new constructions to be zero-carbon by 2030.

Reporting requirements are another significant tool to incentivize reductions in GHG emissions. While only a precursor to building performance standards, **Ontario has mandatory energy and water reporting** requirements for buildings of 50,000 square feet or more.[3]

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

[2] National Research Council Canada (2023). Model code adoption across Canada.

[3] Ontario Ministry of Energy (2023). Report energy and water use in large buildings.

This establishes a foundation for monitoring and improving environmental performance. Additionally, other provinces, such as Nova Scotia, are taking steps in the right direction by implementing various **energy efficiency initiatives.**[4]

Municipal Level

Similarly to provinces and territories, municipal governments can set standards for new construction and renovations, including the type of heating systems allowed. They can create bylaws, but these must align with provincial and federal laws. Municipalities are largely granted their powers by the province.

Independent bylaws were adopted in several municipalities in British Columbia and Québec. They are either based on restricting installation of fossil fuel equipment, prohibiting installation of oil and/or gas heating systems, or requiring the installation of zero-emission equipment. Nevertheless, from these diversified initiatives to ban fossil fuel heating systems in buildings, except for municipal by-laws in British Columbia that set a maximum annual amount of GHG emissions per building, **no trend stands out as a preferred fossil fuel phase-out pathway**, as illustrated in Figure 2.

Municipalities outside of BC generally have more limited power, due to the fact that their authorities are subject to provincial approval and alignment with broader provincial and federal regulations. Overall, this makes it challenging for municipalities to enact and enforce stringent environmental regulations independently.

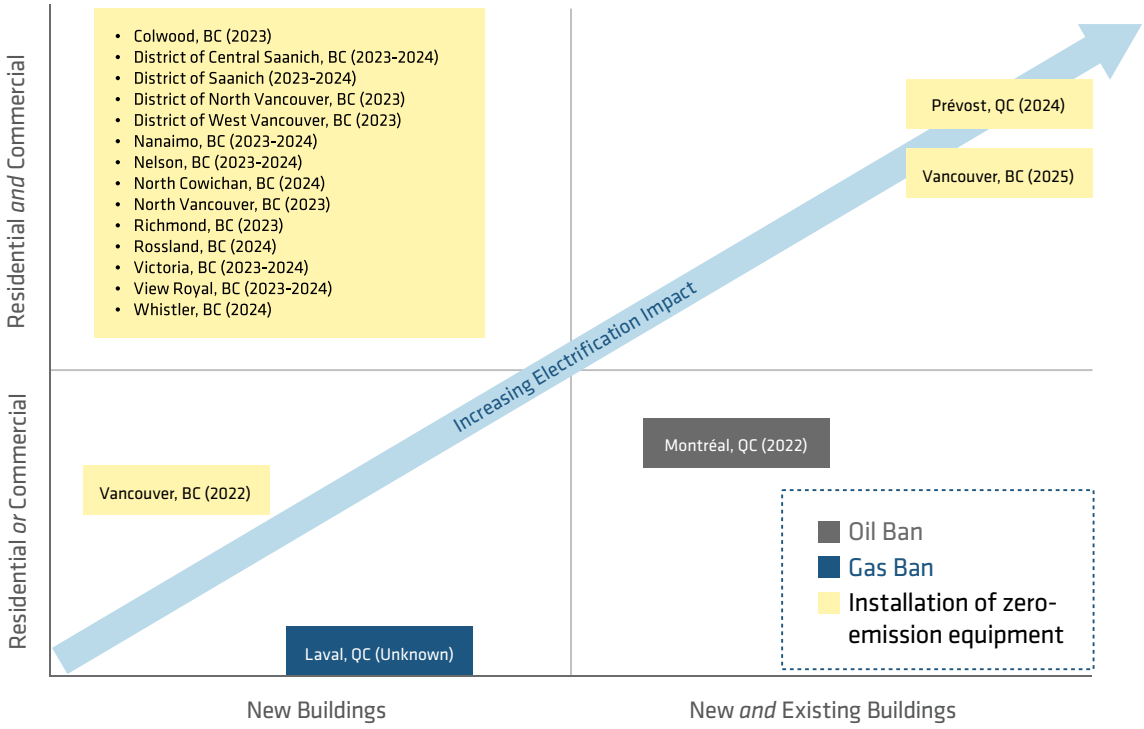

Figure 2: Overview of municipal initiatives referenced in Canada.

[4] Government of Nova Scotia (2017). Energy-efficient Appliances Regulations made under Section 5 of the Energy-efficient Appliances Act, S.N.S. 1991, c. 2.

In addition to regulations aiming to phase out the use of fossil fuels, other measures are being employed to expedite the electrification of buildings, thus more implicitly shifting away from fossil fuel-based heating. A notable illustration of this can be seen in British Columbia, where **changes in sales taxes** have been made.[5] Starting from April 2022, the province removed the sales tax on heat pumps and raised the sales tax on fossil fuel combustion systems used for indoor space or water heating or cooling, a structure that is also known as a "feebate". Other innovative measures were recently announced. Since January 1, 2023, in the City of Vancouver (BC), all new permanently installed **air-conditioning systems in existing detached homes must be electricity powered and provide low-carbon heating and cooling**.[6]

Lastly, Vancouver has adopted a BPS, starting with annual energy and carbon reporting from 2024, followed by GHG limits. This by-law [7] will come into effect progressively, targeting larger buildings first before expanding to lower-size buildings. Toronto is developing a similar by-law, which will require existing buildings to meet GHG emissions performance standards aligned with Toronto's climate targets. Toronto anticipates placing emission requirements on all building sizes, including residential, by 2030, which would be a first in Canada.[8]

A few more municipalities have implemented green development standards (GDS) in Ontario and in BC, for new developments. These standards incorporate sustainability metrics and thresholds, aiming to design buildings with lower energy demands and GHG emissions. Likewise, in 2021 Montréal introduced a by-law requiring large building owners to annually disclose their building energy data to the city within the framework of establishing a GHG emissions performance standard for buildings, with the obligation of gradual performance improvements leading to carbon neutrality in 2040.[9] However, GDS do not necessarily mandate complete elimination of fossil fuels. The first levels allow for some fossil fuel use, especially for water heating, to meet GHG intensity targets. But achieving higher requirements can be unlikely if fossil fuels are used for building heating. Toronto has set progressive targets where using fossil fuels for space heating would make it difficult to meet their advanced GHG intensity goals.

Thermal planning emerges as another important measure supporting the decarbonization of building heating, particularly highlighted by multiple existing initiatives in Europe. In Canada, initiatives like the Federation of Canadian Municipalities (FCM) and ICLEI's Partners for Climate Protection (PCP) program **advocate for community-level GHG inventories and energy plans**. Moreover, FCM's funding of community energy feasibility studies, including district energy projects, provides a foundation for sustainable urban heating strategies. However, the challenge lies in ensuring that policies enable district energy in a way that covers net-zero objectives, providing a solid framework for transitioning to greener heating alternatives.

It is important to highlight that the authority of municipalities to enact such regulations is granted by the province. Provincial laws and regulations hold higher authority than municipal by-laws. So, in cases of conflict, if a municipal by-law is deemed incompatible with a provincial bill, the province has the capacity to restrict municipal bodies from enacting by-laws that either support or prohibit the usage of fossil

[5] See Government of British Columbia, "Provincial Sales Tax on Fossil Fuel Combustion Systems and Heat Pumps" (Provincial Sales Tax Notice, issued in February 2022 and revised in July 2022). See also "British Columbia Eliminates Sales Tax on Heat Pumps" Switch It Up (March 4th, 2022).

[6] Building By-law No. 12511 was amended, to update air conditioning and electrification requirements.

[7] City of Vancouver. Annual greenhouse gas and energy limits by-law No. 13472.

[8] City of Toronto (2023). Proposed Implementation Timeline for Emissions Performance Standards By-law.

[9] City of Montreal (2023). By-lay concerning greenhouse gas emission disclosures and ratings of large buildings (21-042).

fuels (a similar situation exists in the US, see below). In Canada to date, some provinces have been more aggressive with fossil fuel phase-out policies; British Columbia and Quebec have both developed initiatives pushing for more stringent requirements promoting electrification. However, a controversial decision by Vancouver City Council occurred in July 2024, approving a directive for City of Vancouver staff to restore the option for new home construction to use natural gas for heating and hot water. This decision marks a significant step backward for decarbonization, illustrating how even well-developed initiatives can face setbacks, further complicating the path towards building decarbonization.[10]

[10] Daily Hive (2024). Vancouver City Council restores ability for natural gas heating in new home construction.

What's Happening Elsewhere

USA

While several jurisdictions have enacted legislation limiting or banning fossil fuel heating in buildings, others have taken measures to oppose local initiatives aiming to implement natural gas bans (Figure 3). They have done so by introducing local pre-emption legislation to restrict and forbid such actions at the local level.

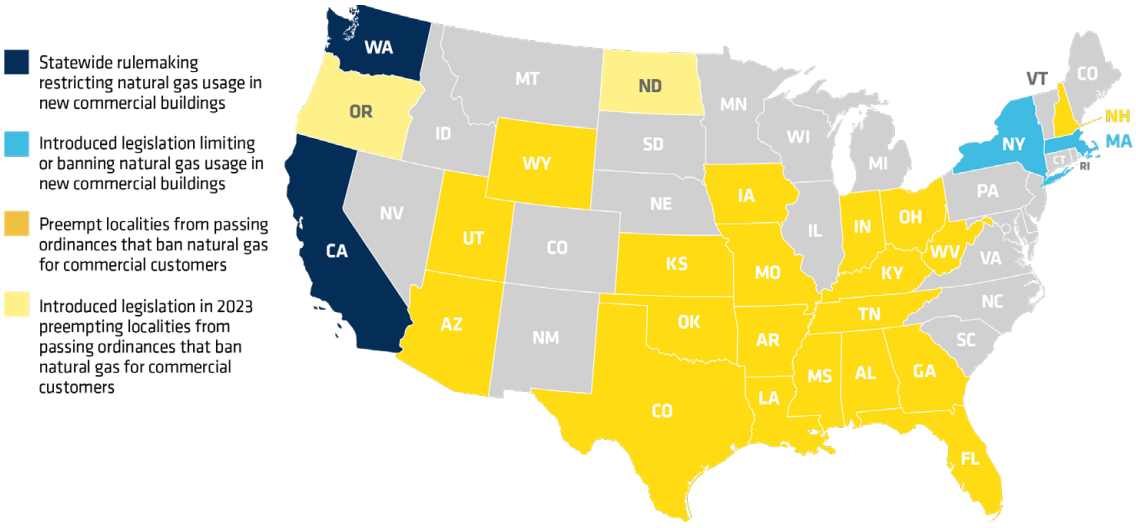

Figure 3: Local/municipal gas bans and state laws prohibiting restrictions on gas in the U.S. as of Jan 2023. (MultiState)

Europe

Numerous European governments have regulated building heating by constraining the type of energy used for building heating, constraining heating equipment requirements, or setting GHG emissions limits.[11]

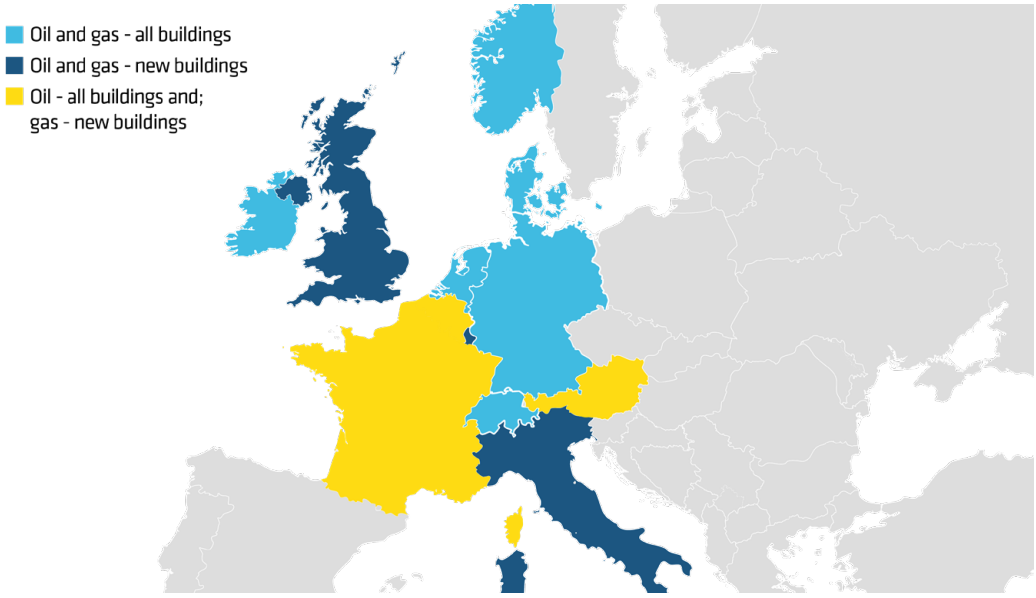

Figure 4: Overview of initiatives references in Europe

[11] Climatescope (2023).

The list below details the inventoried initiatives:

Focus on the energy source:

- Ban new buildings from connecting to the gas grid (Denmark, Netherlands, United Kingdom);
- Strategically trim gas distribution pipelines, based on the age and maintenance costs of existing gas distribution pipelines, leading to gas-free districts (Netherlands and Germany);
- Ban oil heating (Norway, Flanders-Belgium, Zurich-Switzerland);
- Ban gas heating (Flanders-Belgium, France);
- Require minimum share of renewable energy used in heating, extending the number of solutions without banning any specific technology (Germany); or
- Require implementing communal thermal planning (Germany).

Focus on the equipment:

- Ban installation of oil/coal/gas heating systems (Austria, Denmark, Flanders-Belgium, France, Ireland, Netherlands, Norway); or
- Eco-design rule/label classes: set minimum level of space heating energy efficiency (Member States of the European Union).

Focus on emissions:

- Maximum threshold for CO_2 emissions/ft^2/year (France); or
- Eco-design rule/label classes: set maximum level of emissions of nitrogen oxides / CO (Member States of the European Union).

A Variety of Pathways Which Demonstrate a Diverse Landscape

This jurisdictional scan **highlights that multiple solutions exist to reduce the reliance on fossil fuel heating within buildings.** These approaches diverge in their focal points, some concentrating solely on the residential sector, some on the commercial sector, and some encompassing both. They also vary in their targeted energy sources (i.e. oil, propane, and/or natural gas). Additionally, distinctions emerge in the building types addressed (i.e. existing buildings and new constructions). Lastly, the implementation stages and the timelines differ, spanning from single to multiple implementation dates and extending from 2022 to 2035. This implies that local requirements, constraints, and priorities can be addressed given the variety of tools that exist.

In Canada, the implementation of building heating decarbonization initiatives is just beginning. These endeavors tackle a spectrum of considerations advocating for the elimination or promotion of specific energy sources, the removal of certain equipment from buildings, or establishing emission limits for greenhouse gases. Some initiatives even introduce innovative mechanisms like feebates. **Overall, these initiatives share a unified goal, which is to diminish the usage of fossil fuels, accelerate the decarbonization of buildings and ultimately reduce GHG emissions from the sector.**

Municipalities are at the forefront of propelling these initiatives in Canada. However, the City of Vancouver's recent decision to restore the option for new home construction to use natural gas for heating and hot water highlights the ongoing challenges and pressures municipalities face in advancing fuel switching and building decarbonization. Nevertheless, while the provincial government holds the authority to amend or revoke by-laws regulating emissions of existing buildings, this has not yet occurred in Canada, and may not occur. Provincial and federal government leadership allows for the more robust establishment of a unified framework for phasing out fossil-based heating. **Ultimately, a coherent and unified approach to policy development and implementation is required among all orders of government to support this transition.**

How Can You Contribute or Provide Feedback for Policies to Decarbonize Buildings?

Looking to share valuable insights or provide feedback on building decarbonization policies that will affect you? Consider:

- Writing in to your elected representatives (e.g., federal members of parliament, members of provincial parliament, or municipal mayor or councillors) to voice your support and/or provide feedback on policies under consideration;
- Participating in government led consultations, often advertised on government websites in the form of public consultations or surveys;
- Joining professional associations like the Canada Green Building Council (CaGBC) , or more local Low Carbon Cities Canada (LC3) centres (e.g., The Atmospheric Fund [TAF] in the Greater Toronto and Hamilton Area, or the Zero Emissions Innovation Center [ZEIC] in Metro Vancouver), advisory committees, working groups, or expert panels that discuss building and energy policies;
- Collaborating with advocacy groups focused on building decarbonization, such as the Building Decarbonization Alliance;
- Using social media and public platforms to engage with authorities and stay informed about opportunities for public input, but also to raise awareness and advocate for policy changes.

If you have any comments or questions, please feel free to reach out to us at this address: info@buildingdecarbonization.ca. We value your feedback for future improvements.

Appendix A – List of Updates[12]

#	Description
1	Included additional incentives for Massachusetts (US) and Victoria (Australia).
2	Additional initiatives to include for Ontario, regarding Green Development Standards.
3	Added Ajax and Whitby as municipalities working on standards, as well as the ongoing work from Ottawa on BPS.
4	Updated the description for Seattle.
5	Added details on Virginia, who recently enacted laws to strengthen and modernize its energy efficiency rules
6	Updated the regulation in Quebec (Metropolitan Community of Montreal), phasing out the installation of space and water heating powered by fossil fuels in residential, commercial and institutional buildings.
7	Added a note clarifying that in Ontario one is likely able to use fossil fuels for water heating and still reach the GHG intensity target for most GDS.
8	Updated new efficiency standards for replacement of water heaters in BC.
9	Emphasized the limited power municipalities have outside of BC.
10	Additional initiatives to include from the released report: SFU Provincial Scorecard on Climate Performance - All Together Now
11	Updated international examples based on the BC HEES consultation.
12	Mentioned the Canada Green Buildings Strategy
13	Addressed this question: How can we provide feedback on building decarbonization policies?
14	Adjusted Figure 2 to make it clearer.

[12] Updates from March 2024 until September 2024, based on feedback received on Version 1.1.

Appendix B – List of Initiatives

Jurisdiction	Building Heating Decarbonization Policy Description	Mechanism					New/Existing Building		Energy Source			Sector(s)		Approval Date	Implementation Date/Phase-Out Target Date	Regulatory Piece	Reference
		Type of Constraint				Description	New	Existing	Oil	Propane	Natural Gas	Residential	Commercial / Institutional				
		Energy Source	Equipment	Energy Performance	GHG Emissions												
Canada																	
Government of Canada																	
Canada	Commits to introduce a regulatory framework allowing the phase-out of the installation of oil heating systems in new construction, from 2028. New amendments to the Energy Efficiency Regulations are planned between 2024 and 2026, to update or add energy efficiency or testing standards for a series of energy-using products (including AC, heat pumps, gas-fired furnaces (commercial) and storage water heaters, as well as electric and oil-fired water heaters (household).		◆	◆		Ban on installing fossil fuel systems and regulate energy performance	◆		◆			◆	◆				https://natural-resources.canada.ca/transparency/reporting-and-accountability/plans-and-performance-reports/departmental-strategies/the-canada-green-buildings-strategy-transforming-canadas-buildings-sector-for-net-zer/26065
Provinces																	
British Columbia	BC Zero Carbon Step Code: Regulation introduced as part of the BC Building Code, to limit GHG emissions for new constructions. It came into effect on May 1, 2023. The Zero Carbon Step Code is a voluntary provincial standard for reducing emissions in new buildings. Local governments reference the Zero Carbon Step Code in bylaws and programs to require or encourage lower carbon new construction in their communities (see municipal bylaws in the provincial section). BC Energy Step Code: It is a mandatory energy-efficiency requirement in the BC Building Code for most new buildings. Local governments can still encourage or require a level of energy-efficiency in new construction that goes above and beyond the minimum energy-efficiency step required in the BC Building Code. CleanBC Roadmap to 2030: All new buildings will be net-zero emissions by 2030.			◆	◆	Efforts to regulate GHG emissions intensity and energy efficiency performance	◆		◆	◆	◆	◆		1/5/2023			http://www.energystepcode.ca/ https://www.bchousing.org/publications/BC-Energy-Step-Code-Design-Guide-Supplement.pdf https://cleanbc.gov.bc.ca/about-climate-change/drivers/buildings/ https://www.nsnews.com/local-news/district-of-north-van-tightens-greenhouse-gas-regulations-for-new-home-construction-3170645 https://www.nsnews.com/local-news/city-of-north-van-steps-towards-climate-goals-with-new-building-regulations-3149068 https://news.gov.bc.ca/releases/2023ENV0030-000653
	The Province of BC is moving towards High Efficiency Equipment Standards (HEES) that may prohibit gas water and space heaters (consultation phase). If the standard is approved, the sale of new and replacement conventional gas fired space and water heating equipment will be prohibited by 2030.		◆	◆		Ban on installing fossil fuel systems and regulate energy performance	◆		◆	◆	◆	◆	◆	Not approved yet	2030		https://www.westcoastgeothermal.com/blog/bc-proposed-gas-appliance-ban-heating/
	Eliminated provincial sales tax on heat pumps and increased the sales tax on fossil fuel combustion systems from 7% to 12%.		◆			Installation of zero-emission equipment	◆	◆	◆	◆	◆	No detail		1/4/2022			https://www2.gov.bc.ca/assets/gov/taxes/sales-taxes/publications/notice-2022-003-
New Brunswick	Working with the federal government toward the phase-out of heating oil use in all buildings (commercial, government and residential). This work will include identifying transition support for heating oil delivery companies.	◆				Ban on using heating oil	◆	◆	◆			No detail		Efforts (not approved yet)			https://www2.gnb.ca/content/dam/gnb/Departments/env/pdf/Climate-Climatiques/climate-change-action-plan-progress-report-2022-2023.pdf
Nova Scotia	Ban installations of oil-fired heating equipment in new buildings by 2025.		◆			Ban on installing oil heating systems	◆		◆			No detail		2022	2025		https://plumbingandhvac.ca/wp-content/uploads/2022/12/ns-climate-change-plan.pdf
Québec	**2021-12-31:** No oil-fired heaters in new residential construction **2023-12-31:** Prohibition on installing oil-fired heaters in new construction as well as replacement of existing furnaces with fossil fuel equipment.		◆			Ban on installing oil heating systems			◆			◆		New construction: 31/12/2021 Retrofit: 31/12/2023		https://www.legisquebec.gouv.qc.ca/en/document/cr/Q-2,%20r.%201.1 https://www.publicationsduquebec.gouv.qc.	
	Bill 41, introduced on 2023-11-22: Draft law, allowing the establishment of new standards of reporting and environmental performance, with a gradual strenghening of minimum performance standards over the years.			◆		Regulate energy performance		◆				◆	◆	23/11/2023	23/11/2023	https://www.assnat.qc.ca/en/travaux-parlementaires/projets-loi/projet-loi-41-43-1.html https://ameqenligne.com/news_pdf/pdf_docs_	https://www.journaldequebec.com/2023/11/22/une-loi-qui-forcerait-lamelioration-environnementale-des-grands-batiments
Ontario	Several municipalities endorsed gas power phase-out.	◆				Ban on connecting to the gas grid					◆	No detail		Progressively			https://www.cleanairalliance.org/ontario-municipalities-that-have-endorsed-gas-power-phase-out/
Municipalities																	
Colwood, BC	2023-05-01: Zero Carbon Step Code - EL3 - All buildings				◆	Regulate GHG emissions	◆		◆	◆	◆	◆	◆	28/11/2022	Summer 2023		https://www.colwood.ca/news-events/news/2022-11-30-000000/colwood-advances-climate-goals-clean-energy-building-requirements#:~:text=On%20November%2028%2C%202022%2C%20Colwood,fuels%20such%20as%20natural%20gas.
District of Central Saanich, BC	2023-11-01: Zero Carbon Step Code - EL4 - Part 9 buildings 2024-07-01: Zero Carbon Step Code - EL4 - Part 3 residential buildings (4-6 storey) 2024-11-01: Zero Carbon Step Code - EL4 -Part 3 residential buildings (>6 storey) and commercial buildings				◆	Regulate GHG emissions	◆		◆	◆	◆	◆	◆	2023-05-32	1/11/2023 1/7/2024 1/11/2024	https://pub-centralsaanich.escribemeetings.com/filestream.ashx?DocumentId=15999	https://pub-centralsaanich.escribemeetings.com/filestream.ashx?DocumentId=14505 https://pub-centralsaanich.escribemeetings.com/filestream.ashx?DocumentId=15998

Jurisdiction	Building Heating Decarbonization Policy Description	Mechanism					New/Existing Building		Energy Source			Sector(s)		Approval Date	Implementation Date/Phase-Out Target Date	Regulatory Piece	Reference
		Type of Constraint				Description	New	Existing	Oil	Propane	Natural Gas	Residential	Commercial / Institutional				
		Energy Source	Equipment	Energy Performance	GHG Emissions												
District of Saanich, BC	2023-05-01: Zero Carbon Step Code - EL1 - All buildings 2023-11-01: Zero Carbon Step Code - EL4 - Part 9 buildings 2024-07-01: Zero Carbon Step Code - EL4 -Part 3 residential buildings (4-6 storey) 2024-11-01: Zero Carbon Step Code - EL4 - All Part 3 buildings				◆	Regulate GHG emissions	◆		◆	◆	◆	◆	◆	24/4/2023	1/05/2023 1/11/2023 1/7/2024 1/11/2024	https://saanich.ca.granicus.com/MetaViewer.php?view_id=1&clip_id=744&meta_id=56417	https://www.saanich.ca/assets/Community/Documents/Planning/sustainability/Step-Code-FAQ.pdf
District of North Vancouver, BC	2023-11-01: Part 9 buildings: Energy Step Code Level 5 or Energy Step Code Level 4 + Zero Carbon Step Code - EL4 Part 3 buildings: For Residential: Energy Step Code Level 4 or Energy Step Code Level 3 + Zero Carbon Step Code - EL3 For Commercial: Energy Step Code Level 3 or Energy Step Code Level 2 + Zero Carbon Step Code - EL3	◆		◆	◆	Regulate energy performance and GHG emissions	◆		◆	◆	◆	◆	◆	10/7/2023	1/11/2023		https://www.dnv.org/business-development/energy-step-code-and-zero-carbon-step-code
District of West Vancouver, BC	2023-11-01: Part 9 buildings (single family, townhouse): Energy Step Code Level 5 + Zero Carbon Step Code - EL1 or Energy Step Code Level 4 + Zero Carbon Step Code - EL3 Part 9 buildings (detached secondary suite): Energy Step Code Level 5 or Energy Step Code Level 3 + Zero Carbon Step Code - EL3 Part 3 buildings (residential: multi-family and apartment buildings): Energy Step Code Level 4 or Energy Step Code Level 2 + Zero Carbon Step Code - EL3 Part 3 buildings (commercial): Energy Step Code Level 2 + Zero Carbon Step Code - EL3	◆		◆	◆	Regulate energy performance and GHG emissions	◆		◆	◆	◆	◆	◆	17/7/2023	1/11/2023		https://westvancouver.ca/business-development/building-development/building-permits-inspections/BC-Energy-Step-Code https://westvancouver.ca/media/2833
Nanaimo, BC	2023-10-16: Zero Carbon Step Code - EL1 - All buildings 2024-07-01: Zero Carbon Step Code - EL4 - Part 9 and Part 3 buildings				◆	Regulate GHG emissions	◆		◆	◆	◆	◆	◆	16/10/2023	1/7/2024	https://pub-nanaimo.escribemeetings.com/filestream.ashx?DocumentId=50964	https://canada.constructconnect.com/joc/news/government/2023/10/nanaimo-steps-on-natural-gas-heating-in-new-construction
Nelson, BC	2023-08-31: Energy Step Code Level 4 or Energy Step Code Level 3 + Zero Carbon Step Code - EL3 2024-05-01: Commercial: Energy Step Code Level 3 + Zero Carbon Step Code - EL2	◆		◆	◆	Regulate energy performance and GHG emissions	◆		◆	◆	◆	◆	◆	31/8/2023	31/8/2023 1/5/2023		https://thenelsondaily.com/2023/05/next-steps-code-requirements-increased-new-construction-nelson/ https://nelson.civicweb.net/document/111024/
North Cowichan, BC	2024-01-01: Zero Carbon Step Code - EL3 - All buildings 2024-07-01: Zero Carbon Step Code - EL4 - All buildings				◆	Regulate GHG emissions	◆		◆	◆	◆	◆	◆	18/10/2023	1/1/2024 1/7/2024		https://www.northcowichan.ca/EN/main/departments/building/step-code-program.html
North Vancouver (City), BC	2023-11-01: Part 9 buildings (single family, townhouse): Energy Step Code Level 5 + Zero Carbon Step Code - EL1 or Energy Step Code Level 4 + Zero Carbon Step Code - EL3	◆		◆	◆	Regulate energy performance and GHG emissions	◆		◆	◆	◆	◆	◆	28/6/2023	1/11/2023		https://www.cnv.org/business-development/building/energy-efficient-buildings-initiative/new-buildings
Richmond, BC	2023-11-01: Part 9 buildings (single family, townhouse): Energy Step Code Level 5 + Zero Carbon Step Code - EL2 or Energy Step Code Level 4 + Zero Carbon Step Code - EL3 or Energy Step Code Level 3 + Zero Carbon Step Code - EL4	◆		◆	◆	Regulate energy performance and GHG emissions	◆		◆	◆	◆	◆	◆	25/9/2023	1/11/2023		https://citycouncil.richmond.ca/agendafiles/Open_Council_9-25-2023.pdf
Rossland, BC	2024-05-01: Part 9 buildings: Energy Step Code Level 4 or Energy Step Code Level 3 + Zero Carbon Step Code - EL3	◆		◆	◆	Regulate energy performance and GHG emissions	◆		◆	◆	◆	◆	◆	6/11/2023	1/5/2024		https://rossland.civicweb.net/document/31939/
Vancouver, BC	2022-01-01: Equipment for space and hot water heating in new low-rise residential buildings must be zero emissions 2025-01-01: All new and replacement heating and hot water systems must be zero emissions				◆	Installation of zero-emission equipment	2022-01-01: Equipment for space and hot water heating in new low-rise residential buildings must be zero emissions	2025-01-01: All new and replacement heating and hot water systems must be zero emissions	◆	◆	◆	◆	◆	1/4/2020	1/1/2022		https://vancouver.ca/green-vancouver/zoning-amendments-to-support-climate-emergency.aspx .
	Adoption of new efficiency standards for replacement water heaters. Effective February 28, 2025, major home renovations exceeding $150,000 will be required to install higher efficiency water heaters. Starting January 1, 2027, all replacement water heaters in detached homes and duplexes must also meet the highest efficiency standards.			◆		Regulate energy performance		◆	◆	◆	◆	◆		11/6/2024	02/28/2025 01/01/2027	https://council.vancouver.ca/20240611/documents/r1.pdf	https://vancouver.ca/news-calendar/new-efficiency-standards-for-replacement-water-heaters-june-2024.aspx
	Require heat pumps for all new air-conditioning systems for new homes (it does not directly impact heating equipment, but can indirectly impact fossil fuel use for heating).		◆			Regulate air-conditioning systems	◆					◆			1/1/2023		https://vancouversun.com/news/local-news/things-to-know-about-air-conditioning-in-metro-vancouver
	Introduction of annual energy and carbon reporting requirements, as well as GHG intensity (GHGi) and heat energy limits.			◆	◆	Regulate energy performance and GHG emissions	◆	◆	◆	◆	◆	◆	◆	2026			https://vancouver.ca/green-vancouver/green-large-commercial-and-multi-family-buildings.aspx https://council.vancouver.
	Vote in favour of a bylaw amendment in Vancouver city council, to restore natural gas for heating and hot water for new constructions.	◆				Restore fossil fuel heating	◆				◆			23/07/2024			https://vancouver.ca/files/cov/council-advances-natural-gas-amendment-to-build-attainable-housing-faster.pdf

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		Type of Constraint				Description	New	Existing	Oil	Propane	Natural Gas	Residential	Commercial / Institutional				
		Energy Source	Equipment	Energy Performance	GHG Emissions												
Victoria, BC	2023-11-01: Zero Carbon Step Code - EL4 - Part 9 buildings 2024-07-01: Zero Carbon Step Code - EL4 - Part 3 residential buildings (4-6 storey) 2024-11-01: Zero Carbon Step Code - EL4 - Remaining Part 3 residential buildings (high-rise) and commercial buildings				◆	Regulate GHG emissions	◆		◆	◆	◆	◆	◆	22/9/2023	01/11/2023 01/7/2024 01/11/2024	https://energystepcode.ca/app/uploads/sites/257/2023/02/BCBC-2018-Revision-5-Convenience-Copy.pdf	https://www.victoria.ca/media/file/bc-energy-step-code-and-zcsc-faqpdf
View Royal, BC	2023-11-01: Zero Carbon Step Code - EL4 - Part 9 buildings 2024-07-01: Zero Carbon Step Code - EL4 - Part 3 residential buildings (4-6 storey) 2024-11-01: Zero Carbon Step Code - EL4 - Remaining Part 3 residential buildings (high-rise) and commercial buildings				◆	Regulate GHG emissions	◆		◆	◆	◆	◆	◆	1/5/2023	01/11/2023 01/7/2024 01/11/2024		https://www.viewroyal.ca/EN/meta/new/2023-latest-news/zero-carbon.html
Whistler, BC	2024-01-01: Part 9 buildings (single family, townhouse): Energy Step Code Level 4 + Zero Carbon Step Code - EL3 Part 9 buildings (SFD or duplex with inground basement floor area exclusion): Energy Step Code Level 5 + Zero Carbon Step Code - EL3 Part 3 buildings (residential): Energy Step Code Level 3 + Zero Carbon Step Code - EL3 Part 3 buildings (commercial): Energy Step Code Level 2 + Zero Carbon Step Code - EL3			◆	◆	Regulate energy performance and GHG emissions	◆		◆	◆	◆	◆	◆	1/5/2023	1/1/2024		https://www.whistler.ca/business/land-use-and-development/building/bc-energy-step-code/ https://pub-rmow.escribemeetings.com/FileStream.ashx?DocumentId=20041
Toronto, ON	Recommendation: Develop a by-law that would require existing buildings to meet greenhouse gas emissions performance standards aligned with Toronto's climate targets. Buildings that do not meet the standards would be subject to fines, with revenues dedicated to climate action.				◆	Regulate GHG emissions		◆				◆	◆	2024	1/7/2026		https://www.toronto.ca/services-payments/water-environment/net-zero-homes-buildings/emissions-performance-standards/ https://www.toronto.ca/legdocs/mmis/2023/ie/bgrd/backgroundfile-239228.pdf
9 municipalities in Ontario (including Toronto)	Integration of green development standards (GDS) in the Official Plan, through either minimum sustainabitlity score or performance threshold, or mandatory sustainable performance requirements.	◆	◆	◆	◆	Efforts to regulate GHG emissions intensity and energy efficiency performance	◆		◆	◆	◆	◆			2014		https://www.cleanairpartnership.org/wp-content/uploads/2023/03/Final-CAP-Towards-Low-Carbon-Communities-2023-Update.pdf
Laval, QC	No natural gas appliances and heating systems in new residential buildings.		◆			Ban on installing natural gas appliances and heating systems.	◆				◆	◆		5/4/2023			https://www.ledevoir.com/societe/789123/laval-interdira-les-nouvelles-installations-au-gaz-naturel-dans-le-secteur-residentiel
Metropolitan Community of Montreal, QC	April 2024: The council of the Metropolitan Community of Montreal passed a resolution to ban the installation of space and water heating powered by fossil fuels in residential, commercial and institutional buildings. This is applicable to the 79 municipalities in Metropolitan Community of Montreal.		◆			Ban on installing fossil fuel systems	◆		◆	◆	◆	◆	◆	4/25/2024	25/4/2025	https://cmm.qc.ca/wp-content/uploads/2024/04/Reglement_2024-111_Adopte_NonEnVigueur.pdf	https://www.nationalobserver.com/2024/04/29/news/dozens-municipalities-quebec-ban-fossil-fuels-new-buildings
Mont-Royal, QC	Draft law: Prohibition of oil-fired heaters in all residential building by 2025.		◆			Ban on installing oil heating systems		◆	◆			◆		Draft law (not accepted)	1/1/2025		https://www.lapresse.ca/actualites/environnement/2020-10-19/ville-de-mont-royal/le-mazout-interdit-en-2025.php https://www.ville.mont-royal.qc.ca/fr/nouvelles/conseil-municipal/informations-erronees-lheure-juste-sur-chauffage-mazout-bois-mont-royal
Montréal, QC	2021-12-31: Prohibition in new residential buildings to install oil-fired equipment. Roadmap (recommendation): No natural gas in buildings of 21,500 ft2 or less in 2024 and for all residential buildings in 2025.	◆ (Recommendation)	◆			- Ban on installing heating oil systems - (Recommendation: Ban on connecting to the gas grid new buildings)	◆		◆			◆			31/12/2021: Prohibition on new residential buildings instalingl oil-fired equipment		Regulation respecting oil-fired heaters: https://www.legisquebec.gouv.qc.ca/fr/document/rc/Q-2,%20r.%201.1 Montreal roadmap: http://ville.montreal.qc.ca/pls/portal/docs/PAGE/COMMISSIONS_PERM_V2_FR/MEDIA/DOCUMENTS/RAPPORT_TRAVERS%C9EDESRUES_20230321.PDF http://ville.montreal.qc.ca/pls/portal/docs/PAGE/COMMISSIONS_PERM_V2_FR/MEDIA/DOCUMENTS/RECOMMANDATIONS_BATIMENTSZ%C9RO%C9MISSION_20230216.PDF
Prévost, QC	2023/12/31: Installation of zero-emission equipment in new construction and replacement of fossil fuel equipment by zero-emission ones. 2035/12/31: Fossil-fuel space heating prohibited.		◆		◆	– Installation of zero-emission equipment – Ban on installing fossil fuel systems	2023/12/31: Installation of zero emission equipment in new construction	2023/12/31: Replacement of fossil fuel equipment by zero emission ones	◆	◆	◆	◆	◆	8/5/2023	31/12/2021: Installation in new construction and replacement in existing buildings 31/12/2035: Fossil-fuel space heating completely prohibited		https://www.ville.prevost.qc.ca/actualites/la-ville-de-prevost-prend-action-sur-la-decarbonation-des-batiments https://www.ville.prevost.qc.ca/storage/app/uploads/public/643/57e/360/64357e3600bf9353331685.pdf https://www.jdc.quebec/2023/05/21/les-echos-du-conseil-de-prevost-4/#:~:text=%C3%80%20partir%20du%2031%20d%C3%A9cembre,%C3%A0%20l%C3%A9gif%C3%A9rer%20en%20ce%20sens.

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		Energy Source	Equipment	Energy Performance	GHG Emissions												
Halifax Regional Municipality, NS	Requirements that all new municipal facilities be designed and constructed as net-zero.	◆				Ban on using fossil fuel heating	◆		◆	◆	◆		◆	23/11/2023	23/11/2023		https://cdn.halifax.ca/sites/default/files/documents/city-hall/standing-committees/211104essc1212.pdf#:~:text=The%20Administrative%20Order%20(AO)%20will,site%20through%20a%20renewable%20source https://cdn.halifax.ca/sites/default/files/documents/city-hall/legislation-by-laws/2021-002-OP.pdf
United States																	
States - Districts																	
10 States (CA, CT, HI, MA, MD, NY, OR, PA, RI, WA)	Exploring the adoption of zero-emission standards for space and water heating equipment.				◆	Regulate GHG emissions			◆	◆	◆						https://usclimatealliance.org/press-releases/decarbonizing-americas-buildings-sep-2023/
California	Ban on gas furnaces and water heaters by 2030. Homes in California will be required to install zero-emissions alternatives, like electric heaters. The policy only applies to new appliances, home and building owners seeking to replace retired furnaces or water heaters will only be able to select from clean and electric alternatives starting in 2030.		◆		◆	Ban on installing fossil fuel systems	◆	◆			◆	◆		2030	2030		https://www.npr.org/2022/09/23/1124511549/california-plans-to-phase-out-new-gas-heaters-by-2030
Massachusetts	The Massachusetts Department of Public Utilities has released a framework aimed at reducing reliance on gas for heating. Gas utilities are required to present climate compliance plans every five years, starting in 2025. These plans will detail their strategies for transitioning to clean energy and explore non-gas alternatives in place of gas expansion projects.	◆				Ban on using natural gas for heating	◆	◆			◆	◆	◆		2025		https://insideclimatenews.org/news/07122023/massachusetts-natural-gas-ruling/
New York	Law requiring all-electric heating and cooking in new buildings shorter than seven stories by 2026, and in 2029 for taller building (some exemptions for manufacturing facilities, restaurants, hospitals and even car washes). Note: Initially, it was also proposed to ban installing fossil-based heating equipment in existing buildings (Jan 1, 2030 for over three stories and Jan 1 2035 for commercial), but these clauses did not make it into the law.	◆				Ban on using fossil fuels for heating	◆		◆	◆	◆	◆	◆		1/1/2026 1/1/2029		https://nyassembly.gov/2023budget/2023bills/enacted/A3006c.pdf
Virginia	Law strengthening and modernizing energy efficiency rules. SB 737 expands the definition of efficiency to include electrification, although electrification of any process or activity primarily fueled by natural gas is excluded.	◆				Ban on using fossil fuels for heating	◆	◆	◆	◆		◆	◆	5/4/2024		https://lis.virginia.gov/cgi-bin/legp604.exe?241+ful+CHAP0607+pdf	https://lis.virginia.gov/cgi-bin/legp604.exe?241+sum+SB737
Washington, DC	All new buildings and substantial renovations to be net-zero emissions for all commercial buildings, condo and apartment buildings, as well as single family homes taller than three stories, except for backup power.				◆	Ban on using fossil fuels for heating	◆	◆	◆	◆	◆	◆	◆		1/1/2027	https://code.dccouncil.gov/us/dc/council/laws/24-177	https://www.npr.org/local/305/2022/07/14/1111541753/d-c-moves-to-ban-natural-gas-in-most-new-buildings-aiming-for-carbon-neutrality
Washington	No natural gas appliances for space and water heating in new buildings (commercial and multifamily with four or more stories).		◆			Ban on installing natural gas systems	◆				◆	◆	◆		1/7/2023	https://sbcc.wa.gov/sites/default/files/2022-01/WSR_22_02_076_Full_WSEC_C_CR102.pdf	https://www.energyindepth.org/washington-states-shortcut-to-ban-natural-gas/
Other US building decarbonization efforts	104 jurisdictions: 100 local governments with policies, four statewide policies. Oregon and Vermont state-wide policy in development.	◆	◆	◆	◆	Ban on using fossil fuels for heating											https://buildingdecarb.org/zeb-ordinances
Municipalities																	
10 municipalities in Massachusetts (including Boston)	Pilot project for no fossil fuel hookups in new construction or major renovation projects in 10 cities. Cities and towns that have met the state's 10% affordable housing target can qualify, and the requirements won't apply to healthcare facilities and science labs.	◆				Ban on using fossil fuels for heating	◆	◆	◆	◆	◆	◆	◆	10/8/2022			https://www.wbur.org/news/2022/07/22/massachusetts-climate-bill-baker-desk https://www.wbur.org/news/2022/08/16/boston-ban-fossil-fuels-new-buildings
76 municipalities in California (including San Francisco and Los Angeles, and Berkeley—first in the US)	Mostly no natural gas in new buildings with variations on cooking appliances, building size.	◆				Ban on connecting to the gas grid	◆				◆	◆	◆	First CA ban approval in February 2019, and latest in January 2023, with a number already implemented			Detail of ban for all 74 cities: https://www.sierraclub.org/articles/2021/07/californias-cities-lead-way-pollution-free-homes-and-buildings https://www.theguardian.com/environment/2019/jul/23/berkeley-natural-gas-ban-environment https://www.npr.org/2022/09/23/1124511549/california-plans-to-phase-

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		Energy Source	Equipment	Energy Performance	GHG Emissions												
Aspen, Colorado	Heat pumps for all new air-conditioning systems required for new homes (does not impact directly heating equipment, but can indirectly impact fossil fuel use for heating).		◆			Regulate air-conditioning systems	◆					◆		1/4/2023		https://legistarweb-production.s3.amazonaws.com/uploads/attachment/pdf/1745023/OrdinanceNo.1_Building_Codes_Final_Draft.pdf	https://www.kunc.org/news/2023-02-02/updates-to-aspens-residential-building-code-aim-for-more-climate-friendly-housing
Denver, Colorado	Replacement of gas-fired space and water heating equipment with an electric system at the end of its useful life, in all existing commercial and multifamily buildings, regardless of building size.		◆			Ban on installing natural gas systems		◆			◆	◆	◆	1/3/2023		https://library.municode.com/co/denver/codes/code_of_ordinances?nodeId=TITIIREMUCO_CH10BUBURE_ARTIIBUFICO_S10-20ELREEXBU	https://www.denvergov.org/Government/Agencies-Departments-Offices/Agencies-Departments-Offices-Directory/Climate-Action-Sustainability-Resiliency/High-Performance-Buildings-and-Homes/Energize-Denver-Electrification-Program/Equipment-Replacement-Code-Changes-in-2023-2025-and-2027
Boston, MA	Set emissions performance standards for large existing buildings, decreasing over time to reach zero emissions by 2050.				◆	Maximum threshold for CO2 emissions / ft2 / year	◆	◆	◆	◆	◆	(only MURB)	◆	2021	2025	https://www.boston.gov/sites/default/files/file/2021/12/Final%20Amended%20Docket%200775%20BERDO%202_0.pdf	https://www.boston.gov/departments/environment/building-emissions-reduction-and-disclosure
Ithaca, NY	Phase out gas in all new construction and in existing buildings.	◆				Ban on connecting to the gas grid	◆	◆			◆	◆	◆		2030		https://cleantechnica.com/2022/01/21/natural-gas-becomes-important-battleground-in-transition-from-fossil-fuels/ https://www.utilitydive.com/news/inside-ithacas-plan-to-electrify-6000-buildings-and-grow-a-regional-green/623126/
New York, NY	Restrictions on fossil fuel usage in newly constructed residential and commercial buildings by phasing in strict emissions limits, through Local Law 97 of 2019. The prohibition starts in 2024 for buildings under seven stories and mid-2027 for taller buildings, with modified timelines for affordable housing (2026 and 2028, respectively).				◆	Maximum threshold for CO2 emissions / ft2 / year	◆		◆	◆	◆	◆	◆		1/1/2024	https://www.nyc.gov/assets/buildings/local_laws/ll97of2019.pdf	https://www.urbangreencouncil.org/wp-content/uploads/2023/01/LL154-Factsheet_1.5.2023.pdf https://www.nyc.gov/site/buildings/codes/greenhouse-gas-emission-reporting.page
Salt Lake City, UT	Net zero emissions for all new construction and major renovation of buildings owned and controlled by the City that are larger than 10,000 ft2.				◆	Ban on using fossil fuels for heating	◆	◆	◆	◆	◆	◆	◆	8/1/2013		http://www.slcinfobase.com/PPAREQ/#!WordDocuments/netzeroenergybuildings.htm	
Seattle, WA	Seattle Energy Code prohibits use of fossil fuel space heating and water heating in new residential, multifamily and commercial buildings. It also requires the elimination of electric resistance from most water heating and space heating systems in new construction and substantial alterations, and in most equipment replacements.	◆		◆		Ban on using fossil fuels for heating	◆		◆	◆	◆	◆	◆		1/1/2022		https://www.seattle.gov/sdci/codes/codes-we-enforce-(a-z)/energy-code#2018seattleenergycode
	Buildings Emissions Performance Standard, requiring existing buildings to meet greenhouse gas emissions intensity targets. Buildings that do not meet the targets would be subject to penalties. All covered buildings will reach net-zero emissions intensity by 2045, except for multifamily housing, which will have until 2050 to achieve the net-zero standard.				◆	Maximum threshold for CO2 emissions / ft2 / year		◆	◆	◆	◆		◆	13/12/2023	1/10/2027	https://seattle.legistar.com/ViewReport.ashx?M=R&N=Text&GID=393&ID=5583747&GUID=96EB0FED-7F5A-4AFD-AEFE-035BA0D07589&Title=Legislation+Text	https://www.seattle.gov/environment/climate-change/buildings-and-energy/building-emissions-performance-standard
International																	
Australia	Jan 1, 2024: Ban on gas connections for new homes and government buildings built in Victoria.	◆				Ban on connecting to the gas grid	◆				◆	◆			01/01/2024		https://www.abc.net.au/news/2023-07-29/victoria-government-gas-ban-new-builds-explainer/102661808
Austria	Ban on new oil and coal heating systems and (not adopted yet) ban on new gas boilers by 2023, replacement of old fossil-fuel heating systems from 2025 and the final phase-out of gas-fired heating systems by 2040. Further plan to ban oil and coal boilers in existing buildings.		◆			Ban on installing fossil fuel systems	◆	◆	◆		◆	◆			2020		https://www.euractiv.com/section/energy-environment/news/why-austria-has-yet-to-pass-its-2023-boiler-ban/
Denmark	Ban on oil boilers in new homes in 2013 and on the replacement of oil boilers in existing buildings in 2016, with only limited exceptions. The government has also banned the installation of gas grid connections in new homes since 2013. Carbon tax on oil and gas heating has also been put in place since 1992 and has risen over time.	◆	◆			– Ban on installing heating oil systems – Ban on connecting to the gas grid	◆	◆	◆		◆	◆			1/1/2013		https://www.iea.org/reports/energy-efficiency-2023/has-the-energy-crisis-accelerated-the-shift-away-from-gas-in-residential-space-heating

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		Energy Source	Equipment	Energy Performance	GHG Emissions												
European Union	The European Union (EU) is revising its directive on appliance energy efficiency, Ecodesign, and it has been widely discussed to raise the minimum efficiency standard of heating appliances to 115%. If passed, this would apply to all countries by 2029, effectively ending the sale of standalone fossil fuel boilers across the EU.			◆		- Efforts to regulate energy efficiency performance - Ban on installing fossil fuel heating	◆		◆	◆	◆						https://ecostandard.org/news_events/the-eu-could-take-a-step-towards-its-2050-climate-target-if-new-ecodesign-rules-phase-out-sales-of-fossil-fuel-boilers/
Flanders, Belgium	2022: Ban on installation of oil boilers in existing buildings, but nationally, gas and oil will begin to be phased out from 2030. 2021: Gas connection for large new constructions, and extended to all new buildings from 2025.	◆	◆			– Ban on installing fossil fuel systems – Ban on using fossil fuel heating – Strategic trimming of gas distribution pipelines	◆	◆	◆		◆	◆	◆		2022		https://www.belganewsagency.eu/flanders-advances-ban-on-gas-connections-in-new-buildings-by-one-year
France	Jul 1, 2021: No natural gas heating for new single family houses. The ban will expand to multifamily buildings in 2024. Jul 1, 2022: Ban on new oil heating systems for new construction and existing homes. 2030: Prohibition of oil heating systems. Simultaneously, maximum GHG emissions threshold have been set.	◆			◆	– Ban on installing fossil fuels for heating – Maximum threshold for CO2 emissions/ft2/year	◆	◆	◆		◆	◆			1/1/2022		https://www.batiactu.com/edito/re2020-va-enteriner-disparition-progressive-logements-60709.php https://particuliers.engie.fr/depannages-services/conseils-equipements-chauffage/conseils-chaudiere/decret-fin-chaudieres-fioul.html#:~:text=Le%20d%C3%A9cret%20relatif%20%C3%A0%20l,de%20300%20gCO2eq%2FkWh%20PCI.
Germany	A share of 65% renewable energy in heating in new and existing buildings, which means no stand-alone main fossil fuel heating system. Strategic trimming of gas distribution pipelines, based on the age and maintenance costs of existing gas distribution pipelines, leading to gas-free districts.	◆	◆			– Obligation for renewable energy, with a minimum % – Strategic trimming of gas distribution pipelines – Grants to shift to low-emitting heating systems	◆	◆	◆	◆	◆	◆	◆		2026 in smaller districts, 2028 in larger ones.		https://www.theglobeandmail.com/business/industry-news/energy-and-resources/article-german-parliament-passes-law-to-phase-out-gas-and-oil-heating/
Ireland	No oil and gas boiler installation in new (2023) and existing residential buildings (2025).		◆			Ban on installing fossil fuel systems	◆	◆	◆		◆	◆			2023 2025		https://www.irishtimes.com/politics/oireachtas/2023/02/14/fossil-fuel-boilers-will-be-fully-phased-out-of-new-dwellings-by-the-end-of-2024-committee-told/#:~:text=Fossil%20fuel%20boilers%20will%20be,committee%20told%20%E2%80%93%20The%20Irish%20Times
Italy	Share of 60% of renewable energy in new buildings.	◆				– Obligation for renewable energy, with a minimum % – Strategic trimming of gas distribution pipelines – Grants to shift to low-emitting heating systems	◆		◆	◆	◆	◆	◆		1/6/2022		https://www.ehpa.org/wp-content/uploads/2022/12/Fossil-fuel-phase-out-map-for-website-1000-%C3%97-700-px-1.png
Luxembourg	No natural gas in new residential buildings.	◆				Ban on connecting to the gas grid					◆	◆			1/1/2023		https://www.ehpa.org/wp-content/uploads/2022/12/Fossil-fuel-phase-out-map-for-website-1000-%C3%97-700-px-1.png
Netherlands	No fossil-fuel boilers in new buildings since 2022 (hybrid systems with heat pumps are allowed). Strategic trimming of gas distribution pipelines, based on the age and maintenance costs of existing gas distribution pipelines, leading to gas-free districts. A ban on connecting new homes and small commercial buildings to the gas grid, passed in June 2018. With financial contribution from the national government, 66 municipalities in the country have participating in the Natural Gas-Free Neighborhoods Program since 2018.	◆	◆			– Ban on installing fossil fuel heating systems – Strategic trimming of gas distribution pipelines – Ban on connecting to the gas grid	◆		◆	◆	◆	◆	◆		1/1/2022		https://www.euractiv.com/section/energy-environment/news/netherlands-to-ban-fossil-heating-by-2026-make-heat-pumps-mandatory/ https://www.rijksoverheid.nl/onderwerpen/aardgasvrije-wijken/deelnemende-gemeenten-aardgasvrij-maken https://www.global-climatescope.org/markets/nl/
Norway	2017: Ban on fossil-fuel boilers in new buildings 2020: Ban on using fossil-fuel boilers, in new and existing buildings. Higher taxation on fossil fuels for heating and subsidies for residential heat pumps, beginning in 2003.		◆			Ban on installing fossil fuel systems	◆	◆	◆	◆	◆	◆	◆		2017: Installation of fossil fuel-based heating systems 2020: Use of heating oil		https://www.reuters.com/article/us-climatechange-norway-idUSKBN1961VL https://www.iea.org/reports/norway-2022/executive-summary https://static.agora-energiewende.de/fileadmin/Success_Stories/BP/BP_NO_Decarb-heating-bldgs/A-E_237_Succ_Stor_BP_Norway_decarbon-Heating_WEB.pdf
United Kingdom	No natural gas in new residential buildings	◆				Ban on connecting to the gas grid	◆				◆	◆			2025		https://www.britishgas.co.uk/the-source/greener-living/gas-boilers-ban-2025.html
Zurich, Switzerland	No gas or oil heating in new buildings after 2025, will be expanded to existing buildings by 2035.	◆				Ban on using fossil fuels for heating	◆	◆	◆		◆	◆	◆		2025 2035		https://www.swissinfo.ch/eng/zurich-voters-approve-ban-on-oil-and-gas-heaters/47140666