



# **Products and People to Support Energy Efficiency**

Navigating the Transition to a Low-Carbon Economy

Submitted to the Standing Committee on Natural Resources

# ABOUT US



Mechanical Contractors Association of Canada

BUILDING SMARTER TOGETHER

The Mechanical Contractors Association of Canada (MCAC) is a national, non-profit federation of autonomous provincial associations working for the betterment and advancement of the trade and mechanical contracting industry in Canada. Established in 1895, MCAC is a vibrant and diverse national association serving the needs of mechanical contractors of all sizes engaged in such disciplines as plumbing, heating, ventilation, air conditioning, controls systems, medical gases, welding, and fire suppression primarily within the industrial, commercial and institutional sectors. With offices in each province and 15 regional offices in Ontario, the MCAC is Canada's largest trade contractor Association.



**Canadian Institute  
of Plumbing & Heating**

Founded in Montreal in 1933, the CIPH is a not-for-profit trade association that is committed to providing members with the tools for success in today's competitive environment. More than 283 companies are members of this influential Canadian industry association. They are the manufacturers, wholesaler distributors, master distributors, manufacturers' agents, and allied companies who manufacture and distribute plumbing, heating, hydronic, industrial PVF, and waterworks, and other mechanical products. CIPH wholesalers operate more than 800 warehouses and showrooms across Canada. Total industry sales exceed \$9 billion annually and CIPH members have more than 20,000 employees from coast to coast.

# INTRODUCTION

The Canadian Institute of Plumbing and Heating (CIPH) and the Mechanical Contractors Association of Canada (MCA Canada ) want to share the messages about the importance of proceeding together in collaboration to meet the federal governments Emissions Reduction Plan and commitment to funding the Net Zero-Emissions Building Strategy as outlined in the recent federal budget. As an industry we want to see market transformation that leads to a sustainable, low carbon economy. We believe that to make transformation possible, government and industry need to work together.

As two national associations involved with Canada's construction industry CIPH and MCA Canada firmly believe that Net-zero buildings will not be achieved on the government's timelines without major new investments in training, incentives, and promotion to attract new workers. The newest technologies and most efficient products are important to reaching Canadas net-zero objectives but without an ample supply of skilled tradespeople to install and service them the market will not be able to respond quickly. This is a must for our respective industries. We recognize that the more government and industry collaborates meaningfully the more they can indeed make a difference to make our wonderful country competitive.

# RECOMMENDATIONS

Canada has made ambitious carbon reduction targets in its pursuit of mitigating climate change. Reaching those targets will require a concerted effort from government, businesses, workers, and families. Minimizing the potential harms of this transition including a loss in quality of life, losses in employment, business closures, and rising inflation for consumers is a goal shared by the government, members of the Standing Committee on Natural Resources, and our associations and members.

The Mechanical Contractors Association of Canada and the Canadian Institute of Plumbing and Heating will play a major role in the "Just Transition" as more is invested in making buildings more energy-efficient. The transformation of the market for plumbing and heating fixtures, appliances and systems is expected to happen quickly and with more substantial investment from government partners than in the past. This will add pressures to the sector that could cause an overwhelming demand for some products while making others quickly obsolete without accounting for the importance of consumer education and adoption.

We contend that the government's best efforts should be put toward ensuring that most families and businesses can retrofit or upgrade their hot water heating, hydronic heating and cooling, ventilation and related mechanical systems to reduce emissions and that

doing so is affordable. At the same time, government and industry must work together to ensure there are enough skilled tradespeople to select, size, install, repair and maintain the new systems required in Canada's built environment.

The plumbing and mechanical sector is committed to bringing forward workable solutions that will enable market transformation and support job growth and prosperity as Canada moves toward a net-zero economy.

We recommend:

- Prioritizing alignment between provinces, territories with industry buy-in for updates to Canada's building codes and standards
- Retrofit investments of \$20 billion to reflect similar investments in housing and new infrastructure committed by the federal government.
- Workforce development investments of \$1.25 billion in education, training and upskilling related to energy efficiency and climate resilience, as recommended by the Recovery Task Force
- Investing \$10 million per year over the next five years to market and promote the plumbing and mechanical trades for their valuable contributions to improving environmental outcomes, including \$2 million to promote these trades to underrepresented groups.

## PRIORITIZING ALIGNMENT

The building industry is ready for the transition to a net-zero economy. There are countless technologies that can move households, places of work, and other large venues toward net-zero today. However, to be effective there must be a focus on cost-efficiencies and the capacity to absorb changes in the plumbing and mechanical sectors. We have witnessed net-zero emission new home construction by several builders, and we are hearing more buzz about net-zero renovations. They are looking for prudent measures to achieve their energy goals, improve indoor air quality as well as increase comfort in their homes. The mechanical sector offers several solutions to ease the cost burden for homeowners and property owners. The challenge will be to bring together municipal, provincial, territorial, and federal governments in a common goal so as not to be fragmented in their approaches and timelines.

***Fragmentation must be avoided for a successful transition to net-zero in construction.***

Decisions from the government must be based on data and science. We are concerned that the effectiveness of incentives, rebates, code and standards adjustments may be an afterthought when the primary incentive for the government is to move quickly on greening construction. To ensure better uptake among homeowners, building managers and project owners, it is critical that the government manages the marketplace transformation in collaboration with the industry.

The move to a low-carbon economy is not just about adapting fuel-consuming systems, but a responsible and effective transition for Canadians. Collectively, we need to view, and manage

the total systems in new builds and retrofits as we move to generate fewer emissions. This transition is about total energy consumption, not just fuel sources. Lowering consumption will require both rules that lower greenhouse gas emissions while providing consumers incentives for adoption including ensuring solutions are cost-effective.

### The Challenge of Misalignment

**The City of Vancouver** has accelerated the deadlines to reduce greenhouse gas emissions and eliminate carbon production. The first restrictions were enacted January 1<sup>st</sup>, 2022. The restrictions were for new homes three stories and under. The restriction specified that new homes had to use electricity for space and water heating unless they fall within the passive home standard. They were looking to introduce for January 2023 minimum efficiency standards for alterations to existing buildings, fortunately, these were withdrawn and will be addressed later.

**TransformTO** looks to accelerate the reduction of greenhouse gases in Toronto, they feel the timeline set by the federal government is too far away and Toronto needs to transform at a faster pace.

**Natural Resources Canada** has already, in collaboration with industry, set minimum efficiency standards for heating equipment, be it fossil-fueled or electricity-based. ***Businesses need consistency across jurisdictions to deliver products and services efficiently***, without costs rising dramatically for consumers. That is the best path to the adoption of more efficient products.

Our industry has brought together roundtables of federal departmental officials to share this concern. Since 2020, we have worked with the Standards Council of Canada, Natural Resources Canada, the Treasury Board Secretariat, Environment and Climate Change Canada, Employment and Social Development Canada, and the National Research Council to share information and priorities for managing this transition. Our sector had to take the leadership role in establishing these roundtables to ensure interdepartmental dialogue and information sharing outside of the typical cycles of consultation on regulations or codes and standards adoption. We need the federal government to take a more active role in interdepartmental discussions regarding its climate objectives that involve industry participants.

Canada's ability to execute the 'Just Transition' in construction will depend on partnerships. Those partnerships will be between government and industry, but also between various levels of government. We will need municipal, provincial, territorial, and federal governments aligned on common goals so timelines for implementing new construction code and product standards are not fragmented. That will avoid costly barriers to implementation for businesses in our sector, as well as for consumers and governments.

Minister Champagne's mandate letter includes direction to work with the Minister of Natural Resources on the development of "model building codes, including publishing a net-zero emissions building code and model retrofit code by the end of 2024." CIPH and MCAC support the intent and direction of these changes. At the same time, we are concerned that rapid code development may come at the expense of industry consultation. Pushing cutting edge technologies too quickly could result in building managers and consumers leaving old systems

in use for longer, and seeing rapid cost increases that would slow development and retrofit schedules. To improve our readiness, we need:

- Coordination and collaboration to ensure timely adoption by provinces, territories and municipalities, and clear, manageable timelines for industry transition;
- Regulatory frameworks that balance costs and measurable benefits using validated data to support initiatives;
- Buildings to be considered as a connected system in construction; and
- Effective approaches for new construction and retrofits informed by an understanding of the full supply and value chains.

## RETROFIT INVESTMENTS

The Pembina Institute has estimated that 70% of the buildings standing today (2019 numbers) will still be in use as of 2050.

Recent investments in new, cleaner, greener infrastructure are well-directed, but investing in retrofitting current infrastructure should generate as much interest and investment from the government as building new homes and industrial, institutional and commercial (ICI) buildings.

According to Efficiency Canada, for every \$1 million invested in energy efficiency there are 16 to 30 jobs created. While the need for ICI retrofit investments are important for creating employment opportunities, they are also important to create incentives for property managers and owners, public institutions like schools, hospitals and colleges, and large enterprises to reduce their carbon footprint.

Efficiency Canada and Clean Energy Canada note that if all energy efficiency measures, including home and building retrofits in the Pan-Canadian Framework are fully implemented, Canada could cut an estimated 79 million tonnes of GHGs by 2030. That is nearly 40% of Canada's Paris climate commitment.

Over the coming years, Natural Resources Canada will work on its Net-Zero Emissions Building Strategy. Through a series of partnerships, incentives and investments, the department will seek to reduce pollution and lower monthly utility bills for Canadian families and businesses. Through collaboration with other levels of government, including municipalities and Indigenous governments, these partnerships will increase demand in the mechanical and plumbing sector.

The incentives provided to homeowners and the funding provided to municipalities to support housing retrofits and upgrades in the most recent budget are a useful model. The same enthusiasm and level of funding commitment from the government for new infrastructure, through programs like the Investing in Canada Infrastructure Plan and the Canada Infrastructure Bank, is also instructive.

**We recommend the federal government plan to invest \$20 billion in ICI construction retrofits as part of the National Net-Zero Emissions Building Strategy.**

This funding could include matching requirements which would unlock investments by other levels of government, and leverage private sector funds. Doing so has the potential to create between 320,000 and 600,000 new jobs in the energy efficiency space. Many of these new roles would be supported by businesses in the mechanical and plumbing sector where there is a decline anticipated in available workers over the years ahead.

## **SKILLED TRADES MARKET TRANSFORMATION**

Nearly one-in-five skilled tradespeople in the mechanical trades, including plumbing, pipefitting, gasfitting and others are expected to retire over the next five years. As such, we know that net-zero buildings will not be achieved on the government's timelines without major new investments in training and upskilling, incentives and promotion.

It is getting harder for businesses to attract and retain apprentices in Canada. At the same time, we expect far greater demand over the years ahead because of the transition to a low-carbon economy. We need to increase the replacement rate for retirees and add new, highly skilled workers now to ensure the training lag does not cause costs to rise on projects over the years ahead. The mechanical trades, and other skilled trades that will contribute to climate change mitigation and adaptation, need guarantees of support to help achieve Canada's climate objectives.

On top of replacing retirees and hiring new skilled tradespeople, workers who are already employed in the sector will need assistance to retrain and upskill. They will need to benefit from new initiatives to familiarize themselves with emerging technologies. While there is some capacity for upskilling and retraining in our industry today, we are not equipped to meet the needs of tomorrow. For that reason, we have included upskilling and reskilling as part of a proposal to the Sectoral Workforce Solutions Program, which will hopefully be successful, but there is no guarantee of funding being received in our sector.

Because of the important role mechanical and plumbing systems play in the built environment, particularly in relation to energy efficiency and indoor health and safety, it should be expected that any increased investment in retrofits or new buildings will lean heavily on these trades. As governments rightly look to retrofit and infrastructure investments to reduce emissions, it is critical that investment is made in the specific trades that will be necessary to meet government objectives.

Industry and the government can meet this challenge, but we need partnerships and funding to get there. The recent federal budget funded a suite of new initiatives that will increase energy efficiency and promote the construction of new housing, but it lacked clear and substantial investments in the human resources needed to deliver those investments.

**We recommend that the government invest \$1.25 billion in workforce development for energy efficiency and climate resiliency, with specific emphasis on the mechanical trades for access to training programs and developing new approaches.**

**We further recommend that over the next five years the federal government invest \$10 million per year in marketing and promotion of the mechanical trades as important 'green jobs.' Of this funding, \$2 million per year should be earmarked to promote the mechanical trades to underrepresented groups.**