

DAY ON THE HILL 2022

.....

The Business of Net-Zero Buildings

MCAC 

Mechanical Contractors Association of Canada

BUILDING SMARTER TOGETHER



Who we are



Mechanical Contractors Association of Canada

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.

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Canadian Institute of Plumbing and 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.

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The Business of Net-Zero Buildings

Canada's construction businesses will play a critical role in the pursuit of net-zero emissions. That is especially true for mechanical contractors and the plumbing, heating and cooling products that manage comfort, health and safety in our buildings.

Right now, 17% of Canada's Greenhouse Gas Emissions come from buildings. Significant improvements can be made in the short-term to reduce emissions from building operations.

CIPH and MCAC represent thousands of businesses that employ over 70,000 Canadians with industry sales over \$25 billion annually. Over the decades ahead, demand will increase significantly for more energy efficient products and more services as ICI and residential construction moves forward.

For businesses, government, and consumers to see mutual benefit we need more innovative products and more skilled tradespeople to get those products to market. We also need to define net-zero in construction so industry and government can ensure alignment.

This is our plan ...

Recommendations

The government is pursuing an economic transformation in Canada. Since the start of 2022, the federal government has announced the 2030 Emissions Reduction Plan and committed to funding the National Net-Zero Emissions Building Strategy in the recent federal budget.

These are laudable goals that are shared by our industry. We want to see market transformation that leads to a sustainable, low-carbon economy. In order to make that transformation possible, government and industry needs to work together.

This transformation will ensure home owners, property managers, commercial developers and contractors have access to the modern, low-emitting technologies to heat water and heat and cool spaces without taking on unreasonable expenses.

We need to do more to attract apprentices to the skilled trades and help them succeed. We need to modernize building codes and standards while considering the implications for businesses in the sector. We need the best products, installed and serviced by more skilled tradespeople, to build more energy-efficient structures, and to update our building stock.

Canada needs to prioritize harmonization while promoting modernization. We recommend:

1. Prioritizing alignment between provinces, territories with industry buy-in for updates to Canada's building codes and standards
2. Workforce development investments of \$1.25 billion in education and training related to energy efficiency and climate resilience, as recommended by the Recovery Task Force
3. Retrofit investments of \$20 billion over five years
4. 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.



Updating Canada's Building Code

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." The goal of this change is to align with national climate objectives and provide guidance for climate-resilient buildings. 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.

Manufacturers, distributors and suppliers of mechanical products must adapt quickly to these changes. By working together, our industry can help the National Research Council, ISED and Natural Resources Canada develop and implement building codes that ensure the highest possible emissions reductions. Through collaboration, we will ensure that these changes lead to greater consumer choice and overall benefit.

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. We need to get this right - CIPH and MCAC are ready to help. Over the coming years, Canada will need new standardization, regulation, policies and pilot and incentive programs to ensure net-zero buildings. Right now, our readiness to move in that direction is low. 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.**



Products need people.

The newest technologies and the most efficient products are important to reaching Canada's 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.

The Net-Zero Emissions Building Strategy needs to ensure readiness for net-zero initiatives in the labour force.

Skilled Trades and Market Transformation


Net-zero buildings will not be achieved on the government's timelines without major new investments in training, incentives, and promotion. 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. Replacement rates are not where they need to be and it is getting harder and harder for businesses to attract and retain apprentices. New programs like the Sectoral Workforce Solutions Program may help, but there is no guarantee that groups who applied for funding will receive financial support to bring in new workers. 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.

In order to implement these energy efficiency measures, we need more apprentices and journeypersons to retrofit, upgrade, repair and maintain systems with technologies that are currently available. Getting to net-zero in the built environment will require more tradespeople routinely improving their skills through retraining and upskilling initiatives to familiarize themselves with emerging technologies.

Mechanical trades in general, are extremely specialized trades. Contractors across the country are relied on for their trade expertise, experience and training. The skill sets utilized in these trades, however, take time to develop. From recruitment through apprenticeship and training, a long-term investment strategy to support employers and workers is necessary to build the labour force capacity to meet future needs.

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 building 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.



MCAC and CIPH call on the government to 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.



New Retrofit Investments

The 2022 Federal Budget invested billions of dollars in new, cleaner, greener infrastructure. It does so at the macro level through grid improvements and at the micro level through investments in energy efficiency for new housing and upgrades of existing rental housing stock. These investments are well-directed, and additional investments will be required over the years ahead in institutional, commercial and industrial (ICI) construction.

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 for the support that should be directed towards ICI construction over the years ahead.

We recommend the federal government invest \$20 billion over five years for 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.

Promoting the Mechanical Trades to underrepresented groups

The federal government made a valuable investment in the Union Training and Innovation Program to promote participation from 3,500 apprentices from underrepresented groups in Budget 2022. We support this investment and also encourage the government to do more to promote participation in the skilled trades for potential workers in open shops as well.

We believe that in addition to funding support for those choosing to enter the skilled trades it is also important for the federal government to promote the skilled trades as a career of first-choice. The federal government has run advertising campaigns to this effect recently, and we hope to see campaigns in the future targeted at the public at large, with funds earmarked to also advertise directly to underrepresented groups. The mechanical and plumbing trades are exceptionally important to addressing the need for rapid retrofits to reach Canada's net-zero targets.

We recommend the government invest \$10 million per year, over the next five years 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.



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