

# Energy Efficiency & a Competitive Canada



**Efficiency**  
Canada





*“Energy efficiency is the ultimate win – win. It leaves consumers with more money in their pockets, creates jobs in our economy and boosts GDP across the country, all while reducing greenhouse gas emissions.”*

**Bill Morneau**  
**Minister of Finance**



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An aerial photograph of a city at sunset. The foreground is filled with numerous high-rise apartment buildings. In the middle ground, a large body of water is visible, with many large cargo ships and smaller boats scattered across it. The background shows a range of mountains under a sky with soft, orange and yellow light from the setting sun. The overall scene is a mix of urban development and natural beauty.

# How energy efficiency makes Canada more competitive



# Energy efficiency is Canada's most plentiful energy resource ...

# 40%

of Canada's energy  
needs by 2050

- The International Energy Agency estimates that energy efficiency can account for **more than 40% of Canada's energy needs by 2050\***
- Energy efficiency is the fastest growing part of the global energy sector\*\*



\*International Energy Agency, Energy Efficiency Potential in Canada, May 2018

\*\*International Energy Agency, World Energy Investment 2018



# ... making Canada more productive and competitive ...



\*ACEEE - The 2018 International Energy Efficiency Scorecard, p. 53.

- Investing in energy efficiency can bring our industrial energy productivity in line with US, Europe and Japan\*\*
- This will allow all of Canada's major economic sectors – manufacturing, forestry, mining, oil and gas, transportation – **to be more competitive.**



\*\*International Energy Agency, Energy Efficiency Potential in Canada, May 2018



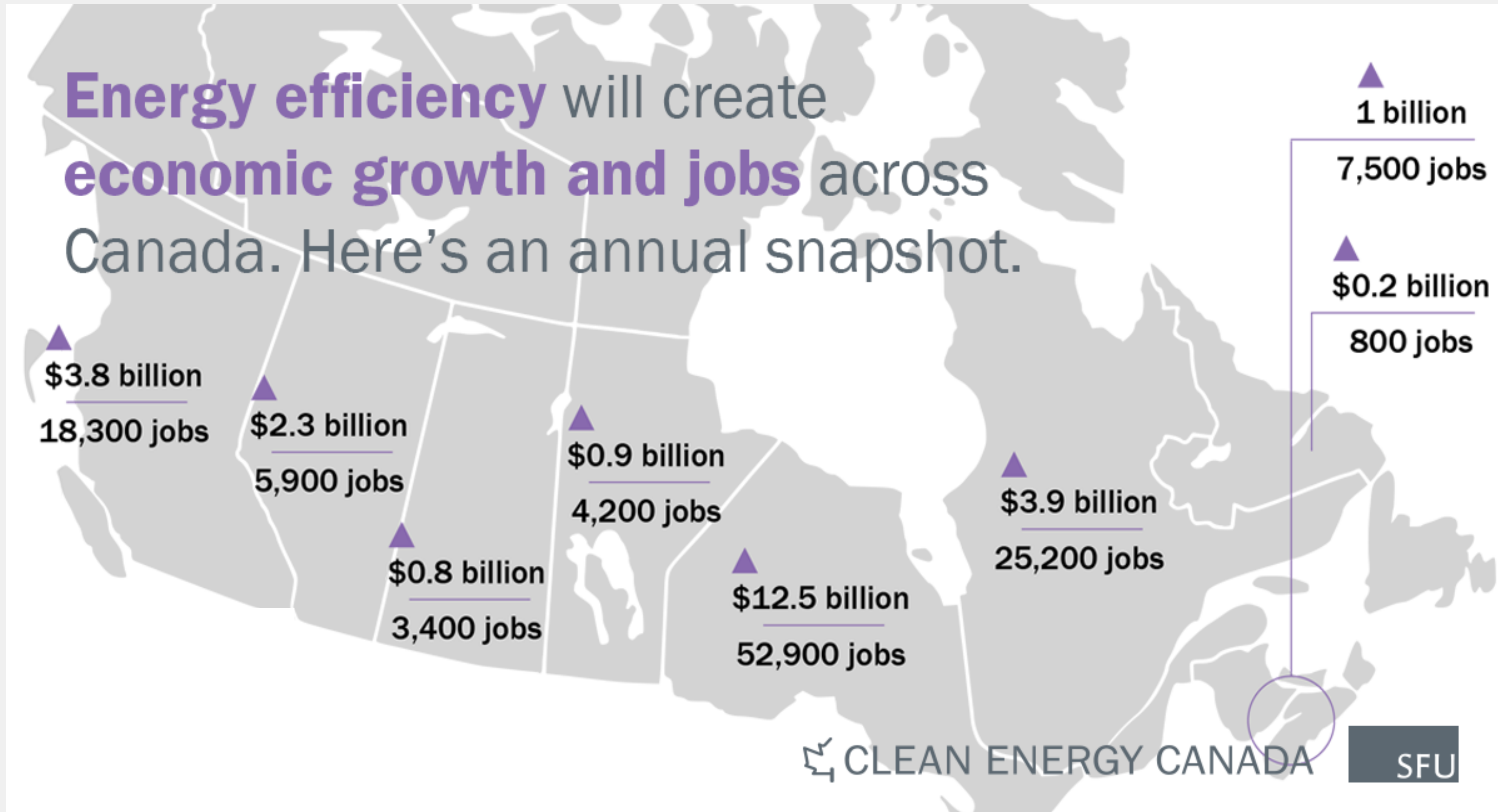


## ... creating jobs from coast to coast.

- In every community across Canada, **the energy efficient economy is emerging.**
- The people doing this work help small businesses and households reduce costs, freeing them up to spend on important things.



The Potential of Energy Efficiency: Every \$1 invested in energy efficiency creates \$7 in GDP.\*



\*Dunsky Energy Consulting, The Economic Impact of Improved Energy Efficiency in Canada, April 2018.



# 39%

of our Paris  
commitments

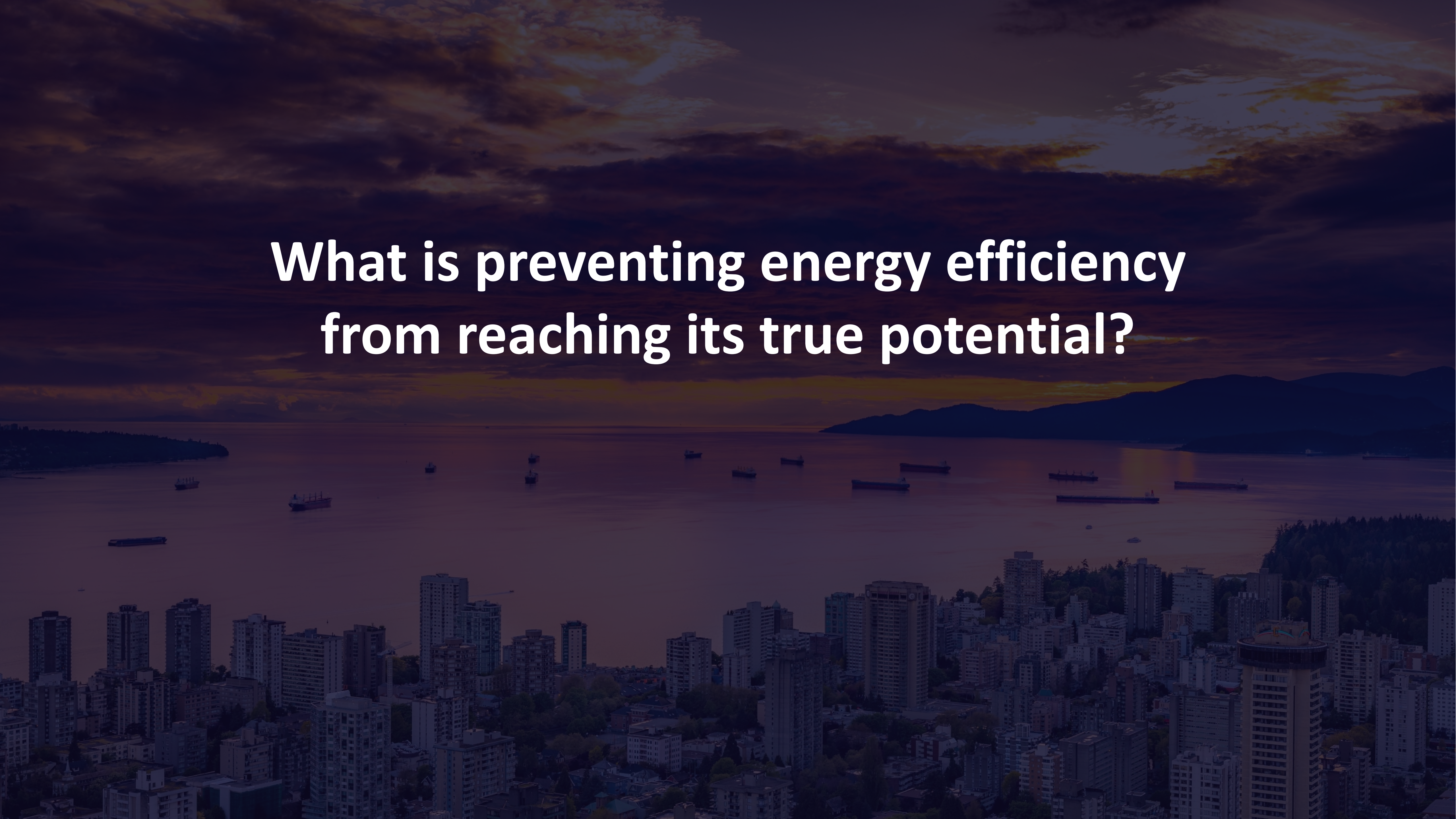


## Energy Efficiency supports Canada's Clean Growth Agenda.

- Energy efficiency can contribute to **39% of the reductions needed to reach our Paris climate commitments\***
- It is also the first pathway of the **Generation Energy Council** and the **Expert Panel on Sustainable Finance**

\*Dunsky Energy Consulting, The Economic Impact of Improved Energy Efficiency in Canada, April 2018.



An aerial photograph of a city at sunset. The foreground is filled with numerous high-rise apartment buildings. In the middle ground, a large body of water is visible, with many large cargo ships and smaller boats scattered across it. The background shows a range of mountains under a sky with soft, orange and yellow clouds. The overall scene is dimly lit, with the primary light source being the setting sun.

**What is preventing energy efficiency  
from reaching its true potential?**





# Lack of financial products designed specifically to support energy efficiency ...

- **Energy efficiency is a new “asset class”** that does not fall under energy or real estate
- Few analysts and bankers specialize in understanding the financial opportunity
- Customers (especially small-medium size) have little knowledge of energy efficiency projects compared with other short-term business investments





**... resulting in low confidence in potential returns, no common lending standards and limited scale.**

- Lenders and customers are not familiar with the ROI
- No common set of criteria for energy efficiency transactions
- Lack of securitization to enable smaller transactions to be aggregated into consistent portfolios that can compete for private/institutional capital



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# Furthermore, industry is slow to adopt innovative technologies and...

- Utility programs focus on quick paybacks, leaving deep retrofits unattended



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122,000 SKILLED AND  
EXPERIENCED WORKERS  
EXITING BY 2027



*Canadian Home Builders Association, Environmental Scan of  
the Residential Construction Industry for Capacity Building  
Related to Energy in the Building Codes, February 2018.*

... **workforce transition is  
not keeping up with coming  
demand in energy  
efficiency.**

- Insufficient expertise in local markets will contribute to housing unaffordability
- A consistent investment in training and skills development is required



An aerial photograph of a city, likely Vancouver, taken at sunset. The foreground is filled with a dense urban landscape of high-rise apartment buildings. In the middle ground, a large body of water, possibly the Burrard Inlet, is visible with several large cargo ships and smaller boats. The background features a range of mountains under a sky with soft, orange and blue hues from the setting sun. The overall scene is dimly lit, with the primary light source being the low sun.

**The Federal Government can  
eliminate these barriers and  
make Canada more competitive.**

**Here are three ways.**





# 1. Federal Leadership on Energy Efficiency Financing

- The federal government can **unlock the true potential of energy efficiency**, by co-investing with the private sector to improve building infrastructure.
- The goal is building a robust energy efficiency market that leverages private sector capital 4:1



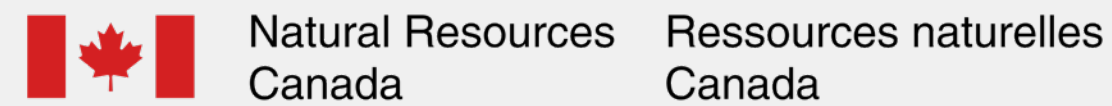
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# 1. Federal Leadership on Energy Efficiency Financing

- The federal government can establish **credit enhancements** to leverage private sector capital in order to:
  - **Build Confidence:** such as loan loss reserves which encourage lenders to offer longer-term financing and/or lower interest rates.
  - **Set Standards:** that promote standardized measurement, verification, and reporting of energy savings.
  - **Create scale:** aggregating smaller projects into larger portfolios for sale in the marketplace.





# 1. Federal Leadership on Energy Efficiency Financing

- The Canada Mortgage and Housing Corporation provides precedent for this, by
  - Underwriting mortgages, promoting common housing lending standards and aggregating and securitizing mortgages
- There are multiple structures to house the proposed credit enhancements



- **\$400M leveraged private capital**
- **\$77M GDP growth/year**
- **330 FTEs created/year**

## **1. Federal Leadership on Energy Efficiency Financing**

- For every \$100M government financing, average annual impact over 10 years is strong



# 1. Federal Leadership on Energy Efficiency Financing

- Why the Federal Government?
  - Federal leadership will provide consistency of both standards and funding mechanisms across provincial and municipal jurisdictions
  - This is essential to setting up a national market for energy efficiency, allowing provincial entities to tap into the opportunity



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# 1. Federal Leadership on Energy Efficiency Financing

8:1

private sector to public  
sector leverage

- **Other jurisdictions have seen success** in attracting private sector capital to spur energy efficiency
- Connecticut, New York, Rhode Island, Australia, and the UK, have created “green banks” to finance energy efficiency
- The Connecticut Green Bank’s “leverage ratio” started at 3:1 and moved to 8:1 private sector to public sector investment (after just six years)



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## 2. Canadian Energy Productivity Fund

- The Low Carbon Economy Fund (LCEF) directly supports efficiency programs across the country
- The next generation of the LCEF should **focus on increasing energy productivity by “transforming markets”** so energy efficiency becomes the standard



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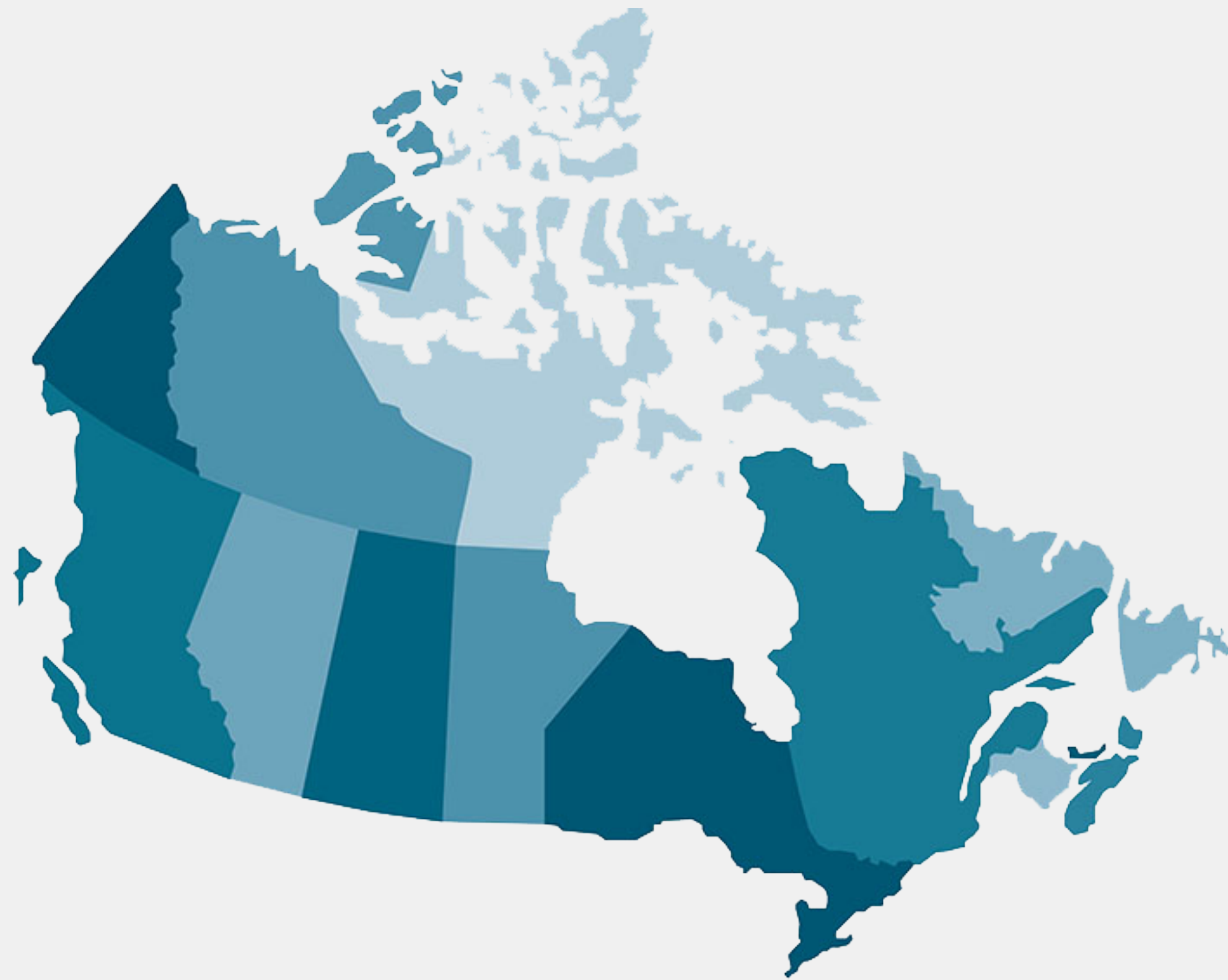


## 2. Canadian Energy Productivity Fund

A **Canadian Energy Productivity Fund** that cost shares with sub-national and private sector initiatives to support aggressive policies that help Canada reach its international commitments.

Examples include:

- Innovative technologies
- Aggressive industrial energy productivity
- World class building code adoption
- Leading edge appliance and equipment standards



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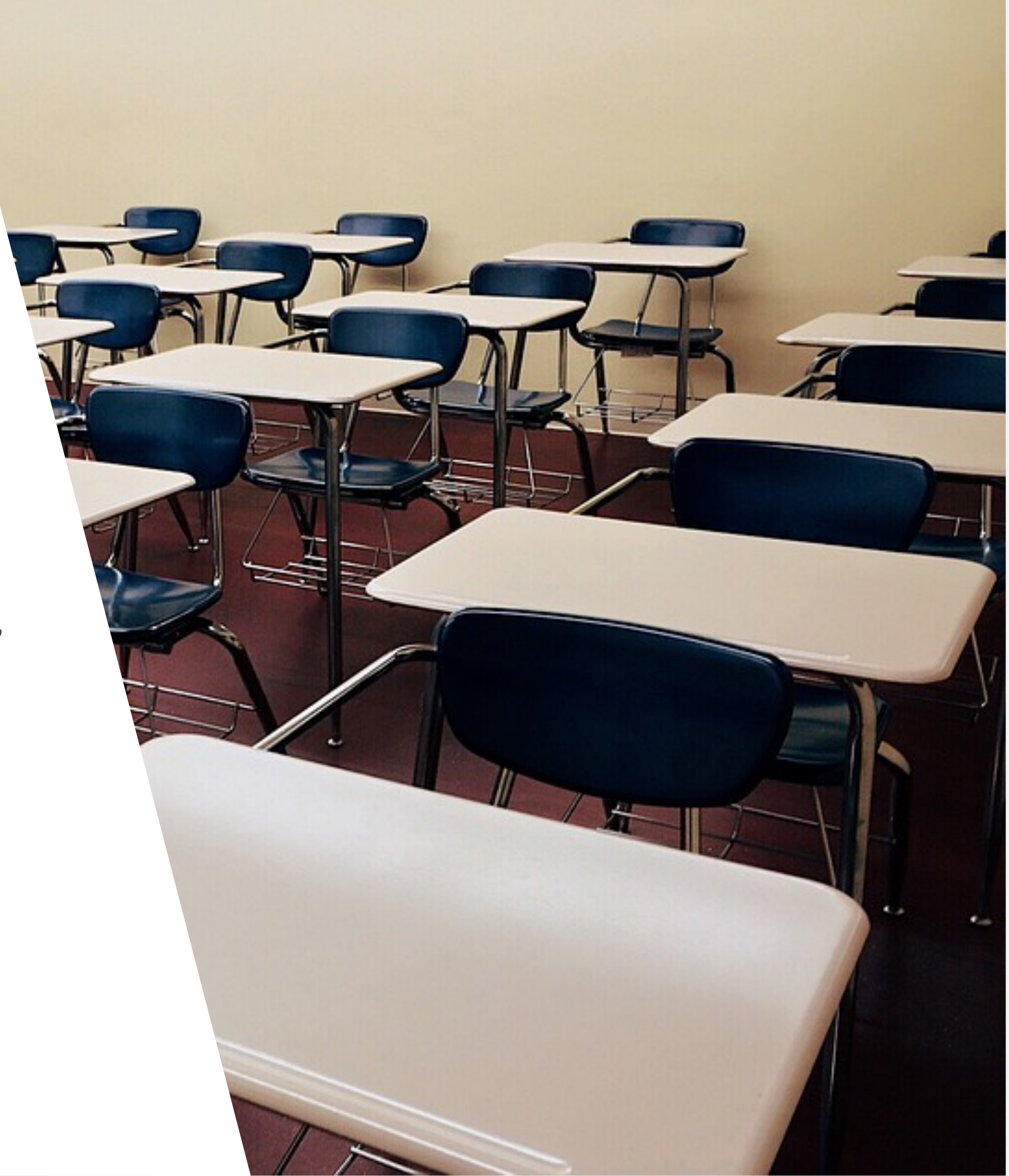


# 3. Develop the Energy Efficiency Workforce

- Energy systems knowledge will be a core skill in a low-carbon economy
- Training is required within the building sector, and to **increase energy literacy throughout business operations**



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## 3. Develop the Energy Efficiency Workforce

- A Workforce Development Fund will support:
  - Existing and new training programs for building trades, energy managers etc.
  - Course offerings at colleges and universities
  - Centres of Excellence in energy efficiency building practices



# **The End Result:**

**Canadian businesses become more competitive, create jobs and GDP growth, help address climate change and develop a robust energy efficient economy.**



# About Us.

Efficiency Canada is the national voice for an energy efficient economy, advocating to make our country a global leader in energy efficiency. We convene people from across Canada's economy to work together to advance policies required to take full advantage of energy efficiency. And we communicate the best research out there to build a more productive economy, sustainable environment, and socially just Canada.



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**Efficacité  
énergétique  
Canada**

