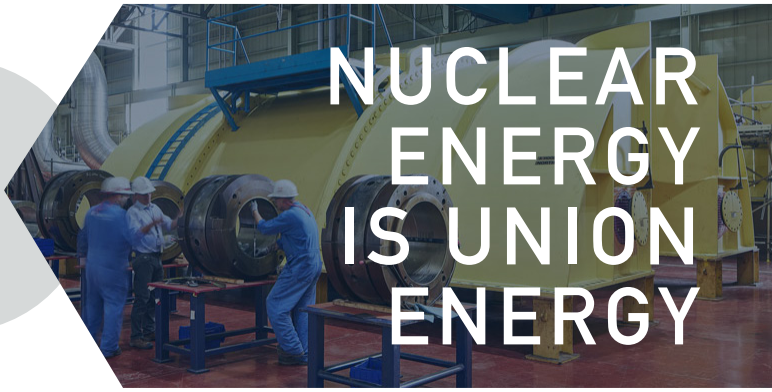
# CANADA'S NUCLEAR FLEET

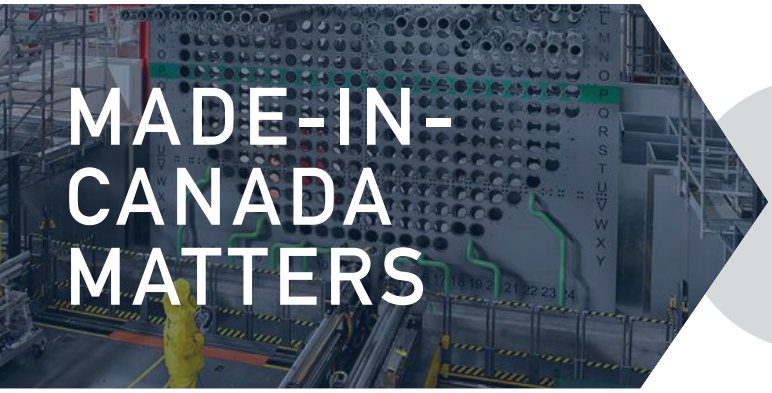
## THE PROGRESSIVE PATH TO NET-ZERO EMISSIONS




All four of the Intergovernmental Panel on Climate Change (IPCC) model pathways that seek to limit global warming to 1.5˚C require a significant increase in nuclear energy generation. International Energy Agency analysis shows that decreasing nuclear power would make reaching net-zero more difficult and costly. At the COP 28 Climate Summit, 22 nations, including Canada, signed on to a pledge to triple nuclear energy generation by 2050, in recognition of "the key role of nuclear energy in achieving global net-zero greenhouse gas emissions".

85% of the 76,000 workers in Canada's nuclear industry are union members, making nuclear energy one of the most union-dense industries in Canada. It is union workers who mine, refine, and manufacture materials; building trades members who are responsible for the construction, maintenance and refurbishment of nuclear plants; and professional union workers who operate Canada's nuclear generating stations, and work on the safe and permanent disposal of spent fuel and other industry waste products. The nuclear energy industry is a union industry from end to end.




The CANDU reactors currently operating in Ontario and New Brunswick are a uniquely made-in-Canada technology that supports an 87% made-in-Canada supply chain. Aside from the tens of thousands of good, unionized jobs that creates, Canada's nuclear industry contributes $17 billion annually to the Canadian economy and supports many healthy and strong local economies. CANDU's made-in-Canada energy solution is an important element of Canadian energy security and independence.

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Nuclear waste management can serve as a polluter-pays model for other industries. The handling, storage and management of spent nuclear fuel is very closely regulated by both the Canadian Nuclear Safety Commission and the International Atomic Energy Agency. Every single gram of spent nuclear fuel created over the past 50 years is safely stored and accounted for, and the full cost of management is accounted for in the real cost of power.



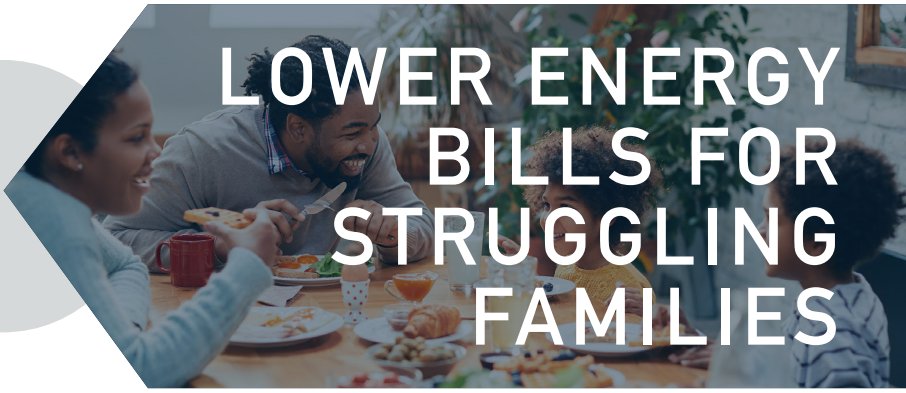
## A MODEL FOR SAFE LONG-TERM STORAGE



## A WORLD LEADER IN MEDICAL ISOTOPES

Nuclear medicine saves lives. Canada's nuclear power plants produce 70% of the world's supply of cobalt-60, a medical isotope used to sterilize medical equipment, while supporting 8,500 Canadian jobs.

At a time when Canadians are experiencing a cost-of-living crisis, our nuclear plants are producing some of the least expensive power available. Nuclear power keeps electricity costs low for struggling families.



## LOWER ENERGY BILLS FOR STRUGGLING FAMILIES



## SUPPORTS RENEWABLE GENERATION

Decarbonization requires electrification, and the more we rely on electricity to replace fossil fuels, the more we require our grid to be reliable. As an 'always-on' source of electricity generation, nuclear power supports our intermittent renewable fleets without having to repy on high-emission alternatives like gas or coal.

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Visit ElectrifyOntario.ca to learn more about how emissions-free nuclear power supports Ontario's net-zero goals.