

Canada and the G20: Climate Change and Energy Transitions

Canada is an international leader in addressing climate change and is building momentum towards a clean, low-carbon future that offers economic opportunities.

At home, Canada has a plan to protect the environment while growing the economy, and that plan is working – emissions are down and the economy has grown by 500,000 full-time jobs. This plan includes putting a price on pollution, which encourages Canadians and businesses to innovate, invest in clean technologies, and take advantage of long-term growth opportunities. Transition to clean electricity is also part of the plan; by 2030, 90% of Canada’s electricity will be generated by renewable and non-emitting sources. This includes phasing out traditional coal-fired electricity, by 2030, which will cut carbon pollution by 16 million tonnes, roughly equivalent to the emissions of four million cars a year. Canada has also invested more than \$9 billion in public transit across the country.

Internationally, advancing climate action under the G20 is a priority for Canada as we recognize the positive role that the G20 can play in advancing strong national and international enabling environments to accelerate action.

Canada and Argentina co-chaired the Climate Sustainability Working Group in 2018. During the year, Canada addressed a number of key climate priorities, including:

- promoting adaptation to climate change and extreme weather events, with a focus on infrastructure, education, capacity building and job creation;
- developing long-term, low-greenhouse-gas-emissions pathways;
- aligning climate finance with developing countries’ nationally determined contributions.

The working group finalized two key outcomes in 2018—the G20 Country Experiences on Climate and Energy and the Adaptation Work Program—both of which prominently feature Canadian experiences and input.

This year, the G20 Summit takes place immediately prior to the 24th Session of the Conference of the Parties (COP24) on climate change, to be held in Poland December 2 to 14. The Summit is an important moment for Canada to advocate for a highly ambitious approach to the issue of climate change and to the implementation of the Paris Agreement, while supporting collective efforts towards energy transitions. A clean environment and a strong economy go hand in hand.

Canada and climate action

As the world prepares to meet in Katowice, Poland, for COP24, Canada is committed to finalizing the rules that will put the Paris Agreement into action. To implement these commitments, Canada developed the Pan-Canadian Framework on Clean Growth and Climate Change, which contributes to growing the economy while reducing emissions and building resilience to a changing climate. Canada is also taking measures to support adaptation to climate change. These measures include improving access to climate science and information that support decision-making, investing in built and natural infrastructure that will increase climate resilience in communities, and supporting better understanding and action to address climate-related health risks such as extreme heat and infectious diseases.

Canada placed climate action at the heart of its G7 presidency, and continues to be a leader in advancing global action to build the resilience of vulnerable coasts and communities and in protecting and promoting the health of our oceans. Canada’s international climate finance supports programs and initiatives focusing on managing

risks, adapting and building resilience to climate change impacts, deploying clean energy technology and sustainably managing natural resources.

Canada is also supporting developing countries in their transition to low-carbon and climate-resilient economies. This includes delivering \$2.65-billion worth of programs and initiatives by 2020 to help developing countries around the world reduce their greenhouse gas emissions, adapt to the impacts of climate change, and participate actively in a global clean economy.

Canada is actively contributing to global efforts to mobilize private investment for effective climate change mitigation and adaptation initiatives. For example, Canada has provided \$200 million to the Asian Development Bank for the Canadian Climate Fund for the Private Sector in Asia, which will mobilize private investment in developing Asian and Pacific countries.

Canada also recognizes that women are disproportionately affected by the impacts of climate change. In May 2018, during our G7 presidency, we hosted the Climate Leaders' Summit: Women Kicking it on Climate to advance climate change solutions while contributing to women's empowerment.

Putting a price on pollution

The Government of Canada has a plan that protects the environment while growing the economy, and that plan is working – our emissions are down and the economy has grown by 500,000 full-time jobs. Canadians know pollution isn't free. And they know that carbon pollution doesn't have boundaries. Old or young, rich or poor, urban or rural, living in the south or the north, we are all in this together. Applying practical solutions today will give all Canadians more economic opportunities and a safer and more prosperous future.

According to the World Bank, 70 jurisdictions – representing about half of the global economy – are putting a price on carbon pollution. Investing in the clean economy presents an enormous economic opportunity. According to the Global Commission on the Economy and the Climate, the clean economy is expected to grow to \$26 trillion and create 65 million jobs worldwide by 2030.

Investing to get Canada to 90% clean electricity

Building a smart, integrated clean-electricity system will deliver reliable and affordable power where it is needed. Phasing out of traditional coal power will mean cleaner air and jobs for the middle class. That is good for the climate and for the health of Canadians. Many provinces already produce a significant amount of their power from non-emitting sources like hydro, wind, and solar, and they export clean electricity to neighbouring jurisdictions. But we can do more. We are striving to have 90 percent of Canada's electricity coming from non-emitting sources by 2030. The Pan-Canadian Framework will support the transition to a clean electricity future by increasing the amount of electricity generated from renewable and non-emitting sources; connecting clean power with places that need it; modernizing electricity systems; and reducing the reliance on diesel in northern and remote communities.

Phasing out coal-fired electricity

In February 2018, the Government of Canada published proposed amendments to Canada's traditional coal-fired electricity regulations that would accelerate the phase-out of coal by 2030. This will help Canada achieve its goal of 90 percent non-emitting electricity by 2030.

Supporting energy transitions at the G20

Demand for clean energy and technology is increasing exponentially worldwide. Solar power, wind power, biofuels, energy-saving devices, electric vehicles and smart grids are driving a new wave of economic growth and opportunity around the world. Transforming how we make and use energy presents economic opportunities for Canada and will result in investments, good middle-class jobs for Canadians and a cleaner planet for future generations.

Argentina's G20 climate agenda focused on energy transitions and led to a productive G20 Energy Transitions Ministerial Meeting (ETMM) in Bariloche on June 15, 2018. Canada was invited by Argentina to act as ETMM co-chair with Brazil and played a substantive role in achieving consensus on linking energy discussions to the need for climate action. On the margins of the ETMM, Canada and Argentina announced their commitment to a joint peer review process on phasing out inefficient fossil fuel subsidies by 2025.

Argentina's energy transition agenda also complemented outcomes of the G7 energy ministers' meeting, hosted by Canada on September 21, 2018, which revolved around the theme "Building the Energy Systems of Tomorrow." Canada's agenda focused on energy systems that are affordable, secure, resilient, sustainable and inclusive. Furthermore, G7 countries made a commitment to join the Equal by 30 campaign, which aims to support women's participation in the energy sector, including in the cleantech industry, and promote female role models in science, technology, engineering and math (STEM). G7 members also committed to collaborating on initiatives to improve cybersecurity, modernize electricity grids, and support cleaner and more resilient energy systems, particular for small-island developing states.

Transportation

In the transportation sector, the Government of Canada is acting to spur energy efficiency improvements and emissions reductions, such as setting increasingly stringent emissions standards for light- and heavy-duty vehicles, as well as taking steps to improve efficiency and support fuel switching in the rail, aviation, marine and off-road sectors. The federal, provincial and territorial governments are working toward a zero-emissions vehicle strategy for Canada that will be designed to increase the number of zero-emissions vehicles on the road. Complementing the strategy will be the deployment of infrastructure for electric vehicle charging.

Canada is also making historically significant investments in public transit, where \$20.1 billion is being invested to improve public transit infrastructure and support active transportation projects that integrate with public transit systems. Investing in public transit will further support shifts from higher- to lower-emitting modes of transportation.

The Government of Canada is investing more than \$2.3 billion in clean technology. Our goals are simple: to ensure Canadian industries are among the leaders in clean energy in the North American and worldwide markets; to drive innovation; and to create jobs and clean growth.

Canada and energy transitions

Canada's energy transition strategy, embedded in our Pan-Canadian Framework on Clean Growth and Climate Change, supports continued investments in today's energy sector and the use of revenues to finance clean technologies. Energy transitions that minimize impacts on workers and communities, and that include women and youth—by, for example, advancing equal pay, leadership and opportunities for women, or by offering skills and appropriate training to youth, and creating jobs opportunities—must go hand in hand with climate action.

Canada is committed to the transition to a low-carbon economy. Over 80% of Canada's electricity generation comes from clean energy, placing us first among G7 members and second among G20 members in terms of the

share of electricity generated from renewables. The latest Global Cleantech Innovation Index, which looks at countries where successful clean technology companies are most likely to emerge over the next 10 years, ranked Canada number one for innovation in the G20.

Canada's national energy dialogue, known as Generation Energy, affirmed that Canadians recognize that Canada has to play a leading role in the global low-carbon movement. The Generation Energy Council's report, "Canada's Energy Transition," released in June 2018, identified four transition pathways—wasting less energy, switching to clean power, using more renewable fuels, and producing cleaner oil and gas—that align with Canada's international actions to move the energy transition forward.

In fall 2017, Canada co-founded the Powering Past Coal Alliance to help accelerate clean growth and climate protection through the rapid phase-out of traditional coal-fired electricity. Over 60 national and subnational governments and organizations have signed on, including three G20 members (Canada, France and the United Kingdom).

Canada is proud to host the 10th Clean Energy Ministerial (CEM10) and fourth Mission Innovation Ministerial (MI4) in Vancouver in May 2019 under the vision of "Working Together Towards a Clean Energy Future." The Clean Energy Ministerial and Mission Innovation Ministerial events strengthen collaboration between governments, international organizations and the private sector to promote access to affordable, reliable, secure and sustainable energy. These forums also advance adoption of key clean energy technologies and enabling infrastructure, such as flexible power systems, smart grids and electric vehicles, as well as carbon capture, use and storage.

Protecting more of our nature

Canadians love nature and the diverse wildlife that depends on it. That's why the Government of Canada has committed to doubling the amount of nature protected in Canada's lands and oceans. As part of the Budget 2018 Nature Legacy initiative, the Government of Canada has made a \$500 million investment in the new Canada Nature Fund to support the protection and conservation of Canada's ecosystems, landscapes, and biodiversity, including species at risk. Canada Nature Fund contributions will be matched by partners, raising a total of \$1 billion for conservation action, and will help Canada work towards its 2020 target of protecting 17% of Canada's lands and in-land waters, protecting and recovering species at risk, and improving biodiversity for all.