

ISSUE BRIEF

# THE ROAD FROM PARIS: CANADA'S PROGRESS TOWARD ITS CLIMATE PLEDGE

Since Prime Minister Justin Trudeau's election in October 2015, the government of Canada has renewed its focus on climate change mitigation policies. In December 2016, Canada's national and subnational governments came together to unveil the Pan-Canadian Framework on Clean Growth and Climate Change—Canada's first truly comprehensive climate action plan. However, enhanced climate policies are still needed to fulfill Canada's international obligations.<sup>1</sup> Canada's climate pledge proposes to cut greenhouse gas (GHG) emissions 30 percent from 2005 levels by 2030—a target considered inadequate by most observers. To ensure Canada does its fair share to mitigate the threat of climate change, the government should move to more vigorously implement existing and new domestic policies that will enable it to achieve its target, and unveil a policy package to ensure it achieves complete decarbonization by midcentury.

## OVERVIEW OF NATIONAL CIRCUMSTANCES

Canada accounts for less than 2 percent of global GHG emissions, mostly stemming from its transportation and upstream oil and gas sectors.<sup>2</sup> However, Canada has the second-highest per capita emissions among G7 countries.<sup>3</sup> Canada is also a major global producer and net exporter of energy and fossil fuels.

From 2006 to 2015, Canada lagged on climate policy. During that time, Canada's carbon pollution substantially increased, particularly from the oil sands industry (also referred to as tar sands).<sup>4</sup> The former Harper government

also actively undermined international efforts to advance stronger climate and clean energy policies, especially those that could have decreased demand for high-carbon fuels. The Trudeau government has started to change course from that era, having negotiated a new national climate plan with the provinces and territories, and pledged to phase out fossil fuel subsidies no later than 2025.<sup>5</sup> Canada has also begun to take a more constructive tone in international negotiations, and, together with the European Union and China, hosted a global meeting of environment ministers in September 2017 on implementation of the Paris Agreement.<sup>6</sup>



**CANADA HAS  
PROPOSED TO CUT  
ITS EMISSIONS BY** **30%** **OF 2005  
LEVELS  
BY 2030.**



## THE PARIS AGREEMENT

In late 2015, the 21st session of the Conference of the Parties (COP21) to the 1992 United Nations Framework Convention on Climate Change (UNFCCC) was held in Paris. The 196 nations that are part of the UNFCCC approved the Paris Agreement, which aims to limit global temperature rise to 2 degrees Celsius, and to make best efforts to keep it to 1.5 degrees. To that end, countries submitted intended nationally determined contributions (INDCs) detailing the level to which they planned to cut emissions and their plans to reach that goal. The Paris Agreement entered into force on November 4, 2016—and the INDCs are now formally enshrined as part of the Agreement—and hereafter referred to as nationally determined contributions (NDCs).

### NATIONALLY DETERMINED CONTRIBUTION

In its nationally determined contribution (NDC), Canada pledged economy-wide GHG reductions of 30 percent below 2005 levels by 2030 and discussed the use of carbon credits from the international market to achieve this goal. Although this NDC was submitted by the previous government, the Trudeau government has not, to date, strengthened this commitment or signaled any intention to raise this target.

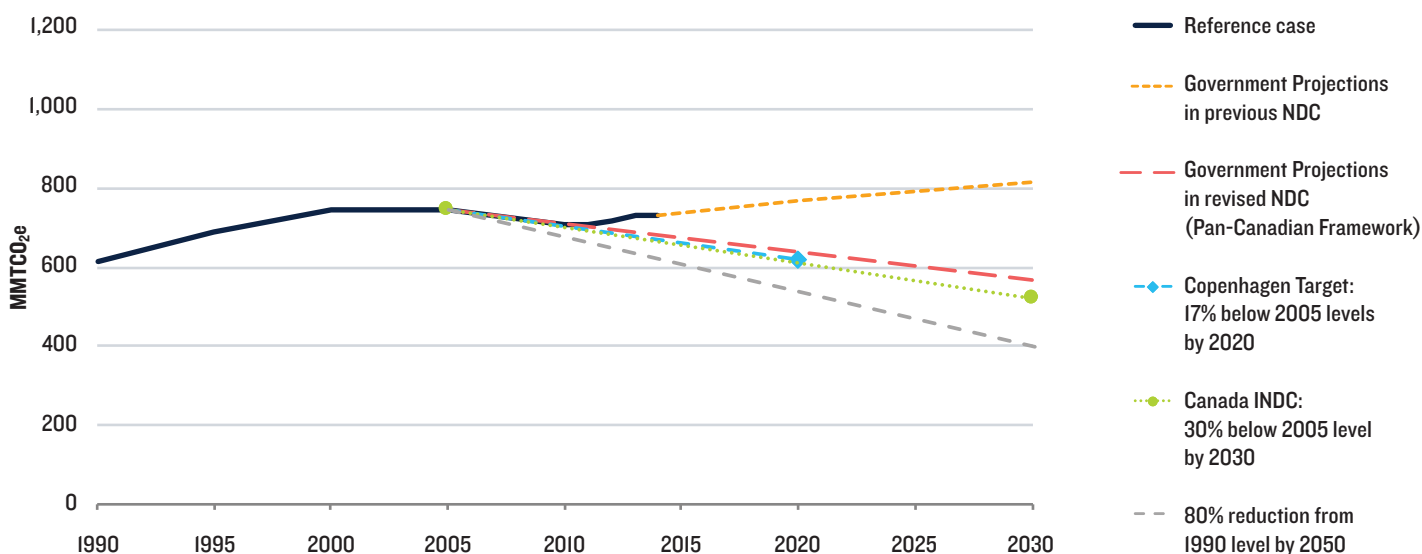
In 2009, Canada and other G8 countries pledged to cut their GHG emissions by 80 percent or more from 1990 levels (or more recent years) by 2050 in an effort to keep global warming below 2 degrees Celsius.<sup>7</sup> To meet that midcentury target, Canada would need to cut its emissions by approximately 38 percent of 2005 levels by 2030 rather than the 30 percent pledged in the NDC.<sup>8</sup>

Historically, Canada has opted to synchronize its climate pollution reductions with those of the United States. The United States has pledged to reduce emissions by 26 to 28 percent of 2005 levels by 2025. However, Canada's current NDC only translates to a 23.5 percent reduction by 2025. Canada may opt to purchase carbon emissions reduction credits from other countries to meet its 2030 commitment,

allowing it to continue higher rates of domestic climate pollution while paying for cuts made by other countries. The use of carbon credits, or “Internationally Transferred Mitigation Outcomes,” will require Canada and other nations to ensure that the Paris Agreement’s Article 6 rulebook on this issue is robust.

Despite recent policy progress, Canada’s chances of achieving its NDC are in jeopardy. Prior to the release of the Pan-Canadian Framework on Clean Growth and Climate Change, the country’s emissions were projected to increase between now and 2030. Assuming the policies contained in the Pan-Canadian Framework are fully implemented, Canada will be within striking distance – but still not fully on track— to meet its NDC. Canada’s climate commitment, made at the Copenhagen climate conference in 2009, of 17 percent below 2005 levels by 2020, however, will be nearly impossible to meet. Recent actions by the Trudeau government, including the promotion of oil sands pipelines and the approvals of a \$36 billion liquefied natural gas export terminal and the \$5 billion Kinder Morgan Trans Mountain pipeline expansion, could lock in carbon emissions for decades to come making it even more difficult for Canada to honor its climate commitments.<sup>9,10</sup>

### CANADA GHG EMISSIONS



Source: Natural Resources Defense Council, based on Environment Canada’s report “Canada’s Emission Trends 2014”, Canada’s revised NDC submission to the UNFCCC.

Based in Alberta, the oil sands industry extracts tarlike bitumen from strip mines (destroying boreal forests in the process), and from wells, where the thick, toxic substance is steamed and pumped from the ground in a process closely related to fracking. Both the mines and wells require extraordinary amounts of energy and water and are decimating landscapes, rivers, lakes, and wildlife throughout Northern Alberta. Prime Minister Trudeau now has the opportunity to develop policies that will ensure Canada becomes a true global leader on climate action by shifting away from fossil fuel use and production, especially oil sands.

## CLIMATE MITIGATION POLICY

Many in the climate policy community are encouraged that Canada's federal government is no longer actively fighting climate policy and science.

At the end of 2016, the Trudeau government released the Pan-Canadian Framework on Clean Growth and Climate Change. The framework, crafted in close partnership with the provinces, includes four pillars: carbon pricing; complementary mitigation measures such as a low-carbon fuel standard and a national coal phaseout; adaptation and resilience; and innovation to support clean technology and job creation.

In October 2016, Trudeau announced that by 2018, all provinces should have a price on carbon in place. Currently, eight of ten provinces have either agreed to or implemented a carbon tax or cap-and-trade scheme. For provinces that do not adopt a floor price of CAD\$10 per ton by January 2018, the federal government has declared it will implement the appropriate benchmark price.<sup>11</sup> The framework mandates that the floor price rise by CAD\$10 per year to reach CAD\$50 per ton by 2022.

Despite these positive policy signals, the true test for the Trudeau government will be whether it will strengthen Canada's NDC to align with the Paris Agreement's goal to limit global temperature rise to 2 degrees Celsius.

## TRANSPORTATION SECTOR

The federal government has established progressively stronger GHG emissions standards for heavy-duty vehicles (model years 2014 to 2018) and for passenger automobiles and light trucks (2011 to 2025). Recently, the government introduced more stringent standards for heavy-duty vehicles (model years 2018 to 2027).<sup>12</sup> In addition, Canada's renewable fuel regulations require that gasoline contain an average of 5 percent renewable fuel content and that most diesel fuel contain an average of 2 percent renewables. The federal government intends to develop a zero-emissions vehicle strategy and Clean Fuel Standard in the near future.

## ELECTRICITY SECTOR

In 2016, Canada hosted the North American Leaders' Summit, which included former U.S. President Barack Obama and Mexican President Enrique Peña Nieto. This meeting produced the North American Climate, Clean Energy, and Environment Partnership Action Plan, through which the three countries committed to generate 50 percent of their electricity from clean energy sources by 2025.<sup>13</sup> This represents a significant increase from the current target of 37 percent.<sup>14</sup> To reach this goal, the countries will need to invest in and deploy a variety of clean energy technologies, advance collaborative research, and align environmental standards and regulations across a variety of sectors.<sup>15</sup>

Canada's coal-fired electricity standards ban the construction of traditional coal-fired electricity generation units and accelerate the retirement of existing coal-fired power plants to achieve a phaseout by 2030. Some provinces have taken the lead, with Ontario phasing out coal in 2014 and Alberta planning to phase it out by 2030.<sup>16</sup>

## OIL AND GAS SECTOR

The federal government has proposed regulations to address methane emissions from the oil and gas sector, with the intention of reducing methane emissions by 40 to 45 percent below 2012 levels by 2025. The government released draft regulations in May 2017 and intends to finalize the regulatory approach for methane emissions by 2018.

In November 2015, the Obama administration rejected a federal permit for the controversial Keystone XL pipeline for transporting oil from Alberta into the United States. However, as one of his first executive actions, President Trump invited the project's proponent, TransCanada, to reapply for the same permit, an action supported repeatedly by Trudeau. TransCanada had also proposed the Energy East pipeline, which is 35 percent larger than Keystone.<sup>17</sup> However, in August 2017, the National Energy Board updated its criteria for evaluating the pipeline to include consideration of the greenhouse gas emissions from the project,<sup>18</sup> and in October 2017, TransCanada announced that it was canceling Energy East.<sup>19</sup> The Trudeau government also permitted Kinder Morgan's Trans Mountain line and Enbridge's new Line 3 projects. These approvals call into question Canada's commitment to climate leadership and signal an intent to significantly expand oil sands production.

## BUILDINGS

Canada has committed to developing net-zero emissions building codes starting in 2020 and developing a retrofit code for existing buildings by 2022. The government will introduce mandatory labeling of building energy use as early as 2019. The federal government is also in the process of creating the national-level Canada Infrastructure Bank, which could help finance commercial-scale energy efficiency projects.

## LAND USE

Land use change and natural resource management, particularly forestry, have a significant climate impact in a large country like Canada. These activities and natural processes, which fall primarily under the jurisdiction of the provinces, are currently thought to be a net sink of GHGs, absorbing more emissions than they cause. However, the impact of wildfires is not counted as part of Canada's official GHG emissions, raising questions about the size of the net sink. Sustainable forest management and reforestation can serve to significantly enhance and rebuild carbon sinks.

## PROVINCIAL CLIMATE POLICY

Many Canadian provinces are working to advance climate policies. For example, the Western Climate Initiative, which includes Ontario, and Quebec, seeks to harmonize emissions trading programs. New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland, Labrador, and Quebec have signed on to the New England Governors and Eastern Canadian Premiers Climate Change Action Plan. This plan aims to reduce emissions by 10 percent of 1990 levels by 2020, and to achieve reductions of 75 to 85 percent below 2001 levels by 2050.<sup>20</sup> Individual provinces have adopted diverse measures to meet their climate aims, including the following:

**Quebec** introduced vehicle fuel efficiency standards in 2009. The province has implemented a carbon levy, a cap-and-trade system, and a climate action plan to reduce its emissions by 20 percent below 1990 levels by 2020.<sup>21</sup> More can be done to reduce emissions from transportation.<sup>22</sup>

**Ontario** retired all coal-fired generation units at the end of 2014, launched a cap-and-trade system, introduced a feed-in tariff for renewable energy, and made commitments to reduce emissions from buildings. More can be done to tackle emissions from transport.<sup>23,24</sup>

**British Columbia** implemented a carbon tax on nearly all fossil fuels in 2008 and introduced a renewable and low-carbon fuel standard in 2010.<sup>25</sup> However, the province's 2016 climate plan is quite weak and includes subsidies for natural gas, and the carbon tax has not increased since 2008.<sup>26</sup>

**Alberta** implemented an economy-wide carbon levy and is introducing an enhanced carbon pricing system for large industrial emitters. It has also accelerated the phaseout of coal-fired power plants by 2030 and has committed to reducing oil and gas methane emissions by 45 percent by 2025. Further, the province has legislated an annual cap on oil sands emissions of 100 megatons (MTs). This indicates a willingness to begin tackling oil sands emissions, but the emissions cap level is nearly 45 percent higher than current emissions levels, allowing growth from 70 MTs to 100 MTs.<sup>27</sup> Alberta could do more by ratcheting down its oil sands emissions limit post-2030, and by introducing a low-carbon fuel standard in its transportation sector.

**Nova Scotia** instituted a cap on emissions and a renewable portfolio standard requiring renewable resources to make up 40 percent of electricity sales by 2020.<sup>28</sup> More can be done to reduce emissions in the transportation and electricity sectors.

**Manitoba** introduced a tax on coal-fired power plants in 2012 and will implement a ban on coal and petroleum coke for home heating use. The province can reduce emissions further by establishing policies for the transportation sector and by linking to the provincial cap-and-trade network or introducing a carbon tax.

**Saskatchewan** is the fourth-largest GHG-emitting province and has made limited progress reducing emissions. The province could make significant progress by phasing out coal-fired power plants and fulfilling its recent commitment to reducing methane emissions from oil and gas production.

**New Brunswick** only recently created a legislative committee to tackle climate change. It could reduce emissions by implementing carbon pricing and phasing out its coal-fired power plants.

**Prince Edward Island and Newfoundland and Labrador** have been the last provinces to implement carbon pricing. **Yukon, Nunavut, and the Northwest Territories** can do more to increase renewable energy and transition away from fossil fuel-based electricity, especially in remote communities that now rely on diesel generators for significant percentages of their power.

## THE ROAD AHEAD

The Trudeau government has a great opportunity to regain Canada's global credibility and leadership position on climate change. This will, however, require the federal government to continue to establish clear and ambitious targets and operationalize plans to achieve them. The government must take immediate action to ensure each policy within the Pan-Canadian Framework is implemented with integrity, and must set more ambitious targets that will put Canada on track to fulfill its G8 commitment to reduce emissions by 80 percent of 2005 levels by 2050. To this end, the Canadian government should do the following:

- Continue promoting and supporting all provinces to systematically price carbon, thereby encouraging carbon polluters to efficiently reduce emissions. In particular, Canada must outline a price schedule from 2022 to 2030 to ensure annual, predictable increases in carbon pricing programs.
- Immediately implement national rules to ensure fugitive methane releases from the oil and gas sector are reduced by 45 percent by 2025. Further, Canada should increase ambition to secure a phaseout of oil and gas methane emissions by 2030.
- Implement an accelerated phaseout of coal-fired power and ensure emerging federal rules are not overly permissive of coal-to-gas and gas-fired generation.



Further, the federal government should work with provinces and utilities to meet targets for energy efficiency and energy storage, and encourage each province and territory to set targets for renewable energy generation.

- Work with provinces and territories to design an ambitious clean fuel standard for the transport, building, and industrial sectors. Ensure this policy achieves its intended outcome of 30 MTs of emissions reductions by 2030.
- Incentivize uptake of low- or zero-emissions vehicles, facilitate investment in the corresponding road infrastructure, and work with provinces and municipalities to promote transit-oriented development.

- Work with progressive country leaders to ensure that Article 6 of the Paris Agreement rulebook concerning Internationally Transferred Mitigation Outcomes is robust, and leads to defensible and fair emissions reductions.

The Trudeau government has its work cut out for itself after nine years of climate neglect under the former government. International pressure is already mounting for Canada to update and strengthen its emissions reduction targets and corresponding policies to drive decarbonization by midcentury.

## **ABOUT PEMBINA INSTITUTE**

The Pembina Institute is a national nonpartisan think tank that advocates for strong, effective policies to support Canada's clean energy transition. We employ multifaceted and highly collaborative approaches to change. Producing credible, evidence-based research and analysis, we consult directly with organizations to design and implement clean energy solutions, and convene diverse sets of stakeholders to identify and move toward common solutions.

## **NRDC**

The Natural Resources Defense Council is an international nonprofit environmental organization with more than 3 million members and online activists. Since 1970, our lawyers, scientists, and other environmental specialists have worked to protect the world's natural resources, public health, and the environment. NRDC has offices in New York City, Washington, D.C., Los Angeles, San Francisco, Chicago, Montana, and Beijing. Visit us at [nrdc.org](http://nrdc.org).

## ENDNOTES

- 1 Government of Canada, *Pan-Canadian Framework on Clean Growth and Climate Change*, p. 44. <https://www.canada.ca/content/dam/themes/environment/documents/weather1/20170125-en.pdf>.
- 2 Joint Research Centre, Emissions Database for Global Atmospheric Research, GHG Emission Time Series 1990–2012 per Capita for World Countries (European Commission). [http://edgar.jrc.ec.europa.eu/overview.php?v=GHGts\\_pc1990-2012](http://edgar.jrc.ec.europa.eu/overview.php?v=GHGts_pc1990-2012). (October 28, 2015).
- 3 Joint Research Centre, Emissions Database for Global Atmospheric Research, *GHG Emission Time Series 1990–2012 per Capita for World Countries* (European Commission). [http://edgar.jrc.ec.europa.eu/overview.php?v=GHGts\\_pc1990-2012](http://edgar.jrc.ec.europa.eu/overview.php?v=GHGts_pc1990-2012). (October 28, 2015).
- 4 Joint Research Centre, Emissions Database for Global Atmospheric Research, *GHG (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, F-gases) Emission Time Series 1990–2012 per Region/Country* (European Commission), <http://edgar.jrc.ec.europa.eu/overview.php?v=GHGts1990-2012> (October 18, 2015).
- 5 Oil Change International, *Reaction: Trudeau Government Finally Getting the Message on Fossil Fuel Subsidies*, 2017, <http://priceofoil.org/2017/03/22/reaction-trudeau-government-finally-getting-the-message-on-fossil-fuel-subsidies>.
- 6 Government of Canada, *Canada Co-Hosts Ministerial Meeting on Climate Action with China and European Union*, 2017, [https://www.canada.ca/en/environment-climate-change/news/2017/09/canada\\_co-hosts\\_ministerialmeetingonclimateactionwithchinaandeur0.html](https://www.canada.ca/en/environment-climate-change/news/2017/09/canada_co-hosts_ministerialmeetingonclimateactionwithchinaandeur0.html).
- 7 Law 360, *G-8 Agrees to Cut Emissions by 80 Percent*, 2009, <https://www.law360.com/articles/110635/g-8-agrees-to-cut-emissions-by-80-percent>.
- 8 Natural Resources Defense Council, *Canada Announces Weak Climate Target*, *NRDC.org*, May 15, 2015.
- 9 DeSmog Canada, *Trudeau Just Approved a Giant Carbon Bomb in B.C.*, 2016, <http://www.desmog.ca/2016/09/27/trudeau-just-approved-giant-carbon-bomb-b-c>.
- 10 Ian Austen, “Justin Trudeau Approves Oil Pipeline Expansion in Canada,” *New York Times*, 29 November 2016. <https://www.nytimes.com/2016/11/29/world/canada/canada-trudeau-kinder-morgan-pipeline.html>.
- 11 McCarthy, S. “Carbon Pricing in Canada”, *The Canadian Encyclopedia*, March 30, 2017.
- 12 Government of Canada, *Regulations Amending the Heavy-Duty Vehicle and Engine Greenhouse Gas Emission Regulations and Other Regulations Made Under the Canadian Environmental Protection Act, 1999*, 2017, <http://www.gazette.gc.ca/rp-pr/p1/2017/2017-03-04/html/reg1-eng.php>.
- 13 Dentons, “Top Takeaways from North American Leaders’ Summit and Canada–Mexico State Visit,” July 1, 2016.
- 14 “U.S., Canada and Mexico Pledge 50% of Power from Clean Energy by 2025,” *The Guardian*, 27 June 2016. <https://www.theguardian.com/environment/2016/jun/28/us-canada-and-mexico-pledge-50-of-power-from-clean-energy-by-2025>.
- 15 *Ibid.*
- 16 Joseph Quigley, “Coal in Canada: A By-the-Numbers Look at the Industry,” *CBC News*, 4 February 2016. <http://www.cbc.ca/news/business/canadian-coal-by-the-numbers-1.3408568>.
- 17 Natural Resources Defense Council, *Tar Sands in the Atlantic: Company Behind Keystone XL Is Back*, 2016, <https://www.nrdc.org/experts/josh-axelrod/tar-sands-atlantic-company-behind-keystone-xl-back>.
- 18 National Energy Board, *A85619-1 NEB Letter to Interested Persons - List of Issues and EA Factors Document - Energy East and Eastern Mainline - A5T4L9*, August 23, 2017. <https://apps.neb-one.gc.ca/REGDOCS/File/Download/3320560>.
- 19 Natural Resources Defense Council, *Cancelled: TransCanada Pulls Energy East Tar Sands Pipeline*, 2017, <https://www.nrdc.org/experts/josh-axelrod/cancelled-transcanada-pulls-energy-east-tar-sands-pipeline>.
- 20 Government of Canada, *Canada’s Sixth National Report on Climate Change: 2014*, 2014.
- 21 Government of Quebec, *2013–2020 Climate Change Action Plan* (2012). [http://www.mddelcc.gouv.qc.ca/changements/plan\\_action/pacc2020-en.pdf](http://www.mddelcc.gouv.qc.ca/changements/plan_action/pacc2020-en.pdf).
- 22 For additional information on provincial-level climate action, see Erin Flanagan et al., *Race to the Front: Tracking Pan-Canadian Climate Progress and Where We Go From Here*, (Pembina Institute, 2016). <http://www.pembina.org/reports/race-to-the-front-english.pdf>.
- 23 Environmental Defence Canada and Natural Resources Defense Council, *A Tale of Two Countries: Comparing the United States’ and Canada’s Clean Energy Spending and Progress on International Climate Commitments*, 2015; DeSmog Canada, *Ontario’s Electricity Is Officially Coal Free*, 2014, <http://www.desmog.ca/2014/04/17/ontario-s-electricity-officially-coal-free>.
- 24 Government of Ontario, *Cap and Trade*, 2017, <https://www.ontario.ca/page/cap-and-trade>.
- 25 Government of Canada, *Canada’s Sixth National Report on Climate Change* (2014) [https://unfccc.int/files/national\\_reports/annex\\_i\\_natcom/submitted\\_natcom/application/pdf/nc6\\_can\\_resubmission\\_english.pdf](https://unfccc.int/files/national_reports/annex_i_natcom/submitted_natcom/application/pdf/nc6_can_resubmission_english.pdf).
- 26 DeSmog Canada, *B.C. Climate Plan Subsidizes Fossil Fuels (Yes, You Read That Correctly)*, 2016.
- 27 Alberta Government, *Capping Oil Sands Emissions*, <http://www.alberta.ca/climate-oilsands-emissions.aspx>.
- 28 Environmental Defence Canada and Natural Resources Defense Council, *A Tale of Two Countries: Comparing the United States’ and Canada’s Clean Energy Spending and Progress on International Climate Commitments*, 2015.