Third Report to the President of the United States of America and the Prime Minister of Canada

Submitted by:

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Dear Mr. President and Mr. Prime Minister,

As the co-leads of the **U.S. – Canada Clean Energy Dialogue (CED)**, we are pleased to present you with this *Third Report to Leaders*. Our Governments' commitment to collaborate on clean energy research, development, and deployment initiatives strengthens our respective climate change policies, enhances our energy security, and advances our collective progress towards a clean energy future.

The CED is an important mechanism for the United States and Canada to share expertise and align our efforts to combat climate change. Since its launch, the CED has advanced collaboration in three priority areas:

- Advancing carbon capture and storage projects and technologies;
- Building a more efficient electricity grid based on clean and renewable energy; and
- Clean energy research and development (R&D) and energy efficiency.

This *Third Report to Leaders* describes the results of CED initiatives that have been conducted under *Action Plan II* to date. These projects have improved our countries' clean energy collaboration in the three priority areas and have engaged stakeholders from many levels of government, industry, academia, and international organizations, in technical and policy issues. This *Report to Leaders* shares what we have learned during our collaboration and describes our efforts to fulfill the mission of the CED.

The last section of this Report outlines ways in which the work under the CED could be broadened to address emerging clean energy and climate priorities facing both our countries. In addition to your views and guidance, we welcome reader comments on these considerations. [1]

COLLABORATION ON CLEAN ENERGY TECHNOLOGY AND CLIMATE CHANGE

The U.S. – Canada Clean Energy Dialogue (CED) was created in 2009 to strengthen Canada – U.S. energy collaboration and advance the transition to a low-carbon economy through the development of clean energy science and technologies to reduce greenhouse gas (GHG) emissions and combat climate change.

GHG emissions from the energy sectors in Canada and the United States are their dominant source of domestic emissions, and represented 81 percent of Canada's and 84 percent of the United States' total domestic emissions in 2012.[2] Advancing the transition to low carbon economies and combating climate change requires scientific and technological innovation to reduce the "carbon content" of the energy sector. The CED has proven to be a useful and unique platform for our countries to collaborate on clean energy science and technology research, development, and deployment.

[1] Reader comments can be submitted to the Canadian Secretariat for the CED at the following email address CEDSecretariatDEP@ec.gc.ca.

[2] The Intergovernmental Panel on Climate Change defines GHG emissions from the "energy sector" as emissions (CO_2, CH_4, and N_2O) from all stationary and transport fuel combustion activities, as well as fugitive emissions from the fossil fuel industry. The figures (81 percent and 84 percent) are taken from each country's submission to the United Nations Framework Convention on Climate Change: Environment Canada's *National Inventory Report 1990–2012: Greenhouse Gas Sources and Sinks in Canada. (*page 1); and U.S. Environmental Protection Agency's *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2012 (*page 3-1).

As stated in our *First Report to Leaders* (Fall 2009), our countries established three joint Working Groups to undertake our short- and longer-term collaboration in the three priority areas. In *Action Plan I* (Fall 2009), our Working Groups identified 20 joint initiatives based on consultations with government, industry, academia, and non-governmental clean energy experts under the three priority areas.

The *Second Report to Leaders* (Spring 2011) described the results of the Working Groups' efforts on each *Action Plan I* initiative, and was then followed by *Action Plan II* (Summer 2012), which identified a new set of initiatives to undertake. These initiatives gave greater emphasis to collaborative work on energy efficiency by including it as a priority for the Working Group focused on Clean Energy R&D.

This *Third Report to Leaders* reports on the results of the initiatives undertaken to date by the Working Groups under *Action Plan II*. Detailed project information for each initiative as well as a list of key CED milestones can be found on the Government of Canada's CED website (climatechange.gc.ca/dialogue/), and on the U.S. Department of Energy's (DOE's) website (www.energy.gov/ia).

REPORTING ON RESULTS

WORKING GROUP ONE: CARBON CAPTURE AND STORAGE – DEVELOPING AND DEPLOYING CLEAN ENERGY TECHNOLOGIES

CCS TECHNOLOGY IS IMPORTANT IN MITIGATING CLIMATE CHANGE

Carbon capture and storage (CCS) technology involves capturing carbon dioxide (CO_2) emissions from industrial facilities before they are released into the atmosphere. Once captured and compressed, the CO_2 is either utilized for industrial purposes, such as enhanced oil recovery, or transported to a storage site, typically a geologic formation deep underground, where it is injected and safely stored for the long term. CCS technologies can be used to capture CO_2 emissions from a variety of industrial facilities and processes, such as coal- and natural gas-fired power plants, natural gas processing, oil extraction and refining, fertilizer manufacturing, cement, iron, steel and ethanol production. The industrial sectors where CCS technologies can be applied account for 57 percent of global annual energy-related CO_2 emissions.[3]

According to the International Energy Agency (IEA), CCS is a promising and necessary technology for limiting CO_2 emissions and mitigating climate change. The IEA has projected that CCS will need to contribute one-fifth of the emission reductions in a least-cost scenario through 2050 in order to keep global warming to 2° C.[4] Current CCS technologies can remove up to 95 percent of the CO_2 contained in the waste gases produced by an industrial process or a power plant.[5]

On September 5, 2012, the Government of Canada announced final regulations for reducing GHG emissions from coal-fired electricity generation that set a performance standard that will require CCS technology on any new coal-fired power plants. On January 8, 2014, the U.S. Environmental Protection Agency (EPA)

[3] International Energy Agency. 2012. *Energy Technology Perspectives 2012: Pathways to a Clean Energy System. p.338.*
[4] International Energy Agency. 2012. *Energy Technology Perspectives 2012: Pathways to a Clean Energy System. p.337.*
[5] Scott, V. et al. 2012. *Last chance for carbon capture and storage*. Nature Climate Change. 3:2. 105-111.

published its revised standards for new fossil fuel-generated power plants. If adopted, the proposed rule would set a performance standard for new coal-fired power plants based on the partial implementation of CCS technology. In addition, on June 2, 2014, the EPA published the proposed Clean Power Plan to cut carbon pollution from existing power plants, identifying CCS technology as an additional possible approach for states to consider in retrofitting certain existing power plants.

ACTION PLAN II INITIATIVES CONDUCTED BY CCS WORKING GROUP

Under *Action Plan II*, the CCS Working Group has undertaken six initiatives to date that advanced CCS technology research, development, and demonstration; facilitated a dialogue on CCS policies and practices; and improved public and stakeholder engagement practices. Of the six *Action Plan II* projects, five are complete and one is ongoing.

These six *Action Plan II* projects have been highly collaborative endeavors. Project partners and participants across these projects have included ten different U.S. and Canadian federal agencies, eight provincial or state agencies, and three academic, 21 private, and two international agency stakeholders.

RESULTS

The **Basal Cambrian Saline Formation** project established a laboratory to address gaps in our knowledge of how CO_2 injected into the Basal Cambrian Saline Formation will behave over the long term. Rock core samples from the formation were tested and the results of these tests are providing data to validate and modify existing CO_2 storage models. Status: complete.

Under the **Next Generation Carbon Capture and Storage Technologies** project, Natural Resources Canada's CanmetENERGY Laboratory and DOE's National Energy Technology Laboratory (NETL) collaborated on research on novel CO_2 capture technologies and developing and validating models of advanced gasifiers and advanced oxy-fuel systems. CanmetENERGY and NETL held a joint workshop in Canada to set research priorities, identify areas for technology collaboration, and strengthen the research network. Status: ongoing.

The **North American Carbon Storage Atlas** project established a harmonized approach for the United States, Canada, and Mexico to gather and share data on major domestic stationary sources of CO_2 emissions and promising geological CO_2 storage formations. An online application and print atlas were published and made publicly available. Status: complete.

The **Knowledge Sharing and Collaboration on Ensuring the Integrity of Permanent CO_2 Storage** project brought together CCS project developers, policy makers, and regulators in two separate workshops: one to share knowledge about measuring, monitoring, and verifying CO_2 injection and discuss CO_2 injection for enhanced oil recovery; and another to discuss and share learnings on the management of a CCS project after underground CO_2 injection has ended to advance the understanding of CO_2 storage. Status: complete.

The **International Energy Agency Greenhouse Gas Weyburn-Midale CO_2 Monitoring and Storage** project completed the Final Phase of work that began in 2000 to study CO_2 injection and storage in depleted oil fields. The Final Phase developed and deployed CCS technologies required for the design, implementation, monitoring, and verification of CO_2 geological storage projects, and included over 35 individual research

efforts that are now complete. This highly collaborative project engaged more than a dozen federal, provincial, and state agencies, the International Energy Agency, and many energy companies, resulting in the publication of the comprehensive manual *Best Practices for Validating CO_2 Geological Storage: Observations and Guidance from the IEAGHG Weyburn-Midale CO_2 Monitoring and Storage Project.* Status: complete.

The **Binational Conference** project is a forum that brings together governments, CCS project participants, academics, and other stakeholders to facilitate the deployment of CCS technologies. The first Binational Conference held in 2010 under *Action Plan I* was dedicated to knowledge sharing on large-scale CCS demonstration projects. The second Binational Conference held in 2012 under *Action Plan II* focused on building the business case for CCS and maintaining momentum for large-scale CCS demonstration projects. The third Binational Conference was held in May 2014. The overall theme was "Accelerating the Deployment of CCS: Technology Innovation in CO_2 Capture and Use". Participants shared insights and lessons learned so far on key issues for advancing CCS, as well as thoughts on future opportunities to collaborate on CCS. Possible future deliverables were identified. Status: complete.

WORKING GROUP TWO: ELECTRICITY GRID

THE ELECTRICITY GRID AND CLIMATE CHANGE

In order to harness the power of clean, renewable energy and reduce emissions across the electricity sector, Canada and the United States must modernize their respective electricity grids. A resilient, reliable electricity grid can integrate intermittent power supply, empower consumers, and be flexible enough to integrate both centralized and distributed power generating capacity. The transmission and distribution infrastructure across our countries requires renewed and sustained capital investment as well as public support for long-term improvement, technological innovation, and clear policies that support such innovation and investment.

In Canada, emissions reductions associated with electricity and heat generation have made the biggest contribution to national GHG reductions since 2005. These reductions primarily stem from less power generation from coal, switching to low-carbon energy sources, and improved efficiencies in conversion processes.[6] In the United States, GHG emission reductions since 2005 from electricity and heat generation were driven in part by reduced electricity generation and from fuel-switching away from coal and oil in favour of natural gas.[7] While GHG emission trends are generally declining in Canada and the United States, the electricity sector still represents a significant fraction of overall GHG emissions in both countries at 12 percent in 2012 for Canada and 32 percent for the United States.[8]

Integrating renewable electricity into the electric grid is an effective way to reduce the GHG emissions associated with electricity production. Compared to fossil fuel electricity produced from coal, oil, or natural

[6] Environment Canada. 2014. *National Inventory Report 1990–2012: Greenhouse Gas Sources and Sinks in Canada.* p. 26-27.

[7] U.S. Environmental Protection Agency. 2013. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2011.* p. 2-22.

[8] Environment Canada. 2014. *National Inventory Report 1990–2012: Greenhouse Gas Sources and Sinks in Canada.* p. 46.; U.S. Environmental Protection Agency. 2014. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2012.* p. 2-21.

gas, renewable energy sources such as wind, solar, geothermal, hydropower, hydrothermal, and hydrokinetic energy emit low-to-no GHG emissions during electricity production and can have relatively benign environmental impacts. In 2011, approximately 63 percent[9] and 12.7 percent[10] of electricity produced in Canada and the United States, respectively, was generated from renewable energy sources.

ACTION PLAN II INITIATIVES CONDUCTED BY ELECTRICITY GRID WORKING GROUP

Under *Action Plan II*, the Electricity Grid Working Group has carried out eight initiatives to date that built a dialogue on electricity grid policies and practices, and improved communication and stakeholder engagement on electricity grid issues. Of the eight *Action Plan II* projects, six are complete, with the others ongoing.

Project partners and participants across these projects have included eight different U.S. and Canadian federal agencies, 17 provincial or state entities, and two academic, and 11 private stakeholders.

RESULTS

The **International Overview of Marine Renewable Energy Regulatory Frameworks** project sought clarity on federal regulatory authority and responsibility for developing marine renewable energy in Canada and the United States by learning from other jurisdictions. A comparative study of the regulatory regimes for marine renewable energy in Denmark, the United Kingdom, and the Netherlands was conducted to identify, assess and explain responsible authorities and permitting processes concerning marine renewable energy projects and rights allocations in these countries. Status: complete.

The **Canadian Smart Grid Repository** project built on an initiative that was conducted by the U.S. Department of Energy: the Smart Grid Information Clearinghouse, an online tool to publicly share information on smart grid developments in the United States. This project based the Canadian repository on the U.S. platform, enabling Canada to capture and share high-value information with the public to support the development of smart grids domestically. Status: complete.

The **Workshop on Renewables Integration** project was a one-day workshop that brought together 45 participants from 24 government organizations, regulatory bodies, and utility operators to better understand the challenges and opportunities posed by the integration of renewable technologies into the bulk electric system in Canada and the United States. Status: complete.

The **Utility Best Practices for Consumer Engagement** project examined how Canadian and U.S. utility operators can deploy effective consumer engagement initiatives to promote awareness, minimize consumer complaints, and drive the uptake and use of smart grid technologies. A comparative report of best practices among North American utilities was conducted and subsequently presented at the SmartGrid Canada 2012 conference. Status: complete.

[9] Statistics Canada. 2013. *CANSIM table 127-0002, annual total electricity generation from utilities and industries, based on monthly data*. Retrieved April 03, 2013.
[10] U.S. Energy Information Administration. 2012. *Annual Energy Review 2011*. p. 224.

The **Distributed Energy Storage** project was a one-day conference that convened 120 expert panelists, industry leaders, and policymakers to participate in discussions on market opportunities, implementation challenges, technology applications, and proposed next steps for distributed energy storage technologies – critical supporting technologies to enable the electric grid to integrate intermittent sources of renewable energy. Status: complete.

The **Offshore Renewable Energy Dialogue** project launched a dialogue in a nascent area of energy generation – offshore renewable sources such as wind, wave and tidal – to support U.S. and Canadian policymakers who are developing and refining regulatory frameworks to govern these energy sources. The dialogue brings together policy makers to share information and develop best practices, with discussions and video conferences arranged as appropriate. Status: ongoing.

The **Canadian Smart Grid Standards Advisory Committee** project establishes the Advisory Committee, as per the recommendation of the previously developed *Canadian Smart Grid Standards Roadmap*, a guidance document that identified priority areas for standards development for national and international bodies to support the transition to a smarter electricity grid. The Advisory Committee was established to enhance liaison activities with other appropriate standards bodies and to provide advice on smart grid standards issues. Status: ongoing.

The **Case Study Analysis of Hydro-Intermittent Renewable Synergies** project conducted a case study analysis of hydroelectric facilities being used to balance intermittent renewable generation, with a particular focus on interregional and international examples. Status: complete.

WORKING GROUP THREE: CLEAN ENERGY RESEARCH AND DEVELOPMENT (R&D) AND ENERGY EFFICIENCY

CLEAN ENERGY R&D AND ENERGY EFFICIENCY TO COMBAT CLIMATE CHANGE

In order to advance the development and deployment of clean energy technologies that reduce GHG emissions, our governments support best practice energy efficiency programs and R&D that further our understanding of priority technologies, processes, or applications using a variety of policies and mechanisms. Through the CED, Canada and the United States have identified priority programs and technology areas for joint R&D and established collaboration frameworks to ensure that our countries' efforts on energy efficiency and technology R&D meet national priorities, align with domestic circumstances, and have the potential to reduce emissions.

ACTION PLAN II INITIATIVES CONDUCTED BY CLEAN ENERGY R&D AND ENERGY EFFICIENCY WORKING GROUP

Under *Action Plan II*, the R&D Working Group was expanded to include Energy Efficiency, becoming the R&D and Energy Efficiency (R&DEE) Working Group. Work under *Action Plan II* is focused on the five following research areas:

1. Marine energy (4 initiatives)
2. Advanced biofuels/bioenergy (3 initiatives)
3. Advanced transportation (5 initiatives)
4. Advanced buildings and communities (1 initiative)
5. Energy efficiency (3 initiatives)

RESULTS

Marine Energy

The **Abrasion Testing of Critical Components of Hydrokinetic Devices** project tested the wear performance of different materials used in sealed underwater bearings assemblies for ocean energy installations. The results were presented in a conference paper at the 2013 Global Marine Renewable Energy Conference in Washington D.C. The paper is available on request. Status: complete.

The **Bilateral Participation at the Global Marine Renewable Energy Conference** project funded the participation of Canadian delegates at the premiere U.S. meeting place for researchers and policymakers interested in marine renewable energy development. Delegates were featured in two expert panels and engaged their American counterparts on Canada–U.S. linkages in R&D, deployment, supply chain management, and industrial policy. Status: complete.

The **IEA-OES Assessment of Environmental Effects and Monitoring Efforts for Ocean Wave, Tidal and Current Energy Systems** project made public environmental information collected in relation to marine and hydrokinetic energy, including data and analysis from installed projects in the United States and Canada. Two databases and a comprehensive report have been completed. Status: ongoing

The **IEA-OES Exchange and Assessment of Ocean Energy Device Project Information and Experience** project is a forum for sharing technical information about project design and demonstration experience in the marine renewables sector. The forum facilitates the rapid diffusion of innovation and best practice. Status: ongoing.

Advanced Biofuels and Bioenergy

The **Canada–U.S. Algae Resources Co-Location Model** project completed the development of a model to support decision-making on future domestic and bilateral algal biofuels demonstration and deployment projects. A one-day workshop was held in Halifax focusing on critical components of successful algae biomass production with a report on the workshop's findings produced, which is available upon request. Status: complete.

The **United States–Canada Collaboration in Pyrolysis Biofuels** project continued work that began under *Action Plan I* on forest residue feedstock pyrolysis – a process used to produce bio-oil with a high energy density. This collaboration among CanmetENERGY, U.S. Pacific Northwest National Laboratory (PNNL), and the National Renewable Energy Laboratory (NREL) completed detailed technical research on targeted feedstocks, pyrolysis process improvements, and bio-oil applications. Status: complete.

The **Workshop on Advanced Biofuel R&D Collaboration** project organized a one-day workshop in Washington, D.C. to present the report of the Inventory project and to identify areas for new collaboration on advanced biofuels. Status: complete.

Advanced Transportation

The **Lightweight Magnesium Alloy Sheet Development** project conducted a number of experiments to produce and characterize magnesium alloy sheets with potential applications in automotive body panels, which would reduce the weight of vehicles and improve fuel efficiency. While there were a number of operational challenges during these experiments resulting from malfunctioning equipment, the research team assessed the equipment design and redesigned and fabricated the systems, so that further trials can be conducted when funds are available. Status: complete.

The **Transportation Technology and Fuels Forum** project is an annual bilateral forum that brings together experts from industry, government, and academia to address issues surrounding transportation technologies and fuel. A workshop was held in February 2013, covering policies, programs, and technical implementation issues related to fuels combustion, production, storage, and infrastructure. A report of the workshop's findings was produced and is available upon request. Status: complete.

The **Deployment of Natural Gas in Transportation** project saw the United States and Canada collaborate to coordinate and deliver sessions at the Transportation Technology and Fuels Forum on issues related to natural gas vehicle deployment, including discussion panels on R&D, deployment initiatives, and codes and standards. This coordinated approach toward common challenges will allow us to diversify usage of the Continent's growing national gas production so as to offer significant cost savings to consumers, while improving environmental performance and energy security in the transportation sector. Status: ongoing.

The **Tailpipe GHG and Emissions Characterization from Current Vehicles Fueled with Advanced Biofuels** project tested bio-sourced butanol fuel in light duty vehicles to characterize the emissions and fuel economy associated with their use. Different vehicles were tested under a variety of driving and ambient conditions representative of different geographic areas in Canada and the United States, producing test data sets that allow for comparative analyses of emissions and fuel use. Status: complete.

The **Researching Green Financing Mechanisms to Reduce Emissions from In-Use Heavy Duty Trucks** project launched a dialogue on innovative financing mechanisms to help the trucking industry acquire the funding needed to purchase emission reduction technologies for companies' vehicle fleets. An information sharing workshop was held in January 2013 with federal, provincial/state, and municipal government officials, and industry and academia participants attending discussions, presentations, and panel sessions on innovative policies and programs to support green financing in the trucking industry. Status: complete.

Advanced Buildings and Communities

The **Collaborative North American Modelling Framework for Effective Energy Evaluation and Analysis for Buildings and Communities** project brought together key research partners from Canada and the United States to identify redundant efforts in the context of tools, frameworks, methodologies, and standards regarding community and building energy simulation. A committee of key researchers was formed, which

conducted a study of current tools used for R&D and commercial use, and held a series of meetings to showcase U.S. and Canadian research and determine areas for future collaboration. Status: complete.

Energy Efficiency

The **ENERGY STAR ® for Equipment and Appliances** project builds on DOE's and EPA's "ENERGY STAR® Most Efficient" initiative by adapting the program to the Canadian marketplace. NRCan, DOE, and EPA launched "ENERGY STAR® Most Efficient" as a regular offering and are working to strengthen and promote the program. Since January 1, 2013,"ENERGY STAR® Most Efficient" specifications are promoted in Canada for nine product categories. As a result of this collaboration, consumers in both countries will have a consistent means to readily identify the most efficient products available on the market. Status: complete.

The **ISO 50001 Standard for Energy Management Systems** project builds on the achievements of an earlier bilateral pilot project that supported the global technology firm 3M in achieving ISO 50001 certification for a Canadian and U.S. facility. Under *Action Plan II*, the pilot project expanded to include six additional companies pursuing ISO 50001 certification. Through the Standards Council of Canada, certification protocols that align with existing U.S. protocols are being developed, which are to be shared through the Global Superior Energy Performance initiative of the Clean Energy Ministerial process. Due to the highly integrated nature of our two economies, we are ensuring cross-border consistency for our businesses while enhancing their productivity and global competitiveness. Status: ongoing.

The **ENERGY STAR Portfolio Manager - Building Energy Benchmarking** project launched a free, interactive online benchmarking tool for building owners and operators, utilities, and other levels of government to track and assess the energy performance of their buildings, and to compare their energy performance to reference cases. This project adapts the Portfolio Manager tool developed by the EPA to Canada with customizations for Canadian circumstances. The tool currently rates Canadian K-12 schools and office buildings, and work is ongoing to extend it to hospitals and other building types. This shared tool acts to ensure that building managers can make timely and focused energy efficiency decisions to save energy costs and decrease consumption. Status: ongoing.

THE WAY FORWARD

Since its launch in 2009, the CED has conducted over 50 initiatives which have resulted in four collaboration arrangements,[11] 22 workshops and conferences, 21 reports and studies, and five web-products. This work has strengthened collaborative networks among federal scientists, researchers, and policymakers in the area of clean energy technology and science, which makes the CED a unique and useful mechanism for bilateral collaboration between Governments.

Since the launch of the CED, the context of clean energy and climate issues in both Canada and the United States has evolved. As we move forward on the CED, it is worthwhile to take stock of these changes vis-à-vis the priorities of the U.S.-Canada Clean Energy Dialogue.

[11] Two cooperative research and development agreements (concerning biofuels and energy efficient buildings), an inter-laboratory memorandum of understanding concerning clean energy and energy efficiency materials (CANMET Materials Technology Laboratory and Oak Ridge National Laboratory), and a Declaration of Intent between NRCan and DOE for energy science and technology cooperation.

In December of 2009, both governments supported the Copenhagen Accord and adopted the same economy-wide GHG emission reduction target for the year 2020. Continued collaboration under the CED serves to advance our climate change efforts through information exchanges and knowledge sharing between federal scientists, researchers, economists, regulators, and policymakers.

Another significant change since early 2009 is the rise in unconventional sources of oil and gas that has changed the North American energy context from one of scarcity to one of abundance. Canada and the United States have the largest and most mutually beneficial trade partnership in the world and a key cornerstone of this economic partnership is energy. Both countries are independently pursuing the responsible development of energy resources, but opportunities for mutually beneficial collaboration should continue to be pursued under the CED. Future work under the CED could continue to include joint work that supports GHG emission reductions in the energy sector, but could also include joint work to address the environmental impacts of energy production, transmission and use.

In February 2014, the CED marked its fifth year; it is therefore timely to reassess the CED in light of changing contexts and priorities. To this end, officials are exploring ways to ensure that the CED remains a valuable mechanism for addressing the current and emerging energy and environmental priorities of our two countries. Over the coming months, CED officials plan to continue to deliver projects under *Action Plan II* and identify possible new priority areas of work going forward.