

U.S. - CANADA CLEAN ENERGY DIALOGUE



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

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September 16, 2009

U.S.-Canada Clean Energy Dialogue

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

President Obama and Prime Minister Harper:

When you met in Ottawa in February 2009, you set out an ambitious plan for our countries to begin to build a new low-carbon energy economy together. Central to your vision was bilateral cooperation on continental environmental protection and energy trade and technology. You created a U.S.-Canada Clean Energy Dialogue, and gave us responsibility to report on ways our countries could work together on key clean energy science and technology issues.

In the months since your first meeting, each country has acted on energy and environmental issues within its own domestic policies and programs by taking action to reduce greenhouse gas (GHG) emissions, accelerate the transition to a low-carbon economy, and ensure long-term energy security. Our Governments' commitment to collaborate on clean energy research, development, and deployment initiatives will strengthen our respective climate change policies, create new solutions to meet our energy needs in the 21st Century, and advance our collective progress towards a clean energy future.

We have each also worked with the international community as the world prepares for the meeting of the United Nations Framework Convention on Climate Change this December in Copenhagen. But taking our cue from your leadership, we have made progress toward a more integrated continental approach to energy and the environment.

To increase energy security and to address environmental challenges including climate change, we can achieve more through North American cooperation than the sum total of our individual domestic initiatives. At the same time, we would help the world's largest two-way trading system operate even more smoothly. Canada and the United States share an economic space just as we share the challenges and the results of energy's impact on our environment. Collaboration on the challenges to energy security and environmental sustainability can only strengthen our long-standing partnership.

The Clean Energy Dialogue has helped to shape several aspects of our common approach. You have tasked us to work together on three key areas:

- Develop and deploy clean energy technology;
- Build a more efficient energy grid, based on clean and renewable generation; and
- Expand research and development into clean energy.

Following your February meeting, we established joint Working Groups which met to develop plans for short- and longer-term cooperation in these three areas. We consulted experts in government, the private sector, academia, and non-governmental organizations, and drew on their extensive knowledge of clean energy. The Working Groups developed an Action Plan that describes specific activities we have agreed to work on jointly. We intend to go forward with all of these recommendations, which we consider to be the most promising areas for expanded or new joint projects. As a priority, Working Groups will immediately implement the following:

1. U.S.-Canada Carbon Capture and Storage (CCS) Collaboration

Among the clean energy technologies available, we emphasized carbon capture and storage (CCS) as one that holds enormous potential to control greenhouse gas emissions, and where bilateral collaboration

would yield impressive results. To respond to the challenges of climate change, countries around the world are exploring various options to capture and store carbon dioxide by seeking potential breakthroughs in the technology. Both Canada and the United States work with various partners on CCS initiatives, but greater results will arise from closer collaboration with each other. As Canada and the United States work towards the development of new regulatory frameworks for CCS, there will be future opportunities for collaboration and to establish complementary policies, regulations and rules governing CCS.

Under the Clean Energy Dialogue, we recommend, as a top priority, the formation of a *U.S.-Canada CCS Collaboration*. The *Collaboration* will engage Canadian and U.S. experts on CCS from the public and private sectors to share best practices and conduct joint activities. This effort will:

- Expand existing collaboration in CO₂ injection and storage testing, share information from large-scale CCS demonstration projects, and work together to map CO₂ sources and geological storage opportunities;
- Work towards a consistent regulatory framework for Canada and the United States, including compatible CCS project rules, standards, and monitoring, as well as verification and accounting principles;
- Hold bilateral meetings to engage Canadian and U.S. experts on CCS from the public and private sectors, to share best practices and provide updates on joint activities. The United States will host the first conference in May 2010 in Pittsburgh; the 2011 conference will be held in Canada.

2. *A More Efficient Electricity Grid based on Clean and Renewable Generation*

As demand for electricity continues to grow, both countries require major investments to meet that demand, replace aging facilities and equipment, and improve efficiency. This provides opportunities to upgrade the power grid, connect to clean energy sources, and promote the use of clean energy technologies. The United States and Canada will collaborate on efforts that will:

- Foster an open exchange of information, and joint participation in government-sponsored electricity research, development, and deployment (RD&D). For example, broader participation through the North American Synchrophasor Initiative (NASPI) will create a robust, widely available and secure synchronized data measurement infrastructure for the interconnected North American electric power system;
- Enhance ongoing efforts to ensure joint participation in the development of government- and industry-sponsored reliability standards, cyber security, and interoperability guidelines;
- Improve the understanding of existing and live storage potential across the Canada-U.S. grid and the role it may play in the expansion of emerging renewable energy capacity across the continent.

3. *Clean Energy Research, Development and Deployment (RD&D) Framework and Roadmap*

A cleaner, more secure energy future for both nations will depend on significant investments in energy research and development. This technology will provide economic opportunities for the countries that

create, develop and build it and, with our long history of working together, the United States and Canada have the potential to lead the world in this area, much as our collaboration in the last century put us at the forefront of many key industrial sectors.

Canada and the United States will develop a Clean Energy RD&D Collaboration Framework, and work together on a technology “roadmap” that will identify and describe the technology and associated R&D pathways that would allow Canada and the United States to meet our respective goals for reducing greenhouse gases by 2050. Together, the Framework and Roadmap will:

- Foster the many factors that lead to technological innovation, including: increased levels of collaborative research, development, and demonstration among laboratories, industry and academia; significant sharing of information and frequent exchanges of personnel; creation of virtual labs; establishment of formal linkages between institutions and projects; and increased shared-use of unique facilities and scientific infrastructure;
- Explore scenarios for achieving our respective targets for greenhouse gas reduction, and identify near-term steps that could be taken to position our RD&D portfolios to deliver the required transformational technologies in time; and
- Help create a single North American market for clean energy technologies, achieved where possible through compatible codes, standards and incentives.

We have found there is great potential for collaboration on low-carbon technologies under the Clean Energy Dialogue. Canada and the United States will both benefit from a shared vision for a low-carbon North America. In the global race toward technologies that reduce our impact on the environment, we have an opportunity to improve our energy security, and to foster the innovation that will put North America at the forefront of the world’s economy for generations to come.

We commit to you to deliver on these initiatives and we will closely track their implementation over the coming months. As successful delivery of these initiatives will be key to making longer-term progress towards a clean energy economy, we also commit to provide regular updates to you on our progress, with our next report due in the spring of 2010.