

**MEMORANDUM OF UNDERSTANDING**  
**BETWEEN**  
**THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA**  
**AND**  
**THE DEPARTMENT OF NATURAL RESOURCES OF CANADA**  
**CONCERNING COOPERATION ON ENERGY**

The Department of Energy of the United States of America and the Department of Natural Resources of Canada, hereinafter referred to as the “Participants”:

NOTING the longstanding and productive history of working together on energy issues of shared interest;

CONSIDERING that deep economic integration, geographic proximity, unified critical infrastructure, and common values underpin their strong collaboration on energy and environment matters;

NOTING that North America is at an energy crossroads and fundamental shifts in North American and global energy production and demand, together with commitments to address climate change, present an historic opportunity;

RECOGNIZING that by acting together, they may address individual national interests while achieving shared goals of greater energy security and environmental responsibility and sustainability;

GUIDED by a mutual desire to promote responsible development of natural resources; safeguard citizens and their environment; and encourage investment and economic development in their countries’ respective energy sectors and the regional and global energy markets; and

SHARING an interest in expanding their energy collaboration, and desiring to work together regionally and globally,

Have reached the following understanding:

## 1. PURPOSE

This Memorandum of Understanding (MOU) creates a framework for cooperation on energy between the Participants.

## 2. SCOPE OF COOPERATION

The Participants may participate in cooperative activities together, including sharing knowledge and exchanging information, facilitating training and services, and other activities as they may jointly decide upon.

## 3. PLANNED AREAS OF COOPERATION

The Participants understand that cooperative activities under this MOU, in subject areas within each Participant's respective purview, are planned to include:

- (a) sharing policies, technical information, research plans, and best practices related to improving environmental practices in conventional and unconventional oil and gas development;
- (b) sharing knowledge and exploring options to enhance reliability and security of the North American energy infrastructure;
- (c) supporting the advancement of an efficient and clean electric grid;
- (d) enhancing understanding of cross-border permitting regimes for electric transmission facilities;
- (e) enhancing coordination on energy efficiency standards;
- (f) facilitating increased use of natural gas in the transportation sector;
- (g) exploring partnerships among research institutes;
- (h) sharing knowledge and best practices regarding improving access to clean, affordable energy and energy efficiency in Tribal and Aboriginal communities;
- (i) collaborating in the area of Carbon Capture and Storage (CCS) to reduce the cost of CO<sub>2</sub> capture technologies;
- (j) collaborating on water use in CCS across a range of fossil fuel applications;
- (k) engaging in regional and multilateral fora on energy and environmental issues to advance shared priorities, including global energy security; and

- (l) other areas that the Participants may jointly decide upon in writing.

#### 4. FORMS OF COOPERATION

- (a) The Participants intend that the planned cooperative activities address technical, regulatory, policy, and financial issues through a cross-cutting approach.
- (b) The Participants understand that:
  - (i) Cooperative activities may include in-country operations, consultations, technical events, meetings, workshops, conferences, exchanges of personnel, surveys, recommendations, and reports.
  - (ii) Technical expert groups may be organized to exchange technical information and data, and to carry out training and develop proposals to ensure the effective implementation of this MOU.
  - (iii) Activities under this MOU are intended to complement other mechanisms of energy cooperation and engagement between them, including the U.S.-Canada Clean Energy Dialogue, in order to make effective use of resources and capabilities across both governments.
  - (iv) Unless otherwise decided in writing, each Participant intends to pay the costs it incurs in conducting activities under this MOU.

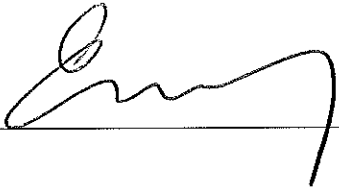
#### 5. GENERAL CONSIDERATIONS

- (a) This MOU is not legally binding.
- (b) Each Participant may invite additional organizations to participate in the cooperative activities conducted pursuant to this MOU, at its own expense and on such terms as the inviting Participant may determine. These additional organizations may include, but are not limited to, government agencies, universities, laboratories, science and research centers, private sector firms, international organizations, and others.
- (c) The Participants intend to convene an annual senior-level bilateral meeting, with venues alternating between their two countries, to share information, review progress, and set priorities for the conduct of activities described in this MOU.
- (d) Cooperation under this MOU is expected to commence upon signature by both Participants and continue for five (5) years.

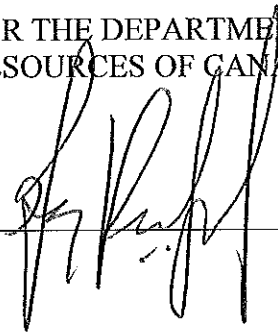
- (e) The Participants may extend cooperation under this MOU for additional periods upon their mutual consent in writing.
- (f) The Participants may modify this MOU upon their mutual consent in writing.
- (g) The Participants may discontinue participation in this MOU at any time by mutual consent in writing. Alternatively, a Participant that wishes to discontinue its participation in this MOU is expected to provide at least 90 days advance written notice to the other Participant.

Signed at Ottawa, in duplicate, this eighteenth day of September 2014, in the English language. The participants intend to sign the French version of this MOU within 60 days.

FOR THE DEPARTMENT OF ENERGY  
OF THE UNITED STATES OF AMERICA:

A handwritten signature in black ink, appearing to be "E. J. ..." followed by a long horizontal stroke, positioned above a horizontal line.

FOR THE DEPARTMENT OF NATURAL  
RESOURCES OF CANADA:

A complex handwritten signature in black ink, featuring multiple loops and vertical strokes, positioned above a horizontal line.