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Advice to Council No: 17-01

Re: Outputs from JPAC Public Forum "Advancing Sustainable Clean Energy Cooperation in North America" in Ottawa (November 2016)

The Joint Public Advisory Committee (JPAC) of the Commission for Environmental Cooperation (CEC) of North America:

IN ACCORDANCE with Article 16(4) of the North American Agreement on Environmental Cooperation (NAAEC), which states that JPAC "may provide advice to Council on any matter within the scope of this agreement (...) and on the implementation and further elaboration of this agreement, and may perform such functions as the Council may direct;"

HAVING met in Ottawa, Canada, on 7 November 2016, to examine the links between clean baseload and renewable energy and energy efficiency, in the context of addressing local, regional and national energy needs and goals across North America; and

RECOGNIZING that:

- The Canadian Electricity Association, which released the report "The North American Grid: Powering Cooperation on Clean Energy and the Environment" on 19 April 2016, recommends increasing trade in clean energy, promoting electrification of transportation, streamlining permitting processes for cross-border transmission projects, pursuing joint R&D projects, supporting electrification in remote and indigenous communities, coordinating evaluation of carbon pricing mechanisms, examining climate adaptation risks and practices, enhancing electric grid security and reliability, collaborating on energy information and ensuring meaningful consultation with industry across North America;
- Many energy companies in North America develop, own and operate energy facilities, sell power and energy services in more than one country, and have increasingly diverse energy portfolios in the energy market;
- National, regional, state, provincial and private-sector energy initiatives are being undertaken in each of the three CEC countries, and it is understood and anticipated that energy sources in one state, province or country can help lower energy costs and achieve energy goals in another in order to strengthen North America's energy independence;
- The North American Climate, Energy and Environment Partnership, adopted by Canada's prime minister and the presidents of Mexico and the United States at their meeting on 29 June 2016, sets a goal of 50% clean energy generation (including renewables, efficiency, nuclear and carbon capture) across North America by 2025 and a 40–45% reduction in

methane emissions, as well as supporting the continued development of cross border transmission projects and enhanced energy and transportation efficiency, innovation and electric reliability across North America;

- Over 50 countries have worked together through the International Organization for Standardization (ISO) to create a business-friendly, globally harmonized certification process called ISO 50001 to improve energy performance in industrial and commercial buildings worldwide; and
- The CEC, in partnership with Natural Resources Canada (NRCan), the United States Department of Energy (DOE) and *Comisión Nacional para el Uso Eficiente de la Energía* (Conuee) has developed the North American Energy Management Pilot Program to support adoption of the ISO 50001 standard and certification under the Superior Energy Performance program (SEP) throughout North America.

SUBMITS the following recommendations for Council's consideration:

Recommendation #1: Continue to promote energy independence for North America

The Council should continue its efforts to help our states, provinces, regions and three countries achieve their environmental and energy goals by considering North America as a single shared energy market. This can help reduce energy costs, improve air quality, reduce GHG emissions, and enhance grid reliability and energy diversity while promoting energy independence in North America.

Recommendation #2: Develop a common methodology to track progress in achieving energy goals across multiple jurisdictions

JPAC recommends that the Council assist in the development of a methodology to be used to track progress in the implementation of goals and timeframes associated with state, provincial, national and international energy strategies, such as the North American Climate, Energy and Environment Partnership. The CEC Secretariat historically has played an important role in working with state, provincial and federal agencies and private sector interests to reach agreement on methodologies to ensure data quality and allow for information to be aggregated in a technically sound way. The Council should also continue to recognize and support the role of states and provinces in increasing the use of cost-effective clean energy, reducing air emissions and greenhouse gases, enhancing resiliency, grid reliability and efficiency, and in developing regional energy initiatives in an environmentally sound manner.

Recommendation #3: Consider the importance of hydropower and nuclear generation in providing relatively clean baseload energy and achieving energy and climate change goals

The value and benefits of all low-carbon and relatively clean baseload energy, including nuclear and hydropower generation, needs to be better understood and recognized. Failure to do so is likely to make it much more difficult and costly to achieve state, provincial, national and North

American energy needs, goals and strategies. JPAC recommends that the Council consider the role of hydro power and nuclear energy as appropriate in clean energy strategies.

Recommendation #4: Promoting energy efficiency and renewables in vulnerable, rural, remote communities

JPAC recognizes that energy efficiency and conservation is a key element of any sound energy strategy, reducing energy costs for citizens and businesses and helping to achieve multiple energy and environmental goals simultaneously. JPAC recommends that the Council provide special attention to vulnerable, rural, and remote communities that need education, training and technical assistance to improve energy efficiency, lower their energy costs/consumption, and become more self-sustaining.

The Council should also continue its efforts to promote energy sustainability in remote and rural areas that are not connected to the grid. This may include solar, wind, hydro storage and biomass systems which can generate heat and power for local consumption, especially when long-distance energy transmission is not an economically viable option.

Recommendation #5: Extend the CEC's North American Energy Management Project

The CEC should continue its pilot program, working with appropriate agencies and business leaders in Canada, Mexico and the United States, to accelerate ISO 50001 adoption and associated benefits by:

- Jointly developing tools to estimate ISO 50001 impacts and support end user implementation of ISO 50001;
- Establishing harmonized training and certification programs for ISO 50001 professionals with an accreditation system for ISO 50001 auditors and SEP programs recognized throughout North America (this is also an area where recent graduates would be placed as interns to provide a new generation of trained SEP experts); and
- Building upon current CEC cooperation to identify major industry partners to pilot ISO 50001 or SEP addition throughout their supply chains to further demonstrate technical approaches and benefits.

JPAC is confident that the recommendations contained herein are relevant to the CEC Council's strategic priorities and is unanimous in supporting this Advice to Council.

Approved by the JPAC members 27 April 2017

APPENDIX

JPAC Regular Session 16-02 Advancing Sustainable Clean Energy Cooperation in North America

Key Findings

A first panel covered an update on viable clean energy sources and their current use in North America. Speakers presented updates and experiences on the region on nuclear, solar, biomass, hydro and energy efficiency. Following suit, speakers coming from government and business explained in a second panel why energy conservation is more important than ever. Finally, policy and regulatory paths were discussed with a focus on collateral challenges of high-efficiency luminaries and intelligent control systems.

In the second panel of the day, the main topics or recommendations that arose were related to the need increase the capacities of those involved in the use of clean and sustainable energy as well as the need to share standards, knowledge and information as well as enforcement practices and research initiatives. It was also highlighted the importance of voluntary instruments such as ISO's and best practices for energy management as well as the benefits of being environmentally sound, such as corporate savings, better reputation for the company and improves your competitiveness in the market. For all this to happen, it is essential to use the best available technologies in order to reduce emissions and gas consumption. It is essential that governments provide the necessary incentives for the private capital to be interested in this matters and be more environmentally efficient.

In the third panel, the importance of avoiding lost opportunities arose when discussing compatibility when new technologies are introduced such as LED lightning and intelligent climate controls. Public health concerns must also be taken into consideration when introducing new technologies considering differences in standards and legislation between the parties. Energy conservation efficiency is important and highly cost effective but requires greater coordination, education and training, as well as the harmonization of products and energy systems. Only then can the full benefits of energy conservation and efficiency may be achieved.

A lightning round on new research and potential policy related to clean energy technology and energy conservation resulted in several recommendations from JPAC members and from the public.