***North American Cooperation on Energy Information (NACEI)***

1. Overview of the topic including its background and potential significance

The Energy Ministers from Canada, Mexico and the United States met in December 2014 and signed a trilateral memorandum of understanding (MOU) on energy information cooperation. The trilateral MOU created an institutional framework for consultation and sharing publicly available information among the participants, for the purpose of ongoing dialogue, cooperation and deliverables on improved information and energy outlooks for the North American region. The areas of focus for the working group include: (a) comparing, validating, and improving respective energy import and export information; (b) sharing publicly available geospatial information related to energy infrastructure; (c) exchanging views and information on projections of cross-border energy flows; and d) harmonizing terminology, concepts and definitions of energy products.

b. Methodology: how the matter was addressed, what techniques were used

For the comparative trade data analysis to understand discrepancies, spreadsheets of data by fuel were shared. Different analytical and statistical tools were used to evaluate the data series where definitions were consistent. In many cases, the definitional distinctions had to be evaluated.

[The collaboration has resulted in the first ever detailed cross reference of terminology for the three countries, the International Energy Agency (IEA) and the United Nations (Oslo Group) and a conversion tables in English, Spanish and French. Definitions for data collection and reporting will be a significant issue in future efforts at harmonization.]

For the outlook comparison, Canada and Mexico ran their outlook models using EIA assumptions.

1. Results: Key and ancillary findings

Comparisons of crude oil were determined to exhibit acceptable levels of consistency (crude oil flows between Mexico and the United States, Mexico and Canada and Canada to the United States), allowing for more focus to be placed on natural gas liquids such as ethane, propane, and butane. Discrepancies in international reporting practices to the International Energy Agency (IEA) between Canada and the United States were identified. Differing definitions of diluents were initially suspected for the divergent series, however the synthetic crude oil reporting was ultimately identified as the cause.

### Refined petroleum product (RPP) definitions and aggregations in the publishing of motor gasoline and distillate fuels vary among the three countries. The subgroup determined that the international standards developed by ASTM International for the characterization of fuel oils and distillates would be used to establish baselines for comparison.

Canada-U.S. trade series in natural gas exhibit high levels of concordance and are not an area of major concern.The previous natural gas harmonization and analysis study developed by Mexico for Mexico-U. S. natural gas trade was revisited. Work will continue in order to identify and share the most unified series for Mexico-U.S. natural gas trade.

For electricity, the different Canadian data sources and Canada-U.S. trade comparisons were noted as exhibiting strong correlation, largely due to the sharing of information in place between sources. New methodologies being implemented both in Canada and the United States will allow for greater information from different types of generation sources to be available going forward. The EIA Electric System Operating Data tool, which allows users to view system demand, net generation, and interchange on an hourly basis, is under consideration for expansion to include Canadian and Mexican operators

The review of model results demonstrated the differences in the models with the assumptions the main reasons for the differences outlook results.

d. Conclusions: Lessons learned, implications, next steps

Action items for 2017 include **c**ompleting a crude oil definitions matrix, identifying conclusions and analysis results for users of NACEI.org, and continuing analysis and documentation relating to natural gas liquids.

Canada and Mexico are considering participating in the U.S. tool for potential future North American electric grid representations. Canada is exploring with its operators the development of a similar platform. U.S. EIA has developed and shared a pre-recorded tutorial of their Electric Operating System Data tool for easy viewing and sharing between subgroup participants and beyond.

The trilateral work on the comparative analysis of the models the three countries use for energy outlooks for domestic markets and trade across the continent has led to a proposal for a collaborative effort through the Energy Modeling Forum at Stanford University.

1. References (if any) [www.nacei.org](http://www.nacei.org)