

# Eastern Interconnection Planning Collaborative's (EIPC) Gas -Electric System Interface Study



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*EIPC Gas-Electric Study Project Update*

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# Table of Contents

- Legend
- History
- Participating Planning Authorities (PPAs) / Study Region
- PPA Stakeholders / Stakeholder Steering Committee (SSC)
- The Four Study Targets
- Project Administration Timeline \*
- **Status Update \***

*\* All dates are identified as either actual or preliminary*

# Legend

- Information (text) in dark color was previously delivered to the PAC at these meetings:
  - June 19, August 13, October 16, November 20, and December 18, 2013
  - January 22, February 19, and March 17, 2014
- Information (text) in red color is an update to the previously published information/dates
  - Prior updates can be found on the PAC Materials web site; by meeting date
  - This update starts at Page 10

# History

- The New York ISO originally developed a Statement of Work (SOW) to study the natural gas–electric interface and infrastructure within New York State; ISO-NE, PJM, MISO, TVA, and Ontario were also interested in performing similar studies
- At the same time, the U.S. DOE recognized a gap in its review of the EIPC Reports on Phase 1 and 2 of the DOE funded eastern interconnection transmission analysis work, which prompted them to extend the interconnection studies grant to include further analysis of the interaction of the natural gas and electric industries
- Many of the alternative futures studied within Phase 1 and 2 of the EIPC analysis involved retiring coal-fired power plants and replacing them with natural gas-fired generation
- During the period of the EIPC study, noteworthy changes have occurred regarding the natural gas markets that would result in an increased dependence on new gas-fired resources
  - Recent shale gas development and changes in location of new gas supplies also factor in

# PPAs / Study Region

- The six Participating Planning Authorities (PPAs) are a subset of EIPC members that include:
  - 1 ISO New England (ISO-NE)
  - 2 New York ISO (NYISO)
  - 3 PJM Interconnection (PJM)
  - 4 Midcontinent ISO (MISO) (including the MISO South/Entergy system)
  - 5 Tennessee Valley Authority (TVA) Areas
  - 6 Ontario's Independent Electricity System Operator (IESO)
- The Study Region encompasses the major natural gas supply, pipelines, storage and distribution systems and regional electric systems serving the PPAs. In metropolitan areas, the inclusion of local gas distribution companies (LDCs) is an important consideration because such a large number of generating plants are served directly off the LDC systems in those areas



# PPA Stakeholders / Stakeholder Steering Committee (SSC)

- The PPA Stakeholder Groups are the assembly of stakeholders created by each PPA to provide input to the PPA on its activities and to fulfill any requirements it may have under FERC Order No. 890. Since this Gas-Electric System Interface Study will be performed in a transparent and collaborative manner, the study processes will be open to participation by state and federal officials, representatives from ISOs, RTOs, electric utilities, transmission and generation owners, end-users and relevant stakeholder bodies or non-government organizations (NGO's), including appropriate entities in Canada. Representatives from the North American natural gas industry are also included
- To meet these aforementioned requirements, the EIPC previously established the Stakeholder Steering Committee (SSC), a multi-constituency steering committee, to provide strategic guidance on the scenarios and sensitivities to be modeled, suggested modeling tools, suggest key assumptions for the scenarios and sensitivities, and other activities. The EIPC and SSC Charter and its membership and activities are posted on the EIPC web site which is located at: <http://www.eipconline.com/>

# Study Targets

The four Targets of the Statement of Work (SOW) are:

- 1 Develop a baseline of the electric and natural gas systems, including their planning, operation and interactions
- 2 Determine the adequacy of the regional gas systems to satisfy generation needs over five- and 10-year horizon
- 3 Identify contingencies on the gas and electric systems that could negatively affect the other
- 4 Examine the pros and cons of dual fuel capability for generation versus expanding gas system infrastructure

# Project Administration Timeline *(All dates are actual)*

- 1 The EIPC advised the SSC of the continuation of the Phase II work with the Gas-Electric System Interface Study on June 7, 2013
- 2 The PPA Stakeholder Groups were introduced to the SSC and its process for interaction with the PPA Stakeholder Groups via two Webinars held on June 20 and 26, 2013
  - Reconvene the SSC and review its membership
  - Update the final SSC Roster by September 30, 2013
- 3 The EIPC invites comments from the SSC and PPA Stakeholder Groups on the draft SOW – comments were due by July 12, 2013
- 4 The SSC structure was adjusted to include natural gas industry representation on July 27, 2013
- 5 The PPAs compiled stakeholder feedback on the proposed SOW thru August 2, 2013



# Project Administration Timeline – cont'd

*(All dates are actual)*

- 6 Prior to issuance of the Request for Proposals (RFP), the PPAs review, post and incorporate appropriate Stakeholder comments into a revised SOW thru August 2, 2013
- 7 The PPAs finalized the Project Management Plan (PMP) and SOW by August 2, 2013
- 8 The RFP process was initiated with the publishing of the final Statement of Work, along with the formal announcement of the RFP on the EIPC website, an EIPC Media Release, and advertisements in both Platts MW Daily and Gas Daily publications on August 3, 2013
- 9 Responses to the RFP were required to be completed by midnight on August 30, 2013
- 10 The partial government shutdown on October 1, 2013 has delayed the schedule for finalization of the contract

# Project Update – April 29, 2014

109 The Final Draft Report for Target 1 was posted on the EIPC web site on April 14, 2014

- Includes the matrix of comments received by all Stakeholders
- Includes the final exhibits of each PPAs firm generator contracts
- The final exhibits detailing each PPAs gas infrastructure will be posted by May 1, 2014

110 Target 2 electric sector modeling workloads include (AuroraXMP):

- The PPAs have completed their review and submitted changes to their electric sector, production simulation database inputs
- The Initial Draft Target 2 Input Data and Assumptions Report is complete and was posted to the EIPC website for stakeholder review on April 25, 2014
  - This report details the major assumptions for the *Reference, High and Low Gas Demand Scenarios*
- Modeling future transmission topology is being refined



# Project Update – April 29, 2014 – cont'd

## 111 Target 2 gas sector modeling workloads include (GPCM):

- Progress continues with the validation and customization of the GPCM model for both daily and monthly simulations
- For each *Scenario* and *Sensitivity*, the gas storage, LNG and pipeline expansion assumptions are being refined and tested
- Progress continues on development of the Residential, Commercial, and Industrial (RCI) gas demands for the study horizon

## 112 Target 3 workloads include:

- LAI and the PPAs are working with the non-FERC jurisdictional pipelines and LDCs within their respective regions to obtain the gas sector information needed to perform the hydraulic analysis as required for the Target 3 analysis



# Project Update – April 29, 2014 – cont'd

113 Target 4 workloads include:

- LAI has completed the list of dual fuel generators in each PPA
- LAI is collecting storage tank and re-supply method data
  - Some data has been identified as confidential
- LAI has begun assessing the liquid fuel markets in each PPA

114 LAI is awaiting the release of requested pipeline information from FERC

115 A Webinar is scheduled for May 7, 2014 at 11:00 AM to 12:30 PM (EPT):

- Discuss Target 2 status and available draft results
- Discuss Second Set of Sensitivities

116 A SSC Mid-Point Meeting is scheduled for June 25–26, 2014 in Atlanta, GA

117 All regional stakeholder presentations concerning this EIPC Gas-Electric System Interface Study will also be posted on the EIPC web site



# Questions

