

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



Project Update

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

Legend

- Information (text) in dark color was previously delivered to the PAC at these meetings:
 - 2013
 - June 19, August 13, September 17, October 16, November 20, December 18
 - 2014
 - January 22, February 19, March 17, April 29, May 21, June 19, July 15, August 14, September 17, October 23, and November 18
- 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 Project 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, suggest 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:

Target 1 - Develop a baseline of the electric and natural gas systems, including their planning, operation and interactions

Target 2 - Determine the adequacy of the regional gas systems to satisfy generation needs over five- and 10-year horizon

Target 3 - Identify contingencies on the gas and electric systems that could negatively affect the other

Target 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 contract was awarded to Levitan & Associates, Inc. (LAI) of Boston, MA

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167 Target 1 – Baseline the natural gas infrastructure within each PPA region

- Complete - The Final Draft Report and exhibits have been posted to the EIPC website, along with the matrix of comments from stakeholders.

168 Target 2 – AURORA Production Simulation Update

- All Aurora production simulations to support the project have been performed.

169 Target 2 – Gas Pipeline Competition Model (GPCM) Update

- GPCM analysis has been completed for all three scenarios and all sensitivities.

170 Target 2 – Draft Report

- The Target 2 Draft Report for stakeholder review was targeted for publication on September 30, 2014. Its posting has been delayed for addition review.



Project Update – December 18, 2014 – cont'd

171 Target 3 – Assess the impacts from both gas & electric contingencies on the power sector's fuel supplies

- All PPAs have submitted their lists of electrical contingencies to be modeled.
- PJM, NYISO and IESO continue to work with local gas LDCs for contingency identification and modeling.
- Due to delays in the initial gas pipeline data collection through FERC, the Target 3 project timeline has now been subsequently revised.

172 Target 4 – A cost/benefit assessment of dual fuel versus firm natural gas for fuel assurance objectives

- The Target 4 Draft Report for stakeholder review was posted November 7, 2014.
- A stakeholder webinar on the Target 4 Draft Report was held November 14, 2014.
- The Target 4 Final Draft Report was posted on the EIPC web site on December 5, 2014.
- The EIPC has also forwarded the Target 4 Final Draft Report to the DOE for their review.

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173 Project Timeline – Target 3 – Contingency Analysis

- The Target 3 LDC Draft Reports were spooled out (to each applicable LDC) on December 12, 2014.
- The Target 3 LDC comments were due back 1 week after they receive their report.
- The Target 3 contingency results will be sent to the PPAs on December 26, 2014.
- The Target 3 Draft Report will be sent to the PPAs on January 19, 2015.
- The PPA comments on the Target 3 Draft Report are due on January 24, 2015.
- The Target 3 Draft Report will be sent to the stakeholders on January 30, 2015.
- A SSC Webinar to discuss the Target 3 results will be held on February 5, 2015.
- Stakeholder comments on the Target 3 Draft Report are due February 13, 2015.
- The Target 3 Final Draft Report will be submitted to DOE on February 27, 2015.
(Target 3 Complete)

Questions

