

From: David Whiteley
To: Stakeholder Steering Committee (SSC) Members and Stakeholders
Date: May 26, 2014

Re: Answers to Remaining Questions from May 7, 2014 SSC Webinar

During the May 7, 2014 SSC Webinar, two questions were asked that could not be answered during the webinar because additional information was required. The two questions are summarized below:

Question 1: The bubble diagram depicting the load zones and transmission interconnections between the zones that will be modeled in the Aurora production cost simulation was presented during the webinar. Slide 4 of the Target 2 Status presentation shows the Cleveland and ATSI bubbles connected to the PJM RTO bubble, but with no connection between them. If the Cleveland zone is truly “nested” within the ATSI zone, shouldn’t there be an interconnection between the two?

Question 2: The description used to supplement slide 5 of the Target 2 Status indicated that there are some transmission changes submitted by the Participating Planning Authorities (PPAs) that will be included as part of the “Reference Gas Demand Scenario Update”. What transmission changes are those?

Question #1 Answer

The bubble diagram shown on slide 4 of the Target 2 Status presentation was found to be in error. The Cleveland zone should in fact be connected to the ATSI zone which is then connected to the PJM RTO zone. The configuration used in the model set-up was determined to be correct, but the presentation diagram was incorrectly drawn. The revised/corrected diagram is shown in Attachment 1.

During the review of the bubble diagram, an additional revision was found to more accurately depict the connections of the AECl zone. That zone should have connections with TVA_NW (included on the May 7 version of the diagram), MISO_IOWA, MISO_MO, and MISO_ARK (previously labeled ENTG_ARK). The diagram was also missing a linkage between the QC and NB zones outside of the Study Region that will be modeled. These updates have also been made to the diagram in Attachment 1 and to the Aurora production cost model.

Finally, the revised diagram in Attachment 1 shows the multi-link interface limits as well transfer limits for each of the links between the zones that will be used in the Aurora modeling.

Question #2 Answer

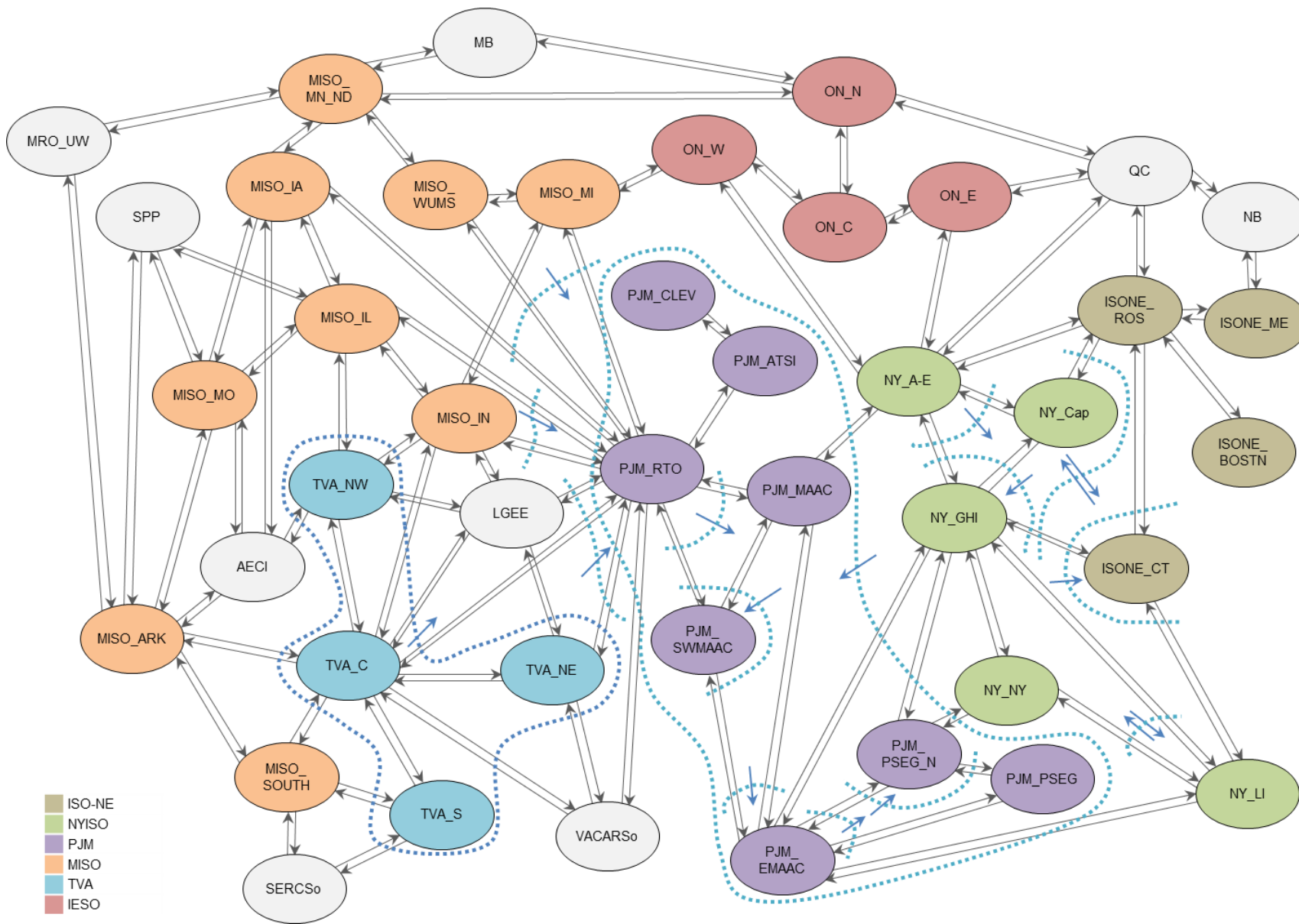
The starting point configuration for the electric transmission infrastructure in the Reference Gas Demand Scenario was taken from the 2018 and 2023 Roll-up transmission models developed by EIPC. (Note: the High Gas Demand Scenario and Low Gas Demand Scenario are built from the Reference Gas Demand Scenario and thus are also based on the Roll-up models.) After those models were developed and finalized in late 2013, several future transmission projects were approved for completion within the 10 year timeframe of the study horizon. Some of these transmission projects were highlighted by the TO/TD sector as suggested sensitivities. After further consideration, EIPC agreed that some specific changes should be made to the starting point cases to reflect projects that have been approved since the Roll-up cases were created and are scheduled to go into service within the study horizon. The updated cases are shown on the diagram in slide 5 of the Target 2 Status presentation as “Update” cases. All other sensitivities to be run in Target 2 will be based on these updated scenarios.

The transmission changes to the Reference Gas Demand Scenario, High Gas Demand Scenario, and Low Gas Demand Scenario to create the “Update” scenarios include:

- a. TOTS project 1 – Marcy-South Series Compensation (including Frasier – Coopers Corners reconductoring)
- b. TOTS project 2 – Rock Tavern – Ramapo Second 345KV Line
- c. TOTS project 3 – Staten Island Unbottling (Series of 345KV transmission line upgrades)
- d. Northern Pass Transmission (NPT) and projects in support of NPT – see document titled “List of PPA Transmission Project Updates to the Roll-up_v2”
- e. Various Projects in PJM – see document titled “List of PPA Transmission Project Updates to the Roll-up_v2”

I look forward to seeing you during the June 25-26, 2014 SSC meeting in Atlanta, Georgia. Please visit the EIPC website at eipconline.com to learn more about the meeting and to register.

Target 2 – Input Data and Assumptions
Exhibit 2 – AURORAxmp Topology



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Notes:

1. The following model zones (bubbles) differ from their usual interpretation in order to model nested transmission constraint areas:
 - The PJM_RTO zone includes all PJM loads and resources except those in PJM_ATSI and PJM_MAAC.
 - The PJM_ATSI zone includes all ATSI loads and resources except those in PJM_CLEV.
 - The PJM_MAAC zone includes all MAAC loads and resources except those in PJM_EMAAC and PJM_SWMAAC.
 - The PJM_EMAAC zone includes all EMAAC loads and resources except those in PJM_PSEG.
 - The PJM_PSEG zone includes all PSEG loads and resources except those in PJM_PSEG_N.
2. Revisions to the bubble diagram presented at the May 7, 2014 SSC webinar include:
 - Multi-link interface upper limits are also shown in this version (blue dotted lines and arrows).
 - The PJM_RTO – PJM_CLEV link has been replaced with a PJM_ATSI – PJM_CLEV link.
 - A QC – NB link has been added to the model.
 - AECI – MISO_IA, AECI – MISO_MO, and AECI – MISO_ARK links have been added to the model.
 - The previous ENTG_ARK zone has been renamed MISO_ARK for consistency with other MISO zone names.