



2020 Project Candidate: Relocating the IESO Proxy Bus

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Agenda

- **Problem/ Opportunity Statement**
- **Summary of Analyses**
- **Proposal Justification**
- **Questions**

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Problem/Opportunity

- **The NYISO's market software currently uses the BRUCE station as the proxy bus to schedule transactions with Ontario's Independent Electric System Operator (IESO).**
 - The selection of the BRUCE station as the location of the IESO proxy bus is the determining factor for how the market software distributes the power flow for scheduled energy between IESO and NYISO.
- **Analysis of the actual historical delivered energy from transactions between IESO and NYISO indicate a potential improvement that can be made with the power flow results from the NYISO's market software.**
 - Historically, ~85%-95% of the scheduled energy between IESO and NYISO is realized over the six direct tie-lines between IESO and NYISO, as compared to the ~70%-85% that is expected by the market software when it is making scheduling decisions.

Summary of Analyses

- **The historical scheduled IESO-NY interchange realized over the six direct tie-lines between IESO and NYISO has been reviewed for the years following the commercial operation of the Ontario-Michigan PARs**
 - The Ontario-Michigan PARs began being operated to control that interface on July 18, 2012
- **The operation of the Ontario-Michigan PARs to better conform actual power flows to scheduled power flows at the Ontario-Michigan interface should result in more IESO-NY interchange being delivered directly to New York, rather than looping around Lake Erie**
- **However, the NYISO's energy market software schedules IESO-NY interchange with power flows that anticipate only ~70%-85% of power will be delivered directly**
 - The schedules for IESO-NY interchange assume more counter-clockwise Lake Erie loop flow than actually occurs

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Proposal Justification

- Scheduling decisions by the market software that over-estimate the counterclockwise Lake Erie loop flow impact of IESO-NY schedules, in the presence of impactful transmission constraints, could aggravate those constraints in real-time
- A more optimal proxy bus for IESO scheduling will better align the power flow results with real-time operations
 - Doing so would provide the market software with an improved estimation of the amount of IESO-NYISO interchange that will be delivered over the six direct tie lines between IESO and NYISO, resulting in more efficient prices and schedules, particularly in the highly constrained West zone.
- Developing a more accurate power flow result out of the commitment optimization is expected to lead to improved resource scheduling and pricing outcomes

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Questions?

We are here to help. Let us know if we can add anything.

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- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policy makers, stakeholders and investors in the power system



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