

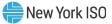
### 5-Minute Transaction Scheduling Project Kick-Off

#### Ashley Ferrer Market Design Specialist, Energy Market Design ICAPWG/MIWG

January 30, 2020

#### Agenda

- Background
- Project Scope
- Next Steps



### Background



© COPYRIGHT NYISO 2020. ALL RIGHTS RESERVED.

DRAFT - FOR DISCUSSION PURPOSES ONLY

# Background: External Transaction Scheduling

- Day-Ahead Market transaction bids are evaluated by SCUC on an hourly basis
- In the Real-Time Market, Real-Time Commitment (RTC) determines schedules for hourly transactions once per hour and intra-hourly transactions once every 15 minutes
  - Real-Time Dispatch (RTD) treats the transactions scheduled from RTC as fixed interchange and does not re-evaluate any transactions



#### Real-time Transaction Scheduling with External Control Areas

Control Area	Proxy Bus Name	Scheduling Bid Type Option	15-Minute Transaction Scheduling	60-Minute Transaction Scheduling
Hydro Quebec	Chateauguay-Import/Export	LBMP	Х	Х
Hydro Quebec	Wheel	LBMP		Х
Hydro Quebec	Cedars	LBMP		Х
ISO-NE	Sandy Pond – A/C Interface	CTS	Х	
ISO-NE	Cross Sound Cable	LBMP		Х
ISO-NE	Northport Norwalk 1385	LBMP		Х
Ontario	Bruce – A/C Interface	LBMP		Х
PJM	Keystone – A/C Interface	CTS & LBMP	Х	
PJM	Neptune	CTS & LBMP	Х	
PJM	VFT	CTS & LBMP	Х	
PJM	HTP	CTS & LBMP	Х	



### **Project Scope**



#### **5-Minute Transaction Scheduling**

- The project will study the potential and feasibility for external transactions with external control areas (e.g., HQ, PJM, ISO-NE, IESO) to be scheduled on a 5-minute basis.
- This project will deliver a report that considers a proposed mechanism to enhance the real-time interchange scheduling processes by allowing the economic scheduling of interchange across interties nominally every 5-minutes.



#### **Expected Benefits**

- More frequent transaction scheduling is a market enhancement which will contribute to NYISO's ability to meet future grid challenges expected to arise with high levels of intermittent renewable and distributed energy resources while satisfying reliability needs
  - As more intermittent resources are integrated into the bulk power system, net load variability is expected to increase
  - To address these future challenges, more frequent transaction scheduling could:
    - Provide pricing and investment signals necessary to reflect system needs and to incent resources capable of resolving those needs
    - Expand the set of resources available to balance the system
    - Expand the capability of neighboring systems to efficiently provide additional power during times of shortages and provide a quicker response rate to real-time events
- Additionally, more frequent transaction scheduling could:
  - Improve convergence between prices in RTC and RTD
    - 5-minute interchange scheduling could provide RTD with additional scheduling flexibility
    - Even increasing 60-minute interchange scheduling frequency to every 15-minutes could improve convergence as binding RTC schedules would be established closer to real-time
  - Offer increased flexibility to the market optimization software



### **Next Steps**



#### Timeline

#### • Q12020

- Perform initial research
- Begin discussion with stakeholders

#### • Q2 2020

- Continue stakeholder discussions
- Present completed study to stakeholders



### Our mission, in collaboration with our stakeholders, is to serve the public interest and provide benefit to consumers by:

- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policymakers, stakeholders and investors in the power system





## **Questions?**

