

NYISO Public Policy

*PROPOSED TRANSMISSION NEEDS DRIVEN
BY PUBLIC POLICY REQUIREMENTS*

NEW YORK'S CLEAN ENERGY STANDARD CREATES A NEW PUBLIC POLICY REQUIREMENT

- 33.7 Million MWh of NY's energy demands need to be met from renewable energy resources by 2030
- As of 2014, 87% of the renewable MWh in NY were produced from existing hydro facilities, primarily NYPA projects
- Most new renewables in NY are wind and solar. A little more than 5.3 Million MWh now is generated from renewable resources other than hydro
- CES Order calls for an increment equal to more than six (6) times that amount (5.3 Million) to come from new renewable resources by 2030
- The CES Order opened eligibility to the CES program to out-of-state resources that meet certain delivery requirements, which will need inter-regional transmission capacity

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Future State:
CES Order by 2030

Additional 33.7 Million MWh of the State's energy needs to be met from renewable energy resources

Current State:
CES Concern

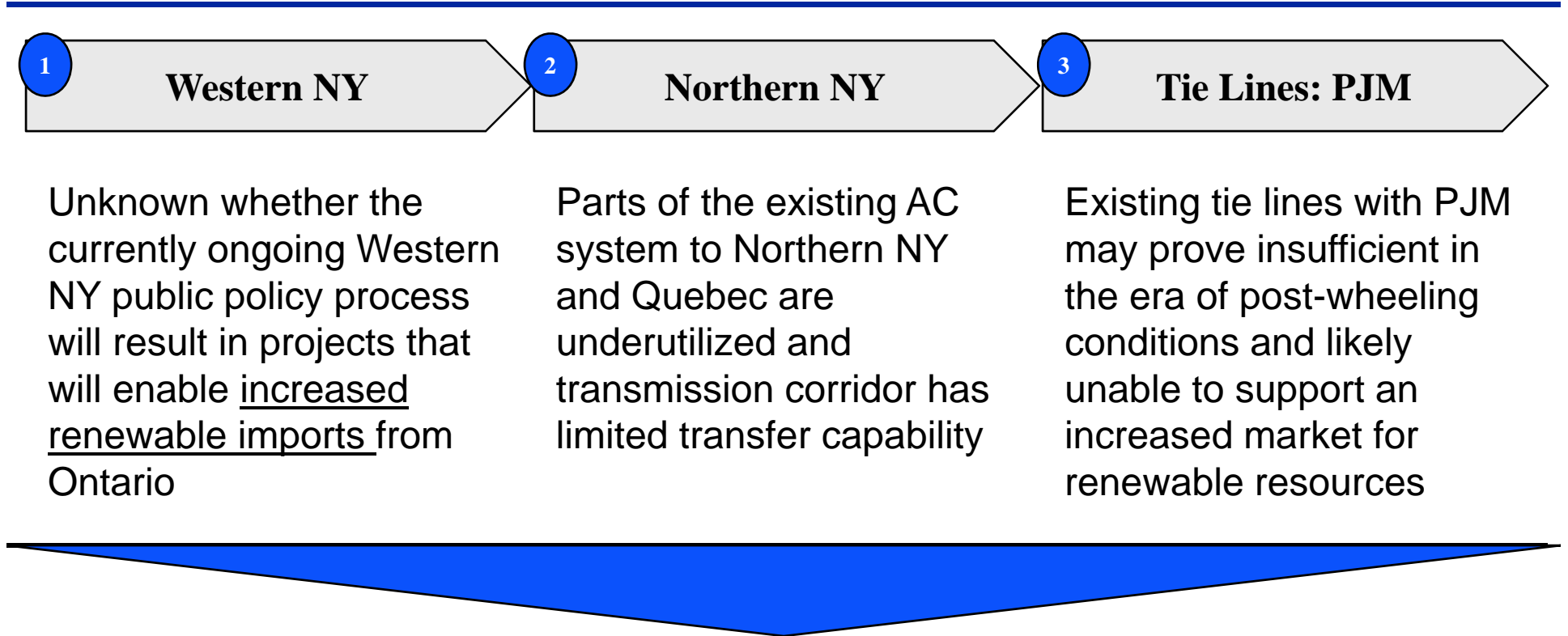
87% of existing Renewable energy comes from Hydro resources

Gap:

Increase by 6 times the amount currently produced by non- Hydro

Opened eligibility to the CES program to out-of-state resources that meet certain delivery requirements; however, delivery of such resources will likely require increased inter-regional transmission capacity

Enabling Conditions: New Transmission within and into NYISO is needed to meet CES



Inter-regional Transmission Capacity is needed

Is New York on schedule to meet the Clean Energy Standard?

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Western NY

- Increased import capability (1000 MW from Ontario) was only a “secondary” requirement in Western NY window, and only under emergency conditions
- Incremental renewable resources in western NY and increased imports from Ontario can play a significant role in meeting CES objectives
- PSC’s Oct. 13 order remains primarily focused on fully utilizing the Niagara Project
- Additional transmission capacity may be necessary to effect increased imports

Existing AC system to northern NY and Quebec underutilized and restricted in its transfer capabilities

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Northern NY

- The existing 765 kV line has a very high capacity, but is underutilized for technical reasons
 - Special protection scheme controls flow of Beauharnois/Chateauguay generation
- Although the CES does not allow additional impoundments, incremental renewable generation is still available in Quebec
- Non-eligible impoundments can firm up capacity for CES eligible projects

Existing tie lines with PJM may be insufficient to support an increased market and demand for renewable resources

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Tie Lines: PJM

- Create a better market for renewable projects in PA and PJM by enabling them to contribute to achieving NY's CES goals
- Expanding the PJM-NYISO tie capacity will allow future renewable sources to flow into NY
- Diversifying sources by increasing pathways into NY will help serve increased demand in post Wheeling environment

Summary: Increase in Inter-Regional Capacity among PJM, Ontario, and Quebec is required to meet CES

- Western NY objective was focused on Congestion and import criteria was secondary
- Existing AC system to northern NY is underutilized and needs to be expanded to increase capacity
- Post Wheeling era will increase demand and a need for additional transmission

Thank you