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Independent System Operator

2020 RNA: Assumptions for Further Simplified Neighboring Areas Scenario

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Resource Planning

Joint ESPWG/TPAS

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Background

- **Feb 27 ESPWG/TPAS**
  - Discussed assumption matrix and previewed external simplification

- **March 16 ESPWG/TPAS/LFTF**
  - Proposed changes to Base Case modeling
  - Provided initial details on scope for scenario on further simplifying the external regions representation

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Scenario Description

- **This scenario will evaluate the effect of:**
  - Removing all load and generation from external regions
  - Inserting capacity resources in each external region
    - The amount of capacity can be varied based upon feedback
  - Removing interfaces between external regions
    - This prevents modeled capacity from looping through other regions

NOTE: RNA scenarios are for information only

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Scenario Goals

- **If successful, this new model could be used for future resource adequacy analysis in MARS, where:**
  - Effects of assistance from external areas can be discreetly measured
  - The amount of available assistance capacity in each neighboring region becomes a study assumption
    - These values are not expected to be recalibrated from a more complex model

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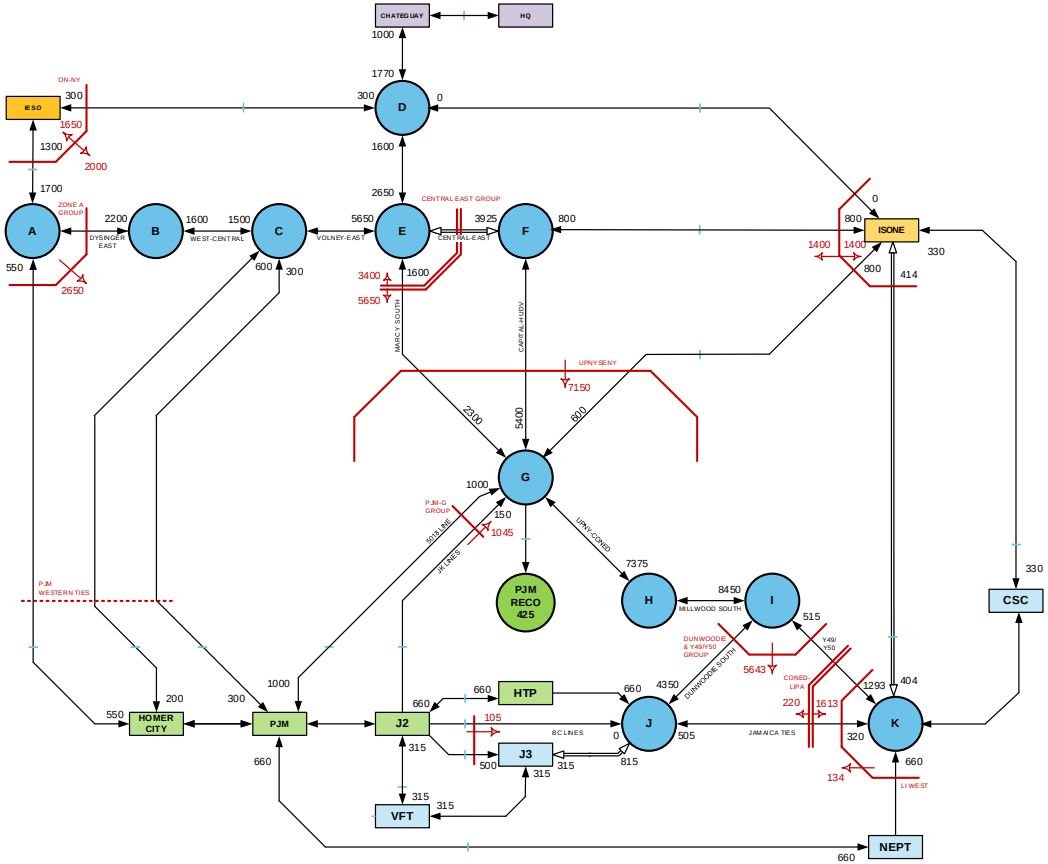
Scenario
Draft Topology

Draft Topology for 2020 RNA Further Simplified External Scenario: Study Years 2024-2030



For Internal Discussions Only

External Capacity Assumptions

External Capacity Assumptions

- This scenario removes the load and generation model used in the RNA Base Case analysis
- Instead, capacity resources are added to each external area, as described on subsequent slides
  - This capacity will be available as emergency assistance during hours where there is not enough New York Control Area generation to serve load

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Capacity Transactions

	Base Case	Scenario
Capacity Purchases	Model purchases from external regions, including ties between pools	No Change
Capacity Sales	Model sales to external regions, including flow on ties between pools	Model loss of capacity from sale, continue to allocate flow on ties between pools
Wheels	Model 300 MW wheel from HQ to ISONE through NY, including flow on ties between pools	Model impact of 300 MW wheel on ties between pools but not the capacity transaction
RECO Load	Model up to 425 MW flow from PJM through NY BPS	No Change

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External Capacity Models

- **The following types of models will be evaluated:**
  - Always Available Units
  - Units with a forced outage rate
  - Units subject to a probability distribution function
- **Additional methods to limit capacity during high load periods will be evaluated, such as:**
  - Limiting pool-to-pool transfers during peak load hours

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Guidelines for Setting Available Capacity

- **Pool-to-Pool Limits (based on 2024 topology):**
  - From IESO, 2000 maximum import from interface group
  - From HQ, 1770 maximum import from interface
  - From ISONE, 1400* maximum import from interface group
  - From PJM, 2600* maximum import from interfaces
- **Additionally, an overall emergency assistance import limit of 3500 MW continues to be applied**
  - This value excludes capacity purchases

* Excludes UDRs

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Questions?

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- 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

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