

# External ICAP Allocation For the 2010 Capability Year

#### (Before the application of the deliverability test)

Greg Drake Lead Engineer- Reliability and Security New York Independent System Operator

> ICAP Working Group February 18, 2010



# Discussion

- Study Parameters
- Method
- Results



#### 2010 External ICAP Allocation Study Parameters

- Cedars and Chateauguay interfaces are treated separately.
- Consider imports from HQ through IESO to NYCA.
  <u>Not considered for import allocation limits</u>:
- Interface facilities having UDRs;
- The NYC through PJM PAR facility capacity;
- The NUSCO 1385 line (no capacity contracts).



<sup>© 2000-2009</sup> New York Independent System Operator, Inc. All Rights Reserved



#### **2010 External ICAP Allocation** Methodology – Initial Individual Limits

- Start with 2010-2011 IRM database updated to include the final load forecast.
- Model Grandfathered imports (consistent with ICAP manual).
- Look at participating external Control Areas and exclude ineligible interface ties (shown on previous slide).
- Find initial maximum imports by increasing imports for one Control Area until Loss of Load Expectation (LOLE) violation occurs.
- Repeat for other Control Areas, individually.



#### **2010 External ICAP Allocation** Methodology – Simultaneous Limit

- Reset imports to zero, except for grandfathered imports.
- Starting at the reset amounts (above bullet), increase imports on eligible ties proportionally to the individual limits identified.
- The total of these imports, including the grandfathered imports, is the initial simultaneous import limit. This amount does not impinge upon the emergency assistance relied upon to meet the Loss of Load Expectation (LOLE) measurement criterion of 0.100 days/year.



#### **2010 External ICAP Allocation** Methodology – Optimally Feasible Solutions

- The objective of the study is to maximize imports (Sec. 2.7, ICAP Manual)
- A large series of tests were performed to maximize individual contributions.
- The key results of these tests are provided on the following slides.



### 2010 External ICAP Allocation Starting Values (MW)

	РЈМ	Quebec v IESO	Quebec v Cedars	Quebec v Chat	ISO-NE		
Starting Values (TTC)	1550	900	166	1500	1400		
Initial Individual <sup>1</sup>	1220	25	15	1100	610		
Simultaneous Limit Test	2250						

1. Individual limits and the simultaneous limit are tested with grandfathered rights assumed. In this case, those rights are 1080, 1090, and 50 MW for PJM, Quebec (Chateauguay), and ISO-NE, respectively.



## **2010 External ICAP Allocation**

Maximize Imports Testing Results (MW)

<u>Test</u>	<u>PJM</u>	Q via <u>Ontario</u>	Q via <u>Cedars</u>	Q via <u>Chat'y</u>	ISO- <u>NE</u>	<u>Total</u>
Historic Firm Imports	300- 400	~250	166	1000- 1100	0	~1800
Lower NE	1220	5	0	1090	50	2365
Lower PJM	1080	5	0	1090	610	2785
Lower Both	1080	25	0	1090	50	2245
Increase ISO-NE*	<u>1080</u>	<u>25</u>	<u>0</u>	<u>1090</u>	<u>450</u>	2645

\*Recommended values. Since the sum of the individual limits exceed the initial simultaneous limit, from the previous slide, the final simultaneous limit is 2645 MW. The 0.1 days/years criterion can be met for all combinations of imports under the recommended individual limits.



The New York Independent System Operator (NYISO) is a not-for-profit corporation that began operations in 1999. The NYISO operates New York's bulk electricity grid, administers the state's wholesale electricity markets, and conducts comprehensive planning for the state's bulk electricity system.



#### www.nyiso.com