

# **External ICAP Rights for the 2016 through 2017 Capability Year (Prior to Deliverability Testing)**

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# Objective

- ◆ **To determine the maximum amounts of import capacity allowed from neighboring Control Areas (CAs) (Sec 4.9.6 ICAP Manual)**
- ◆ **MARS simulations were performed on the LCR MARS database to determine the sum of the individual capacity import contributions without violating the LOLE criterion**

# Ties Excluded

- ◆ **Interface facilities having UDRs**
- ◆ **Controllable lines from PJM into NY**
- ◆ **The NUSCO 1385 (NNC) line**
- ◆ **Note: Ontario ties were considered for one of the two studied cases**

# Methodology

- ◆ **Initial MARS Database: 2016-2017 IRM database as updated for the LCR study**
- ◆ **Model Grandfathered imports consistent with the IRM study**
- ◆ **Determine the maximum imports for each Control Area individually by increasing imports on each CA's ties until the LOLE levels in the base case are met**

# **Methodology - Continued**

- ◆ **Perform simultaneous runs by increasing the ICAP imports based on the individual limits (beyond the Grandfathered imports) until the LOLE levels in the base case are met**
- ◆ **These ICAP imports, when added to the Grandfathered imports, to calculate the total simultaneous import limits**

# Methodology Changes

- ◆ **There were no changes in the methodology from last year**
- ◆ **The methodology performed for three CAs was also used in the event that four CAs (including IESO) participate in capacity imports**

# Calculations

## Considering 3 Control Areas' Participation

	PJM	ISO-NE	Quebec	Row Totals
Initial Values (TTC Summer Ratings)	1450	1400	1500	4350
Grandfathered Rights*	1080	0	1090	2170
Individual Limits (above GF)	130	830	26	986
Simultaneous Limits (above GF)	70	446	14	530
Final Values	<b><u>1150</u></b>	<b><u>446</u></b>	<b><u>1104</u></b>	<b><u>2700</u></b>

\* Includes ETCNL for these purposes

# Calculations

## Considering 4 Control Areas' Participation

	PJM	ISO-NE	Quebec	Ontario	Row Totals
Initial Values (TTC Summer Ratings)	1450	1400	1500	2000	6350
Grandfathered Rights*	1080	0	1090	0	2170
Individual Limits (above GF)	130	830	26	235	1221
Simultaneous Limits (above GF)	49	312	10	89	460
Final Values	<b><u>1129</u></b>	<b><u>312</u></b>	<b><u>1100</u></b>	<b><u>89</u></b>	<b><u>2630</u></b>

\* Includes ETCNL for these purposes



# Comparison of last year's values and this year's values

	PJM	ISO-NE	Quebec	Ontario	Row Totals
<b>Last Year</b>					
Without Ontario	<b>1189</b>	<b>447</b>	<b>1104</b>	N/A	<b>2740</b>
With Ontario	<b>1151</b>	<b>293</b>	<b>1099</b>	<b>202</b>	<b>2745</b>
<b>This Year</b>					
Without Ontario	<b>1150</b>	<b>446</b>	<b>1104</b>	N/A	<b>2700</b>
With Ontario	<b>1129</b>	<b>312</b>	<b>1100</b>	<b>89</b>	<b>2630</b>

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