Informational LCR Results

Nathaniel Gilbraith
NYISO Market Operations

ICAPWG

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NYISO, Rensselaer, NY

Agenda

- Review Net CONE Curves used in the 2019 LCR Study
- Review Transmission Security Limit used in 2019 LCR Study
- Updated Transmission Security Limit for 2020
  - Using the Gold Book forecast and Preliminary Base Case EFORd values
- Results from preliminary LCR case
- Next steps

2019 Net CONE Curves

- Using Net CONE values from 2019 LCR study
- Published to the NYISO website 11/29/2018
  - https://www.nyiso.com/documents/20142/3679493/2019-Net-CONE.pdf/66fd5afa-ea9c-792e-0213-793477adcb61
- 2020 Net CONE values will be available in November 2019

2019-2020 Capability Year LCRs: Net CONE Curves		
Location	LCR	Net CONE
NYCA	111.5	95.92
	114.5	96.98
	117.5	97.56
	120.5	98.10
	123.5	98.62
G-J	84.0	145.27
	87.0	145.93
	90.0	146.66
	93.0	147.90
	96.0	148.71
Zone J	74.5	169.85
	77.5	173.83
	80.5	178.34
	83.5	180.82
	86.5	182.34
Zone K	96.5	121.26
	99.5	127.06
	102.5	132.36
	105.5	136.07
	108.5	138.21

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2019 Final TSL Values

2019 Final TSL calculations

Transmission Security Requirements	Formula	GHIJ	NYC	LI	Source
Load Forecast (MW)	[A] = Given	15845.5	11,607	5,279.1*	2019 load from 2018 GB
Transmission Security Limit (MW)	[B] = Given	3,200	3,200	350	2019 Final TSL Report
Minimum UCAP Needed (MW)	[C] = [A]-[B]	12,646	8,406.9	4,929.1	
UCAP Needed Percent	[D] = [C]/[A]	79.80%	72.43%	93.37%	
5 Year EFORd	[E] = Given	9.63%	9.67%	9.74%	2019 IRM FBC EFORd
ICAP Needed (MW)	[F] = [C]/(1-[E])	13,993	9,306.9	5,461	
ICAP Floor Requirement (TSLs)	[G] = [F]/[A]	**88.3%**	**80.2%**	**103.4%**	2019 FBC TSLs

* This value includes the ACHL from BTM:NG in Zone K (*40.6 MW*)

2020 Preliminary TSL Values

Preliminary Base Case TSL calculations

Transmission Security Requirements	Formula	GHIJ	NYC	LI	Source
Load Forecast (MW)	[A] = Given	15911	11,651	5,172.9*	2020 load from 2019 GB
Transmission Security Limit (MW)	[B] = Given	3,400	3,200	350	2020 TSL Report
Minimum UCAP Needed (MW)	[C] = [A]-[B]	12,511	8,451	4,823	
UCAP Needed Percent	[D] = [C]/[A]	78.63%	72.53%	93.23%	
5 Year EFORd	[E] = Given	9.91%	10.05%	9.69%	9/4/2019 PBC EFORd
ICAP Needed (MW)	[F] = [C]/(1-[E])	13,887	9,395	5,340	
ICAP Floor Requirement (TSLs)	[G] = [F]/[A]	**87.3%**	**80.6%**	**103.2%**	2020 PBC TSLs

* This value includes the ACHL from BTM:NG in Zone K (*38.9 MW*)
Note: Final TSL calculations will be available in December 2019

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2020 vs 2019 TSL Report

TABLE 4 – Comparison of 2020 & 2019 Locality Limits

Locality	Summer 2020 Limit	Summer 2019 Limit	Difference
Zone K Locality	350 MW	350 MW	0 MW
G-J Locality	3400 MW	3200 MW	+200 MW
Zone J Locality	3200 MW	3200 MW	0 MW

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Preliminary LCR Results

- **Master Input File**
  - IRM Preliminary Base Case (PBC) MIF

2019 PBC	NYCA	G-J	NYC	LI	Total Cost (MM$)**
Tan 45 LCRs	118.6%	98%*	83.9%	102.3%	$5,081.30
Optimized LCRs	118.6%	90.3%	86.7%	103.2%***	$5,040.60
deltas	0.0%	-7.7%	2.8%	0.9%	-$40.70

* As-found condition for the G-J Locality given the PBC IRM and LCRs.

** Total cost as calculated by the LCR software, at the level of excess, considering Net CONE Curves.

*** The TSL Limit for Long Island was binding.

Next steps

- The NYISO will return to ICAPWG in November and present informational LCRs based on the final IRM case, as presented to the New York State Reliability Council
  - NYISO will also present materials to the NYSRC-Installed Capacity Subcommittee
- The NYISO will calculate final LCRs in January 2020
- Final LCRs will be presented to the OC in January 2020

Questions?

Questions or comments can be sent to

deckels@nyiso.com

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- Operating open, fair and competitive wholesale electricity markets
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- Providing factual information to policy makers, stakeholders and investors in the power system

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