

Proposed Revision to Policy 5
May 30, 2014
DRAFT

DRAFT: For Discussion Only

Policy 5 –proposed change

- Adjust modeled unit capacity to *“capacity resource interconnection service (CRIS). The value used in determining the ICAP equivalent will be the smaller of the then currently effective DMNC rating or the CRIS value as applicable.”*

Policy 5 Update (As Presented to the NYSRC EC)

...Currently the capacity included in the model is the lesser of a units DMNC rating or its Capacity Resource Interconnection Service (CRIS) value which is also the limit that may be sold in the capacity market.

...[NYISO] explained that before CRIS, energy only units were excluded from the model.

...He also pointed out that if we model all the installed capacity regardless of how much can be sold into the capacity market, we could, under tight condition, end up in a situation where the NYISO would not be able to secure the full reserve margin requirement in the capacity market.

Reason for change

- Only resource capacity that is qualified to sell ICAP should be modeled.
- That's the way its been done for years.
- A units CRIS level is actually deliverable and units without CRIS are not deliverable.

Deliverability Rule

- In 2009 FERC approved the NYISO deliverability test method that qualified resource capacity to participate in the NYISO's ICAP auction;
 - Units with CRIS are not obligated to sell their capacity in the NYISO market
 - Deliverability is not tested from ROS to localities (E.G. Unit in zone G only needs to be deliverable to zone H and zone H and I but not J or K).
 - In 2009 all existing units received CRIS rights, all units were “grandfathered” and were not subject to a “deliverability test”.
 - Approximately 1000 MWs of capacity with CRIS rights is in fact not deliverable under the NYISO deliverability test
- Deliverability Tests (deterministic load flow) was meant to be a proxy for stochastic modeling in the IRM.

Deliverability Test

IRM (MARS)	CRIS (Load Flow)
<p>Unit capacity (DMNC) is adjusted to account for availability stochastically (EFORd)</p> <p>Generation and load locations are defined by transmission interfaces</p> <p>Zones with surplus capacity are allowed to “assist” neighboring zones provided there is available headroom on the interface.</p> <p>If the transmission system can not support assistance from neighboring zones then there may be a loss of load event.</p> <p>Capacity that can not provide assistance to a neighboring region and help maintain LOLE at 0.1 is “shifted” and not in the denominator of the IRM.</p>	<p>Unit capacity (Pmax) is derated based on the units EFOR’d</p> <p>Generation and load locations are defined by transmission interfaces</p> <p>More upstream generation than is necessary to serve the upstream load plus LFU (generation excess), is assumed to displace downstream generation (Per OATT).</p> <p>If the dispatch of the upstream excess generation, and corresponding reduction of downstream generation, causes an overload then this overload is flagged as a potential deliverability problem.</p> <p>Capacity that causes overloads is deemed not deliverable in the deliverability test is not awarded CRIS rights.</p>

Impact on IRM

- if capacity is added downstate, the IRM improves...***location matters***
- if capacity is added to the system and the system average EFOR remains the same then there is no impact on the IRM.
- if added capacity improves the system average EFOR (generation fleet availability) then the IRM decreases ...***quality matters***
- if added capacity degrades the system average EFOR then the IRM increases ...***quality matters***
- adding lots of small units versus one large unit (with comparable EFOR) reduces the IRM ...***size matters***

Concerns:

- Should ICAP eligibility (qualified capacity selling ICAP in auctions) be a necessary prerequisite for reliability modeling purposes in the IRM?
 - Units with CRIS may actually sell its capacity to other control areas/RTO's.
- Why doesn't MARS account for "deliverability" in meeting LOLE 0.1?
 - Interface modeling in the IRM should properly account for deliverability
 - Many units received "grandfathered" CRIS rights and would otherwise would have failed the load flow deliverability test.
 - Energy only resources are tested for local deliverability under interconnection studies (minimum interconnection standards)
 - Surplus capacity that does not help maintain LOLE of 0.1 is shifted in the LOLE study and not considered in the IRM (ICAP/Peak load at LOLE 0.1).

Appendix

2014 Load and Capacity Book

EXISTING GENERATING FACILITIES

LINE REF. NO.	Owner, Operator, and / or Billing Organization	Station	Unit	Zone	In-Service Date YY-MM-DD	Name Plate Rating (MW)	CRIS Sum Cap (A) (MW)	2014 Capacity (B) (MW)	
								SUM	WIN
a	b	c	d	e	f	g	h	i	j
1007	Astoria Generating Company L.P.	Astoria 3		J	1958-09-01	376.0	369.9	374.0	376.3
1008	Astoria Generating Company L.P.	Astoria 5		J	1962-05-01	387.0	376.3	380.0	382.2
1011	Astoria Generating Company L.P.	Gowanus 1-2		J	1971-06-01	20.0	17.1	18.6	22.4
1032	Astoria Generating Company L.P.	Gowanus 3-7		J	1971-07-01	20.0	18.1	18.2	20.1
1034	Astoria Generating Company L.P.	Gowanus 4-1		J	1971-07-01	20.0	16.8	17.9	22.6
1058	Athens Generating Company, LP	Athens 1		F	2004-05-01	441.0	316.6	318.4	395.9
1059	Athens Generating Company, LP	Athens 2		F	2004-05-01	441.0	315.6	317.1	393.7
1060	Athens Generating Company, LP	Athens 3		F	2004-05-01	441.0	312.8	317.2	389.6
1070	Boralex Hydro Operations Inc	NYS Dam		F	1990-12-01	11.4	11.3	11.4	11.4
1071	Boralex Hydro Operations Inc	Sissonville		E	1990-08-01	3.1	3.0	3.1	3.1
1076	Calpine Energy Service LP	KIAC_JFK_GT2		J	1995-02-01	60.6	58.3	60.1	61.6
1081	Cayuga Operating Company, LLC	Cayuga 1		C	1955-09-01	155.3	154.1	156.0	154.8
1082	Cayuga Operating Company, LLC	Cayuga 2		C	1958-10-01	167.2	154.7	158.9	152.9
1107	Consolidated Edison Co. of NY, Inc.	East River 6		J	1951-11-01	156.2	134.3	137.7	140.1
1110	Consolidated Edison Co. of NY, Inc.	Hudson Ave 4		J	1970-07-01	16.3	13.9	14.6	15.6
1111	Consolidated Edison Co. of NY, Inc.	Hudson Ave 5		J	1970-07-01	16.3	15.1	15.7	17.1
1115	Consolidated Energy Edison, Inc.	Roseton 1		G	1974-12-01	621.0	614.8	619.0	619.0
1116	Consolidated Energy Edison, Inc.	Roseton 2		G	1974-09-01	621.0	605.7	607.5	615.0
1505	Niagara Mohawk Power Corp.	Boralex - Hudson Falls		F	1995-10-01	44.0	43.7	44.0	44.0
1610	Nine Mile Point Nuclear Station, LLC	Nine Mile Pt 1		C	1969-11-01	641.8	630.5	637.1	636.4
1611	Nine Mile Point Nuclear Station, LLC	Nine Mile Pt 2		C	1988-08-01	1,259.3	1,246.6	1,287.0	1,301.1
1618	Northbrook Lyons Falls, LLC	Lyons Falls Hydro		E	1986-01-01	8.0	7.3	8.0	8.0
1656	PSEG Energy Resource & Trade, LLC	Bethlehem Energy Center		F	2005-07-01	893.1	756.9	774.3	864.3
1663	Rochester Gas and Electric Corp.	Station 5 1		B	1918-07-01	14.0	11.8	12.9	12.9
1664	Rochester Gas and Electric Corp.	Station 5 2		B	1918-07-01	13.6	11.8	12.9	12.9
1665	Rochester Gas and Electric Corp.	Station 5 3		B	1918-07-01	18.0	16.5	18.0	18.0
1692	Somerset Operating Company, LLC	Somerset		A	1984-08-01	655.1	686.5	692.5	684.1
1694	Stony Creek Energy LLC	Orangeville Wind Farm		C	2013-12-01	93.9	88.5	93.9	93.9
1713	TC Ravenswood, LLC	Ravenswood ST 01		J	1963-02-01	400.0	365.1	365.7	373.5
1720	Wheelabrator Westchester, LP	Wheelabrator Westchester		H	1984-04-01	59.7	53.5	54.5	55.0
							11,714.7	11,895.3	
								180.6	