

Accurate ICR Calculation Approach

NESCOE

NEPOOL Reliability Committee

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Background

Throughout the stakeholder process to consider ISO-NE's proposed ICR values for FCA 9, NESCOE identified two issues with ISO-NE's approach that have consumer cost implications

1. **Solar DG** to be installed in the years between the historical data and the commitment period is not accounted for in the calculation
2. **Generator Availability** is based on historical data rather than what is expected **under Pay-for-Performance**

Solar DG

ISO-NE, NESCOE, various state agencies, and stakeholders worked to develop a Solar DG Forecast

States	Annual Total MW (MW, AC nameplate rating)											Totals
	Through 2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
CT	73.8	46.2	39.3	53.0	34.7	34.7	13.1	13.1	13.1	13.1	11.6	345.4
MA	361.6	168.5	117.4	110.5	103.6	98.7	98.7	98.7	32.9	32.9	32.9	1,256.4
ME	8.1	2.0	1.9	1.8	1.6	1.6	1.6	1.6	1.6	1.6	1.6	25.2
NH	8.2	2.5	2.3	2.2	2.0	2.0	2.0	2.0	2.0	0.7	0.7	26.7
RI	10.9	7.3	5.4	3.7	1.2	1.2	1.2	1.2	1.2	1.2	1.2	35.5
VT	36.1	20.1	13.4	7.0	6.5	6.5	6.5	6.5	6.5	6.5	1.7	117.3
Annual	498.7	246.5	179.6	178.1	149.6	144.8	123.1	123.1	57.3	56.0	49.7	1,806.5
Cumulative	498.7	745.2	924.8	1102.9	1252.5	1397.3	1520.4	1643.6	1700.9	1756.9	1806.5	1,806.5

Estimated Summer Seasonal Claimed Capability (SCC), in MW; Based on 35% of AC Nameplate Rating [Assume Winter SCC equal to zero]

Annual Summer SCC (MW)	174.5	86.3	62.9	62.3	52.4	50.7	43.1	43.1	20.1	19.6	17.4	632.3
Cumulative Summer SCC (MW)	174.5	260.8	323.7	386.0	438.4	489.0	532.1	575.2	595.3	614.9	632.3	632.3

Solar Treatment in ICR

- The solar forecast, included in the CELT, shows that ISO-NE expects 489 MW SCC to be present from solar in 2018
- Historical solar is included in the load forecast to the extent it has lowered historical load
- According to ISO-NE's PSPC presentation only 85 MW of solar were included on the load side for the FCA9 ICR calculation
- There is also about 56 MW solar with CSO's
- That means approximately 348 MW of solar installations - from the ISO's own forecast - is ignored

ISO-NE's Suggestions, What Really Happens and Why

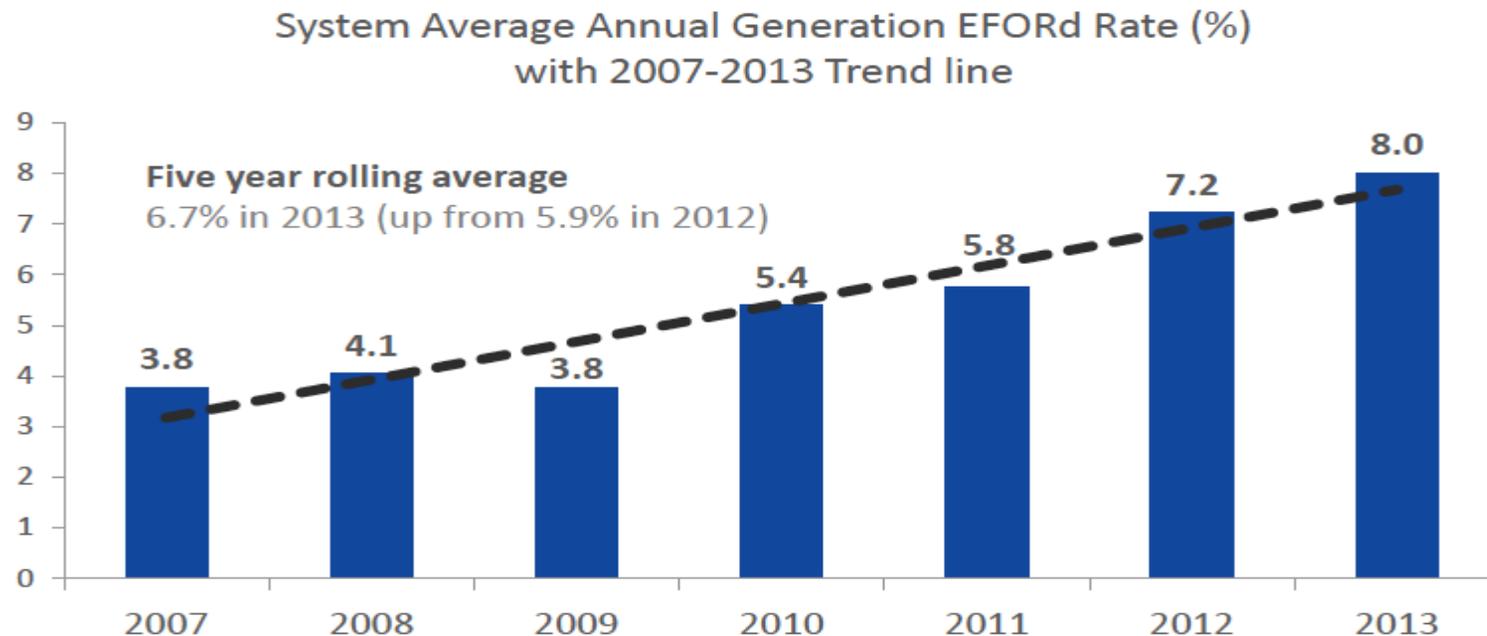
- ISO-NE says solar can participate as a supply-side resource.
 - Yes, it could
 - But, historically <12% of MW actually has
- Solar can reduce load with a CSO *only if* it submits a qualification package in the FCM, including Financial Assurance, so that ISO can track, verify
 - *This is cost prohibitive for the majority of small installations*
- ISO stated it will work with stakeholders on how it might apply the DG forecast to market-related assessments, including developing the ICR. (2014 RSP at p. 52)

Possible Solution for Discussion

- Lower the load forecast used in the ICR calculation by the amount of solar SCC equivalent determined to be installed between the time of the historical load data and the start of the capacity commitment period
- To the extent that any solar participates in the auction as a supply resource, adjust the load upward in the first ARA.
 - These are small resources and most work as load reducers so this adjustment should be minimal

Generator Availability

- The current Market Rule uses the last 5 years of historical generator data to calculate availability to be used in the ICR calculation
- Generator Availability has been dropping in recent years as shown by this EFORd data:



ICR Implications

- The drop in Generator Availability has caused ICR to increase
 - For FCA9, ICR was up 178 MW due to drop in Generator Availability
 - For FCA8, the increase was 410 MW
- This problem will get worse in coming years as the increasing poor generator performance will have a greater effect on the ICR calculation. It will compound as ARAs take place
- ISO-NE proposed Pay-for-Performance is a means to reverse this trend but it won't be picked up until after the fact
 - *Consumers will pay for enhanced performance and then be forced to purchase more resources than needed to achieve resource adequacy standards*
 - *Paying twice is unnecessary and will lead to unreasonable rates*

One Possible Solution to Generator Availability

- Use the five year average from the first 5 years of FCM, and exclude more recent data until the region experiences some PFP years
- PFP will be effective in 2018. The first auction that could incorporate PFP experience will be in Feb 2020 (FCA16)
- From now until 2020, fix generator availability based on availability in the first 5 years of FCM
- After 2020, start rolling in years with actual PFP experience. (FCA 16: 4 years fixed, 1 year actual, FCA17: 3 years fixed, 2 years actual, etc.)
- Open to, and appreciate, other suggestions

Next Steps

- Consider feedback from this meeting
 - Please call with follow-up ideas
- NESCOE and states bring forward proposed market rule language to reflect this proposal as modified by workable suggestions that achieve the reasonable objective
- Discuss any other matter that needs to be considered so that changes can be in place by FCA 10