Reliability Gaps and Market Performance Metrics

Part II

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Topics

- Potential Reliability Gaps with New York's Evolving Resource Mix [1]
- Review of BPCG Metrics [1]
- Updated Discussion of Day-Ahead Market Commitments
- Discussion of Real-Time Commitments
    - Uneconomic Real-Time Commitments
    - Offer Prices of Units with Day-Ahead Market Schedules
- Next Steps

1. Review of topic previously covered in the March 19 2021 presentation

Potential Reliability Gaps with New York's Evolving Resource Mix

Reliability Gap Assessment

The Reliability and Market Considerations for a Grid in Transition (Grid in Transition) white paper [1] includes a Reliability Gap Assessment. The full assessment is in Appendix B and a high-level discussion of the assessment starts on page 20.

- Today's presentation is the second of two focused on proposed market metrics relating to bid production cost guarantees (BPCG).
  - The new content in today's presentation is focused on the real-time market BPCG metrics.
  - Today's presentation also updates the day-ahead market BPCG metrics discussed on March 19.
  - The goal is again to get feedback on the proposed approach from stakeholders.
  - The proposed metrics are being considered for inclusion with existing metrics and would be compiled on an ongoing basis and reviewed periodically with stakeholders (respecting the constraints of confidentiality).

1. https://www.nyiso.com/documents/20142/9869531/Reliability%20and%20Market%20Considerations%20for%20a%20Grid%20in%20Transition%20-%2020191220%20Final.pdf/7846db9c-9113-a85c-8abf-1a0ffe971967

Reliability Gap Assessment

The ten areas of potential reliability gaps identified in that report were:

1. Maintain Ability to Balance Load and Generation
2. Maintain 10-Minute Operating Reserves
3. Maintain Total 30-Minute Operating Reserves
4. Maintain Ability to Meet Daily Energy Requirements
5. Maintain Reliable Transmission Operations
6. Maintain Black Start Capability
7. Maintain Voltage Support Capability
8. Maintain Frequency Response Capability
9. Maintain Resource Adequacy
10. Ability to Manage Supply Resource Outage Schedules

The metrics discussed today are most focused on reliability gap 1 but also relate to gaps 2, 3, 4, 5 and 9.

Reliability Gap Assessment

The Grid in Transition white paper touched upon a number of other reliability performance and market performance metrics that are not discussed in this presentation. Not all of these metrics may need to be developed and monitored in the same time frame. These other market performance metrics include:

- Level of self-scheduling in RTD by potentially dispatchable resources;
- Net load forecast latency;
- Frequency/level/duration of price spikes due to ramp constraints;
- Frequency resources are committed in real-time for voltage support;
- Average level of spinning reserve prices (already reported in the NYISO CEO/COO Report[1]);
- Frequency that energy limited resources are depleted prior to price spikes;
- RTC net load forecast error (modified version of net load forecast metric in Monthly Report[2]);
- RTD net load forecast error (modified version of net load forecast metric in Monthly Report[2]);
- Efficiency of RTD dispatch of storage resources;
- CTS Performance

1. February's NYISO CEO/COO Report: https://www.nyiso.com/documents/20142/19386712/03%20NYISO%20CEO%20COO%20Report.pdf/26cfa638-c9c6-65b8-f238-70c95dd6e32e
2. February's Operations Performance Metrics Monthly Report: https://www.nyiso.com/documents/20142/19386712/03%20Operations_Report.pdf/cc69eff1-7e48-af8e-2c4d-32ec3c8f147b

Reliability Gap Assessment

The NYISO already tracks several Reliability Performance and Market Performance Metrics in the Operations Performance Metrics Monthly Report[1] presented at the Management Committee.

The NYISO has also reviewed the operations reliability considerations in the Grid in Transition white paper.   These were reviewed at the June 10 2020 ICAP/MIWG.[2]

Today's presentation reviews additional Market Performance Metrics the NYISO is considering. Stakeholder feedback on the proposed Market Performance Metrics is encouraged.

1 February's NYISO CEO/COO Report: https://www.nyiso.com/documents/20142/19386712/03%20NYISO%20CEO%20COO%20Report.pdf/26cfa638-c9c6-65b8-f238-70c95dd6e32e

2 https://www.nyiso.com/documents/20142/12967767/20200610%20Reliability%20and%20Market%20Considerations%20for%20a%20Grid%20in%20Transition.pdf/910012cd-a809-a74e-5da7-f740a6b8128d

Review of BPCG Metrics

BPCG Metrics

Why is the level of BPCG payments important?

- A high level of BPCG payments to flexible resources in NYISO markets can have a number of adverse impacts.
    - Some impacts are specifically related to retaining and efficiently operating flexible resources whose output (and resource characteristics) will be needed to balance higher levels of intermittent resource output.
    - Some impacts are related more generally to the NYISO's ability to meet New York net load at least cost.

BPCG Metrics

As the proportion of starts that are uneconomic at market prices increases and resources are more often made whole with uplift payments:

1. There would be a reduced incentive for the affected resource owner to make investments to maintain or improve resource capabilities such as ramp rate, start time and fuel cost efficiency. This is because lower costs and higher revenues would reduce BPCG payments on the unprofitable starts and only increase margins on the profitable starts.
2. Energy market margins would likely make a smaller contribution to covering resource going forward costs, potentially leading to the inefficient exit of flexible resources.
3. High levels of BPCG do not send a price signal for the entry of new resources, or even new types of resources, able to provide flexibility at lower cost.

BPCG Metrics

4. There would be an increased incentive for resources to submit inflated commitment cost offers, increasing profits through BPCG payments, even absent market power.
5. Even for the many real-time commitments that would be economic if settled at RTC prices, high levels of net load uncertainty in the time frame of the commitment decision combined with a BPCG design will inflate generator returns and consumer costs.
6. A final concern is straight forward economic efficiency. A pattern of a rising proportion of RTC commitments that are uneconomic at RTD settlement prices could be an indicator of biases or inappropriate simplifications in RTC commitment logic that are inflating consumer costs, and emissions, by committing too many thermal units under some, or perhaps many, conditions.

BPCG Metrics

While this initial analysis is focused on gas fired generation, we envision that it would be extended to other types of flexible resources as their importance grows.

- Hence, once there are a material number of batteries in operation, a similar analysis could track the impact of forecast errors in the NYISO RTD dispatch on battery operating profits.
- Moreover, these metrics would have relevance to the economics of other types of flexible resources, such as dispatchable hydro resources or other types of storage resource, as high levels of BPCG relative to gas unit margins would be an indicator of a poor price signal for the retention of dispatchable hydro or storage resources.

BPCG Metrics

We propose that the two metrics for BPCG trends be:

[1] Proportion of economic starts receiving BPCG.

[starts receiving BPCG/Total economic starts]

[2] Relationship between BPCG and Margins

[Total BPCG payments /(Total BPCG Payments + Total Net Margins)]

We also propose to track the impact of Forecast Pass commitments of long start generation as measured by:

Total Megawatt Hours scheduled in final scheduling pass on long start units committed in forecast load pass.

BPCG Metrics

This table summarizes how the two metrics relate to the six concerns relating to BPCG.

	Metric 1	Metric 2
1. Investment Incentives	Good	OK
2. Going Forward Cost Contributions	n/a	Good
3. Price Signal Quality	n/a	Good
4. Incentive to Inflate Offers	Good	n/a
5. Excess Costs	Good	Good
6. Economic Efficiency	Good	Good

Metric 1 is better for issues 1 and 4, while Metric 2 is better for issues 2 and 3.

Updated Discussion of Day-Ahead Market Commitments

Day-Ahead Market Metrics

We propose that the day-ahead market metrics will be based on intra-day commitments (units that cycle on and off within the time frame of the day-ahead market) [1] and only include resources committed based on the day-ahead market economic evaluation.

- The metric would exclude resources that received LRR, DARU or forecast load physical commitments (not just a schedule for a quick start unit) or were self-committed in any hour.
- The purpose of this metric is to provide an indicator of whether the current market design, penalty prices, and operating practices provide reasonably efficient incentives for investment in and continued operation of flexible resources that are needed to balance variations in net load.

1. We have excluded a very small number of resources that notionally cycled on and off within the day but were long-start resources that submitted zero start up times. We believe these resources were using their offers to self-schedule their commitment and the revenue calculation may be misleading. There can be some anomalies with resources that cycle on or off shortly before or after the day-ahead market day. This involves a very small number of units and we do not think the metric needs to be further complicated to better cover these instances.

BPCG Metric #1

Metric 1: Proportion of economic starts receiving BPCG.

The data shows that over all four quarters of 2020, slightly more than 90% of resources committed based on the day-ahead market's economic evaluation, and cycling on and off with the day-ahead market timeframe, did not receive BPCG.

- The percentage was around 84% January through May and around 92% June through December.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total	276	256	185	85	210	616	1477	934	431	240	463	468	5710
BPCG	39	44	28	21	31	46	133	78	30	21	36	21	532
No BPCG	237	212	157	64	179	570	1344	856	401	219	427	447	5113
% BPCG	14.1	17.2	15.1	24.7	14.8	7.5	9.0	8.4	7.0	8.8	7.8	4.5	9.4

BPCG Metric #1

There was discussion on March 19 of the small number of economic starts in first quarter 2020.

- The number of economic starts was even lower in April and May, but then rose to much higher levels for the rest of the year.
- Most of the variation in the number of units cycling on and off within the day arises from differences in the number of quick start units scheduled in the day-ahead market.

BPCG Metric #1

There were questions on March 19 regarding the number of profitable DARU and LRR commitments.

- All of the DARU commitments were unprofitable. After discussing this finding with the NYISO we understand that this is because unit starts are only classified as DARU if they are unprofitable. Hence, this outcome is definitional. [1]
- Slightly less than 40% of the LRR commitments received BPCG over the year as a whole (10 out of 26).

1. This analysis classifies a resource as committed in DARU if it has a DARU commitment in any hour of its day-ahead market schedule. There are some resources that are unprofitable over their DARU schedule but earn profits in additional hours.

BPCG Metric #1

There was also discussion on March 19 of the number of starts that ran over into a second day.

In 1Q 2020, 194 units had commitments that extended into the next operating day and only 7 of these received BPCG.

BPCG Metric #2:

Metric #2: Total BPCG payments /(BPCG Payments + Net Margin)

- Metric #2 was generally low over 2020, averaging 1.8% for the year.
- Metric #2 was high in April and above 2% in four other months.

4/5/2021	Count of Units	January	February	March	April	May	June	July	August	September	October	November	December	total
All Units	Sum of BPCG for Units Cycling	$ 15,462	$ 17,325	$ 15,180	$ 39,929	$ 19,072	$ 71,242	$ 87,024	$ 62,238	$ 17,004	$ 18,968	$ 55,385	$ 13,261	$ 432,090
	Sum of Net Revenue for Units Cycling	$ 2,214,120	$ 1,484,561	$ 855,888	$ 151,569	$ 370,574	$ 2,277,244	$ 6,619,486	$ 4,168,197	$ 1,377,763	$ 776,712	$ 1,838,169	$ 2,109,446	$ 24,243,727
	Ratio (BPCG/(BPCG + Net Revenue)	0.7%	1.2%	1.7%	20.9%	4.9%	3.0%	1.3%	1.5%	1.2%	2.4%	2.9%	0.6%	1.8%
Fast-Start Units (Start-up time <=30 minutes)	Sum of BPCG for Units Cycling	$ 4,334	$ 1,667	$ 290	$ 9	$ 204	$ 2,790	$ 7,588	$ 6,788	$ 4,932	$ 4,667	$ 813	$ 372	$ 34,454
	Sum of Net Revenue for Units Cycling	$ 184,703	$ 122,150	$ 8,790	$ 3,594	$ 37,777	$ 416,689	$ 3,608,206	$ 2,208,021	$ 447,982	$ 121,329	$ 267,766	$ 455,144	$ 7,882,150
	Ratio (BPCG/(BPCG + Net Revenue)	2.3%	1.3%	3.2%	0.2%	0.5%	0.7%	0.2%	0.3%	1.1%	3.7%	0.3%	0.1%	0.4%
Units with Start-up Time >30 minutes and <=1 hour	Sum of BPCG for Units Cycling	$ 18	$ 619	$ 2,356	$ 2,550	$ 537	$ -	$ -	$ -	$ 5	$ -	$ 1,645	$ -	$ 7,730
	Sum of Net Revenue for Units Cycling	$ 68,412	$ 32,337	$ 23,750	$ 28,860	$ 37,616	$ 120,263	$ 365,580	$ 182,219	$ 101,303	$ 73,158	$ 191,388	$ 256,478	$ 1,481,362
	Ratio (BPCG/(BPCG + Net Revenue)	0.0%	1.9%	9.0%	8.1%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.5%
Units with Start-up Time >1 hour and <=3 hours	Sum of BPCG for Units Cycling	$ 5,555	$ 10,676	$ 6,340	$ 14,168	$ 10,182	$ 3,540	$ 240	$ 45	$ -	$ 6,083	$ 18,057	$ 4,480	$ 79,368
	Sum of Net Revenue for Units Cycling	$ 239,880	$ 213,011	$ 221,028	$ 78,289	$ 221,510	$ 546,303	$ 724,428	$ 828,781	$ 442,369	$ 435,093	$ 567,641	$ 772,895	$ 5,291,228
	Ratio (BPCG/(BPCG + Net Revenue)	2.3%	4.8%	2.8%	15.3%	4.4%	0.6%	0.0%	0.0%	0.0%	1.4%	3.1%	0.6%	1.5%
Units with Start-up Time >3 hours and <=6 hours	Sum of BPCG for Units Cycling	$ 5,555	$ 4,363	$ 6,194	$ 23,202	$ 8,149	$ 23,338	$ 23,358	$ 9,839	$ 947	$ 6,014	$ 28,374	$ 4,919	$ 144,250
	Sum of Net Revenue for Units Cycling	$ 1,712,831	$ 1,117,063	$ 583,824	$ 40,827	$ 58,695	$ 1,052,262	$ 1,762,582	$ 780,546	$ 340,440	$ 112,029	$ 506,190	$ 492,548	$ 8,559,837
	Ratio (BPCG/(BPCG + Net Revenue)	0.3%	0.4%	1.0%	36.2%	12.2%	2.2%	1.3%	1.2%	0.3%	5.1%	5.3%	1.0%	1.7%
Units with Start-up Time >6 hours	Sum of BPCG for Units Cycling	$ -	$ -	$ -	$ -	$ -	$ 41,574	$ 55,839	$ 45,566	$ 11,120	$ 2,205	$ 6,496	$ 3,490	$ 166,289
	Sum of Net Revenue for Units Cycling	$ 8,294	$ -	$ 18,497	$ -	$ 14,975	$ 141,726	$ 158,691	$ 168,630	$ 45,668	$ 35,103	$ 305,184	$ 132,381	$ 1,029,149
	Ratio (BPCG/(BPCG + Net Revenue)	0.0%	0.0%	0.0%	0.0%	0.0%	22.7%	26.0%	21.3%	19.6%	5.9%	2.1%	2.6%	16.2%

Forecast Load Metric

We originally proposed:

Forecast Load Metric = Total megawatt hours of long start unit minimum load scheduled in forecast load pass

We are considering slightly redefining this metric because it would be almost identical in practice but easier to compile:

Forecast Load Metric = Total megawatt hours of output scheduled in final scheduling pass on long start units committed in forecast load pass. Figures in table are total megawatt hours for the month.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MWH	2448	163	604	2740	6950	4079	5583	15,017	928	290	543	1080

FTI

Forecast Load Metric

Since this statistic is a metric for use in tracking trends over time, the units used are not critical.

- However, it might be useful to calibrate the metric so that the values have more intuition regarding their impact on a typical day.
- Instead of total MWh per month, the metric could be reported as "Average MWH per day, divided by 13 high load hours per day."
- Based on our calculations, by dividing the monthly total by 13 hours per day, the metric would approximate the MW impact of forecast load commitments in the 4 hours with the highest MW impact from forecast load commitments.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MWH	6.1	.4	1.5	7.0	17.2	10.5	13.9	37.3	2.4	.7	1.4	2.7

Discussion of Real-Time Commitments

Real-Time Commitments

A primary focus of the real-time analysis is to assess the extent to which resources committed economically in RTC, with no day-ahead market schedule to impact offer prices, operate uneconomically in real-time and receive BPCG payments.

A secondary focus of the analysis is on the real-time bidding behavior of resources with day-ahead market schedules that are committed in RTC.

Real-Time Commitments

For the purpose of this initial discussion with market participants we propose to compile the real-time metrics for the first week of every month in 2020.

- This approach will enable the NYISO and market participants to review the metric over the year while avoiding devoting undue resources to compiling the initial metrics.
- We propose to initially compile data for the first week of January, April and July 2020 and January 2021. January 2021 will reflect new fast start pricing rules.
- We would compile data for the first week of the remaining months after our initial discussion with market participants.

Uneconomic Real-Time Commitments

Uneconomic Commitments

We envision using the same two metrics to measure the level of BPCG impacts on real-time commitments that we proposed for the day-ahead market. The two metrics are:

- Proportion of real-time economic starts receiving BPCG
    [starts receiving BPCG/Total economic starts]
- Relationship between BPCG and Margins
    [Total BPCG payments/(Total BPCG Payments + Total Net Margins)]

Uneconomic Commitments

As in the day-ahead market analysis we envision limiting the metric to resources committed economically in RTC and to resources cycling on and off within the operating day.

- We exclude resources committed by SRE's or out of merit operator commitments from the metrics.
  - We understand from the discussion on March 19 that some stakeholders would like to see similar metrics for resources committed out of merit.
  - Potomac Economics reports a variety of tabulations relating to out-of-market schedules and commitments. These metrics are focused on economic commitments.
  - Because BPCG is calculated over the day, combining economic and OOM starts, we have excluded both the economic and OOM start in these instances.

Uneconomic Commitments

- We also exclude resources that are self-committed by the market participant.
  - Margins that are calculated without accounting for start up costs or other commitment costs would be overstated and understate the impact of BPCG on the price signal.
  - It will be difficult in practice, however, to exclude resources that are in effect self-committed by submitting understated commitment costs offers.

Uneconomic Commitments

- We limit the resources included in calculating the metric to resources that cycle on and off within the operating day. This assessment is based on the 24 hour calendar day and there can be a few exclusions of units that came on late in the day or off very early in the day but the small number of such situations does not warrant the added complexity of trying to account for them.
  - We understand from the discussion on March 19 that some stakeholders would like to see metrics that include resources that continue operating past the end of the day.
  - We have a concern, however, that such units may remain on line into the second day because of changes in their offer prices that are intended to keep them on line over night and margins calculated based on those offer prices may overstate actual margins.

Uneconomic Commitments

- We also exclude resources with day-ahead market schedules that overlap any part of their real-time commitment because of the potential for understated real-time commitment cost offers that would overstate actual margins and understate the impact of BPCG on the price signal.
  - We will, however, analyze the day-ahead and real-time commitment cost offers as discussed in the second part of this section.
- Finally, we have excluded units with total output less than 10MW to avoid unduly impacting metric 1 with failed starts and other anomalies. These starts are also excluded from metric 2 but the impact is immaterial. Starts with 0 values for both BPCG and margins are also excluded.

Uneconomic Commitments

Metric 1 # Uneconomic Real-time Commitments/Total # real-time Economic Commitments

The metric portrays a relatively high level of uneconomic real-time commitments across all the months studied.

	January	April	July	January 21	Total
Total	67	23	142	87	319
BPCG	31	21	106	35	193
No BPCG	36	2	36	52	126
% BPCG	46.3	91.3	74.7	40.2	60.5

F T I

Uneconomic Commitments

Metric 2: Total BPCG relative to Total Margins(profitable starts).[1]

The Metric indicates that the margins of fast start units were consistently largely BPCG in 2020. BPCG contributed much less to the margins of 30 minute units, except in April. Fast start unit BPCG is much lower in January 2021, perhaps reflecting fast start pricing.

	January	April	July	January 21
Total	10.6%	95.1%	39.7%	21.6%
Fast Start	55.9%	97.2%	61.9%	28.9%
BPCG	$11,291	$15,574	$36,214	$41,605
Net Margin	$8,924	$447	$22,323	$102,352
30 Minute	3.4%	81.7%	17.2%	9.1%
BPCG	$4,254	$2,108	$9,980	$7,713
Net Margin	$122,479	$472	$47,929	$76,738

1. The total margin calculation only includes the margins on starts that did not receive BPCG, the total margin is not reduced by the losses that are made whole with BPCG payments.

Offer Prices of Units with Day-Ahead Market Schedules

Units with DAM Schedules

We propose to analyze the RTC commitment cost offers of resources with day-ahead market schedules to assess the magnitude of reductions in real-time commitment cost offers.

The concern is the that the potential to incur large losses if a resource with a day-ahead market schedule is not committed economically in RTC may incent resources with day-ahead market schedules to understate their commitment cost offers in real-time, resulting in more resources being on line in real-time than is efficient.

Units with DAM Schedules

Uneconomic reductions in commitment offers between day-ahead and real-time could have a larger impact on market efficiency in the future as a consequence of rising levels of intermittent resource output.

- There could be rising levels of intermittent output that is available in the operating day but is not cleared in the day-ahead market.
- This outcome could arise from limits on the accuracy of day-ahead forecasts of intermittent resource output or from incentives created by the structure of the subsidies or of procurement contracts.

Units with DAM Schedules

The NYISO needs flexible resources with day-ahead market schedules to be available to be committed to meet load if intermittent resource output is consistent with the output cleared in the day-ahead market.

- However, both market efficiency and avoiding unnecessary emissions requires that these resources not come on line when real-time intermittent resource output is higher than the amount cleared in the day-ahead market and these resources' output is not needed to meet load.

Units with DAM Schedules

Low real-time prices when intermittent resource output is high should in principle make it profitable for resources with day-ahead market schedules to remain off-line when their output is not needed, and their operation is not economic at real-time prices.

- Low real-time prices would enable these resources to buy back their day-ahead market schedules at a profit. However:
- Inaccurate RTC evaluations could contribute to unnecessary commitments by RTC.
- Inaccurate RTC evaluations could also contribute to suppliers with day-ahead market schedules being unwilling to risk large losses from inaccurate RTC price forecasts and therefore reducing their real-time commitment cost offers to ensure they are committed in RTC.

Units with DAM Schedules

We propose to focus on the difference between commitment cost offers in the day-ahead market and RTC for resources with day-ahead market schedules.

- The analysis excludes units with OOM commitments or that are self-committed in real-time. The analysis is also limited to resources that cycle within the operating day and are committed in RTC (start time of 30 minutes or less).
- We expect some reduction in commitment cost offers between day-ahead and real-time because some day-ahead market commitment costs will be sunk in real-time.

Units with DAM Schedules

- We have used a 10% threshold for commitment cost reductions for this initial analysis. Commitment costs are the sum of start up costs and minimum load costs of the hours of the day-ahead market schedule.

The initial analysis will portray the entire distribution of reductions in commitment cost offers and the thresholds used for a metric can be informed by this data and by discussions with market participants.

Units with DAM Schedules

The data on day-ahead market commitment cost offers show that only in July did a meaningful number of units reduce their commitment cost offers more than 10% between day-ahead and real-time.

- We used a 10% reduction to classify the data but in practice, all of the units that reduced their offers by more than 10%, reduced their real-time offers to less than 10% of the day-ahead market offer.

RTC Commitment Offers	January	April	July	January 2021
>90% DAM	15	2	766	147
<90% DAM	0	0	53	6
Total	15	2	819	153

Units with DAM Schedules

Offer price changes in winter months may reflect changes in gas prices between day-ahead and real-time.

- We do not propose to try to control for differences between day-ahead and real-time gas prices.
- We instead propose to keep this factor in mind in comparing January data to outcomes in other months. In any case, the data show that for January 2020 and 2021 there is no pattern of large offer price reductions in these months.
- We have broken the results down between units able to start in 15minutes or less and slower starting resources, to examine whether there is a difference in offering behavior related to start time.

Units with DAM Schedules

The data show that offer price reductions were concentrated in fast start units but only in July were a substantial number of fast start units committed in the day-ahead market.

Start Times	January	April	July	January 2021
<15 Minute				
>90% DAM	7	0	217	25
<90% DAM	0	0	53	6
>15 Minute				
>90% DAM	8	2	549	122
<90% DAM	0	0	0	0

Next Steps

- We are looking for feedback from stakeholders on these proposed metrics.
  - If, in addition to feedback provided at this meeting, you wish to provide written feedback please send it to deckels@nyiso.com by May 20, 2021.
- The NYISO will continue to review the metrics and how they may be presented to stakeholders on an ongoing basis