

Attachment III

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

New York Independent System Operator, Inc.)))	Docket No. ER16-1404-00_
---	-------------	---------------------------------

AFFIDAVIT OF SHAUN JOHNSON

Mr. Shaun Johnson declares:

1. I have personal knowledge of the facts and opinions herein and if called to testify could and would testify competently hereto.
2. I am the Director of the Market Mitigation and Analysis Department for the New York Independent System Operator, Inc. ("NYISO"). My business address is 10 Krey Boulevard, Rensselaer, NY 12144.
3. I have worked in the energy industry for over 17 years, working for both the NYISO and NRG Energy, Inc. I received a Bachelor of Arts in Economics from the State University of New York, Albany.
4. My current responsibilities include implementing the NYISO's market power mitigation measures and assisting the NYISO's and the independent Market Monitoring Unit's efforts to administer the NYISO's Market Monitoring Plan (including with respect to the NYISO's implementation of the "buyer side" capacity market power mitigation measures (the "BSM Rules").
5. In response to the Commission's February 20, 2020 Order in Docket No. ER16-1404-000 (the "February 2020 Order") directing the NYISO to propose a new limit on the amount of renewable resources eligible for the Renewable Exemption under the BSM Rules, I played a leading role in the development of the NYISO's April 7, 2020 compliance filing ("Compliance Filing").
6. Specifically, I reviewed the February 2020 Order and participated in the development of the Compliance Filing, including in particular the proposed formulaic approach to calculating "Renewable Exemption Limits."
7. I also reviewed and presented the presentations that the NYISO made to its stakeholder working groups regarding the Renewable Exemption Limit calculation and participated in internal discussions concerning stakeholder input.
8. I discussed the NYISO's proposal with the independent Market Monitoring Unit ("MMU") and considered the MMU's recommendations. It is my understanding that the MMU supports the methodology for calculating the Renewable Exemption proposed in the Compliance Filing.

9. My work, and the work performed under my supervision and subject to my direction, forms the basis of the compliance tariff revisions that the NYISO is submitting in the Compliance Filing, including the proposed Renewable Exemption Limit formula.
10. The purpose of this affidavit is to support the Compliance Filing by explaining the purpose of the various components of the Renewable Exemption Limit formula. It also provides illustrative examples of: (i) how the NYISO would calculate Renewable Exemption Limits in a scenario that implicated interactions between the Renewable Exemption Banks for both the New York City and G-J Localities; and (ii) how the Minimum Renewable Exemption Limit would operate over time.
11. I have reviewed the transmittal letter, which describes and explains that rationale for the proposed tariff revisions in the Compliance Filing. The statements therein are true and accurate to the best of my knowledge, information, and belief.
12. In particular, I confirm that the NYISO has worked to develop a Renewable Exemption Limit formula that would comply with the directives of the February 20 Order. These directives included ensuring that the Renewable Exemption Limit would be “narrowly tailored” to the characteristics of the NYISO’s Mitigated Capacity Zones and would not result in significant capacity market price impacts.
13. It is my view that the NYISO’s proposed formulaic approach is more “narrowly tailored” to the characteristics of Mitigated Capacity Zones than any alternative “static cap” proposal could be. This is because the formulaic approach directly accounts for evolving market and system conditions that determine how much intermittent renewable capacity may enter the market without causing a risk of price suppression.
14. Similarly, I believe that the NYISO’s proposed Renewable Exemption Limit calculation will not result in significant Installed Capacity (“ICAP”) market price impacts. This is in part a function of the overall design of the formula, which accounts for the actual impact of renewable entry on prices given changing conditions.
15. The proposed Minimum Renewable Exemption Limit is based on the threshold that the NYISO uses to determine whether suspect physical withholding conduct has a significant enough price impact to justify mitigation. In my opinion, it is appropriate to use this same threshold value, *i.e.*, \$0.50/kW-month as a threshold in the Renewable Exemption Limit formula. It is sound design to adopt a similar threshold previously accepted by the Commission for this new purpose.¹
16. This value is consistent with the Commission’s directive to avoid significant impacts on capacity prices. In addition, as the buyer-side mitigation evaluation are performed

¹ Alternative thresholds were considered, such as the \$2.00/kW month threshold used in 23.4.5.4.1 of the NYISO’s Market Services Tariff in the review of Exports of capacity from a Mitigated Capacity Zone. However, the \$.50/kW month threshold seemed the most reasonable and helped to ensure against significant price increases.

several years before a resource enters the market it is reasonable to assume that forecasted ICAP spot auction prices are going to have a certain level of expected variation. In particular, it is likely the BSM forecast will underestimate the amount of market exit that will occur over the next five years. This is because Generator retirements are required to be submitted only 12 months in advance and it is not possible to forecast market exit due to equipment failure. This threshold permits the avoidance of excessive mitigation of conduct that would have a *de minimis* impact on market outcomes. Thus, this threshold strikes a reasonable balance between preventing price suppression and excessive mitigation that might unnecessarily impede legitimate state public policy objectives.

17. The NYISO's proposed "Change in Forecasted Peak Load" component of the Renewable Exemption Limit calculation is an appropriate and necessary part of the formula. The February 20 Order recognized that load forecast changes would potentially be an important part of calculating limits to the Renewable Exemption. Price suppression is generally understood in terms of the impacts on the price compared to the status quo. The inclusion of load changes in the formula maintains the status quo price by making additional MWs available for the Renewable Exemption only when peak load is expected to increase. At the same time, allowing forecasted load reductions to reduce the MWs available for the Renewable Exemption reflects the greater sensitivity of prices to renewable entry if load decreases. Thus, accounting for forecasted load changes helps to ensure that the Renewable Exemption Limit formula is not one-sided.
18. Similarly, I support the NYISO's proposed treatment of "Incremental Regulatory Retirements." While designing the Renewable Exemption Limit, NYISO was mindful of the disequilibrium and price suppression that might occur with unfettered entry of subsidized renewables. The Incremental Regulatory Retirements construct proposed is conceptually similar to the "substitution" mechanism at the core of ISO New England, Inc.'s Commission-approved Competitive Auctions with Sponsored Resources ("CASPR") regime. Under the NYISO's proposal, exiting units that are uneconomic because of market forces will not count towards the Renewable Exemption Limit. However, resources whose entry is facilitated by regulatory policy actions effectively replace exiting units that are departing primarily due to regulatory policy actions. Thus, the Incremental Regulatory Retirements proposal would not allow price suppression but would recognize that an orderly transition of exiting and entering assets in response to state policy would maintain price equilibrium.
19. I likewise support the NYISO's proposed treatment of Unforced Capacity Reserve Margin ("URM") Impacts. The New York State Reliability Council ("NYSRC") has identified that in order to maintain the system at its reliability criteria with the addition of intermittent units to the grid will require additional supply, the

procurement of which will occur via the NYISO ICAP market and will be reflected through a higher URM and a corresponding increase in price.²

20. This additional requirement will be reflected in the ICAP market only with the entry of intermittent renewable resources. It is thus appropriate to allow any MWs of additional requirements resulting from the entry of these intermittent renewables to count towards the Renewable Exemption Limit and offset the associated price increase. The NYISO's proposed methodology effectively recognizes that prices may remain at the same levels with or without the entry of the intermittent renewable resource.
21. Finally, the NYISO's proposed introduction of Renewable Exemption Banks is a key feature of the Compliance Filing that is consistent with the Commission's directives. As alluded to above, the inclusion of Incremental Regulatory Retirements and the URM impact are designed to ensure that the Renewable Exemption Limit will not allow for price suppression: one by accounting for the reality that renewable entrants will often replace exiting resources, the other by accounting for the impact that renewable entrants will have on increasing prices. However, policy driven entry and exit is likely to be lumpy and may not align with a specific Class Year or subsequent study. Therefore, it is reasonable to create a bank to account for this policy driven swapping of resources in future years. This should allow for supply and demand in the ICAP market to remain in balance and avoid undue volatility to prices in the long run driven by policy preferences for certain resources.
22. The following example illustrates how the NYISO's proposed rules governing the interaction of the Renewable Exemption Banks would operate given that the New York City Locality, which is NYISO Load Zone J, is "nested" within the G-J Locality.
23. Consider that for a given Class Year the Renewable Exemption Bank for the New York City Locality is 200 MW, the Renewable Exemption Bank for the G-J Locality is 75 MW, there are no Incremental Regulatory Retirements in this Class Year, and the URM impact of the Qualified Renewable Exemption Applicants is 100 MW in the New York City Locality and 25 MW in the G-J Locality. This would give us a total 300 MW available under the Renewable Exemption Limit in the New York City Locality and a total 100 MW in the G-J Locality.
24. In both the New York City Locality and G-J Locality, the Minimum Renewable Exemption Limit is less than its respective Renewable Exemption Bank; 50 MW for both localities in this example. If in the given Class Year there are 250 MW of

² NYSRC has recently conducted a study that concludes that the high penetration of renewable resources will result in an increase to the URM. The draft whitepaper entitled, *The Impacts of High Intermittent Renewable Resources On the Installed Reserve Margin for New York* (March 31, 2020), can be found at: <http://nysrc.org/PDF/MeetingMaterial/ECMeetingMaterial/EC%20Agenda%20252/4.2a%20HR%20White%20Paper%20-%20Clean%20Final%20Draft-Attachment%204.2a.pdf>.

Qualified Renewable Exemption Applicants in the New York City Locality seeking an exemption, the entire 250 MW will receive an exemption under the Renewable Exemption Bank for the New York City Locality. The remaining 50 MW will carry forward into the Renewable Exemption Bank for New York City Locality for the next Class Year Study.

25. Assuming there are 40 MW of Qualified Renewable Exemption Applicants in Zones, G, H, and I in the Class Year Study, all 40 MW of G-J Qualified Renewable Exemption Applicants will receive an exemption under the 100 MW Renewable Exemption Bank for the G-J Locality. For the G-J Locality, 60 MW will carry forward into the Renewable Exemption Bank for G-J Locality for the next Class Year Study.
26. The following example illustrates how the NYISO's proposed rules governing the Minimum Renewable Exemption Limit would work over time.
27. Consider for Class Year 1 the Renewable Exemption Bank for the New York City Locality is 10 MW, the Renewable Exemption Bank for the G-J Locality is 0 MW, there are no Incremental Regulatory Retirements in this Class Year, and the URM impact of the Qualified Renewable Exemption Applicants is 20 MW in the New York City Locality and 0 MW in the G-J Locality, as there are no Qualified Renewable Exemption Applicants in the G-J Locality. This would give us a total 30 MW available under the Renewable Exemption Bank towards Renewable Exemption Limit in the New York City Locality and a total 0 MW in the G-J Locality.
28. In both the New York City Locality and G-J Locality, the Minimum Renewable Exemption Limit is greater than its respective Renewable Exemption Bank; 50 MW for both localities in this example. If in the given Class Year there are 40 MW of Qualified Renewable Exemption Applicants in the New York City Locality seeking an exemption, the entire 40 MW will receive an exemption under the Minimum Renewable Exemption Limit for the New York City Locality. The remaining 10 MW will carry forward into the next Expedited Deliverability Study as the remaining Minimum Renewable Exemption Limit for the New York City Locality until Class Year 2 refreshes the Minimum Renewable Exemption Limit.
29. This concludes my affidavit.

Respectfully Submitted,

/s/ Shaun Johnson

Shaun Johnson
Director, Market Mitigation & Analysis
New York Independent System Operator, Inc.
Ph: 518-356-7390
sjohnson@nyiso.com