

Attachment VIII

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

New York Independent System Operator, Inc.)

Docket No. ER18-1743-00_

**AFFIDAVIT OF
RANA MUKERJI**

Mr. Rana Mukerji declares:

1. I have personal knowledge of the facts and opinions herein and if called to testify could and would testify competently hereto.

I. Purpose of this Affidavit

2. I submit this affidavit to verify the factual statements set forth in the New York Independent System Operator, Inc. (“NYISO”) *Responses to July 10, 2018 Deficiency Letter* submitted in this proceeding (“NYISO Response”) and in support of the proposed revisions to Section 5.11 of the NYISO Market Administration and Control Area Services Tariff (“Services Tariff”) to modify the methodology by which the Locational Minimum Installed Capacity Requirement (“LCR”) for each Locality will be established.¹ This “Alternative LCR Methodology” was originally filed with the Commission on June 5, 2018.²

II. Qualifications

3. I am the NYISO’s Senior Vice President of Market Structures. I have held this position since 2006. Prior to joining the NYISO, I was Vice President and General Manager, and Senior Group Vice President at ABB, Inc. Previously, I was the General Manager of GE Power Systems Energy Consulting.

¹ Capitalized terms that are not specifically defined in this Affidavit shall have the meaning set forth in the NYISO Response or, if not defined therein, the meaning set forth in the Services Tariff.

² New York Independent System Operator, Inc., *Proposed Tariff Revisions To Determine Locational Minimum Installed Capacity Requirements*, Docket No. ER18-1743-000 (June 5, 2018) (“NYISO June 5th Filing”).

4. As the NYISO's Senior Vice President of Market Structures, I am responsible for overseeing market design, product and project management, strategic and business planning, research and development, and market training. The Market Structures Department is responsible for designing and developing new market rules, including capacity market rules and other market design elements, and for consumer impact assessments. I also work closely with the New York State Reliability Council ("NYSRC") to inform them of the enhancements and advancements of the NYISO energy, ancillary services and capacity market design. I am very familiar with the NYSRC's Tan 45 Method used to calculate the statewide Installed Reserve Margin and with the NYISO's current approach to calculating LCRs.
5. I was involved in the work the NYISO conducted with the LCR Task Force in 2015 and was extensively involved in the design work for the Alternative LCR Methodology that commenced in January of 2016 and culminated in the proposed Alternative LCR Methodology described in the NYISO's June 5th Filing and in the NYISO Response.
6. I also was extensively involved in the development and implementation of the G-J Locality in 2013 and 2014. I am very familiar with the additional steps that were incorporated into the NYISO's existing LCR calculation process to allow it to determine the minimum capacity requirements for the G-J Locality using the underlying Tan 45 Method as its starting point. I also have many years of experience with the application of General Electric's Multi-Area Reliability Simulation software program ("GE MARS"). I have been involved in simulating market outcomes for Independent System Operators and Regional Transmission Organizations since the inception of organized markets and published in this area prior to joining the NYISO.
7. At the NYISO, I have directed the development of NYISO energy, capacity, demand response and ancillary services markets since 2006. I was instrumental in the development of major evolutionary steps in the design of capacity markets including the structuring of deliverability rules and the structuring of both buyer-side and supply-side capacity market power mitigation measures.
8. I have a Bachelor of Technology degree in Electrical Engineering from the Indian Institute of Technology, and a Master of Engineering in Electric Power Engineering degree and a Master

of Business Administration degree from Rensselaer Polytechnic Institute. I am also a Professional Engineer registered in the State of New York.

III. Affirmation

9. I directly oversaw and managed the NYISO's market design work on the Alternative LCR Methodology, participated in the development of the NYISO Response, and have reviewed the final version of the NYISO Response. In particular, I, and the NYISO employees who report to me, worked to: 1) develop the market design principles and features; 2) lead stakeholder discussions and consider stakeholder input, 3) collaborate with GE to conduct numerous sensitivity analyses using the Alternative LCR Methodology and the current Tan 45 Method to calculate LCRs and demonstrate the stability, cost savings and other beneficial enhancements that the Alternative LCR Methodology is expected to bring. This information was developed and shared with the NYISO stakeholders in a transparent stakeholder process that extended over two years.

10. I have personal knowledge regarding all of the factual statements contained in the NYISO Response. Those factual statements are accurate to the best of my information, knowledge and belief.

This concludes my affidavit.

ATTESTATION

I am the witness identified in the foregoing affidavit. I have read the affidavit and am familiar with its contents. The facts set forth therein are true to the best of my knowledge, information and belief.

Rane Mukerji

Subscribed and sworn to before me

this 9 day of August, 2018.

Pamela J. Mead

Notary Public

My commission expires: 6/24/2022

