Attachment I

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc.) Docket No. ER15-1042-000

AFFIDAVIT OF
BRAD R. GARRISON

Mr. Brad R. Garrison declares:

1. I have personal knowledge of the facts and opinions described herein.

I. Purpose of this Affidavit

2. The purpose of this Affidavit is to provide the information requested in the April 10, 2015 deficiency letter.

II. Qualifications

3. My name is Brad Garrison, and I am a Senior Engineer in the Operations Engineering Department at the NYISO. In this position I am responsible for administering the NYISO's Voltage Support Service ("VSS") program.

4. I have held my current position for two years. Prior to my current position, I was an Engineer in the Auxiliary Markets Operation Department at the NYISO for more than three years.

5. I have been the lead engineer for the NYISO's VSS program since 2010.

III. Background

6. I developed the methodology and performed the analysis and calculations for the proposed VSS compensation redesign.

IV. Response to Deficiency Letter

7. To develop a proposed VSS compensation rate to compensate qualified VSS Suppliers for both lagging and leading reactive power capability, I utilized a method very similar to the calculation the NYISO used in 2001to develop the currently effective $3,919 rate per MVAr of lagging reactive power capability.[1]

8. The calculation divides the total VSS program compensation by the total expected MVArs of lagging and leading reactive power capability.

9. The NYISO's VSS compensation redesign proposal is based on the total VSS program payments made in 2012 and the total expected lagging and leading reactive power for 2013, as determined early in 2013.

10. I used 2012 data to develop the proposed VSS compensation rate because it was the most current full year of data available when the proposal was developed in 2013.

11. The equation for the proposed VSS compensation rate is:

$$\text{NYISO Proposed VSS Compensation Rate} = \frac{\text{Total VSS Compensation paid to VSS Suppliers in 2012}}{\text{(Total Demonstrated Lagging Reactive Power Capability + |Total Demonstrated Leading Reactive Power Capability|) for Qualified VSS Suppliers in 2012}}$$

12. I started with the total VSS program compensation paid to qualified VSS Suppliers in 2012 based on the rate of $3,919 per MVAr paid only for lagging reactive power capability. Although the current compensation pays only for MVAr of demonstrated lagging reactive power capability, generators test their leading capability and report it to the NYISO every three years.

[1] *New York Independent System Operator, Inc. Filing of Amended Rate Schedule 2 for Market Administration and Control Area Services Tariff, to Provide Payments for Voltage Support Service, and Request for Expedited Action, and Request for Clarification of Prior Payments*, Docket No. ER02-617, December 27, 2001 at p. 6.

13. In 2012, the NYISO's VSS program paid qualified VSS Suppliers a total of $61,393,094.50 ("Total VSS Compensation").

14. Next, I determined the total demonstrated lagging reactive power capability and total demonstrated leading reactive power capability of all suppliers that qualified to receive VSS compensation in 2012.

15. To determine the total demonstrated lagging reactive power capability, I summed the demonstrated lagging reactive power capability for all qualified VSS Suppliers ("Total Demonstrated Lagging Reactive Power Capability"). I relied on the 2012 lagging MVAr test data that was submitted to the NYISO by each qualified VSS Supplier; the most current full set of lagging test data available in 2013.

16. The Total Demonstrated Lagging Reactive Power Capability value used in the calculation was 15,665.5 MVArs.

17. To determine the total demonstrated leading reactive power capability, I summed the demonstrated leading reactive power capability for all qualified VSS Suppliers ("Total Demonstrated Leading Reactive Power Capability"). I relied on the 2010-2012 leading MVAr test data that was submitted to the NYISO by each qualified VSS Supplier. VSS Suppliers are only required to demonstrate leading capability every three years; therefore, the 2010-2012 leading MVAr test data was the most current full data set available in 2013.

18. The Total Demonstrated Leading Reactive Power Capability value used in the calculation was -8,020.4 MVArs.

19. To calculate the proposed VSS compensation rate, based on the 2012 data, I divided the Total VSS Compensation by the sum of the Total Demonstrated Lagging Reactive Power Capability and the absolute value of the Total Demonstrated Leading Reactive Power Capability.

20. The absolute value of the Total Demonstrated Leading Reactive Power Capability is necessary because leading reactive power capability is measured as a negative value.

21. This equation, with the values included, results in a VSS compensation rate of $2,592/MVAr:

$$\text{NYISO Proposed VSS Compensation Rate} = \frac{\$61,393,094.50}{15,665.5 + |-8,020.4|}$$

$$\text{NYISO Proposed VSS Compensation Rate} = \frac{\$61,393,094.50}{23,685.9}$$

$$\text{NYISO Proposed VSS Compensation Rate} = \$2,592$$

22. The total annual value of VSS payments to be made under the proposed VSS redesign should remain approximately the same, at least in the near term, because the 2012 total program compensation was used in the proposed compensation rate calculation and I expect the quantity of demonstrated lagging and leading reactive power capability to remain approximately the same in the near future.

23. In my experience as the lead engineer for the NYISO's VSS program, the quantity of demonstrated lagging and leading reactive power capability does not vary significantly from year to year. Over the past four years, the VSS program has varied by less than ±800 MVArs from year to year.

24. The calculation was designed to reallocate approximately the same total compensation across both the expected lagging and leading reactive power capability of VSS Suppliers.

25. The NYISO's VSS compensation redesign is intended to pay VSS Supplier's for lagging and leading reactive power capability at a rate that would redistribute the existing total program value across both expected lagging and leading capability. As new suppliers enter and existing suppliers exit the VSS program the total value of the VSS compensation will change accordingly.

This concludes my Affidavit.

Dated: April 30, 2015

ATTESTATION

I am the witness identified in the foregoing Affidavit of Brad R. Garrison dated April 30, 2015 (the "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.

Brad R. Garrison

Subscribed and sworn to before me
this 30th day of April 2015

Linda Sloan
Notary Public for the State of New York

LINDA SLOAN
Notary Public - State of New York
No. 01SL6198599
Qualified in Schenectady County
My Commission Expires December 29, 2016

My Commission Expires on: December 29, 2016