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April 2, 2024

**VIA ELECTRONIC MAIL**

Luly E. Massaro, Commission Clerk  
Rhode Island Public Utilities Commission  
89 Jefferson Boulevard  
Warwick, RI 02888

**RE: Docket No. 23-38-EL – The Narragansett Electric Company d/b/a  
Rhode Island Energy’s Petition for Acceleration of a System Modification  
Due to Distributed Generation Project  
Weaver Hill Projects  
Responses to Division Data Requests – Set 5**

Dear Ms. Massaro:

On behalf of The Narragansett Electric Company d/b/a Rhode Island Energy (the “Company”), enclosed please find the Company’s responses to the Division of Public Utilities and Carriers’ (“Division”) Fifth Set of Data Requests in the above-referenced docket.

Thank you for your attention to this filing. If you have any questions, please contact me at 401-784-4263.

Sincerely,

A handwritten signature in blue ink, appearing to read "Andrew S. Marcaccio".

Andrew S. Marcaccio

Enclosures

cc: Docket No. 23-38-EL Service List

The Narragansett Electric Company  
d/b/a Rhode Island Energy  
RIPUC Docket No. 23-38-EL  
In Re: Rhode Island Energy's Petition for Acceleration Due  
To Distributed Generation Project – Weaver Hill Projects  
Responses to the Division's Fifth Set of Data Requests  
Issued March 5, 2024

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Division 5-1

Request:

For the Company's response to DIV 2-1, what was the estimated year of the projected peak load used in the model?

Response:

The year of the peak load used in the model for DIV 2-1 was 2020.

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Division 5-2

Request:

Provide a CYME model with the solution for the Coventry 54F1 and Hopkins Hill 63F6 thermal and voltage issues being solved by the application of capacitors for optimum power factor correction based on the projected peak load in 2028. Discuss the solution for each and if the application of capacitors solves the issues in the year 2028. Additionally, if capacitors do not provide the full solution, apply voltage regulators to solve any remaining low voltage and discuss in detail these solutions.

Response:

A CYME model has been provided to be responsive to this request; however, Rhode Island Energy cautions drawing conclusions from this exercise. This exercise does not consider normal or contingency loading and reliability. Loading continues to be a concern on the 63F6 as noted in the response to Division 2-3 and Division 2-5. Similarly, contingency issues continue to evolve on the 54F1. Reliability issues continue to exist on both circuits.

Attachment DIV 5-2 is a compressed file containing the CYME model.

One additional capacitor was added to the 63F6 for the 2028 case for power factor correction and the projected loading and voltage issues remain. The 54F1 has a reasonable power factor for the 2028 case and no additional capacitors were added. Voltage issues are predicted on the 54F1 in 2028.

Two regulators were added to the 63F6 for the 2028 case, which resolved the predicted voltage issues (aside from balancing) while loading issues remain. Two regulators were added to the 54F1, which resolved the predicted voltage issues.

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Division 5-3

Request:

What year of peak load was used in the models for the response to DIV 2-3. Would the response be the same if the Company was considering the projected peak load in the year 2028?

Response:

The estimated year of the projected peak load used in the model for DIV 2-3 was 2020. The response would be similar but the loading would be approximately 2% higher.

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Division 5-4

Request:

Provide a CYME model analysis for the Coventry 54F1 feeder and the Hopkins Hill 63F6 feeder for the projected loads five years after the initiation of the Impact Study and five years after the completion of the Impact Study. These should be shown with no added capacitors or voltage regulators and a set of analyses including capacitors to correct the power factor to near unity and added voltage regulators if any low voltage exists.

Response:

The Company has provided the following CYME models:

Response to Division 1-2 – Two models were provided. One is a case prior to the area study recommendations (base case) and the second is with the area study recommendations.

Response to Division 2-1 – A model was provided with the power factor corrected to near unity on the Coventry 54F1 and Hopkins Hill 63F6 for year 2020.

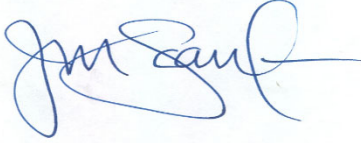
Response to Division 5-2 – A model was provided with the power factor corrected to near unity and voltage regulation applied on the Coventry 54F1 and Hopkins Hill 63F6 for year 2028.

The first impact study was started in 2019 and the last impact study was completed in 2022. The cases already provided contain models that can be used to address this request. The responses to Division 1-2 and Division 2-1 provide a near term case and the response to Division 5-2 provides a far term case with capacitors correcting to near unity power factor and regulators for low voltage. Similar to the Company's response to Division 2-4, the distributed generation is connected to the 34.5kV supply and does impact the CYME models.

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.



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Joanne M. Scanlon

April 2, 2024

Date

**Docket No. 23-38-EL Rhode Island Energy – Petition for Acceleration Due to DG Project – Weaver Hill Projects**  
**Service List updated 2/7/2024**

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