

Distributed Generation Interconnection

Rhode Island Energy Reporting Requirements - Affected System Operator Studies

Paragraph 4 Monthly Report

April 15th, 2024

The Narragansett Electric Company (NECo) is experiencing Distributed Generation (DG) saturation in certain regions and at certain substations that indicate the potential need for an Affected System Operator (ASO) study that would affect three or more DG applications or more than 15 MW of DG capacity in the following 6 months. Below is a list of the specific regions and substations where NECo is experiencing DG saturation. This Paragraph 4 Monthly Report (Paragraph 4 Report) provides an update since NECo's previous Paragraph 4 Report on the potential need for an ASO study in such regions and substations, as well as the actions NECo is taking to prevent, mitigate, and prepare for such an occurrence while working with its transmission provider, New England Power (NEP). The information in this Paragraph 4 Report is in addition to the other information and reporting NECo is providing under the Reporting Requirements with respect to potential and ongoing ASO studies.

Paragraph 4 Attachment

Paragraph 4 Attachment lists the substations with on-going ASO Studies currently being reported under the Reporting Requirements as well as substations for which any future applications over 1MW that propose to be connected to one of these substations will require an ASO study due to DG saturation over 5MW at an individual substation and/or over multiple substations fed from a common transmission injection point.

Potential ASO Studies for Pending Applications

The below table lists the substations that have the potential need for an ASO study that would affect three or more DG applications or more than 15 MW of DG capacity in the following 6 months. Please note that these stations are not part of any of the ongoing ASO Studies. NECo identified the potential need because at least one of the Generator Notification Forms (GNFs) for each of these substations that was presented to ISO-NE was returned for further analysis.

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Substation Name	Region	DG Penetration Level
BRISTOL SUBSTATION	Coastal	Between 5MW and 15MW
CHASE HILL SUBSTATION	Capital	>15MW
DAVISVILLE SUBSTATION	Coastal	>15MW
DEXTER SUBSTATION	Capital	>15MW
DIVISION ST SUBSTATION	Coastal	<5MW
DRUMROCK SUBSTATION	Capital	Between 5MW and 15MW
HOPKINS HILL SUBSTATION	Coastal	>15MW
JEPSON SUBSTATION	Coastal	>15MW
JOHNSTON SUBSTATION	Capital	>15MW
KENT COUNTY SUBSTATION	Coastal	>15MW
KENYON SUBSTATION	Coastal	>15MW
KILVERT ST. SUBSTATION	Coastal	Between 5MW and 15MW
LAFAYETTE SUBSTATION	Coastal	>15MW
NASONVILLE SUBSTATION	Capital	>15MW
NEW LONDON AVE SUBSTATION	Coastal	>15MW
OLD BAPTIST ROAD SUBSTATION	Coastal	>15MW
PAWTUCKET SUBSTATION	Capital	Between 5MW and 15MW
POINT STREET SUBSTATION	Capital	Between 5MW and 15MW
PUTNAM PIKE SUBSTATION	Capital	>15MW
RIVERSIDE SUBSTATION	Capital	Between 5MW and 15MW
STAPLES SUBSTATION	Capital	Between 5MW and 15MW
TIVERTON SUBSTATION	Coastal	>15MW
TOWER HILL SUBSTATION	Coastal	>15MW
VALLEY SUBSTATION	Coastal	Between 5MW and 15MW
WAMPANOAG SUBSTATION	Coastal	Between 5MW and 15MW
WARREN SUBSTATION	Capital	Between 5MW and 15MW
WASHINGTON SUBSTATION	Coastal	Between 5MW and 15MW
WEST CRANSTON SUBSTATION	Capital	>15MW
WEST GREENVILLE SUBSTATION	Capital	>15MW
WESTERLY SUBSTATION	Coastal	<5MW
WICKFORD JUNCTION SUBSTATION	Coastal	>15MW
WOOD RIVER SUBSTATION	Coastal	>15MW
WOONSOCKET SUBSTATION	Coastal	>15MW

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Action Plan/Next Steps

NECo is taking the following actions to prevent, mitigate, and prepare for such an occurrence for the above applications:

- NECo will continue to submit notification to NEP for all pre-ISA projects as soon as they reach the 20-business day mark during the distribution impact study stage.
- For the substations listed above, NECo will provide NEP the list of pending applications for NEP to consider as part of its initial assessment in coordination with ISO-NE as to what level of ASO study will be required.
- NECo will provide notification to the PUC and send notifications to affected customers per Paragraph 1 or Paragraph 5 and Paragraph 6 of the Reporting Requirements.

Potential ASO Studies for Future Applications

The below table indicates the list of substations where an ASO study will be required for any future application connecting to that substation. Future applications to these substations for over 1 MW will require ASO studies due to DG saturation at these substations. This applies to substations that are currently in Western RI Area ASO Study #3, as well as five individual studies; Chase Hill Substation, Davisville Substation, Kent County Substation, Putnam Pike Substation, Tower Hill Substation, Wood River Substation, Riverside Substation, Washington Substation, Point St Substation, Woonsocket Substation, and Valley Substation respectively.

Substation Name	Region	DG Penetration Level
BRISTOL SUBSTATION	Coastal	Between 5MW and 15MW
CHASE HILL SUBSTATION	Capital	>15MW
DAVISVILLE SUBSTATION	Coastal	>15MW
DEXTER SUBSTATION	Capital	>15MW
DRUMROCK SUBSTATION	Capital	Between 5MW and 15MW
FARNUM PIKE SUBSTATION	Capital	>15MW
HIGHLAND PARK SUBSTATION	Capital	<5MW
HOPE VALLEY SUBSTATION	Coastal	<5MW
HOPKINS HILL SUBSTATION	Coastal	>15MW
JEPSON SUBSTATION	Coastal	>15MW
JOHNSTON SUBSTATION	Capital	>15MW
KENT COUNTY SUBSTATION	Coastal	>15MW
KENYON SUBSTATION	Coastal	>15MW
KILVERT ST. SUBSTATION	Coastal	Between 5MW and 15MW
LAFAYETTE SUBSTATION	Coastal	>15MW
NASONVILLE SUBSTATION	Capital	>15MW
NEW LONDON AVE SUBSTATION	Coastal	>15MW

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OLD BAPTIST ROAD SUBSTATION	Coastal	>15MW
PAWTUCKET SUBSTATION	Capital	Between 5MW and 15MW
POINT STREET SUBSTATION	Capital	Between 5MW and 15MW
PUTNAM PIKE SUBSTATION	Capital	>15MW
RIVERSIDE SUBSTATION	Capital	Between 5MW and 15MW
STAPLES SUBSTATION	Capital	Between 5MW and 15MW
TIVERTON SUBSTATION	Coastal	>15MW
TOWER HILL SUBSTATION	Coastal	>15MW
VALLEY SUBSTATION	Coastal	Between 5MW and 15MW
WAMPANOAG SUBSTATION	Coastal	Between 5MW and 15MW
WARREN SUBSTATION	Capital	Between 5MW and 15MW
WASHINGTON SUBSTATION	Coastal	Between 5MW and 15MW
WEST CRANSTON SUBSTATION	Capital	>15MW
WEST KINGSTON SUBSTATION	Coastal	<5MW
WESTERLY SUBSTATION	Coastal	<5MW
WICKFORD JUNCTION SUBSTATION	Coastal	>15MW
WOOD RIVER SUBSTATION	Coastal	>15MW
WOONSOCKET SUBSTATION	Coastal	>15MW

Action Plan/Next Step

NECO is taking the following actions to prevent, mitigate, and prepare for such an occurrence for the above applications:

- NECo will publish on its website (<https://ngus.force.com/s/article/RI-DG-Group-Transmission-Study-Update>), the above list of substations that will require ASO study for future applications.
- In all future pre-application reports in these areas, NECo will notify the proposed project of the status of a likely ASO study in the future if the request may be served from one of the substations mentioned above.