Rhode Island Energy Reporting Requirements - Affected System Operator Studies

Paragraph 4 Monthly Report

November 15, 2022

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.

Rhode Island Energy Reporting Requirements - Affected System Operator Studies

BRISTOL SUBSTATION CHASE HILL SUBSTATION CApital >15MW DAVISVILLE SUBSTATION COastal >15MW DEXTER SUBSTATION COastal >15MW DIVISION ST SUBSTATION COastal <5MW DRUMROCK SUBSTATION COastal Setween 5MW and 15MW DRUMROCK SUBSTATION COastal Setween 5MW and 15MW HOPKINS HILL SUBSTATION COastal >15MW JEPSON SUBSTATION COastal >15MW JOHNSTON SUBSTATION COastal >15MW KENT COUNTY SUBSTATION COastal >15MW KENYON SUBSTATION COastal >15MW KILVERT ST. SUBSTATION COastal Between 5MW and 15MW LAFAYETTE SUBSTATION COastal >15MW NASONVILLE SUBSTATION COastal >15MW NASONVILLE SUBSTATION COastal >15MW NEW LONDON AVE SUBSTATION COastal >15MW PAWTUCKET SUBSTATION COastal SETWEEN 5MW and 15MW PAWTUCKET SUBSTATION COastal Between 5MW and 15MW POINT STREET SUBSTATION Capital Between 5MW and 15MW POINT STREET SUBSTATION Capital Between 5MW and 15MW PUTNAM PIKE SUBSTATION Capital Between 5MW and 15MW POINT STREET SUBSTATION Capital Between 5MW and 15MW PUTNAM PIKE SUBSTATION Capital Between 5MW and 15MW PAPLES SUBSTATION Capital Between 5MW and 15MW STAPLES SUBSTATION Capital Between 5MW and 15MW	Substation Name	Region	DG Penetration Level
DAVISVILLE SUBSTATION DEXTER SUBSTATION Capital DIVISION ST SUBSTATION Coastal Coastal Coastal Coastal Coastal Coastal DRUMROCK SUBSTATION Coastal DRUMROCK SUBSTATION Coastal HOPKINS HILL SUBSTATION Coastal JEPSON SUBSTATION Coastal JOHNSTON SUBSTATION Coastal C	BRISTOL SUBSTATION	Coastal	Between 5MW and 15MW
DEXTER SUBSTATION 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 KENYON SUBSTATION Coastal >15MW KILVERT ST. SUBSTATION Coastal Between 5MW and 15MW LAFAYETTE SUBSTATION Coastal >15MW NASONVILLE SUBSTATION Coastal >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 POINT STREET SUBSTATION Capital Between 5MW and 15MW PUTNAM PIKE SUBSTATION Capital Between 5MW and 15MW	CHASE HILL SUBSTATION	Capital	>15MW
DIVISION ST SUBSTATION DRUMROCK SUBSTATION Capital Between 5MW and 15MW HOPKINS HILL SUBSTATION Coastal JEPSON SUBSTATION Coastal JOHNSTON SUBSTATION Coastal Between 5MW and 15MW Coastal LAFAYETTE SUBSTATION Coastal Coastal	DAVISVILLE SUBSTATION	Coastal	>15MW
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 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 POINT STREET SUBSTATION Capital Between 5MW and 15MW PUTNAM PIKE SUBSTATION Capital Between 5MW and 15MW PUTNAM PIKE SUBSTATION Capital Between 5MW and 15MW RIVERSIDE SUBSTATION Capital Between 5MW and 15MW	DEXTER SUBSTATION	Capital	>15MW
HOPKINS HILL SUBSTATION JEPSON SUBSTATION JOHNSTON SUBSTATION KENT COUNTY SUBSTATION KENT COUNTY SUBSTATION KENYON SUBSTATION KILVERT ST. SUBSTATION Coastal LAFAYETTE SUBSTATION NASONVILLE SUBSTATION NEW LONDON AVE SUBSTATION Coastal Coastal Coastal S15MW Coastal S15MW Coastal S15MW Coastal S15MW Coastal S15MW Coastal NEW LONDON AVE SUBSTATION Coastal Coastal Coastal S15MW Coastal Coastal S15MW Coastal Coastal S15MW Coastal Coastal Coastal Coastal S15MW Coastal Coastal Coastal Coastal S15MW Coastal Coastal Coastal Coastal Coastal S15MW Coastal Coastal Coastal Coastal S15MW Coastal Coastal Coastal S15MW Coastal Coastal Coastal S15MW Coastal Coastal Coastal S15MW Coastal Coastal S15MW Coastal Coastal Coastal S15MW Coastal Coastal S15MW Coastal Coastal Coastal S15MW Coastal Coastal Coastal S15MW Coastal Coastal Coastal S15MW Coastal Coastal Coastal Coastal S15MW Coastal Coastal Coastal Coastal Coastal Coastal Coastal S15MW Coastal Coastal Coastal S15MW Coastal S15MW Coastal Coas	DIVISION ST SUBSTATION	Coastal	<5MW
JEPSON SUBSTATION JOHNSTON SUBSTATION KENT COUNTY SUBSTATION KENYON SUBSTATION KENYON SUBSTATION KENYON SUBSTATION KILVERT ST. SUBSTATION LAFAYETTE SUBSTATION NASONVILLE SUBSTATION NEW LONDON AVE SUBSTATION Coastal Coastal S15MW NEW LONDON AVE SUBSTATION Coastal Coastal S15MW NEW LONDON AVE SUBSTATION Coastal Coastal S15MW Coastal S15MW Coastal Coastal S15MW Coastal Coastal Coastal S15MW Coastal Coastal S15MW Coastal Coastal Coastal S15MW Coastal Coastal S15MW Coastal Coastal Coastal S15MW Coastal Coas	DRUMROCK SUBSTATION	Capital	Between 5MW and 15MW
JOHNSTON SUBSTATION KENT COUNTY SUBSTATION KENYON SUBSTATION KENYON SUBSTATION KILVERT ST. SUBSTATION LAFAYETTE SUBSTATION Coastal NASONVILLE SUBSTATION NEW LONDON AVE SUBSTATION OLD BAPTIST ROAD SUBSTATION PAWTUCKET SUBSTATION Capital Capital Coastal Coastal	HOPKINS HILL SUBSTATION	Coastal	>15MW
KENT COUNTY SUBSTATION KENYON SUBSTATION KILVERT ST. SUBSTATION LAFAYETTE SUBSTATION Coastal NASONVILLE SUBSTATION NEW LONDON AVE SUBSTATION Coastal	JEPSON SUBSTATION	Coastal	>15MW
KENYON SUBSTATIONCoastal>15MWKILVERT ST. SUBSTATIONCoastalBetween 5MW and 15MWLAFAYETTE SUBSTATIONCoastal>15MWNASONVILLE SUBSTATIONCapital>15MWNEW LONDON AVE SUBSTATIONCoastal>15MWOLD BAPTIST ROAD SUBSTATIONCoastal>15MWPAWTUCKET SUBSTATIONCapitalBetween 5MW and 15MWPOINT STREET SUBSTATIONCapitalBetween 5MW and 15MWPUTNAM PIKE SUBSTATIONCapital>15MWRIVERSIDE SUBSTATIONCapitalBetween 5MW and 15MW	JOHNSTON SUBSTATION	Capital	>15MW
KILVERT ST. SUBSTATION LAFAYETTE SUBSTATION NASONVILLE SUBSTATION NEW LONDON AVE SUBSTATION OLD BAPTIST ROAD SUBSTATION PAWTUCKET SUBSTATION POINT STREET SUBSTATION Capital Capital Between 5MW and 15MW Capital Between 5MW and 15MW Capital Between 5MW and 15MW PUTNAM PIKE SUBSTATION Capital Capital Street SUBSTATION Capital Capital Street SUBSTATION Capital	KENT COUNTY SUBSTATION	Coastal	>15MW
LAFAYETTE SUBSTATIONCoastal>15MWNASONVILLE SUBSTATIONCapital>15MWNEW LONDON AVE SUBSTATIONCoastal>15MWOLD BAPTIST ROAD SUBSTATIONCoastal>15MWPAWTUCKET SUBSTATIONCapitalBetween 5MW and 15MWPOINT STREET SUBSTATIONCapitalBetween 5MW and 15MWPUTNAM PIKE SUBSTATIONCapital>15MWRIVERSIDE SUBSTATIONCapitalBetween 5MW and 15MW	KENYON SUBSTATION	Coastal	>15MW
NASONVILLE SUBSTATION NEW LONDON AVE SUBSTATION OLD BAPTIST ROAD SUBSTATION PAWTUCKET SUBSTATION POINT STREET SUBSTATION PUTNAM PIKE SUBSTATION RIVERSIDE SUBSTATION Capital Capital Capital Setween 5MW and 15MW Capital Capital Capital Setween 5MW and 15MW Capital	KILVERT ST. SUBSTATION	Coastal	Between 5MW and 15MW
NEW LONDON AVE SUBSTATION OLD BAPTIST ROAD SUBSTATION PAWTUCKET SUBSTATION POINT STREET SUBSTATION PUTNAM PIKE SUBSTATION RIVERSIDE SUBSTATION Capital	LAFAYETTE SUBSTATION	Coastal	>15MW
OLD BAPTIST ROAD SUBSTATION PAWTUCKET SUBSTATION POINT STREET SUBSTATION PUTNAM PIKE SUBSTATION RIVERSIDE SUBSTATION Capital Capital Capital Capital Capital Capital Between 5MW and 15MW Capital	NASONVILLE SUBSTATION	Capital	>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	NEW LONDON AVE SUBSTATION	Coastal	>15MW
POINT STREET SUBSTATION Capital Between 5MW and 15MW PUTNAM PIKE SUBSTATION Capital RIVERSIDE SUBSTATION Capital Between 5MW and 15MW	OLD BAPTIST ROAD SUBSTATION	Coastal	>15MW
PUTNAM PIKE SUBSTATION Capital >15MW RIVERSIDE SUBSTATION Capital Between 5MW and 15MW	PAWTUCKET SUBSTATION	Capital	Between 5MW and 15MW
RIVERSIDE SUBSTATION Capital Between 5MW and 15MW	POINT STREET SUBSTATION	Capital	Between 5MW and 15MW
·	PUTNAM PIKE SUBSTATION	Capital	>15MW
STAPLES SUBSTATION Capital Between 5MW and 15MW	RIVERSIDE SUBSTATION	Capital	Between 5MW and 15MW
	STAPLES SUBSTATION	Capital	Between 5MW and 15MW
TIVERTON SUBSTATION Coastal >15MW	TIVERTON SUBSTATION	Coastal	>15MW
TOWER HILL SUBSTATION Coastal >15MW	TOWER HILL SUBSTATION	Coastal	>15MW
VALLEY SUBSTATION Coastal Between 5MW and 15MW	VALLEY SUBSTATION	Coastal	Between 5MW and 15MW
WAMPANOAG SUBSTATION Coastal Between 5MW and 15MW	WAMPANOAG SUBSTATION	Coastal	Between 5MW and 15MW
WARREN SUBSTATION Capital Between 5MW and 15MW	WARREN SUBSTATION	Capital	Between 5MW and 15MW
WASHINGTON SUBSTATION Coastal Between 5MW and 15MW	WASHINGTON SUBSTATION	Coastal	Between 5MW and 15MW
WEST CRANSTON SUBSTATION Capital >15MW	WEST CRANSTON SUBSTATION	Capital	>15MW
WEST GREENVILLE SUBSTATION Capital >15MW	WEST GREENVILLE SUBSTATION	Capital	>15MW
WESTERLY SUBSTATION Coastal <5MW	WESTERLY SUBSTATION	Coastal	<5MW
WICKFORD JUNCTION SUBSTATION Coastal >15MW	WICKFORD JUNCTION SUBSTATION	Coastal	>15MW
WOOD RIVER SUBSTATION Coastal >15MW	WOOD RIVER SUBSTATION	Coastal	>15MW
WOONSOCKET 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 and one currently in individual study; Chase Hill Substation, Davisville Substation, Kent County Substation, Putnam Pike Substation, Tower Hill Substation, Wood River Substation, and Tiverton 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
OLD BAPTIST ROAD SUBSTATION	Coastal	>15MW

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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.

Force Majeure Event

NECo is informing all new applicants that due to the developing COVID-19 crisis, NECO declared a Force Majeure Event (Event) pursuant to the Standards for Connecting Distributed Generation, RIPUC No. 2180 ("Tariff") Section 3.0., that the Company will notify customers whose DG project is directly impacted by this Event, and that all customers will be kept informed of the scope and duration (to extent known) of this Force Majeure Event and of the steps the Company is taking to mitigate the effects of the Event on its performance through periodic updates on the Company's distributed generation website: https://ngus.force.com/s/article/RI-Force-Majeure-Declarations