

[Back](#)

PRELIMINARY SCREENING ANALYSIS

(re: December 2019 NYS SIR)

Interconnecting Customer: Lindsey McEntire

CLA.25.1-13: 00421197

5000.00 kW (AC) Inverter Based Interconnection Project

Project Address: 850 New Road, Amherst, New York, 14228

II. NYS SIR Appendix G Screening Review:

Screen A: Is the PCC on a Networked Secondary System?

Does the proposed system connect to a secondary network system?

National Grid Review Result: *No, Screen A passes. Continue to Screen B.*

Screen B: Is Certified Equipment Used?

Does the applicant propose to use equipment that has been listed to meet UL 1741 (Inverters, Converters and Charge Controllers for Use in Independent Power Systems) and for inverter based equipment, UL 1741 and its supplement SA, by a nationally recognized testing laboratory?

National Grid review result: *Yes, Screen B passes. Continue to Screen C.*

Screen C: Is the Electric Power System (EPS) Rating Exceeded?

Does the maximum aggregated generation or loading capacity connected to an EPS (existing and approved prior to application) exceed any EPS ratings (modified per established utility practice)?

National Grid review result: *Yes, Screen C fails, as the site's size, technology type, or configuration is such that further engineering study is required.*

Note that the following information is based on the current status of the EPS and available information at the time of this report's issue, and are not binding if the applicant proceeds to Supplemental Screening Analysis or full CESIR. Additionally, the thermal limitation described in this screen is the device with the largest margin of failure based on aggregate DG queue. It should be noted that other equipment on the feeder and substation may also fail thermal limitations. This information will be conveyed in a Final CESIR should the project choose to proceed.

Interconnected and In-Process Generating Facilities Data:

- Total Interconnected DG on the Subject Feeder: 17.00 DG sites; 228.50 kW total

- Total In-Process DG on Subject Feeder (Incl. Applicant): 4.00 DG sites;

8762.68 kW total

- Applicant DG Size: 5000.00 kW

National Grid EPS data related to this proposed DG application's location:

- Substation Name: BUFFALO STATION 232 - OAKWOOD DR

- Substation Bank Number: 1

- Substation Bank Nameplate Rating: 25.00 MVA

- Substation Transformer Winding Configuration: delta - wye-grounded

- Feeder Number: 36_03_23253

- Feeder Nominal Voltage: 13.20 kV

- PCC Section Line to Line Voltage: 13.20 kV

- Est. Feeder Minimum Load: 1,086.41 kVA

- Number of Distribution Reclosers or Regulators Upstream of DG location:

1

Limiting Element Information:

- Element Rating: N/A

- Downstream DG at location: N/A

Is aggregate DER >15% of peak load supplied through a voltage regulator?:

No

Does DG exceed existing service transformer rating?: No

Is DG site greater than or equal to 500kW, and therefore requires further protection analysis?: Yes

Is DG site greater than or equal to 300kW on a 5kV class feeder, which will require monitor and control?: No

Does the DG include energy storage that requires further analysis?: No

Screen D: Is the Line and Grounding Configuration Compatible with the Interconnection Type?

Identify primary distribution line configuration that will serve the distributed generation or energy storage.

- DER Connection to Primary: 3 Phase

- DER Grounding: Grounded

- National Grid Primary Configuration: 3 Phase 4 Wire (3P4W)

National Grid review result:

Proposed Interconnection to Primary Distribution Line Type is a(n)Grounded , 3 Phase DER system connected to a 3 Phase 4 Wire (3P4W) distribution line configuration.

Fail Screen D - The customer's aggregate DER nameplate rating is greater than 10% of the line section peak load connected to this type line configuration.

Continue to Screen E.

Screen E: Simplified Penetration Test

If the aggregate DER capacity on any medium voltage line section (existing and approved prior to application) is less than 15% of the annual peak load for all line sections bounded by automatic sectionalizing devices upstream of the DER?

- Annual Peak Load at Feeder Head: 4345.63 kVA

- Sectionalizing Device Section: 36_03_23253 , Equipment Type: Source
- Annual Peak Load at Sectionalizing Device: 4,345.63 kVA
- Downstream DG: 8991.18 kVA
- 15% of Annual Peak Load at sectionalizing device: 651.84 kVA

Is downstream DG < 15% of Annual Peak Load at sectionalizing device section?

No. Screen E Fails. Further study is required. Continue to Screen F.

Screen F: Is Feeder Capacity Adequate for Individual and Aggregate DER?

Is the feeder available short circuit capacity at the medium voltage PCC, divided by the rating of the individual DER, greater than 25? Is the feeder available short circuit capacity at the substation divided by the capacity all aggregate DG on the feeder, greater than 25?

- DER Size: 5.00 MVA
- Fault Power at PCC: 42.87 MVA
- Fault Power at Substation: 312.78 MVA
- Stiffness Factor at PCC: 8.57
- Stiffness Factor at Substation: 34.79

Do both stiffness factor tests (PCC and Substation) pass?

No. Screen F Fails. Further study is required.

III. References (Universal for every customer):

National Grid's New York Distributed Generation Website:

<https://ngus.force.com/s/> (<https://ngus.force.com/s/>).

ESB 750 and ESB 756 are available on National Grid's website at:

<https://ngus.force.com/s/article/NY-BUSINESS-Interconnection-Documents>
(<https://ngus.force.com/s/article/NY-BUSINESS-Interconnection-Documents>)

IV. Revision History:

| Version | Date | Revision Description |
|---------|------------|---|
| 1.0 | 09-15-2016 | Template to align with NYS SIR effective April 29, 2016 |
| 1.1 | 10-27-2016 | Revised Screen F method and other edits to template response choices |
| 1.2 | 11-22-2016 | Screen F response choices changed due to Screens B-E and voltage analyses are performed in Supplemental or CESIR stages |
| 1.3 | 03-20-2017 | Screen D revised to include 5kV class 3-phase interconnection projects |
| 1.4 | 07-19-2018 | Template revised to align with NY SIR effective July 19, 2018 |
| 1.5 | 10-03-2018 | Template revised to align with NY SIR effective October 03, 2018 |
| 1.6 | 12-13-2019 | Template revised to align with NY Sir effective December 13, 2019 |

The customer has 10 business days to respond to National Grid indicating how they would like to proceed:

CUSTOMER RESPONSE TO PRELIMINARY SCREENING ANALYSIS

1. Proceed to Full Study (Estimated Study Fee: \$6900.00 - payment due upon receipt of invoice)
2. Proceed to Supplemental Review (Fixed Supplemental Review Fee: \$2500.00 - payment due upon receipt of invoice)
3. Request Preliminary Results Meeting (To be scheduled by National Grid)
4. Withdraw (Request that the application is cancelled)

In order to proceed to a Fully Study or Supplemental Review, please submit any additional documentation or updates noted in the report. Please only submit payments based on the instructions provided in the invoice or the online payment system. Other methods of submitting payments may result in delays.



Applicant Decision For Next Steps