

Distribution System Planning - System Data Portal

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HERE WITH YOU. HERE FOR YOU.



Power Sector Transformation Discussion
August 16, 2017
Robert D. Sheridan



National Grid System Data Portal

A story map   [Introduction](#)[Company Reports](#)[Distribution Assets Overview](#)[Capital Investment Plan](#)[DG Red Zone](#)[Hosting Capacity](#)[DER Opportunity Map](#)[DER Opportunity Documents](#)

National Grid New York

System Information Portal

National Grid has created a collection of maps to help customers, contractors and developers identify potential project sites. The map provides the location and specific information for selected electric transmission lines, distribution substations within the National Grid service NY electric service area. National Grid's electric system is dynamic. System configurations can change for a variety of reasons both planned and unplanned. National Grid contents on a periodic basis so be aware that the same location may show different information over time. Information in this portal is current as of 4/10/2017.

Please note that the portal and maps are not a guarantee that generators can interconnect at any particular time and place. A number of factors drive the ability and cost of interconnecting distributed generation to the electric interconnection requirements and costs will be determined following detailed studies. These studies will consider your specific project location, operating characteristics and timing. Additionally, environmental and other requirements independent of our interconnection process and may limit the suitability of a particular site.

Detailed information on this process can be found at: https://www9.nationalgridus.com/niagaramohawk/business/energyeff/4_interconnection.asp

FAQs

Will the maps be made available directly in a downloadable format?

At this time, National Grid does not anticipate making the maps available in any other downloadable format due to the dynamic nature of National Grid's electric system and the prospect of different users having files with different configurations. To ensure that National Grid is providing authoritative content the company must be able to maintain its content in an authoritative format.

Are instructions for using the portal available?

To help enable the use of the portal National Grid has provided a guide in pdf format. This can be accessed here: [System Information Portal Help](#)

[National Grid System Data Portal](#)

The portal continues to evolve since being deployed in June 2016

Central Location

National Grid System Data Portal

[Introduction](#)[Company Reports](#)[Distribution Assets Overview](#)

National Grid New York

Filed Company Reports

[National Grid UNY \(Niagara Mohawk\) - 5 Year T&D Capital Investment Plan](#)[National Grid UNY \(Niagara Mohawk\) - Condition Assessment Report](#)[National Grid UNY \(Niagara Mohawk\) - Peak Load Forecast](#)[National Grid UNY \(Niagara Mohawk\) - Reliability Report](#)[National Grid UNY \(Niagara Mohawk\) - Summer Preparedness](#)[National Grid UNY \(Niagara Mohawk\) - Power Quality](#)[National Grid UNY \(Niagara Mohawk\) - Planning Criteria Documents](#)

This document has been REDACTED to remove Critical Energy Infrastructure Information (CEII) 1/31/2017

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TRANSMISSION AND DISTRIBUTION
CAPITAL INVESTMENT PLANElectric
Transmission &
Distribution
System

CASE 12-E-0201

JANUARY 31, 2017

PREPARED FOR:

THE STATE OF NEW YORK PUBLIC SERVICE COMMISSION

THREE EMPIRE STATE PLAZA

ALBANY, NY 12223

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System Data Presented via interactive maps

The screenshot displays the National Grid System Data Portal interface. At the top, the title "National Grid System Data Portal" is visible, along with social media links and the Esri logo. Below the title is a navigation bar with tabs: "Introduction", "Company Reports", "Distribution Assets Overview" (highlighted), "Capital Investment Plan", "DG Red Zone", "Hosting Capacity", "DER Opportunity Map", and "DER Opportunity Documents". The main area shows a map of the New York region, including Lake Ontario and the Niagara Peninsula. A modal window is open in the center, containing the following text:

This interactive map provides information intended to help DER developers identify locations on the National Grid electric distribution network and associated characteristics. Each circuit is independently colored with thicker lines representing three phase. Conversely, single or double phase circuits are shown with a thinner line. Solid lines represent overhead construction with dashed lines being underground. Additionally substation locations are shown as blue squares.

Please use Chrome to view. Alternative browsers may not be supported.

[National Grid New York System Information Portal Terms of Use](#)

Welcome to the National Grid New York System Information Portal.

These Terms govern your access and use of the Information Portal and Portal Content. By accessing or using the Information Portal, you agree to be bound by these Terms.

We reserve the right to modify these Terms at any time, without prior notice, and your use of the

☒ I agree to the above terms and conditions

OK

The map background shows various geographical features and infrastructure, with a scale bar at the bottom left indicating 30 miles. The Esri logo is visible in the bottom right corner of the map area.

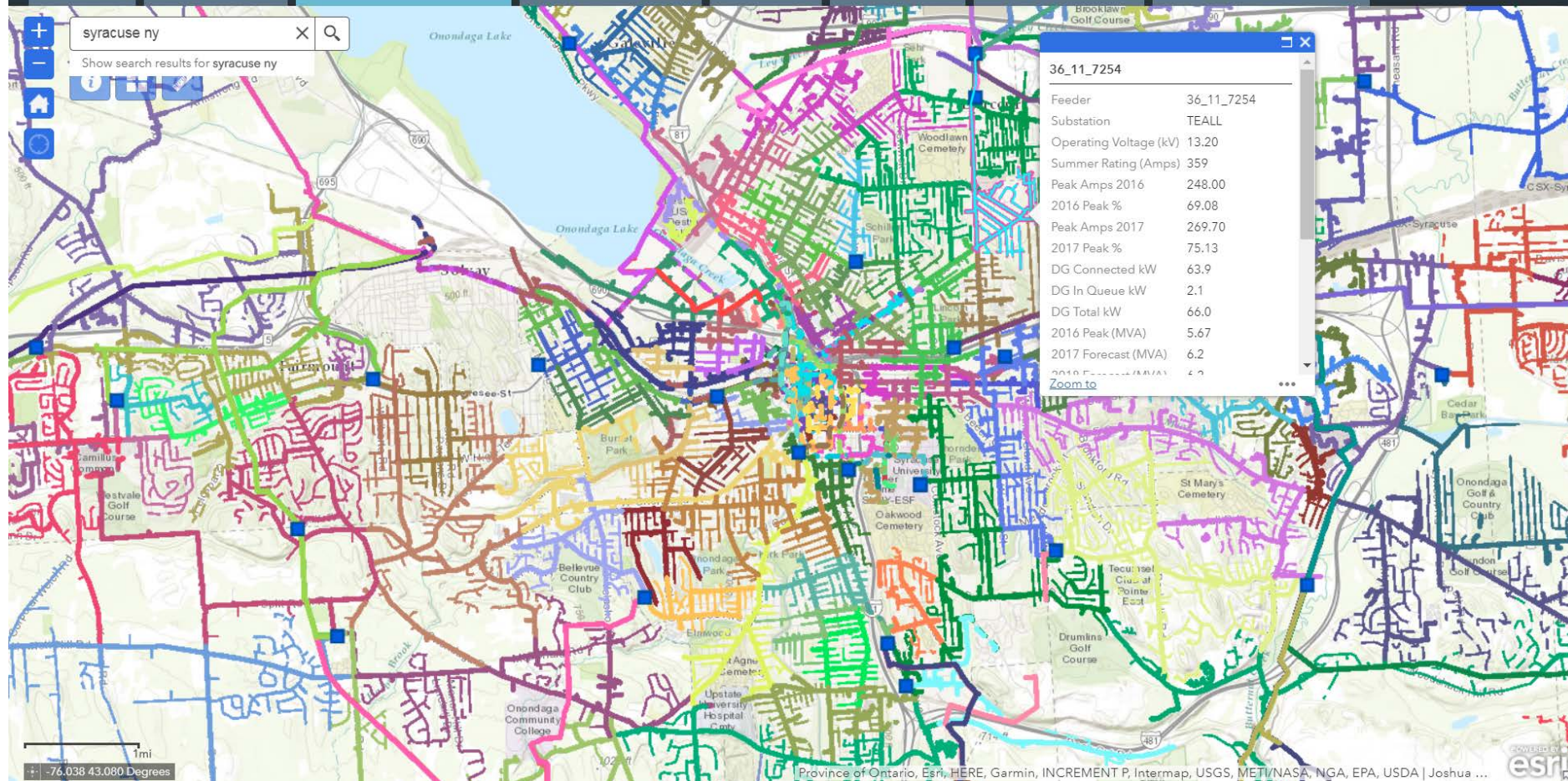
Informational purposes only

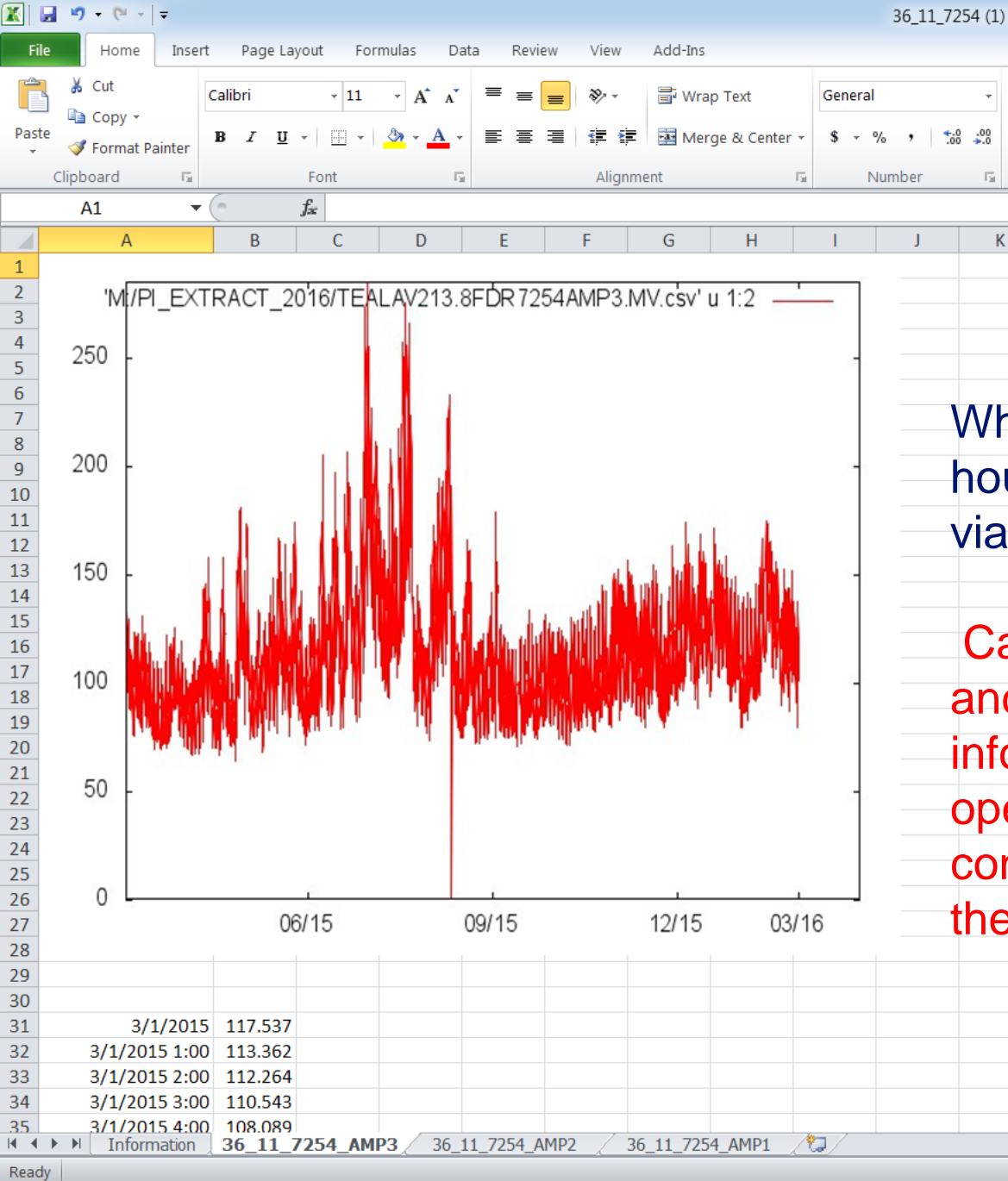
Historic Load Data

National Grid System Data Portal

A story map    

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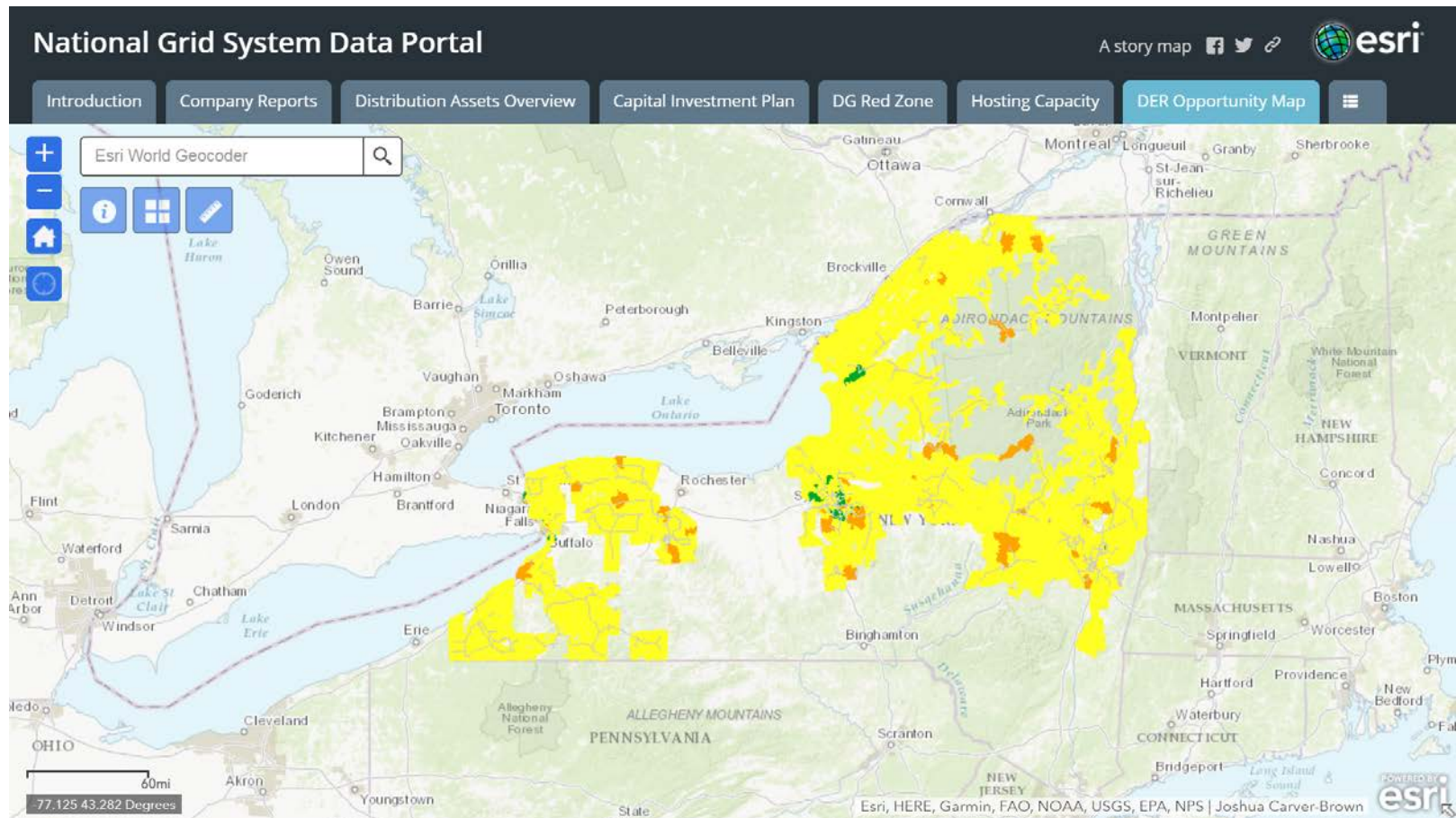




Where available historic hourly load data is presented via Excel spreadsheets.

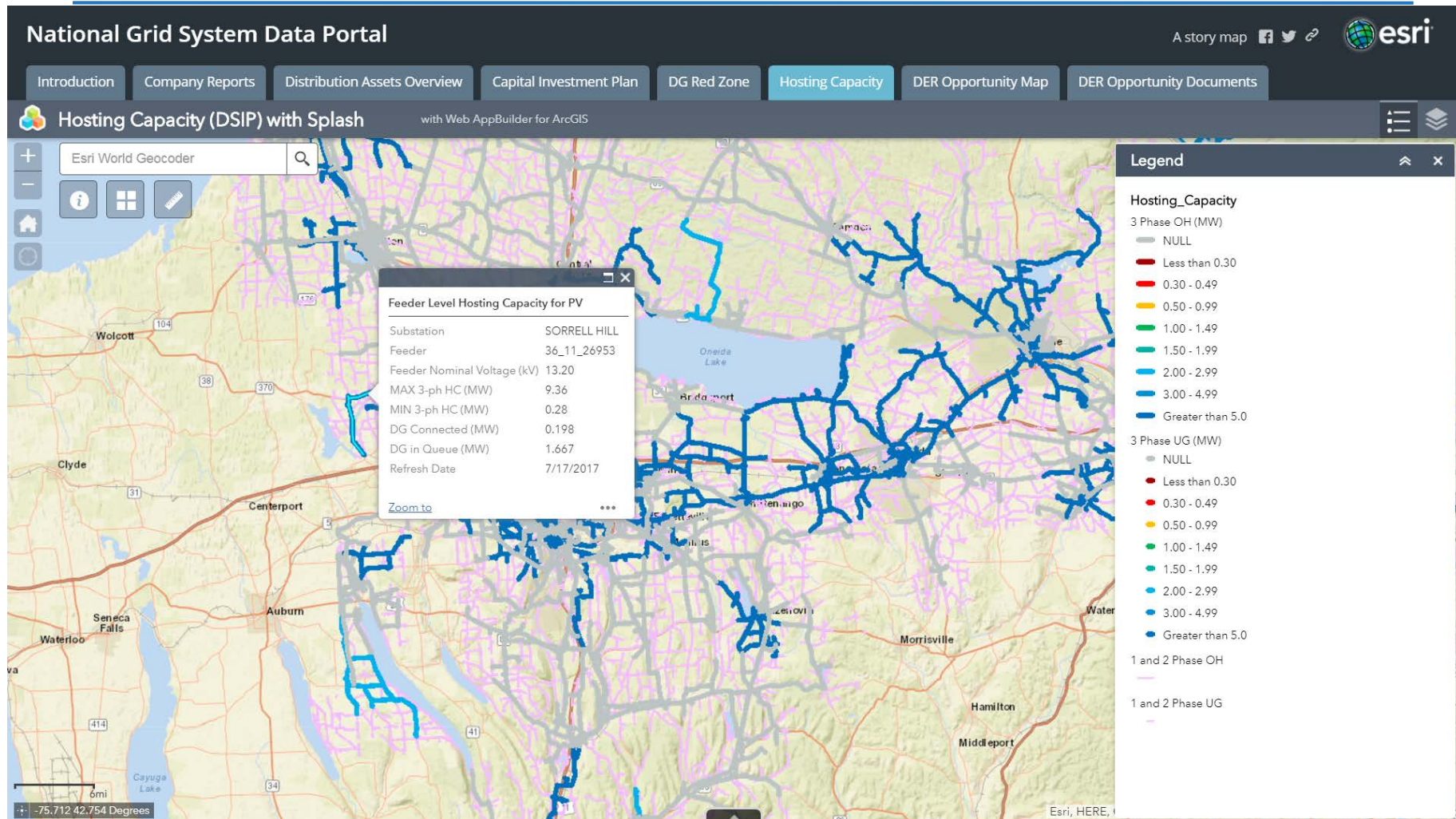
Caution: this is raw data and does not provide any information regarding the operating conditions or configuration at the time of the reading.

Beneficial Locations



Simply a load/rating assessment.
Expect this will evolve as VDER proceedings progress.

Hosting Capacity – evaluations in progress



Expected to continually evolve in phases, as data and tool sets are enhanced.

New Addition – Potential NWA Opportunities Under Evaluation

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NATIONAL GRID_NWA OPPORTUNITIES.pdf

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Project Name/Description	Project Type	Description of Need	Status	Loading Relief Needed	Voltage Type	Voltage (kV)	Project Size	Estimated RFP Timing	Need Timing
Baldwinsville	Load Relief	Substation MWh ¹ violation -- Includes two substations and 5-6 overloaded feeders. The Sorrell Hill Substation currently exceeds the National Grid Distribution Planning Guidelines for Load at Risk and the Lysander Substation is nearing the point at which it will exceed this guideline as well.	Proposal Review	4-6 MW	Distribution	13.2kV	Large	N/A	2023+
Old Forge	Reliability	Area of poor reliability - looking to NWA to solve summer loading and reliability problems. Radial Sub-transmission line (46kV) that runs through the Adirondack park in the Mohawk Valley Region of National Grid's territory.	RFP Posted	13 MW	Distribution/ Sub-Transmission	46kV / 13.2kV / 4.8kV	Large	RFP Posted	2023+
Brooklea Dr/Fayetteville	Load Relief	Loading on the step-down "ratio" transformer bank serving portions of the Village of Fayetteville has increased to a level that the step-down "ratio" transformer bank is overloaded during peak loading days. The area being considered for a NWA solution is located in Central New York southeast of the City of Syracuse. Relieve an overloaded step-down ratio bank on a Duguid Distribution feeder. 13.2kV WYE to 4.16kV WYE.	RFP Development	140 kW	Distribution	4.16kV	Small	Aug-2017	2020
Gilbert Mills	Load Relief	Loading on the Gilbert Mills substation serving the Towns of Schroepfel, Palermo and portion of Hastings has increased to a level at which that is projected to be overloaded to 100% of its normal rating. A single transmission or distribution ("T&D") contingency results in approximately 1.7MVA load at risk. National Grid is evaluating alternatives to reduce the area load in order to maintain or improve reliability performance.	RFP Development	1.7 MW	Distribution	13.2kV	Small	Aug-2017	2023+
Van Dyke	Load Relief	Loading on the substations serving portions of the Towns of Bethlehem and New Scotland and portions of the City of Albany has increased to a level at which the load at risk for a single transmission and distribution ("T&D") contingency exceeds the risk threshold established in National Grid's Distribution Planning Criteria. Additionally, 11.5MW of expected new commercial and industrial load in the Town of Bethlehem will cause feeder loading beyond normal ratings. National Grid is evaluating alternatives to serve this new load and to reduce the area load at risk to maintain or improve reliability performance.	RFP Development	6 MW	Distribution	13.2kV	Large	Oct-2017	2020
Golah-Avon	Load Relief	Golah - N Lakeville lines 216 and 217 projected to be above 100% of its summer emergency rating during a single contingency. Load relief is required to keep voltage	RFP	6 MW	Sub-Transmission	34.5kV	Large	Oct-2017	2021

Final Thoughts

- The data portal is simply a communications platform
- The platform can be very flexible, however
- the potential data sources are vast and require significant resources to maintain and present.
- Careful consideration should be given to define the purpose and use cases for which the portal is intended to support.
- Expect that the portal will continue to evolve with the appropriate resources and time.

