

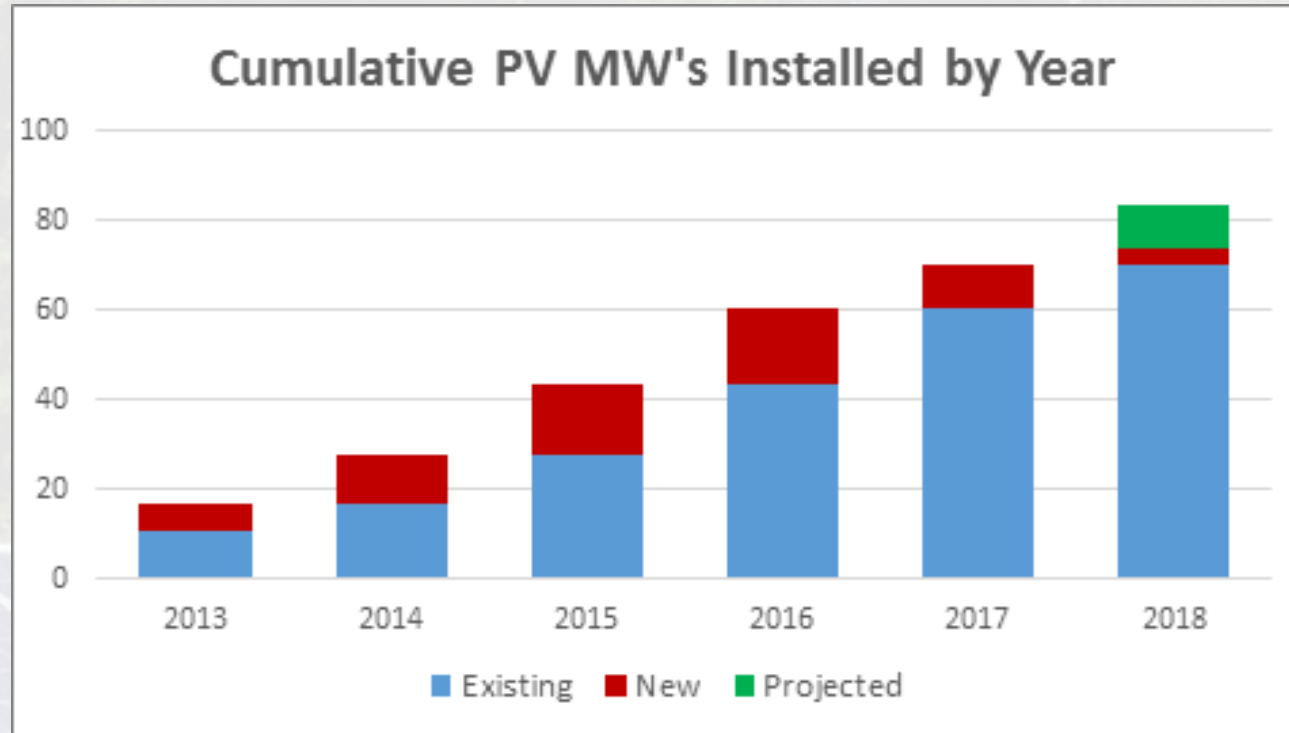
New Application Portal, Queue Management & Hosting Capacity

Stephanie Genesee, Associate Engineer

Diana Barton, Senior Engineering Technician

Central Hudson Electric Distribution Planning

Net-Metered PV Growth



As of 2/28/18	# of Systems	MW's
Interconnected	7,800	75
In Queue	300	134

Interconnection Online Application Portal

- New York Interconnection Online Application Portal (IOAP) Functional Requirements
 - Electric Power Research Institute (EPRI)
 - New York State Energy Research and Development Authority (NYSERDA)
 - New York State Department of Public Service Staff (NYS DPS)

IOAP Phases

- Phase 1 – Automate Application Management
- Phase 2 – Automate SIR Technical Screening
- Phase 3 – Full Automation of all Processes

IOAP Requirements


KEY FUNCTIONALITIES



- Ability to apply online and automatically manage the application approval process
- Responses in a consistent and timely manner and improve timeliness for identification of study requirements
- Provide standardized contract forms and terms
- Enable transparency into the process
- Support the status tracking of times to approval
- Share information via a publicly maintained queue
- Provide automated technical screening and impact studies

PowerClerk Portal

www.centralhudson.com/dg



Submit Interconnection Application

Forms Contact Us About Us Community Safety News Rates Efficiency Employment More...

Distributed Generation

If you are a Central Hudson customer, you may be eligible to install a generator and operate in parallel with Central Hudson's electric grid.

Contact Information
For general inquiries, billing and metering questions
Phone: 845-452-2700 or 1-800-527-2714
Email: [Pvmetering@cehudson.com](mailto:pvmetering@cehudson.com)

For interconnection application inquiries or technical questions
Phone: 845-486-5215
Email: DG@cehudson.com or DistributedGeneration@cehudson.com

- Interconnection Application Documents
- Technical Requirements
- Submit Interconnection Application
- Programs and Incentives
- FAQs
- Forms
- Hosting Capacity Map
- System Data Portal
- Interconnection Queue
- Solar Summits
- Interconnection Process



Distributed Generation

- Interconnection Application Documents
- Technical Requirements
- Submit Interconnection Application
- Programs & Incentives
- DG FAQs
- DG Forms
- Central Hudson Solar Summits
- Contact Us
- Hosting Capacity Map
- Interconnection Queue
- Average Rates

Related Content

- Green Power
- SavingsCentral
- Environment & Sustainability

Log In Page



PowerClerk

Distributed Generation Interconnection Online Application Portal - For systems up to 5 MW

You can easily submit an interconnection application for a distributed generation system and request final interconnection approval (PTO) through this online portal, upload all required documentation and check on the status of your application at any time.

Need help? View the [PowerClerk Tutorial](#) or contact Central Hudson's Distributed Generation Interconnection Team at dg@cenhud.com or (845) 486-5215.

Did you know that you can save your Company's contact information using PowerClerk's FormSense, and never have to type in your company name, address, phone #, etc. again? [Click here](#) for a video on how you can set it up.

For more information about our distributed generation programs, visit our website at www.centralhudson.com/dg

Central Hudson's customer self-service and customer-specific information are solely intended for use by the customer who is the account holder or the customer's authorized agent. Any unauthorized entry or use of Central Hudson's Customer Self-Service is prohibited. The access and use of any provided information shall be governed by the laws of the State of New York.

Log In

Username:

Password:

[Forgot Password?](#) [Register a new account.](#)

Project Dashboard

Submit NEW Project

Project Views

Project Dashboard

People. Power. Possibilities.
Central Hudson
A FORTIS COMPANY

PowerClerk®
Welcome, Diana Barton | Log Out

HOME PROGRAM DESIGN ADMIN SETTINGS SUPPORT

CENTRAL HUDSON GAS & ELECTRIC - DISTRIBUTED GENERATION INTERCONNECTION ONLINE APPLICATION PORTAL

[Change Program](#)

New Interconnection Application for Projects 50 kW and less
New Pre-Application Request
New Interconnection Application for Projects greater than 50 kW

All Projects Pre-App Review App Review Final Review Incomplete Pre-App Incomplete App
Incomplete CESIR Package Incomplete Final Awaiting Decision Awaiting Payment Results Meeting On Hold
Construction Interconnected Unsubmitted Withdrawn Pre-Screen Supp-Screen CESIR Package CESIR Study
WVT Transformer Upgrade

Project#	Old Project#	Account#	Current Status	Current Timestamp	Applicant/ Agent	Contractor/ Installer	Customer Company	Customer First Name	Customer Last Name	Customer Address	Customer City	System Type	System Rating (kW)	NEM Type	Value Type	Contract eSignature Status
CH-00001		1111-1111-00	Approved for Construction	02/28/2018	Sunny D Solar	Sunny D Contracting	Central Hudson	Diana	Barton	284 South Ave	Poughkeepsie		20.8	CDG	VDER Phase1 NEM	Completed

Project Submission



HOME PROGRAM DESIGN ▾ ADMIN ▾ SETTINGS ▾

Your information was submitted successfully.

Your Project Number is:

CH-00001

Continue



Wed 2/28/2018 2:05 PM

Central Hudson Gas & Electric <DoNotReply@PowerClerk.com>

Your Application # CH-00001 Has Been Received

To dg

Your application # CH-00001 has been received.

The site address for this project is **284 South Ave, Poughkeepsie NY 12601**

Utility Customer: **Diana Barton**

Utility Account #:

Proposed Net Energy Metering Type (to be reviewed for eligibility): **CDG**

Total AC System Rating of proposed DG system: **20.8 kW**

Applicant/Agent: **Sunny D Solar**

We will review your application promptly and will be in touch as needed. You can expect to receive automatic notifications from PowerClerk as your project status changes. You can also login at any time to see the current status of this project.

For questions regarding the net meter installation, please contact our Customer Service Department at (845) 452-2700 or 1-(800) 527-2714. For hours of operation, please visit <https://www.cenhud.com/contactus/phone> or to submit a question through email, please visit <https://www.cenhud.com/contactus>.

Best regards,

*DG Interconnection Team
Electric Distribution Planning
Central Hudson Gas & Electric
284 South Avenue, Poughkeepsie NY 12601
(845) 486-5215 | DG@cenhud.com*



Project Summary and Status Milestone

The screenshot displays the PowerClerk interface for a project. At the top left is the Central Hudson logo with the tagline "People. Power. Possibilities." and "A FORTIS COMPANY". At the top right is the PowerClerk logo and a welcome message for Diana Barton with a "Log Out" link. A navigation bar contains links for HOME, PROGRAM DESIGN, ADMIN, SETTINGS, and SUPPORT. The main content area shows "View/Edit: CH-00001" and a "Go to CH-" search box. A progress bar consists of seven steps: Application Submission, Screening Analysis In Progress, Pending Applicant Decision, CESIR, Awaiting Construction Payment, System Under Construction (highlighted in blue), and Pending Final Approval. Below the progress bar is an "Interconnected" status. The "Current Status" section indicates the project is "Approved for Construction" as of 2/28/2018 at 2:49 PM, with details on creation and last update times, and identifies Diana Barton as the Project Owner. The "Project Summary" section is a table with the following data:


Account Number 1111-1111-00	Utility Customer Company Central Hudson	Utility Customer First Diana	Utility Customer Last Barton
Operating District Poughkeepsie	Utility Customer Line 1 284 South Ave	Utility Customer Line 2 None	Utility Customer City Poughkeepsie
Applicant/Agent Company Sunny D Solar	System Type PV	Total System Rating 20.8	Value Type VDER Phase1 NEM

Project Summary


Status Milestone


Forms and Project Access

▼ Available Forms

Description	Form status
 Meter Set Request <input type="button" value="Begin"/>	New form Became available on 2/28/2018 at 2:49 PM

▼ Previous Forms

Description	Form status
 Interconnection Application for Projects 50 kW and less <input type="button" value="View"/>	Submitted Last submitted on 2/28/2018 at 2:04 PM

▼ Access Grants For This Project 

Email	Access type
No project grants have been granted for project CH-00001.	
Grantee Email Address: <input type="text" value="example@company.com"/>	<input type="button" value="Read/Write Privilege"/> <input type="button" value="Add Grant"/>

Attachments

Incomplete Application Review

Project Number: CH-00001

Box checked if submitted item has been accepted, or is not required. If the box is unchecked, please review the Notes indicating the deficiencies and make the appropriate updates before re-submitting.

- Interconnection Application (Appendix B or C)
- Standardized Contract (Appendix A)
- Authority to Act as an Agent
- Three-line Diagram

See "Attachments" section of the Project's "View/Edit" page to view notes regarding the rejected attachment.

System Design (Three line diagram required for 3-phase systems) *

Solar Summit FINAL Agenda 2018.pdf

[View](#) [Remove](#)

Uploaded by Diana Barton on 2/28/2018 12:46:29 PM

- Verification Test Procedure
- Equipment Datasheet

▼ Attachments

Upload timestamp	Description	Filename	Note	Status
2/28/2018 12:46:39 PM	Verification Test Procedure	Solar Summit FINAL Agenda 2018.pdf	View	Approved
2/28/2018 12:46:29 PM	System Design	Solar Summit FINAL Agenda 2018.pdf	View Diagram missing neutral wiring.	Rejected
2/28/2018 12:46:28 PM	Manufacturers Data Sheet	Solar Summit FINAL Agenda 2018.pdf	View	Approved

Communications, Deadlines & eSignatures

▼ Communications Sent to DBarton@cenhud.com			
Date	Subject		
2/28/2018 2:49:38 PM	Your Application # CH-00001 Received Preliminary Construction Approval	View	
2/28/2018 2:04:46 PM	Your Application # CH-00001 Has Been Received	View	1

▼ Deadlines			
Deadline	Date Due	Status	
DG System Construction	2/28/2019	Pending	1

▼ eSignature Statuses			
Date	Documents	Signatories	Status
2/28/2018 12:47:31 PM	Interconnection Contract.pdf Agent Letter.pdf	Diana Barton (dbarton@cenhud.com) E-Signature request sent	E-Signature request sent

FormSense

The screenshot shows the Central Hudson Gas & Electric Portal interface. At the top left is the Central Hudson logo with the tagline "People. Power. Possibilities." and "A FORTIS COMPANY". At the top right is the PowerClerk logo with the text "Welcome, Diana Barton | Log Out". A dark blue navigation bar contains the following items: HOME, PROGRAM DESIGN (with a dropdown arrow), ADMIN (with a dropdown arrow), SETTINGS (with a dropdown arrow), and SUPPORT. Below the navigation bar, the page title is "CENTRAL HUDSON GAS & ELECTRIC PORTAL". There are two blue buttons: "New Interconnection Application for Projects 50 k" and "New Interconnection Application for Projects grea". Below these are several tabs: "All Projects", "Pre-App Review", "App Revi", "Incomplete CESIR Package", "Incomplete Fin", "Construction", "Interconnected", "Unsubmitted", "In Progress", "On Hold", "CESIR Study", and "CESIR Package". A "Settings" dropdown menu is open, showing options: "My Account" (gear icon), "Grant Access" (handshake icon), "Add Programs" (plus icon), and "FormSense" (document icon). The "FormSense" option is highlighted with a grey background.



FormSense Defaults

The screenshot shows the user interface for editing FormSense defaults. At the top left is the Central Hudson logo with the tagline "People. Power. Possibilities." and "A FORTIS COMPANY". At the top right is the PowerClerk logo with the text "Welcome, Diana Barton | Log Out". Below the logos is a navigation bar with links for HOME, PROGRAM DESIGN, ADMIN, SETTINGS, and SUPPORT. The main heading is "CENTRAL HUDSON GAS & ELECTRIC - DISTRIBUTED GENERATION INTERCONNECTION ONLINE APPLICATION PORTAL". A link "Change Program" is visible. The "FormSense" section includes a dropdown menu for "Interconnection Application for Projects 50 kW and less" and an "Edit My Defaults" button. Below this is a table with columns: Data Field Label, Type, Default Value, On Forms, and Created By. The table currently contains the text "No data available in table". A "Delete All My Default Values" link is located at the bottom right of the table area.

people. Power. Possibilities.
Central Hudson
A FORTIS COMPANY

PowerClerk
Welcome, Diana Barton | Log Out

HOME PROGRAM DESIGN ADMIN SETTINGS SUPPORT

CENTRAL HUDSON GAS & ELECTRIC - DISTRIBUTED GENERATION INTERCONNECTION ONLINE APPLICATION PORTAL

[Change Program](#)

FormSense Select a form to edit its default values

Interconnection Application for Projects 50 kW and less

Data Field Label	Type	Default Value	On Forms	Created By
No data available in table				

[Delete All My Default Values](#)

FormSense (Continued)

FormSense

Use this page to enter and save default values for forms.
The FormSense screen has a list of all saved default values.
Saving defaults will not affect existing applications.

Interconnection Application

1

Utility Customer Information

2

Applicant/Agent Information

3

Contractor/Installation Information

Applicant/Agent

Name *

Company *

Address *

Email *

CENTRAL HUDSON GAS & ELECTRIC - DISTRIBUTED GENERATION INTERCONNECTION ONLINE APPLICATION PORTAL

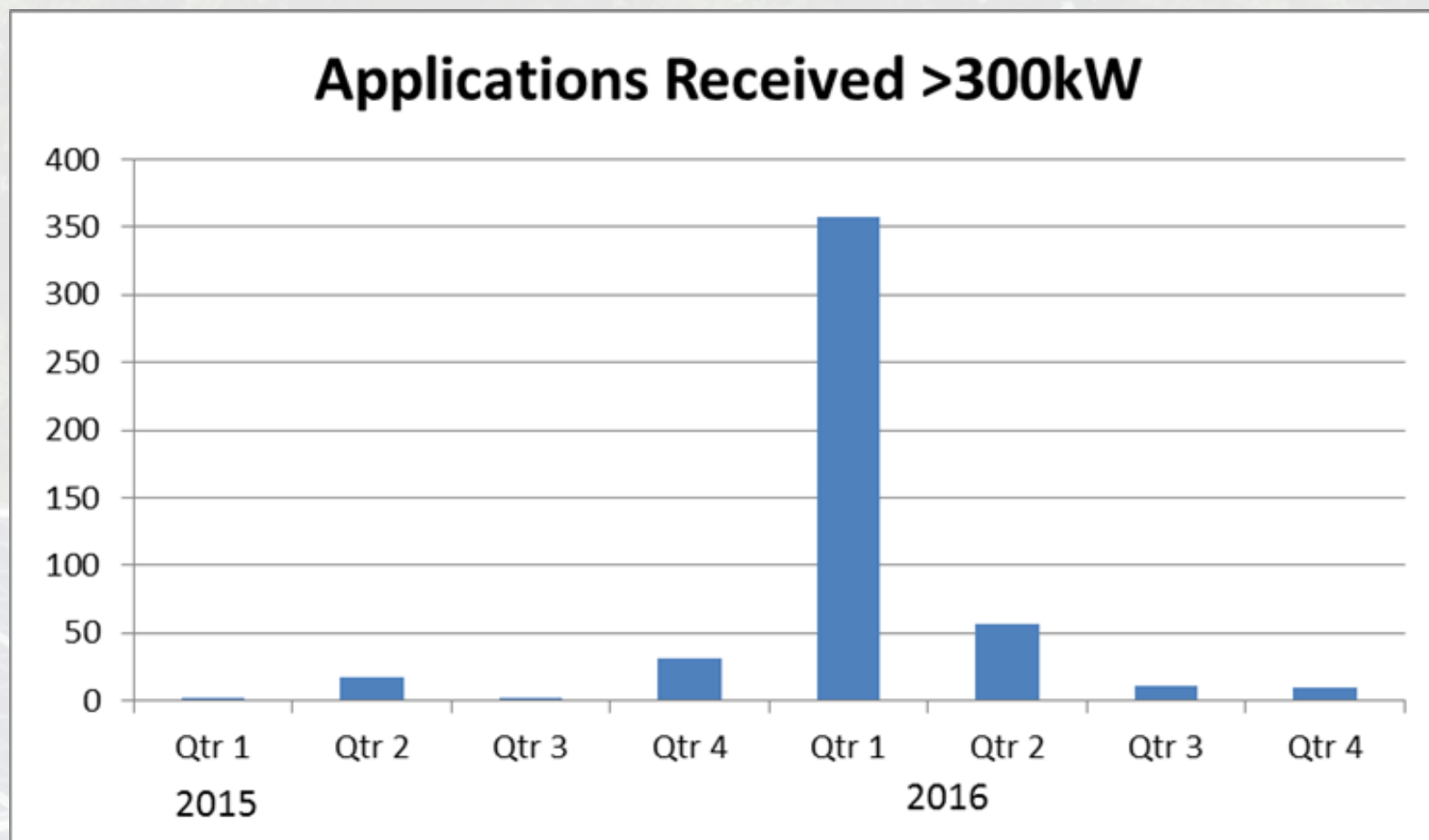
[Change Program](#)



Select a form to edit its default values

Data Field Label	Type	Default Value	On Forms	Created By
Applicant/Agent City	Contact	Poughkeepsie	Interconnection Application for Projects 50 kW and less,	You
Applicant/Agent Company	Contact	Sunny D Solar	Interconnection Application for Projects 50 kW and less,	You
Applicant/Agent Email	Contact	dg@cenhud.com	Interconnection Application for Projects 50 kW and less,	You

Bottleneck of Applications



Installed: 62MW Proposed: 729MW System Peak: 1,100MW

Queue Management Plan

- September 30, 2016
 - NY Utilities and various stakeholders filed a joint petition seeking to address the backlog of DG projects¹
 - The Petition proposed a set of criteria for DG projects to maintain their queue position, timeframes for advancing through the interconnection process, and cost sharing¹

¹ State of New York Public Service Commission Case 16-E-0560

Queue Management Plan Groupings

- **Property Owner Consent Form Received:**

- **Group A** – Has had a completed CESIR for more than 60 business days as of 4/19/17.
 - CESIR completed on or before 1/20/17
- **Group B** – Has an incomplete CESIR or a CESIR that has been completed for less than 60 days as of 4/19/17.
 - CESIR completed between 1/23/17 and 4/19/17, or CESIR in progress.
- **Group C** – Has received only a Preliminary Review as of 4/19/17.

Queue Management Plan Milestones

Date	Milestone
1/24/2017	Queue Management Plan approved by the New York State Public Service Commission (PSC)
1/25/2017	PSC Order issued and effective (Case 16-E-0560)
2/22/2017	Queue Management “Start Date”
3/8/2017	Property Owner Acknowledgement of Consent Verification Form Due
4/19/2017	Queue “Reset Date”
4/26/2017	<ul style="list-style-type: none">• Initial grouping of projects in “Group C” queue are notified of their obligation to proceed with a Coordinated Electric System Interconnection Review (CESIR)• Projects not requiring a CESIR are notified to provide proof of Site Control and execute Interconnection Contract
5/17/2017	<ul style="list-style-type: none">• Deadline for initial “Group C” grouping to proceed to full CESIR.• Deadline for projects not requiring a CESIR to provide proof of Site Control and execute their Interconnection Contract

Queue Management Plan Outcome

Systems Withdrawn from QMP Deadlines

- Property Owner Consent
- Group A
- Group B
- Group C

Over 300 systems, totaling nearly 600 MW

Hosting Capacity: A Tool for Guided PV Deployment

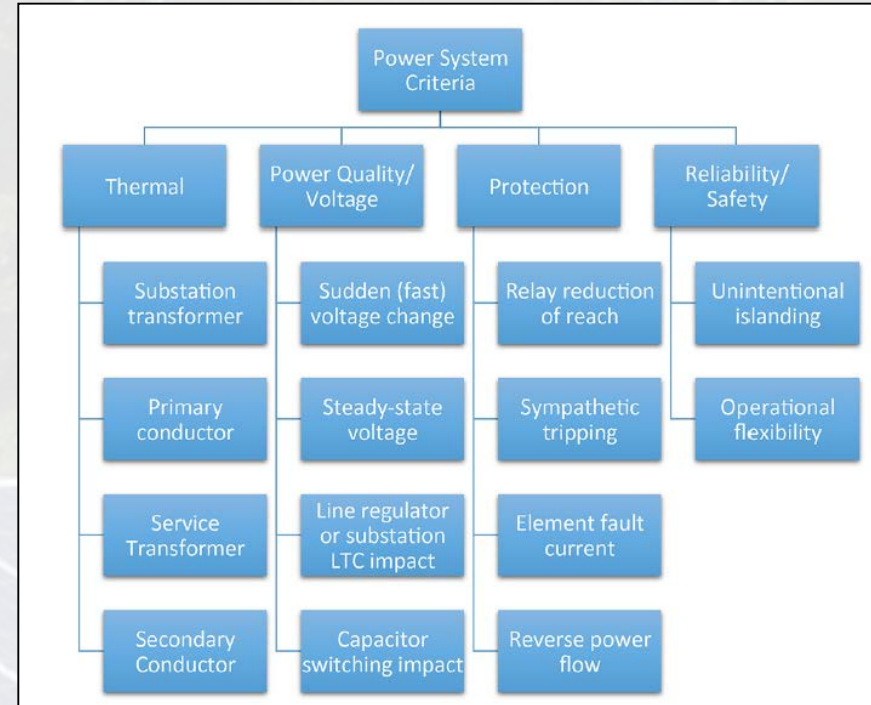
- Development
 - NY State Utilities and Electric Power Research Institute (EPRI)
 - *Defining a Roadmap for Successful Implementation of a Hosting Capacity Method for New York State*
- Methodology
 - Definition
 - EPRI's Streamlined Hosting Capacity Tool
 - System Impacts
 - Map Display



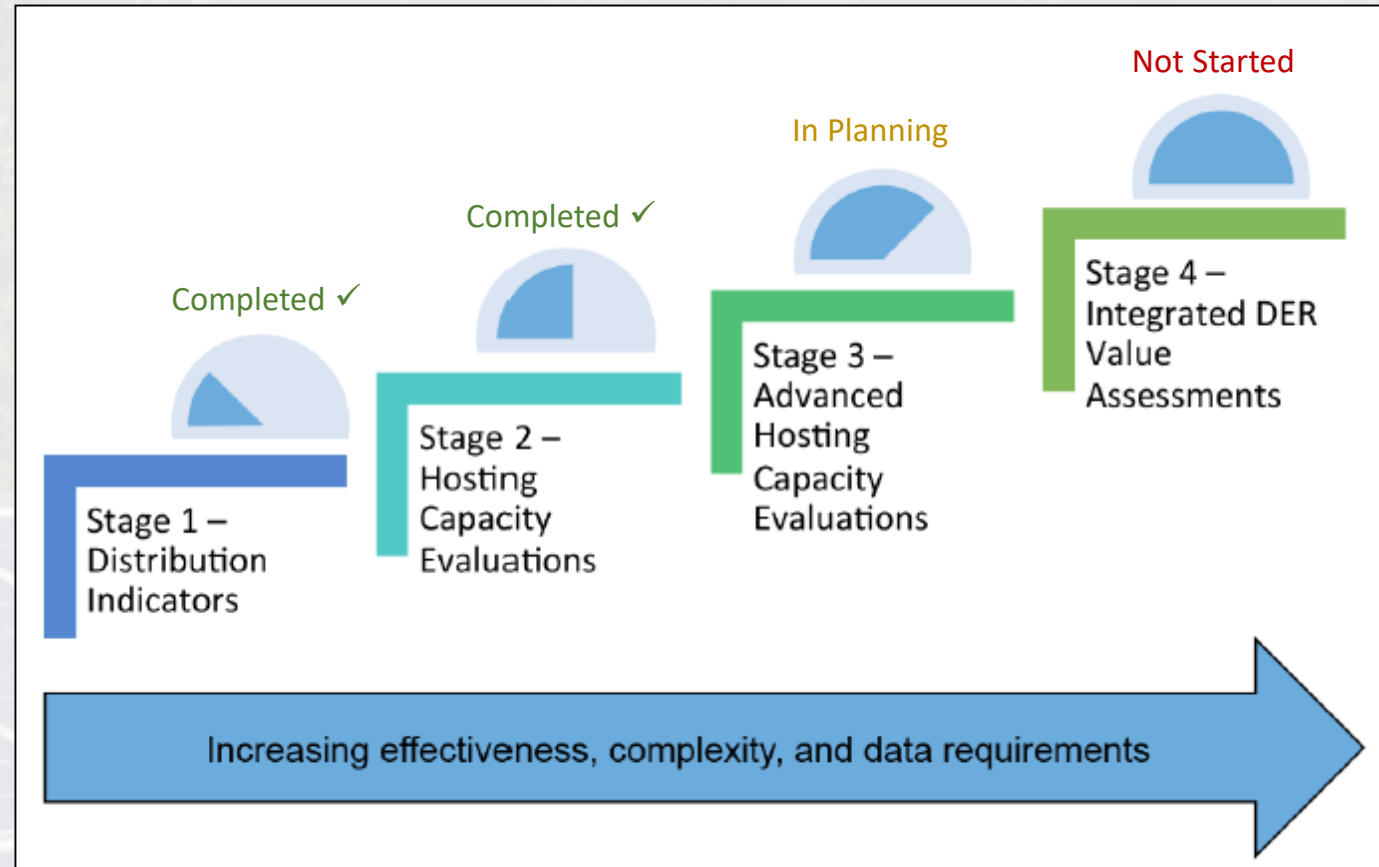
What is Hosting Capacity?

DEFINITION

“The amount of Distributed Energy Resources (DER) that can be accommodated without adversely impacting power quality or reliability under existing control configurations and without requiring infrastructure upgrades.”



Hosting Capacity Roadmap

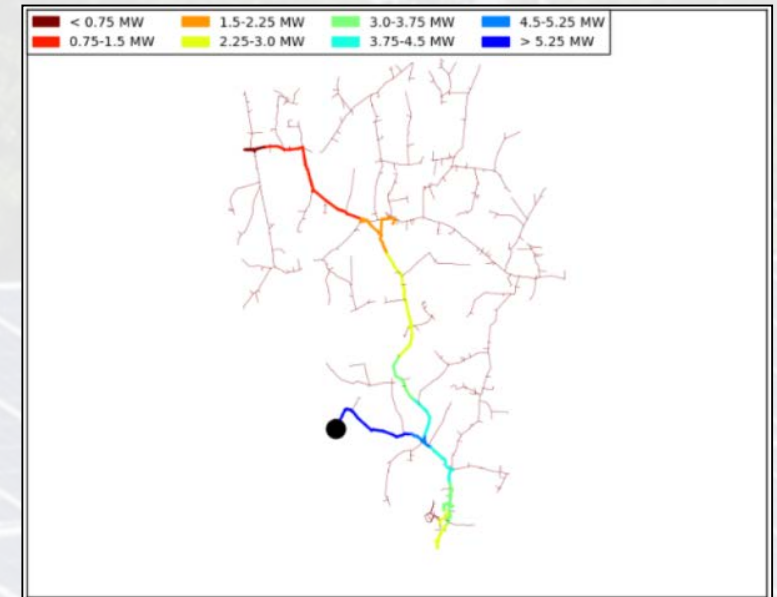


Initial Hosting Capacity Stages

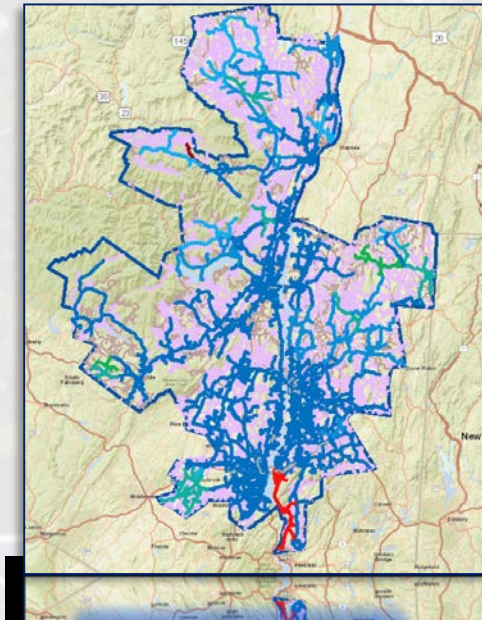
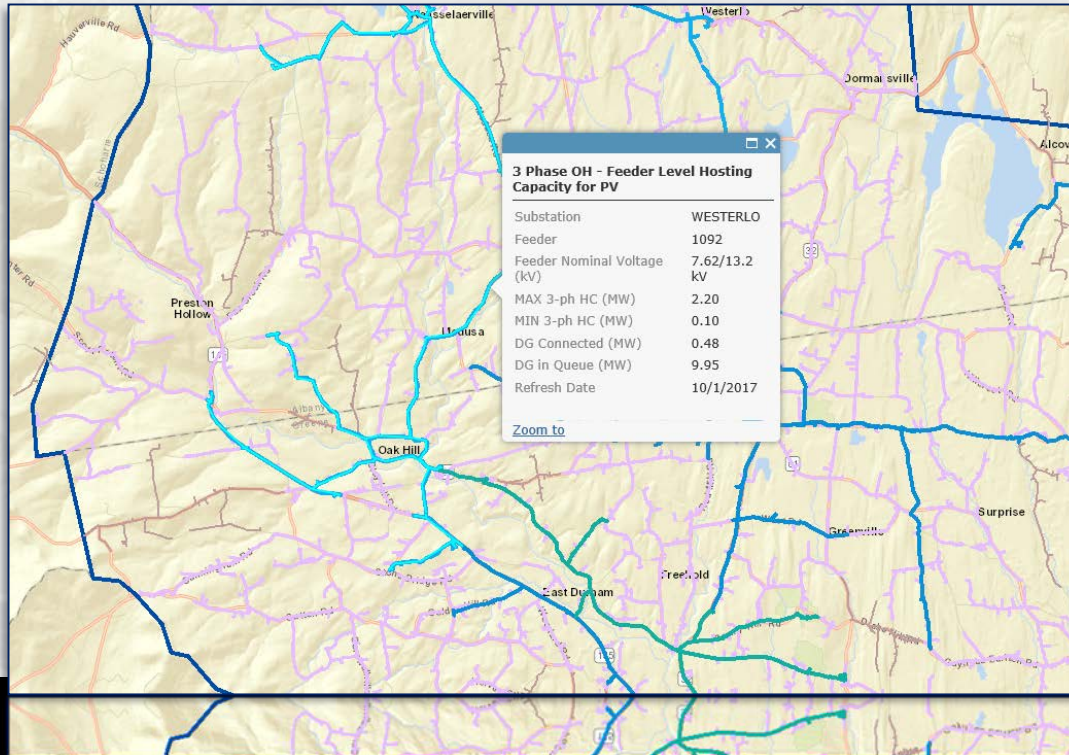
- **Stage 1 Distribution Indicator Map** [completed]
- **Stage 2 Hosting Capacity Evaluations** [completed]
 - Feeder-level hosting capacity
 - Circuits 12kV and above by 10/1/2017
 - Updated annually
 - Enhancing with substation information 4/18/2018



Remote Net-Metered 1.368 MW Solar PV



How Can the Hosting Capacity Map Be Used?



Legend

Hosting Capacity

- 3 Phase OH (MW)
- Less than 0.30
- 0.30 - 0.49
- 0.50 - 0.99
- 1.00 - 1.49
- 1.50 - 1.99
- 2.00 - 2.99
- 3.00 - 4.99
- Greater than 5.0
- NULL

https://www.cenhud.com/dg/dg_hostingcapacity

<http://jointutilitiesofny.org/utility-specific-pages/hosting-capacity/>

People. Power. Possibilities.

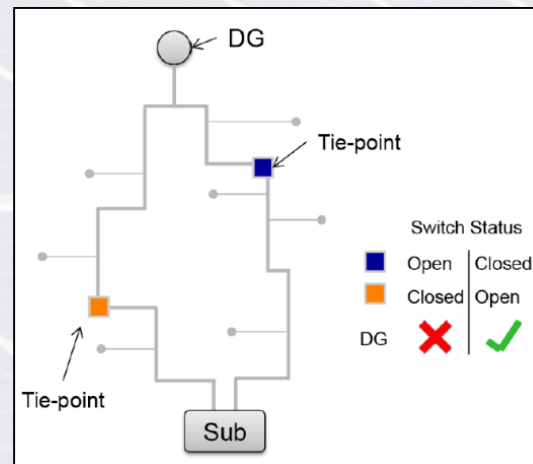
Central Hudson

A FORTIS COMPANY



Future Hosting Capacity Stages

- **Stage 3 Advanced Hosting Capacity Evaluations [in planning]**
 - Evaluation of the hosting capacity on the more granular (node) level including considerations for operational flexibility and transmission constraints
- **Stage 4 Fully Integrated DER Value Assessments [not started]**
 - Hosting capacity assessment combined with DER value assessments that identifies potential benefits including improved efficiency, reliability, and capacity deferral. Means for increasing hosting capacity through use of smart inverters and storage.



Questions?



Residential 13.16 kW