GRIDWORKS

NM PRC's 2022 Grid Modernization Webinar Series
April 21, 2022 Webinar #5
Hosting Capacity
Meeting Notes

Meeting Objectives
● Review options for planning and assessing hosting capacity issues on the distribution system
● Gather input from stakeholders on methods to improve hosting capacity for distributed energy resources to include in grid modernization NOPR

In attendance:
● 35 individuals
● 20 distinct participating organizations represented

Meeting Agenda is available here

A presentation on Hosting Capacity Analysis (HCA) was presented by:
● Sky Stanfield, Partner, Shute, Mihaly & Weinberger LLP, on behalf of the Interstate Renewable Energy Council (IREC)
    o Presentation slides available here
    o IREC, Key Decisions for Hosting Capacity Analyses Paper

Stakeholder Facilitated Discussion (Grounding; Reflection; Interpretation; Decisional)

Considerations for Grid Mod Notice of Proposed Rulemaking (NOPR):

● When crafting HCA it is important to determine the targeted 'use case', whether HCA will inform DER adoption, be used to conduct system-wide planning or potentially determine the locational value of DERs.
● It is also critical to ensure that the data collected is sufficient to validate the HCA results.
● Uses and Limits of Hosting Capacity Analysis:
    a. Provides a public tool allowing for increased visibility and performance on the distribution system.
    b. identifies localized constraints (status of the system), and opportunities for load management and demand response.
    c. Does not provide information on system impact. A separate impact study must be performed for interconnection of a DER to determine any reliability impacts, as well as costs and benefits.
    d. Long term, could provide information on how DER are performing on the distribution system, which will provide an opportunity to avoid upgrades and/or help in peak load management and avoiding outages.
● HCA is typically performed in phases:
    a. Basic distribution system data (mapped), made publicly available
    b. Conduct an initial level of hosting capacity analysis, over portions of the grid and/or limited types of outputs
    c. Expand to include more data points and more complexity of the system insights provided

- Utilities making available an interactive mapping tool, rather than a simple screening tool, can assist DER developers in understanding the likelihood of interconnection at a specific location.
- Part of the effort of grid modernization is to determine 'cost causers' for the purposes of allocating costs. If HCA is done effectively, it can help inform what projects should be considered general maintenance and what is a grid mod project.
- Approach/policy needs to look at issues beyond just DER hosting.

Regarding PRC regulatory and utility planning processes (and also potentially addressed in the NOPR):

- First step in developing an HCA is to determine data available and to 'clean up' the data sufficient for use in an HCA program.
- Having AMI installed can provide data that is useful in HCA, but it is not required. SCADA data can be a substitute for AMI data, if available.

Other process input

- It will take time for utilities to develop capabilities to offer interactive maps for users. It is important to manage expectations of users and regulators.
- HCA should be done as part of the interconnection standard setting process.
- The utility industry needs to keep evolving and making adoption of DER possible, otherwise customers able to leave the system with storage and DER may do so, negatively affecting the industry.
- NREL and NMSU are providing technical assistance to three investor-owned utilities to study the impact of deploying community solar (in 5MW increments) on selected circuits. Goals of the pilot are to make utility information more accessible, pilot different use cases and to train students.
- HCA has not advanced to the level where distribution level information can be synced or used to inform transmission planning, but that may occur in the future.
- There is no comprehensive report quantifying benefits of performing HCA.
- If analysis shows that upgrades are necessary for interconnecting DER there is no clear policy on which entity is responsible to pay for the upgrade.
- HCA varies in states and is driven by policy or utility decisions, rather than differences in the physical system.
- HCA can be done in about a year, depending on complexity; then time is needed for roll out to users.