DER Report

9/13/19

NPCC

Just for reference, this is a list of the Distributed Energy Resources (DER) Forum Topics of the 8/8/19 Meeting. I provided a few highlights at the August EC meeting.

- DER, Approach to Regional Guidance and DER Impact Reporting
  - Note- the **DER Guidance document** was posted on the NPCC website on 7/1/19 for a 30 day comment period. Revision 1 was released on 8/30/19.
- Duke Energy Project on DER presented by Adam Guinn
- Impacts of DERs in Ontario presentation by Mohab Elnashar from IESO
- DER current state presentation by Nicolas Compas from Hydro Quebec
- Inverter Based Resources presentation by NAGF
- DER deployment considerations in Ontario presentation by Hydro One
- NERC SPIDER Working Group Presentation by Utility Services
- SunRun Presentation on DER by Ben Carron

DER forum Presentations available at
"https://www.npcc.org/Standards/commRegStand/Documents/Forms/Public%20List.aspx"

Guidance Document take aways:

- Purely informational – not creating new criteria or standards at this time
- Does not consider BTM but allows entities to identify impacts to NPCC
- Points out that IBR control systems can be used to enhance reliability as well as present challenges
- Collects interconnection requirements within NPCC region as well as other areas of NERC
- DER Bulk Eiectric System Impact Considerations:
  - DER performance with respect to voltage and frequency ride through as well as the ability to provide regulation and reserves
  - DER availability and quality of forecasting
  - Observability and situational awareness of DER
  - DER impacts on Underfrequency Load Shed programs.
  - Effects of harmonics produced by non-linear device based DERs (e.g. inverters) on the power system.
  - Impacts of DER on System Restoration and Black Start Plans.
  - DER Markets: Encouraging identification of Points of Common Coupling transmission nodes affected and injection to where DER is best utilized and the appropriate DER output levels. Some Areas currently allow aggregation across a broad area while others require aggregation to specify at which transmission node the aggregated injection will occur.

- Guidance intended to be consistent with IEEE std 1547
- Impact reporting form included as Appendix A

The next meeting is scheduled for 10/16 and 10/17 at Niagra.

NEW YORK

New York ITWG - Meeting 8/28/19 - see NYITWG website and click on meeting items for a detailed discussion of all agenda items. Next meeting at NYSERDA on **October 24.** The following subjects were discussed:

- Metering configurations – Several configurations and options were presented by the Joint Utilities.
    - Configuration A – ESS charged only by DG
    - Configuration B – ESS can not export to the grid
    - Configuration C – Netting at hybrid facility meter
    - Configuration D – Monthly net metering at point of common connection

  Considerable discussion of the options involved revenue objectives as well as control objectives. There is concern that until configurations are finalized that some applications moving forward may be denied due to lack of well defined requirements. A detailed PPT presentation of the configurations and and alternatives is posted with the meeting materials on the ITWG website.
- Hosting capacity map – This is an ongoing project which attempts to provide hosting capacity data for potential DG installations. Much work is needed with a plan to release version 3.0 in October of this year. Heading to stakeholder engagement group – action item updates for September 17 WG meeting.
- CHP value stack – combining CHP behind common meter with PHV adds to PV penetration.
- Straw Proposal Coordination of Inclusion Rules for Interconnection Queues – **Currently there is no ability to allocate costs for developers that fund upgrades in one interconnection process to any developer in any other interconnection process.**
    - SIR process (5 MW or less) – firm if IA and 25% payment
    - Utility process (non-SIR) (larger than 5 MW) –firm if executed IA and payment upgrades
    - NYISO process
        - Non-class year firm if facility study agreement executed
        - Class year firm if cost allocation accepted and security posted

  Proposal – bottom line is to include all project upgrades in all agreements – see details on ITWG site – in progress
- EPRI Presentation – Survey - Applications of DER Advanced Functions and Settings
    - Most respondents don't use advanced functions at present and plan to follow regional standards
    - Survey results not statistically significant

    - New survey as part of NYSERDA PON 3770 – Smart Inverter setting guidance
    - NY has no rules or guidelines on use of smart inverter controls or settings
    - No discussion of ride through settings (recall New England's development of rules)
- Volt/VAR – Daroga Community Rooftop project – Brooklyn
    - Limits Kw output to provide VAR support
    - 1165 kW DC, 800 Kw AC
    - More inverters added to achieve Kw goal
- EPRI Presentation on DER grounding practices – work in progress
- Joint Utility Smart Inverter Team
    - The Joint Utilities recently formed a working group to help develop a common understanding and alignment of utility positions as a starting point for future deployment of smart inverters.
    - This effort is focused on building a common understanding of utility efforts and industry knowledge (benchmarking) and potential development of a high-level roadmap.
    - As part of this effort, the JU plan to reach out to external stakeholders at the appropriate time, to solicit input regarding any proposed direction in New York.
    - The working group plans to share the lessons learned from this effort once available.

The next meeting is scheduled for October 30 at NYSERDA.

NERC Spider

The next meeting is scheduled for October 8,9 in Chicago.