Distributed Solar Photovoltaic Generation

Load Analysis Subcommittee
3/25/2015
• PJM has started to investigate impacts of distributed solar photovoltaic generation

• Considered data from EIA SEDs and EIA 861, however the data is older and difficult to get more recent information (only thru 2012)

• Worked with PJM Renewable Services group to acquire data from GATS (Generator Attribute Tracking System)
  – Provided up to date state level data through end of 2014
  – Represents renewable solar resources collecting solar RECs (renewable energy credits) in the PJM region
Solar – Photovoltaic Renewable Generators Registered in GATs Within PJM But Not Grid Connected (Nameplate Capacity, MWs)
Distributed Solar Photovoltaic Generation – Next Steps

- Investigation of growth and potential impact of this type of generation on the long term load forecast
  - State Mandates
  - Subsidies
  - Costs of technology and installation
  - Saturation levels
- Most representative way to incorporate into the load forecast
  - Engineering models (i.e. insolation, cloud cover, capacity, temperature, efficiency)
  - Hourly load profiles (i.e. PVWatts, GATS data, power profiles)
Solar Resources

- **GATS**: The public reports are available via this link ([http://www.pjm-eis.com/reports-and-news/public-reports.aspx](http://www.pjm-eis.com/reports-and-news/public-reports.aspx)). Once on this page, go to **Renewable Generators Registered in GATs** under Market Reports.
  - Contacts if there are questions
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- EIA SEDS: [http://www.eia.gov/state/seds/](http://www.eia.gov/state/seds/)
- EIA 861: [http://www.eia.gov/electricity/data/eia861/](http://www.eia.gov/electricity/data/eia861/)