



Distributed Solar Generation Back-cast: PJM implementation plan for AWS-T data

Load Analysis Subcommittee
March 14, 2018

PJM uses a two-step approach to address distributed solar generation in the load forecast.

- **Step 1:**

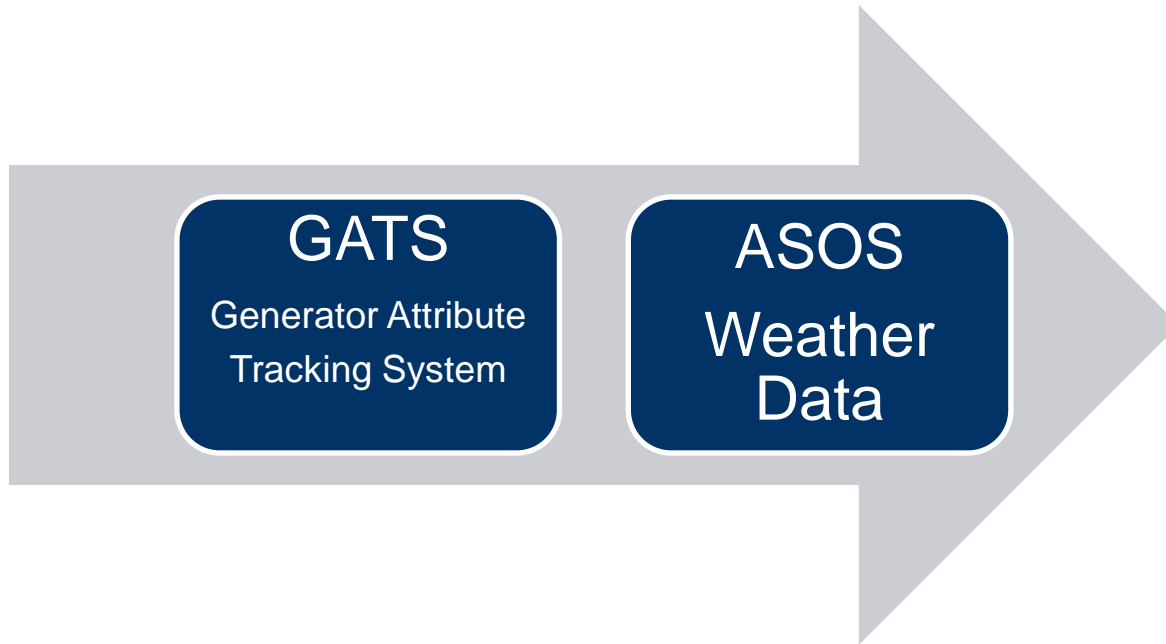
To account for the historical impacts of distributed solar generation, PJM back-casts hourly values by zone. These estimates are then added to the unrestricted load used in PJM load models.

- **Step 2:**

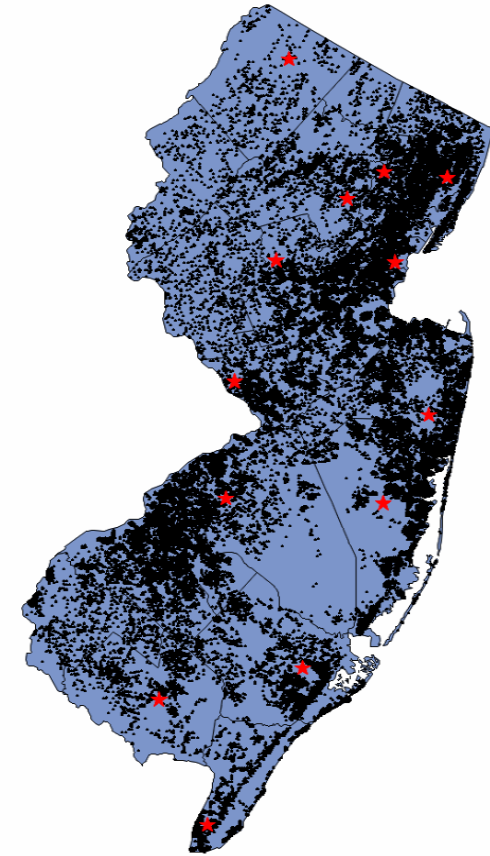
For forecasted values of distributed solar capacity, PJM contracts with IHS Energy to develop a distributed solar generation forecast specific to the PJM region. PJM then uses the state-level forecast to derive a zonal capacity at peak. Those values are then subtracted from the forecast created with solar addbacks.

PJM uses a two-step approach to address distributed solar generation in the long term load forecast.

- Step 1:
To account for the historical impacts of distributed solar generation, PJM back-casts hourly values by zone. These estimates are then **added** to the unrestricted load used in PJM load models.

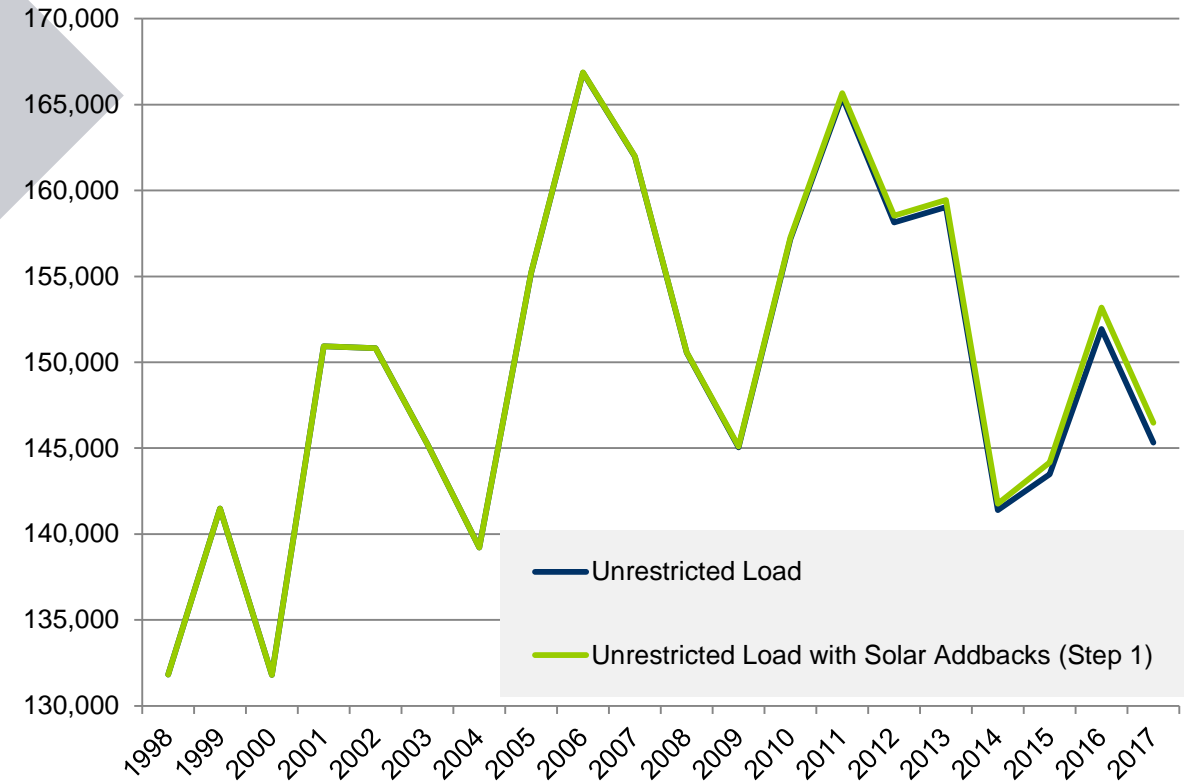
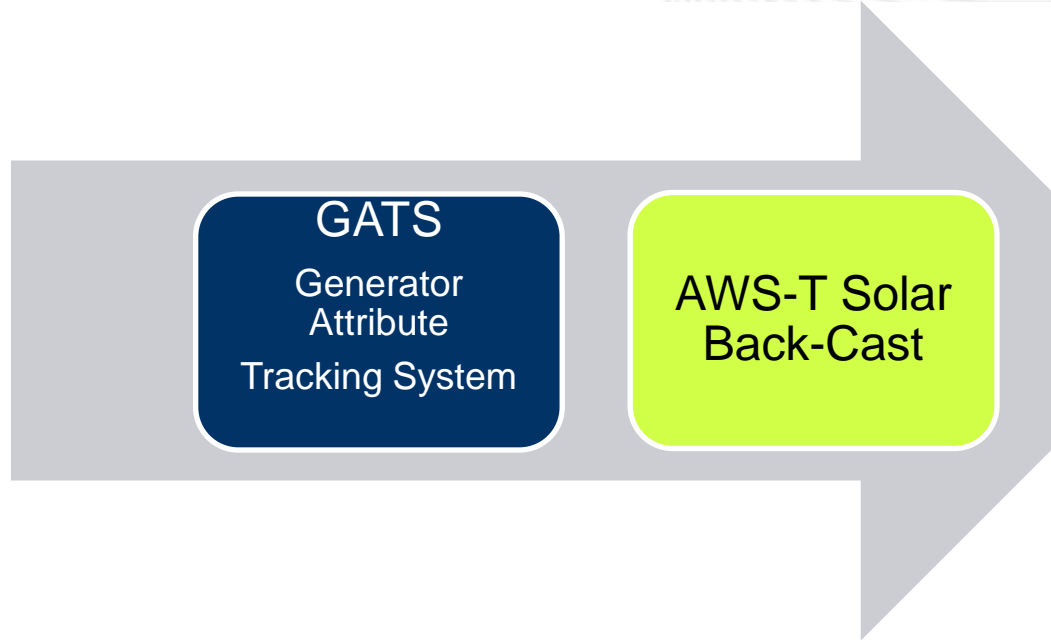


New Jersey Solar with Weather Stations



- Step 1 (future enhancement):
 - PJM recognizes the advancements in the precision of estimating solar generation with more granular weather data.
 - PJM worked with AWS Truepower to enhance the historical backcasts for behind the meter solar facilities in the PJM footprint.

Process Review (Step 1: AWS-T back-cast)



- PJM has received the zonal hourly back-data data from AWS-T
- PJM will compare the PJM back-cast and AWS-T back-cast estimates:
 - Zonal summer capacity factors
 - Zonal summer monthly solar energy

