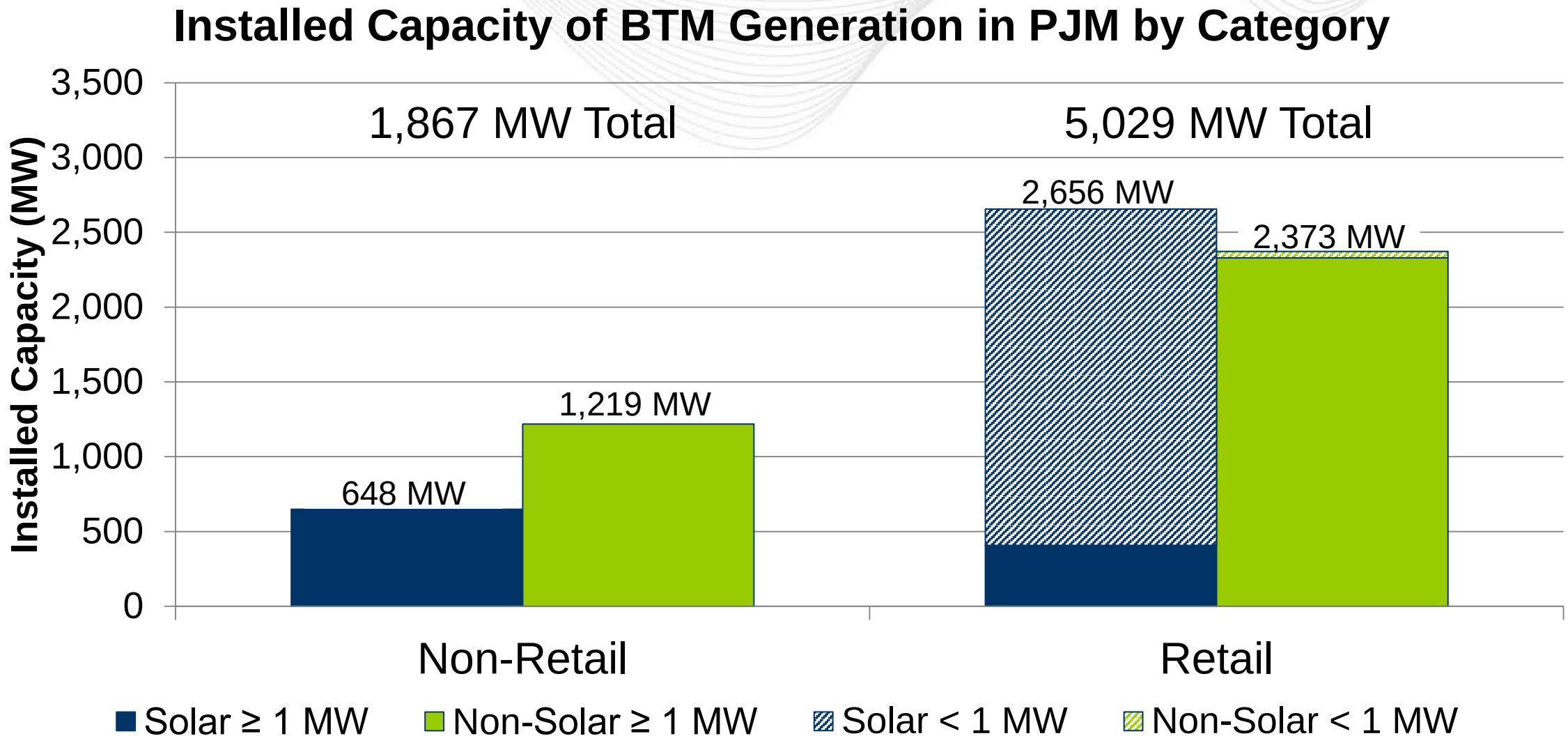
Non-Wholesale Distributed Energy Resources Data Collection

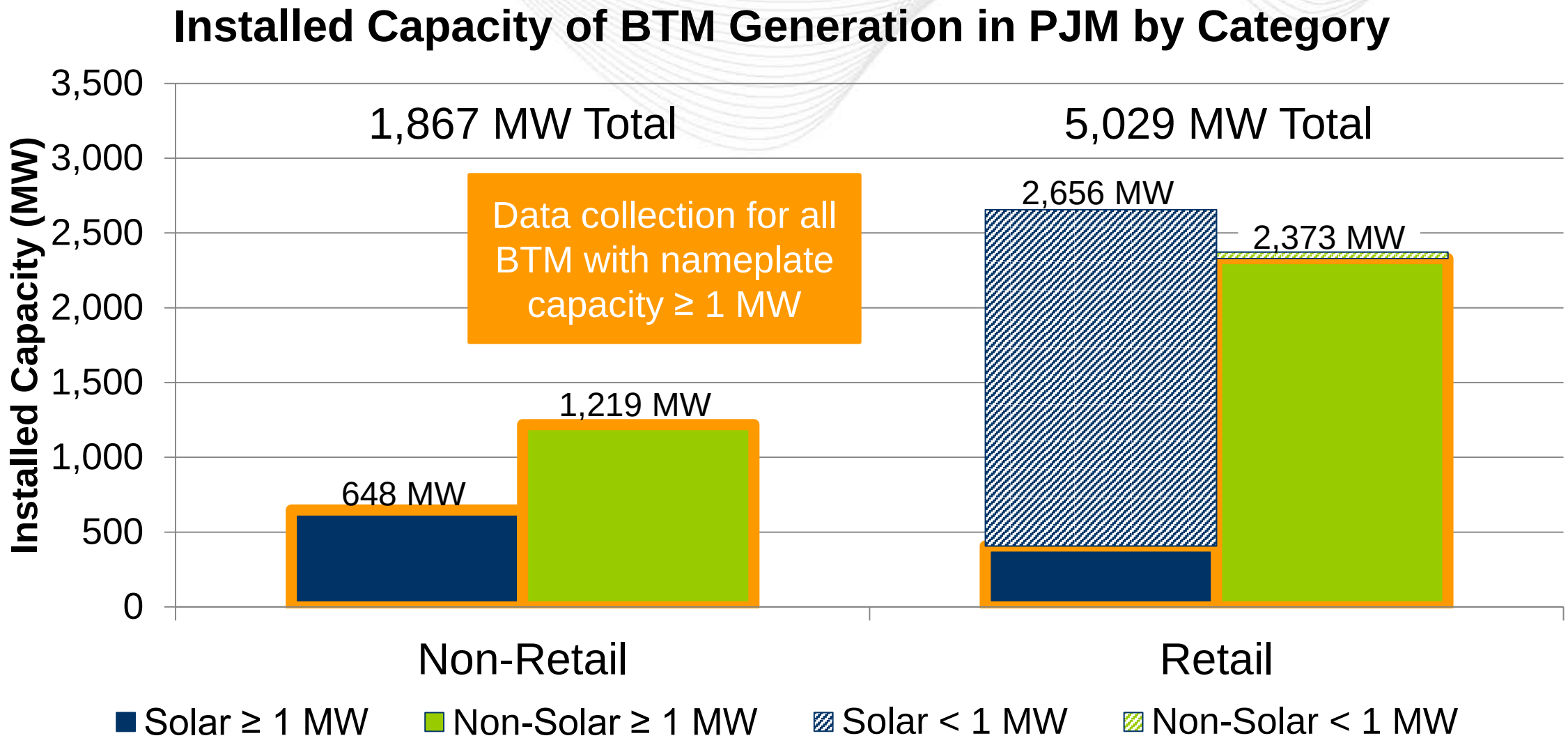
Joseph Mulhern
Sr. Engineer, Generation

May 14, 2019

Categories of Behind the Meter Generation



Categories of Behind the Meter Generation



Vision for Enhancing Visibility of BTMG

≥ 1 MW

- Adding to Dispatch maps
- Including in PCLLRW reports

≥ 10 MW

- Modeling in EMS
- Obtaining real-time telemetry

Background

- In 2018, the Distributed Energy Resources Subcommittee discussed increasing visibility of Non-Wholesale DER units
  - *Non-Wholesale DER* is synonymous with *BTMG*
- Process for data collection and coordination was endorsed through stakeholder process:
  - PJM will use publicly available data to identify relevant plants
  - TOs will submit additional modeling data outlined in Manuals 14D
    - Modeling information: Substation, voltage, PJM equipment name
    - Telemetry links for plants with capacities ≥ 10 MW
    - Other optional information, including contact information

EIA-860 Generator File used as Data Source

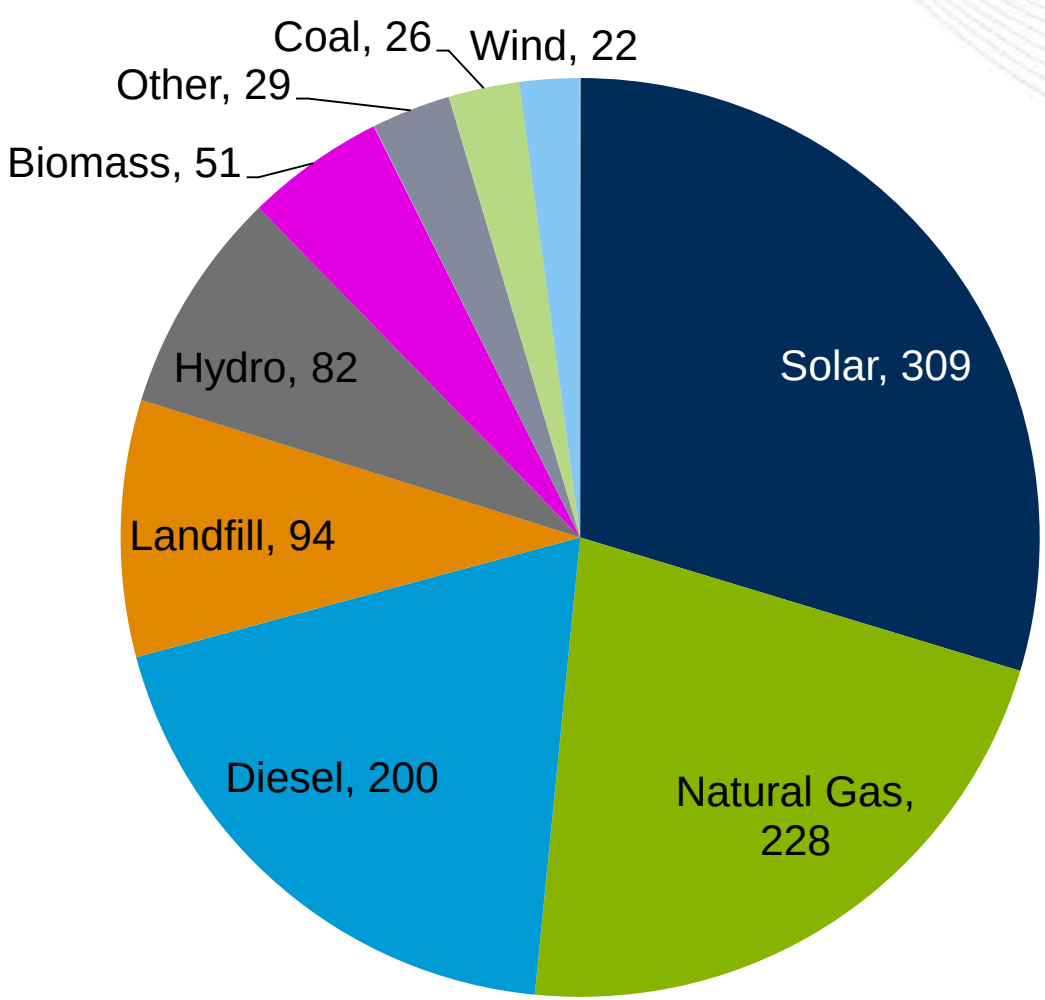
2017 Form EIA-860 Data - Schedule 3, 'Generator Data' (Operable Units Only)

Utility	Utility Name	Plant Co	Plant Name	State	County	Generator ID	Technology
195	Alabama Power Co	2	Bankhead Dam	AL	Tuscaloosa	1	Conventional Hydroelectric
195	Alabama Power Co	3	Barry	AL	Mobile	1	Natural Gas Steam Turbine
195	Alabama Power Co	3	Barry	AL	Mobile	2	Natural Gas Steam Turbine
195	Alabama Power Co	3	Barry	AL	Mobile	4	Conventional Steam Coal
195	Alabama Power Co	3	Barry	AL	Mobile	5	Conventional Steam Coal
195	Alabama Power Co	3	Barry	AL	Mobile	A1CT	Natural Gas Fired Combined Cycle
195	Alabama Power Co	3	Barry	AL	Mobile	A1CT2	Natural Gas Fired Combined Cycle
195	Alabama Power Co	3	Barry	AL	Mobile	A1ST	Natural Gas Fired Combined Cycle
195	Alabama Power Co	3	Barry	AL	Mobile	A2C1	Natural Gas Fired Combined Cycle
195	Alabama Power Co	3	Barry	AL	Mobile	A2C2	Natural Gas Fired Combined Cycle
195	Alabama Power Co	3	Barry	AL	Mobile	A2ST	Natural Gas Fired Combined Cycle
195	Alabama Power Co	4	Walter Bouldin Dam	AL	Elmore	1	Conventional Hydroelectric
195	Alabama Power Co	4	Walter Bouldin Dam	AL	Elmore	2	Conventional Hydroelectric
195	Alabama Power Co	4	Walter Bouldin Dam	AL	Elmore	3	Conventional Hydroelectric
195	Alabama Power Co	7	Gadsden	AL	Etowah	1	Natural Gas Steam Turbine
195	Alabama Power Co	7	Gadsden	AL	Etowah	2	Natural Gas Steam Turbine
195	Alabama Power Co	8	Gorgas	AL	Walker	10	Conventional Steam Coal
195	Alabama Power Co	8	Gorgas	AL	Walker	8	Conventional Steam Coal
195	Alabama Power Co	8	Gorgas	AL	Walker	9	Conventional Steam Coal
5701	El Paso Electric Co	9	Copper	TX	El Paso	1	Natural Gas Fired Combustion Turbine
195	Alabama Power Co	10	Greene County	AL	Greene	1	Natural Gas Steam Turbine
195	Alabama Power Co	10	Greene County	AL	Greene	2	Natural Gas Steam Turbine

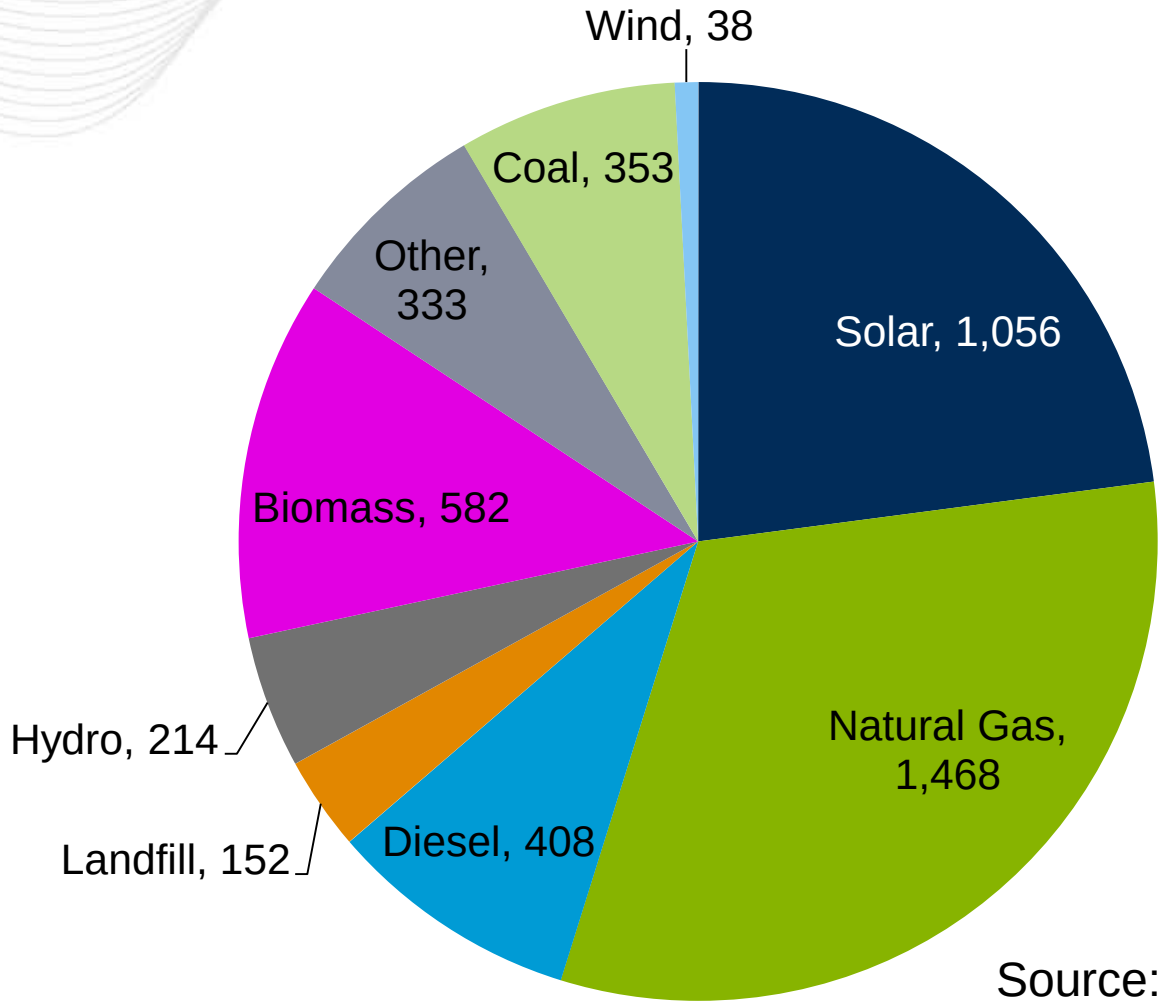
Remove PJM wholesale generators and generators outside of PJM Balancing Authority

BTMG Statistics in PJM

1,041 Units at Plants ≥ 1 MW

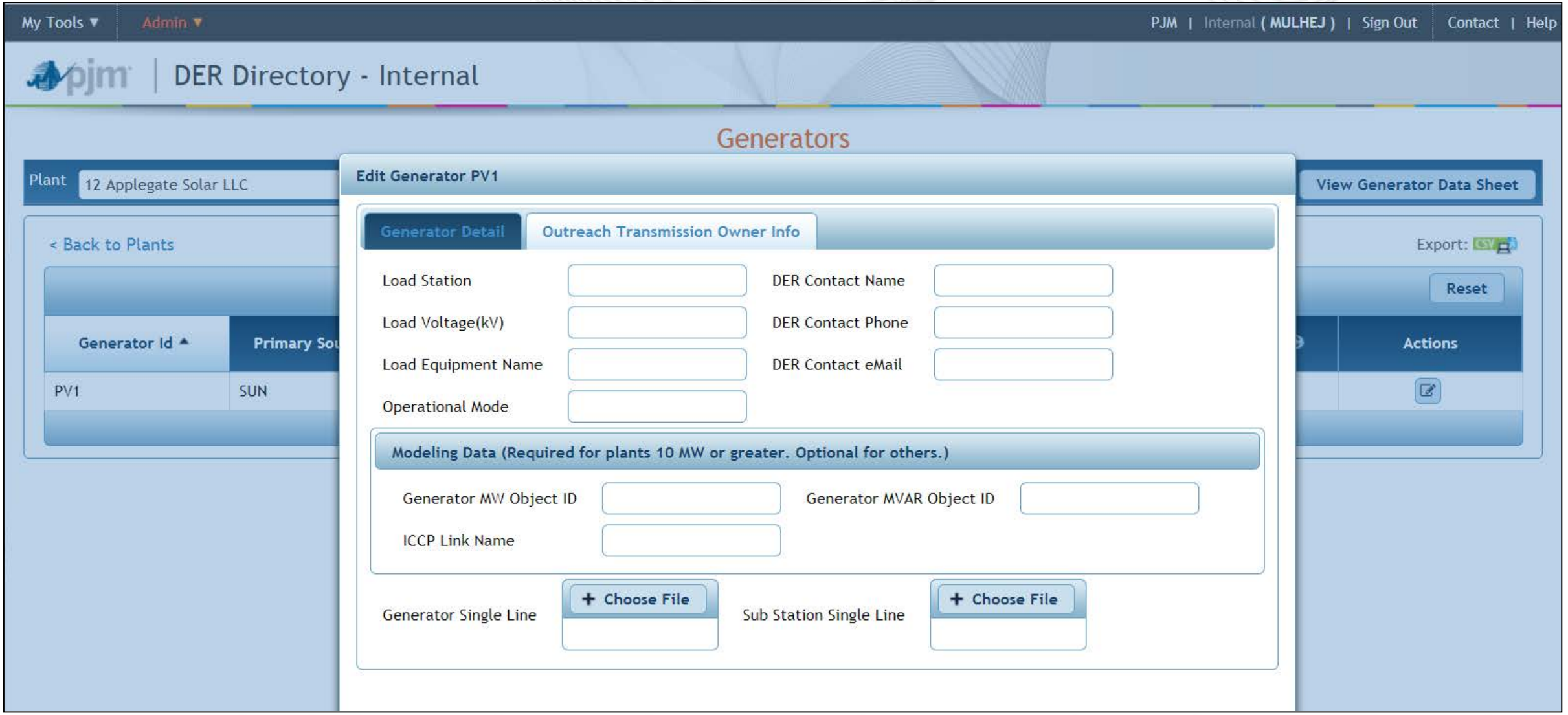


4,603 MW at Plants ≥ 1 MW



Source: EIA 860

DER Directory



Timeline

- 2018 Efforts
  - Work with stakeholders to make manual changes
  - Collect contact information for resources from each TO
  - Create training materials
  - Upload data to DER Directory
- 2019 Efforts
  - Work with remaining TOs to identify resources and obtain access
  - Support TOs as needed throughout data entry process
  - Collect all required data