

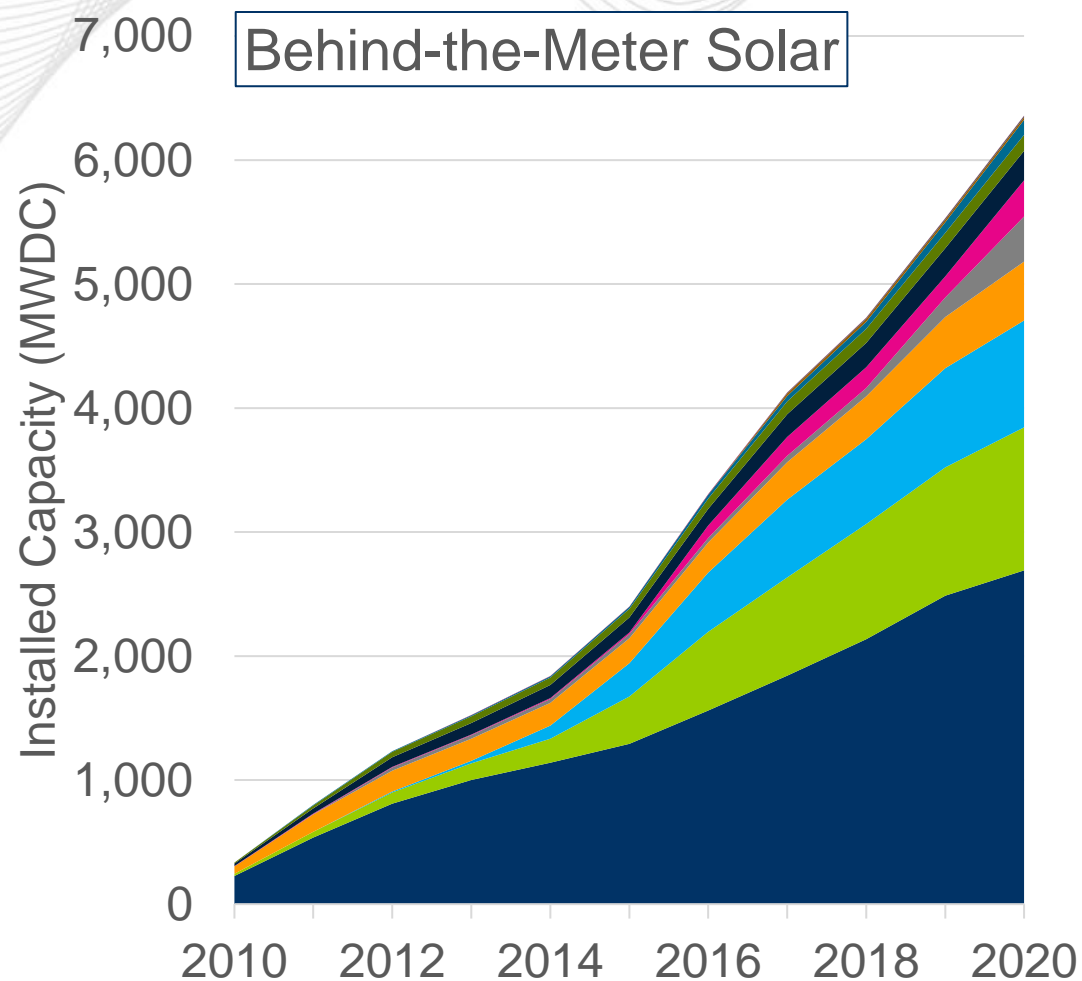
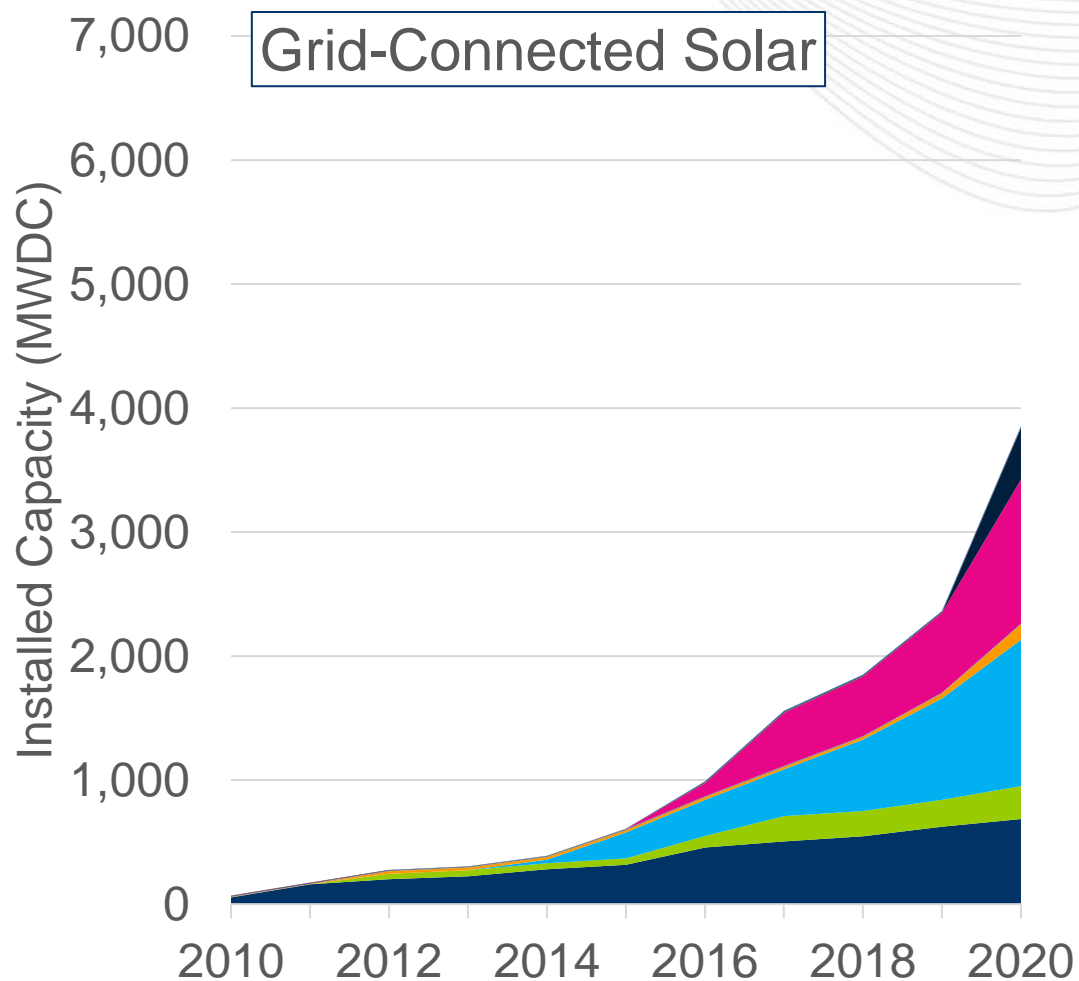
Solar Forecasting in PJM Operations

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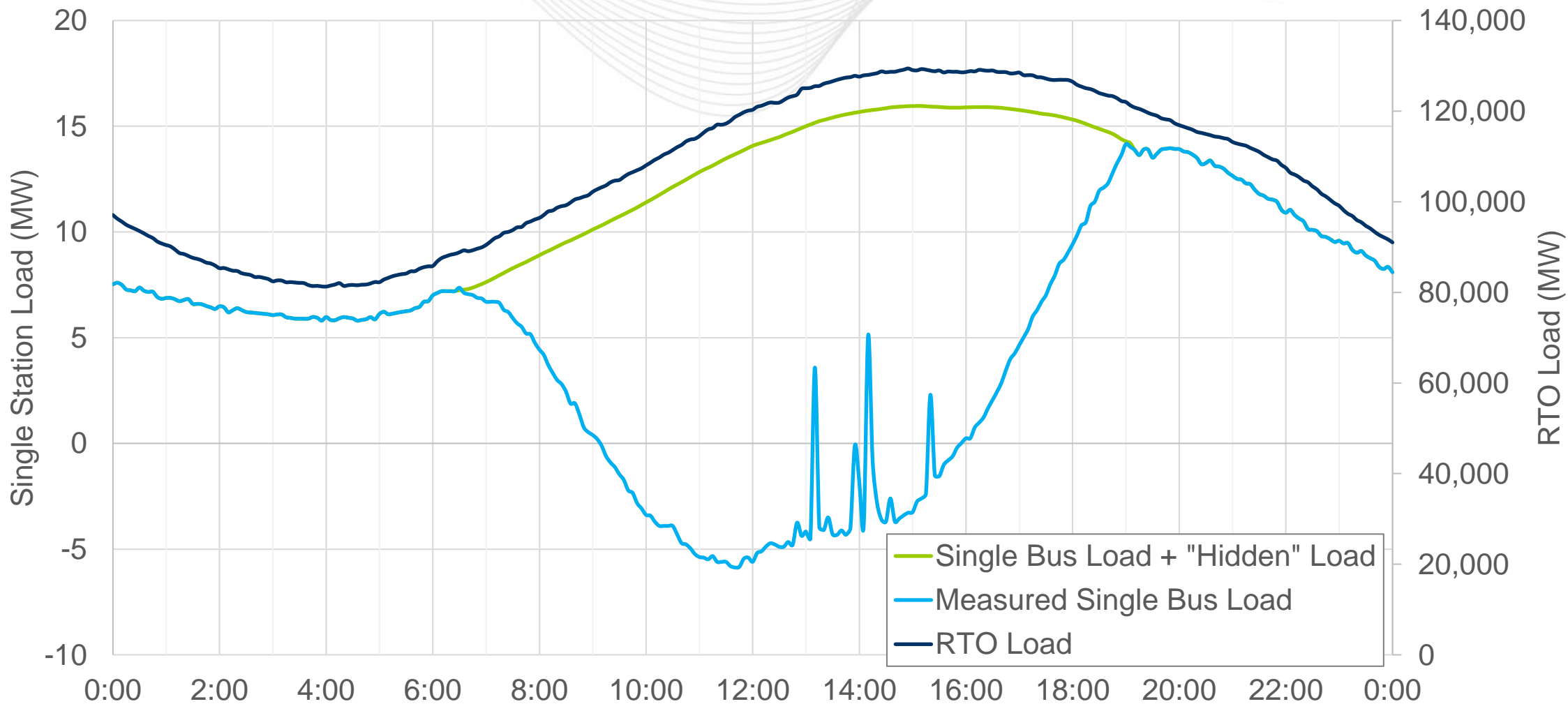
Installed Solar Capacities in PJM Footprint



■ NJ ■ MD ■ NC ■ PA ■ IL ■ VA ■ OH ■ DE ■ DC ■ KY ■ IN ■ WV ■ MI ■ TN

Observed Impact of Behind-the-Meter Solar

Typical Summer Load Curve



5-minute frequency for next 6 hours
Hourly for next 7 days

Solar

Est. 2016

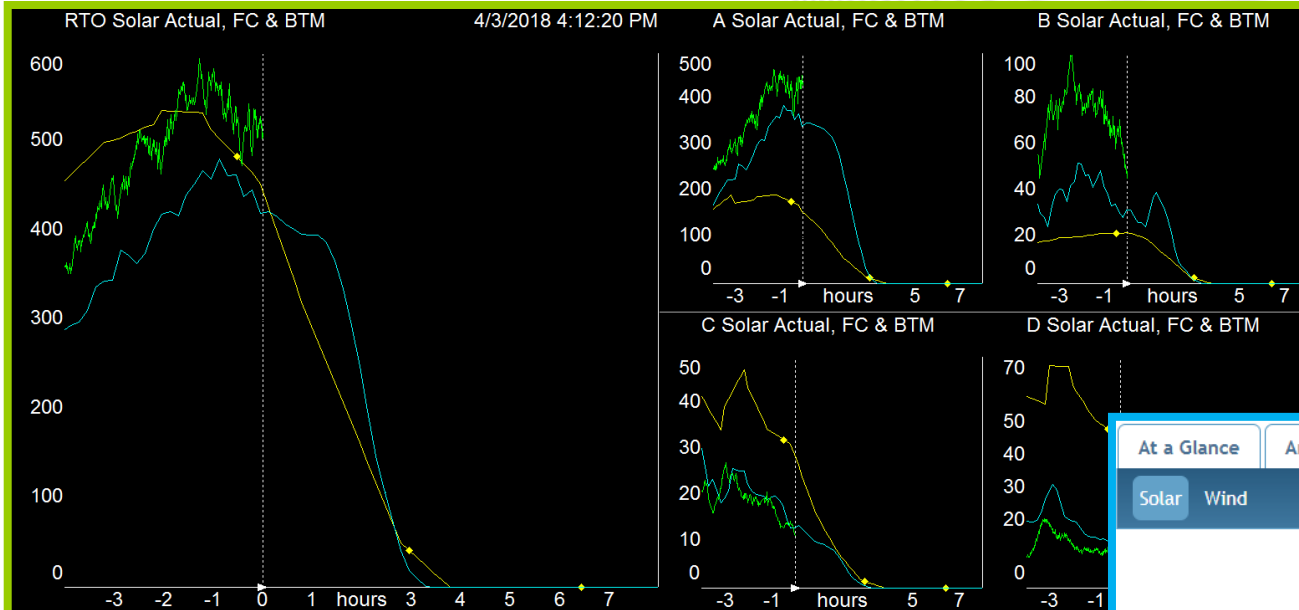
Wind

Est. 2008

Grid-
Connected

Behind-the-
Meter

Grid-
Connected

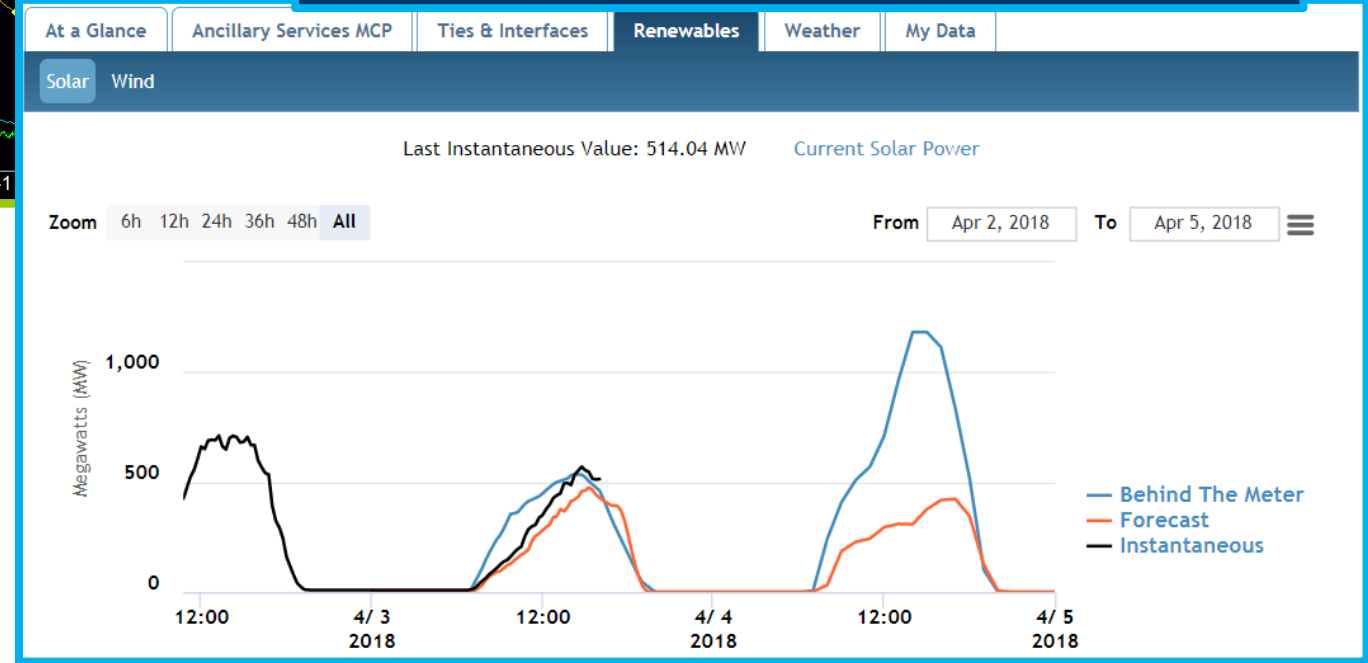


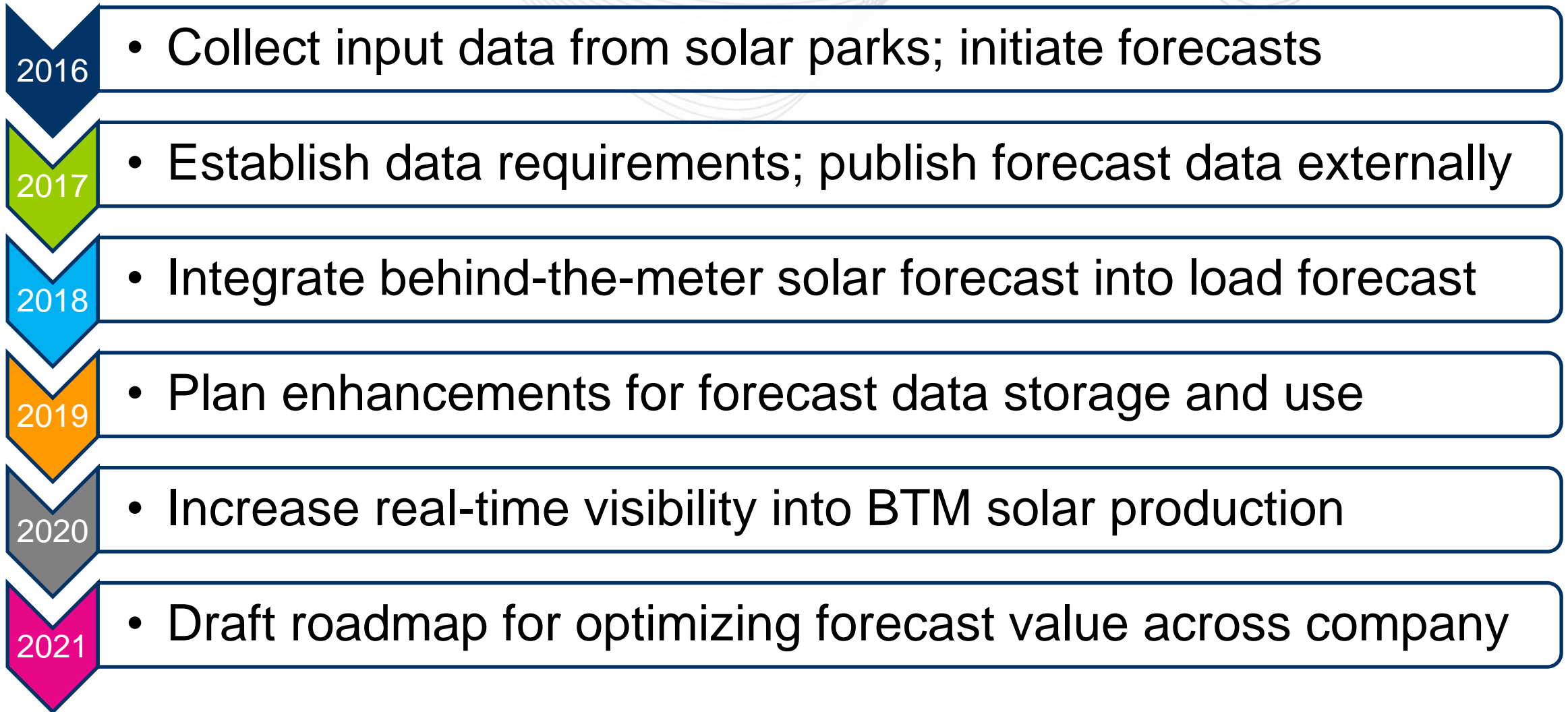
Stakeholder visibility

- Aggregate wholesale and non-wholesale solar output through end of next day
- Hourly, unit specific forecast available to unit owners through online markets tool

Operator visibility

- Aggregate wholesale and non-wholesale output for RTO and zones with highest penetrations
- Hourly, unit specific forecast available through desktop tool





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