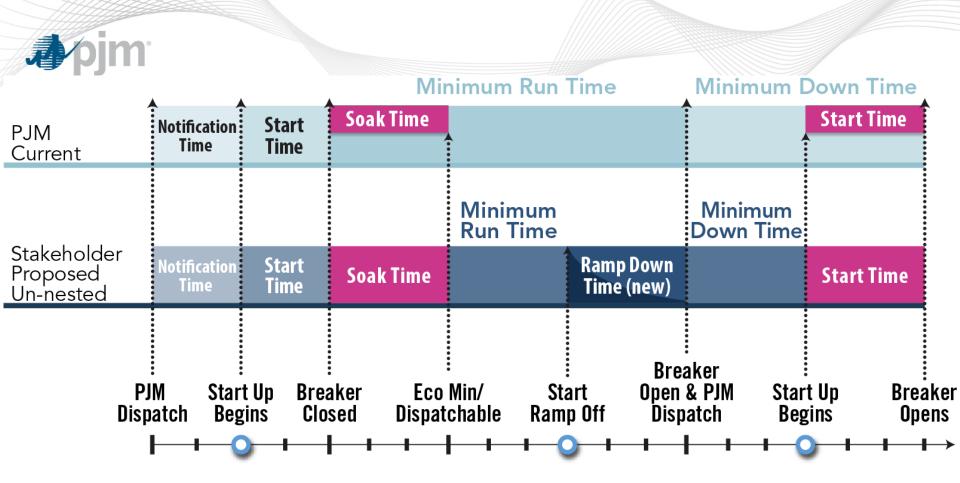


Operating Parameter Definitions Education

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M14D Generator Required Telemetry

- All generators that are PJM capacity resources must provide instantaneous power and reactive power flow (realtime telemetered) data, regardless of size.
- Generators that are not PJM capacity resources must provide instantaneous power and reactive power flow data only if
 - They are 10 MW or larger, or
 - They are greater than 1 MW and connected at 34kV and above.



M14D Generator Required Telemetry

- Distributed generators modeled at less than 10 MW must provide instantaneous power data at the BES injection point.
- Very small generators (less than 10 MWs) may not be required to supply real time telemetered information.

Real Time Data



- The minimum data model for real-time data transmission requires:
 - Instantaneous Net (+/-) MW for each unit, measured on the lowside of the generator step-up transformer
 - Instantaneous Net (+/-) MVAR for each unit, measured on the low-side of the generator step-up transformer
 - Depending on EMS modeling combined cycle units may or may not include the individual CTs



Other Real Time Data

- PJM will accept other unit data if available via ICCP such as:
 - Voltage
 - Equipment Status (open/close)
 - AVR status
 - Breaker status