

3.3.2 Synchrophasor Data Exchange

Synchrophasor data is exchanged between each PJM member's Phasor Data Concentrator and the PJM Super Phasor Data Concentrator.

The Synchrophasor technical guidelines for PMU and PDC configuration can be found at the following link: <https://www.pjm.com/markets-and-operations/ops-analysis/synchrophasor-technology.aspx>

All data items, regardless of type, are collected and disseminated at a frequency of 30 samples per second and must be sent to PJM with associated data quality codes in compliance with IEEE C37.118 communication standards.

The phasor data sent continuously from PJM members to PJM include the following types of information sent with associated data quality codes:

- data needed for monitoring generation (See Manual 14D: Generator Operational Requirements, Section 4.3.4)
- data needed for monitoring transmission, which includes system frequency, positive sequence current and voltage

PJM members are responsible for the availability and quality of the data they send to PJM.

Metric Type	Minimum Accuracy	Definition
Link Availability	99.80%	The uptime of the TCP/IP connection of the C37.118 stream from the site PDC to PJM SPDC.
Good Quality Data	97%	Good quality data as defined by the IEEE C37.118 protocol as a "0x0000" status word per PMU within the stream.

PJM members shall report the outage of any data communication equipment (i.e. PMUs, PDCs, and data links) connecting the facility to the PJM Synchrophasor system using the following email address: phasoroutages@pjm.com. Scheduled outages should be reported at least one business day in advance, and again prior to switching the equipment out of service. Any unscheduled outage of Synchrophasor equipment should be reported immediately after such an occurrence. The Phasor Outages group should be notified when the in-outage equipment is returned to service to validate data is being retransmitted.

To support the recovery of PMU data, the member shall maintain storage of PMU data locally as defined within the technical guidelines.