



Initial Synchronization Process

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- Stage One energization
 - This is the point at which the generator is interconnected with the transmission system and backfeed power is available to the Developer Facility for testing and commissioning.

- Stage Two energization
 - Initial synchronization to the Transmission System of any completed generator(s) at the Generating Facility or the applicable facilities for the Merchant Transmission Facilities and the energization of the remainder of all required facilities and upgrades.

- Project needs to be deliverable – all network, baseline and supplemental upgrades identified in service or interim deliverability study confirming unit is deliverable;
- Project properly modeled in EMS;
- Telemetry in place according to points list sent to Developer by PJM;
- PMUs in place for units with MFO 100 MW and above;
- Generator physical parameters supplied to PJM by Developer;
- Developer completed solar/wind worksheet, when required;

- Developer needs to be a PJM Member or be represented by a MOC in the PJM Markets;
- Necessary Study is completed, when required;
- Markets Settlements/PowerMeter set up in sandbox;
- Developer update reactive capability curves (D-curves) via eDart;
- TO verify Voltage Schedule for transmission connected projects;
- Developer supplied PJM with MPT FAT; and
- Developer completed the Test Energy Schedule.

- Energy generated for a predetermined period by a Project Developer interconnecting for the first time

Project Developer responsibilities:

- Provide PJM with a test energy schedule
- Notify Dispatch Operations at least 20 minutes prior to test energy
- Verify real-time telemetry and billing account with PJM (required for Power Meter compensation)

PJM responsibilities:

- Validate facility output using real-time data
- Update generator records on PJM.com
- Check Power Meter account activation

- **For capacity resources**, refer to PJM Manual 21 for additional testing requirements

- **Project Communications and Milestone Tracking** – Manual 14C, Section 3.1 and 3.8
- **Telemetry** – Manual 14D, Section 4.1 and 4.2
- **Project Modeling** – Manual 3A, Section 1.2 and 3.2
- **Metering** – Manual 14D, Section 4.2 and Manual 28, Section 1A
- **Voltage Schedule** – Manual 03, Section 3.11
- **PMU** – Manual 14D, Section 4.3

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