

Request for Documentation: Generating Facility Interconnection Applications for Advanced Energy Storage

This sheet explains further documentation requirements for PG&E's various interconnection applications related to energy storage devices. For generation interconnection applications involving advanced energy storage **or** multiple sources of generation behind a single point of interconnection **that include** advanced energy storage, Applicants are required to provide the following:

1. Generation System Control Diagram

Provide an AC/DC elementary control diagram that shows normal device settings, i.e., on, off, open, closed, bypassed

2. Generation System Operational Description

A. For normal operation in parallel with the grid, provide:

- A description that identifies inverter functions and control mechanisms, e.g., charge or discharge battery bank, connect or disconnect protective devices
- An outline of power flow from generation to the grid through all protective devices
- An outline of the power flow from the storage device to the grid and/or storage generation to the storage device through all protective devices

B. For operation during grid outages, describe:

- Inverter or protective device actions used to isolate the generating facility from the grid, e.g., the inverter senses loss of power and initiates signals to trip circuit breakers A, B, C, etc.
- Protective devices that ensure isolation between the grid and generating facility when each is operating independently

C. For operation during grid restoration, describe:

- The length of time before the inverter attempts to connect to the grid
 - All steps required for the inverter to reconnect to the grid, e.g., Break-Before-Make or Make-Before-Break (For Make-Before-Break, also include a UL 1741 test report to verify that the synchronizing process has been tested. Otherwise, synchronization may need to be tested during Pre-Parallel Inspection.)
 - Which circuit breakers will be opening and closing
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