SUMMARY

This bulletin provides guidance on substation signage for third party transmission interconnections to the PG&E system.

AFFECTED DOCUMENT


TARGET AUDIENCE

Internal and external personnel involved with 3rd party interconnections.

WHAT YOU NEED TO KNOW

1 Overview

1.1 Standardization of all signs allows for consistency in all PG&E connected facilities, making it easier for operation, maintenance, and other personnel to operate, maintain, and safely visit a substation facility. Additionally, proper exterior safety signs alert the general public about imminent hazards.

2 General Instructions

2.1 All signs must be in place prior to the pre-parallel inspection and must be verified prior to energization of the 3rd party facility.

2.2 3rd Party customers must submit signage specifications prior to pre-parallel inspection. These drawings should be submitted in conjunction with the facility schematics, as shown in Table G2.1, “Submittals”.

2.3 Signs must be clear and concise in their wording, legible, durable, and accurate.

2.4 Signs must be in accordance with PG&E standards in the size, standard wording, color, and material.

2.5 For the example signs that follow, information inside the brackets, “[ ….]” is site specific.
2.6 Figure 1 - Overview of Required Signage (with paragraph references shown)

3 Target Plates

3.1 Switch Target Plate

1. If the facility has multiple feeds with multiple separate disconnect switches, then each disconnect requires a separate switch target plate.

2. Figure 2 – Switch Target Plate
3.2 Bus Target Plates

1. The bus target plate is used to indicate the phases of the lines and busses in the facilities.

2. The bus target plate must be posted on point of interconnection, secondary test points, each side of dead-end structure, and where phase rotation changes.

3. Example of a bus identification signs. #3 venetian red letters on a #1 buff background.

4. PG&E Equipment Identification Signs

4.1 PG&E Disconnect Switch Sign

1. The PG&E Disconnect Switch Sign designates that there is a lockable, accessible PG&E disconnect Switch Sign mandated in the TIH.

2. Location: This sign must be attached on all interconnection facility at the substation main gate.

3. The message panel lettering must be black on a white background.

4. Use a 10” X 14” sign.
5. The sign must say the following.

4.2 Site Map Sign

1. Certain sites may require additional signage due to interconnection facility not accessible directly from a County maintained road (i.e. need to drive thru generation facilities such as battery storage, PV arrays to reach the Interconnection Facility).
2. Location: The site map sign must be posted at each entrance to the facility. If there are multiple entrances, then each entrance must have a sign. For example: One posted at the entrance to the generation facility and one posted on the entrance to the substation within the generation facility.

3. The site map sign must specify physical location of the PG&E meter (using the standard metering symbol), disconnect switch and identify disconnect switch number. If Interconnection Facility is far from the site map sign, include GPS coordinates and/or directions to the Interconnection Facility.

4. The site map sign must be clear and easy to read from a distance. For example, the site map should be able to be read while sitting on the driver’s side of a car or truck at the entrance.

5. There are no specific requirements, but typically informational signs symbols and words are black on a white background.

5 PG&E Metering Facility Identification Sign

5.1 The PG&E metering facility identification sign is to provide site-specific information to PG&E personnel entering the premises. The sign shall include project name, site address, emergency contact information, megawatts size and type of generation, and highest voltage in substation.

5.2 The PG&E metering facility identification signs must be installed at all entrances to the substation, power plant, generation facility and/or control room.

5.3 A 14” x 10” sign is recommended.
5.4   Example of PG&E metering facility identification sign required at facility entrances.
5.5 When the meter is in the control room,

1. Install the sign below with the words “PG&E METERING INSIDE”.

2. This is the sign format and not the actual words to use.

5.6 When the meter is “not” in the control room

1. If PG&E metering is not inside control room, a separate metering sign required. This sign is to identify PG&E metering and must include facility name, site address, the words “PG&E METERING INSIDE”, Megawatt size and type of generation, and highest voltage in substation

2. The PG&E metering facility sign must be posted on metering cabinet door (PG&E/CAISO metering cabinet), and metering transformer junction box on the structure.

3. Colors are black letters on a white background.
PG&E Substation Signage for 3rd Party Interconnections

[FACILITY NAME]

[SITE ADDRESS]

[CITY]

[STATE, ZIP]

PG&E METERING INSIDE

[##] MW - [##] KV

[Photovoltaic/Wind/Gas/etc.] Generation

Rust resistant metal eyelet

Shall accommodate #10 screw letter setting
6 Caution Sign

6.1 Generator On-site Caution Sign.

1. Location: The generator on-site sign shall be “posted at each entrance” to the facility. If there are multiple entrances, then each entrance must have a sign. For example: One posted at the entrance to the generation facility and one posted on the entrance to the substation within the generation facility.

2. The sign must say the following:
6.2 For interconnections using multiple generator disconnects, include the following text in the sign above:

“THIS SYSTEM HAS [n] GENERATOR DISCONNECTS. [BOTH/ALL n] DISCONNECTS MUST BE OPENED TO ISOLATE THE SYSTEM.”

7 Reference Documents

Design Criteria 073118, “Signage”

Engineering Design Standard 454092, “Signs, Nameplates and Supports for Transmission and Distribution Substations”

DOCUMENT APPROVER

Tom Rak, Manager, Substation Standards

DOCUMENT CONTACT

Stan Cramer, Senior Consulting Engineer

INCLUSION PLAN

This bulletin may become a work procedure attached to the Transmission Interconnection Handbook.