SUMMARY

This bulletin produces new requirements for interconnecting, 3rd party telecommunication equipment installed on customer owned (non-PG&E) steel streetlight poles, to the PG&E distribution system. These interconnections are allowed only for customer owned steel streetlight poles that are on a LS-2 rate schedule.

With PGE providing power, the single customer owned service wire supplies both the 3rd-party telecommunication equipment and antenna equipment as well as the unmetered street lights installed on the customer owned steel pole.

This bulletin also provides requirements for the installation of the PG&E SmartPole meter, (PG&E material code M241490).

Level of Use: Informational Use

AFFECTED DOCUMENT

None

TARGET AUDIENCE

PG&E: Utility employees, electric construction employees, customer service representatives, service planning employees, electric estimators

Non-PG&E: Municipalities, Communication Companies, Electrical Contractors, Installers, and Designers

WHAT YOU NEED TO KNOW

General Information

1 A PG&E Absolving Service Agreement is required to be signed when customer owned services, suppling power to non-PG&E owned steel streetlight poles with communication and antenna equipment, are interconnected to the PG&E distribution system. Contact the PG&E Service Planning office for an explanation of an Absolving Service Agreement. If needed, PG&E personnel can contact the Tariff Interpretation or Law departments for guidance.

2 The street light pole must have a radome shroud installed at the top of the pole to house the antenna and metering equipment. The shroud must be made of fiberglass or other material that does not inhibit the transmission of the wireless meter signal. The shroud or a part of the shroud must be removable or open to allow direct access to the meter inside. See Figure 7. Other designs for the placement of the antenna and metering equipment are not being accepted.
3 A 2-wire (1-hot, 1-neutral) 120 volt single-phase service must be installed from the PG&E specified splice box to the pole or from a customer owned splice box to the pole if part of a customer owned street light distribution system. A 2-wire 120 volt single-phase service is the only type of service allowed to power the SmartPole meter along with the customer and 3rd party equipment. The customer service wire must be sized as needed to accommodate all metered and unmetered loads.

Note: In very limited locations if an existing PG&E 2-wire single-phase 240 volt secondary system is available the SmartPole meter may be connected. These locations are not common.

4 **CAUTION:** Do not install a 3-wire 1-phase 120/240 volt service as this is the incorrect wiring and voltage for the SmartPole metering application.

5 The antenna, communication equipment, and street light must be powered from the same customer owned service. A second or separate customer owned service is not allowed.

6 **Disconnect Switch Requirements:** A disconnect switch must be installed and meet all of the following requirements below.

6.1 The switch must be readily accessible at all times. The switch will be used as part of the normal or emergency shutdown protocols required in California Public Utility Commission (CPUC) General Order 95, Rule 94.

6.2 The switch shall de-energize all power supplies, including back-up power, and any communication equipment emitting Radio Frequencies (RF). Signage must be attached to the switch identifying what equipment it will de-energize.

6.3 The switch must not de-energize (turn off) the street light(s) or the PG&E SmartMeter. See the Single Line Drawing in Figure 6.

6.4 The switch must be attached externally on the pole less than 10 feet above grade and more than 4 feet above grade, as measured to the top of the switch enclosure.

   Note: The local authority having jurisdiction of inspection may have minimum and maximum height requirements that must also be met.

6.5 If all of the specific requirements below are met the switch may be located inside an equipment pedestal, that is installed around the base of the pole. See Figures 2 through 5 for additional details.

   1. A permanent and dedicated side hinged access door with locking provisions dedicated only for a PG&E pad-lock (5/16” Shaft) must be provided to allow easy access to the disconnect switch.

   2. This disconnect switch access door can be part of a larger maintenance door if needed.

   3. The disconnect switch should be installed towards the upper half of the pedestal and not less than 18” above grade, as measured to the top of the switch.
4. Lock boxes, shared keys, or other locking methods are not acceptable.

6.6 The switch may not be installed inside the pole (except inside the pedestal), in a subsurface enclosure, or in a remote location away from the pole.

6.7 Provisions for locking the disconnect switch in the off position are required.

7. Poles must have signage that meet FCC guidelines for the antennas and communication equipment emitting RF transmission. Sites shall be signed according to FCC guidelines.

8. Antennas and power units must have an ownership label with the company’s name, contact number, and site identification information.

9. All materials, except the PG&E meter, shall be furnished and installed by the customer. Including the 3-pin socket and provisions for the meter to be securely attached inside the shroud. The PG&E Meter Engineering department will review and approve these attachment provisions for the meter.

10. The metering provision contained herein is an exception to the Greenbook requirement and is designed primarily for Wi-Fi, cable TV power supplies, and other telecom equipment requiring metering. Refer to, Tariff Application Guide – Electric Rule 9. Do not connect any other types of load to this service except for antenna and communication equipment, and street lights.

11. The local Authority Having Jurisdiction (AHJ) of inspections for the city or county must provide approval of final inspection and meter release before PG&E will install a meter and energize the customer's electric service.

12. A PG&E inspector or Trouble Man (T-Man) must inspect the installation to verify the requirements in this document have been met.

13. PG&E vehicle (bucket truck) access up to and around the pole is required at all times. This includes a road which allows the PG&E vehicle to drive up next to the pole and have an adequate area to back up, maneuver, and exit. This vehicle drive up access is required for the installation and maintenance of the PG&E meter.

14. For service connections to steel poles that are not on an LS-2 rate, or if the requirements in this document cannot be met, then the PG&E approved method of providing service to a pad-mounted metering pedestal should be used.
PG&E Metering and Service Connections For Non-PG&E Owned Steel Streetlight Poles With Antenna and Communication Equipment

Figure 1 – Customer Owned (Non-PG&E) Steel Streetlight Pole with Antenna and Communication Equipment
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PG&E Metering and Service Connections For Non-PG&E Owned Steel Streetlight Poles With Antenna and Communication Equipment

Figure 2 – Customer Owned (Non-PG&E) Steel Streetlight Pole with Antenna, Communication Equipment, and with Equipment Pedestal at Base
PG&E Metering and Service Connections For Non-PG&E Owned Steel Streetlight Poles With Antenna and Communication Equipment

Figure 3 – Equipment Pedestal Base with Disconnect Switch Inside Small Access Door

Small Door Opens and Locks Independently for PG&E Access to Disconnect Switch

Figure 4 – Locking Provisions Dedicated for PG&E Padlock on Small Access Door

5/16-Inch Diameter Hole for PG&E Lock

Large Door for Customer Equipment Access and Lock

Figure 5 – Equipment Pedestal Base with Large and Small Access Doors
PG&E Metering and Service Connections For Non-PG&E Owned Steel Streetlight Poles With Antenna and Communication Equipment

Figure 6 – Single Line Drawing
Figure 7 – Radome Shroud Pole Top Detail
PG&E Metering and Service Connections For Non-PG&E Owned Steel Streetlight Poles With Antenna and Communication Equipment

Figure 8 - SmartPole Meter

Figure 9 – 3-Pin Receptacle

Figure 10 - Wiring Diagram For 3-Pin Receptacle
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PG&E Metering and Service Connections For Non-PG&E Owned Steel Streetlight Poles With Antenna and Communication Equipment

NON EMERGENCY NODE SITE POWER SHUT DOWN PROCEDURES

1. FOR NON EMERGENCY/SCHEDULED POWER SHUT DOWN
   • CALL <INSERT NAME OF COMMUNICATION COMPANY AND PROVIDE PHONE NUMBER>
   • Provide the following information:
     • Site number identified on Site Numbering Sticker
     • Your name and reason for power shutoff
   • Pull disconnect handle to “OFF” position
   • Power shut off verification with approved PG&E procedures
   • Notify <INSERT NAME OF COMMUNICATION COMPANY> upon completion of work
   • Restore power by placing power disconnect handle in the “ON” position
   • Reinstall lock on power handle

2. EMERGENCY POWER SHUT OFF
   • CALL <INSERT NAME OF COMMUNICATION COMPANY AND PROVIDE PHONE NUMBER>
   • Provide the following information:
     • Site number identified on Site Numbering Sticker
     • Your name and reason for power shutoff
   • Pull disconnect handle to “OFF” position
   • Power shut off verification with approved PG&E procedures
   • Notify <INSERT NAME OF COMMUNICATION COMPANY> upon completion of work
   • Restore power by placing power disconnect handle in the “ON” position
   • Reinstall lock on power handle

Figure 11 - Shut Down Procedure Sign

Figure 12 - Sample RF Sign
PG&E Metering and Service Connections For Non-PG&E Owned Steel Streetlight Poles With Antenna and Communication Equipment

Figure 13 – Sample Terminal Connector

DOCUMENT APPROVER

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INCLUSION PLAN

There is not any inclusion plan for this document at this time.