

## Update to 2022-2023 Greenbook

### SUMMARY

This bulletin provides updates to the current Electric and Gas Service Requirements Manual (Greenbook). The information described below explains the applicable changes to the specific sections and Figures. These updates are effective upon the publication of this bulletin.

Level of Use: Informational Use

### AFFECTED DOCUMENT

2022-2023 Electric and Gas Service requirements Manual (Greenbook)

### TARGET AUDIENCE

All utility and non-utility persons that read and use of the Greenbook

### WHAT YOU NEED TO KNOW

#### 1 Section 1.16.2., Figure 1-3, Section 2.4.2.E., and Figure 2-22.

These new requirements provide installation options for existing electric meter panels that are located above the gas meter and do not meet Greenbook Figures 1-3, "Electric Panel Replacement Not Allowed When Over a PG&E SmartMeter Gas Meter Set", and Figure 2-22, "Clearance Requirements for an Existing Electric Meter/Panel".

- 1.1 Only the specific exceptions listed in Item 1.2 are applicable to the current requirements and allowed for the following types of installations.
- 1.2 Residential single or two-family homes with an electric overhead or underground service are allowed to replace their existing panel with another panel of the same ampacity, like for like (e.g., 100 amps for 100 amps), or replace a main electric meter panel rated less than 100 amps (e.g., 60 amps to 100 amps), in the same exact location, when the existing panel is in the restricted clearance area above the gas meter, and only when any of the three conditions described below exist.
  1. Panels that have; failed, melted busing, or burned internal components due to electric arc fault or other cause, and are out of power or have partial power due to these conditions
  2. Panels that are required to be replaced by the property owners fire or hazard insurance company, within the time frame set by the insurance company, because the insurance company considers the panel to be unsafe or defective. Customer must submit a letter from the insurance company stipulating their requirements and time frame for replacement
  3. Panels that are required to be replaced by the local city or county building or electrical department (authority having jurisdiction [AHJ]), within the time frame set by the AHJ, because the AHJ considers the panel to be unsafe or defective. Customer must submit a letter from the AHJ stipulating their requirements and time frame for replacement

## Update to 2022-2023 Greenbook

- 1.3 Note: The exceptions listed in Item 1.2 do **not apply to the following types of jobs or equipment**
1. Replaced panels that have a greater ampacity than the existing panel (unless the panel being replaced is less than 100 amps as explained in 1.2). This is considered an upgrade and all applicable requirements in the Greenbook must be met
  2. Existing panels manufactured by Zinsco or Federal Pacific, that are still operational and have not failed. A national consumer safety warning was issued only for certain panel models and not all models from these manufacturers were part of the safety warning announcement. This applies unless the panel model is listed on a national consumer safety recall announcement or the local AHJ or insurance company requires the panel to be replaced. Customers must provide the panel model number and show proof that their panel is on the safety recall announcement.
  3. A breaker that has failed and can be replaced
  4. A meter socket jaw or part that is loose or broken and can be replaced
  5. Replaced panels that are already moved or relocated from their existing location
  6. Any type of panel installation or exception not described in Item 1.2
- 2 Section 2.4.2.D., Figure 2-19, “Electric and Gas Meter Set Separation Dimensions and Clearances”**
- 2.1 Figure 2-19 provides the separation dimensions and clearances for utility facilities and non-utility or customer owned equipment that are installed brand-new or replaced. As shown in Figure 2-19 and described in the figure notes these clearances apply to, but is not limited to, electric and gas services with meters, communication equipment, non-utility electrical devices, wires, and conduit.
- 3 Section 2.4.2.E., Figure 2-22 and Figure Note 2.**
- 3.1 Residential single or two-family homes with an electric overhead or underground service that are upgrading their existing panel or replacing it like for like and the existing panel is in the restricted clearance area above the gas meter are allowed to install a wall-mounted junction box enclosure in the existing panel location, to connect or splice on additional load side wires that run to the new electric meter panel location. The wall-mounted junction box enclosure and conduit must be installed outside the 36-inch gas radial clearance zone, shown in Figure 2-22, and the installation must meet the following requirements.
1. The wall-mounted junction box enclosure must be certified to applicable standards by Underwriters Laboratory (UL) or other Nationally Recognized Testing Laboratory (NRTL), rated for NEC Class I, Division 2 locations, approved by the local AHJ, used only for load side conductors and connections
  2. The conduit and connectors running from the new electric panel to the wall-mounted junction box enclosure must be metallic and rated for NEC Class I, Division 2 locations.

## Update to 2022-2023 Greenbook

3. Short-radius conduit fittings (LB), also known as a service elbow are **not** allowed and are not an approved connector in the area above the gas facilities.
4. Switches, circuit breakers, electronic components, or any other type of electrical devices are **not** allowed to be inside the junction box enclosure or above the gas meter

### 4 Section 3.3.3.1. Galvanized Rigid Steel Conduit and Couplings

- 4.1 The following language in the Section has been revised or additional requirements included. These changes are designated in bold font.

When new galvanized rigid steel (GRS) conduit is used as riser conduit transitioning from the underground service conduit up to the electric meter panel, the following requirements apply **to ensure the new conduit system is robust.**

- **All ends of the riser conduit must be threaded and fit together correctly with their associated parts in the conduit system**
- The top end of the riser (the end that is inside the meter panel) must be threaded and requires a screw-on lock nut
- A cable protector is required
- **Do not use set screw, compression type, or slip-on couplings on new installations**

### 5 Section 5.3.4., “Electric Meter and Service Termination Equipment Rooms”

- 5.1 For below grade electric meter rooms applicants are now allowed to install either stairs or a ramp. This affects Section 5.3.4.A., Item 2, Figure 5-1 – Detail A, and Figure Notes 1 and 2. Stairs are no longer prohibited. The stairs or ramp must start at grade on the outside of the building and continue directly to the meter room.

### 6 Section 5.4.1., “Meter Heights”

- 6.1 Section 5.4.1. Item 3 states that the maximum height for meters in a switchboard service with a current transformer (CT) compartment, is 72-1/2 inches. This maximum height for meters, as measured to their centerline, has increased and is now 73 inches maximum.

### 7 Section 5.4.3., “Meter Set Clearance Requirements”

- 7.1 Figure 5-3 provides the separation dimensions and clearances for utility facilities and non-utility or customer owned equipment that are installed as brand-new or replaced facilities. As shown in Figure 5-3 and described in the figure notes these clearances apply to, but is not limited to, electric and gas services with meters, communication equipment, non-utility electrical devices, wires, and conduit.
- 7.2 The following Figure Notes for Figure 5-3 have been updated to include the following clarifications and requirements in bold font.

## Update to 2022-2023 Greenbook

1. Figure Note 6.

Applicants must not install **new**; water spigots, water lines, cleanout drain lines, gutter systems, or other sources of above-ground or below-ground water to within 36 inches as measured in a straight, horizontal line of any gas facilities or underground electric meter panels and facilities. **For existing water spigots, water lines, cleanout drain lines, gutter systems, or other sources of above ground wet facilities must be a minimum of 12 inches away, radially, from the replaced electric meter panel**

2. Figure Note 7.

For overhead service-meter panels and equipment, applicants must ensure that the clearance from above-ground downspouts and other nonpressurized (i.e., gravity fed) wet facility sources is a minimum of **36 inches away horizontally from the meter panel for brand-new installations. For existing meter panels that are replaced in the same location or similar area on the house or building the minimum clearance is 12 inches radially.**

3. Figure Note 8.

Above-ground water lines, sprinkler systems, and other objects above grade are not allowed in any part of the working space in front of the electric meter panel. **Wall-mounted; water spigots, water lines, and other objects mounted on the wall must not protrude outward into the working space farther than the electric meter panel.**

### 8 Section 5.4.4., "Working Space"

8.1 The following additional requirement to Note 1. of Table 5-2, "Working Space Dimensional Requirements", has been incorporated and is shown in bold font.

1. The width of the working space is the width of all service-termination and metering equipment (connected or stacked) **or 30 inches. Whichever is greater.**

### DOCUMENT APPROVER

Tyrone Kneller, Senior Manager, Electric Distribution Engineering Standards

### DOCUMENT CONTACT

Daniel Jantz, Engineering Standards Technical Specialist, Principle, Electric Distribution Engineering Standards

### INCLUSION PLAN

The updated requirements in this bulletin will be incorporated into the 2024 Greenbook