

Field Services

Tim Martin



Who are we and what do we do?

Field Services

We are responsible for adhering to the APS Interconnection Requirements Manual (IRM) and Electric Service Requirements Manual (ESRM) when performing the site inspection/meter installation for customers interconnecting a distributed energy resource (DER) to the APS grid.

Our goal is to ensure customers are interconnected to the APS grid without compromising the protection and safety of our customers, our employees and first responders.

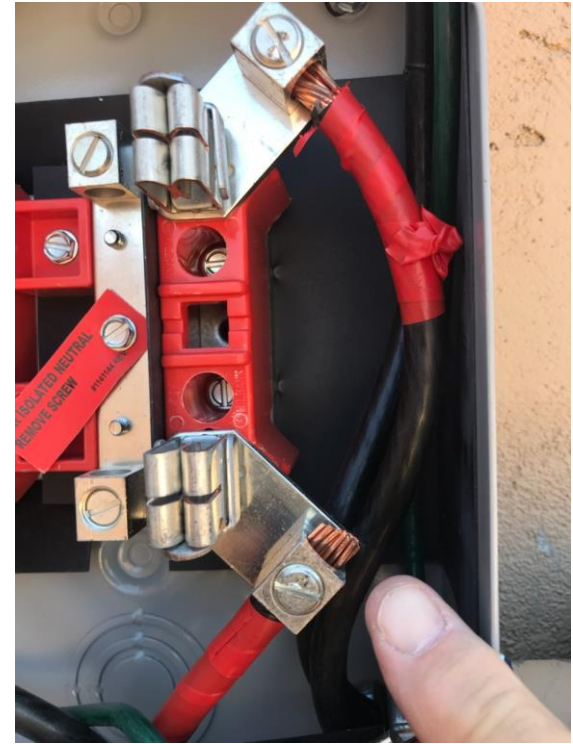
Electrical Hazards

Electrical Hazards Hide



always look for them before they surprise you

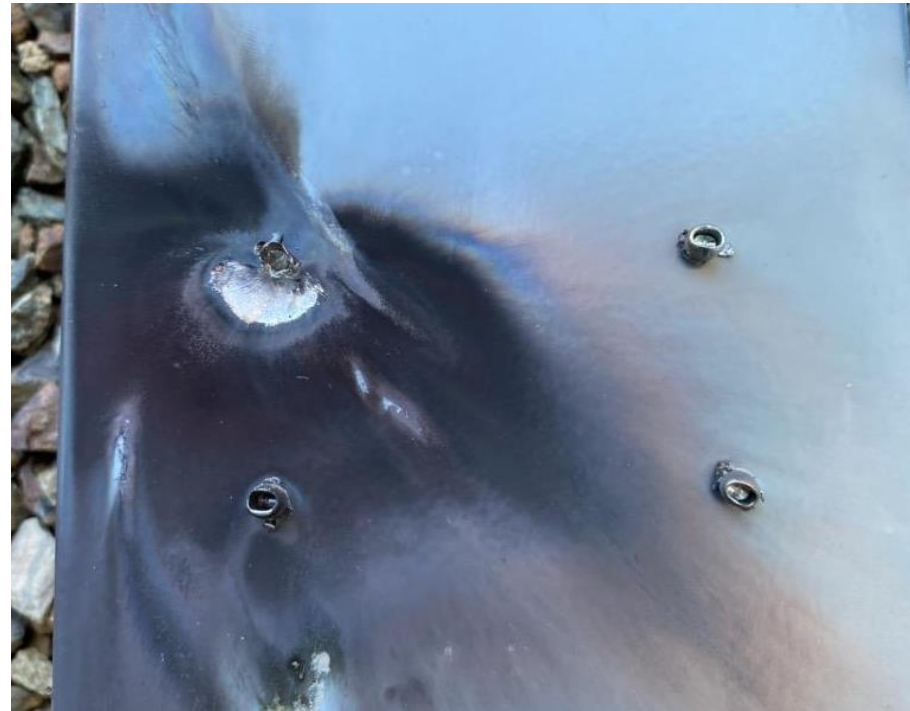
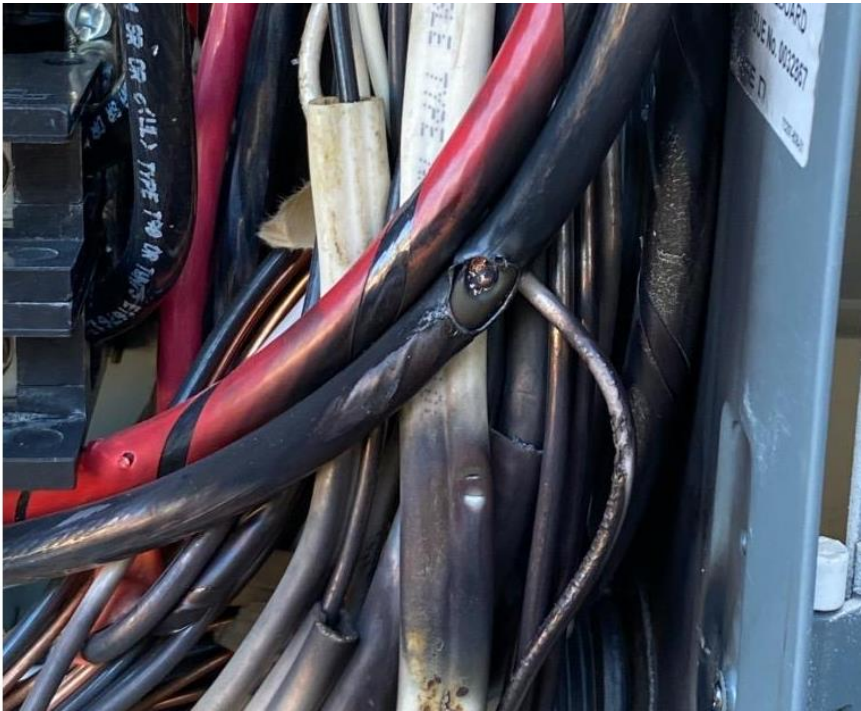
Hidden Dead Short



Don't leave a trap



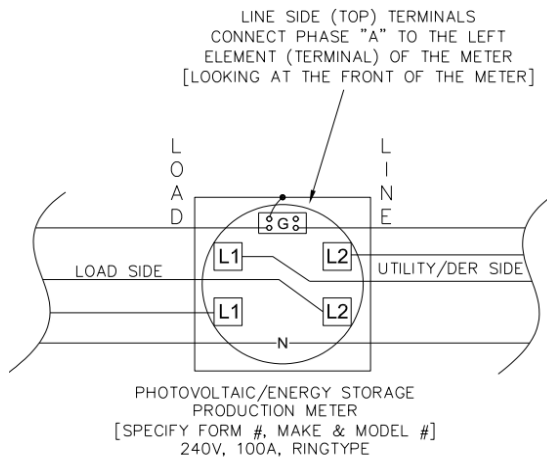
Most hazards cause damage



Meter Sets

Meter Wiring

APS owned meters are required for generation resources interconnecting to the APS grid. The wiring configuration of the meters allow us to calculate the energy output of the generation system. The meter information is collected as delivered and received.



Generation is collected as **delivered** and should be connected to the **top** of the meter socket

The connected load is **received** and should be connected to the **bottom** of the meter socket

Most Common Field Issues



Equipment Labeling

Access Issues

**Clear & Safe
Workspace Zone**

Labeling Importance



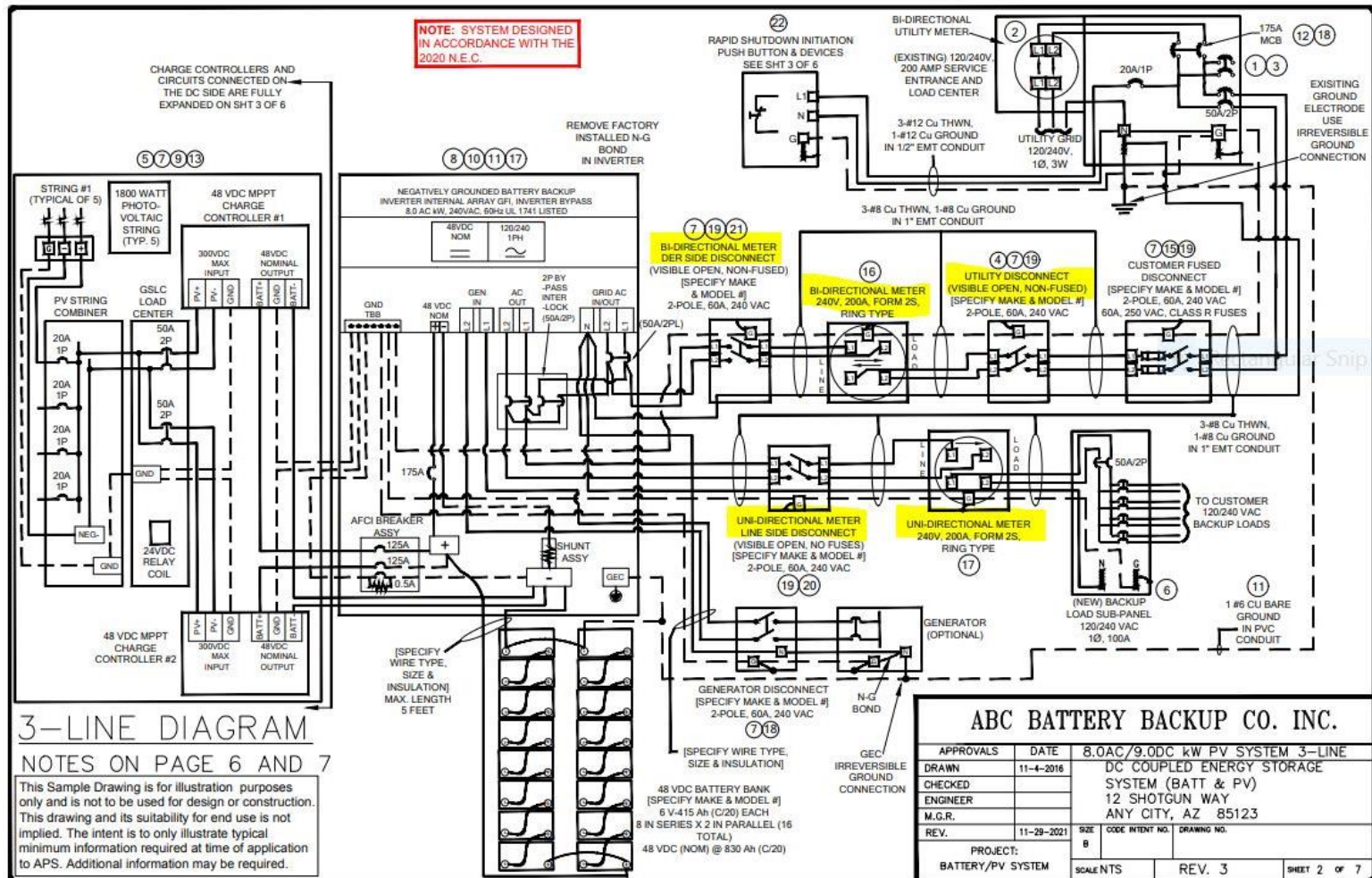
labels for APS required Equipment

- Utility Disconnect
- Uni-Directional Meter
- Bi-directional Meter
- Bi-directional or Uni-directional Lineside disconnect
- Bi-directional DERS side disconnect

Production meter labeling



Example B



Clear Workspace

Aps reserves the right to determine all meter and service locations

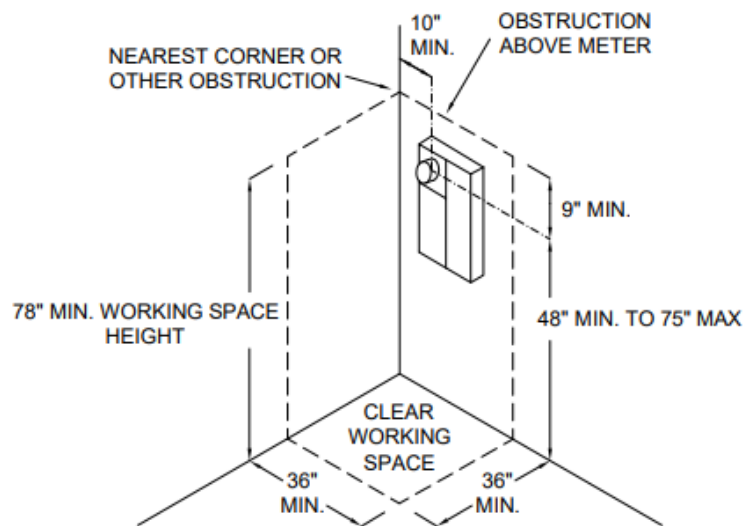
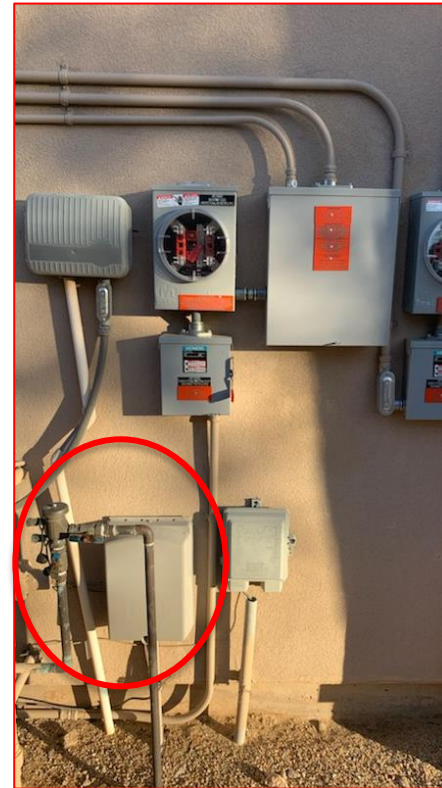


FIGURE 1
SURFACE OR SEMI-FLUSH
METER INSTALLATIONS

- The production meter(s) and utility disconnect(s) must be readily accessible without passing through restricted areas, gates or fences and should not be under covered structures such as a carport, breezeway, patio, porch, or other area that can be enclosed.
- APS prohibits water valves or hose bibs to be located within the working space of the equipment.
- APS requires a 36-inch radial clearance from the gas exhaust vent.

Workspace



Workspace



Considerations

- Customer experience
- Multiple site visits
- Lost production
- Incomplete installations
- Missing/wrong parts
- Damaged equipment

Questions?