

# Field Services

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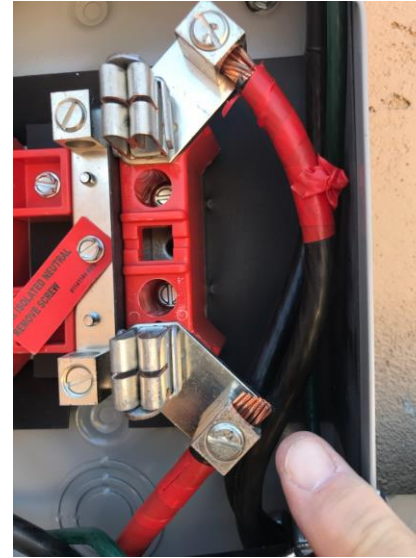
# Who are we and what do we do?

## 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.

# Hidden Dead Short



# Don't leave a trap



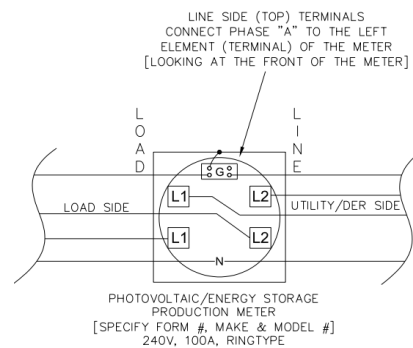
# Meter Sets

5



# 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

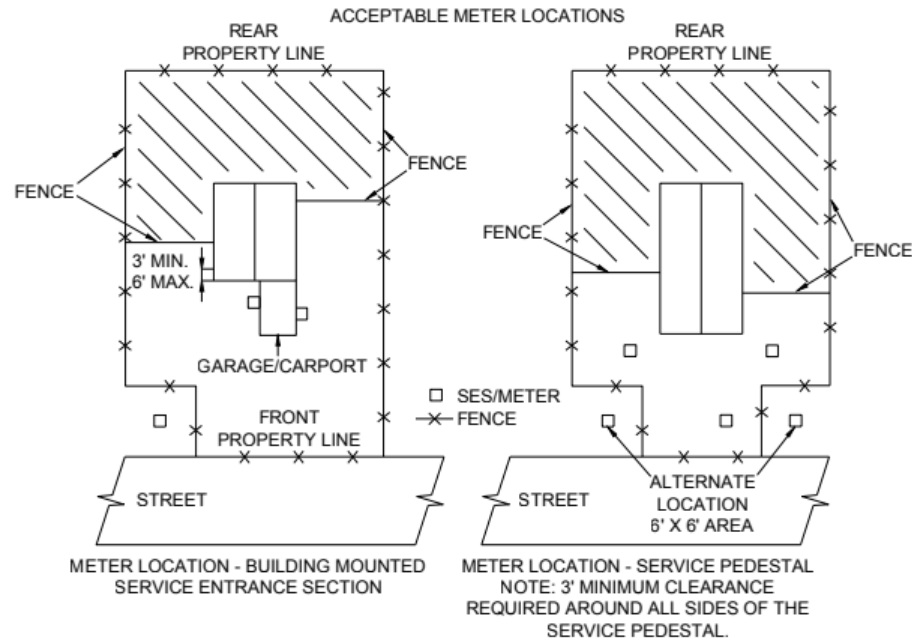


# Production meter labeling





# Acceptable Meter Locations



# Unrestricted Access

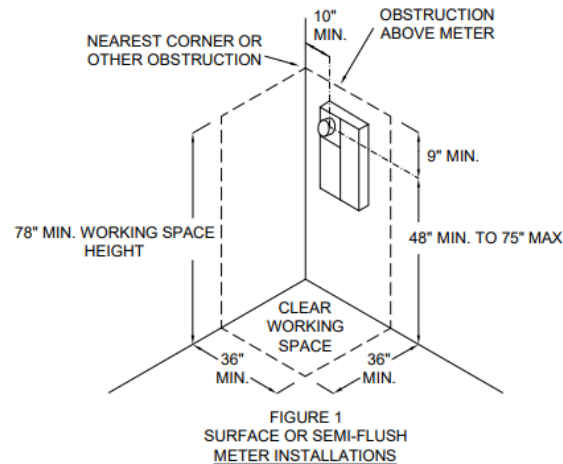
Meter sockets and main switches should be installed in an accessible location, without requiring passage through:

- Carports
- Patios/Porches
- Fences/Gates (locked/unlocked)
  - Note: Temporary removal of fences/gates does not constitute the 24-hour readily accessible requirement.

For APS personnel to safely install the meter(s), please ensure there is safe, unassisted access to the production meter(s) and utility disconnect(s).

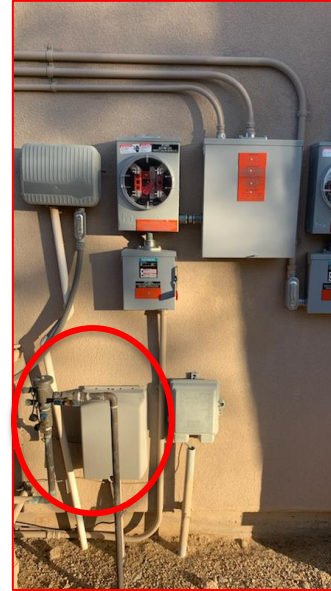
# Clear Workspace

Aps reserves the right to determine all meter and service locations



- 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



# Meter Socket Adapters (MSA)

We currently allow two types of MSA's to be installed between our billing meters and the Service entrance section meter socket.

1. ConnectDER Solar meter adapter ties the solar system to the load side of the meter clips 3&4, this could eliminate the need for a de-rate or panel change out
2. TESLA Backup Switch is a monitoring PV/Battery device that replaces the need for a TESLA Gateway. This device monitors load side of billing meter.

**Scheduling** an MSA/meter collar install is simple, a form can be submitted through the application requesting the installation. We suggest leaving the MSA on site for a speedy turnaround. The MSA is typically installed between 3-5 business days.

If you prefer your technician to be present, an appointment will be scheduled within 7-10 days. An email notification will be sent with the schedule details.





# ConnectDER adapter



# TESLA Adapter



# Considerations

- Customer experience
- Multiple site visits
- Lost production
- Incomplete installations
- Incorrect/unapproved equipment
- Meter socket adapter not on site
- Damaged equipment

Questions?

