



PG&E Standards and Requirements for Plug-In Electric Vehicle Interconnections

Summary This bulletin describes the requirements for the various metering and connection options to serve Plug-in Electric Vehicles (PEV) and Electric Vehicle Supply Equipment (EVSE). These requirements apply only to residential customers. Please refer to the 2010 *Electric and Gas Service Requirements* ([Greenbook](#)) for additional service and metering information.

Affected Document 2010 *Greenbook*.

Target Audience PG&E residential customers connecting Plug-In Electric Vehicles. PG&E employees who perform customer contact or electric meter field work.

What you need to know

Plug-In Electric Vehicle (PEV) Interconnection

PG&E Standards and Requirements

General Requirements:

Basic illustrations are provided to show the options that an existing PG&E residential customer has to connect and meter plug-in Electric Vehicle Supply Equipment (EVSE). Local or state officials may stipulate additional provisions for installation of the EVSE system. All customer electric service and meter installations must be reviewed and approved by Pacific Gas and Electric Company. For questions regarding PG&E's PEV requirements, please contact the [New Construction Service Center](#) (NCSC) at 877-743-7782.



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Specific Requirements:

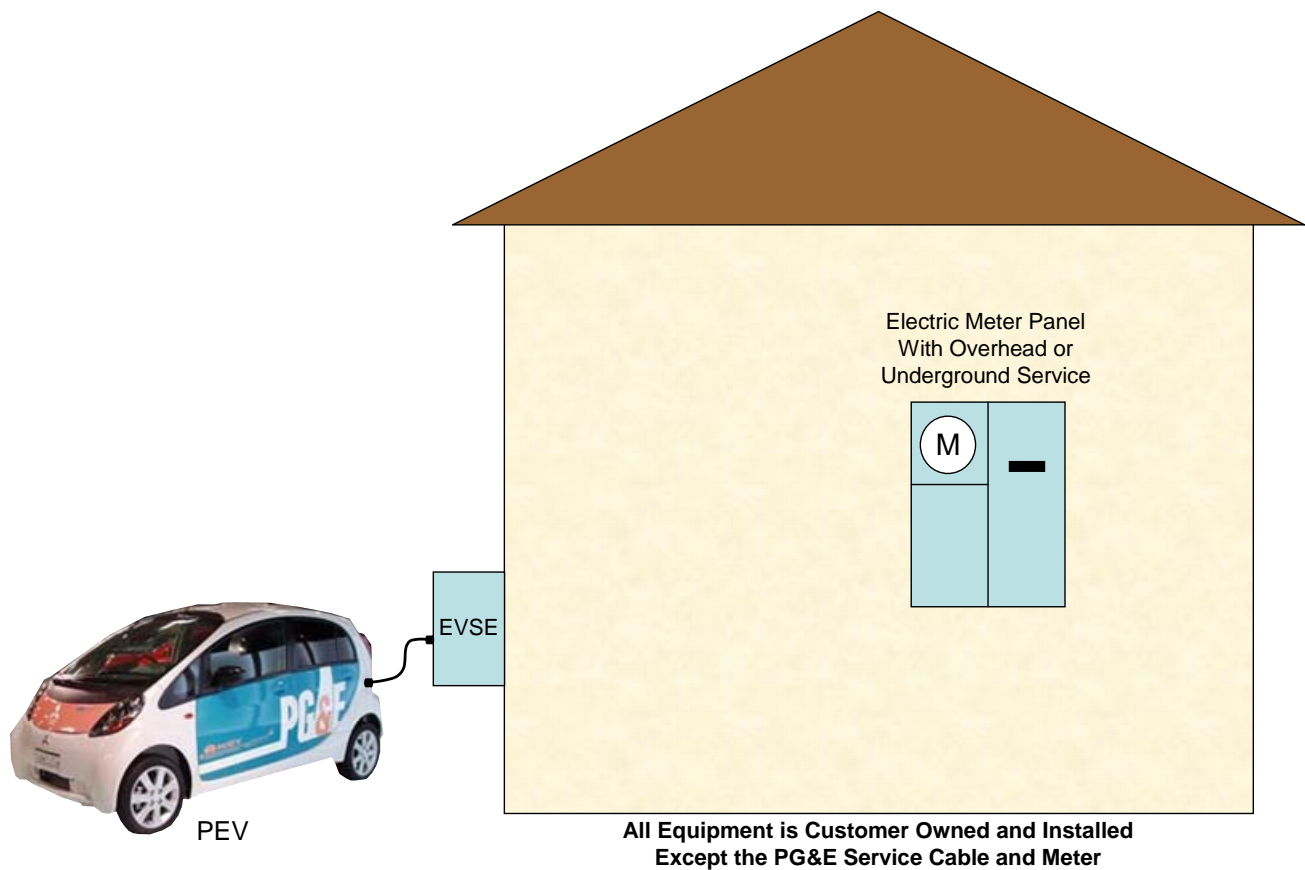
1. Customers must notify PG&E of the additional electrical load before connecting a PEV. The increased load may require the electric service cables, conduit, and meter panel to be upgraded. See note (1) below.
2. All installations must be approved by PG&E and the local (city/county) inspection agency or the authority having jurisdiction.
3. The E-9A [Time-of-Use](#) (TOU) rate is optional for residential PEV customers who elect to remain with a single meter. See note (2) below.
4. The E-9B TOU rate is mandatory for residential PEV customers who elect to meter their PEV usage separately. See note (2) below.
5. This bulletin does not apply to commercial, industrial, and agricultural customers. They are served under existing PG&E rates and rules.
6. E-9B Rate signage for multi-meter panel: PG&E will permanently attach signage to the front of the panel and next to the dedicated electric vehicle meter stating, "Dedicated to PEV charging equipment only; other loads must not be connected."
7. E-9B Rate signage for two meters, one on each panel: PG&E will permanently attach signage to the front of each meter panel as follows:
 - a. On the main panel stating, "Caution: This premise has a second meter for PEV charging equipment."
 - b. On the second panel stating, "Dedicated to PEV charging equipment only; other loads must not be connected."
8. Dual meter socket adapters are not approved for use.
9. A customer owned generation system (e.g. solar, wind) is allowed to be connected to the E-9B meter panel. The energy generated cannot serve both (E-9B and house) meters. Customers that want to supply generation energy to both meters will need to add a separate generation system and request a second Net Energy Metering (NEM) account. See note (5) below.

Note:

- (1) Refer to PG&E's [Electric Rule 16](#) for service upgrade information.
- (2) Refer to PG&E's [Electric Rate Schedules](#) for current information.
- (3) Refer to the 2010 *Electric and Gas Service Requirements* ([Greenbook](#)) for additional information.
- (4) Information for new business customers is on the [New Construction Service Center](#) (NCSC) website.
- (5) PG&E's Generation Interconnection Services (GIS) may be reached at gen@pge.com or leave a message on their hotline: 415-972-5676.

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Residential: E-9A Time Of Use (TOU) rate - Optional
Single-Meter Panel option for House and Electric Vehicle Load.



Pros:

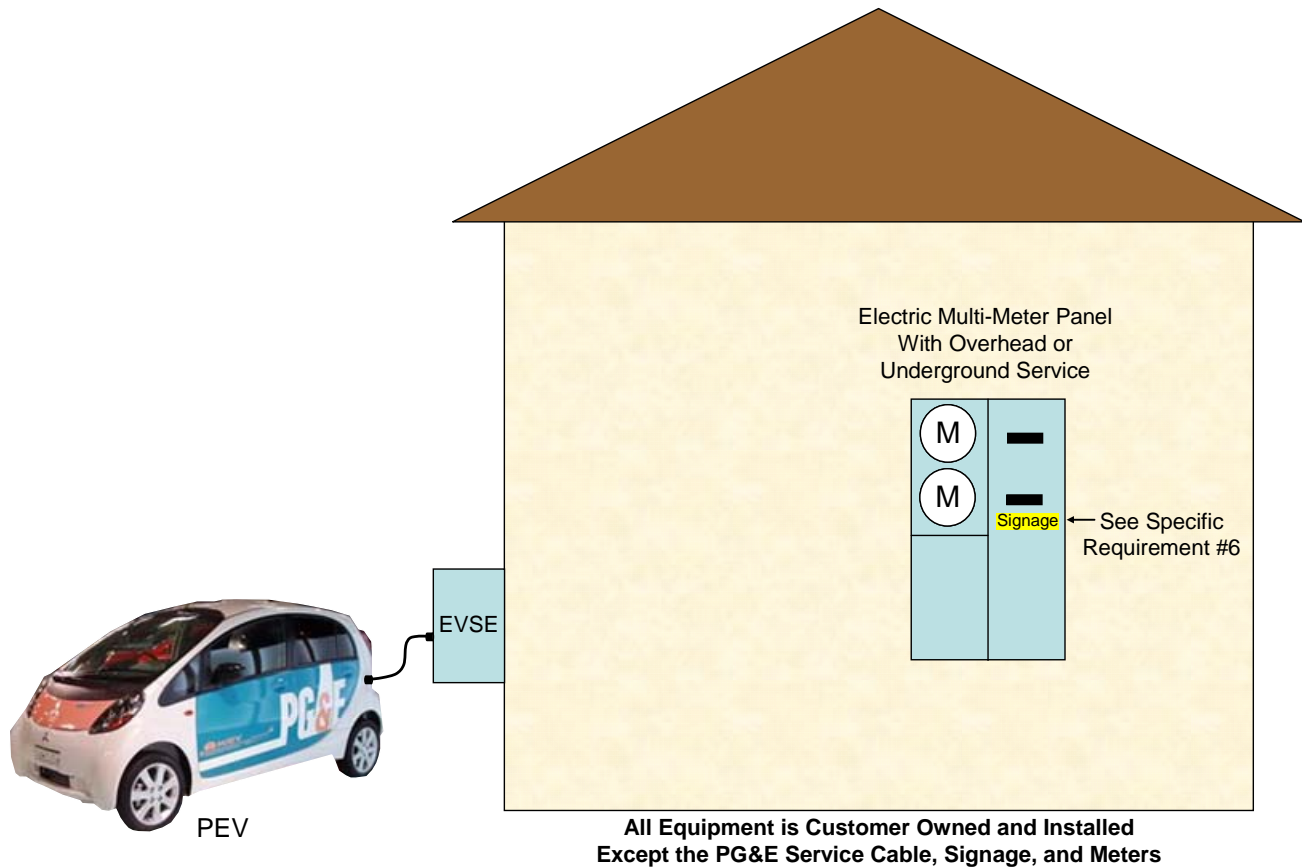
- No second meter panel installation
- Low off peak TOU rate

Cons:

- Easier to exceed lower tiered baselines
- Panel upgrade may be required due to added EV load
- High peak TOU rate

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Residential: E-9B Time Of Use (TOU) rate
Multi-Meter Panel option for House and Electric Vehicle Load.



Pros:

- Maintain existing rate schedule for house load
- Separate baseline allotment for EV load

Cons:

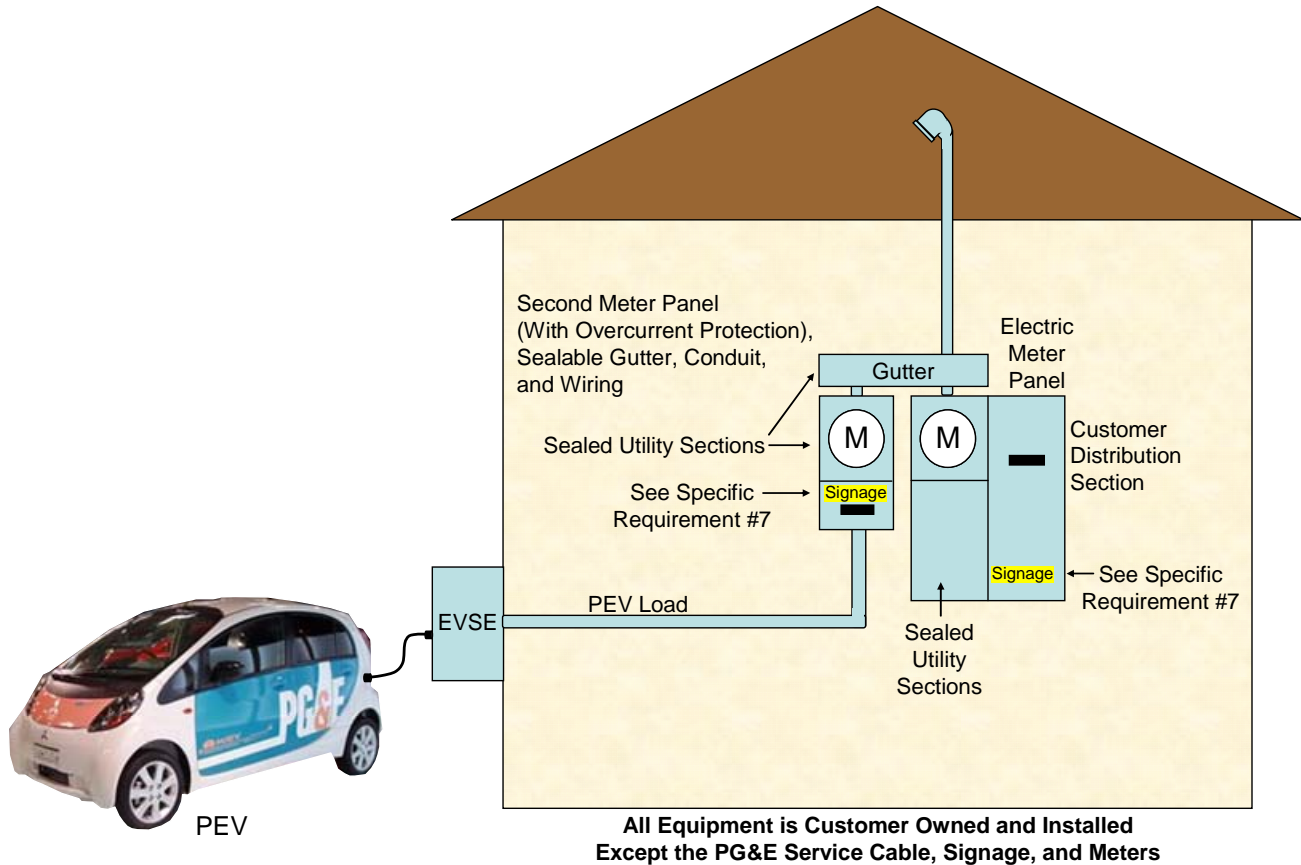
- Additional expense for multi-meter panel installation
- Service upgrade may be required due to added EV load



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Residential: E-9B Time Of Use (TOU) rate

Second-Meter Panel Option Connected to Existing Meter Panel; Overhead Service



Pros:

- Existing panel upgrade may not be required
- Maintain existing rate schedule for house load
- Separate baseline allotment for EV load

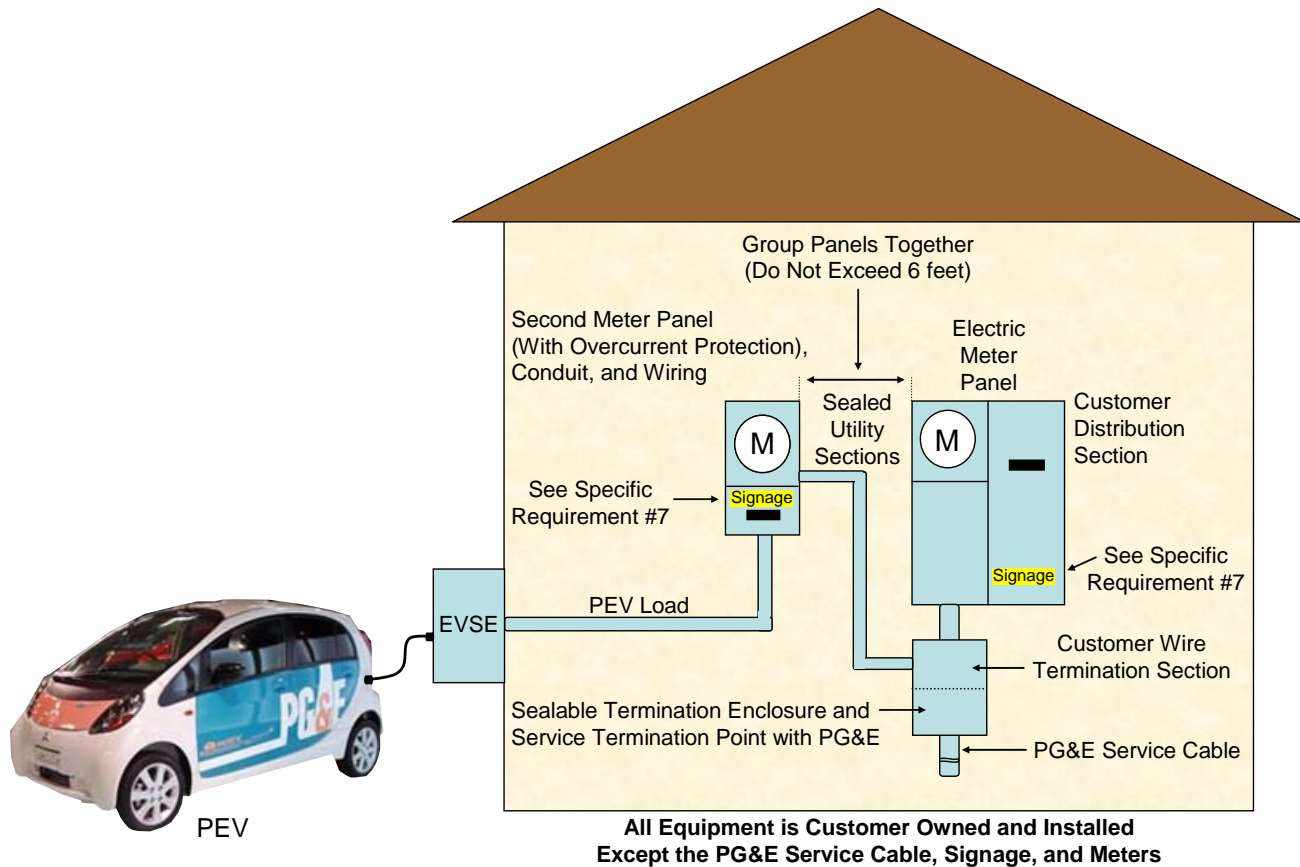
Cons:

- Additional expense to accommodate second-meter panel installation
- Not allowed by all local (city/county) inspection agencies or the authority having jurisdiction

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Residential: E-9B Time Of Use (TOU) rate

Second-Meter Panel Option Connected to Existing Meter Panel; Underground Service



Pros:

- Existing panel upgrade may not be required
- Maintain existing rate schedule for house load
- Separate baseline allotment for EV load

Cons:

- Additional expense to accommodate second-meter panel installation
- Service upgrade may be required due to added EV load
- Not allowed by all local (city/county) inspection agencies or the authority having jurisdiction



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Inclusion Plan This bulletin will be Incorporated into Appendix B of the 2011 *Greenbook*.
