Unitil
MA ELECTRIC OPERATIONS

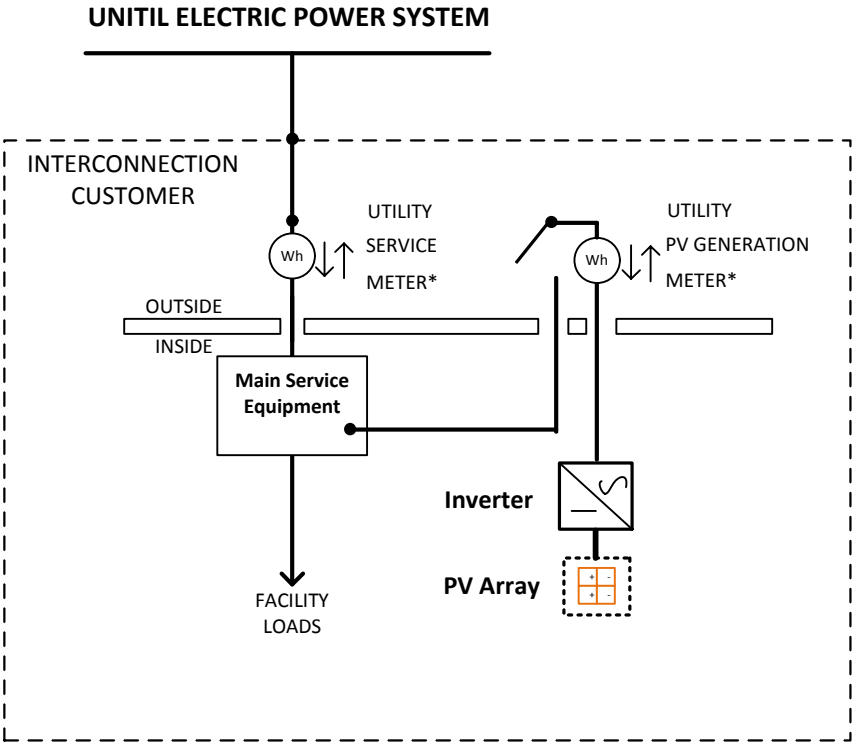
Solar Massachusetts Renewable Target ("SMART") Program
Metering Configurations

The drawings included in this document are guidelines for metering configurations related to the MA-SMART program. The guidelines depict typical metering configurations with the understanding that all system designs will be reviewed and inspected by Unitil personnel prior to approval. Consideration for meter configurations include:

1. Revenue and generation meters will be Unitil owned, bi-directional, watt-hour meters.
2. Inverter outputs will be wired to the bottom of the Utility PV Generation and Utility Storage meter sockets.
3. Unitil owned meters will be installed, removed, and changed by authorized Unitil personnel or approved contractors.
4. Meter location and installation shall be according to Unitil's jurisdiction applicable service and tariff requirements.
5. Utility Service, Utility PV Generation and Utility Storage meters will be located in close proximity of each other. Any exceptions will require prior approval from Unitil.
6. Unless located in an approved electrical utility room, existing revenue meter that are located inside, will require the service connection be upgraded so both the revenue and production meter are located outside.
7. Meter sockets up to 400 amps will be provided by the customer.
8. Meter installations rated greater than 400 amps will require transformer rated metering.
9. Meters connected to services or generation with AC ratings > 60 kW, will capable of recording interval readings and will require telemetering be available.
10. Generator disconnect switch is to be installed in accordance with NEC and Unitil’s interconnection requirements.

Behind the Meter Solar

This diagram is representative of a typical system design. All system configurations must be approved by Unitil.



* Transformer rated metering is require for ratings > 400 amps

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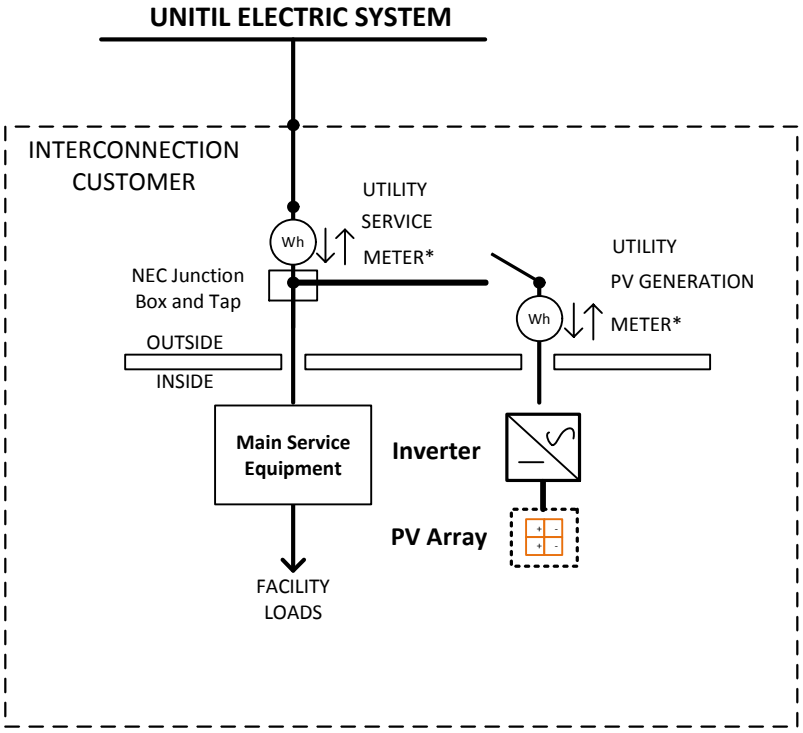
Behind the Meter Solar
Alternative Connection

This diagram is representative of a typical system design. All system configurations must be approved by Unitil.



* Transformer rated metering is require for ratings > 400 amps

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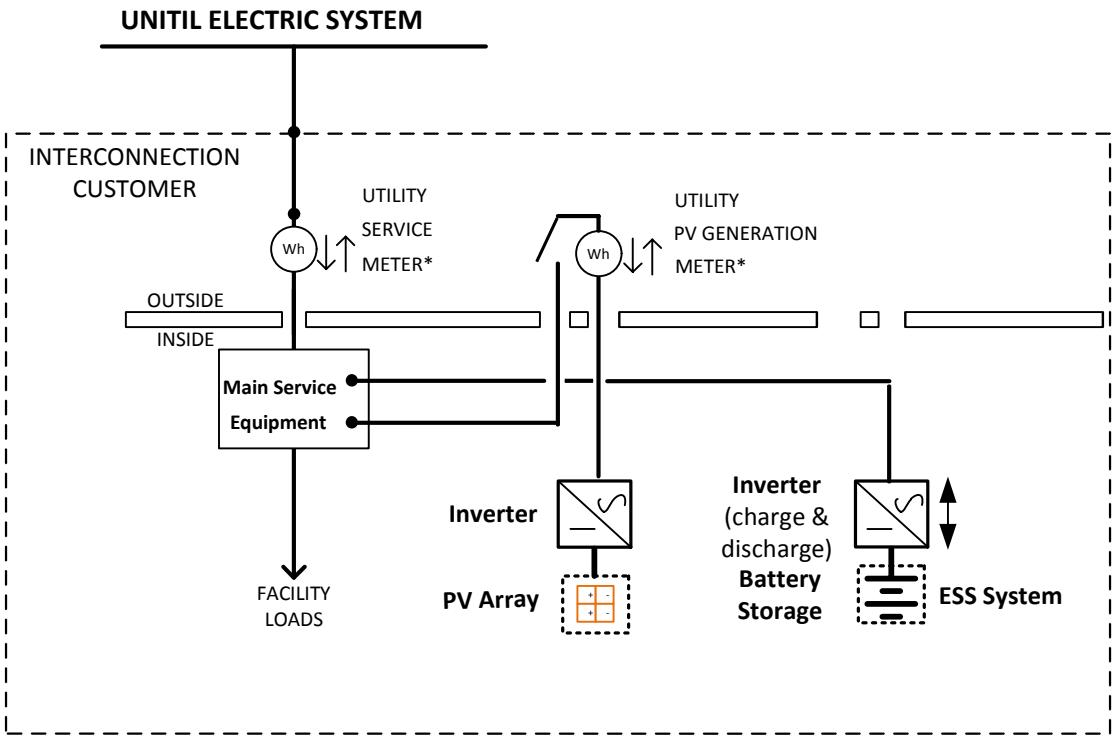
Behind the Meter Solar AC Coupled with Storage <= 60 kW

This diagram is representative of a typical system design. All system configurations must be approved by Unitil.



* Transformer rated metering is require for ratings > 400 amps

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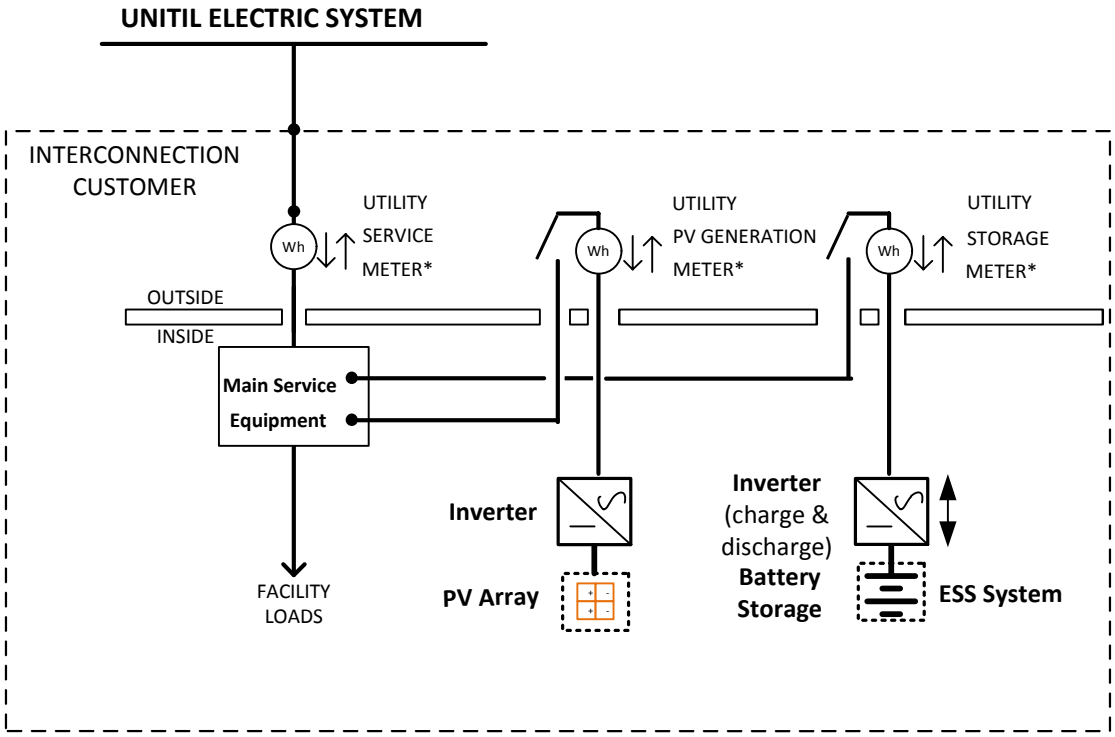
Behind the Meter Solar AC Coupled with Storage <= 60 kW w/storage registered with ISO NE

This diagram is representative of a typical system design. All system configurations must be approved by Unitil.



* Transformer rated metering is require for ratings > 400 amps

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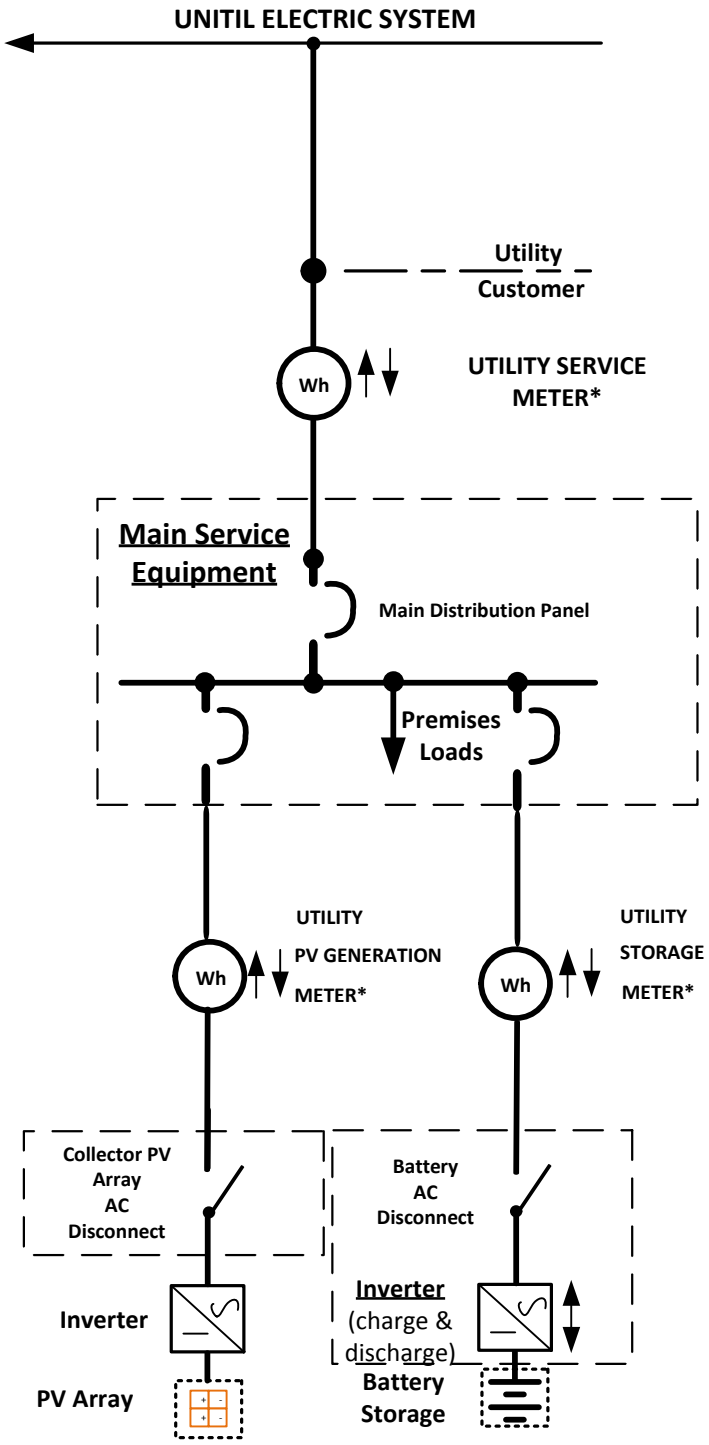
Behind the Meter Solar > 60kW AC Coupled with Storage > 60kW

This diagram is representative of a typical system design. All system configurations must be approved by Unitil.



* Telemetered, interval meter - transformer rated metering is require for ratings > 400 amps

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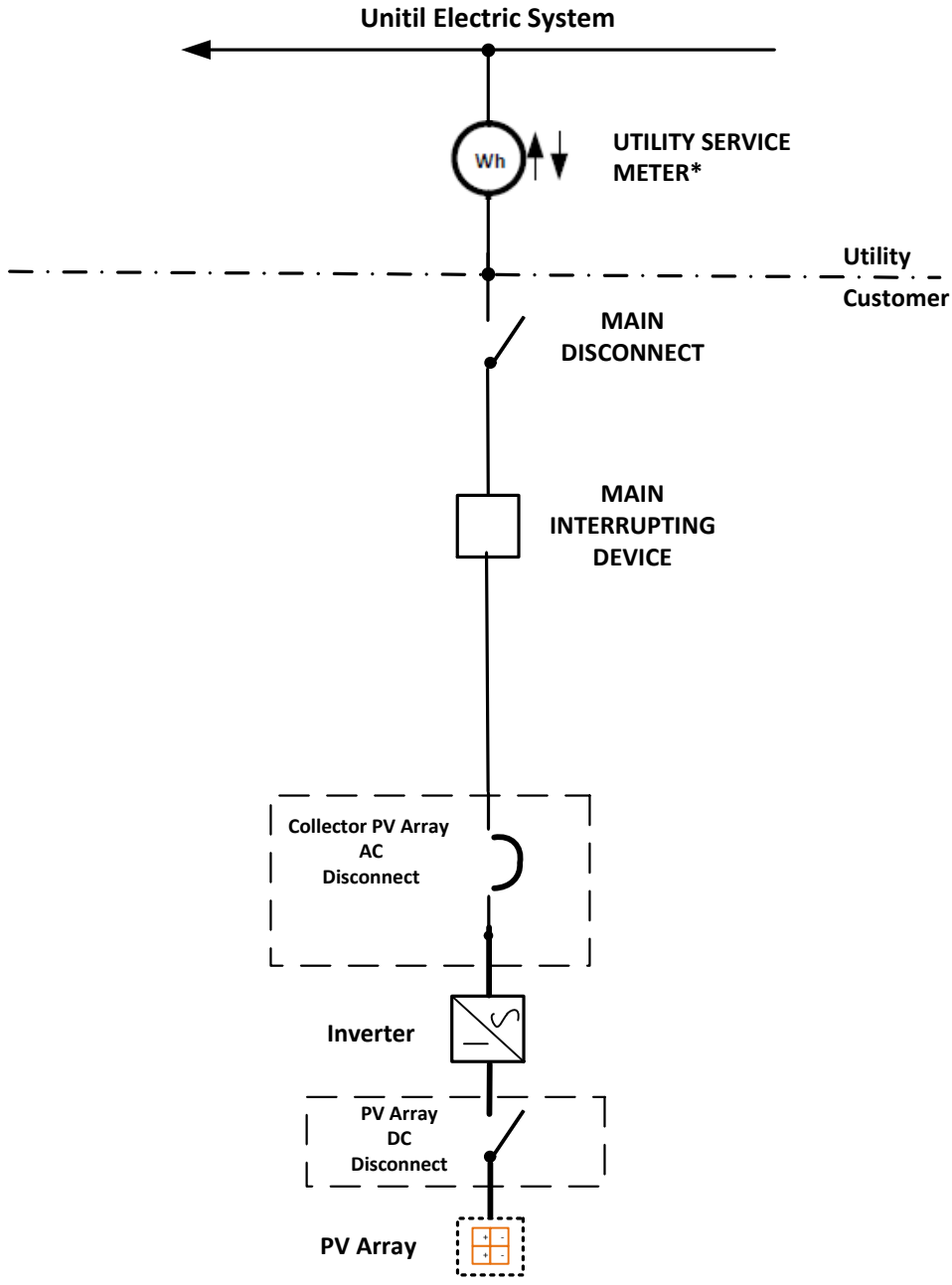
Stand Alone Solar

This diagram is representative of a typical system design. All system configurations must be approved by Unitil.



* Transformer rated metering is require for ratings > 400 amps

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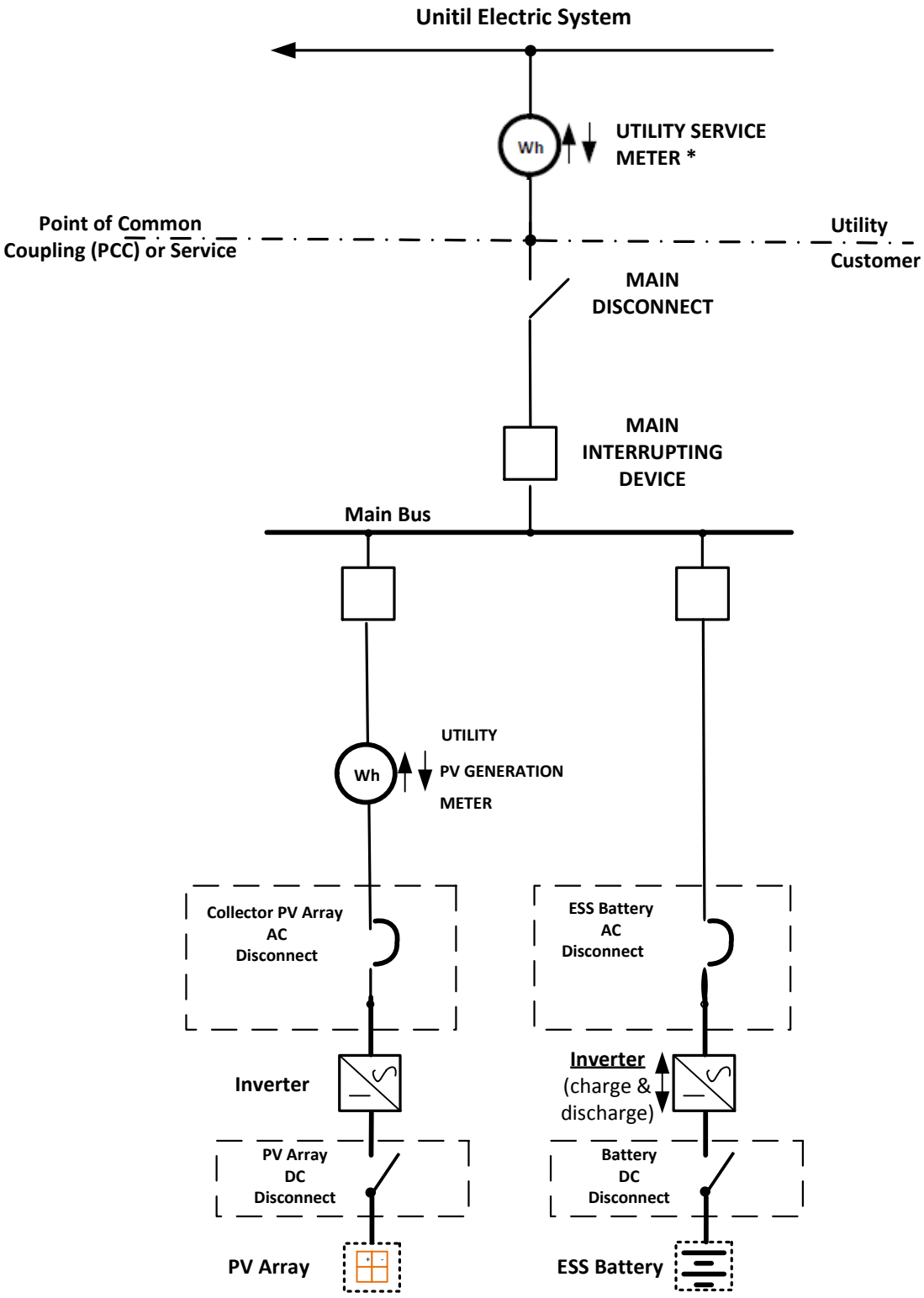
Stand Alone Solar AC Coupled with Storage <= 60kW

This diagram is representative of a typical system design. All system configurations must be approved by Unitil.



* Transformer rated metering is require for ratings > 400 amps

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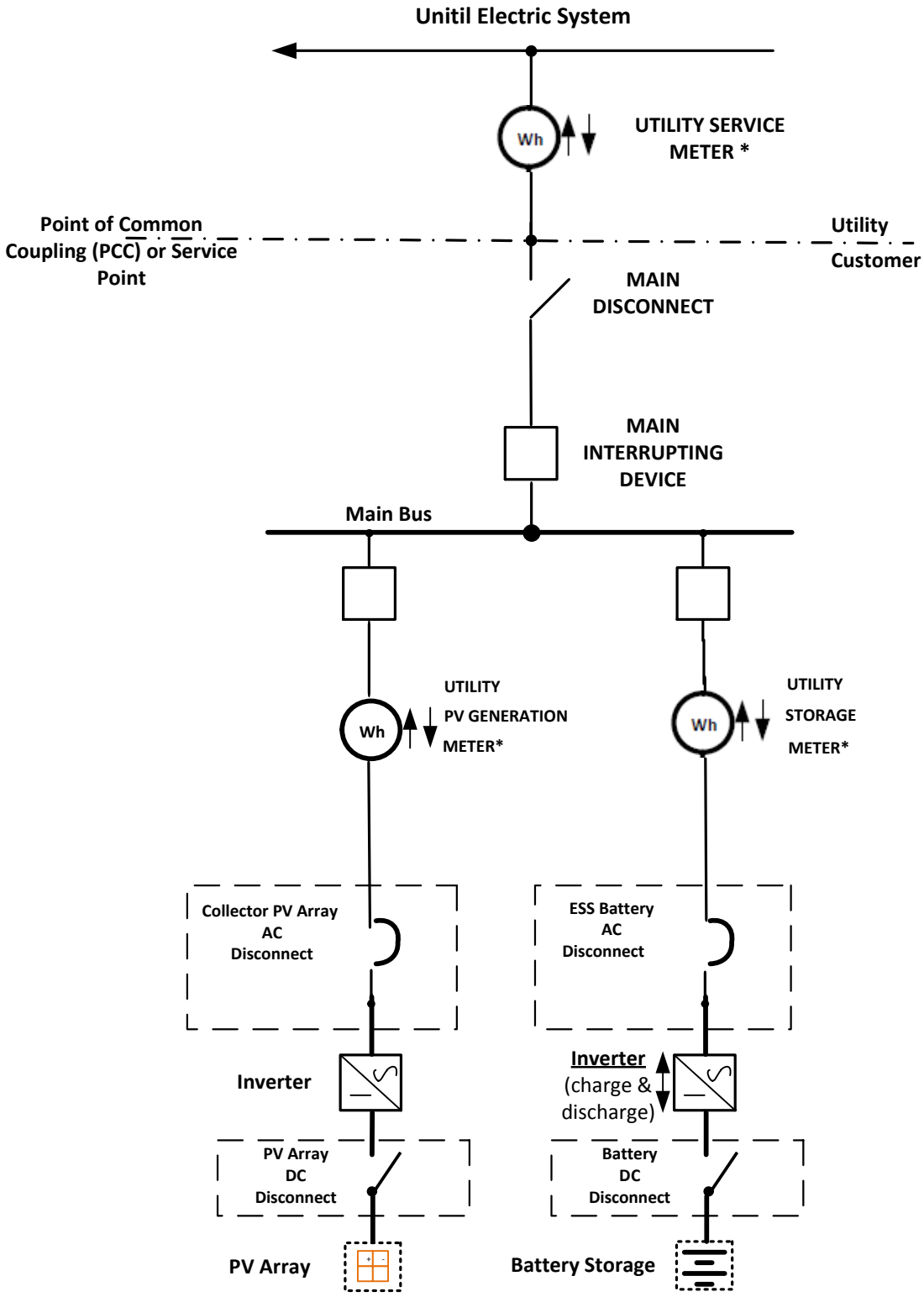
Stand Alone Solar AC Coupled with Storage > 60kW

This diagram is representative of a typical system design. All system configurations must be approved by Unitil.



* Transformer rated metering is require for ratings > 400 amps

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