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## **SCHEDULE 150 NET METER INTERCONNECTIONS GUIDELINES FOR SYSTEM DIAGRAMS**

The required System Diagram is one of the most important parts of the application for interconnection. The system diagram is used by PSE Engineering during the review and approval process, and again during field testing and meter installation. The diagram is a permanent record copy of the system and is filed at PSE for reference.

A good diagram can greatly shorten the PSE engineering review period and helps ensure PSE's field testing and meter installation are straightforward. Incomplete diagrams are one of the largest sources of delays during the application process. Discrepancies between the diagram and the actual installation as built are cause for rejection at the final testing and net meter installation, which in turn means rescheduling and a significant delay in activating the system.

The System Diagram can be anything from a One-Line, to a Schematic, to a complete Wiring Diagram that shows every wire and every connection throughout. Any of these are acceptable as long as the minimum key information is included.

The diagram does not need to be overly complex, but accuracy and clarity are critical. The sample diagram on page 3 is for a typical PV System and is very simple, but it contains all the technical information for PSE.

At a minimum, the System Diagram must show how the components of the customer-generator system are connected electrically. Additional information, such as equipment part numbers and physical locations, should also be included on the diagram. Some of this additional information may be contained in the application forms as well, but documenting it on the System Diagram provides a single complete reference for the project and speeds the engineering reviews and field work.

*Note: These guidelines and the sample diagram are applicable for systems using a UL-1741 approved synchronous inverter. Systems not using a UL-1741 inverter have more complex requirements for interconnection and will require much more significant design drawings for review and approval.*

The System Diagram should provide the information as described below. Refer to the sample diagram on the following page for an example.

- Generator (PV Panels, Wind Turbine, Hydro Turbine, etc.)  
*Include manufacturer, part number, nameplate maximum capacity (kW), and physical location. For modular systems (e.g. pv panels), also include: number of modules, configuration, nameplate maximum capacity of each module, and total nameplate maximum capacity.*
- Inverter  
*Include manufacturer, type or series, part number, serial number, nameplate maximum capacity (kW), output voltage, physical location.*
- Production Meter Socket  
*Diagram must show polarity (line/load), and identify the physical location relative to the PSE Service Meter.*
- Disconnect Switch  
*Include the physical location relative to the PSE Service Meter.*
- Electrical Service Panel  
*Include the panel or main breaker size and the position at which the generation is connected. Show all panels (if there are multiple panels or sub-panels) even if not directly connected into the generation system.*
- PSE Service Meter  
*Include existing meter serial number, meter form, and class*
- Other Related Equipment (battery banks, transfer or bypass switches, backup generators, etc.)  
*These items are typically associated with more custom and complex systems. Providing accurate information and connection diagrams is especially important as these systems are not as “routine” and because Production Metering can become complex.*

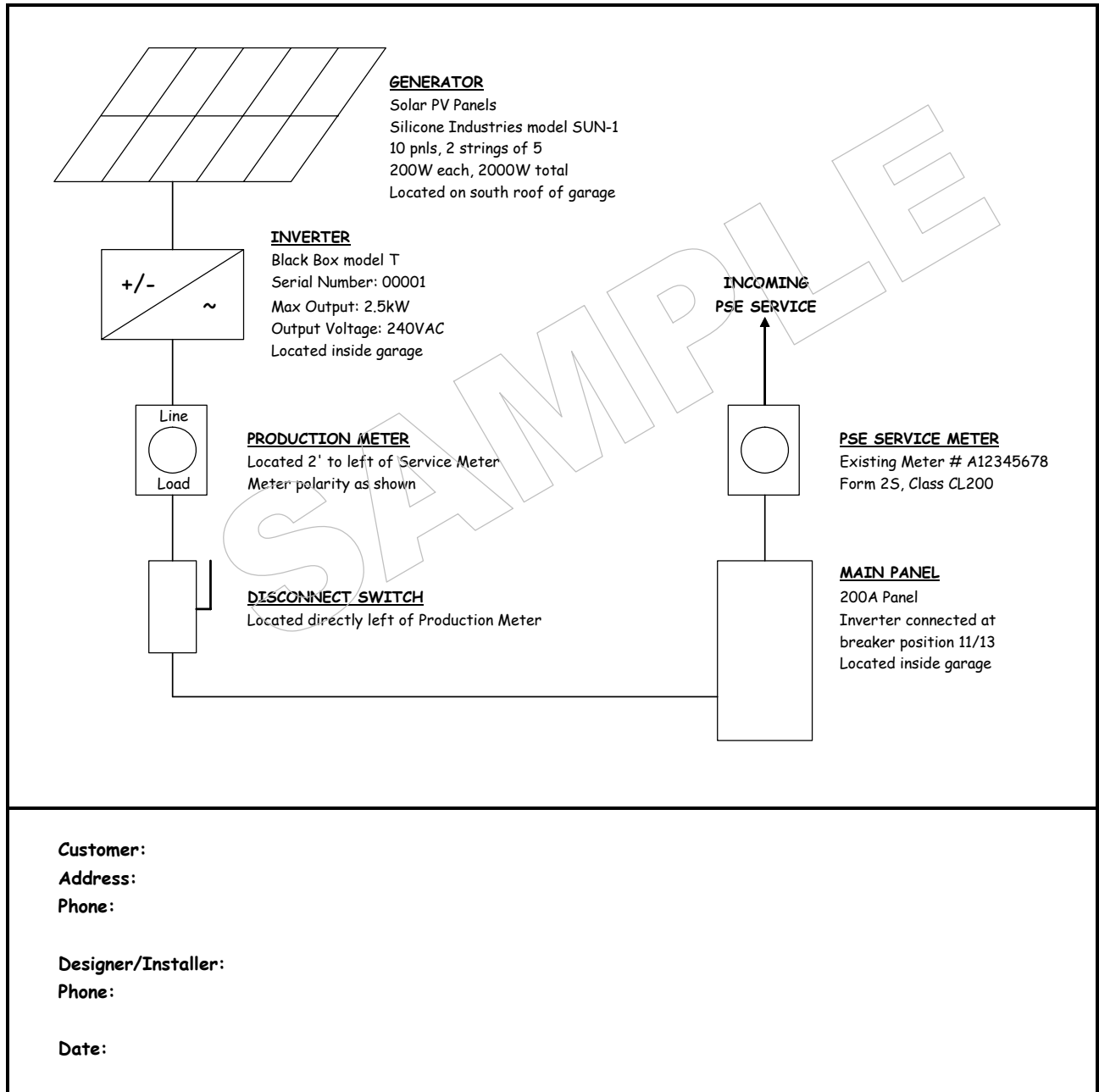


Figure 1: Sample Diagram