

Co-generation single phase and transformer rated interconnection

General:

For the **PECO Electric Service Requirements** (Bluebook), after opening the following link, see Section 8 for Metering:

<https://www.peco.com/partnersinbusiness/buildersandcontractors/pages/guidelines.aspx>

For the **Requirements for Parallel Operation for customers with generation not exceeding 50kW** (Yellowbook), open the following link and then open "Review Interconnection Guidelines":

<https://www.peco.com/CustomerService/RatesandPricing/Pages/Self-GeneratedPower.aspx>

Application for Interconnection:

Customers with rate CH8 & CH9 metering

PECO cannot provide net metering for customers with CH-8 and CH-9 metering. The customers must either switch rates or select the no sell back option. In cases where they choose to not sell back, the CH-8 and CH-9 meters must be detented to assure the meter does not register power consumption if power were to flow from the co-generation to the PECO system. The regular PECO meter registers all power flow through the meter as customer consumption, regardless of direction.

If a customer elects to keep the CH8 & CH9 rate and install interconnected co-generation (parallel operation) then the connection of the co-generation must be downstream (load side) of the CH8 meter. If co-generation is connected ahead of (line side) the CH8 meter then any power produced by the co-generation that is utilized by the General load (CH8 meter) will appear as registration on the CH8 meter and will cause incorrect billing.

Customers with 2 phase 5 wire service

PECO has no net metering solution for 2 phase 5 wire installations.

Interconnection Application

The Interconnection Application is only applicable for a single account. Multiple accounts may not be included on a single application.

METERING

Physical installation:

Background: PECO presently has a radio based automated meter reading system that can not transmit two different measurements for a single meter which is what a bi-directional meter requires. Since our system can not accommodate bi-directional meters we must measure the “IN” and “OUT” power for co-generation (solar) customers with two separate meters. PECO uses one meter to record the power coming from the PECO distribution system in to the customer facility (“IN” meter) and one meter for the excess power flowing from the customer co-generation system out to the PECO distribution system (“OUT” meter).

All co-generation metering installations must have 2 **socket type** meter sockets as stipulated on the applicable diagram found in PECO document titled Requirements for Parallel Operation for customers with generation not exceeding 50kW. (“Yellowbook”)

The PECO Yellowbook contains diagrams for the most commonly found configurations. For configurations not found in the Yellowbook please consult PECO.

Location of the “OUT” meter socket/socket should always be to the right side of the existing meter socket unless there are room constraints. In cases where there is no room to the right, the left side would be acceptable or an alternative nearby location may be considered. Alternate locations must be reviewed by PECO for acceptance.

For all services with self contained meters it is the **customer’s responsibility** to provide, install and wire the additional socket for the co-generation “OUT” meter.

For **transformer rated single phase** services it is the **customer’s responsibility** to provide and install the additional transformer rated meter socket for the co-generation “OUT” meter. See more details regarding single phase transformer rated metering in the PECO document titled Single Phase Transformer Rated Solar

Existing single phase transformer rated installations that utilize a meter base adapter to enable a socket type meter to be installed may be wired for IN / OUT metering. These installations must be reviewed by PECO to determine the metering requirements.

To assist in expediting non-standard metering configurations contractors may be asked if they could take pictures of the existing metering facilities and send them to PECO (email). The review of pictures would occur much more quickly than a scheduled site visit and pictures usually provide adequate information to formulate a metering solution.

SINGLE PHASE SELF CONTAINED

Wiring is to be as per the “Yellow Book”.

All two socket self contained co-generation (solar) meter installations must be wired such that the polarity wires and the neutral are connected through each meter socket. Meter sockets that do not have the neutral wire installed will not have a meter installed when the Meter Technician arrives to set the meters. Repairs will be required before the meters will be set.

All two socket self contained meter installations must be wired such that the PECO service wires connect to the top jaws (Line side) of the “IN” meter. The bottom jaws (Load side) of the “IN” meter are wired to the bottom jaws of the “OUT” Meter. The top jaws of the “OUT” meter are typically wired to the distribution panel. The above wiring description is shown in the Yellow Book diagrams.

There must never be any extraneous connections made to the bottom jaws of the IN or OUT meter socket or to the service conductors that connect between the “IN” meter socket and the “OUT” meter socket.

Service wire must be sized to meet or exceed the current carrying capacity rating of the meter socket.

Large meter sockets that were manufactured by Anchor and Superior were constructed as single phase combination transformer sockets. These sockets were constructed to be able to be converted to transformer rate metering if required. Although the physical appearance of the socket is similar to 320 amp rated meter sockets, they are only rated for 200 amps. Unless these large meter sockets have a manufacturer sticker identifying them with a 320 amp rating they are only to be considered 200 amp.

If a customer has what they believe to be a 320 Amp service and the intention is to use a new 320 Amp socket for the “OUT” meter, check to make sure the original meter socket explicitly indicates that it is approved for 320 Amps. If there is no identification explicitly stating meter socket rating PECO **will not** recognize the service as 320 amp and will only install 200 amp capacity meters. If it is required to have a 320 amp service both meter sockets must show that they are rated for 320 amps.

Ensure that **all** openings in the meter socket are covered. Example: If a conduit is relocated from the bottom of a meter socket to the side of the socket, the hole in the bottom of the socket must be covered/plugged.

Please ensure that all metering enclosures and wiring are in good condition. PECO will not set a meter in a meter socket that is found to be in a state of disrepair that presents a potentially dangerous condition.