

5. SERVICE EQUIPMENT

5.1 General

- 5.1.1** Each service entrance shall be provided with disconnecting means and over current protection, as required by the latest adopted NEC. The maximum number of disconnects on a service is six (6) at one (1) location.
- 5.1.2** The location of the service equipment and the general electrical arrangement will be agreed upon, after mutual consideration of all factors, by the customer and PSEG Long Island.
- 5.1.3** Service equipment shall conform to the latest adopted NEC and all local authorities having jurisdiction.
- 5.1.4** Service equipment shall be grounded in accordance with the latest adopted NEC.

5.2 Current Rating

- 5.2.1** A new single phase service entrance for an installation of one (1) meter shall have a capacity of not less than 100 amperes and for an installation of two (2) or more meters not less than 150 amperes (see Section 8).
- 5.2.2** For 120/240 volt single phase service, the maximum single service entrance shall be as follows:

SERVICE POINT	MAXIMUM SIZE
Overhead Service	400 Amperes
Secondary Riser Service	600 Amperes
Below Grade Transformer	600 Amperes
Pad Mounted Transformer	800 Amperes

- 5.2.3** For 120/208 volt single phase service, the maximum single service entrance shall be 300 amperes.

5.2.4 For 3-Phase service, the maximum single service entrance shall be as follows:

SERVICE TYPE	MAXIMUM SIZE
208Y/120 Volt Overhead	400 Amperes
208Y/120 Volt Riser	800 Amperes
208Y/120 Volt PM Transformer	4,000 Amperes
480Y/277 Volt Overhead and Riser	400 Amperes
480Y/277 Volt PM Transformer	2,500 Amperes
240/120 Volt Delta	800 Amperes (pole mounted transformers, secondary riser only)

Multiple service entrances for higher rated services must be approved by PSEG Long Island.

5.2.5 600 ampere overhead services may be approved on a case by case basis. Consult with PSEG Long Island before planning any such installation (see Drawing D10).

5.3 Service Rated Below 600 Volts

5.3.1 Service equipment shall include provision for metering transformers when load currents of any one (1) customer will exceed 300 amperes for single phase, or 200 amperes for multi-phase (see Section 8).

5.3.2 For service equipment 1,000 amperes and above, it is required that PSEG Long Island be contacted to discuss the service equipment and its arrangement. It is important that the customer/contractor provide PSEG Long Island with detailed plans and specifications, prior to the purchase of service equipment and proceeding with the installation.

5.3.3 Upon request, PSEG Long Island will inform the customer/contractor of the magnitude of the current, which the service equipment may be called upon, to interrupt under fault current conditions.

5.3.4 Any tap made ahead of the main service equipment, for fire pumps, exit lights, control power for circuit breaker, etc., shall be provided with disconnecting means and over current protection adequate for the fault current. Such connections shall be made only where specifically approved by PSEG Long Island, and will require an additional meter.

5.3.5 The customer is responsible for maintenance of their service equipment and transformer pad or vault, if applicable. For access to a customer's vault, contact PSEG Long Island, well in advance, in order to de-energize the vault.

Neither the customer nor the contractor shall enter an energized vault, fenced enclosure, or other transformer containment without PSEG Long Island de-energizing the facility first. Serious injury may result.

- 5.3.6** The customer shall install equipment, which has a voltage rating suitable to the service, and an ampere rating, which is adequate for the initial and anticipated future load current requirements. The equipment shall be capable of interrupting load current equal to its ampere rating.

5.4 Service Above 600 Volts

- 5.4.1** All primary service installations shall be discussed with PSEG Long Island before planning, estimating, ordering, or purchasing equipment.
- 5.4.2** Based on the electrical arrangement selected, PSEG Long Island will advise the customer concerning its requirements for basic insulation level, protective equipment, and metering facilities, and will supply such additional information as estimated short circuit data, relay recommendations, etc., so the customer may complete the design of their installation. The customer shall submit detail plans and specifications for inspection and approval by PSEG Long Island, prior to the purchase of equipment or proceeding with the installation.
- 5.4.3** Circuit breakers or other switchgear furnished, owned, and maintained by customers taking power 600 volts and above, must include provision for testing (to determine if voltage is present) and for grounding of normally energized parts, to permit maintenance and other work to be performed in a safe manner.
- 5.4.4** If an air circuit breaker is utilized, it shall conform with latest NEMA Standards for Power Circuit Breakers and meet the following requirements:
- An operating mechanism of mechanically trip free construction
 - An over current tripping device on each pole, arranged for delayed over current protection, with instantaneous tripping for currents of fault magnitude
- 5.4.5** Under no circumstances shall customer wiring ever be able to provide a path for electric current flow from one service entrance to another.
- 5.4.6** Customer protection equipment should coordinate within the system protection to clear faults within the customer's facility, without causing interruptions to other customers.