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Organization: Electric Distribution
Manual: Information and Requirements for Electric Service
Section: Chapter 2

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Description:

This bulletin updates the Manual Owner and corrects a typographical error in Table 2-2.

Information and Requirements for Electric Service

Rev 02.02

Manual Owner:

Edward Gray

April 23, 2008

Record of Revisions

Revision Number	Revision Date	Sections Revised	Reason for Revision
REV 01	June 1, 2005	All	Revised entire <i>Information and Requirements for Electric Service Manual</i> .
REV 02	January 6, 2006	Chapters 1, 2, 4, 6 and Appendix	Additional material in Chapters 1, 2, 4, 6 and Appendix pages A-19, 51, 89 and a new table on A-90.
REV 02.01	November 30, 2006	Appendix	Change graphic in Exhibit 19B.
REV 02.02	April 23, 2008	Chapter 2, Title Page	Typo in Table 2-2, change Manual Owner.

customers in overhead radial distribution zones. This policy is based upon higher equipment installation and maintenance costs, poor accessibility, reduced reliability and longer outage restoration times associated with this type of equipment. PSE&G has sole discretion on whether to install submersible transformers, or to place transformers in interior vaults.

Table 2-1: Recommended Secondary Service kVA Demands

Recommended Secondary Service kVA Demands						
Type of Service	Volts	Maximum Service Size	Overhead Service	Underground Service	Pad Mounted Transformer	Underground Network
Single-Phase, Two-Wire	120	30A	3.6 kVA max	3.6 kVA max	3.6 kVA max	3.6 kVA max
Single-Phase Three-Wire	120/240	400A*	100 kVA max	100 kVA max	167 kVA max	N/A
Single-Phase Three-Wire	120/208	100A	20 kVA max	20 kVA max	20 kVA max	20 kVA max
Three-Phase, Three-Wire	240	400A*	55-300 kVA	55-300 kVA	150-1500 kVA	N/A
Three-Phase, Four-Wire	120/240	400A	15-150 kVA	15-150 kVA	N/A	N/A
Three-phase, four-wire	120/208	4000A	55-300 kVA	55-300 kVA	150-1500 kVA	20 kVA min
Three-Phase, Four-Wire	277/480	4000A	55-300 kVA	55-300 kVA	150-3000 kVA	1000-3000 kVA

Note: *Normally for 120/240 volt service from pad mounted transformers, the maximum service size is 400 amperes. Under certain operating conditions, permission may be granted for installation of 600 amperes service equipment for an individual 120/240 volt load. Consult the local Electric Distribution Division office for requirements.

2. Service from the Primary System

PSE&G will supply service at a nominal 4,160 volts or nominal 13,200 volts, three-phase, four-wire as required, where available and as warranted by the conditions specified in Table 2-2. In certain areas where PSE&G expects to convert to 13,200 volt supply, the supply may initially be furnished at a nominal 4,160 volts, but service and transforming facilities shall be designed for future operation at a nominal 13,200 volts. The customer should design its service entrance facilities, cables, switchgear and transformers to take the eventual conversion from 4,160 volts to 13,200 volts into account. The customer is also responsible for any billing metering equipment required, including PSE&G's meter relocation costs. PSE&G will provide the customer with an

estimated time for when such conversion is scheduled, if known at the time service is requested. Such service will not be supplied from a distribution circuit that supplies only secondary network load.

3. Service from the Subtransmission System

PSE&G will supply service at a nominal 26,400 volts, three-phase, three-wire, where available and warranted by the conditions specified in Table 2-2. In certain restricted areas this supply may be at a nominal 13,200 volts initially, but service and transforming facilities shall be designed for future operation at a nominal 26,400 volts. Such service will not be available from 26,400 volt circuits supplying a secondary network.

PSE&G will supply service at a nominal 69,000 volts, three-phase, three-wire, where available and warranted by conditions specified in Table 2-2. In certain restricted areas this supply may be at nominal 26,400 volts initially, but service and transforming facilities shall be designed for future operation at a nominal 69,000 volts. Such service will not be available from 69,000 volt circuits supplying a secondary network.

4. Service from the Transmission System

PSE&G will supply Transmission Service at a nominal 138,000 or 230,000 volts, three-phase, three-wire or four-wire, for very large loads or where required by special conditions. PSE&G may require that service and transforming facilities installed for a nominal 138,000 volt service be designed for future operation at 230,000 volts.

Table 2-2: Recommended Primary, Subtransmission and Transmission Service kVA Demands

Type of Service	Volts	Levels of Demand
Three-Phase, Four-Wire	4,160	500 - 3,000 kVA
Three-Phase, Four-Wire	13,200	500 - 5,000 kVA
Three-Phase, Three-Wire	26,400	3,000 - 30,000 kVA
Three-Phase, Three-Wire	69,000	over 3,000 kVA
Three-Phase, Three-Wire	138,000	over 30,000 kVA
Three-Phase, Four-Wire	138,000	over 30,000 kVA
Three-Phase, Three-Wire	230,000	over 30,000 kVA
Three-Phase, Four-Wire	230,000	over 30,000 kVA