

Corporate Policy 130
DESCRIPTION OF SERVICE

A. General

1. The type of service available at any particular location should be determined by inquiry at Valley Electric's office.
2. Alternating current service of 60-cycle nominal frequency will be supplied.
3. In areas where a standard service voltage is presently being supplied to one or more existing consumers, an applicant for new service may be required to receive the same standard voltage being supplied to existing consumers.
4. All electric service described in this rule is subject to the conditions in the applicable rate schedule and other pertinent rules.

B. Phase and Voltage Specifications

1. **Service Delivery** - Service to a consumer is normally established at one delivery point, through one meter, and at one voltage class. Other arrangements for service at multiple delivery points, or for services at more than one voltage class, are permitted only where feasible and with the approval of Valley Electric Association. For purposes of this rule, distribution service voltage classes are described as:
 - a. 0 - 300 volt, single or three phase
 - b. 301 - 600 volt, three phase
 - c. 14,400/24,900 volt, three phase
 2. **Distribution Voltages** - The standard nominal distribution voltages available are as follows:
 - a. Single phase
120/240 volt, three-wire
 - b. Three phase
120/208 volt, four-wire
277/480 volt, four-wire
14,400/24,900 volt, four-wire
 3. **Transmission Voltage** - Voltages in excess of 14,400/24,900 volts are transmission voltages. Valley may elect to supply a consumer from lines of transmission voltage at its operating convenience.
 4. **Single-phase Service**
Single-phase service may be supplied to installations having a main service switch not exceeding 400 ampere capacity.
 5. **Three-phase Service**
Three-phase, four-wire service will be provided for irrigation service or other motor installations within the following load limits:
 - a. 5 HP minimum and 30 HP maximum connected horsepower at 208 volts
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DESCRIPTION OF SERVICE (Continued)

- b. 20 HP minimum and 300 HP maximum connected horsepower at 480 volts

6. **Combination Single-phase and Three-phase Service**

Three-phase, four-wire service will be provided from the existing distribution system within the following load and demand limits:

- a. 5 kva-500 kva for 120/208 volt
- b. 20 kva - 1500 kva for 277/480 volt

7. **Primary Distribution Voltage**

14,400/24,900 volt standard primary voltage is available without transformation from existing primary distribution lines for loads in excess of 1,000 kva. Requests for service at primary voltage will be dealt with on a case-by-case basis. For service at this voltage, the Association will provide essential maintenance, repair and inspection of the consumer's facilities on request and shall bill the consumer therefore. Such bills shall be paid with the current monthly energy bill under the same conditions and terms.

8. **Non-standard Service Voltage**

The consumer shall be required to pay the cost of any special installation to meet his particular requirements for service other than the standard voltages, or for the supply of closer voltage regulation than required by standard practice, unless otherwise specified in a contract.

9. **Phase Balance**

The Association shall require that the current taken by each wire of the three-phase service shall be reasonably balanced at times of maximum or near maximum load.

C. **Protective Devices For Back-Up Generation Equipment**

Any non-Association-owned emergency standby or other generation equipment that can be operated to supply power to facilities that are also designed to be supplied from the Association's system shall be controlled with suitable protective devices by the consumer to prevent parallel operation with the Association's system in a fail-safe manner, such as the use of a double-throw knife-blade switch to disconnect all conductors. A **visible** opening is required. See Rule 18 for generation in parallel and Interconnection Standards.

D. **Interference With Service**

1. **General**

Consumers who operate equipment which causes detrimental voltage fluctuations (such as, but not limited to, hoists, welders, radio transmitters, X-ray apparatus, elevator motors, compressors, variable speed motor controls and furnaces) must reasonably limit such fluctuations upon request by the Association. The consumer will be required to pay for whatever corrective measures are necessary.

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2. Motor Starting Current Limitations

- a. The starting of motors shall be controlled by the consumer as necessary to avoid causing voltage fluctuations of 3 percent or greater to the operation of the Association's distribution or transmission system or detrimental to the service of any of the Association's consumers.
- b. If the starting current (nameplate locked rotor current) for a single motor exceeds the value stated in the following table, reduced voltage starting or other suitable means must be employed, at the consumer's expense, to limit the current to the value specified.
- c. Reduced voltage starting may be omitted on any motor of a group installation that its starting current does not exceed the allowable starting current of the largest motor of the group.

NORMAL MAXIMUM ALLOWABLE MOTOR STARTING CURRENTS

Rated Size	Single-phase		Three-phase	
	240 volts		208 volts	480 volts
1 hp	48 amperes			
2 hp	60 amperes			
3 hp	80 amperes			
5 hp	120 amperes		102 amperes	46 amperes
10 hp	220 amperes		179 amperes	81 amperes
15 hp			257 amperes	116 amperes
20 hp			321 amperes	145 amperes
25 hp			404 amperes	183 amperes
30 hp			481 amperes	218 amperes
40 hp			641 amperes	290 amperes
50 hp			802 amperes	363 amperes
60 hp				435 amperes
75 hp				535 amperes

over 75 hp - Consult the Association for the allowable locked rotor currents.