

**Alaska Electric Light and Power Company**

**State of Alaska  
Public Utilities Commission**

RULES AND REGULATIONS

5. Technical Provisions and Standards of Service

5.1 Service Classification

The intended use of electricity will determine whether a service is classified as residential or commercial based on the definitions of residential and commercial service set forth in Section 1.3. Classification of commercial and residential services to appropriate rate schedules is stipulated by the size and nature of service rendered as provided in the applicable rate schedules. Services with anticipated installed capacity of greater than 1,000 KW may require a special contract as set forth in Section 7.11.

5.2 Determination of Use

The quantity of electrical energy and/or electrical demand shall be determined by the registration of the electric meters provided by the Company, except that:

1. Where the load is such that the amount of electrical energy consumed is fixed by the type of service, the Company may elect not to meter the service and to bill the Customer a fixed amount as determined by the charges under the appropriate rate schedule.
2. Where temporary service is rendered under conditions making metering impractical, the amount of energy consumed may be estimated and billed accordingly.

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Issued by Alaska Electric Light and Power Company

By \_\_\_\_\_ Title General Manager

Canceling

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5. Technical Provisions and Standards of Service (continued)

5.3 Billing Demand

The billing demand shall be the highest of metered or contracted demand, after adjustment for low power factor, if applicable.

Meter demand shall be as defined in Section 1.3. Contracted demand will be established for service rendered under special agreement.

5.4 Phase Unbalance

Current unbalance in phase wires of services, except for three-phase, four-wire delta services, shall not exceed ten percent (10%) of the current which would be required at maximum load under balanced conditions. The customer will take corrective steps to return unbalance to 10% or less.

5.5 Protective Equipment

It is the Customer's responsibility to provide suitable protective equipment for the devices on their premises. If three-phase equipment is installed, it is the customer's responsibility to protect such equipment against single-phase operation and under-and-over voltage conditions. Minimum protective devices considered necessary for motor protection are:

1. Line Starting Protection: Any motor which, in starting, might be damaged by the full line voltage requires some type of protective device to disconnect it from the line during interruptions in service, thus protecting the motor when service is restored.

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Such a device should also be equipped with a time delay mechanism so that the motor will not be disconnected by momentary fluctuations in voltage.

2. Overload Protection: Since the intense heat caused by overload may seriously damage the motor, the customer should install a device that will disconnect the motor if overload occurs. Fuses, thermal relays or circuit breakers which are specifically designed to operate when excessive current occurs, are the devices used for this purpose. Where the customer received three-phase service, such protective devices should be connected in all phases.

3. Single-Phasing Protection: Where the customer receives three-phase service, a relay should be installed which will disconnect the motor from the lines in the event one phase of the line becomes open.

4. Reverse-Phasing Protection: For three-phase installations of electric cranes, hoists, elevators, pumps and the like, the customer should install relays which will disconnect the motor from the line in the event of phase reversal.

5.6 Inspection

The Customer responsible for installing and maintaining his electrical wiring and equipment in accordance with applicable local, state and national electric and building codes as evidenced by certificates of approval from the appropriate inspection body.

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5.7 Addition of Load

Any customer shall give the Company reasonable notice, in writing, of any plans to increase a given load past the capacity of the Company's equipment installed to serve that particular location. The Company may require the advance payment of contributions or advances to construction and the execution of related documents as outlined in Section 7 of this tariff prior to the commencement of any installation of added or enlarged facilities. If the customer fails to notify the Company of additional loads and such additional load damages the Company's equipment, the customer is liable for such damages and repairs or replacement of damaged equipment.

5.8 Undesirable Load Characteristics

The Company may refuse service to, or remove service from, any installation which, in the judgment of the Company, will adversely affect the operation of the Company's system or its service to other customers.

The Company reserves the right to immediately disconnect service when the customer's load makes it impossible for the Company to provide service according to the voltage and frequency standards established within Sections 5.4 and 5.9.

In less serious situations, removal of service will occur only after delivery of a shut-off notice to the customer's service location specifying the problem and scheduling disconnection 15 days later if the customer has not corrected the situation or otherwise

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adequately responded to the shut-off notice. Where immediate correction is not possible, the customer's response shall include arrangements made for repair or replacement of equipment. A completion date will then be established and the disconnection will be postponed until the day following the agreed completion date.

5.9 Non-Standard Tolerances

Where the customer requires a degree of regulation of the characteristics of the electrical service greater than that normally furnished by the Company, the customer shall be responsible for obtaining, in-stalling and maintaining the required regulating equipment. Normal tolerance is defined according to 3 AAC 52.460(a) as a standard frequency of 60 Hertz, such frequency being held within plus or minus two percent. Cumulative error registered by an electric clock may not exceed 90 seconds over a 24 hour period.

5.10 Unauthorized Attachments

Written permission from the Company is required prior to the attachment of any equipment or material of any description to any Company property including poles, guy wires, equipment or structures. Any unauthorized attachment is subject to removal at any time without notice.

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