### DESCRIPTION OF SERVICE RULE NO. 2

### A. General:

- 1. Alternating current service at 60 cycle frequency will be supplied.
- 2. The character of service available at a particular location should be ascertained by inquiry at the Cooperative's office, once a written load profile/panel schedule is supplied to the Cooperative's Engineering Department.
- 3. All voltages hereinafter referred to and appearing on the rate schedules are nominal and refer to the voltage between energized conductors unless stated otherwise. Following are the voltages at which service is supplied, although not all of them are available at each delivery point:
  - a. For lighting 120 volts, two wire, 120/240 and 120/208 volt three wire.
  - b. For power 120, 208, 240, 277 and 480 volt three wire.
  - c. For combination single phase lighting and power and three phase power 120/240 volt four wire delta, 120/208 volt four wire wye, 240/480 volt four wire delta and 277/480 volt four wire wye.
  - d. For primary service 2,400/4,160 volts wye, 14.4/24.9 kV wye and 19.9/34.5 kV wye.
  - e. For transmission deliveries, the voltage of existing lines at point of delivery.
- 4. Where three wire, single phase or three phase service is supplied, the load must be as nearly balanced as practicable between the two sides of a single phase service, or of the several phases of a three phase service, respectively. In no case is the load on one side of a three wire, single phase service, nor the load on any one phase of a three phase, three wire delta or three phase, four wire wye service to be greater than twice that of any other.

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ISSUED BY:

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# DESCRIPTION OF SERVICE (Continued) RULE NO. 2

## B. Power Service:

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- 1. Application shall be made to the Cooperative in each case to determine the class of service and conditions under which service to such equipment will be supplied (especially individual apparatus over 10 KW), together with the special precautions that must be observed by the consumer.
- 2. The consumer shall be required to provide all facilities, per the most current National Electric Code requirements, from the point of attachment at the metering site to the consumer's equipment.
- 3. All services shall have an interruptible disconnect at the metering site. All services shall have the metering site and interruptible disconnect external to the structures. All meters shall be no lower than 3.5 feet from the ground and no higher than 6 feet from the ground.
- 4. Single phase three wire service of 120/208 volts or 120/240 volts will be supplied to all single phase connected loads of not more than 400 amps. If the connected load is greater than 400 amps, it will require instrument transformers and a CT enclosure specified by the Cooperative.
- 5. Three phase service will be required for all loads when the single phase capacity of the service is greater than 400 amps.
- 6. The combination of single phase and three phase services will be supplied three phase four wire services through a single watthour meter.
- 7. Three phase connected loads of more than 400 amps shall be supplied with 120/208 volts four wire wye or 277/480 volts four wire wye in order to allow proper balancing of phase loads.
- 8. Three phase services will supplied to all permanent installations comprising of three phase motors or an aggregate capacity of at least 10 horsepower except where, in the opinion of the Cooperative, existing facilities make single phase service necessary.
- 9. Consumers with combined irrigation loads (pumps, boosters etc.) which are greater than 75 hp and on one watthour meter shall be required to install a CT cabinet and a 13 terminal meter base with appropriately sized interruptible disconnects.

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Randy Ewell, General Manager/CEO

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# C. Resistance Heating Equipment:

- 1. Any heating unit in excess of 1.65 KW shall be rated at 240 volts and shall be thermostatically controlled. The resistance heating load placed in and out of service shall be in steps of not more than 7 KW in single phase installations and not more than 21 KW in three phase installations.
- D. Net metering, generation and reverse flow capabilities:
  - 1. Consumer shall supply, in addition to a regular non-generating site, a Cooperative approved break before make device (a manual double throw switch or automatic transfer switch). This device must be installed prior to energizing such panels.

# E. Impairment of Service:

- 1. The Cooperative shall have the right to refuse service to installations having a load of such nature that may impair the service to other Consumers. Where the type of load is such that it causes wide fluctuations in its demand on the Cooperative's system, the consumer shall be required to:
  - a. Install equipment (such as reduced start controls or similar equipment), which will limit this wide variation in demand for motors, pumps and similar apparatus greater than a 100 hp to a reasonable degree.
  - b. Guarantee the payment of minimum bills upon the KVA rating of transformer capacity which the Cooperative deems necessary to absorb such fluctuations.

#### F. Motor Protection:

1. Certain protective devices considered necessary by the Cooperative, which shall be supplied and installed by the consumer, for adequate motor protection are recommended hereunder:

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## DESCRIPTION OF SERVICE (Continued) RULE NO. 2

- a. 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. The Cooperative further recommends that such a device be equipped with a time delay mechanism so that the motor will not attempt to restart during system interruptions.
- b. Overload Protection: Since the intense heat caused by overload might seriously damage the motor, Consumer 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 Consumer receives three phase service, the Cooperative requires that such protective devices be connected in all phases.
- c. Single Phasing Protection: Where Consumer 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.
- d. Reverse Phasing Protection: For three phase installations of electric cranes, hoists, elevators, pumps and the like, Consumer should install relays which will disconnect the motor from the line in the event of accidental phase-reversal.
- G. Metering at Primary Service Voltage:

Where a transformer bank having a capacity of 500 KVA or more is installed exclusively to serve one Consumer, the Cooperative may meter such service at primary service voltage.

#### H. Miscellaneous:

1. The Consumer shall, at his own sole risk and expense, furnish, install, inspect, and keep in good safe conditions, per current National Electric Code requirements, all electrical wires, apparatus, and equipment of any kind or character which may be required for (1) receiving electric energy from the lines of the Cooperative,

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## DESCRIPTION OF SERVICE (Continued) RULE NO. 2

regardless of the location of the transformers, meters, or other equipment of the Cooperative; and (2) applying and utilizing such energy, including all necessary protective devices and suitable housing therefore. Consumer shall so transmit and deliver and be solely responsible for the transmission and delivery of all electric energy over or through Consumer's wires

and equipment, regardless of the place where such electric energy may be transformed or metered. All of Consumer's wires, apparatus, and equipment shall be selected with the view to obtaining safety, efficiency, good voltage regulation, and the highest practicable power factor.

- 2. The Cooperative shall not be responsible for the transmission and delivery of electric energy over or through Consumer's wires and equipment, or for any loss or damage occasioned thereby, whether to the Consumer or third persons or otherwise or at all.
- 3. If a Consumer applies for and receives service under a rate schedule not applicable to the class of service taken, on discovery of such error, all bills rendered during the preceding 24 months will be recalculated in accordance with the lower or higher properly applicable rate schedule, and any excess amount paid by the Consumer shall be refunded by the Cooperative, or any balance shall be paid by the Consumer, as the case may be.
  - a. If it is determined by Management that an error was made by the Cooperative which caused a reoccurring usage or billing error, the billing will be corrected and the consumer billed properly for the past 24 months. If an excess amount was paid by the Consumer, a refund shall be made by the Cooperative for the past 24 months.
- I. Generation Interconnect Screening Values
  - 1. Interconnecting <= 10% of the lowest existing seasonal (summer or winter) peak loading on the feeder in question.
    - a. Example: 2mW peak in summer and 3mW peak in winter; therefore, no more than 200kW (total aggregate generation) will be allowed to interconnect to this feeder.

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- 2. Interconnection <= 5% of the lowest (base) rating of the particular substation transformer.
  - a. Example: Transformer rated 2mVA 3.6mVA; therefore, no more than 100kW (total rated aggregate generation) will be allowed to interconnect to this substation.
- 3. Mt. Wheeler Power, Inc will only allow the lowest value of 1) or 2) above.

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