Rule No. 2
DESCRIPTION OF SERVICE

A. General

1. Alternating current service of 60 cycle frequency will be supplied.

2. The character of service available at a particular location should be ascertained by inquiry at the Utility's office.

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* volts, three wire.

   b. For power 120, 240, 480 and 208* volts.

   c. For combination single phase lighting and power and three phase power 120/240 four wire delta, 120/208 and 265/460 wye*, four wire, volts.

   d. For primary service 2400/4160 wye, 7200/12470 wye and 19,900/34,500 wye volts.

   e. For transmission deliveries, the voltage of existing lines at point of delivery.

   *In certain locations the company supplies secondary service from four wire, wye connected, three phase sources instead of from 240 and 480 volt three phase delta service.

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.

Rule No. 2
DESCRIPTION OF SERVICE
(Continued)

B. Lighting, Heating, Cooking and Miscellaneous Service

1. Single phase, two-wire 120 volt service will be supplied to commercial customers where the service entrance capacity is 30 amperes or less. Special permission must be obtained from the Utility for two-wire service.

2. Single phase, three-wire service 120/240, (120/208* in certain locations) will otherwise be supplied to all single phase loads where the capacity of the service entrance does not exceed 600 amperes.

3. Where the connected load requires a service entrance exceeding 600 amperes, an additional single phase service will be provided from a different phase of the Utility's line. In no case will more than two single phase, three-wire services be supplied to one customer at one location.

4. Three phase service will be supplied for all loads when the single phase capacity of the service is greater than 600 amperes in (3) above and except where existing Utility facilities or unusual circumstances make single phase supply necessary.

C. Power Service

1. Single phase 120 volt service will be supplied where the size of any single motor does not exceed 1/2 HP, except in case of special equipment.

2. Single phase 240 volt service (208* in certain locations) will be supplied where the size of any single motor does not exceed 5 HP or 100 amperes starting current at 240 volts and the size of the transformer required does not exceed 50 KVA.

3. Three phase service will be supplied to all permanent installations comprising three phase motors of an aggregate capacity of at least 7-1/2 HP except where, in the opinion of the Utility, existing facilities make single phase supply necessary.

Rule No. 2
DESCRIPTION OF SERVICE
(Continued)

4. Voltage for three phase service will be as follows:

   a. Single motors not exceeding 50 HP and group installations of such motors not exceeding an aggregate capacity of 150 HP will generally be supplied at 240 volts (208* wye in certain locations).

   b. All power service other than described in (a) immediately above will be supplied at 480 volts except where the rate schedule specified a higher voltage or where existing conditions require a 240 or 208* volt supply.

   *In certain locations the Utility supplies secondary service from four wire wye-connected, three phase mains in place of 240 and 480 volt service. Where 480 volt service is supplied, D.4.a., b., and c., below, applies.

D. Combination Single Phase and Three Phase Service will be supplied three phase four wire through a single watthour meter when provided for in Utility's rate schedule.

1. Three phase, four wire delta connected service giving 120/240 volt single phase for lighting and single phase power and 240 volt three phase for three phase power will be supplied where the capacity of the service entrance is 600 amperes or less.

2. Three phase, four wire wye-connected service giving 120/208 wye volts for lighting and single phase power and 208 volts for three phase power will be supplied in certain locations. (See D.4. below.)

3. Three phase, four wire 277/480 volts, wye-connected service will be supplied, when requested by the applicant, provided the demand to be supplied to a single customer at a single point of delivery is not less than 250 KVA as determined by the Utility. (See D.4. below.)

4. The Utility may require that the Customer supply and maintain on his property one of the following items and related underground cable installations at his expense for the Utility's transformers supplying 120/208 or 277/480 wye volts:

Rule No. 2
DESCRIPTION OF SERVICE
(Continued)

a. A transformer vault on ground floor level or below, on Customer's premises.

b. A transformer pad properly enclosed by an eight (8) foot chain link fence on ground floor level.

c. Space for a transformer platform to be mounted on Company poles.

5. Combination Single Phase and three phase four wire service will be provided to a building occupied by two or more customers provided each customer qualifies under the appropriate Rate Schedule and receives service at the same voltage. A means of disconnecting each service must be installed ahead of each meter.

E. 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.

2. Water heaters shall be of the storage type and approved by Underwriters Laboratories, Inc.

3. Water heaters of one heating unit will be limited to a maximum of 4500 watts.

4. Water heaters with heating units of a combined capacity greater than 4500 watts shall have the units interlocked so that only one at a time can be energized.

5. Residential water heaters will have a minimum capacity of 30 gallons.

6. General Service Heat Pump Installations: Supplemental resistance units not to exceed 2 Kw for each horsepower of compressor motor rating may be installed.

Rule No. 2
DESCRIPTION OF SERVICE
(Continued)

7. General Service Space Refrigeration Installations: Resistance space heating may be installed not to exceed the following connected loads:

   a. For individual compressor motor rating not in excess of 1 horsepower - 3 kilowatts per horsepower.

   b. For installations having compressor motor ratings in excess of 1 horsepower:

      (1) For each horsepower to total motor ratings installed up to 10 horsepower inclusive - 3 kilowatts.

      (2) For each horsepower of total motor ratings in excess of 10 horsepower - 1.5 kilowatts.

   c. Customer installations, such as Drive-In Theatres, which do not normally use space refrigeration may, with Company approval, install resistance heating.

8. Multiple all electric family dwellings with approved central water heating systems supplying all domestic hot water needs in the building may, upon application to Company, receive service for the water heating system under Rate Schedule RS provided they pay a surcharge of $1.50 per residential unit in the building. With Company approval, incidental yard lighting and power to laundry room equipment may be provided with this service.

F. Furnaces, Welders, X-ray Apparatus, Radio Transmitters, Signs over 10 Kw and Similar Apparatus:

1. This type of equipment, because of its operating characteristics, may at times interfere with satisfactory service to other customers.

2. Application shall be made to the Utility in each case to determine the class of service and conditions under which service to such equipment will be supplied, together with the special precautions that must be observed by the Customer.

Rule No. 2
DESCRIPTION OF SERVICE
(Continued)

G. Impairment of Service

1. The Utility shall have the right to refuse service to installations having a load of such nature that may impair the service to other Customers. Where the type of load is such that it causes wide fluctuations in its demand on the Utility's system, the Customer may be required to:

   a. Install equipment which will limit this wide variation in demand to a reasonable degree; or

   b. Guarantee the payment of minimum bills upon the KVA rating of transformer capacity which the Utility deems necessary to absorb such fluctuations.

H. Motor Protection

1. Certain protective devices considered necessary for adequate motor protection are recommended hereunder:

   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 Utility further recommends that such a device be equipped with a time delay mechanism so that the motor will not be disconnected by momentary fluctuations in voltage which cannot injure it.

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

Rule No. 2
DESCRIPTION OF SERVICE
(Continued)

c. Single Phasing Protection: Where 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.

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

I. Allowable Motor Starting Currents

SINGLE PHASE MOTORS

	Allowable Locked Rotor Currents	
Rated Size	208 Volts	240 Volts
1/2 HP and Less	23 amps	20 amps
3/4 HP	31 amps	27 amps
1-1/2 HP	35 amps	30 amps
2 HP	46 amps	40 amps
3 HP	69 amps	60 amps
5 HP	115 amps	100 amps

THREE PHASE MOTORS

	Allowable Locked Rotor Currents		
Rated Size	208 Volts	240 Volts	480 Volts
3 HP	64 amps	55 amps	28 amps
5 HP	96 amps	83 amps	42 amps
7-1/2 HP	127 amps	110 amps	55 amps
10 HP	159 amps	138 amps	69 amps
15 HP	233 amps	202 amps	101 amps
20 HP	307 amps	266 amps	133 amps
25 HP	386 amps	355 amps	167 amps
30 HP	*	400 amps	199 amps
40 HP	*	*	232 amps
50 HP	*	*	265 amps
60 HP	*	*	332 amps

Rule No. 2
DESCRIPTION OF SERVICE
(Continued)

*Reduced voltage or increment starting required. For motors of 25 HP or more at 208 volts, 30 HP or more at 240 volts and 60 HP or more at 480 volts, Customer shall consult with the Utility for the maximum permissible starting current.

In all installations where the starting current of motors exceed the values set forth in the above tables, starting compensators of suitable characteristics shall be furnished, installed and used by the Customer, except that starting compensators will not be required for irrigation well pump motor installations.

J. Metering at Primary Service Voltage

Where a transformer bank having a capacity of 750 Kva or more is installed exclusively to serve such Customer, the Utility may meter such service at primary service voltage. In such installations, if the transformer is utility-owned, the metering data shall be compensated for losses from the high side to the low side of the transformer, as set forth herein below, unless the customer has a meter that compensates for losses. The percentage loss factor(s) for such customers who do not have meters that compensate for losses are: 0.76% for LGS-2 secondary and 0.62% for LGS-3 secondary. (N)

K. Miscellaneous

1. The Customer shall, at his own sole risk and expense, furnish, install, inspect, and keep in good and safe condition 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 Utility, regardless of the location of the transformers, meters, or other equipment of the Utility; and (2) applying and utilizing such energy, including all necessary protective devices and suitable housing therefor. Customer shall so transmit and deliver and be solely responsible for the transmission and delivery of all electric energy over or through Customer's wires and equipment, regardless of the place where such electric energy may be transformed or metered. All of Customer'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 Utility shall not be responsible for the transmission and delivery of electric energy over or through Customer's wires and equipment, or for any loss or damage occasioned thereby, whether to the Customer or third persons or otherwise or at all.

(Continued)

Nevada Power Company
P.O. Box 230
Las Vegas, Nevada 89151

Tariff No. 1-B
cancels
Tariff No. 1-A (withdrawn)

Original P.S.C.N.Sheet No. 55

Cancelling _____ P.S.C.N. Sheet No. ____

Rule No. 2
DESCRIPTION OF SERVICE
(Continued)

3. If, for any cause, a Customer 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 six months will be recalculated in accordance with the lowest properly applicable rate schedule, and any excess amount paid by the Customer shall be refunded by the Utility, or any balance due shall be paid by the Customer, as the case may be.

Issued:	Issued By:	
Effective: May 30, 1980	Conrad L. Ryan President	
Advice No.: 10		

Nevada Power Company
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Tariff No. 1-A (withdrawn)

Original P.S.C.N.Sheet No. 56

Cancelling _____ P.S.C.N. Sheet No. ____

HELD FOR FUTURE USE

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