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# POLICY NO. 305 CUSTOMER EQUIPMENT REQUIREMENTS AND LOAD CHARACTERISTICS

## I. OBJECTIVE

Lincoln County Power District No. 1 (Lincoln County Power) provides retail electric service throughout much of Lincoln County, Nevada and to a small portion of Clark County, Nevada. Use of electric energy by a customer can impact the electric system of Lincoln County Power and if used improperly by the customer can have adverse effects on electric service provided to other customers of Lincoln County Power. It is the objective of Lincoln County Power to ensure, to the extent possible, that electric service provided to a customer does not result in adverse impacts to Lincoln County Power owned equipment or to electric service provided to other customers of Lincoln County Power.

### II. POLICY

Given the potential impacts of a customer's use of electric service on others, it is the policy of Lincoln County Power to require customers for electric service to meet certain specific customer equipment requirements and load characteristics. Failure to meet the required customer equipment requirements and load characteristics may result in denial of service or termination of electric service as provided for in other policies of Lincoln County Power.

#### III. EXPECTATIONS

# A. Residential and Single-Phase Commercial Meter Panel Requirements

At each point of delivery, Lincoln County Power shall furnish an approved meter panel. The meter panel shall either be a 200 amp or a 400 amp rated service entrance, with a meter section and a distribution section. The determination of a 200 amp or a 400 amp rated meter panel shall be made by the customer. The cost of a Lincoln County Power furnished meter panel shall be included in the cost of extending Lincoln County Power's electric system in order to serve the customer as covered in other policies of Lincoln County Power.

Lincoln County Power may provide single phase meter panels rated above 400 amps. However, should a customer desire the installation of a meter panel rated greater that 400 amps, the customer shall be required to submit electrical plans and load calculations prepared by a licensed electrical engineer in Nevada detailing the size of the service requested.

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The location of the meter panel shall be at the front of the customer's property adjacent to a public roadway, at a location jointly selected by the customer and by Lincoln County Power. The location must provide easy access to Lincoln County Power for maintenance and inspection purposes, with no obstruction in a 10-foot radius of the meter panel. Within the boundaries of the Towns of Pioche and Panaca, exceptions to this requirement for front-lot meter panel locations may be approved on a case-by-case basis. Such determination shall be made by Lincoln County Power based on the location of existing electric power distribution lines that will be used to provide electric service to the customer.

## B. Three-Phase Commercial and Irrigation Meter Panel Requirements

At each point of delivery, Lincoln County Power shall furnish an approved meter panel for most three-phase commercial or irrigation services. The cost of a Lincoln County Power furnished meter panel shall be included in the cost of extending Lincoln County Power's electric system in order to serve the customer as covered in other policies of Lincoln County Power. For three-phase commercial services 500 kVA and greater, customer furnished meter panels may be allowed as further detailed in this Policy.

For irrigation services and for three-phase commercial services under 500 kVA, the meter panel shall consist of a current transformer rated meter main. The meter panel may include a meter socket, current transformers, potential transformers, test switches and other equipment. The meter panel shall be located in close proximity to the transformer providing service to the customer with no obstruction in a 10-foot radius of the meter panel. On the customer's side of the meter, the customer shall furnish a disconnect switch rated for the electrical load. The customer's disconnect switch shall be in a location accessible to Lincoln County Power and shall be clearly marked as the main disconnecting switch for the customer's service.

For three-phase commercial services 500 kVA and greater, the customer shall be required to submit electrical plans and load calculations prepared by a licensed electrical engineer in Nevada detailing the size of the service requested. The plans shall show the service size, switchgear, meter panel, distribution panels, transfer switches and all relevant information required to plan the service to the customer by Lincoln County Power. For such large commercial installations, the Lincoln County Power meter may be located in a customer furnished meter panel. If the meter panel is furnished by the customer, it shall comply with all technical requirements established by Lincoln County Power which shall be made available to the customer upon request. Meter panels furnished by a customer shall be located outdoors and shall be in a location accessible to Lincoln County Power.

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#### C. Meter Panel Installation

At the option of the customer, a single-phase or three-meter panel may be furnished and installed by an electrician licensed in Nevada to perform electrical work at the rated voltage of the equipment installed. If a customer elects to have an electrician furnish and install the meter panel, the meter panel shall comply with all sections of this Policy and shall be approved in advance of the purchase and installation by Lincoln County Power. Lincoln County Power will be under no obligation to install a meter in a meter panel that is not approved by Lincoln County Power and is under no obligation to provide electric service to such location. Customer furnished meter panels, once approved by Lincoln County Power, shall become the sole property of Lincoln County Power.

## D. Customer Equipment and Wiring

All customer wires, and equipment owned and installed by the customer shall conform with the latest edition of the National Electrical Code, and applicable state and local building codes. In addition, any customer furnished equipment and wiring shall:

- 1. Have all energized parts enclosed.
- 2. Have breakers, switches, and disconnects which are in good operating condition
- 3. Have no bare, exposed conductor, and all conductor insulation shall be in a safe condition.
- 4. Have electrical connections that are tight and shall use appropriate antioxidizing compound for the type of connections being made.
- 5. Be sized and contain sufficient circuit breakers for the use intended.
- Have equipment grounding conductors and grounding electrodes. Lincoln County Power may or may not connect a grounding conductor to the customer system.

#### E. Trenching

In most cases trenching up to the point of delivery for Lincoln County Power installed conduits and cables will be performed by Lincoln County Power. However, Lincoln County Power will allow a customer to provide trenching for Lincoln County Power installed conduits and cables, provided such trenching meets the technical requirements of Lincoln County Power including trench depth, trench width, trench levelness, and backfill material gradation. Technical requirements will be made available to customers upon request. Customer provided trenches must be inspected and approved by Lincoln County Power before any backfill is applied.

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Under no circumstance will Lincoln County Power owned conduits and cables be installed in the same trench as water, propane, or natural gas.

# F. Governmental Authority Inspection and Approval

The customer requesting electric service is responsible to obtain any necessary approvals from local governmental authorities having jurisdiction over the customer's installation, including but not limited to building permits. If a local governmental authority does not approve a customer's installation, Lincoln County Power shall be under no obligation to initiate electric service. Lincoln County Power shall not be liable for any delays in initiating electric service that are caused by delays in the customer receiving approval for their facility from a local governmental authority.

#### G. Motor Loads

The starting of motors shall be controlled by the customer to maintain voltage at the point of delivery within acceptable industry standards. Lincoln County Power shall notify the customer of any voltage sags or dips exceeding 5%, as measured at the point of delivery that is attributable to the customer's electric motor(s). If voltage sags or dips are found to exceed 5%, Lincoln County Power shall meet with the customer to determine appropriate corrective actions. The cost of corrective actions shall be borne by the customer.

All new services with electric motors with a rating of 100 horsepower or greater shall require, prior to connection, reduced voltage starting capable of effecting a 50% or greater reduction in the amount of starting amperes.

## H. Standby and Backup Generation

Customers of Lincoln County Power may install generation to provide electric energy to the customer when service is not available from Lincoln County Power.

However, because any standby or backup generation installed by a customer may affect the safety of Lincoln County Power personnel and the public, all standby and backup generation installations must be approved in advance by Lincoln County Power and must be installed to technical standards of Lincoln County Power. At a minimum, such standards shall require the installation of a break-before-you-make transfer switch. Transfer switches may be either automatic or manual. Lincoln County Power technical standards will be made available to customers upon request.

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Photovoltaic solar and small-scale wind generation installations are not considered standby or backup generation under this provision of this Policy and are addressed in other policies of Lincoln County Power.

## I. Changes to Customer Facilities

To prevent electrical overloads and potential damage to the electric systems owned by both Lincoln County Power and by the customer, it is essential that customers notify Lincoln County Power when planning changes that may affect their electrical usage.

Customers shall not materially change their facilities or manner of operation of their facilities in any manner that may impact the facilities or manner of operation of Lincoln County Power without the express written approval of Lincoln County Power.

Among changes covered by this provision of this Policy are increases in customer electrical load. If a customer adds buildings, heating and cooling equipment, motors, or other apparatus that increases the electric demand of the service above that which was anticipated and designed for by Lincoln County Power at the time electric service to the customer was initiated, the customer shall be responsible for the cost of repairs, replacements and upgrades of Lincoln County Power equipment including those necessary to the service transformer, meter panel, cable, conductor and other impacted facilities.

#### J. Customer Caused Electrical Distortions

The customer's load shall not cause sine-wave distortion or large, short-interval demand that will impair service to other Lincoln County Power customers, or cause interference with telephone, television, or other facilities.

The customer's load shall not cause voltage fluctuations of more than 5%, as measured at the point of delivery, at any time.

For three-phase services, the customer's load shall not result in a deviation from phase balance of more than 10%, as measured at the point of delivery, at any time.

## K. Power Factor Requirements

The customer shall maintain power factor at the point of delivery equal to or greater than 95% lagging unity. If the measured power factor at the point of delivery is less than the lagging limit specified, the customer shall compensate Lincoln County Power for the cost of installing capacitors or other equipment to correct the power

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factor. Until such time as the equipment is installed, the Lincoln County Power may charge the customer a power factor adjustment penalty of \$0.0014 per kilovolt-amp-reactive-hour (kvarh) per month. The rate shall be applied to the difference between the actual power factor in kvarh and the kvarh equivalent to 95% power factor level.

# **IV. LIMITATIONS**

# A. Notification of Unsafe Equipment or Unsafe Conditions

Lincoln County Power will make every attempt to notify a customer if Lincoln County Power personnel observe that the customer's owned equipment used for the distribution of electric power does not meet the minimum safety requirements of this Policy, however, Lincoln County Power shall be under no obligation for such notification.

#### V. RESPONSIBILITY

- A. The general manager shall have primary responsibility to implement this Policy. The general manager shall report to the Board of Trustees on how this Policy is being carried out.
- B. The President of the Board of Trustees shall ensure that this Policy is followed.

Edward Wright Presider