



## GUIDELINES FOR ELECTRIC LOAD CURTAILMENT

### INTRODUCTION

While UNS Electric, Inc. (UNS Electric) strives to provide an uninterrupted supply of electricity, conditions could exist on UNS Electric's electric power system where:

- The power supply would be insufficient to meet the electric load demands during peak period. This condition will be classified as a "Bulk Power Supply Emergency".
- The transmission delivery would be insufficient to meet electric load demands. This will be considered a "Transmission Emergency".

Should a "Bulk Power Supply Emergency" or a "Transmission Emergency" seem imminent the following steps will be implemented as appropriate.

1. Evaluate alternative power supplies or Company owned generation.
2. Call on Interruptible Customers to interrupt load.
3. Reschedule any scheduled maintenance of the transmission system.
4. Reduce all non-essential Company uses such as office lighting, electric cooling and heating, etc.
5. Contact Western Area Power Administration for possible assistance.
6. Contact Nevada Energy and Aha Macav Power Service for possible emergency assistance.
7. Reduce distribution feeder voltage up to 5%, where possible.

Should additional remedial action be warranted, UNS Electric will make a public appeal via local radio stations and television for the voluntary curtailment of electric consumption by its customers.

Should voluntary curtailment result in insufficient load reduction to mitigate the emergency, the Arizona Corporation Commission (ACC) has directed UNS Electric to institute mandatory involuntary curtailment, pursuant to ACC Decision No. 42097 and Arizona Administrative Code R14-2-208, Provision of Service, Paragraph E.

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CUSTOMER LOAD DEFINITIONS

**Essential Loads:** Loads that are necessary to the health, safety and welfare of the public or some portion or member thereof, such as police, fire service, national defense, sewage facilities, domestic water facilities, hospitals, essential medical devices (such as iron lungs, oxygen pumps or similar uses) and where uninterrupted electric service is essential to the providing of such essential uses or services. These loads will not be interrupted unless an area needs to be dropped to maintain the stability of the electric system, or adequate on-site generation is available to cover the Essential load.

**Critical Loads:** That portion of the electric load of those non-residential customers which in the event of interruption of service would cause excessive damage to the equipment or material in process or perishable items or where such interruption would create grave hazards to the employee's or the public. These areas will not be interrupted unless an area needs to be dropped to maintain the stability of the electric system, or adequate on-site generation is available to cover the Critical load level.

**Others:** All customers not meeting the above definitions will be interrupted, with or without, notice if voluntary curtailment measures are not sufficient to alleviate the problem.

LOAD CURTAILMENT NOTIFICATION

UNS Electric's load is served primarily by Tucson Electric Power Company (TEP) under a Power Services Agreement. Energy from TEP resources is delivered to UNS Electric's load areas in Mohave and Santa Cruz Counties through the bulk power transmission system of the Western Area Power Administration (WAPA). UNS Electric's load is in the control area of TEP for Power Supply purposes and in WAPA's control area for Transmission purposes. Either control area could initiate a call for load curtailment due to a system or regional power supply or transmission emergency. Local Transmission Emergencies could occur, affecting portions of UNS Electric's service area only.

Should either voluntary or involuntary load curtailment become necessary:

1. UNS Electric's Mohave Dispatch Center will be notified of a regional curtailment emergency by either TEP's Energy Control Center or the WAPA's Transmission Dispatch Desk.
2. UNS Electric's Mohave Dispatch Center will notify Mohave Management of the nature and type of curtailment emergency.
3. Mohave Management will notify Company Management, District Operations Management and the ACC of the nature of the curtailment.
4. District Customer Service Personnel will, if time permits:
  - Notify Interruptible Customer to drop load;
  - Notify key customers of the nature of the curtailment and request voluntary load; reductions or activation of on-site generation (if any);
  - Call local radio stations to request public announcements;
  - Notify County Emergency Management, and;
  - Notify City and County Police and Fire Departments.

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5. District Operations Personnel will notify supervisory and assigned staff to report to their respective duty stations.

VOLUNTARY LOAD CURTAILMENT

If conditions allow for advanced notification, UNS Electric shall evaluate activating its own generation and will ask the public for a voluntary curtailment. In addition, all Interruptible Customers and Large Load Customers will be called by pre-assigned individuals to request load interruption as provided for under the Tariff or voluntary load reduction where no tariff exists.

INVOLUNTARY LOAD CURTAILMENT

Should the voluntary curtailment result in an insufficient reduction in load, Division Operations Management will determine the amount of additional load to curtail. Blackout periods are to be approximately 30 to 60 minutes in duration.

After proper notification Division Operations Management will utilize the capabilities of the System Control and Data Acquisition System ("SCADA") and manual operation to shed load throughout the District operations areas (Kingman, Lake Havasu City and Santa Cruz) based on circuit classification, unless the emergency is of a local nature. Individual Distribution Circuits will be classified for curtailment, according to the type of customers served on that feeder, as defined in the Guide to Circuit Loading for each District.

DISTRIBUTION CIRCUIT CLASSIFICATIONS

**Essential:** Circuits that serve essential customers will be so identified and will not be interrupted, unless an area must be dropped to maintain electric system stability.

**Critical:** Circuits that serve critical customers will be so identified and will not be interrupted, unless an area must be dropped to maintain electric system stability. Critical Customers will be notified and required to curtail the non-critical portions of their load. If a customer with a critical load refuses or fails to curtail their electric consumption down to the critical load, the customer shall not be considered to have a critical load and can be curtailed 100%.

**Large Load Customers:**

1. Circuits that serve Large Load Customers will be so identified and will not be interrupted until proper notice is given, unless an area must be dropped to maintain electric system stability.
2. Customers, who can take 100 percent curtailment if given sufficient notice, will be rotated on the same schedule as the "Others" circuits until the emergency is terminated by UNS Electric.
3. Customers served by circuits that cannot be rotated\* will be notified. They will be required to reduce their load to their pre-determined level, in a rotating order and with a frequency or repetition necessary to meet the emergency situation.

**Others:**

Circuits that serve all remaining customers will be so identified and rotated without notice. Rotation of these circuits will be for a duration and frequency necessary to meet the emergency situation.

Customers on a non-rotating circuit\* who normally could be rotated, will be required to curtail load. If these customers do not curtail to the extent needed, UNS Electric may discontinue or disconnect service and refuse to re-establish service until after the emergency condition is terminated.

\*Non-Rotating Circuits are so classified based on the specific nature of the electric distribution system or due to having critical or essential customers served by that feeder.

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EMERGENCY INVOLUNTARY CURTAILMENT

In the event a major electrical disturbance threatens the interconnected Southwest system with blackout conditions or/and unexpected shortages of power that do not allow for the implementation of the Electric Curtailment Plan, emergency devices such as under-frequency/under-voltage load shedding relays will automatically shed load to maintain system stability, and the Company will resort to emergency operating procedures. These circuits will remain out of service until the Company can move from the emergency procedure to the Electric Load Curtailment Plan or the emergency is resolved.

INVOLUNTARY CURTAILMENT BY TRANSMISSION PROVIDER

UNS Electric purchases transmission service from the WAPA to deliver its power supply requirements. WAPA's Transmission Dispatch Desk would notify the UNS Electric Arizona Dispatch Center of situations on the bulk transmission system requiring load curtailment in the Company's service area.

ELECTRIC LOAD AND CURTAILMENT PLAN

A detailed electric load and curtailment plan will be kept on file with the ACC. This plan will contain specific procedures for implementation of the above, along with the name(s) and telephone number(s) of the appropriate Company personnel to contact in the event implementation of the plan becomes necessary. Updates to the plan will be filed annually or when they occur. Its amendments will become effective upon submission to the ACC.

The Company will contact the Director of the Utilities Division, or their designee, as soon as practical for any curtailment pursuant to this Tariff.

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