

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF SALT RIVER ELECTRIC )  
COOPERATIVE CORPORATION (1) FOR AN ORDER )  
PURSUANT TO KRS 278.300 AND 807 KAR 5:001, )  
SECTION 11 AND RELATED SECTIONS, AUTHORIZING )  
THE CORPORATION TO BORROW AN AMOUNT NOT TO )  
EXCEED \$2,257,000.00 FROM THE NATIONAL BANK )  
FOR COOPERATIVES AND (2) FOR A CERTIFICATE )  
OF CONVENIENCE AND NECESSITY PURSUANT TO KRS )  
278.020 (1) AND 807 KAR 5:001, SECTION 9 AND )  
RELATED SECTIONS, AUTHORIZING CERTAIN )  
PROPOSED CONSTRUCTION AND ASSOCIATED CAPITAL )  
OUTLAY )

CASE NO.  
94-359

O R D E R

IT IS ORDERED that Salt River Electric Cooperative Corporation ("Salt River") shall file the original and ten copies of the following information with the Commission with a copy to all parties of record within 20 days from the date of this Order. Salt River shall furnish the name of the witness who will respond at the public hearing, if one is held, to questions concerning each item of information.

1. Provide a voltage drop analysis based upon Salt River's existing system using the February 1993 peak load.
2. Provide copies of meter readings to confirm the accuracy of the load allocations made in the above analysis.
3. Item 1(a) of the Commission's January 10, 1995 Order requested a voltage drop analysis incorporating only those changes proposed in this proceeding. The response suggested that the pages entitled "Without Corrections" could be used to analyze feeders for

which projects have been deleted; however, the response to Item 1(b) indicates that some projects have been deleted because the construction of new substations or major load reductions from factory closings will eliminate the need. As these events are not reflected in the analyses already provided, provide a voltage drop analysis based upon Salt River's projected load, including the rerouting effects of any planned substations.

4. Several projects appear to meet the criteria contained in Item 1(b) of the January 10, 1995 Order, but were not explained in the response. Explain why the following projects are not necessary to reduce the voltage drops below 8 volts:

- a. Balltown Feeder 1 - Sections 393 and 398.
- b. Balltown Feeder 2 - Sections 382, 383, 386, and 513.
- c. Bardstown Feeder 2 - Sections 416, 420, and 422.
- d. Brooks Feeder 1 - Sections 253 and 689.
- e. East Bardstown Feeder 6 - Section 425.
- f. Cedar Grove Feeder 5 - Sections 330 and 573.
- g. Mt. Washington Feeder 4 - Sections 216, 218, and 853.
- h. North Springfield Feeder 1 - Sections 53, 55, and 67.
- i. Pleasant Grove Feeder 5 - Sections 737 and 738.
- j. Taylorsville Feeder 4 - Sections 1028, 143, 149, 151, 660, and 837.
- k. West Bardstown Feeder 6 - Sections 531, 534, and 1029.

1. Woosley Feeder 4 - Sections 368, 371, and 779.

5. The response to Item 1(b) of the Commission's January 10, 1995 Order indicates that some items will be delayed until actual voltage conditions warrant correction. Does Salt River intend to confirm that all projected deficiencies actually exist prior to constructing any of the proposed projects?

a. If so, explain how the delayed projects differ from those proposed in this application.

b. If not, explain why actual field readings are not necessary to confirm the projected deficiencies.

c. Does Salt River intend to install minimum/maximum indicating meters for all circuits with projected voltage deficiencies? If not, explain how Salt River will determine actual voltage conditions.

6. Refer to the page entitled "Salt River Electric, Circuit Amperage Readings (during peak months)" contained in the Voltage Study provided with the application.

a. The actual amperage measured in February 93 through Phase C of Feeder 3 of the East Bardstown substation was 228 amperes. However, Salt River's projected amperage through this feeder for 1994-95 is expected to increase to 403 amperes. Explain the reasons for this significant increase.

b. The actual amperage measured in July 93 through Phase A of Feeder 2 of the Mt. Washington substation was 264 amperes. However, the projected amperage through this feeder for

1994-95 is expected to increase to 493 amperes. Explain the reasons for this significant increase.

c. For the remaining feeders, since the measured amperage readings are close to the projected amperage, explain why the projected voltage deficiencies do not now exist.

7. Page 13 of the application contains Salt River's design criteria, one of which limits copper primary conductors to 75 percent of their thermal rating. Explain why no corrections are proposed for the following circuits, which appear to exceed this criterion:

- a. Brooks Feeder 1 - Sections 253 and 689.
- b. East Bardstown Feeder 6 - Section 425.
- c. Pleasant Grove Feeder 5 - Sections 861 and 1030.
- d. Woosley Feeder 3 - Section 315.

8. According to the design criteria, the rationale for limiting copper primary conductors to 75 percent of their thermal rating is due to the longer span lengths made possible by this type of conductor. The design criteria also explain that under heavy loading conditions, either thermal or mechanical, these longer spans may sag into joint use facilities or have low ground clearance. Is there any special monitoring for conductors which are predicted to approach or exceed 75 percent of their thermal rating? Explain.

9. The following questions refer to the Voltage Drop Studies provided with application:

a. Balltown Feeder 1 - Explain why the proposed conversion of Section 406 is preferred to projects involving Sections 393 and 398, particularly in view of the greater number of customers affected by voltage deficiencies in Section 398 and beyond.

b. Taylorsville Feeder 4 - If the new Section 1028 will not be built, explain why the proposed conversion of Section 142 is preferred to conversion of Section 144 or sections beyond 144.

Done at Frankfort, Kentucky, this 21st day of April, 1995.

PUBLIC SERVICE COMMISSION

  
For the Commission

ATTEST:

  
Executive Director