

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF THE NOLIN RURAL)
ELECTRIC COOPERATIVE CORPORATION)
FOR APPROVAL BY THE PUBLIC SERVICE)
COMMISSION OF KENTUCKY FOR A) CASE NO. 93-323
CERTIFICATE OF CONVENIENCE AND)
NECESSITY TO CONSTRUCT ADDITIONAL)
PLANT FACILITIES ACCORDING TO THE)
COOPERATIVE'S 1993-1994 WORK PLAN)

O R D E R

Nolin Rural Electric Cooperative Corporation ("Nolin") filed its application on September 27, 1993 for a Certificate of Public Convenience and Necessity to construct certain improvements and additions to its existing plant at a cost of \$4,928,650. In support of its application, Nolin filed its 1993-1994 Work Plan which describes in detail the improvements and additions to its plant that are required over the next 2 years to serve its load.

Nolin seeks authorization to construct extensions and additions to its plant as follows:

1. Conversions, Tie Lines and Line Changes	\$1,610,400
2. Voltage Regulators	94,500
3. Sectionalizing Devices	115,000
4. New Member Extensions	2,040,150
5. Service Wire changes due to Increased Capacity of Existing Consumers	219,350

6.	Security Lights	127,500
7.	Pole Replacement	697,750
8.	Switches	<u>24,000</u>
	Total	\$4,928,650

Nolin proposes several projects in its Two Year Work Plan to improve system reliability and to maintain an adequate level of service to its customers. These projects involve replacement of old lines or phase conversions to reduce excessive voltage drops.

Nolin has provided an analysis of its distribution system using a computer program commonly used in the industry, Milsoft Integrated Solutions Distribution Analysis Software. This software allows a utility to model its existing system and to project the effects of load growth. A basic input to this program is customer usage information. Although distribution systems should be designed to accommodate peak demand, individual customer peak demands are not known except for large power users with demand meters. Instead, the only information generally available is from customer billing records, which usually show only a customer's energy usage, not demand. The Milsoft software is capable of estimating demand based upon billing records and these estimates are then reconciled with actual demand measured at the substations. However, Nolin currently does not confirm the accuracy of the load estimates elsewhere in its distribution system. This is a concern since demand can only be estimated from billing records and cannot be determined with certainty unless measured. The uncertainty

increases when bills are based upon customer read meters. Therefore, the Commission finds that Nolin should install voltmeters and ammeters at representative points in its distribution system to determine the accuracy of its distribution analysis used in future Two Year Work Plans.

As a result of the study, several phase conversions and line replacements were recommended in the Two Year Work Plan to reduce excessive voltage drops. The system improvements recommended in this Work Plan are needed to correct voltage problems, provide for increased load growth, improve phase balance, and improve service reliability.

Based on the evidence of record and being otherwise sufficiently advised, the Commission finds that public convenience and necessity require the construction by Nolin of the improvements and additions to its existing plant as described in its 1993-1994 Work Plan.

IT IS THEREFORE ORDERED that:

1. Nolin be and it hereby is granted a Certificate of Public Convenience and Necessity to proceed with the construction and additions as set forth in its 1993-1994 Work Plan.
2. Nolin shall install voltmeters and ammeters on its system and keep records of the readings which can be used to determine the accuracy of voltage and load studies used in future Two Year Work Plans.

Done at Frankfort, Kentucky, this 4th day of March, 1994.

PUBLIC SERVICE COMMISSION


Chairman


Vice Chairman


Commissioner

ATTEST:


Executive Director