

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF LICKING VALLEY RURAL)	
ELECTRIC COOPERATIVE CORPORATION FOR A)	CASE NO.
CERTIFICATE OF PUBLIC CONVENIENCE AND)	2012-00013
NECESSITY FOR ITS 2012-2015 CONSTRUCTION)	
WORK PLAN)	

INTERIM ORDER

Licking Valley Rural Electric Cooperative Corporation ("Licking Valley") filed its 2012-2015 Construction Work Plan ("CWP") on February 24, 2012, requesting a Certificate of Public Convenience and Necessity for certain proposed construction improvements and additions to its existing plant. The estimated cost of the proposed improvements and additions is \$19,803,901. In support of the application, Licking Valley states that the proposed improvements and additions to its facilities are required over the next four-year period to serve its load.

On March 6, 2012, Licking Valley filed Errata Sheets to correct a summation error in its CWP, which revised the estimated total cost of its work plan upward by \$60,000. Commission Staff issued, and Licking Valley responded to, two requests for information. The matter now stands submitted for decision based on the evidentiary record. For the reasons stated below, the Commission will approve all of the proposed construction improvements and additions contained in Licking Valley's 2012-2015 CWP except for the proposed retrofit of 1,400 single-phase advanced metering infrastructure ("AMI") meters and 10 three-phase AMI capable meters. Licking Valley is, therefore, authorized to begin construction or acquisition of the approved projects. This case will

remain open to allow the Commission to continue investigating the reasonableness of Licking Valley's proposed AMI meter retrofits. A final Order will be issued as expeditiously as possible at the conclusion of the Commission's investigation into the retrofit of AMI meters.

PROPOSED CONSTRUCTION WORK PLAN

Licking Valley's 2012-2015 CWP was the result of an analysis conducted by the company to identify the construction needed to adequately serve its projected load over the four-year work plan period. Improvements were identified based upon studies conducted by Licking Valley concerning voltage drop, conductor loading, system reliability improvements, and economic conductor analysis, as well as based upon the company's operational experience. Licking Valley seeks authorization to construct extensions and additions to its plant as follows:

System Additions and Improvements Summary

<u>Category Name</u>	<u>Estimated Cost</u>
New Line Distribution Overhead and Underground (63 miles)	\$2,941,460
Line Conversion & Replacement (43.5 miles)	5,501,672
New Transformers	805,946
New Meters	161,559
Retrofit AMI Meters	213,308
New Polyphase Meter	14,092
Retrofit Polyphase AMI Meters	8,468
Service Upgrades (Sets of service wires to increase capacity)	444,414
Sectionalizing Equipment	1,000,000

Voltage or Line Regulators	375,980
Capacitor Bank Appurtenances and Controls	60,000
Pole Changes-Replacement	4,777,578
Aged Conductor Replacement	2,972,525
Outdoor Lighting (Security Lights)	175,099
AMI Equipment (Software and Hardware for AMI)	291,800
Radio Upgrade to meet FCC requirement by January 2013	60,000
TOTAL	\$19,803,901

Based on its 2010 Load Forecast, Licking Valley projects a total of 1,250 new services by the end of its 2012-2015 CWP. The total projected cost for new service construction is \$2,941,460. The new service construction is comprised of the length of distribution line needed to serve new customers. The total projected length for the work plan period is approximately 63 miles, or an average of 264 feet per new customer.

Licking Valley also proposes to replace or upgrade 43.5 miles of site specific conductors over the four-year work plan period at an estimated cost of \$5.5 million. In support of this proposal, Licking Valley analyzed its distribution system to identify the construction requirements needed to adequately serve the projected 2016 winter peak load of 81.5 MW. A system analysis using Rural Utilities Service guidelines and Licking Valley's Design Criteria was performed on its distribution system. For distribution lines, when the source voltage is 126 volts, the minimum primary voltage on a 120 volt base should be 118 volts after re-regulation. Primary conductors were evaluated for replacement if they exceeded 75 percent of their thermal rating. Windmil, a distribution system modeling software program, was used to analyze the impact of the projected

peak load of 81.5 MW on Licking Valley's existing distribution system's configuration. For each deficiency identified by the Windmil modeling, Licking Valley performed an economic conductor analysis to consider alternative solutions for each deficiency. As a result of the economic conductor analysis, Licking Valley's proposed conductor replacement or conversions reflect the economically optimal solution for each deficiency.

Licking Valley's 2012-2015 CWP also includes the installation of 1,350 single-phase AMI meters at an estimated total cost of \$161,559 for the new meters (which represents an average cost of \$120 per meter). The new meters that Licking Valley plans to purchase are Hunt TS2 meters.¹ Licking Valley plans to convert its existing TS1 automated meter reading system to a TS2 AMI metering system. This conversion will allow for two-way communication which is needed for demand-side management opportunities such as time-of-use metering, remote disconnect/connect, and voltage monitoring.² Other benefits of the TS2 meters include outage restoration validation, voltage readings, and load profiles.³

In addition, Licking Valley proposes in its 2012-2015 CWP to retrofit 1,400 existing single-phase meters to be capable of two-way communication, at an estimated total cost of \$213,308 (which represents an average cost of \$152 per meter). Licking Valley notes that a Hunt TS2 communication module will be added to either an existing

¹ Licking Valley's response to Item 7.a. of Commission Staff's First Request for Information.

² Licking Valley's response to Item 8 of Commission Staff's Second Request for Information.

³ Application, page 1, Section IV-C.

electro-mechanical meter or an existing digital meter if a customer needs the added functionality provided by a TS2 meter. The cost to retrofit an existing meter is 26 percent higher than the cost to install a new meter due to the fact that the existing meter has to be brought to Licking Valley's metering department to attach the TS2 module, which results in additional labor costs. Licking Valley states that it chose to retrofit existing meters, rather than replace them, because it did not want to prematurely dispose of currently functioning meters that are useful for years to come.⁴

Concerning the three-phase, or polyphase, AMI meters, Licking Valley plans to purchase 22 new three-phase AMI capable meters at a projected cost of \$14,092, or a per meter cost of approximately \$640. Licking Valley also plans to retrofit 10 three-phase AMI capable meters at a total projected cost of \$8,468, or a per meter cost of approximately \$847.

Licking Valley plans to conduct sectionalizing of its substations over the four-year work plan period at an annual cost of approximately \$250,000. A sectionalizing study was performed to analyze the existing overcurrent scheme and proposed changes to improve the overall effectiveness of that scheme.

Based on its historical data, Licking Valley projects to replace 1,440 poles over the four-year period covered by the CWP. The average cost for each pole replacement is estimated to be \$3,318, with the total cost of pole replacements equaling approximately \$4,777,578 for this 2012-2015 CWP.

⁴ Licking Valley's response to Item 7.b. of Commission Staff's First Request for Information.

SUMMARY

The Commission, having considered the evidence of record and being otherwise sufficiently advised, finds that:

1. Except for the proposed retrofit of the single-phase and three-phase AMI meters, the improvements and additions proposed by Licking Valley are necessary to provide adequate, reliable electric service to existing and anticipated new customers.

2. Except for the proposed retrofit of the single-phase and three-phase AMI meters, the proposed construction will enable Licking Valley to continue to provide adequate and dependable electric service to its customers. The system improvements that are recommended in this CWP will not duplicate existing facilities and are needed to correct voltage problems, improve phase balance, reduce system energy loss, and provide for improved service reliability.

3. There is insufficient evidence in the record at this time to demonstrate that retrofitting existing meters at a higher cost than replacing those meters will not result in an excessive investment and economic inefficiencies. Therefore, the Commission will continue to investigate the cost of, and reasons for, retrofitting existing meters.

4. By separate notice, an informal conference will be scheduled to further discuss issues relating to the proposed meter retrofits. Attached to that notice will be a list of questions that Licking Valley will need to address at the informal conference.

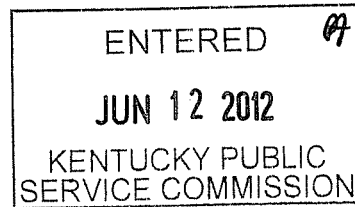
IT IS THEREFORE ORDERED that:

1. Licking Valley is granted a Certificate of Public Convenience and Necessity to construct the facilities described in its 2012-2015 CWP, with the exception

of the proposed retrofit to the single-phase and three-phase AMI meters.

2. This matter will remain open in order for the Commission to continue investigating Licking Valley's proposed retrofit of single-phase and three-phase AMI meters.

By the Commission



ATTEST:


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