COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF NOLIN ELECTRIC COOPERATIVE CORPORATION FOR AN ORDER PURSUANT TO 807 KAR 5:001 AND KRS 278.020 REQUESTING THE GRANTING OF A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO INSTALL AN AMI SYSTEM	))))))	CASE NO. 2014-00436

ORDER

On December 15, 2014, Nolin Electric Cooperative Corporation ("Nolin") tendered for filing its application requesting a Certificate of Public Convenience and Necessity ("CPCN") to install an Advanced Metering Infrastructure ("AMI") system over a 24-month period. The application also requested relief from periodic testing of single phase meters under 807 KAR 5:041, Section 16, for the duration of the project, stating that all meters in Nolin's service territory will be changed and tested. The application stated that Nolin will construct the proposed AMI project from general funds until such time as new loan funds are needed, and at that time, Nolin will file loan applications with the National Rural Utilities Cooperative Finance Corporation to reimburse general funds as expended and to provide money to complete the proposed AMI project. Nolin requested confidentiality for information regarding the estimated cost of the proposed project, including the meters, operating system, software, communication equipment and training, as well as, the annual software maintenance charge. Based on a review of Nolin's information, the Commission finds the costs reasonable. The application provides figures for a ten-year-life analysis of the costs associated with operating the

current AMR system and comparing the assumed ten-year net cost for the proposed AMI system; the results indicate a present worth savings of $2,851,031 in favor of the proposed system.

On December 17, 2014, a teleconference was convened with Nolin's Chief Executive Officer, Mickey Miller, to discuss Nolin's request to expedite the processing of its application. Nolin requested expedited treatment so that it could sign a contract for the proposed AMI system early in 2015 to lock in the system pricing. Commission Staff committed to processing the case as quickly as possible and agreed to a target date of February 16, 2015, but no later than March 1, 2015. A request for information ("Staff's First Request") was issued on December 24, 2014, and Nolin filed its responses on January 7, 2015.

Nolin's application requests relief from the requirements of 807 KAR 5:041, Section 16, to conduct periodic testing of single-phase meters for the duration of the project, stating that all meters in its service territory will be changed and tested.[1] Nolin also stated that it is current on its periodic meter-testing program.[2]

Nolin expects to replace all 33,611 of its current meters in service.[3] It proposes to depreciate the new meters over 10 years based upon the meters anticipated 10-12 year service life.[4] The new meters, GE 1210+ single-phase and kV2c poly-phase solid-state meters, are the basic endpoint components of the General Electric Grid IQ Connect (GE Connect") system. These meters provide the typical usage- and revenue-

[1] Application, paragraph 7.

[2] Response to Staff's First Request (filed Jan. 7, 2015), Item 9.

[3] Application, Exhibit 1 at 2.

[4] Response to Staff's First Request, Item 12.

reporting operations, and also provide tamper detection, soft switch functions, and support features such as voltage-event monitoring, real-time consumption, time-of-use measurement, and interval data, and they include a 200-amp service switch.[5] Nolin states that the new GE Connect system allows it to monitor and control all of these instrument features from its office, and the billing data will be integrated into its existing National Information Solutions Cooperative ("NISC") Meter Data Management System and CIS billing system.[6] The GE Grid IQ P2MP network is designed and built for grid modernization, allowing the processing of various back-end applications. The system favors uplink communications (data from device to network), but incorporates advanced downlinking (from the network to the device), allowing for mass firmware upgrading of the devices or their communications modules.[7]

Nolin stated that it has been utilizing Landis & Gyr low-energy power line carrier automatic meter reading ("AMR") equipment since January 2002, and that most of these AMR components have reached the end of their useful lives, are no longer being supported by Landis & Gyr, are less cost-effective than a replacement system, and do not have the current and desired AMI capabilities.[8] Nolin further states that for the past 17 months, it has researched and assessed six AMI systems; upon investigation, five were eliminated for various reasons, and the GE Connect system was chosen due to its cost and compliance with Nolin's criteria.[9] Nolin concentrated its efforts on systems that

[5] Application, Exhibit 2 at 1; and Response to Staff's First Request, Item 12.

[6] Application, Exhibit 2 at 1.

[7] Application, Exhibit 2 at 2.

[8] Application, Exhibit 1 at 1.

[9] Application, Exhibit 1 at 2, and Response to Staff's First Request, Item 2.

use radio-frequency ("RF") communication technologies from meters to gathering-point repeaters in suitable locations, with the data then securely transmitted to the utility's office for use.[10] Nolin states that based on its research, RF communication technology provides the most robust infrastructure system available, permitting cost-effective growth and expandability, and allowing more flexibility for future Smart Grid applications. As previously indicated, the GE Connect system satisfies Nolin's desire for cost-effective and practical criteria, including: sub-hour data transfers; fast and reliable two-way communications; cyber-secure, expandable robustness; Multi-Speak software compliance; NISC software compatibility; pre-pay customer capability; theft-notification ability; remote connection and disconnection capability; aiding outage management and restoration; automated usage reading; demand-response programming and energy management; transformer load assessing; voltage monitoring; flicker monitoring; load profiling; power quality investigating; and distributed generation and net metering compatibility.[11] Multi-Speak software compliance indicates that the system conforms to an initiative standardizing the application program interfaces; therefore, Multi-Speak-compliant software allows data to flow more seamlessly into many applications that Nolin is already using. Nolin states that the system chosen is a wide area network/local area network ("WAN/LAN") communication system utilizing 2.4 GHz RF, fiber and Internet Protocol-based networks, 900-MHz links and general packet radio service ("GPRS")/cellular arrangements to send and receive data throughout its

[10] Application, Exhibit 3.

[11] Application, Exhibit 1 at 2 and 3.

service territory.[12] Based on the experience with its current AMR system, Nolin anticipates the useful life of this system to be 10 to 12 years, and therefore plans to depreciate the proposed system assets over a ten-year period.[13]

Nolin has indicated several projected benefits and cost savings from installation of the proposed system and the information it provides to the utility and to its members. Nolin states that the system will provide more current, effective, and accurate information to its customer-service representatives when they are answering members' questions or addressing customers' concerns about their usage. Information will also be available directly to members through a web portal. Nolin states that outage response time will be improved because AMI will locate the cause of an outage and will verify whether all members on a line have been restored when a repair is completed.[14] Nolin states that the AMI system will eliminate the need for manual meter reads for service connections and disconnections, and will allow it to continue offering customers the option of pre-pay meter billing.[15] It further states that the AMI system will eliminate energy theft through the use of tamper detection; will reduce line losses through better collection and utilization of load data; and will allow decreases in the amount of electricity needed through voltage reduction and conservation.[16] In addition, Nolin

[12] Application, Exhibit 1 at 2 and 3, and Response to Staff's First Request, Item 3.

[13] Responses to Staff's First Request, Item 7 at 1, and Item 12.

[14] Application, Exhibit 4 at 1, and Response to Staff's First Request, Item 4.

[15] Application, Exhibit 4 at 1, and Response to Staff's First Request, Item 6.

[16] Application, Exhibit 4 at 1 and 2.

states that this system has load-control capabilities and allows the support of Time-of-Use rates, Real-Time Pricing and Critical Peak Pricing.[17]

In conjunction with a February 11, 2015 telephonic informal conference, Nolin electronically provided to the Commission certain revised exhibits to its original Application. Nolin provided a revised version of pages 1 and 4 to Exhibit 5. It also provided two alternate versions of the Exhibit 5 spreadsheets in electronic format with the cells intact and unprotected. The second revision was provided subsequent to the discovery of errors in the original Excel formulas. Nolin will submit the revised documents to the Commission.[18]

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

1. The AMI installations and equipment additions proposed by Nolin as set forth in its application are necessary to provide adequate, reliable electric service to existing customers and anticipated new customers and will enable Nolin to do so. Thus, Nolin's application for a CPCN should be approved.

2. The proposed system's costs are reasonable.

3. The system improvements that are proposed will not duplicate existing facilities and are needed to more adequately correct voltage problems, improve phase balance, reduce system energy loss, and provide improved service reliability.

4. Nolin's request in its application for relief from periodic testing of single-phase meters for the duration of this project is reasonable and should be approved.

[17] Application, Exhibit 4 at 1.

[18] Telephonic Informal Conference Memorandum dated February 12, 2015.

5. Nolin should ensure that all new meters and those meters removed from service as a result of this project will be tested in accordance with 807 KAR 5:041, Section 17, and any meters found to be inaccurate should be handled as prescribed by that regulation. In addition, all meters removed from service as a result of this project should be retained by Nolin for a minimum period of six months following removal.

6. The meter test results for all meters tested as part of this project should be reported to the Commission on Nolin's Quarterly Meter Report and should include a full explanation of the handling of any non-registering meters and a full explanation of any and all billing adjustments resulting from the tests.

7. Notwithstanding any capabilities of the General Electric 1210+ single-phase and kV2c poly-phase solid-state meters with factory installed and tested GE Connect system to monitor voltages, Nolin should continue to survey its voltage pursuant to 807 KAR 5:041, Section 7. If Nolin believes that good cause exists to permit a deviation from these requirements, it may request such deviation pursuant to 807 KAR 5:041, Section 22.

8. Nolin anticipates the useful life of this AMI system to be 10 to 12 years, and the Commission finds that a 12-year depreciation period is reasonable and should be approved.[19]

9. Nolin should not establish a regulatory asset for the undepreciated value of the existing AMR equipment that is being replaced without prior Commission authorization.

[19] Response to Staff's First Request, Item 12.

10. Nolin should file, in paper medium, all documents previously submitted electronically to Commission Staff, including pages 1 and 4 of Exhibit 5, and its original and revised Exhibit 5 spreadsheet in electronic format with all cells and formulas intact.

IT IS THEREFORE ORDERED that:

1. Nolin's request for a CPCN to purchase and install the equipment as set out in its application is approved.

2. Nolin's request for relief from sample testing of single-phase meters pursuant to 807 KAR 5:041, Section 16, is granted.

3. Nolin shall ensure that all new meters and those meters removed from service as a result of this project shall be tested in accordance with 807 KAR 5:041, Section 17. Any and all meters determined to register inaccurate readings shall be handled in accordance with 807 KAR 5:041, Section 17. The meter test results for all meters tested as part of this project shall be reported to the Commission on Nolin's Quarterly Meter Report and shall include a full explanation of the handling of any and all non-registering meters and a full explanation of any and all billing adjustments resulting from the tests. Any and all meters removed from service as a result of this project shall be retained by Nolin for a minimum period of six months following removal.

4. Notwithstanding any capabilities of the General Electric 1210+ single-phase and kV2c poly-phase solid-state meters with factory-installed and tested GE Connect system to monitor voltages, Nolin shall continue to survey its voltage pursuant to 807 KAR 5:041, Section 7. If Nolin believes that good cause exists to permit a deviation from these requirements, it may request such deviation pursuant to 807 KAR 5:041, Section 22.

5. Nolin shall depreciate the new AMI system assets over a 12-year period.

6. Nolin shall not establish a regulatory asset for the undepreciated value of AMR equipment without prior Commission authorization.

7. Nolin shall file, in paper medium, all documents previously submitted electronically to Commission Staff, including pages 1 and 4 of Exhibit 5, and its original and revised Exhibit 5 spreadsheet in electronic format with all cells and formulas intact.

By the Commission

ENTERED
FEB 13 2015
KENTUCKY PUBLIC
SERVICE COMMISSION

ATTEST:

Executive Director

*Michael L Miller
President & CEO
Nolin R.E.C.C.
411 Ring Road
Elizabethtown, KY 42701-6767

*Nolin R.E.C.C.
411 Ring Road
Elizabethtown, KY 42701-6767