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December 29, 2016

RECEIVED

Talina R. Mathews
Executive Director
Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, Kentucky 40602-0615

DEC 29 2016

VIA HAND-DELIVERY

PUBLIC SERVICE
COMMISSION

Re: The application of Clark Energy Cooperative, Inc.
for a Certificate of Public Convenience and
Necessity to install an Advanced Metering
Infrastructure (AMI) System
Case No. 2016-00220


Dear Ms. Mathews:

On behalf of Clark Energy Cooperative, Inc. and in conformity with the Commission's Order entered on December 22, 2016, in the above-referenced Case, please find enclosed revised pages reflecting as unredacted the information that has been denied confidential treatment as well as ten (10) copies thereof.

Very truly yours,

GRANT, ROSE & PUMPHREY

By:


John S. Pumphrey

Enclosures

COMMONWEALTH OF KENTUCKY
BEFORE THE
KENTUCKY PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

THE APPLICATION OF CLARK ENERGY COOPERATIVE, INC. OF)
WINCHESTER, KENTUCKY, FOR COMMISSION APPROVAL FOR A)
CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO)
INSTALL AN ADVANCED METERING INFRASTRUCTURE (AMI))
SYSTEM PURSUANT TO KRS 807 KAR 5:001 AND KRS 278.020)

CASE NO. 2016-00220

APPLICATION

Clark Energy Cooperative, Inc. of Winchester, Kentucky, hereinafter referred to as "Clark", respectfully states:

1. The full name and address of Applicant is:

Clark Energy Cooperative, Inc.
2640 Iron Works Road
Winchester, KY 40391
Email contact for this application: tpeyton@clarkenergy.com

2. Clark is a corporation, duly organized, created and existing by and under the laws of the State of Kentucky, and is engaged in the business of supplying retail electric service in Bath, Bourbon, Clark, Estill, Fayette, Madison, Menifee, Montgomery, Morgan, Powell, and Rowan Counties in Kentucky.

A certified copy of the Articles of Incorporation has been previously filed in Case No. 92-219 with the Kentucky Public Service Commission hereinafter referred to as the "Commission". An Amendment to the Articles of Incorporation pertaining to a name change from Clark Rural Electric Cooperative Corporation to Clark Energy Cooperative, Inc. was filed by letter dated July 17, 1997.

3. Clark is applying for the issuance of a Certificate of Public Convenience and Necessity (CPCN) to install an Advanced Metering Infrastructure (AMI) system over a 48-month period.

4. Estimated cost of the project is shown below.

a. Meters	\$1,521,504
b. Meters with Remote Service Switch	\$ 339,375
c. RF Collectors	\$ 143,700
d. RF Routers	\$ 704,165
e. Computer Infrastructure	\$ 25,000
f. RF Engineering\Test Equipment	\$ 34,900
g. Software\Support Services	\$ 91,235
Total	\$2,859,879

5. The anticipated annual cost of operations, excluding the cost of power, for the AMI system is \$60,820.

Estimated Meter and Infrastructure Installed Cost

Equipment	Quantity	Cost	Total
RF Meters	10,368	\$101.64	\$1,053,804
RF Meters with Remote Service Switch	1,920	\$139.44	\$267,725
Meter Installation (Includes: Labor, Transportation, Overhead)	12,288	\$43.89	\$539,320
RF Collector	12	\$6,500.00	\$78,000
RF Collector Mounting Kit	12	\$980.00	\$11,760
RF Collector (Installation) (Includes: 45FT pole, 120v power source, mounting kit, transportation and overhead)	12	\$4,500.00	\$54,000
RF Router	341	\$1,615.00	\$550,715
RF Router (Installation) (Includes: 6FT aluminum arm, 120v power source, installation, transportation and overhead)	341	\$450.00	\$153,450
Computer Infrastructure	1	\$25,000.00	\$25,000
RF Engineering/Test Equipment	1	\$34,900.00	\$34,900
Software/Support Services (Includes: Project Management, training, software interface programming and upgrade)	1	\$91,235.00	\$91,235
Total			\$2,859,909

*Note: \$30 Difference from application is spreadsheet rounding

The fifth item on the agenda was to discuss and consider approving the AMI upgrade vendor selection.

Todd Peyton, Manager of Engineering Services, led the directors through a presentation titled "Advanced Metering Infrastructure (AMI) Upgrade and Vendor Selection," during which he explained, among other things, how from the beginning through 1994, customer-members read their own meters and reported the readings to Clark Energy. Then in 1994, Clark Energy began contracting with vendors to have the meters read. But since 2001, Clark Energy has employed automatic remote meter reading (AMR) technology. Clark Energy President and CEO Chris Brewer told the directors that the method by which Clark Energy has received this data since 2001 is by a power line carrier (PLC) system, the system now being considered being an RF (radio frequency) system. Todd explained that Clark Energy's PLC equipment is nearing its end of life and that replacement parts are no longer available. Furthermore, the increased data and functionality available today are more than Clark Energy's existing PLC equipment can handle, so Clark Energy is limited in the services that can be offered to its members.

With this backdrop, Todd detailed the functionality available with an upgrade to an RF system: meter reads at 5-/15-/30-/60-minute intervals; nearly real time outage detection/restoration notification; remote meter programming (allowing net metering functionality); voltage readings; remote fault indication; distribution automation (regulators and reclosers); demand response/direct load control (of HVAC and water heaters); self healing with system alarms--no single point of failure; meter data management available to consumer-members online; prepaid metering; remote connect/disconnect; and equipment loading information (transformers). He then described three options/vendors that Clark Energy has considered: Landis&GYR, Sensus, and General Electric. When comparing the costs of the meters, other hardware, and the software and support (and the bonus that Landis&GYR has offered Clark Energy a credit of \$465,000 because of what Clark Energy spent in the recent past on their

meters that did not work as advertised), Landis&GYR's total cost of \$3 million (which would be spread out over time) was considerably lower than its competition, at \$3.9 million and \$6.8 million, respectively. Todd then demonstrated the new equipment's communications capabilities through graphical and video demonstrations.

Director Hollon asked Todd whether this upgrade could prevent bad readings over time, and Scott replied that equipment still can fail but that this equipment was more likely to provide consistent information. Chairman Shearer asked whether there are any down sides to this system, and Todd replied that the down sides are (1) expense, (2) the "Big Brother" effect--people do not like being "spied on," (3) that RF systems' "output" of radiation versus power line carrier systems is sometimes cited as a criticism for possible health risks (though Todd explained the radiation output is minimal), and (4) that some people claim the meters catch fire (another brand than Landis&GYR has had some complaints of this). At the end of the discussion, Director Hollon made a motion that Clark Energy's staff's selection of the Landis&GYR RF system be approved, and Director Ballard seconded the motion, which passed.

The sixth item on the agenda was to discuss changes to the Clark Energy membership form. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]