

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF FARMERS RURAL ELECTRIC)	CASE NO.
COOPERATIVE FOR ADOPTION OF A SAMPLE)	2013-00186
METER TESTING PROCEDURE)	

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION
TO FARMERS RURAL ELECTRIC COOPERATIVE CORPORATION

Farmers Rural Electric Cooperative Corporation ("Farmers"), pursuant to 807 KAR 5:001, is to file with the Commission the original and six copies of the following information, with a copy to all parties of record. The information requested herein is due no later than 14 days from the date of issuance of this request. Responses to requests for information shall be appropriately bound, tabbed and indexed. Each response shall include the name of the witness responsible for responding to the questions related to the information provided.

Each response shall be answered under oath, or for representatives of a public or private corporation or a partnership or association or a governmental agency, be accompanied by a signed certification of the preparer or person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person's knowledge, information, and belief formed after a reasonable inquiry.

Farmers shall make timely amendment to any prior response if it obtains information which indicates that the response was incorrect when made or, though correct when made, is now incorrect in any material respect. For any request to which

Farmers fails or refuses to furnish all or part of the requested information, it shall provide a written explanation of the specific grounds for its failure to completely and precisely respond.

Careful attention should be given to copied material to ensure that it is legible. When the requested information has been previously provided in this proceeding in the requested format, reference may be made to the specific location of that information in responding to this request.

1. Refer to the section "Procedure" and the statement, "Each test group will be randomly sampled by a computerized process. The FRECC billing computer will be used for this process." Explain how the billing computer selects the meters randomly.

2. Refer to the section "Rules and Regulations" and the statement, "FRECC will comply with PSC KAR 5.041E, Section 16 when implementing its sample meter testing program."

a. Refer to 807 KAR 5:041, Section 16, Sample Testing of Single Phase Meters. Explain in detail how Farmers' proposed sample testing plan will comply with each of the specific conditions required in Section 16(4)(a) and (b) and Section 16(5).

b. Explain why Farmers indicates in the application that 807 KAR 5:041, Section 16(4)(a) is not applicable.

c. Explain how Farmers intends to be in compliance with 807 KAR 5:041, Section 16 if the requirements of Section 16(4)(a) are not applied to the proposed plan.

3. Refer to the section "Procedure" and the statement, "Due to a large group of similar meters installed during AMI installation, the groups will be further divided to groups no larger than 1500 meters by serial number break points."

a. When referencing the smaller sample selection of 1,500 meters, confirm whether the word "groups" should be used, or indicate whether it should be replaced with the word "lots" in this statement.

b. Refer to the table titled "Meter Groups" in this section showing the proposed test groups into which Farmers proposes to divide its meters. Farmers indicates that Meter Group 1 would contain a population of 25,080 meters. Based on Farmers' previously identified process of dividing up larger groups of meters, state whether Farmers agrees that Meter Group 1 would be further divided into a total of 17 smaller lots.

i. If so, provide a list showing each of the 17 lots and how they will be determined based on the serial number break points.

ii. State whether Farmers anticipates utilizing the total meter population of 25,080 in Meter Group 1 to determine the sample size of meters tested for the entire group, or if Farmers will utilize the number of meters in each of the 17 smaller lots to determine a sample size within each lot of 1,500 meters.

c. Farmers indicates that Meter Group 2 would contain a population of 1,895 meters. Based on Farmers previously identified process of dividing up larger groups of meters, state whether Farmers agrees that Meter Group 2 would be further divided into a total of two smaller lots.

i. If so, provide a list showing the two lots and explain how they will be determined based on the serial number break points.

ii. State whether Farmers anticipates utilizing the total meter population of 1,895 in Meter Group 2 to determine the sample size of meters tested for the entire group, or if Farmers will utilize the number of meters in each of the 2 smaller lots to determine a sample size within each lot of 1,500 meters.¹

4. Refer to the section "Procedure" and the statement, "Newly installed meters will be added to the proper group and will be eligible for sample testing the following year. New meters from a different manufacturer or with different characteristics/features will require the formation of a new group. As new meters are purchased in lots a sample test group will be established just for the new meter testing. An AQL of 1.0 will apply to the new meter testing." State whether Farmers will maintain and analyze all meter test results, and submit detailed test data to the Commission for review as a part of an approved sample meter testing plan,

5. Refer to the section "Procedure (cont.)" and the statement, "Randomly selected meters (lot) from each group will be sent to the meter shop. All non-registering meters will be replaced by another random selection."

a. Provide Farmers' definition of a "non-registering" meter.

b. Explain why all non-registering meters will be replaced by another random selection and not selected per ANCI/ASQC Z1.9-2008, A7.2 (Drawings of Samples).²

¹ Sample selection is determined using Table A-2 and Table B-3 of ANSI/ASQ Z1.9-2008.

² A sample is one or more units of product drawn from a lot. Units of the sample shall be selected without regard to their quality.

c. Provide generally accepted statistical principles that support the statistical validity of removing a non-registering (defective) unit randomly selected from a lot and replacing it with a registering (functioning) unit.

d. Explain how the presence of non-registering meters randomly selected from a lot may or may not represent the same meter conditions existing in the lot being sampled.

e. Describe how billing adjustments for non-registering meters are handled in accordance with 807 KAR 5:041, Section 16(5).

f. Identify any other meter condition that might be found in a randomly sampled test group that would warrant the selection of an acceptable replacement from the lot being sampled.

6. Refer to the section "Procedure (cont.)" and the statement, "Full load test results will be evaluated."

a. Explain why the Light Load and Power Factor test results would not be evaluated/analyzed along with the Full Load test results in accordance with 807 KAR 5:041, Section 17(1).³

b. Describe the parameters used by Farmers when testing a meter. Example: revolutions per full load, light load, and power factor.

c. Explain why meters tested under the proposed sampling plan are not being held to the accuracy requirements of +/- 1 percent in accordance with 807 KAR 5:041, Section 17(1).

³ Test Procedures and Accuracy Requirements. (1) Meters and associated devices shall be tested at the loads indicated below and adjusted as close as practicable to zero error when found to exceed the tolerance prescribed below.

d. Explain how using a +/- 2 percent accuracy threshold provides any indication of the overall performance of the group being tested if the Commission requires all meters to adhere to a minimum accuracy of +/- 1 percent.

e. Provide the manufacturer's accuracy specifications and estimated service life for each meter type that will be subject to the proposed sampling plan.

f. Provide a copy of Farmers' detailed meter testing procedures.

7. Refer to the section "Procedure (cont.)" and the statement, "No meter shall remain in service without periodic test for a period longer than twenty-five (25) years."

a. If meters are randomly selected for testing, state whether Farmers believes that it is possible that some meters in its system may never be tested during a 25-year period.

b. State whether Farmers believes it is possible that some meters may be tested multiple times within the span of 25 years.

8. Refer to the section "Cost Savings to Farmers RECC due to a change to Sample Metering."

a. Explain how the \$30 cost to test was derived.

b. If additional testing is required per the sample plan (which may occur because of failure of a group or groups and/or a greater percentage of meters being selected for testing because of the group's or groups' previous-year performance), state whether Farmers has a plan and the resources to perform the additional testing required within the defined time period.

c. If additional meters are required to be tested along with the samples selected for that year, estimate the additional costs that could be incurred for

testing these meters and explain whether the contracted costs would increase because of the additional demand.

9. State whether every new meter will be tested by the manufacturer and whether the test results for each unit will be provided to Farmers. If not, explain why this information is not needed.



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DATED JUN 18 2013

cc: Parties of Record

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