

BRITE & HOPKINS, PLLC
ATTORNEYS AT LAW

134 COURTHOUSE SQUARE, P.O. BOX 309
HARDINSBURG, KENTUCKY 40143-0309
PHONE (270) 756-2184, FAX (270) 756-1214

RECEIVED

MAR 29 2010

PUBLIC SERVICE
COMMISSION

STEPHEN G. HOPKINS
e-mail: shopkins@bbtel.com

THOMAS C. BRITE
e-mail: tbrite@bbtel.com

March 25, 2010

Mr. Jeff Derouen, Executive Director
Public Service Commission
211 Sower Blvd.
PO Box 615
Frankfort, KY 40602-0615

RE: Case No. 2009-00496

Dear Mr. Derouen:

Enclosed you will find the data you requested in the above-styled action pursuant to your order dated March 18, 2010.

If you have any other questions regarding this matter, please notify me accordingly, I am,

Yours very truly,



Thomas C. Brite

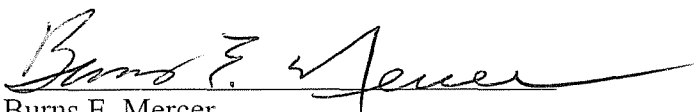
tcb/svh

enclosure

cc: Mr. Burns E. Mercer, President/CEO
Meade County RECC
PO Box 489
Brandenburg, KY 40108

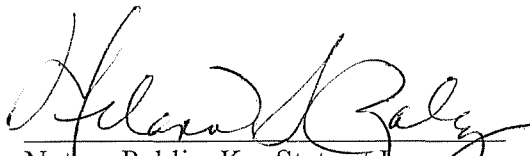
VERIFICATION

The undersigned, Burns E. Mercer, being first duly sworn states that he is the President and Chief Executive Officer of Meade County Rural Electric Cooperative Corporation; certifies that he supervised in the preparation of the response and that the response is true and accurate to the best of his knowledge, information, and belief formed after a reasonable inquiry.


Burns E. Mercer

COMMONWEALTH OF KENTUCKY)
COUNTY OF Meade)

SUBSCRIBED AND SWORN TO before me by Burns E. Mercer on
this 25th day of March, 2010.


Notary Public, Ky, State at Large
My Commission Expires 3-18-2012

RECEIVED
MAR 29 2010
PUBLIC SERVICE
COMMISSION

**MEADE COUNTY RURAL ELECTRIC COOP. CORP.
RESPONSE OF MEADE COUNTY RECC
TO SECOND DATA REQUEST OF COMMISSION STAFF**

CASE NO. 2009-00496

**MEADE COUNTY RURAL ELECTRIC COOP. CORP.
RESPONSE OF MEADE COUNTY RECC
TO SECOND DATA REQUEST OF COMMISSION STAFF**

CASE NO. 2009-00496

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

Question 1a.) Provide a detailed description of Meade County’s AMR and/or AMI program.

At a minimum, include the follows: a) A description of the meter used;

Response 1a.) Meade County RECC has installed the Landis +Gyr, formally Hunt Technologies, TS2 system. This system is a two way AMR/AMI system. In the beginning of this installation, all vendors utilized the terminology “AMR” or Automated Meter Reading for their systems. The vendors have since changed their terminology to “AMI” or Automated Metering Infrastructure; therefore, the terminology AMR and AMI is interchangeable in Meade’s CWP’s, the response to the staff’s data request of February 2, 2010, and this response.

a. Meade County currently has the following meters installed:

Electomechanical

Sangamo J4S, J4ES, and J5S single phase meters

GE I70S single phase meters

Digital

Landis + Gyr Focus AL single phase meters

Landis + Gyr S4 three phase meters

Witness) Mike French

**MEADE COUNTY RURAL ELECTRIC COOP. CORP.
RESPONSE OF MEADE COUNTY RECC
TO SECOND DATA REQUEST OF COMMISSION STAFF**

CASE NO. 2009-00496

1 **Question 1b.)** A description of the type of AMR module or AMR retrofit;

2

3 **Response 1b.)** All electromechanical meters have a module retrofitted into the meter. Digital
4 meters are installed with a board that reads directly from the registry of the meter.

5

6

7 **Witness)** Mike French

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

**MEADE COUNTY RURAL ELECTRIC COOP. CORP.
RESPONSE OF MEADE COUNTY RECC
TO SECOND DATA REQUEST OF COMMISSION STAFF**

CASE NO. 2009-00496

1 **Question 1c.)** A description of the AMI module;

2

3 **Response 1c.)** As stated in 1. AMR and AMI terminology is interchangeable. See 1. b.

4

5 **Witness)** Mike French

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

**MEADE COUNTY RURAL ELECTRIC COOP. CORP.
RESPONSE OF MEADE COUNTY RECC
TO SECOND DATA REQUEST OF COMMISSION STAFF**

CASE NO. 2009-00496

1 **Question 1d.)** The cost of each component;

2

3 **Response 1d.)** Costs (labor not included for module installation):

4	Focus AL meter	\$28.75
5	Focus module	\$71.00
6	S4 meter	\$189.67
7	S4 module	\$150.00
8	Electromechanical Module	\$68.00
9	Substation AMR/AMI equipment (per substation)	\$20,000
10	(Installation cost not included)	

11

12 **Witness)** Mike French

13

14

15

16

17

18

19

20

21

22

23

24

**MEADE COUNTY RURAL ELECTRIC COOP. CORP.
RESPONSE OF MEADE COUNTY RECC
TO SECOND DATA REQUEST OF COMMISSION STAFF**

CASE NO. 2009-00496

1 **Question 1e.)** A description of the capabilities of the AMI equipment cited above;

2

3 **Response 1e.)** The TS2 system is a two way AMR/AMI system capable of providing KWh,
4 demand statistics, voltage (digital meters only), outage count, and blink reports, and time-of-use
5 (calculated in the module).

6

7 **Witness)** Mike French

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

**MEADE COUNTY RURAL ELECTRIC COOP. CORP.
RESPONSE OF MEADE COUNTY RECC
TO SECOND DATA REQUEST OF COMMISSION STAFF**

CASE NO. 2009-00496

1 **Question 1f.)** A discussion of the AMR and/or AMI capabilities currently utilized by Meade
2 County;

3

4 **Response 1f.)** Meade County currently collects KWh, max demand, time and date of max
5 demand, voltage (digital meters only), momentary outage count, sustained outage count, and sustained
6 outage duration (monthly).

7

8 **Witness)** Mike French

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

**MEADE COUNTY RURAL ELECTRIC COOP. CORP.
RESPONSE OF MEADE COUNTY RECC
TO SECOND DATA REQUEST OF COMMISSION STAFF**

CASE NO. 2009-00496

1 **Question 1g.)** A discussion of the AMR and/or AMI capabilities not currently utilized by

2 Meade County;

3

4 **Response 1g.)** Meade County currently does not utilize the time-of-use capability (calculated in
5 the module) of the AMR/AMI system.

6

7 **Witness)** Mike French

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

**MEADE COUNTY RURAL ELECTRIC COOP. CORP.
RESPONSE OF MEADE COUNTY RECC
TO SECOND DATA REQUEST OF COMMISSION STAFF**

CASE NO. 2009-00496

1 **Question 1h.)** The number of meters with AMI modules currently installed;

2

3 **Response 1h.)** Meade County currently has the following meters installed with AMR/AMI
4 modules:

5 20,921 Electomechanical meters

6 7,199 Focus AL meters

7 20 S4 three phase meters

8

9 **Witness)** Mike French

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

**MEADE COUNTY RURAL ELECTRIC COOP. CORP.
RESPONSE OF MEADE COUNTY RECC
TO SECOND DATA REQUEST OF COMMISSION STAFF**

CASE NO. 2009-00496

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

Question 1i.) The total cost of the AMR and and/or AMI program;

Response 1i.) Total Cost of Meade County's AMR/AMI system:
 Substation equipment: \$477,818.81
 Meters and modules (labor not included for module installation):
 \$2,327,504.42

Witness) Anna Swanson

**MEADE COUNTY RURAL ELECTRIC COOP. CORP.
RESPONSE OF MEADE COUNTY RECC
TO SECOND DATA REQUEST OF COMMISSION STAFF**

CASE NO. 2009-00496

1 **Question 1j.)** A description of Meade County's AMR and/or AMI plans for its three-phase
2 accounts.

3
4 **Response 1j.)** Meade County is investigating the cost benefits of installing AMR/AMI
5 modules in its existing 3 phase meters accounts, any new three phase meters bought will be the
6 Landis+Gyr S4 meters with module installed.

7
8 **Witness)** Mike French

9
10
11
12
13
14
15
16
17
18
19
20
21
22
23

**MEADE COUNTY RURAL ELECTRIC COOP. CORP.
RESPONSE OF MEADE COUNTY RECC
TO SECOND DATA REQUEST OF COMMISSION STAFF**

CASE NO. 2009-00496

1 **Question 2.)** If not included in response to Item 1 of this request, provide (a) a narrative
2 description of all AMR equipment currently installed in Meade County’s distribution system and (b) a
3 narrative description of all AMI equipment currently installed in Meade County’s distribution system.

4
5 **Response 2a.)** Meade County RECC has the following equipment installed for its AMR/AMI
6 system: Each substation has a Substation Processing Unit or “SPU”, and a Transformer Coupling Unit
7 or “TCU”. The SPU is connected to each feeder using current transformers and collects the data from
8 each meter module throughout the day. A server residing at Meade County’s office then downloads
9 this data nightly. The TCU sends programming information and time syncs to the meter module. This
10 TCU utilizes a three phase transformer bank to connect to the power line. All of Meade County’s
11 substations use high speed Ethernet communication in the forms of DSL, satellite or microwave to
12 communicate with our office. These communication links are secured with firewalls and utilize a VPN
13 connection.

14
15 **Response 2b.)** As stated in 1. AMR and AMI terminology is interchangeable. See 2. a.

16
17 **Witness)** Mike French

18
19
20
21