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April 15, 2010

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PUBLIC SERVICE
COMMISSION

Mr. Jeff Derouen
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, KY 40602

**RE: Administrative Case No. 2010-00055
Application of South Kentucky Rural Electric Cooperative Corporation for a
Certificate of Convenience and Necessity to Construct Additional Lines and
Facilities.**

Dear Mr. Derouen:

Please find enclosed the original and four (4) copies of South Kentucky RECC's response to the Commission Staff's Data Request dated April 12, 2010.

Should you require further information, please let me know. You may contact me at 606-678-4121.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Stephen Johnson', is written over a horizontal line.

Stephen Johnson
Vice President of Finance
South KY RECC

JB Enclosures

RESPONSE TO COMMISSION STAFF'S DATA REQUEST

- Q. 1 Refer to Section II, H, page 14, of the Construction Work Plan ("CWP") provided with South Kentucky RECC's Application. South Kentucky RECC refers to an analysis disc providing "circuit loading by substation and line section, voltage drops on a 120 volt base, primary losses, number of consumers by section, circuit, and substation, primary conductor size and miles from the sub, and fault current levels." Provide this disc, along with Map 1, Map 2, Appendix 1, Appendix 2, and Appendix 3 mentioned in Section II, H.
- R. 1 Copies of the disc were included with the original copy in the initial application. SKRECC has provided additional copies along with this filing in the enclosed following pockets Item No. 1 page 2 of 2. The Windmil files provide all the data and loading/voltage information in tabular form and graphically. Appendix 1 is the existing system and actual January 2009 peak of 418.5MW. Appendix 2 is the existing system with a load of 559MW applied, and Appendix 3 is the future system with improvements and future design load 559MW. The pdf maps provide a graphical reference for the job locations

RESPONSE TO COMMISSION STAFF'S DATA REQUEST

- Q. 2. Refer to Section II, H, page 14, paragraph 7, of the CWP. South Kentucky RECC states that a discussion concerning regulator changes necessary to maintain adequate voltage will take place on page 28. As page 28 fails to address these issues, provide the relevant dialogue.
- R. 2. Specific regulator changes and additions are on page 26. Our design criteria specify that we maintain 117 volts (on a 120 volt base) on the primary distribution system.

RESPONSE TO COMMISSION STAFF'S DATA REQUEST

- Q. 3. Refer to Section I, F, page 5, of the CWP. The total for the column labeled System Improvements is listed as \$12,510,445. The System Improvement amounts for the years 2010 through 2013 sum to \$12,333,295. Indicate which amount is correct and necessary, supply an updated table for Section I, F with the correct totals.
- R. 3. The total for the column labeled System Improvements should indeed be \$12,333,925. This column total was the only incorrect amount in this table. The yearly totals and the grand total are correct.

Please see Item No. 3 page 2 for an updated table with the correct totals.

F. SUMMARY OF PROPOSED 4-YEAR CONSTRUCTION AND COSTS

The costs of the recommended construction program over the next four years are summarized as follows:

<u>Year</u>	<u>New Construction</u>	<u>System Improvements</u>		<u>Total</u>
2010	\$6,576,500	\$2,952,715	=	\$9,529,215
2011	\$7,518,500	\$3,085,330	=	\$10,603,830
2012	\$8,219,600	\$3,160,310	=	\$11,379,910
2013	\$8,949,850	\$3,134,940	=	\$12,084,790
CWP totals	\$31,264,450	\$12,333,295	=	\$43,597,745

The total amount above is subject to RUS loan funds. Specifics of new construction items and system improvements begin on page 16.

II. BASIS OF THE STUDY AND PROPOSED CONSTRUCTION

A. DESIGN CRITERIA

The RUS General Field Representative reviewed each of the following design criteria items on June 30, 2009.

Construction proposed herein is required to meet the following minimum standards for voltage, thermal load, safety, and system reliability.

1. The minimum voltage on primary distribution lines is 117 volts on a 120-volt base (125 volts at the source after re-regulation).
2. Primary conductors loaded over 75% of their thermal loading are to be evaluated for uprating. Thermal conductor ratings will be calculated using the ANSI/IEEE STD 738-91 method of calculation.
3. The following equipment will have maximum loading not to exceed the following nameplate percentages:
 - a. Power transformers 130% winter; 100% summer
 - b. Regulators 130% winter; 100% summer
 - c. Voltage Conv. Trans. 130% winter; 100% summer
 - d. Reclosers 70% winter or summer
 - e. Line Fuses 70% winter or summer
4. Conductors (and associated poles and hardware as required) will be rebuilt as needed.

RESPONSE TO COMMISSION STAFF'S DATA REQUEST

- Q. 4. Refer to Section II, B, page 7, of the CWP. The 2010-2013 total for Code 300 is \$3,495,300. Refer to pages 21 and 22 of the CWP. The total cost of the multiphase jobs (\$766,300), the total cost of the three voltage conversion (\$241,800 = \$50,000 + \$54,000 + \$137,800), and total cost of the conductor replacements items (\$2,544,700) sum to \$3,552,800, Refer to Page 22 where the CWP states, "Total Code 300 costs - \$3,676,550." Reconcile the differences among these three amounts - \$3,495,300, \$3,552,800, and \$3,676,550.
- R. 4. The correct total is \$3,495,300. The error occurred in the table on page 22. Job 322.91 shows \$57,500 in year 2011 and in 2013. The job should only be in year 2011. This changes the yearly totals and the grand total, which should be \$3,495,300 (comprised of \$2,487,200 + \$241,800 + \$776,300).

RESPONSE TO COMMISSION STAFF'S DATA REQUEST

- Q. 5. Refer to Service Interruptions table in Section II, F, page 13, of the CWP.
- a. The row total for the Year 2006 is reported as 3.22. Should this amount be 3.82?
 - b. The Five Year Average for the Total Column is reported as 3.80. Should this be restated if the row total for the Year 2006 is 3.82?
 - c. Provide an updated Service Interruptions table with correct row and column totals.
- R. 5(a) The yearly total for 2006 should be 3.82. This was a typographical error.
- R. 5(b) The 5 year average should be 3.92.
- R. 5(c) Updated table provided. See Item No. 5 page 2.

F. SERVICE INTERRUPTIONS

AVERAGE ANNUAL HOURS/CONSUMER BY CAUSE

<u>Year</u>	<u>Power Supply</u>	<u>Storm</u>	<u>Pre-Arranged</u>	<u>Other</u>	<u>Total</u>
2004	.12	1.23	.01	2.81	4.17
2005	.09	.26	.12	2.06	2.53
2006	.19	.04	.8	2.79	<u>3.82</u>
2007	.12	1.39	.13	2.13	3.77
2008	.15	1.97	.36	2.83	5.31
<u>5 Year Average</u>	.13	.98	.28	2.52	<u>3.92</u>

RESPONSE TO COMMISSION STAFF'S DATA REQUEST

Q. 6. Refer to the Historical Annual Energy, Load and Consumer Data table in Section II, G, page 13, of the CWP. Verify that the Annual Load Factor reported for 2003 is 38.0 percent. Show all calculations.

R. 6.
$$\begin{aligned} \text{LF} &= \text{KWH sold} / (\text{peak KW}(365*24)) \\ &= 1,037,801,000 / (312,000(365*24)) \\ &= 38\% \end{aligned}$$