

COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION
PSC CASE NO 2013-00198
DATED OCTOBER 15, 2013

Item Number 1
Page 1 of 1
Witness: Mary Elizabeth Purvis

Question:

1. Refer to Exhibit C, page 4, Exhibit B – Annual Expenses, Line 2. Provide the basis for the calculation to determine “Interest & margin 6.5 percent.” Also explain the “current CFR 15-year rate” and the derivation of the margin.

Response:

1. The interest rate of 3.25% was the rate for fifteen year loan from the National Rural Utilities Cooperative Finance Corporation (“CFC”). South Kentucky Rural Electric Cooperative Corporation has been authorized a Times Interest Earned Ratio (“TIER”) of 2.0X in its most recent rate applications. The calculation for TIER is the sum margins plus interest divided by interest. Thus, margins will equal interest when a TIER of 2.0X is authorized. An interest rate of 3.25% will provide a margin rate of 3.25% for a 3.0X TIER. When the two parts are summed, the result is a factor of 6.5%.

COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION
PSC CASE NO 2013-00198
DATED OCTOBER 15, 2013

Item Number 2

Page 1 of 1

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Question:

2. Refer to Exhibit C, page 7, paragraph 18 of the Application. Identify the software supporting the prepay metering program.

Response:

2. Southeastern Data Cooperative's utility software: Utility Power Net, Meter Data Management and Prepaid Metering Solutions. Aclara Two-Way Automatic Communication System (TWACS) Technology provides two-way communication to electric meters over power lines.

COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION
PSC CASE NO 2013-00198
DATED OCTOBER 15, 2013

Item Number 3

Page 1 of 4

Witness: Mary Elizabeth Purvis

Question:

3. Refer to response to Item 5 of Commission Staff's First Request of Information ("Staff's First Request").
 - a. Describe the purpose and functions of the Aclara substation hardware component.
 - b. Describe the purpose and functions of the Pad Mounts.
 - c. Describe the purpose and functions of the Power Line Carrier Equipment.
 - d. Explain whether the \$2.56 million investment in substation hardware is related solely to the prepay metering program, an investment in South Kentucky's AMI system, or existing investment in substation communication equipment unrelated to the prepay metering program or AMI system.
 - e. Provide a breakdown of the \$4,930,867 of Benefits Costs.
 - f. Provide a breakdown of the \$882,668 of Overhead Costs.

Response:

- 3a. The substation hardware consists of several components which includes the transformer and power line equipment mentioned below. The hardware components are: substation communications equipment (SCE), control receiver unit (CRU), modulation transformer unit (MTU), outbound modulation unit (OMU), inbound pickup unit (IPU) and multiple input receiver assembly (MIRA).

COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION
PSC CASE NO 2013-00198
DATED OCTOBER 15, 2013

Item Number 3
Page 2 of 4
Witness: Mary Elizabeth Purvis

SCE is the communications hub for the TWACS system. Installed at the substation, the SCE provides the communications connections between the TWACS modules and the master station.

The control receiver unit (CRU) performs the actual communications management function. It is a small rack of equipment that can be installed in the substation control building or in an outdoor enclosure. One CRU is generally required per substation. It will accept either AC or station battery power.

The Pad Mounts (MTU) and Power Line Carrier Equipment (OMU, IPU, MIRA) are discussed below and are all part of the overall installed substation hardware.

- 3b.** The modulation transformer unit (MTU) is a modified conventional pad-mounted distribution transformer that transforms the OMU signal up to the distribution voltage for placement onto the distribution system. One MTU is required per independent substation bus, up to approximately 40 MVA.

COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION
PSC CASE NO 2013-00198
DATED OCTOBER 15, 2013

Item Number 3

Page 3 of 4

Witness: Mary Elizabeth Purvis

- 3c.** The outbound modulation unit (OMU) comprises the power electronics that transform the information from the CRU into an outbound modulated signal. This equipment is installed in an aluminum outdoor-rated enclosure mounted onto, or adjacent to, the MTU. One OMU is required per independent substation bus section, up to approximately 40 MVA.

The inbound pickup unit (IPU) is connected to the existing feeder metering, or bus metering, CT circuit and provides the inbound signal from the meters, or other devices, to the CRU for processing.

When concurrent phase communications are utilized (e.g. overlapping TWACS communication on all three electrical phases), the multiple input receiver assembly (MIRA) acts as a multiple process receiver that increases the maximum number of transactions that can be performed at once, and hence, overall system capacity. MIRA increases the rate that meters can be added to, and addressed in, the TWACS system. The MIRA also reduces the bandwidth required for searching and querying meters and allows the use of all six channels through advanced-notch filtering technology.

COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION

PSC CASE NO 2013-00198

DATED OCTOBER 15, 2013

Item Number 3

Page 4 of 4

Witness: Mary Elizabeth Purvis

- 3d.** The \$2.56 million investment provides the backbone for the entire AMI system and is not used solely for the prepay metering system; however, we requested cost recovery only on the percentage cost of the system that correlates to prepay. If the entire \$2.56 million is divided by our total number of active accounts and multiplied by 2,000 participants, this equates to the cost per member related to prepay.

3e.

Benefit Cost	
Insurance- Medical, Dental, Life, Disability, Workers Compensation	\$1,912,564.68
Employer 401K Contribution	187,609.06
Other- Miscellaneous	23,487.25
Other Wages- Bonuses, Service Awards	56,688.73
Payroll Taxes- Federal, State, Unemployment	629,413.62
Retirement - Includes Post-Retirement Healthcare Benefit Obligation	2,121,104.04
Total:	<u>\$4,930,867.38</u>

3f.

Overhead Cost	
Post Retirement Benefit Obligation - FAS 106 & 158	\$882,668.00
Total:	<u>\$882,668.00</u>

COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION
PSC CASE NO 2013-00198
DATED OCTOBER 15, 2013

Item Number 4

Page 1 of 2

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Question:

4. Refer to the response to Item 7 of Staff's First Request which states, "the monthly software support fee pays for the maintenance that SKRECC must pay to SEDC for the prepay software."
- a. Identify and describe SEDC and state whether South Kentucky has a software support contract with SEDC. IF so, provide the contract and explain how the \$1,370 monthly software support fee was determined.
- b. If no software support contract exists between South Kentucky and SEDC, explain how the \$1,370 monthly cost for software support was determined..

Response:

- 4a. SEDC refers to our Utility Management Software provider SouthEastern Data Cooperative, Inc.. SouthEastern Data Cooperative provides us with an integrated software solution that enables us to manage our membership accounts from initiation of service through the service life of the members account. A component of this software package is a bundled Meter Data Management (MDM) and Prepaid Metering solution. This added component integrates with the Consumer Information System and allows us to provide usage and balance information to the member. The Prepaid Metering System is dependent upon the MDM package. The cost of which, per the vendor is based on the total number of meters for the system. The \$1,370 is based on 68,500 meters with a cost of \$.02 per meter. Currently,

COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION
PSC CASE NO 2013-00198
DATED OCTOBER 15, 2013

Item Number 4

Page 2 of 2

Witness: Mary Elizabeth Purvis

there is no separate software support agreement contract for the prepaid metering program.

4b. See 4a above.