Question:

Refer to Section IV-B of the application, pages 5 and 6, code 305 and 306. These pages state that a new proposed mine is to be added at the end of the feeder.

a) Provide the status of the new mine, including an explanation as to whether construction has begun on the mine and the anticipated date on which the mine is to begin operation.

Response:

Surface mining is already underway. The permits have been obtained for a deep mine. Construction will begin on the deep mine once the electrical service is in place. The electrical service (substation and feeder upgrade) is estimated to be in place one year after the Commission grants Licking Valley a CPCN for this 2012-2015 Construction Work Plan.

b) Will the Code 305 and 306 projects be needed or completed if the new mine is not added?

Response:

No. The line conversion projects would not be necessary; however the upgrade in mainline conductor will improve overall reliability to the area. A set of voltage regulators would be proposed for end-of-line voltage support of the native system if the conversion/upgrade did not occur.

c) Will service to the new mine require a service contract? If so, when does Licking Valley anticipate executing such a service contract?

Response:

Yes, a prepayment contract will be put into place with a timeline for the estimated life of the mine.

d) Will the mine owner be responsible for the cost of the Code 305 and 306 projects? If no, why not? If the mine owner is only partially responsible for the cost of the projects, explain why and what portion the owner will be responsible for and what portion Licking Valley will be responsible for.

Response:

No, the mine operator will put money upfront for the construction of projects 305 and 306. The exact amount of contribution is still to be determined. This money will be considered as the prepayment mentioned in 1c. The mine will then receive a discount on its monthly bill for a specified number of years so that they may recoup their upfront monetary contribution. If the mine ceases to operate before the number of years are met, they will forfeit the return of the balance.

Question:

Refer to Section IV-B of the application, page 14, code 314. This page states that a new proposed mine is to be added at the end of the feeder.

a) Provide the status of the new mine, including an explanation as to whether construction has begun on the mine and the anticipated date on which the mine is to begin operation.

Response:

The coal company is expecting to receive the approved permit within the next 18 months. Construction of this mine would begin after the permit approval.

b) Will the Code 314 project be needed or completed if the new mine is not added?

Response:

No, the line conversion will not be necessary without the mine.

c) Will service to the new mine require a service contract? If so, when does Licking Valley anticipate executing such a service contract?

Response:

Yes, LVRECC will get a prepayment contract when the mine permit is approved similar to 1c.

d) Will the mine owner be responsible for the cost of the Code 314 projects? If no, why not? If the mine owner is only partially responsible for the cost of the project, explain why and what portion the owner will be responsible for and what portion Licking Valley will be responsible for.

Response:

Same as 1d.

Question:

Refer to the response to Item 7.a. of Commissions Staff's Initial Information Request ("Staff's First Request"). Licking Valley states that it proposes to purchase, for residential use, the Hunt Technology TS2 meters. Explain why Licking Valley selected this particular type of meter. Include in the explanation whether these meters are the most advanced meters available on the market and, if not, explain why more advance meters are not being purchased.

Response:

When LVRECC decided to originally implement AMR, the Hunt TS1 was one of the market leaders in AMR metering technology. When the decision was made to offer more opportunities to its members such as DSM, an AMR system that provided two-way communication became necessary. LVRECC decided to stay with the Hunt system and migrate to the TS2 platform. Changing to a different metering system would have been costly, and the Hunt TS2 platform performs the necessary functions. LVRECC feels that the Hunt TS2 metering system is as good as or better than other metering systems, and will perform all proposed DSM projects that LVRECC intends to offer.

Question:

Refer to the response to Item 7.b. of Staff's First Request.

a) Of the electro-mechanical meters that are in service, how many fail and are replaced each year?

Response:

In 2010 and 2011, 18 and 21 electro-mechanical meters failed respectively.

b) Explain whether or not failed meters are replaced with electro-mechanical meters, TS1 meters or TS2 meters.

Response:

Failed meters are replaced with either electronic or electro-mechanical meters pulled from inventory. Which type of meter pulled is at the discretion of the service person installing the meter. The type of communication capability (TS1 or TS2) depends on the area of the system that it will be applied, and what data requirements will be needed.

c) How many electro-mechanical meters are kept in inventory?

Response:

Approximately 100

d) How many TS1 meters are kept in inventory?

Response:

Approximately 100

e) How many TS2 meters are kept in inventory?

Response:

Approximately 200

f) In the event that a customer needs a more advanced meter and the customer's functional electro-mechanical meter or TS1 meter is replaced with a new TS2 meter, explain what Licking Valley does with the electro-mechanical meter or TS1 meter.

Response:

If a meter is still functional, LVRECC will test the meter, reprogram the AMR device and put it in inventory for later use.

g) Is it Licking Valley's position that it is less expensive overall to retrofit an existing meter (either electro-mechanical or TS1) than to replace it? If yes, explain how it is less expensive and provide supporting calculations.

Response:

Yes, the upfront cost of a new meter may be less than it costs to retrofit an existing meter. However over 70% of the meters on the system are electro-mechanical. Given the longevity of meter life of the electro-mechanical meters over the electronic meters, there will be a net savings by using the functional electromechanical meters as long as possible. Licking Valley began installing electronic meters in the field in 2007. Currently there are only 5,400 digital meters out of the 20,400 installed meters in the field. The failure rate of electronic meters after four years of introducing them in the field is about 1.2%. The failure rate of electro-mechanical meters is less than 0.2%. Since the data offering and communication capability of an electro-mechanical meter with a TS1 or TS2 communication module is the same as an electronic meter, LVRECC sees a financial and maintenance benefit in continuing to maintain and use the electro-mechanical meters for as long as possible.

h) Provide a breakdown of the $152 cost (including the labor cost and any equipment cost) to retrofit a meter. Include a separate calculation for aTS1 if it is different from an electro-mechanical meter.

Response:

TS2 AMR Communication module	$55
Labor, Mileage, Testing	$83
Total Retrofit Cost	$138

*The $152 cost is an average cost over the four-year work plan accounting for inflation (4%).

2010-2011, 24 month average cost of retrofit	2012	2013	2014	2015	Average 4 year cost
$138	$144	$149	$155	$161	$152

The retrofit costs for an electronic TS1 meter is the same as an electro-mechanical.

Question:

Refer to the response to Item 7.c. of Staff's First Request.

a) Explain whether an electro-mechanical meter that has been retrofitted with a TS2 module has essentially been changed into a digital meter.

Response:

The metering mechanics still operate as an electro-mechanical meter, but the data storage and communication capability is that of a TS2 meter. In other words, the same data that is available from an electronic meter with TS2 functionality is available from an electro-mechanical meter with a TS2 module.

b) State whether the new TS2 meters, as well as the retrofitted meters, will be capable of remotely reconnecting and disconnecting a customer's service. If no, provide the cost of the upgrade that would be required to do so.

Response:

No. A disconnect meter is a specially ordered meter with a breaker installed at a cost of about $285.

Question:

When did Licking Valley begin the upgrade to TS1 technology?

Response:

2001

Question:

When did Licking Valley begin the upgrade to TS2 technology?

Response:

November 2009

Question:

In response to Item 8 of Staff's First Request, Licking Valley states that two-way communication is needed for Demand-Side Management ("DSM"). Explain the basis for this statement and identify the specific DSM programs that Licking Valley offers or plans to offer that require two-way communication.

Response:

Two-way communication is necessary to perform control functions because parameters are needed from the meter in order to make decisions on control. The two-way system will be used to send control requests and obtain feedback from the meter as to whether the control commands have executed correctly. Another need for two-way communication is for outage validation and to perform disconnect/reconnect functionality. Some of the DSM opportunities LVRECC proposes to offer are water heater control, HVAC control, time-of-use metering, remote disconnect/reconnect and voltage monitoring.

Question:

Provide, on CD-ROM, a copy of the voltage drop study that supports the application.

Response:

Separate mailing due to file size.

Question:

Discuss and provide a copy of the overcurrent analysis and sectionalizing study as referenced on page 2 of Exhibit I-C and page 1 of Exhibit IV-C of the application. Include in the discussion a description of the projects Licking Valley anticipates it will begin during the period of this CWP, any projects performed in prior CWPs, and any efforts to prioritize projects.

Response:

System Overcurrent Analyses and the associated Sectionalizing Studies are performed on a substation-by-substation, ongoing basis. This method permits the cooperative to minimize circuit recloser inventory by replacing devices on a time-based maintenance plan. Many reclosers may be reconditioned and re-used for the next substation area to be analyzed. The advent of programmable electronic recloser controls also allows the cooperative to minimize its fixed-setting hydraulic recloser inventory.

Projects, in this CWP, will be prioritized by substation, on a time-based maintenance basis. It is estimated that four to five substations will be analyzed during the CWP period. Also, any areas that exhibit coordination problems are analyzed immediately. The RUS Code 603 cost ($1,000,000) in this CWP is based on the projected sectionalizing/upgrade activity during the four-year planning period.

In 2011, a new substation (Hot Mix) was constructed for the cooperative by its G&T. This project necessitated an Overcurrent Analysis and Sectionalizing Study due to increased fault current levels and changes in distribution feeder configurations.

ALSO refer to **SECTIONALIZING STUDIES** on page 2 of Exhibit II-D.