

**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

**In the Matter of:**

**INVESTIGATION OF KENTUCKY UTILITIES )  
COMPANY'S AND LOUISVILLE GAS & )  
ELECTRIC COMPANY'S RESPECTIVE NEED ) CASE NO. 2015-00194  
FOR AND COST OF MULTIPHASE LANDFILLS )  
AT THE TRIMBLE COUNTY AND GHENT )  
GENERATING STATIONS )**

**SUPPLEMENTAL RESPONSE OF  
KENTUCKY UTILITIES COMPANY AND  
LOUISVILLE GAS AND ELECTRIC COMPANY**

**TO THE COMMISSION STAFF'S INITIAL REQUEST FOR INFORMATION  
DATED JULY 2, 2015**

**FILED: JULY 31, 2015**

**KENTUCKY UTILITIES COMPANY**  
**LOUISVILLE GAS AND ELECTRIC COMPANY**

**Supplemental Response to the Commission Staff Initial Request for Information**  
**Dated July 2, 2015**

**Supplemental Response Filed July 31, 2015**

**Case No. 2015-00194**

**Question No. 8**

**Witness: David S. Sinclair/John N. Voyles/R. Scott Straight**

Q-8. Refer to the Sterling Ventures Formal Complaint.

a. Refer to page 12, paragraph 33, which states that the MACTEC 2012 Analysis submitted to the Environmental Protection Agency did not include Sterling Venture's mine option, although it was submitted six months after Sterling Ventures submitted its proposal. State whether this paragraph is accurate, and if so, explain why the Sterling Ventures option was not included.

b. Refer to page 18, paragraph 48, which states that, in a Supplemental Analysis, the Companies abandoned the 30 percent beneficial reuse assumption used in GAI Consultant's January 2014 Alternatives Analysis.

(1) State whether this is accurate. If so, explain the reason for the change.

(2) Provide the details and terms of the current beneficial reuse contracts associated with the Trimble County station.

c. Refer to page 21, paragraph 54. This paragraph states that Sterling Ventures prepared a PVRR analysis of the Trimble County Landfill versus its underground mine alternative. Provide the changes the Companies believe would be necessary, if any, in order to make the analysis more accurate.

A-8. **ORIGINAL RESPONSE**

c. The analysis referenced in paragraph 54 is summarized in Exhibit S to the Sterling Ventures Formal Complaint. For the underground mine alternative, Exhibit S inappropriately excludes the cost of the CCR treatment facility that is needed to prepare the CCR for transport (see response to SV 1-9). The analysis summarized in Exhibit U to the Sterling Ventures Formal Complaint includes this cost. Until the Companies receive the source spreadsheets for these exhibits, it is difficult to fully

evaluate the analyses. Based on a review of the exhibits, the following changes are needed to make these analyses more accurate:

- i. In preparing Exhibits S and U, Sterling Ventures assumed that CCR can be unloaded from barges in Warsaw, Kentucky and transported via truck approximately 9 miles to their limestone mine. Due primarily to the high volume of truck traffic that would be required, the Companies do not believe this is a viable alternative. Instead, the CCR would need to be barged further upriver to a barge unloading facility located closer to the mine. The analyses in Exhibits S and U exclude the cost of the pipe conveyor required to transport the CCR from this barge unloading facility to the mine as well as the cost of permitting and developing the property on which the pipe conveyor would be constructed.
- ii. Exhibits S and U exclude the cost of a conveyor (for the underground mine alternative) to transport CCR from the CCR treatment facility to the barge loading facility.
- iii. Exhibits S and U exclude barge fleeting costs (for the underground mine alternative) for positioning the barges during the loading and unloading process.
- iv. For the landfill alternative in Exhibit S and both alternatives in Exhibit U, the assumed cost to operate the CCR treatment facility is \$6/ton (gross). This assumption is taken from Appendix P to the Sterling Ventures Formal Complaint on page 117 of 183 and pertains to the capital cost of the CCR treatment facility. Since this capital cost is already included for the landfill alternative in Exhibit S and for both alternatives in Exhibit U, this cost is double-counted in Exhibit S for the landfill alternative and unnecessarily included in Exhibit U for both alternatives.

In February 2015, the Companies compared the cost of the underground mine alternative to the cost of the onsite landfill (see the handout "Evaluation of Trimble County Coal Combustion Residual Storage Options" from the June 19, 2015 Informal Conference; the cost information in the handout reflects 100 percent of the project costs). In that analysis, the following cost assumptions were updated based on the Companies' existing contracts for similar services and should be incorporated in Exhibits S and U:

- i. Barge loading and unloading cost. The February 2015 analysis included a fixed cost to maintain the barge loading and unloading facilities (see "Barge Operating Cost" in Table 3 at page 7 of the handout) as well as a variable cost to load and unload the barges (see "Barge Loading" and "Barge Unloading" costs in Table 4 at page 8 of the handout).
- ii. CCR transport cost. In the February 2015 analysis, the cost to transport CCR in both alternatives was updated based on the cost for similar services at the Companies' Ghent station (see Table 4 at page 8 of the handout).

**SUPPLEMENTAL RESPONSE TO PSC 1-8c (iv)**

- iv. For the landfill alternative evaluated in Exhibit S to Sterling Ventures' Complaint and for both alternatives evaluated in Exhibit U to Sterling's Complaint, a cost of \$6 per cubic yard was included as a cost to operate the CCR treatment facility. This assumption was taken from a paragraph in Appendix P to the Sterling Complaint on page 117 of 183. Sterling Ventures interpreted this cost as an operating cost and included it in addition to the capital cost of the CCR treatment facility. However, as the Companies stated in their original response, this cost represents the capital cost of the CCR treatment facility. As a result, the inclusion of this cost in addition to the capital cost of the CCR treatment facility is double-counting the capital cost of the CCR treatment facility.

A copy of the paragraph from the 404 Permit analysis that references the \$6 per cubic yard figure is quoted at the bottom of this response. As can be seen in that paragraph, the \$6 per cubic yard figure is not identified as an operating cost. In the 404 Permit analysis, the sum of capital and operating costs for each alternative is ultimately stated on a dollar per cubic yard basis. In the paragraph referenced in the 404 Permit analysis, the capital cost of the CCR treatment facility was stated on a dollar per cubic yard basis so that the magnitude of the cost could be assessed versus the total cost of each alternative.

The operating cost for the CCR treatment facility is \$1 to \$1.5 million per year. This cost is applicable to both the Sterling alternative and the landfill alternative. The exclusion of this cost was not listed as a criticism of Sterling Ventures' analysis because it would have no impact on the comparison of alternatives.

Supplement to Alternatives Analysis (Sterling Venture's Complaint Exhibit P, page 117 of 183)

**APPENDIX III.D-1 – METHODS FOR ASSESSMENT OF COSTS**

**SECTION 1: APPROACH TO COST ANALYSIS**

- *Costs for the four case study alternatives are presented in conceptual detail in Tables III.D-1 through III.D-4 in the Supplement. For selected other alternatives, cost information is provided in Appendix IV.A-2. Analyses of project costs can apply different methodologies depending on the purpose for which the cost estimates are being made. For an alternatives analysis, the primary requirement is to generate costs that allow a fair comparison among conceptual alternatives. As such the cost analysis in GAI (2014) and in this Supplement reflects the following considerations. Costs that are common to every alternative do not need to be estimated or presented. An example for the case of CCR disposal is that all material must be processed and treated to be in a dry form (<20% moisture*

*content) before it is transported offsite. At Trimble County Generating Station, this cost alone is estimated to exceed \$6 per cubic yard. The treatment cost does not vary among alternatives and therefore is not included in the cost comparisons among alternatives. The costs in the Supplement are those appropriate for comparison among disposal alternatives, and do not represent the full cost of CCR management.*