### **COMMONWEALTH OF KENTUCKY**

### **BEFORE THE PUBLIC SERVICE COMMISSION**

#### In the Matter of:

INVESTIGATION OF KENTUCKY UTILITIES COMPANY'S AND LOUISVILLE GAS AND ELECTRIC COMPANY'S RESPECTIVE NEED FOR AND COST OF MULTIPHASE LANDFILLS AT THE TRIMBLE COUNTY AND GHENT GENERATING STATIONS

CASE NO. 2015-00194

### STERLING VENTURES' RESPONSES TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION

Sterling Ventures, LLC ("Sterling") hereby submits the following in response to Commission Staff's Second Request for Information dated August 20, 2015.

Respectfully submitted, Sterling Ventures, LLC

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Walters yr By: John V. Walters, Jr.

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Dated: September 3, 2015

### CASE NO. 2015-00194

## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

## Question No. 1 Responding Witness: John Walters

1. Provide an estimate of the cost of insurance to cover the liability of coal combustion residual ("CCR") storage at the Sterling Ventures mine.

**<u>RESPONSE</u>**: Sterling does not need any additional insurance to cover beneficial reuse of CCR in the mine. If the Staff's request is in connection with the cost of bonding performance, Sterling has estimated, the cost of bonding would be between .5% to 1.5% of the amount to be bonded based upon conversations with bonding agencies.

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# Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

# Question No. 2 Responding Witness: John Walters

2. At what point of the CCR transfer to the Sterling Ventures mine will Sterling Ventures assume 100 percent of the liability for the CCR?

**<u>RESPONSE</u>**: Sterling would assume 100 percent of the liability for coal combustion residuals upon the CCR being loaded into trucks at the proposed Warsaw Barge facility.

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## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

## Question No. 3 Responding Witness: John Walters

- 3. Refer to Sterling Ventures' response to Commission Staff's Initial Request for Information ("Staff's First Request"), Item 2.a., related to Sterling Ventures' efforts to obtain a permit modification.
  - a. State whether the amendment referred to in the response was filed the week of July 20, 2015.

**<u>RESPONSE</u>**: Sterling was not able to file the amended application until August 21, 2015.

b. State whether Sterling Ventures has received any indication of when it can expect to obtain the permit modification.

**<u>RESPONSE</u>**: At the time of the filing, Staff at the Ky. Division of Waste Management indicated a 2-3 month review period.

### CASE NO. 2015-00194

## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

Question No. 4 Responding Witness: John Walters

- 4. Refer to Sterling Venture's response to the requests for information ("Requests") of Kentucky Utilities Company and Louisville Gas and Electric Company ("Companies "), Item 35. Describe with specificity the steps Sterling Ventures intends to take and any initial steps Sterling Ventures has taken to address the Companies ' concerns regarding mitigation of operational risks from an interruption or reduction to the Companies ' ability to store CCR at the Sterling Ventures mine.
  - **a.** <u>**RESPONSE:**</u> Trucks currently move CCR from the Trimble facility, and can be used for interruptions in the supply of coal or limestone to Trimble County on the river. In the event of an interruption in Sterling's ability to store CCR in Sterling's mine which exceeds the on-site temporary capacity at Trimble County, Sterling would provide the trucks necessary to haul CCR from Trimble County directly to the new Ghent Landfill. This backup is the Companies contingency plan in the event the necessary permits to build the Trimble landfill or delayed or denied.

In its application for the CPCN for the Ghent Landfill, the Company estimated that at the end of the analysis period for the Ghent Landfill, there would be between 10 and 15 Million cubic yards of available space in the landfill depending on CCR production and beneficial reuse (see Attachment A to this Supplemental Response – Case 37). If Ghent's current production and beneficial use continues, the available capacity would be greater than anticipated in Attachment A.

### CASE NO. 2015-00194

## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

Question No. 5 Responding Witness: John Walters

5. Refer to Sterling Ventures' response to the Companies' Request, Item 38. Explain whether Sterling Ventures would extend the timeline to ship any net CCR that cannot be beneficially used in Sterling Ventures mine to an alternate site if the Companies provide evidence that three years is not an adequate timeframe to complete the construction of an on-site landfill.

**<u>RESPONSE</u>**: Sterling's proposal for any short term or long term interruption issue would be to use the Ghent landfill. As indicated above, Sterling would be willing to truck CCR from Trimble to Ghent for an additional reasonable period, not to exceed 5 years.

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## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

Question No. 6 Responding Witness: John Walters

6. Provide an estimated timeline illustrating the completion of the barge loading-andunloading transport area, truck transport, pipe/conveyor and any other major components and when Sterling Ventures will be able to take delivery of the product.

**<u>RESPONSE</u>**: First with respect to infrastructure necessary at Sterling's mine, Sterling could have a temporary surface hopper and short covered conveyor system to load articulated trucks in place and ready to operate within 2 weeks. Construction of a shaft used to dump CCR into the mine from the surface could be completed with 3 months, and if the volume of CCR is sufficient, a new slope into the mine could be completed in 6 to 8 months. Sterling would not use any pipe conveyors in connection with onsite beneficial use. The required heavy mobile equipment is readily available.

With respect to the barge loading and unloading facilities, actual construction could be completed within a year, if not sooner. The more critical time issue is obtaining the required permits from the Army Corp of Engineers for the barge sites. Trimble County already has barge facilities in place at Trimble County, and presumably the existing permits could be amended to add any additional required facilities.

The location at the edge of Warsaw that Sterling is proposing for the off loading facility also has an existing barge permit, however for a different type of use. Conversations with the Corp indicate that this permit would also need to be amended to build the additional facilities required at that site. The permitting process could be as quick as 6 months or as long as one year, depending up the final design of the barge facility and required site improvements.

### CASE NO. 2015-00194

## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

Question No. 7 Responding Witness: John Walters

 Refer to the Direct Testimony of John N. Voyles, Jr. ("Voyles Testimony") page 13, line 17. Confirm that Sterling Ventures did not submit a proposal with respect to CCR disposal at Trimble County after the Environmental Protection Agency ("EPA") inquiry.

**<u>RESPONSE</u>**: After Sterling discovered in late August 2014 that the EPA had identified Sterling's mine as a possible alternative to the Trimble landfill, Sterling assumed that LG&E/KU would initiate contact to discuss the issues raised by the EPA. After not hearing anything for 3 weeks, Sterling initiated contact with Scott Straight on September 24<sup>th</sup> to ask if the Companies were interested in discussing the option of using Sterling's mine as an alternative to the Trimble Landfill.

Mr. Straight responded by email on October 3, 2014 stating that as a result of the EPA's August 2014 letter, the Companies were now evaluating Sterling's mine as an alternative CCR disposal option, and he requested basic information as a preliminary step in his analysis. On October 24, 2014, Sterling responded to Mr. Straight's questions by email with a preliminary proposal on price and logistics, but specifically noted that the responses were based upon limited knowledge of specific details concerning how the CCR would be staged at the plant, and the contemplated terms of the contractual obligations between the parties. Sterling noted that it may be appropriate to meet and discuss any issues and questions regarding its responses, as well as meet with the USACE and KDWM. Sterling based its proposal on transporting the CCR by truck. However, Sterling indicated that it would be interested in discussing the option of constructing a new barge facility near Sterling's mine for CCR transportation.

On October 31, 2014, Mr. Straight emailed Sterling that no more information was required to allow them to complete their evaluation. There was no request to meet, discuss or obtain any additional information from Sterling, or question any of Sterling's responses as to proposed pricing, logistics or any other of Sterling responses to the preliminary inquiry. There specifically were no questions about whether Sterling's proposed price was contingent upon the purchase of limestone, and the price proposed did not state, nor was it intended to include, any such contingency.

On December 1, 2014, Sterling discovered that a barge permit had been issued to the owner of an industrial parcel of property in Warsaw, Kentucky near Sterling's mine. Sterling immediately contacted Mr. Straight by email about this development to ask if he would be interested in discussing the possibilities of this barge site. Mr. Straight responded on December 5, 2014 questioning whether an existing barge load-out facility was physically on the new site. Sterling responded that same day telling Mr. Straight that the riverside improvements were in place, but construction of a new load-out facility would be required. After that brief email exchange, Sterling heard nothing more from the Companies. Sterling sent two additional emails on December 11, and December 30, 2014 asking Mr. Straight if he wanted to sit down and talk about the newly discovered barge site option, with no response.

Mr. Volyes' testimony that Sterling did not submit a formal proposal is disingenuous. It was impossible to submit a more detailed proposal as to price and logistics with respect to an alternative for a \$668 million project when the Companies refused to sit down and have any substantive discussion regarding the proposed option, and informed Sterling that no additional information was required.

### CASE NO. 2015-00194

## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

Question No. 8 Responding Witness: Steve Gardner

8. Given that the CCR is a fine particulate, explain how Sterling Ventures will control for dust during the barge transport, truck transport, pipe transport and during interior mine movement.

**<u>RESPONSE</u>**: CCR as a fine particulate is similar in nature to other materials handled in and around the Sterling Ventures' operation. Water sprays, covered trucks, water trucks on roads are all typical methods used in operations. However, based on projected moisture content of the CCR coming from Trimble County, Sterling does not anticipate dust issues in connection with material movement.

### CASE NO. 2015-00194

## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

Question No. 9 Responding Witness: Steve Gardner

9. Refer to the Direct Testimony of J. Steven Gardner ("Gardner Testimony "), page 3. State whether Mr. Gardner is aware of any mines being used to store CCR as proposed by Sterling Ventures in this proceeding. If so, identify the mines, mine owners, mine locations, and the entity storing CCR in the mines.

**<u>RESPONSE</u>**: At the present time, Mr. Gardner is not aware of mines storing CCR under the circumstances in this situation. However, backfilling of mine voids has been a long standing industry practice in underground mines for a variety of reasons, disposal of processing waste, stabilization and roof control. One benefit of backstowing is always reduction of the area required to be ventilated.

### CASE NO. 2015-00194

## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

Question No. 10 Responding Witness: Steve Gardner

10. Refer to the Gardner Testimony, page 4, lines 10-14. Identify the virgin material for which the CCR is substituting.

**<u>RESPONSE</u>**: The virgin material would be (i) rock from the mine itself that is pushed up to the maximum height practical along with ventilation curtain (heavy plastic or tarp type) material which is hung from frames to seal, block or direct airflow in the mine or (ii) concrete mine stops.

### CASE NO. 2015-00194

## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

# Question No. 11 Responding Witness: Steve Gardner

- 11. Refer to the Gardner Testimony, page 5, lines 10-17.
  - a. Provide documentation to support the minimal environmental impacts referred to in this paragraph

**<u>RESPONSE</u>**: The minimal environmental impacts referred to here are the benefits of using the Sterling Materials mine to place materials in a sequestered, underground area as an alternative to using a surface CCR landfill as proposed by LG&E.

b. Explain what is meant by "certain support facilities" as used on line 15.

**<u>RESPONSE</u>**: Support facilities referred to here would be the handling structures at the mine, truck dump, shaft or slope, and internal facilities below surface.

### CASE NO. 2015-00194

## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

Question No. 12 Responding Witness: John Walters

12. Refer to the Gardner Testimony, page 6, lines 3-4. Explain why Sterling Ventures believes only a modification of the current permit from gypsum to CCR is necessary.

**<u>RESPONSE</u>**: During discussion with the Ky Division of Solid Waste concerning the ability of Sterling to beneficially use all CCR from Trimble County, Sterling was told a modification would be needed, given that it already had a permit. Modifications are required whenever a new product is proposed to be added to the products listed in the original, or any subsequent modification.

### CASE NO. 2015-00194

## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

Question No. 13 Responding Witness: Steve Gardner

13. Refer to the Gardner Testimony, page 6, lines 5-6 regarding the need to amend the Kentucky Department of Natural Resource mining permit to reflect material handling facilities. Explain why Sterling Ventures would need to amend this permit and provide the status of the amendment process.

**<u>RESPONSE</u>**: KY DNR Non Coal permit requirements would dictate that any change in surface facilities be reflected in the mine permit documents and maps. Such a change is relatively minor and would not require a long period for approval after submittal.

### CASE NO. 2015-00194

## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

### Question No. 14 Responding Witness: Steve Gardner

14. Refer to the Gardner Testimony, page 10, lines 19-23. Provide the production rate of the mine for each year since the start of mining operations.

**<u>RESPONSE</u>**: Sterling Ventures began production of limestone at the quarry during FY 1999 and has recorded the following annual tons of limestone produced with an estimated cubic yards of underground mine space created:

Year	Production Tons	Est. Volume (CY)
1999	508,937	243,161
2000	922,627	440,816
2001	1,426,453	681,535
2002	1,201,988	574,290
2003	1,453,082	694,258
2004	1,541,249	736,383
2005	1,738,039	830,406
2006	1,545,447	738,388
2007	1,518,386	725,459
2008	1,706,031	815,113
2009	1,310,855	626,304
2010	1,112,560	531,562
2011	1,454,174	694,780
2012	978,380	467,453
2013	1,200,504	573,581
2014	1,147,288	548,155
TOTALS	20,766,000	9,921,644

### CASE NO. 2015-00194

## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

### Question No. 15 Responding Witness: Steve Gardner

- 15. Refer to page 11 of the Gardner Testimony
  - a. Refer to line 7. Explain the use of 90 percent for available mine space.

**<u>RESPONSE</u>**: 90% is an assumption of the maximum amount of space that would be available for CCR storage in the mine, based upon spacing requirements to move around the mine and place the CCR.

b. Refer to lines 14-16. Explain the consequences if the 1 percent limestone sales and production increase does not occur in this scenario.

**RESPONSE:** The long term ability to completely store all CCR would be diminished capacity requiring a possible alternative site near the end of the 37 year analysis period, assuming maximum production for all 37 years and no CCR sales in that period. The 1% increase is such a modest amount that Sterling could absorb increasing the production and storing the product or selling at discounts to insure the volume was available.

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# Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

Question No. 16 Responding Witness: John Walters

16. Refer to the Gardner Testimony, page 12, lines 1-3. Explain how the CCR would be transported from the CCR Treatment facility to the barges and whether the cost of this transportation is included in Sterling Ventures analysis.

**<u>RESPONSE</u>**: Sterling has assumed that if a CCR Treatment facility was constructed, CCR would be transported either by truck or covered conveyor. The difference would depend on the volume of CCR to be transported. No costs were assumed in Sterling's analysis for transportation between the CCR treatment facility and the barge load out facility.

### CASE NO. 2015-00194

## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

Question No. 17 Responding Witness: Steve Gardner

17. Refer to the Gardner Testimony, page 14, line 18, which is the table of trucking logistics. State whether the figure for trips/day/truck represents a round trip or one-way trip.

**<u>RESPONSE</u>**: The value used for "trips/day/truck" shown in the trucking logistics table represents round trip values.

### CASE NO. 2015-00194

## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

Question No. 18 Responding Witness: Steve Gardner

18. Refer to the Gardner Testimony, page 14, which states: "Unloading at the mine site will involve either direct truck dumping into a mineshaft, or truck dumping at a designated surface staging area and subsequent movement of material to the mineshaft by a loader." State if Sterling Ventures believes that a "designated surface staging area" would be required to comply with the EPA's CCR rules requiring a leachate collection system and groundwater monitoring.

**<u>RESPONSE</u>**: The designated surface staging area would be an area confined to prevent runoff no different from a temporary material handling area around the power plant or a proposed landfill. The EPA's CCR rule anticipates the necessity of temporary handling and staging areas in connection with beneficial use. This option could be required for any movement into the mine prior to the construction of a shaft or the dedicated access ramp for CCR.

### CASE NO. 2015-00194

## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

# Question No. 19 Responding Witness: John Walters

- 19. Refer to the Direct Testimony of John W. Walters, Jr. ("Walters Testimony "), page 4, lines 6- 10.
  - a. Confirm that Sterling Ventures is currently proposing to receive all CCR from Trimble County and not only gypsum.

### **RESPONSE**: Confirmed.

b. Lines 8- 10 state that "Sterling [Venture] was not interested in coal ash going into its mine if the ash would later be classified as hazardous." State whether this statement indicates that Sterling Venture had no interest in storing the Trimble County CCR in its mine prior to the issuance of the final CCR Rule by the EPA on December 19, 2014.

**<u>RESPONSE</u>**: No. By 2014, Sterling's belief, based upon periodic review of the issue, was that the CCR regulations would regulate CCR under Subtitle D of RCRA as a non hazardous waste, verses Subtitle C as a hazardous waste. The EPA's letter to the Companies questioning why Sterling's mine had not been considered in the CWA 404 alternatives analysis solidified that belief.

### CASE NO. 2015-00194

# Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

Question No. 20 Responding Witness: John Walters

20. Refer to the Walters Testimony, pages 18-19. Provide a copy of the analysis described on these pages in Excel spreadsheet format with the formulas intact and unprotected.

**<u>RESPONSE</u>**: See CONFIDENTIAL Attachment B.

#### CASE NO. 2015-00194

### Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

Question No. 21 Responding Witness: John Walters

- 21. Refer to the Walters Testimony, page 21, lines 3-6 and page 22, lines 13-19, regarding Kentucky Division of Waste Management ("KDWM") staff's opinions regarding how the new CCR regulations would affect Sterling Ventures ' ability to "beneficially reuse CCR in its limestone mine.
  - a. State whether Sterling Ventures asserts that KDWM staff determined that the proposed use of CCR in Sterling Ventures 'limestone mine provides a functional benefit as the term is used in the new CCR regulations. If yes, explain the basis for that assertion and provide written documentation of the KDWM determination.

**<u>RESPONSE</u>**: The KDWM staff indicated that a final determination would be dependent on the review of a submitted modified permit. However, during discussion with KDWM, after Sterling described the new source of CCR, the Staff gave no indication that the new CCR rules would adversely impact the existing permit, or a modification of the existing permit. The purpose of the meetings and discussions with the KDWM staff was specifically to address that point. If there had been indication by the Staff, or the EPA, that the new CCR regulation prohibited the proposed beneficial use, Sterling would not have proceeded.

b. State whether Sterling Venture asserts that KDWM staff determined that the proposed use of CCR in Sterling Ventures 'limestone mine substitutes for the use of a virgin material as the term is used in the new CCR regulations. If so, explain the basis for that assertion and provide written documentation of the KDWM determination.

**<u>RESPONSE</u>**: Discussion with KDWM staff did not focus specifically on the virgin material question other than a discussion of the proposed use and current methods of use of stopping to direct airflow. KDWM has not made a formal determination that replacing crushed stone, concrete stoppings and/or plastic curtains (constructed from oil products) are virgin materials replaced by CCR.

However, in discussion with Steve Souders of the EPA, the specific proposal to use the CCR in the mine as an alternative to stone, plastic barriers and concrete stopping was discussed. Again, there was no indication from Mr. Souders that the new CCR rules would prohibit the proposed beneficial use of CCR for mine ventilation purposes.

### CASE NO. 2015-00194

## Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

Question No. 1 Responding Witness: John Walters

22. Refer to the Walters Testimony, page 22, lines 1-3. Explain in detail what is meant by the statement "Sterling's requirement to maintain an active mining operation prevents excess quantities of CCR beyond what is necessary to fill voids in mined out, abandoned areas of the mine."

**<u>RESPONSE</u>**: Sterling cannot place more material in the mine than is necessary to fill voids for ventilation purposes, and therefore all quantities of CCR placed in the mine result in increased ventilation efficiencies.

#### CASE NO. 2015-00194

### Response to Data Request of Staff of the Kentucky Public Service Commission Dated August 20, 2015

Question No. 23 Responding Witness: John Walters

- 23. Refer to the Walters Testimony, page 26, lines 5-10.
  - a. State when Sterling Ventures first became aware of the Companies' assertion regarding the need for a CCR treatment facility in conjunction with CCR disposal.

**<u>RESPONSE</u>**: Sterling understood that the Companies were proposing a CCR treatment facility in connection with the Trimble Landfill similar to the treatment facility the Companies constructed for the Ghent Landfill. However, Sterling's proposal for Ghent was that the Gypsum portion of the CCR treatment facility was not required because the gypsum could be excavated from the stacking pond, which is designed to de-water the gypsum to approximately 7%-12% moisture by natural gravity drainage (depending on temperature and rainfall) without the need to mechanically dewater using the CCR treatment facility.

Because Sterling was unable to meet or have any substantive discussions with the Companies regarding alternatives to the treatment facility, at the time of the Complaint, Sterling did not know that the Companies had ruled out alternative methods of drying the CCR that could be used in conjunction with the proposal to transport the materials to Sterling's mine.

Sterling first learned about the Companies' claim that no other alternatives are available to dry the CCR at the first Informal Conference in this matter.

b. Explain what steps Sterling Venture has taken to investigate the Companies' assertion that CCR treatment is needed in conjunction with CCR disposal.

**RESPONSE:** As stated above, without the cooperation of the Companies, Sterling has been unable to make any meaningful investigation as to whether less expensive alternatives for the treatment of CCR can be utilized in connection with Sterling's proposal to beneficially use CCR in its mine.