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PUBLIC SERVICE  
COMMISSION

**VIA HAND DELIVERY**

May 8, 2015

Mr. Jeff Derouen  
Executive Director  
Kentucky Public Service Commission  
211 Sower Boulevard, P.O. Box 615  
Frankfort, Kentucky 40602-0615

**Re: Case No. 2015-00089**

*In the Matter of the Application of Duke Energy Kentucky, Inc., for a Declaratory Order that the Construction of a New Landfill Constitutes an Ordinary Extension in the Usual Course of Business or, in the Alternative, for a Certificate of Public Convenience And Necessity.*

Dear Mr. Derouen:

Enclosed please find an original and twelve copies of the following for filing in the above referenced matter:

1. Responses to Attorney General's Second Request for Information;
2. Petition for Confidential Treatment;
3. Responses to Commission Staff's Second Request for Information; and,
4. Petition for Confidential Treatment.

The Petitions for Confidential Treatment are being filed with white envelopes, containing the confidential material to be filed under seal.

Please date-stamp the two copies of the letter and the filing and return to me in the enclosed envelope.

Sincerely,

Rocco D'Ascenzo  
Associate General Counsel  
[rocco.d'ascenzo@duke-energy.com](mailto:rocco.d'ascenzo@duke-energy.com)

cc: Hon. Jennifer Hans (w/enclosures)

RECEIVED

MAY 08 2015

PUBLIC SERVICE  
COMMISSION

VERIFICATION

STATE OF OHIO )  
 )  
COUNTY OF HAMILTON ) SS:

The undersigned, Tom Wiest, Engineer II, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

\_\_\_\_\_  
Tom Wiest, Affiant

Subscribed and sworn to before me by Tom Wiest on this 5<sup>th</sup> day of May 2015.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires:




ROCCO O. D'ASCENZO  
ATTORNEY AT LAW  
Notary Public, State of Ohio  
My Commission Has No Expiration  
Section 147.03 R.C.


**VERIFICATION**

**STATE OF OHIO** )  
 ) **SS:**  
**COUNTY OF HAMILTON** )

The undersigned, Nick Sellet, Supt Technical, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

  
\_\_\_\_\_  
Nick Sellet, Affiant

Subscribed and sworn to before me by Nick Sellet on this 5<sup>th</sup> day of May, 2015.

  
\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires:



**ROCCO O. D'ASCENZO**  
**ATTORNEY AT LAW**  
Notary Public, State of Ohio  
My Commission Has No Expiration  
Section 147.03 R.C.

**VERIFICATION**

**STATE OF OHIO** )  
 ) **SS:**  
**COUNTY OF HAMILTON** )

The undersigned, Tammy Jett, Principal Environmental Specialist, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of her knowledge, information and belief.

Tammy Jett  
Tammy Jett, Affiant

Subscribed and sworn to before me by Tammy Jett on this 1<sup>ST</sup> day of May, 2015.

Adele M. Frisch  
NOTARY PUBLIC


**ADELE M. FRISCH**  
Notary Public, State of Ohio  
My Commission Expires 01-05-2019

My Commission Expires: 1/5/2019

VERIFICATION

STATE OF OHIO )  
 ) SS:  
COUNTY OF HAMILTON )

The undersigned, William Don Wathen Jr, Director of Rates & Regulatory Strategy OH/KY, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

  
\_\_\_\_\_  
William Don Wathen Jr, Affiant

Subscribed and sworn to before me by William Don Wathen Jr, on this 5<sup>th</sup> day of May, 2015.

  
\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: 7/8/17



E. MINNA ROLFES  
Notary Public, State of Ohio  
My Commission Expires  
July 8, 2017

## TABLE OF CONTENTS

<u>DATA REQUEST</u>	<u>WITNESS</u>	<u>TAB NO.</u>
STAFF-DR-02-001	Thomas E. Wiest/ Nicholas R. Sellet .....	1
STAFF-DR-02-002	Thomas E. Wiest/ Nicholas R. Sellet .....	2
STAFF-DR-02-003	Tammy Jett .....	3
STAFF-DR-02-004	Tammy Jett .....	4
STAFF-DR-02-005	William Don Wathen, Jr. ....	5

**Duke Energy Kentucky**  
**Case No. 2015-00089**  
**Staff Second Set Data Requests**  
**Date Received: May 1, 2015**

**STAFF-DR-02-001 PUBLIC**

**REQUEST:**

Refer to Duke Kentucky's response to Commission Staff's Initial Request for Information ("Staff's First Request"), Item 6.

- a. With respect to the response to Item 6.a., explain how Duke Kentucky arrived at the estimated costs for each phase of the proposed West Landfill project.
- b. With respect to the response to Item 6.c., explain why the land cost is not included in the budgeted cost of \$159 million for the landfill project, and provide the impact of including the land cost in the analysis of relative benefits and costs of the project.

**RESPONSE:**

**CONFIDENTIAL PROPRIETARY TRADE SECRET (As to Attachments Only)**

- a. The cost of Cell 1 is based on bidder estimates, engineering studies, and engineering estimates. A detailed cost breakdown is included in Confidential Staff-DR-02-001 Attachment A, which has been filed with the Commission under the petition for confidential treatment. The cost for the major items (the road, sediment pond, the cell construction, borrow area) are based on engineering studies or the actual low bid. Other items (pumping station electrical and mechanical) are based on Duke Energy Kentucky's estimates, which are based on

past projects. See Confidential Staff-DR-02-001 Attachments B and C, which have been filed with the Commission under a petition for confidential treatment, for low bidder pricing sheet and road engineering estimate.

Cells 2-5 costs are based on the Cell 1 construction costs because they will be similar in size and scope but include provisions for meeting the CCR requirements.

Cells 6 and 7 are estimates that are less expensive than Cells 1-5 because they share liner systems with cells below them.

Cell 8 would be similar in scope to Cells 1-5 but requires additional ditch extensions and road construction.

Cell 1 and the common equipment are considered to be one project. Cells 2,3,4 would be considered separate projects and the estimates for Cells 2-8 are and closure are budgetary estimates that were made based on the budgeted cost of Cell 1 and the cost of other projects completed by Duke Energy Kentucky with the information that is available today. Duke Energy Kentucky typically does not complete a detailed estimate until 1 to 3 years before the project of a construction begins.

- b. The cost of land is considered separate and immaterial in relation to the construction of the landfill. The West landfill is only approximately 200 acres of the close to 1000 acres of land acquired through the various land purchase transactions. Duke Energy Kentucky acquired a 31% interest share of this land as part of acquisition of the 31% interest in the East Bend Station from the Dayton Power & Light Company. There was no separate value negotiated and associated



with DP&L's 31% interest in the land included in the transaction, as it was part of the total negotiated transaction purchase price, that included among other things, the generating asset, land and future capacity revenues.

The remaining 69% interest in the land that was acquired from Duke Energy Ohio and its subsidiary Tri-State Improvement was necessary and beneficial in that it resulted in Duke Energy Kentucky acquiring 100% ownership and control over all the available land surrounding its East Bend campus. This land in turn can be used for whatever purpose Duke Energy Kentucky deems necessary. The approximate \$2.5 million acquisition price for the land from Duke Energy Ohio and Tri-State was for the remaining interests in all of the land available at the East Bend site. The purchase price for the 69% interest was based upon the book value, as opposed to its much higher market value. The costs to acquire the land were reasonable and provide Duke Energy Kentucky and its customers with a significant benefit unique property adjacent to Duke Energy Kentucky's generating station for future use at a price below market. The West Landfill itself is only approximately 200 acres of the close to 1000 acres of land acquired through the land purchase transactions. Even if the land acquisition was considered part of the West landfill project costs, only those acres used for the landfill project should be included. The Company estimates that this proportional cost of the land acquisition has a minimal impact to the overall economics of the project.

**PERSON RESPONSIBLE:** Thomas E. Wiest/Nicholas R. Sellet

CONFIDENTIAL PROPRIETARY TRADE SECRET

Duke Energy East Bend West Landfill - Common Items for all Cells			
Description	Est. Cost	Source	Notes
Tree clearing and grubbing	██████████	Bid	Sediment pond, borrow area, road, common areas
Haul Road	██████████	Engineering Study	Common to all cells (from CCR discharge at plant to new landfill)
Maintenance and access road construction	██████████	Bid	Common to all cells (around landfill areas, pipeline areas, etc.)
Wet well (Civil)	██████████	Bid	Common to all cells
Pipeline (Civil)	██████████	Bid	Common to all cells
Transmission line and controls	██████████	Engineering Estimate ██████████	Common to all cells
Sediment pond construction	██████████	Bid (Includes PTI pond cut*unit price from bid+ protective)	Common to all cells
Borrow area construction	██████████	Bid, not including the clearing	Common to all cells
Fencing	██████████	Estimated	Fence around entire landfill site, required by permit
Groundwater Monitoring	██████████	Engineering Estimate (Duke Engineering)	Modification required by CCR
Truck Wash	██████████	Engineering Estimate (Duke Engineering)	Required for air permit compliance
Fuel	██████████	Bid Estimate	Proportion of total fuel submitted in bid use based on spend
PTI	██████████	Actual spend	Engineering and permitting costs from 2007-present
Overheads	██████████		
Total	██████████		
Duke Energy East Bend West Landfill Cell 1 Costs			
Description	Est. Cost	Source	Notes
Duke Labor + Labor Loadings	██████████	Promet	
Construction of Cell 1	██████████	Bid	
Fuel	██████████	Bid Estimate	
Engineering, QA/QC, PTO submittal	██████████	██████████ Bid, archeological services, and permitting	
Overheads	██████████		
Total	██████████		
<b>Grand Total Cell 1</b>	██████████		Includes common items for all cells
Duke Energy East Bend West Landfill Cell 2 Costs			
Description	Est. Cost	Source	Notes
Duke Labor + Labor Loadings	██████████	Used cell 1 estimate and scaled acreage	
Construction of Cell 2	██████████	Used cell 1 estimate and scaled acreage	
Engineering, QA/QC, PTO submittal	██████████	Estimated	
CCR Compliance Liner	██████████	Used cell 1 estimate and scaled acreage	
Fuel	██████████	Used cell 1 estimate and scaled acreage	
Overheads	██████████	7%	
<b>Total Cell 2</b>	██████████		

CONFIDENTIAL PROPRIETARY TRADE SECRET

Duke Energy East Bend West Landfill Cell 3 Costs	Est. Cost	Source	Notes
Duke Labor + Labor Loadings	██████████	Used cell 1 estimate and scaled acreage	
Construction of Cell 3	██████████	Used cell 1 estimate and scaled acreage	
Engineering, QA/QC, PTO submittal	██████████	Estimated	
CCR Compliance Liner	██████████	Used cell 1 estimate and scaled acreage	
Fuel	██████████	Used cell 1 estimate and scaled acreage	
Overheads	██████████	7%	
<b>Total Cell 3</b>	██████████		
Duke Energy East Bend West Landfill Cell 4 Costs	Est. Cost	Source	Notes
Duke Labor + Labor Loadings	██████████	Used cell 1 estimate and scaled acreage	
Construction of Cell 4	\$ ██████████	Used cell 1 estimate and scaled acreage	
Engineering, QA/QC, PTO submittal	██████████	Estimated	
CCR Compliance Liner	\$ ██████████	Used cell 1 estimate and scaled acreage	
Haul Road Extension	██████████	Estimated	
Fuel	██████████	Used cell 1 estimate and scaled acreage	
Overheads	██████████	7%	
<b>Total Cell 4</b>	██████████		
Duke Energy East Bend West Landfill Cell 5 Costs	Est. Cost	Source	Notes
Duke Labor + Labor Loadings	██████████	Used cell 1 estimate and scaled acreage	
Construction of Cell 5	██████████	Used cell 1 estimate and scaled acreage	
Engineering, QA/QC, PTO submittal	██████████	Estimated	
CCR Compliance Liner	██████████	Used cell 1 estimate and scaled acreage	
Haul Road Extension	██████████	Estimated	
Fuel	██████████	Used cell 1 estimate and scaled acreage	
Overheads	██████████	7%	
<b>Total Cell 5</b>	██████████		
Duke Energy East Bend West Landfill Cell 6 Costs	Est. Cost	Source	Notes
Duke Labor + Labor Loadings	██████████	Used cell 1 estimate and scaled acreage	
Construction of Cell 6	\$ ██████████	Used cell 1 estimate and scaled acreage	
Engineering, QA/QC, PTO submittal	██████████	Estimated	
Fuel	██████████	Used cell 1 estimate and scaled acreage	
Overheads	██████████	7%	
<b>Total Cell 6</b>	██████████		

CONFIDENTIAL PROPRIETARY TRADE SECRET

Duke Energy East Bend West Landfill Cell 7 Costs	Est. Cost	Source	Notes
Duke Labor + Labor Loadings	██████████	Estimated	
Construction of Cell 7	██████████	Estimated	Strip temporary cover, install drainage
Engineering, QA/QC, PTO submittal	██████████	Estimated	
Fuel	██████████	Estimated	
Overheads	██████████	Estimated	
<b>Total Cell 7</b>	██████████		
Duke Energy East Bend West Landfill Cell 8 Costs	Est. Cost	Source	Notes
Duke Labor + Labor Loadings	██████████	Estimated	
Construction of Cell 8	██████████	Estimated	Strip temporary cover, install drainage
Engineering, QA/QC, PTO submittal	██████████	Estimated	
Additional ditches and haul road	██████████	Estimated	
Fuel	██████████	Estimated	
Overheads	██████████	Estimated	
<b>Total Cell 8</b>	██████████		
Closure Costs	Est. Cost	Source	Notes
Cap Construction (including fuel costs)	██████████	Base on 2010 Belews Creek Landfill Cap	
Engineering, QA/QC, PTO submittal	██████████	Estimated	
Overhead	██████████	Estimated	
<b>Total Landfill Cap</b>	██████████		
<b>Grand Total All Cells</b>	██████████		
<b>Grand Total</b>	██████████		

**ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS**

ESTIMATED BY:

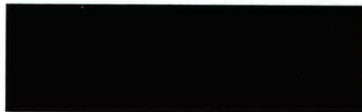
**DUKE ENERGY-WEST LANDFILL HAUL ROAD**

**HAUL VEHICLE: CAT 740**

**STA. 10+00 TO STA. 75+00**

**BOONE COUNTY**

**LENGTH: 6,525 FT (1.231 MI)**



*OPTION 1 - FLEXIBLE PAVEMENT*

ITEM	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	CRUSHED STONE BASE (MAINLINE)	11,200	TON		
2	CRUSHED STONE BASE (SHOULDER)	2,600	TON		
3	ASPHALT BASE (MAINLINE)	28,500	TON		
4	ASPHALT BASE (SHOULDER)	6,800	TON		
5	ASPHALT SURFACE (MAINLINE)	4,800	TON		
6	ASPHALT SURFACE (SHOULDER)	1000	TON		
7	CULV PIPE-15 IN	160	LIN FT		
8	CULV PIPE-42 IN	80	LIN FT		
9	RCBC - 20'X4'	120	LIN FT		
10	PIPE CULV HEADWALL-15 IN	4	EACH		
11	PIPE CULV HEADWALL-42 IN	2	EACH		
12	EMBANKMENT-IN-PLACE	38,000	CU YD		
13	DITCH EXCAVATION	10,000	CU YD		
14	STAKING	1	LP SUM		
15	SEEDING & PROTECTION	14,500	SQ YD		

SUBTOTAL [REDACTED]

CONTINGENCIES (20%) LP SUM 1 [REDACTED] [REDACTED]

**PROJECT TOTAL** [REDACTED]



**STAFF-DR-02-002**

**REQUEST:**

Refer to Duke Kentucky's response to Staff's Initial Request, Item 12. Provide a detailed description of the competitive bid process and the analysis that Duke Kentucky will employ to screen the proposals received in response to those competitive bids.

**RESPONSE:**

The competitive bid process consists of the following:

1. The engineering drawings, scope documents, Duke Energy Kentucky Terms and Conditions, construction safety requirements, and schedule (bid schedule and construction schedule) are compiled into a bid package. The bid package is posted on a website that Duke Energy Kentucky uses for posting bid events called PowerAdvocate.
2. Duke Energy Kentucky compiles a list of bidders - the list consists of contractors that meet Duke Energy Kentucky's safety requirements and are qualified to complete the work in a cost effective manner.

The safety screening for the bidders consists of Duke Energy Kentucky's Corporate Health and Safety Department examining the bidders' safety statistics, including: fatalities, total incident case rate (TICR); and, experience modification rating (EMR).

Determination of whether a bidder is qualified to complete the work, in a cost effective manner, is accomplished by examining each of the bidder's previously completed projects, references provided by the bidder, and past experience with Duke Energy Kentucky and other electric utilities.

Projects similar in size and scope to the landfill typically have 5-6 bidders in the bid event.

3. The bidders are given access to the bid package and a pre-bid meeting is held. The bidders are allowed to make requests for information (RFIs) at any time. Duke Energy Kentucky responds to all RFIs as quickly as possible and provides the answers to all of the bidders for any RFIs that are related to clarification of the scope of work or are technical in nature. Any RFIs related to construction strategy or resource/labor utilization are only answered for the bidder that submits the RFI. The pre-bid meeting is held to allow the bidders to see the site and ask any questions in person, anything that is discussed during the pre-bid is placed in a document and is posted on the PowerAdvocate website for all bidders to view.
4. The bidders are required to upload their bids, including their schedules, construction method plans, and pricing. The bidders are also required to include any exceptions to the terms and conditions, scope, and/or technical requirements. Duke Energy Kentucky also allows the contractors to propose alternate construction schedules or methods if they provide financial benefits.
5. Duke Energy Kentucky evaluates the bidders based on cost, schedule, and other pertinent information and selects the best evaluated bidder to execute the work.



The proposed landfill bid events would be bid on a cell-by-cell basis. Cell 1 and the common equipment are included in the same bid event. Cells 2-8 would be bid separately.

**PERSON RESPONSIBLE:** Nicholas R. Sellet/Thomas E. Wiest

**STAFF-DR-02-003**

**REQUEST:**

Refer to the Direct Testimony of Tammy Jett (“Jett Testimony”), page 14, regarding anticipated modifications to the proposed West Landfill to be in compliance with the Coal Combustion Residual (“CCR”) rule. Provide an explanation as to the scope of the detailed engineering evaluations that need to be done to fully assess the impact of the CCR rule on the West Landfill and the timeline for those evaluations.

**RESPONSE:**

There are three major areas related to the new CCR rule which require detailed engineering evaluations: 1) liner and cap design, 2) run-on and run-off controls; and 3) fugitive dust control. The scope of the detailed engineering evaluations that need to be done to fully assess the impact of the CCR rule on the West Landfill and the timeline for those evaluations include the following:

1. An analysis must be completed on the differences in the current liner and cap design versus the CCR rule required design. As previously stated, Cell 1 can be constructed according to the current liner design if construction begins on Cell 1 by October 2015. A preliminary engineering analysis has been completed for the liner design and is being finalized at this time. The cap design analysis is in progress and should be completed within the next few weeks.

2. Specific run-on and run-off controls must be designed, constructed, operated and maintained in order to assure compliance with the rule. The run-on control system must prevent flow onto the active portion of the landfill during the peak discharge from a 24-hour, 25-year storm. The run-off control system from the active portion of the landfill must collect and control at least the water volume resulting from a 24-hour, 25 year storm event. The current landfill design addresses controlling stormwater, but an engineering assessment must be made to determine if the current design addresses stormwater in the manner prescribed in the CCR rule. It is expected that an engineering assessment regarding run-on and run-off controls will be conducted in the next couple of months.
3. Measures must be adopted that will effectively minimize CCR from becoming airborne at the landfill, including fugitive dust originating from the landfill itself, roads, and other CCR management and material handling activities. An engineering analysis must be done to confirm that sufficient fugitive dust control measures are in the design to meet the CCR rule requirements. A fugitive dust control plan must be prepared specifically to meet the CCR rule by October 2015. Therefore, the engineering analysis will be completed within the next few months in order to allow for the preparation of the plan by the October deadline.

It is anticipated that any design changes required to meet the rule will be achievable.

**PERSON RESPONSIBLE:** Tammy Jett

**Duke Energy Kentucky  
Case No. 2015-00089  
Staff Second Set Data Requests  
Date Received: May 1, 2015**

**STAFF-DR-02-004 PUBLIC**

**REQUEST:**

Refer to the Jett Testimony, page 15, regarding the potential closure of the East Bend ash pond. Has Duke Kentucky begun formal evaluations of the impact of the CCR rule?

- a. If not, provide a detailed timeline for Duke Kentucky's evaluations of the impact of the CCR rule.
- b. If so, provide a detailed description of those evaluations, including a determination of the likelihood of closure for the ash pond and when the closure will potentially occur.

**RESPONSE:**

**CONFIDENTIAL PROPRIETARY TRADE SECRET**

This response will be made available to all parties in this matter upon the execution of a confidentiality agreement.

**PERSON RESPONSIBLE:** Tammy Jett

STAFF-DR-02-005

**REQUEST:**

Refer to the Direct Testimony of William Don Wathen Jr., page 5, regarding the impact on customer rates due to constructing the landfill.

- a. Provide an estimate of the impact on an average residential customer's bill assuming the full cost of the project is being recovered.
- b. Provide all supporting documentation and schedules supporting the calculation.

**RESPONSE:**

- a. As described on page 5 of the Direct Testimony of Nicholas Sellet, the estimated construction cost of the facilities is projected to be \$159 million and the annual O&M costs are projected to be \$3.5 million per year.

For purposes of simplifying the estimate, assume a levelized fixed charge rate of 10% (includes rate of return per the last rate case, property taxes, and depreciation over 30 years) and that all costs of the West Landfill are incremental (*i.e.* there no corresponding reduction in current capital or O&M costs related to closure and ceasing of operation of the existing East Landfill). Therefore, the annual revenue requirement for the first phase would be approximately \$30 million (*i.e.*, the cost of the first phase, Direct Testimony of Nicholas R. Sellet, page 5) multiplied by the 10% levelized fixed charge rate plus the estimated \$3.5

million in annual O&M. If recovery began the day after operations began, the total estimated annual revenue requirement of the first phase would be approximately \$6.5 million (\$3 million in capital related costs plus \$3.5 million in O&M).

Mr. Sellet also testified, on page 5 of his Direct Testimony, that the annual cost of using a third party landfill, would be approximately \$42 million.

Assuming the costs are allocated on a per MWh basis (a reasonable assumption but one for which the Commission may consider alternatives), the Company's proposal would result in an average cost of approximately 0.163 cents/kWh or about \$1.63 per bill for a typical residential customer using 1,000 kWh/month. That compares to a rate of about 1.05 cents/kWh, or \$10.50 per bill for a typical customer, for the alternative option of using a third party landfill for waste disposal. (The rates are calculated by dividing the revenue requirement by 4 million MWhs, which is Duke Energy Kentucky's approximate total retail sales for 2014.)

In the most extreme case, assuming all of the estimated \$159 million of the total construction was spent all at once, rather than in the multiple stages described by the Company, the overall levelized revenue requirement would be approximately \$19.4 million (\$159 million times 10% levelized fixed charge rate plus \$3.4 million), which translates to approximately 0.485 cents/kWh or about \$4.85 per bill, still substantially below the cost of using a third-party landfill.

- b. The cost estimates are provided in the Direct Testimony of Nicholas Sellet. The 10% levelized fixed charge rate is an assumption for illustration purposes. And,

the 2014 retail sales are provided in page 301 of the Company's 2014 FERC Form.

**PERSON RESPONSIBLE:** William Don Wathen Jr.