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Dianne B. Kuhnell.  
Senior Paralegal

**VIA OVERNIGHT DELIVERY**

December 10, 2009

**RECEIVED**

**DEC 11 2009**

**PUBLIC SERVICE  
COMMISSION**

Mr. Jeff Derouen  
Executive Director  
Kentucky Public Service Commission  
211 Sower Blvd  
Frankfort, KY 40601

Re: Case No. 2009-00429

Dear Mr. Derouen:

Enclosed please find an original and nine copies of Duke Energy Kentucky Inc.'s Responses to Staff's First Set of Data Requests and Petition for Confidential Treatment in the above captioned case. Also enclosed in the white envelope is one set of the confidential response being filed under seal.

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

Sincerely,

Dianne B. Kuhnell  
Senior Paralegal

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

DEC 11 2009

PUBLIC SERVICE  
COMMISSION

BACK-UP POWER SUPPLY PLAN )  
OF DUKE ENERGY KENTUCKY, INC. )

CASE NO. 2009-00429

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PETITION OF  
DUKE ENERGY KENTUCKY, INC.  
FOR CONFIDENTIAL TREATMENT OF INFORMATION

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Duke Energy Kentucky, Inc. (Duke Energy Kentucky or Requesting Party), pursuant to 807 KAR 5:001, Section 7, requests the Commission to protect as confidential certain information contained in the response to No. 5 in the Commission Staff's First Data Request dated December 3, 2009. In support thereof, Duke Energy Kentucky states:

1. Duke Energy Kentucky has filed today its responses to the Commission Staff's First Data Request dated December 3, 2009. The response to No. 5 in these responses to data requests contains data describing future scheduled outages for both East Bend 2 and Miami Fort 6. As required by 807 KAR 5:001, Section 7(2)(b), Duke Energy Kentucky is providing one copy of the information under seal.

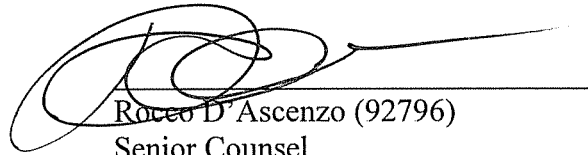
2. The Kentucky Open Records Act exempts from disclosure certain commercial information. KRS 61.878 (1)(c). To qualify for this exemption and, therefore, maintain the confidentiality of the information, a party must establish that disclosure of the commercial information would permit an unfair advantage to competitors of that party. Public disclosure of the information identified herein would, in fact, prompt such a result for the reasons set forth below.

3. If Duke Energy Kentucky is forced to disclose its future period outage schedules for its power plants, the Company's ability to negotiate and transact in the energy markets would be hindered because competitors and potential suppliers would have access sensitive planning data. These counterparties could demand higher prices from Duke Energy Kentucky than they otherwise might be able to charge in the absence of this information. Competitors and vendors would know the timing of future outage periods including the actual months and length of planned outages. Competitors and suppliers would know why Duke Energy Kentucky would be seeking capacity for those periods and could possibly manipulate prices as these counterparties would know how much energy Duke Energy Kentucky needs to purchase. If such a situation would occur, customers would ultimately be harmed by being forced to pay a premium. And, competing purchasers of energy, who have not had such information disclosed, would thus have access to the lower cost supplies. The Commission has previously treated this type of information as confidential in Case No. 2008-00522.

4. The information for which Duke Energy Kentucky is seeking confidential treatment is not known outside of Duke Energy Kentucky, and it is not disseminated within Duke Energy Kentucky except to those employees with a legitimate business need to know and act upon the information.

5. The public interest will be served by granting this Petition, in that keeping this information confidential will afford Duke Energy Kentucky the ability to continue providing reliable service at a reasonable rate for its Kentucky consumers than would occur if the information were publicly disclosed.

WHEREFORE, Duke Energy Kentucky respectfully requests that the Commission classify and protect as confidential the specific information described herein. Respectfully submitted,

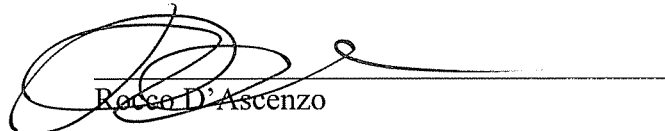


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Rocco D'Ascenzo (92796)  
Senior Counsel  
Amy B. Spiller (85309)  
Associate General Counsel  
Duke Energy Business Services, Inc.  
Room 2500  
139 East Fourth Street  
P.O. Box 960  
Cincinnati, Ohio 45201-0960  
(513) 419-1852  
rocco.d'ascenzo@duke-energy.com

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing was served on the following parties of record by first class, U.S. mail, postage prepaid this 16<sup>th</sup> day of December, 2009.



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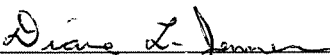
Rocco D'Ascenzo

Hon. Dennis G. Howard  
Hon. Paul E. Adams  
Office of Attorney General  
Utility Intervention and Rate Division  
1024 Capital Center Drive  
Frankfort, Kentucky 40601

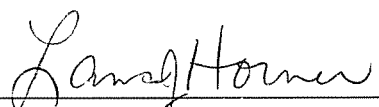
VERIFICATION

State of Indiana            )  
  )  
County of Hendricks        )

The undersigned, Diane L. Jenner, being duly sworn, deposes and says that I am employed by the Duke Energy Corporation affiliated companies as Director, Regulatory Strategy; that on behalf of Duke Energy Kentucky, Inc., I have supervised the preparation of the responses to the foregoing responses to information requests; and that the matters set forth in the foregoing response to information requests are true and accurate to the best of my knowledge, information and belief after reasonable inquire.

  
\_\_\_\_\_  
Diane L. Jenner, Affiant

Subscribed and sworn to before me by Diane L. Jenner on this 4<sup>th</sup> day of December, 2009.

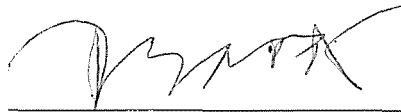
  
\_\_\_\_\_  
NOTARY PUBLIC LANA J. HORNER

My Commission Expires: 4/19/2015

VERIFICATION

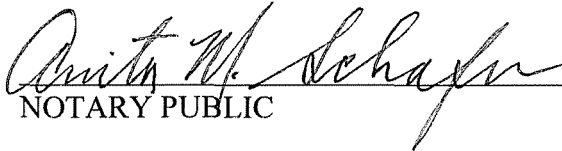
State of Ohio            )  
                                  )  
County of Hamilton    )

The undersigned, Wenbin Chen being duly sworn, deposes and says that I am employed by the Duke Energy Corporation affiliated companies as Portfolio Optimization Manager; that on behalf of Duke Energy Kentucky, Inc., I have supervised the preparation of the responses to the foregoing responses to information requests; and that the matters set forth in the foregoing response to information requests are true and accurate to the best of my knowledge, information and belief after reasonable inquire.



\_\_\_\_\_  
Wenbin Chen, Affiant

Subscribed and sworn to before me by Wenbin Chen on this 7<sup>th</sup> day of December, 2009.

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

My Commission Expires:

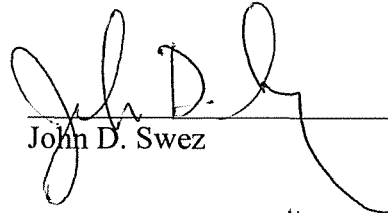


**ANITA M. SCHAFER**  
Notary Public, State of Ohio  
My Commission Expires  
November 4, 2014

VERIFICATION

STATE OF OHIO )  
 ) SS:  
COUNTY OF HAMILTON )

The undersigned, John D. Swez, being duly sworn, deposes and says that he is employed by the Duke Energy Corporation affiliated companies as Director, Bulk Power Marketing and Trading for Duke Energy Business Services, LLC; that on behalf of Duke Energy Kentucky, Inc., he has supervised the preparation of the responses to the foregoing information requests; and that the matters set forth in the foregoing response to information requests are true and accurate to the best of his knowledge, information and belief after reasonable inquiry.

  
John D. Swez

Subscribed and sworn to before me by John D. Swez on this 7<sup>th</sup> day of December, 2009.

**ADELE M. DOCKERY**  
Notary Public, State of Ohio  
My Commission Expires 01-05-2014

  
NOTARY PUBLIC

My Commission Expires: 01/05/2014






VERIFICATION

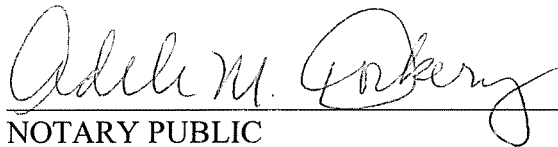
State of Ohio            )  
                                  )  
County of Hamilton    )

The undersigned, Sufeng Zhu, being duly sworn, deposes and says that I am employed by the Duke Energy Corporation affiliated companies as Senior Business Analyst; that on behalf of Duke Energy Kentucky, Inc., I have supervised the preparation of the responses to the foregoing responses to information requests; and that the matters set forth in the foregoing response to information requests are true and accurate to the best of my knowledge, information and belief after reasonable inquire.

  
\_\_\_\_\_  
Sufeng Zhu, Affiant

Subscribed and sworn to before me by Sufeng Zhu on this 8<sup>th</sup> day of December, 2009.

**ADELE M. DOCKERY**  
Notary Public, State of Ohio  
My Commission Expires 01-05-2014


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

My Commission Expires: 01-05-2014

VERIFICATION

State of Ohio                    )  
  )  
County of Hamilton            )

The undersigned, Stephen M. Herrera being duly sworn, deposes and says that I am employed by the Duke Energy Corporation affiliated companies as Director, Financial Trading Bulk Power Marketing and Trading; that on behalf of Duke Energy Kentucky, Inc., I have supervised the preparation of the responses to the foregoing responses to information requests; and that the matters set forth in the foregoing response to information requests are true and accurate to the best of my knowledge, information and belief after reasonable inquire.

  
\_\_\_\_\_  
Stephen M. Herrera, Affiant

Subscribed and sworn to before me by Stephen M. Herrera on this 7 day of December, 2009.

**ADELE M. DOCKERY**  
Notary Public, State of Ohio  
My Commission Expires 01-05-2014

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

My Commission Expires: 01/05/2014



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**Duke Energy Kentucky, Inc.**  
**Case No. 2009-00429**  
**First Set Staff Data Requests**  
**Date Received: December 3, 2009**

**STAFF-DR-01-001**

**REQUEST:**

Explain whether approval of Duke Kentucky's proposed back-up power supply plan will cause any change in its planning reserve margin as compared to the planning reserve margin reflected in its 2008 integrated resource plan.

**RESPONSE:**

The planning reserve margin used in the 2008 IRP was 15%. As discussed in Duke Energy Kentucky's Application in this Case, MISO's Tariff now includes a long-term Resource Adequacy Requirement that sets the required reserve margin going forward. For the 2009/10 Planning Year, Duke Energy Kentucky is required to meet a Planning Reserve Margin on an Unforced Capacity basis ( $PRM_{UCAP}$ ) of 5.35% and for the 2010/11 Planning Year, it is required to meet a  $PRM_{UCAP}$  of 4.5%. Thus, Duke Energy Kentucky will be using a different planning reserve margin going forward than what was used in the 2008 IRP (although, for IRP purposes, it is necessary to translate  $PRM_{UCAP}$  to an equivalent installed capacity reserve margin target so that the modeling can be performed correctly). However, this change in planning reserve margin results from the changes to the MISO Tariff and is not a result of the proposed back-up power supply plan. In addition, the proposed resources to be purchased in this back-up supply plan do not qualify as Planning Resources toward Duke Energy Kentucky's MISO Resource Adequacy Requirement. As discussed in the Application in this Case, the back-up power is needed for reasons other than resource adequacy.

**PERSON RESPONSIBLE:** Diane Jenner



**STAFF-DR-01-002**

**REQUEST:**

Refer to pages 2 and 3 of the application.

- a. Given its status as a direct subsidiary of Duke Energy Ohio, Inc., explain whether Duke Kentucky is treated as a separate load-serving entity for purposes of complying with the Midwest Independent System Operator, Inc.'s ("MSO") Resource Adequacy Requirements.
- b. Provide the planning reserve margin that is assigned to Duke Kentucky under MISO's tariff.
- c. Explain whether East Bend 2 and Miami Fort 6 are each regarded as capacity resources as the term "capacity resource" is used in the first sentence on page 3.

**RESPONSE:**

- a. Yes.
- b. For Planning Year 2009/10, the required MISO  $PRM_{UCAP}$  is 5.35%. For Planning Year 2010/11, the required MISO  $PRM_{UCAP}$  is 4.5%.
- c. Yes, both East Bend 2 and Miami Fort 6, as well as Woodsdale 1-6, are capacity resources for MISO Resource Adequacy purposes.

**PERSON RESPONSIBLE:** Diane L. Jenner





**Duke Energy Kentucky, Inc.**  
**Case No. 2009-00429**  
**First Set Staff Data Requests**  
**Date Received: December 3, 2009**

**STAFF-DR-01-003**

**REQUEST:**

Refer to pages 3 of the application.

- a. Duke Kentucky states that it may use fixed-price financial swap contracts for the scheduled outages in 2010 if they are economic. Describe the process Duke Kentucky will use to determine if such contracts are economic. Identify how far in advance of a scheduled outage Duke Kentucky expects to make such a determination.
- b. Duke Kentucky states that its proposed back-up power supply plan is the same plan strategy the Commission approved in Case No. 2007-00044.<sup>1</sup> Explain whether there are any changes in its proposed back-up plan that Duke Kentucky would consider a significant change from the plan approved in Case No. 2007-00044.
- c. Duke Kentucky states that it will continue to evaluate its back-up power supply during the 2010-2012 period and will make any adjustments necessary due to changing conditions. Explain whether the evaluation is periodic or ongoing, or if it is triggered by certain conditions such as the economy, weather, or other factors.

**RESPONSE:**

- a. Duke Kentucky uses Commercial Business Model (CBM) to simulate dispatch of generation units for the next couple of years. At its most basic level, the model compares current forward power market price with a unit's dispatch cost in determining whether the unit is economic or not. The unit is deemed economic to produce power, if forward power price is higher than the unit's dispatch cost. Otherwise, it's more economic to buy power forward than to run high-cost out-of-the-money owned units. The hedging tool we use to lock in forward power price is fixed-price financial swaps, which is the most liquid product available for the MISO markets. In the last 3 years, Duke Kentucky tracked available economic generation from its own units on daily basis and used financial swaps to hedge power price risk several months in advance of planned outages.

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<sup>1</sup> Case No. 2007-00044, Back -Up Power Supply Plan of Duke Energy Kentucky, Inc. (Ky. PSC Mar. 29, 2007).

- b. The proposed back-up plan is essentially the same as the plan approved in Case No. 2007-00044.
- c. Duke Kentucky intends to evaluate its back-up power supply plan on an ongoing basis. It will incorporate new information, such as new legislations, changes in economy conditions, etc, in its review process.

**PERSON RESPONSIBLE:** Wenbin (Michael) Chen



**STAFF-DR-01-004**

**REQUEST:**

Refer to Table 1 on page 4 of the application.

- a. Verify that the ratings shown for Woodsdale Units 1 – 6 are the individual ratings such that the total ratings are six times those shown in the table.
- b. For the 2010-2012 period, provide Duke Kentucky’s forecasted summer and winter peak demands.

**RESPONSE:**

- a) Each of the six Woodsdale Units has a net rating of 94 MW (Winter), 86 MW (Spring/Fall), and 77 MW (Summer). The Spring/Fall rating in Table 1 for Woodsdale units was incorrectly listed with a net rating of 85 MW instead of 86 MW. In addition, the summation of generation capacity did not recognize that there are six Woodsdale units, not one. The corrected total amount of net capacity is 1141 MW (Winter), 1093 MW (Spring/Fall), and 1039 MW (Summer).

b)

	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Summer Peak (MW)</b>	834	843	854
<b>Winter Peak (MW)</b>	712	719	729

**PERSON RESPONSIBLE:** John Swez



**Duke Energy Kentucky, Inc.**  
**Case No. 2009-00429**  
**First Set Staff Data Requests**  
**Date Received: December 3, 2009**

**STAFF-DR-01-005 PUBLIC**

**REQUEST:**

Refer to Table 2 - Scheduled Outages for Plants on pages 5 and 6 of the application. Explain why the longest scheduled outages for both East Bend 2 and Miami Fort 6 are scheduled in 2012. Include in the explanation the calendar periods in which the outages are expected occur.

**RESPONSE:**

**CONFIDENTIAL PROPRIETARY TRADE SECRET**

The response to this data request has been provided to the Commission under a Petition for Confidential Treatment.

**PERSON RESPONSIBLE: N/A**





**STAFF-DR-01-006**

**REQUEST:**

Refer to Table 6 – Bid Summary on pages 7 through 9 of the application.

- a. For Bid 35-Insurance – Market/Fixed, explain how the two amounts indicated in the Option Premium column relate to the two amounts in the Strike Price column.
- b. Do either of the amounts in the Option Premium column for Bid 35 represent the deductible for the insurance product? If not, provide the deductible amount for the insurance bid.

**RESPONSE:**

- a. Duke was given two options for the insurance premium: a) an option premium and strike price based on Monthly ATM (At-the-Money-Forwards) and b) an option premium and strike price based on “Monthly Insured Prices” that were founded on the production costs of Miami Fort 6 and East Bend 2.

The strike price of \$34.85/MWH and the option premium of \$1,000,000 were based on the ATM option. The strike price represents the average of the monthly ATM prices for 2010. The column labeled “option premium” represents the deductible for the ATM insurance bid in 2010.

The strike price of \$23.91/MWH and the option premium of \$3,000,000 represent the deductible for the production cost option. The strike price represents the average of the monthly production cost based insured prices for 2010. The column labeled “option premium” represents the deductible for the production cost based insurance bid in 2010.

- b. Both amounts in the Option Premium column for Bid 35 represent the deductible for the insurance product. The \$1,000,000 amount is the deductible for the ATM option in 2010 and the \$3,000,000 amount is the deductible for the production cost based option in 2010.

**PERSON RESPONSIBLE:** James S. Northrup





**Duke Energy Kentucky, Inc.**  
**Case No. 2009-00429**  
**First Set Staff Data Requests**  
**Date Received: December 3, 2009**

**STAFF-DR-01-008**

**REQUEST:**

Explain whether Duke Kentucky has performed any analysis of back-up power supply transactions that occurred during the period 2007-2009 comparing the cost-effectiveness of actual transactions to other back-up power supply options it considered in conjunction with Case No. 2007-0044. Include with the explanation a narrative description of the analysis and all correspondence and workpapers prepared relative to the analysis. If no analysis has been performed, explain why.

**RESPONSE:**

No formal analysis was performed for the 2007-2009 time period. As power industry related markets evolve constantly, inevitably some of the assumptions used in determining the best back-up plan change over time. It makes comparing actual transactions in 2007-2009 to other power supply options existed in 2006 irrelevant to some degree. Duke Kentucky used best information available then in deciding which back-up plan it should adopt for 2007-2009.

During this period, Duke Kentucky held informal review of the back-up plan whenever new information becomes available. It's an ongoing process. Results of actual transactions from 2007 were in line with our initial expectations and didn't trigger a formal review.

**PERSON RESPONSIBLE:** Wenbin (Michael) Chen



**STAFF-DR-01-009**

**REQUEST:**

Refer to page 13 of the application. Duke Kentucky states that it believes another long-term supply plan could involve exchanging some capacity at the existing plants for capacity owned by other companies.

- a. Explain whether Duke Kentucky can, or currently does, exchange capacity with Duke Energy affiliates or any non-affiliated utilities.
- b. Explain whether any Duke Energy's affiliates currently exchange capacity for purposes of back-up power supply.

**RESPONSE:**

- a) Duke Energy Kentucky does not exchange capacity with affiliates due to state and federal affiliate restrictions, including pricing, between and among the state jurisdictions. Duke Energy Corporation has a corporate compliance department and legal department that ensures the Duke Energy Corporation, including affiliated companies like Duke Energy Kentucky, complies with federal and state codes of conduct and affiliate transaction rules of the five state jurisdictions and FERC. Duke Energy has several controls in place to monitor compliance with FERC and various state codes of conduct.

Compliance is ensured through online education, training, corporate separation rules and information access limitations. This includes, among other things, ensuring that no Duke Energy Corporation employee, including shared services employees, act as a conduit of information between regulated and non-regulated entities within Duke Energy Corporation. In addition, certain electronically executed transactions are systemically prevented through rules in place with the electronic trading platform.

Duke Energy Kentucky has engaged in capacity purchase and sale transactions with unaffiliated companies and has also participated in the monthly capacity auction that is administered by the Midwest ISO.

- b) Duke Energy Kentucky does not engage in capacity exchange transactions for purposes of back-up power supply with affiliated companies. The Company has approached unaffiliated companies in the past, but there was a lack of interest in this type of product.

In the Carolinas, the co-owners of the Catawba Nuclear Generating Station (Duke Energy Carolinas and certain munis and coops) have an exchange agreement in place that allows them to have access to capacity from Duke Energy Carolinas' McGuire Nuclear Generating Station. Each of the Catawba co-owners own a portion of one Catawba unit. Under the "reliability" exchanges, each owner exchanges a portion of the output of its unit (approximately one-fourth) for an equivalent portion of the output of the other Catawba unit and of each of the two McGuire units.

**PERSON RESPONSIBLE:** Steve Herrera





**Duke Energy Kentucky, Inc.**  
**Case No. 2009-00429**  
**First Set Staff Data Requests**  
**Date Received: December 3, 2009**

**STAFF-DR-01-010**

**REQUEST:**

Refer to page 13 of the application. Duke Kentucky states that it conducted a risk analysis of the proposed insurance product using a hypothetical forced outage rate of 25 percent for Miami Fort 6 and East Bend 2. Explain why a forced outage rate of 25 percent was used rather than 5 percent as indicated in Table 3 – EFOR for Plants for 2010-2012 on page 6 of the application.

**RESPONSE:**

The insurance products are constructed to cover our position when we have an out-of-norm outage situation. So we made assumptions of an extreme situation where our major units (Miami Fort 6 and East Bend 2) both have a very high outage rate of 25% in all months. Even in an extreme situation, the insurance product quoted proved to be uneconomic due to the very high deductibles (\$3/\$4/\$6 million for year 2010/2011/2012). According to the insurance terms, Duke Kentucky will not be able to benefit from the insurance product even under the assumption of high outage rate of 25%. Therefore Duke Kentucky came to the conclusion that those products are not economic to pursue.

**PERSON RESPONSIBLE:** Sufeng Zhu