



DUKE ENERGY CORPORATION

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VIA OVERNIGHT DELIVERY

March 10, 2011

Jeff Derouen
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602-0615

RECEIVED

MAR 11 2011

PUBLIC SERVICE
COMMISSION

Re: Duke Energy Kentucky, Inc.'s 2011 Natural Gas Hedging Plan

Dear Mr. Derouen:

Enclosed please find an original and twelve copies of *Duke Energy Kentucky, Inc.'s Application for Approval of New Hedging Plan* and the *Petition of Duke Energy Kentucky, Inc. for Confidential Treatment Contained in the Hedging Report of April 1, 2010 through March 31, 2011*. Also enclosed is one copy of the Confidential Material (Attachment A and Report) to be Filed Under Seal as requested in the Petition for Confidential Treatment.

Please date-stamp the extra two copies of the Report and Petition and return to me in the enclosed envelope.

Sincerely,

Kristen Cocanougher

cc: Larry Cook (w/enclosures)

RECEIVED

MAR 11 2011

**PUBLIC SERVICE
COMMISSION**

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of the:

APPLICATION OF DUKE ENERGY)
KENTUCKY, INC. TO IMPLEMENT) CASE NO. 2011-____
A HEDGING PROGRAM TO MITIGATE)
PRICE VOLATILITY IN THE)
PROCUREMENT OF NATURAL GAS)

DUKE ENERGY KENTUCKY, INC.'S
APPLICATION FOR APPROVAL OF NEW HEDGING PLAN

Pursuant to 807 KAR 5:001, Section 8 and consistent with the Commission's Order dated August 19, 2008 in Case No. 2008-00175, Duke Energy Kentucky, Inc (Duke Energy Kentucky) respectfully states as follows:

1. Duke Energy Kentucky is a Kentucky corporation and a public utility as defined in Section 278.010 of the Kentucky Revised Statutes (KRS) and is subject to the Commission's jurisdiction. Duke Energy Kentucky is engaged in the business of furnishing gas and electric services to various municipalities and unincorporated areas in Boone, Campbell, Gallatin, Grant, Kenton and Pendleton Counties in the Commonwealth of Kentucky.
2. Duke Energy Kentucky's business address is 139 East Fourth Street, Cincinnati, Ohio 45202. The Company's local office in Kentucky is Duke Energy Envision Center, 4580 Olympic Boulevard, Erlanger, Kentucky 41018.

3. Duke Energy Kentucky's articles of incorporation are on file with the Commission in Case No. 2009-00202 and are incorporated by reference herein pursuant to 807 KAR 5:001, Section 8(3).Duke Energy Kentucky.
4. In an Order dated August 19, 2008 in Case No. 2008-00175, the Commission approved Duke Energy Kentucky's hedging program and required, among other things, periodic reports on the results of the hedging program. Duke Energy Kentucky intends to file its final report after March 31, 2011, upon completion of the current hedging cycle approved in Case No. 2008-00175. Duke Energy Kentucky is filing its request to continue its hedging plan at this time so the Commission has adequate time to review the request and so the Company can begin its hedging strategy immediately after the expiration of the current plan.
5. Ordering Paragraph 2 of the August 19, 2008 Order approved Duke Energy Kentucky's natural gas hedging plan through March 31, 2011, and permitted Duke Energy Kentucky to enter into contracts for gas purchases through October 31, 2013. Pursuant to such order, Duke Energy Kentucky respectfully requests approval to institute a new three year hedging plan as a regular part of its gas supply planning. A copy of Duke Energy Kentucky's proposed new hedging plan, in redacted form, is at Attachment 1.
6. Duke Energy Kentucky proposes that the Commission approve the new hedging plan to cover hedging activity through March 31, 2014 and allow for hedging of natural gas deliveries through October 31, 2016. The resulting parameters for hedging purchases are similar to the parameters approved by the Commission for

Duke Energy Kentucky's previous hedging programs. The new hedging plan utilizes the same types of hedging instruments used for Duke Energy Kentucky's previous hedging programs and sets a limit so that there is not an over reliance on a single type. The new plan also incorporates the same procedural safeguards, consisting of periodic management meetings, written minutes and annual reports to the Commission on the results of the hedging plan. The plan continues to provide for hedging of a portion of Duke Energy Kentucky's summer purchases and to allow Duke Energy Kentucky to hedge a portion of its gas supply for up to 31 months following the time period covered by the hedging plan. This will provide Duke Energy Kentucky with additional flexibility to stagger its hedging purchases, thus increasing the diversity of cyclical pricing influences. This should better enable Duke Energy Kentucky to mitigate price volatility for its customers.

7. Duke Energy Kentucky's experience with its previous hedging programs demonstrates that hedging has accomplished the goals that Duke Energy Kentucky projected at the outset of its hedging program, that is, hedging would not always result in the lowest gas costs, but hedging does serve a valuable purpose in protecting customers against extreme high prices and hedging also mitigates price volatility. The new hedging plan incorporates the procedural safeguards, developed in response to the Commission's Orders in Duke Energy Kentucky's previous hedging proceedings, to ensure that hedging decisions are made in a prudent manner. Finally, the parameters of the new hedging plan, the types of hedging instruments provided therein and the annual reports provided by Duke

Energy Kentucky give the Commission oversight of the new hedging plan. Duke Energy Kentucky therefore requests that the Commission approve its new hedging plan so that Duke Energy Kentucky can continue to provide for its customers the benefits resulting from hedging of a portion of gas supply purchases, as described above.

WHEREFORE, Duke Energy Kentucky respectfully requests that the Commission approve Duke Energy Kentucky's application for a new hedging plan as described herein and in the accompanying Attachments.

Respectfully submitted,
Duke Energy Kentucky, Inc.



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CERTIFICATE OF SERVICE

I certify that a copy of the foregoing pleading was served of the parties listed below by regular United States mail, postage prepaid, this 10th day of March, 2011.



Rocco O. D'Ascenzo

Hon. Larry Cook
Assistant Attorney General
Kentucky Office of the Attorney General
Capital Center Drive, Suite 200
Frankfort, Kentucky 40601-8204

DUKE ENERGY KENTUCKY, INC

NATURAL GAS HEDGING PLAN

May 2011

1. Introduction

On July 16, 2001, the Kentucky Public Service Commission approved Duke Energy Kentucky, Inc's (Duke Energy Kentucky) Pilot Gas Hedging Program. Since that time, Duke Energy Kentucky has sought, and was granted, approval for similar hedging programs in 2002, 2003, 2005 and 2008 with the most recent program covering the three years ended March 31, 2011. As documented in the reports of the actual results, filed in May of each year, the hedging strategy increased costs when natural gas prices were low and decreased cost when natural gas prices were high. Since the hedging plans have achieved their goal of reducing the volatility in purchased gas costs, hedging natural gas prices should become a standard part of Duke Energy Kentucky's gas supply portfolio.

In Case No. 2003-00151, Duke Energy Kentucky proposed that a similar plan to what was adopted for the 2001-2002 and 2002-2003 heating seasons be approved on a continuing basis, with the inclusion of hedging for summer months as well as winter. This was later revised to be a three-year plan, ended March of 2006. However, in the Order dated June 19, 2003, the Commission ordered Duke Energy Kentucky to file any continued hedging plan by May 15, 2005. In Case No. 2005-00191, the commission approved Duke Energy Kentucky's Hedging Plan (HP-2005) for both winter and summer seasons through March 31, 2008 (three years). Although this plan covered hedging activity through March of 2008, the months for which natural gas will be purchased will extend through October 31, 2010. In Case No. 2008-00175, the commission approved Duke Energy Kentucky's Hedging Plan (HP-2008) for both winter and summer seasons through March 31, 2011 (three years). Although this plan covered hedging activity through March of 2011, the months for which natural gas will be purchased will extend through October 31, 2013.

Similar to what was approved by the Commission in Case No 2008-00175, Duke Energy Kentucky is seeking to institute another natural gas hedging plan with a three year term (HP-2011), to mitigate market volatility. The following Hedging Plan, HP-2011 is similar to the previous plan and would cover hedging activity through March of 2014 which would allow purchases for gas delivered through October 31, 2016.

Under HP-2011, Duke Energy Kentucky will hedge between [REDACTED] and [REDACTED] of its estimated total winter system supply, assuming normal weather and [REDACTED] to [REDACTED] of its summer system supply, including purchases to refill storage. As in previous years, hedging will be accomplished through the use of fixed price contracts, price caps, or no-cost collars. The Hedging Plan specifies a range for the volumes of gas that Duke Energy Kentucky will acquire each month, up to 36 months into the future. The Hedging Plan strikes a reasonable balance between: (1) providing the Commission with the specific parameters of gas volumes for which Duke Energy Kentucky will receive cost recovery through the GCA; and (2) leaving Duke Energy Kentucky with adequate management discretion to time the purchases at projected optimal points within the framework pre-approved by the Commission.

The purpose of the hedging plan is to decrease volatility in gas costs rather than to “beat the market” or guarantee the lowest possible cost. Duke Energy Kentucky will target a reduction in the standard deviation of the monthly average commodity cost of gas of at least [REDACTED]%, when compared to what the standard deviation would have been absent the hedging plan.

Duke Energy Kentucky will make its hedging decisions based on its analysis of gas prices. Duke Energy Kentucky will continue to monitor gas prices on a daily basis,

by studying NYMEX futures prices versus historic prices and expected future prices. Duke Energy Kentucky determines expected future gas prices based on a thorough review of various industry publications such as Gas Daily, PIRA Energy Group (PIRA) North American Gas Forecast Monthly, and the Energy Information Administration (EIA) Short-Term Energy Outlook.

During May 2008, Duke Energy Kentucky entered into an agreement with Tenaska Gas Storage, LLC (Tenaska) for a storage-like service. Tenaska provided Duke Energy Kentucky [REDACTED] Dth's during the deal's term of November 1, 2008 through March 31, 2009. Duke Energy Kentucky was required to take all [REDACTED] Dth's. The maximum daily quantity to Duke Energy Kentucky was limited to [REDACTED] Dth's/day. Duke Energy Kentucky was responsible to pay Tenaska a monthly reservation charge during the effective period as well as a commodity price based on a Commodity Charge Index agreed to by Duke Energy Kentucky. Duke Energy Kentucky has entered into comparable agreements with Tenaska since the initial agreement and Duke Energy Kentucky's current agreement is in effect until March 31, 2012. Duke Energy Kentucky will continue to evaluate potential increases to available storage or the continuation of the storage-like supply services at similar volumes.

2. Amount of Duke Energy Kentucky's Gas Supply Subject to the Hedging Plan

Duke Energy Kentucky will hedge between [REDACTED] and [REDACTED] of its estimated total system supply for the winter season, assuming normal weather. This range could change based on the level of interstate pipeline storage contracts or supply contracts which mimic storage service that Duke Energy Kentucky maintains in the future. Combined with estimated storage withdrawals and storage-like service, which currently provides

approximately [REDACTED] of a normal winter's system supply, the total percentage of system supply that could be insulated from winter season market volatility would be [REDACTED] (See Attachment A). The total percent of winter gas supply at known prices, both hedged and storage, will be limited to a maximum of [REDACTED]. Duke Energy Kentucky will hedge between [REDACTED] and [REDACTED] of its total system supply for the summer season, including purchases to refill storage.

3. Schedule for Purchase of Hedging Instruments

Duke Energy Kentucky will use the following seasonal schedule for obtaining price hedges for its system supply. These schedules reflect the continuation of hedging purchases which were made in accordance with HP-2008. Target levels of hedging will be accomplished by October 31st for winter system supply and by March 31st for summer system supply. The pattern established by these schedules will continue until cancelled or revised by the company. By including minimum quantities to be hedged, Duke Energy Kentucky will gain the advantages of a mechanistic feature for part of its hedging program, to spread the hedging purchases out over a longer period of time, while preserving management discretion as to the timing of gas supply purchases. No hedging will take place for delivery months further than 36 months from the date of the hedging transaction (strike date).

System Supply Hedged for the Winter Season

October X	Nov X – Mar X+1	Nov X+1 – Mar X+2	Nov X+2 – Mar X+3
Minimum	[REDACTED]	[REDACTED]	[REDACTED]
Maximum	[REDACTED]	[REDACTED]	[REDACTED]

System Supply Hedged for the Summer Season

March X	Apr X – Oct X	Apr X+1 – Oct X+1	Apr X+2 – Oct X+2
Minimum	[REDACTED]	[REDACTED]	[REDACTED]
Maximum	[REDACTED]	[REDACTED]	[REDACTED]

4. Types of Hedging Products

Duke Energy Kentucky management will hedge using a combination of fixed price contracts with cost-averaging, fixed price contracts without cost averaging, price caps and no-cost collars. Duke Energy Kentucky will not purchase futures contracts on the NYMEX or any other financial instruments to effectuate its hedging strategy. Duke Energy Kentucky will utilize the following hedging products to price gas supplies at a fixed, capped or collared price. Duke Energy Kentucky will not hedge more than [REDACTED] of its estimated winter season system supply, or [REDACTED] of its summer system supply using a single type of hedging product.

A. Fixed Price Contracts

Fixed price contracts are the simplest form of hedging instruments. Perhaps the most widely known fixed price contract for gas purchases is a contract to purchase gas from a supplier at a fixed price, based on the NYMEX. Duke Energy Kentucky will not actually purchase futures contracts on the NYMEX, but rather will enter into a contract with a supplier to obtain physical delivery of gas based on NYMEX prices at the time the hedging agreement is arranged.

Duke Energy Kentucky will take actual physical delivery of the gas into an interstate pipeline in which Duke Energy Kentucky holds Firm Transportation capacity, or will take delivery at Duke Energy Kentucky's city gate. NYMEX prices are based on delivery at the Henry Hub in southern Louisiana. The difference in price between the Henry Hub and the interstate pipeline receipt point at which the supplier can deliver the gas into the interstate pipeline (referred to as the "basis") will either be locked-in or will remain open at the discretion of Duke Energy Kentucky.

One set of fixed price hedging products Duke Energy Kentucky utilizes sets the price on an average NYMEX strip price over a period of time. A strip simply means the purchase of a specified volume of gas for a specified number of months (*i.e.*, November through March). Duke Energy Kentucky may utilize cost-averaging products that price the gas supply for the upcoming winter season at a price set by averaging the actual NYMEX daily closing price for a strip from a start date through the last day that the strip trades on NYMEX or any other mutually agreed time period. Each day during this period, a portion of the price will be established by fixing the price of the proportionate volume for each corresponding month at the NYMEX daily close.

B. Price Caps

A price cap is a form of option contract that establishes a maximum price for gas deliveries during a specified month. Suppliers charge Duke Energy Kentucky for this option, based on the NYMEX price in effect at the time the option is purchased for the month that will be subject to the price cap.

Duke Energy Kentucky and the supplier will agree to whether the cost must be paid when the price cap is purchased or when the gas is delivered. Other than a slight difference due to the time value of money, the end result is the same. The practical result that occurs when price caps are utilized is that, if the market price at the time of delivery is lower than the price cap, then Duke Energy Kentucky pays the market price plus the cost of the price cap. On the other hand, if the market price is higher than the price cap at the time of delivery, then Duke Energy Kentucky pays the cap price plus the cost of the price cap.

C. No-Cost Collars

Collars are a combination of a price cap (ceiling) and a lower price limit (floor). If the cost of the ceiling is equal to the value of the floor, then there is no charge for the collar (no-cost collar). At the time of delivery, the supplier will charge the market price unless it is outside the range set by the collar. The range for a no-cost collar is established by Duke Energy Kentucky first specifying either a floor or a ceiling price, and then the supplier calculates the other bound for the collar. The supplier also adds in the basis for the interstate pipeline receipt point specified by Duke Energy Kentucky. In a no-cost collar, the ceiling of the range is usually set at a greater distance from the current NYMEX price than the floor. After the supplier determines the remaining bound for the collar, Duke Energy Kentucky decides whether to agree to price the gas subject to the no-cost collar. Duke Energy Kentucky will determine prices from at least two suppliers to verify that the offered price is consistent with the market.

5. Price Ranges for Purchases

A. Fixed Price Contracts

To the extent that Duke Energy Kentucky enters into any fixed price contracts with cost-averaging, Duke Energy Kentucky will enter into such contracts at the NYMEX closing price during the specified period. To the extent that Duke Energy Kentucky enters into any fixed price contracts without cost averaging, Duke Energy Kentucky will enter into such contracts between the highest and lowest price that NYMEX trades on the day that Duke Energy Kentucky and the supplier agree to the fixed price (strike date).

B. Price Caps

To the extent that Duke Energy Kentucky enters into any price cap contracts during any month, Duke Energy Kentucky will enter into such contracts with a ceiling (cap) price not to exceed \$█/dth over the NYMEX open price for the respective months on the day that Duke Energy Kentucky and the supplier agree to the cap (strike date).

C. No-Cost Collars

To the extent that Duke Energy Kentucky enters into any collar contracts during any month, Duke Energy Kentucky will enter into such contracts with a ceiling (cap) price not to exceed \$█/dth over the NYMEX open price for the respective months on the day that Duke Energy Kentucky and the supplier agree to the collar (strike date).

6. Reduction in Volatility

The purpose of the hedging program is to decrease volatility rather than to “beat the market” or guarantee the lowest possible cost. The hedging program will most likely increase costs during seasons when market prices are relatively low and decrease costs during seasons when market prices are high. Based on a more statistical definition of volatility, the goal of the hedging program is to reduce the standard deviation of the average commodity cost of gas by at least █%. Attachment B shows an example of the reduction in volatility during the 12 months ended March 31, 2010.

7. Conclusion

HP-2011 will allow Duke Energy Kentucky to hedge up to █% of its system supply in the winter and █% of its system supply in the summer, including storage

injections. By allowing hedging activity as early as 36 months prior to the month of delivery, the plan can further stabilize prices by taking advantage of favorable market conditions for longer periods of time. In addition, the minimum hedged percentages will assure that hedging transactions will take place gradually over the three years prior to the delivery season, without resorting to a strict mechanistic approach.

Including current projected storage withdrawals, which are fixed at summer prices, the quantity of winter supply at known prices represents ■ – ■% of Duke Energy Kentucky total winter supply (assuming normal weather). The total percent of winter gas supply at known prices, both hedged and storage, will be limited to a maximum of ■%. Consequently, Duke Energy Kentucky will be able to obtain a substantial volume of its gas supply at fixed prices. Duke Energy Kentucky will purchase the majority of its remaining gas supply requirements at either the *Inside FERC First of Month Index* or the *Gas Daily Midpoint*, assuming these indices continue to be published. Attachment A depicts how the Duke Energy Kentucky would obtain its gas supply requirements for a typical winter season utilizing this Hedging Plan.

HP-2011 provides several important benefits. First, the Plan will reduce the impact of price volatility for Duke Energy Kentucky's customers. Second, the Plan allows the Commission to see clear parameters within which Duke Energy Kentucky's management will operate. Third, the Plan provides Duke Energy Kentucky management sufficient flexibility to make purchase decisions within these parameters.

Attachment A
 Example of How Duke Energy Kentucky's Base
 Supply for Typical Winter Season
 Could be Obtained Through Hedging Plan

	Purchased Gas		Storage Withdrawals	Total Load
	Hedged	At Market		
	(1)			
<u>Minimum (2)</u>				
November				
December				
January				
February				
March				
% of Total Winter Supply Combined Hedged and Storage				
<u>Maximum Without Additional Storage (2)</u>				
November				
December				
January				
February				
March				
% of Total Winter Supply Combined Hedged and Storage				
<u>Maximum With Additional Storage (3)</u>				
November				
December				
January				
February				
March				
% of Total Winter Supply Combined Hedged and Storage				

(1) Fixed price, no-cost collar, or price cap at Duke Energy Kentucky's discretion.

(2) Based on Columbia Gas FSS Storage of 1,365,276.

(3) Based on Columbia Gas FSS Storage of 1,365,276 and 1,000,000 of additional storage contracts or supply contracts which mimic storage service.

Attachment B
Duke Energy Kentucky
Gas Commercial Operations
Hedging Strategy Reduction in Volatility

	With Hedging			Cost/ (Savings)	Without Hedging		
	Comm. Cost	Dth	Average		Comm. Cost	Dth	Average
Apr-09							
May-09							
Jun-09							
Jul-09							
Aug-09							
Sep-09							
Oct-09							
Nov-09							
Dec-09							
Jan-10							
Feb-10							
Mar-10							

<u>Standard Deviation</u>	Cost/ (Savings)	With Hedging	Without Hedging	Reduction In Std. Deviation (\$)	Reduction In Std. Deviation (%)
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Apr 09 - Mar 09					
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