



Mailing Address:
139 East Fourth Street
1303 Main / P.O. Box 960
Cincinnati, Ohio 45202
o 513-287-4320
f 513-287-4385

VIA HAND DELIVERY

March 2, 2015

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

RECEIVED
MAR 02 2015
PUBLIC SERVICE
COMMISSION

Case No. 2015-00075

**Re: In the Matter of the Back-Up Power Supply Plan of Duke Energy Kentucky Inc.,
Case No. 2014-00334**

Dear Mr. Derouen:

Enclosed please find an original and twelve copies of the *Back-Up Power Supply Plan of Duke Energy Kentucky, Inc* to be filed in the above captioned case. Also included is a Petition for Confidential Treatment in the white envelope containing the confidential material being filed under seal.

Please date-stamp the extra two copies of this letter, the Back-up Power Supply Plan and the Petition filing and return to me in the enclosed envelope.

Sincerely,

Rocco D'Ascenzo

cc: Jennifer Hans

PUBLIC VERSION

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED
MAR 02 2015
PUBLIC SERVICE
COMMISSION

In the Matter of:

2015-00075
Case No. 2014-00334

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

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

Duke Energy Kentucky, Inc., (Duke Energy Kentucky or the Company) submits the following back-up power supply plan, as required pursuant to Paragraph 2 of the September 29, 2014, Order filed in the above-referenced case. A back-up power supply plan is necessary in the event Duke Energy Kentucky experiences outages with its generating facilities. On October 2, 2012, Duke Energy Kentucky filed an application to approve its current supply plan. By Order dated December 18, 2012, in Case No. 2012-00220, the Kentucky Public Service Commission (Commission) approved the current back-up power supply plan through December 31, 2014.

On September 18, 2014, Duke Energy Kentucky filed a request with the Commission for an extension of time to both continue its existing plan for and additional time to file its next Back-Up Power Supply Plan.¹ The reason for this request was the Company's then pending application in Case No. 2014-00201 to acquire the remaining 31 percent interest in the East Bend Generating Station. On September 29, 2014, the Commission issued an Order granting the Company's request, continuing the Company's current back-up power supply plan for an additional five months, from December 31, 2014 to May 31, 2015. The Commission also required the Company to file its new back-up power supply plan on March 2, 2015 (2015 Plan).

¹ See *Petition*, Case No. 2012-00334, September 18, 2014.

PUBLIC VERSION

The Commission's December 18, 2012, Order set forth a two-step procedural process regarding future back-up power supply plans. First, Duke Energy Kentucky was required to inform the Commission, in writing, of its intentions concerning future back-up power supply plans no later than 6 months prior to the expiration of the then current plan. Second, Duke Energy Kentucky is required to submit any future back-up power supply plans for review and approval, no later than 90 days prior to the effective date of the new plan. By letter dated or about May 27, 2014, Duke Energy Kentucky notified the Commission of its intention to file a new back-up power supply plan.

Accordingly, Duke Energy Kentucky hereby submits its proposal for its 2015 Plan to extend through the next two PJM delivery years beginning June 1, 2015 through May 31, 2016 and June 1, 2016 through May 31, 2017.

I. Summary

In connection with its realignment to PJM Interconnection LLC (PJM), effective January 1, 2012, Duke Energy Kentucky participates in PJM under the Fixed Resource Requirement (FRR) option for purposes of meeting PJM's Resource Adequacy requirement. This election generally requires the Company to remain as an FRR entity for a minimum term of five consecutive Delivery Years², which covers the entire term of the back-up power supply plan as proposed herein. Under the FRR election, Duke Energy Kentucky avoids direct participation in the PJM capacity Reliability Pricing Model (RPM) Base Residual and Incremental auctions. Instead, the Company is required to submit a FRR capacity plan to satisfy the unforced capacity (UCAP) obligation for all loads in the Company's FRR Service Area, including all expected load growth in the FRR Service Area.

² The PJM "Delivery Year" is a twelve month period beginning June 1 through May 31.

PUBLIC VERSION

Since the filing of the Company's last back-up power supply plan, Duke Energy Kentucky's generating portfolio has seen changes that are relevant to this new 2015 Plan analysis. The most significant of these changes is the recent acquisition of an additional 31 percent interest or 186 Megawatts (MWs) of net installed capacity at the Company's East Bend Unit 2 Generating Station (East Bend) that was purchased from the Dayton Power & Light Company (DP&L). This transaction was completed December 31, 2014. The need for this acquisition was the likely retirement of approximately 163 MWs of net installed capacity at the Miami Fort Unit 6 generating station due to the Mercury and Air Toxics Standard (MATS) that is scheduled to become effective for compliance later this year.³

Based on the Company's installed capacity position and historical forced outage rate, Duke Energy Kentucky has procured sufficient UCAP to comply with the PJM Resource Adequacy requirements under its FRR Plan for the 2015-2016 and 2016-2017 delivery years. Even though PJM accepted Duke Energy Kentucky's FRR Plan, PJM can still assess penalties to Duke Energy Kentucky if its resources, whether from generation or demand response, fail to comply with PJM's Resource Performance Assessments as outlined in Sections 8 and 9 of PJM Manual 18.

Duke Energy Kentucky used standard forecasting methods to calculate its back-up power supply needs. Duke Energy Kentucky considered supply options available from: (1) the PJM daily energy markets and (2) Request for Proposals (RFP) issued by Duke Energy Kentucky on July 8, 2014. In evaluating these supply options and selecting an appropriate back-up power supply plan, Duke Energy Kentucky's primary goal was to balance cost and risk mitigation.

Based upon its analysis, Duke Energy Kentucky is proposing to enhance its previous back-up supply plan. The 2015 Plan consists of fixed-priced financial swap contracts to lock-in

³ Duke Energy Kentucky's Miami Fort Unit 6 is currently scheduled for retirement by June 1, 2015.

PUBLIC VERSION

the price of power during scheduled outages and PJM energy market purchases during forced outages. Recognizing the concentration in the generation portfolio, the Company is strongly considering enhancing the hedging portfolio with the addition of a business interruption insurance product specifically tailored to mitigate exposure to market prices from an extended forced outage at East Bend 2. While the insurance product is still being negotiated with potential underwriters, as discussed more fully below, the Company is actively evaluating potential insurance products that could provide an additional level of protection. The Company proposes to implement its 2015 Plan for the next two delivery years, 2015-2016 and 2016-2017. In interim, Duke Energy Kentucky will continue to evaluate its current back-up power supply plan and will make any adjustments necessary due to changing conditions.

II. Background

A. Load Forecast

The load forecasting group develops the load forecast by: (1) obtaining service area economic forecasts primarily from Moody's Analytics; (2) preparing an energy forecast by applying statistical analysis to certain variables such as number of customers, economic measures, energy prices, weather conditions, etc.; and (3) developing monthly peak demand forecasts by statistically analyzing weather data. The Company uses the same load forecasting technique to prepare its integrated resource plans. The Company updates the load forecasts on a regular basis and the updated load forecasts are used for all modeling analysis.

B. Generating Resources & Fuel Costs

As of December 30, 2014, Duke Energy Kentucky completed the acquisition of the remaining 31% ownership interest in East Bend Unit 2 from DP&L.

PUBLIC VERSION

Table 1 – General Description of Plants for Delivery Year 2015-2016

| Plant | Fuel | Type | Winter Rating⁴ in MWs | Spring/ Fall Rating in MWs | Summer Rating in MWs | UCAP for Delivery Year 2015-2016 in MWs⁵ |
|---|-------------|---------------|---|---------------------------------------|-----------------------------|--|
| East Bend 2 | Coal | Base load | 600 | 600 | 600 | █ |
| Miami Fort 6 (to be retired June 1, 2015) | Coal | Intermediate | 0 | 0 | 0 | █ |
| Woodsdale 1-6 | Gas | Peaking | 564 | 516 | 462 | █ |
| | | Total: | 1164 | 1100 | 1062 | █ |

Duke Energy Kentucky determined that it needed to consider back-up power supply options for East Bend because it is a relatively low cost unit to operate and the Company relies upon it as a hedge against customer load demand energy purchases. Since Miami Fort 6 will be retired by June 1, 2015 and the Woodsdale peaking units have lower capacity factors, back up power supply options are either not required or not cost effective for those two assets. Thus its analysis focused upon East Bend.

C. Scheduled and Forced Outages

Duke Energy Kentucky estimated the number and expected timing of forced outages, using the definition of forced outages contained in the Commission’s Fuel Adjustment Clause (FAC) regulation, 807 KAR 5:056, as follows: non-scheduled losses of generation or transmission that (1) require substitute power for a continuous period in excess of six hours; and (2) result from faulty equipment, faulty manufacture, faulty design, faulty installations, faulty operation, or faulty maintenance.

The Company used the current known scheduled outages for 2015-2016. Duke Energy Kentucky plans the following scheduled outages during 2015-2016:

⁴ Duke Energy Kentucky now owns 100% of East Bend.

⁵ Duke Energy Kentucky UCAP resources as of 2/27/2015.

PUBLIC VERSION

Table 2 -- Scheduled Outages

| Plant | 2015 (in weeks) | 2016 (in weeks) |
|--------------|----------------------------|----------------------------|
| East Bend 2 | ■ | ■ |

The Company estimated the forced outages using the five-year average Equivalent Forced Outage Rates (EFOR) for East Bend. The EFOR is a measurement that takes the number of forced outage hours and equivalent forced derate hours relative to the number of service hours and forced outage hours. The EFOR forecast data for the Plants is as follows:

Table 3 -- EFOR for 2015-2016

| Plant | |
|--------------|---|
| East Bend 2 | ■ |

D. GenTrader Projection of Energy Needs

The Company used the GenTrader software tool to project its annual energy positions for Delivery Year 2015-2016 and 2016-2017:

| [REDACTED] | | | | | | |
|------------------------------------|---|---|---|---|---|---|
| (in MWH) | ■ | ■ | ■ | ■ | ■ | ■ |
| Avg. Demand | ■ | ■ | ■ | ■ | ■ | ■ |
| Avg. Available Economic Generation | ■ | ■ | ■ | ■ | ■ | ■ |
| Net Energy Position | ■ | ■ | ■ | ■ | ■ | ■ |

| | | | | | | |
|-------------|---|---|---|---|---|---|
| (in MWH) | ■ | ■ | ■ | ■ | ■ | ■ |
| Avg. Demand | ■ | ■ | ■ | ■ | ■ | ■ |

PUBLIC VERSION

| | | | | | | |
|------------------------------------|------|------|------|------|------|------|
| Avg. Available Economic Generation | ████ | ████ | ████ | ████ | ████ | ████ |
| Net Energy Position | ████ | ████ | ████ | ████ | ████ | ████ |

| | | | | | | |
|--|------|------|------|------|------|------|
| ██ | | | | | | |
| (in MWH) | ████ | ████ | ████ | ████ | ████ | ████ |
| Avg. Demand | ████ | ████ | ████ | ████ | ████ | ████ |
| Avg. Available Economic Generation | ████ | ████ | ████ | ████ | ████ | ████ |
| Net Energy Position | ████ | ████ | ████ | ████ | ████ | ████ |

| | | | | | | |
|------------------------------------|------|------|------|------|------|------|
| (in MWH) | ████ | ████ | ████ | ████ | ████ | ████ |
| Avg. Demand | ████ | ████ | ████ | ████ | ████ | ████ |
| Avg. Available Economic Generation | ████ | ████ | ████ | ████ | ████ | ████ |
| Net Energy Position | ████ | ████ | ████ | ████ | ████ | ████ |

III. Request for Proposals

Duke Energy Kentucky retained Burns & McDonnell to oversee a competitive and confidential bidding process for back-up power. Duke Energy Kentucky issued an RFP through Burns & McDonnell on July 8, 2014. In anticipation of the purchase of DPL’s ownership share of East Bend, the RFP assumed that Duke Energy Kentucky would own 600 MW of East Bend. The Company sought bids for the following types of supply options: (1) Back Stand Energy Call Options; (2) Daily Call Options; and (3) Insurance Products. Both back stand energy call options and insurance products are directly tied to unplanned outages at East Bend 2. The daily call

PUBLIC VERSION

options are independent of any outages at East Bend, and therefore are directly compared to the market. The RFP sought supply options to take effect on January 1, 2015 and continue through the end of 2016.

Duke Energy Kentucky received a total of sixteen bid alternatives from six different bidders. All proposed alternatives were in the form of daily call options or insurance productions with no back stand call products received. Burns & McDonnell performed an initial screening of the bids for completeness and submitted proposals to Duke Energy Kentucky to evaluate the proposed supply options. The following is an overview of the bids that were submitted to the RFP:

| Table 5 - Bid Summary | | | | | |
|------------------------------|---------------------------------|-----------|----------------------|----------------------------|-----------------------------------|
| Bid | Product | MW | Strike Limits | Option Premium 2015 | Strike Price (2015) \$/mwh |
| Bid 1A | Day Ahead Heat Rate Call (7x16) | 600 | N/A | ██████████ | ██████ |
| Bid 1B* | Day Ahead Heat Rate Call (5x16) | 600 | N/A | ██████████ | ██████ |
| Bid 2A | Daily Heat Rate Call (7x16) | 300 | 25 | ██████████ | ██████ |
| Bid 2B | Daily Heat Rate Call (7x24) | 300 | 25 | ██████████ | ██████ |
| Bid 2C* | Daily Heat Rate Call (5x16) | 300 | 25 | ██████████ | ██████ |
| Bid 2D | Daily Heat Rate Call (7x16) | 150 | 25 | ██████████ | ██████ |
| Bid 2E | Daily Heat Rate Call (7x24) | 150 | 25 | ██████████ | ██████ |
| Bid 2F | Daily Heat Rate Call (5x16) | 150 | 25 | ██████████ | ██████ |
| Bid 3A* | Fixed Price Daily Call | 100 | N/A | ██████████ | ██████ |
| Bid 3B* | Daily Heat Rate Call | 50 | N/A | ██████████ | ██████ |
| Bid 4A* | Heat Rate Call | 50 | 15 | ██████████ | ██████ |

PUBLIC VERSION

| | | | | | |
|---------|------------------------------|-----|-----|----------|--------|
| Bid 4B* | Heat Rate Call | 50 | 25 | ████████ | ██████ |
| Bid 4C* | Heat Rate Call | 50 | 40 | ████████ | ██████ |
| Bid 5 | Day Ahead Heat Rate Call | 200 | N/A | ████████ | ██████ |
| Bid 6A | Insurance Bid (48 hr deduct) | 600 | N/A | ████████ | ██████ |
| Bid 6B* | Insurance Bid (0 deduct) | 600 | N/A | ████████ | ██████ |

All the bids with (*) were in compliance with the RFP and were analyzed. The bids that were not (*) proposed products that extended beyond the RFP peak only periods and were not analyzed.

IV. Analysis Methodology

A. Analysis of Call Bids

Duke Energy Kentucky analyzed the call bids by comparing their strike prices to the American Electric Power (AEP) Dayton Hub (AEP Dayton Hub) market prices. None of the bids were dependent on East Bend’s forced outage, so the bids were compared directly to the market to determine potential value.

The model was run for calendar years 2015-2016. If the bid cost was less than the average market price, then the bid was dispatched for the entire 16 hour strip (All weekdays from 08:00 am -11:00 pm). Each year, the proceeds from the calls were summed and compared to the call premium costs. If the proceeds exceed the call costs, then the call has value in that year. If the call costs exceed the call proceeds, then the call did not have value. Strike limits were considered when included in the bid. For the eight bids options that were analyzed, none of the daily call options were found to have value base market case.

Market price sensitivities were conducted using a 10% and 20% increase in market prices. The same analysis method was used as described for above base market case. At a 10%

PUBLIC VERSION

increase in market prices, 3B had limited value. At a 20% increase in market prices, some bids began to have value.

In summary, the analysis of the call bids shows no value for the base market case and limited value for a few bids with 10-20% market sensitivity cases. Since July 2014 when these call bids were received, natural gas prices have dropped from roughly \$4/mmbtu to below \$3/mmbtu as of February 26, 2015. Consequently, forward power prices have also dropped, resulting in even less expected call value.

Table 6

| Base Case Market Prices | | | | |
|--------------------------------|-------------|----------------------|-------------------|-------------------|
| Bid | Year | Call Proceeds | Call Costs | Call Value |
| Bid 1B (5x16) | 2015 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| Bid 1B (5x16) | 2016 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| [REDACTED] | | | | |
| Bid 2C (5x16) | 2015 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| Bid 2C (5x16) | 2016 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| [REDACTED] | | | | |
| Bid 2F (5x16) | 2015 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| Bid 2F (5x16) | 2016 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| [REDACTED] | | | | |
| Bid 3A (5x16) | 2015 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| Bid 3A (5x16) | 2016 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| [REDACTED] | | | | |
| Bid 3B (5x16) | 2015 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| Bid 3B (5x16) | 2016 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| [REDACTED] | | | | |
| Bid 4A (5x16) | 2015 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| Bid 4A (5x16) | 2016 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| [REDACTED] | | | | |
| Bid 4B (5x16) | 2015 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| Bid 4B (5x16) | 2016 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| [REDACTED] | | | | |
| Bid 4C (5x16) | 2015 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| Bid 4C (5x16) | 2016 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| [REDACTED] | | | | |

PUBLIC VERSION

B. Initial Analysis of Insurance Bid

Back stand insurance proposals were analyzed to consider the possible benefits of reducing the Company's exposure to higher energy costs due to loss of East Bend's 600 MWs as a result of unplanned outages and/or derates.

Energy costs covered by the insurance policy are calculated by comparing the real time settlement energy prices at the Power Price Index to the contract strike prices during unplanned outages and/or derates.

Insurance products vary widely depending upon the specific policy parameters. Typical insurance parameters include the following:


- Term - length of time of coverage;
- Premium - cost of insurance coverage for each term;
- Policy Limit - maximum amount of payments from policy;
- Policy Deductible - amount of losses that must be accumulated prior to insurance coverage payments;
- Strike Price - the underlying price (or insured price) to form a basis of comparison against the actual market energy prices during the time of the unplanned outage;
- Delivery Days/hours - applicable time periods during the week of insurance coverage;
- Power Price Index - Energy delivery point to measure actual real time settlement energy prices during the time of the unplanned outage;
- Event Duration - maximum duration of the unplanned outage that can be covered; and
- Time Deductible - period of time that the outage must continue until insurance coverage begins;

PUBLIC VERSION

Duke Energy Kentucky’s initial analysis of insurance bids was made by comparing strike prices to the AEP Dayton Hub market prices only during simulated forced outages at East Bend. The simulated forced outages considered forced outage rates of 5%, 10%, 15%, 20% and 5% with a forced outage for the entire month of July. Multiple iterations of forced outage simulations were used to examine different possible outcomes for varying outage timings. When the bid strike price was in the money (or when the underlying price was lower than expected market energy prices), the insurance product was exercised for the 16 hour on-peak time period. All insurance proceeds (value over the market prices) were added for the entire year. Then the respective policy limit, deductibles, and other proposed insurance guidelines were also taken into consideration. Insurance premium costs and the insurance deductible were removed from the proceeds to determine value of the insurance product. The table below shows insurance results during forced outage simulations.

Table 7 Insurance Comparison

| Case | Year | Insurance Proceeds | Insurance Premium Costs | Insurance Deductible Costs | Insurance Value |
|------------|------|--------------------|-------------------------|----------------------------|-----------------|
| 5% FO | 2015 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| 5% FO | 2016 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| [REDACTED] | | | | | |
| 10% FO | 2015 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| 10% FO | 2016 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| [REDACTED] | | | | | |
| 15% FO | 2015 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| 15% FO | 2016 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| [REDACTED] | | | | | |
| 20% FO | 2015 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| 20% FO | 2016 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| [REDACTED] | | | | | |
| 5% No July | 2015 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| 5% No July | 2016 | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] | \$ [REDACTED] |
| [REDACTED] | | | | | |

 The Company felt that, while superior to the energy call products, this analysis indicated that an insurance product could provide an effective hedge for the portfolio; but a more tailored product would likely be required. As a result, Duke Energy Kentucky requested the insurance bid provider to submit additional insurance proposals to more fully evaluate the insurance product opportunities.

C. Subsequent Analysis of Additional Insurance Products

To maximize the potential effectiveness of insurance products as a hedge against market exposure due to East Bend forced outages, Duke Energy Kentucky requested specific additional insurance product quotes. These additional products were designed to provide better alignment with the East Bend's operational characteristics and its potential forced outage occurrences, and to form the basis of final product negotiations. To derive parameters for the additional quotes, the Company analyzed the historical forced outage record of East Bend. Specifically, the Company analyzed outage durations, frequencies, correlations, and lost market opportunities. This data was scenario tested against actual historical market prices and expected forward prices, with the purpose of defining insurance product parameters that most closely fit anticipated forced outages and impacts. The table below shows the four base product requests made, Products A1 and A2 are generally designed to mitigate risks of short term outages, and products B1 and B2 are tailored more directly to mitigate risks of significant long term outages. Another key component of these products is that they are designed to specifically hedge the market exposure between the anticipated dispatch price of East Bend and the anticipated market price in PJM. Fixed price energy swaps and PJM market purchases are effective tools to hedge outage risk; but

PUBLIC VERSION

they are inherently limited to hedging the risk of changes in market prices, not the full exposure to market prices.

Table 8- Insurance Products

Power Price Index (PPI) (\$/MWhs) Cost of East Bend

| | Product A1 | Product A2 | Product B1 | Product B2 |
|------------------------|------------|------------|------------|------------|
| Premium | | | | |
| Time Deductible | ██████ | ██████ | ██████ | ██████ |
| Term Dollar Deductible | ██████ | ██████ | ██ | ██ |
| Policy Limits | ██████ | ██████ | ██████ | ██████ |
| Strike Price | ██████ | ██████ | ██████ | ██████ |
| Event Duration Limit | ██████ | ██████ | ██████ | ██████ |

The Company expects an iterative negotiation process that may include requests for similar products from other insurance underwriters. If satisfactory terms can be negotiated, the Company’s goal is to have this product in place for the beginning of the 2015-2016 Delivery Year.

V. Non-RFP Supply Options Evaluated

As in the past back-up power supply plans, Duke Energy Kentucky evaluated various back-up power supply alternatives consisting of market energy purchases. One alternative considered energy purchases through the PJM energy markets for all outages (Alternative A). A second alternative considered fixed-priced financial swap contracts to lock-in the price of power during scheduled outages and PJM energy market purchases during forced outages (Alternative B). The Company has used this same type of strategy for procuring back-up power supply since 2006.

The Company considered Alternative A, relying solely on the PJM daily energy markets for back-up power needs for both planned and forced outages. Alternative A has the potential to

PUBLIC VERSION

expose the Company to possible price spikes during scheduled outage periods. The Company determined that it would not be feasible to make fixed forward price purchases for forced outages because the Company would not know in advance when such outages would occur. These outages would not align with the standard monthly unit of fixed forward power products, and as it would not be economical to purchase power at fixed forward prices for the entire peak month period, these purchases would increase rather than decrease risk. After a forced outage occurs, the Company considers fixed forward price purchases or call options for the remaining duration of the outage.

Duke Energy Kentucky evaluated the merits of Alternative B, fixed-priced purchases during scheduled outages, to mitigate the risk of potential price spikes. Duke Energy Kentucky would use the ICE or the OTC broker market to make these fixed-priced financial swap or future contract purchases. The ICE is a well-established electronic marketplace for trading energy-related products. Among other product types, ICE offers trading in bilateral contracts for energy at fixed forward prices. The contract terms (such as hours of the day covered, the index price, credit, and liquidated damages provisions) are clearly defined, to enable trading in standardized products.

VI. Conclusion

Based upon its analysis, the Company finds the call bid responses to the RFP do not offer incremental economic value compared to expected market priced energy. Simply put, the high risk premiums assigned to these options compared to the expected utility of the actual energy calls are too high of an economic hurdle to exceed. In addition, the very nature of forced outages is its unpredictability and as the call bids cover the entire duration of the plan regardless of whether East Bend is in outage or not, the product does not align well with forced outage risk

PUBLIC VERSION

exposure. Therefore the call bids received in the RFP do not appear to offer cost effective hedge opportunities for the Company's risks during planned and forced outage periods.

The Company continues to believe that PJM energy market products will continue to play an effective role in the overall back up power supply hedging strategy. Both Alternative A and Alternative B plans involve purchasing power through the PJM daily energy markets and are the least-cost supply plans based upon current projections for energy markets. Based on prior analysis, the Alternative A Plan is less costly than the Alternative B plan but presents greater risk. Alternative A calls for the Company to obtain its full back-up power requirements (planned and forced outages) from the PJM daily energy markets; however, it provides no protection against possible price spikes. The Duke Energy Kentucky model forecasts future power prices based on observable forward wholesale market prices. If the forward power market curve is underrepresenting actual real time future prices, then this plan may prove more costly than the other plans.

Alternative B plan provides that Duke Energy Kentucky will obtain back-up power through the PJM daily energy market during forced outages and use fixed forward contract purchases during scheduled outages. This mitigates the risk of price spikes during scheduled outages because the price for back-up power would be fixed.

Alternative B Plan Allow the flexibility to optimize the actual outage schedule under changing power market and unit availability conditions. Since the ICE and/or OTC markets are liquid, Duke Energy Kentucky can make its forward contract purchase a few months in advance of the scheduled outages, without paying a premium to lock in the prices now for a two-year time period. If prices appear to be increasing, the plan provides the flexibility to make the forward contract purchases for long-term periods. If prices are flat or falling, the Company can postpone

PUBLIC VERSION

these purchases. Alternative B plan provides flexibility to modify executed forward contract positions if scheduled outages dates are modified, by utilizing the liquidity of the ICE to unwind existing contracts and purchase new contract to match new scheduled outage dates.

Finally, while still under analysis, the Company believes that well designed custom insurance product can complement the historical strategy the Company has employed. Duke Energy Kentucky believes that crafting the product correctly and negotiating the most competitive transaction is essential and should take its natural course of time. The Company believes that a cost effective relationship between insurance premium and payout can be found, particularly in light of the diminished diversity on the generation portfolio; but in the interim, the Company will continue to use the Alternative B plan as its back-up plan as it has done since 2006.

Respectfully submitted,

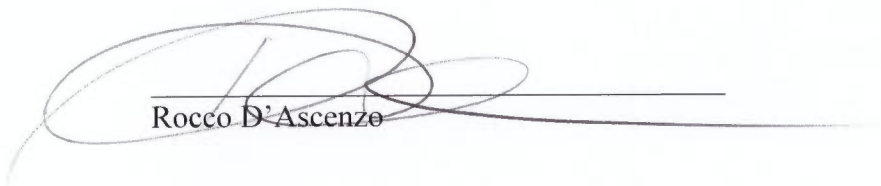


Rocco D'Ascenzo
Associate General Counsel
Amy B. Spiller
Deputy General Counsel
Duke Energy Kentucky, Inc.
139 East Fourth Street
1303-Main
Cincinnati Ohio 45202
513-287-4320 (telephone)
513-287-4385 (facsimile)
Email: rocco.d'ascenzo@duke-energy.com

PUBLIC VERSION

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 2nd day of March 2015.



Rocco D'Ascenzo

Hon. Jennifer Hans
Office of Attorney General
Utility Intervention and Rate Division
1024 Capital Center Drive
Frankfort, Kentucky 40601

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED
MAR 02 2015
PUBLIC SERVICE
COMMISSION

In the Matter of:

2015-00075
Case No. 2014-00334

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

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

Duke Energy Kentucky, Inc. (Duke Energy Kentucky or Company), pursuant to 807 KAR 5:001, Section 13, requests the Commission to protect as confidential certain information contained in the Back-Up Power Supply Plan of Duke Energy Kentucky, Inc. This filing contains projections of Duke Energy Kentucky's forecasted future energy positions and needs, estimated costs, forecasted forced outage rates, unforced capacity ratings, future planned outages, ongoing risk hedging strategies being evaluated, and the cost of various back-up power supply alternatives (calls, options, insurance, etc.) submitted in response to a confidential request for proposal (RFP) for 2015-2016.

In support of this Petition, Duke Energy Kentucky states:

1. 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.

2. If Duke Energy Kentucky is forced to disclose its future forecasted energy needs, estimated costs, future forced outage rates, unforced capacity ratings, and planned outages, this would unfairly advantage Duke Energy Kentucky's competitors and counterparties in the energy markets. These counterparties would know the Company's energy positions and needs and thus could demand higher prices from Duke Energy Kentucky than they otherwise might be able to charge in the absence of this information, because the counterparties would know how much energy Duke Energy Kentucky needs to purchase and when those purchases would be made as well as what the Company is anticipating as costs thereof. Competing purchasers of energy would thus have access to the lower cost supplies. Duke Energy Kentucky also seeks confidential treatment for the prices of various back-up power supply alternatives because these prices resulted from a confidential RFP. The proposals, summarized and compared in charts in the accompanying filing, show the value of these various products. If the prices are publicly disclosed, this would deter bidders from submitting bids in response to future RFPs. Additionally, these prices could be used as a floor for future bids, resulting in higher prices than would be the case if the information is not publicly disclosed. Once again, this would cause competing purchasers of energy to have access to the lower cost supplies. Finally, the Company is in the process of evaluating potential insurance products to determine whether such products provide value to the Company or its customers. The Company has detailed the various products being evaluated including costs thereof. This information is confidential, and if released, would limit the Company's ability to negotiation with competing vendors and ultimately receive the best price. Competing insurance vendors would have access to what the Company is considering in terms of products and could use this information could tailor their own competing proposals at higher prices than what they otherwise would have offered.

3. The information for which Duke Energy Kentucky is seeking confidential treatment is not known outside of Duke Energy Corporation.

4. The Commission has treated the same information described herein as confidential in prior filings provided by Duke Energy Kentucky.¹

5. Duke Energy Kentucky does not object to limited disclosure of the confidential information described herein, pursuant to an acceptable protective agreement, with the Attorney General or other intervenors with a legitimate interest in reviewing the same for the purpose of participating in this case.

6. This information was, and remains, integral to Duke Energy Kentucky's effective execution of business decisions. And such information is generally regarded as confidential or proprietary. Indeed, as the Kentucky Supreme Court has found, "information concerning the inner workings of a corporation is 'generally accepted as confidential or proprietary.'" *Hoy v. Kentucky Industrial Revitalization Authority*, 904 S.W.2d 766, 768 (Ky. 1995).

7. In accordance with the provisions of 807 KAR 5:001, Section 13(3), the Company is filing one copy of the Confidential Information separately under seal, and ten copies without the confidential information included.

8. Duke Energy Kentucky respectfully requests that the Confidential Information be withheld from public disclosure for a period of ten years. This will assure that the Confidential Information – if disclosed after that time – will no longer be commercially sensitive so as to likely impair the interests of the Company or its customers if publicly disclosed.

9. To the extent the Confidential information becomes generally available to the public, whether through filings required by other agencies or otherwise, Duke Energy Kentucky

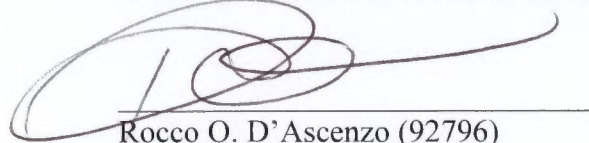
¹ Case No. 2009-00429, Letter granting confidential treatment, December 11, 2009.

will notify the Commission and have its confidential status removed, pursuant to 807 KAR 5:001 Section 13(10)(a).

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

Respectfully submitted,

DUKE ENERGY KENTUCKY, INC.

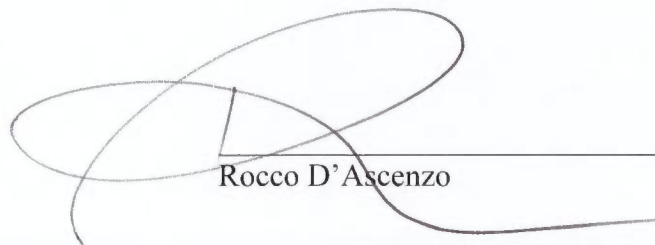


Rocco O. D'Ascenzo (92796)
Associate General Counsel
Amy B. Spiller (85309)
Deputy General Counsel
Duke Energy Business Services, LLC
139 East Fourth Street, 1303 Main
Cincinnati, Ohio 45201-0960
Phone: (513) 287-4320
Fax: (513) 287-4385
e-mail: rocco.d'ascenzo@duke-energy.com

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing filing was served on the following via overnight mail, this 2nd day of March 2015:

Jennifer Hans
The Office of the Attorney General
Utility Intervention and Rate Division
1024 Capital Center Drive, Suite 200
Frankfort, Kentucky 40601-8204
Jennifer.hans@ag.ky.gov



Rocco D'Ascenzo