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VIA OVERNIGHT MAIL

April 26, 2012

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

RECEIVED
APR 27 2012
PUBLIC SERVICE
COMMISSION

Re: In the Matter of an Application of Duke Energy Kentucky, Inc. For Approval To
Extend the Availability of Its Rate RTP Real Time Pricing Program
Case No. 2011-00428

Dear Mr. Derouen:

Enclosed please find an original and twelve copies of the *Program Evaluation and Recommendations of Duke Energy Kentucky, Inc.* for filing in the above referenced matter.

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

Feel free to contact me should you have any questions.

Very truly yours,

Kristen Cocanougher

cc: Dennis Howard II.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of an Application of)
Duke Energy Kentucky, Inc. For Approval To) Case No. 2011-00428
Extend the Availability of Its Rate RTP,)
Real Time Pricing Program)

PROGRAM EVALUATION AND RECOMMENDATIONS

Now comes Duke Energy Kentucky, Inc. (Duke Energy Kentucky or the Company),and submits its evaluation of the Rate Real Time Pricing Program pursuant to the Commission’s Order in this case dated December 28, 2011.

I. History of Duke Energy Kentucky’s Experimental Real Time Pricing Program

Duke Energy Kentucky, Inc’s (Duke Energy Kentucky) real-time pricing tariff (Rate RTP) has been available for nearly thirteen years, having been offered to interested customers on an experimental basis starting in January 1999. Since that time, the program has continued with minor modification with review and approval by the Kentucky Public Service Commission (Commission). The Commission approved a modification to Rate RTP on October 30, 2000 in Case No. 2000-00302 with an effective date of January 2, 2001. Per the Order in that case, Rate RTP was continued through December 31, 2003. By Order dated December 17, 2003 in Case No. 2003-00466, the Commission approved an extension of the program through June 30, 2004. The Commission approved another extension of Rate RTP through December 31, 2004 in an Order dated June 14, 2004 in Case No. 2004-00210. Once again, in an Order dated March 4, 2005 in Case No. 2004-00509, the Commission approved the continuation of Rate RTP through December 31, 2006. This Order also approved some minor changes to the program.

In its electric base rate Case No. 2006-00172, the Company received approval to extend Rate RTP through December 31, 2008 with some additional enhancements to the program. The

Commission approved an extension of Rate RTP in Case No. 2008-00464 through December 31, 2010. Most recently, by an Order dated December 28, 2011 in Case No. 2011-00428, the Commission approved the continuation of Rate RTP until otherwise ordered by the Commission. The Commission further directed the Company to file an evaluation of the Rate RTP program no later than April 30, 2012.

II. Description of Rate RTP

Rate RTP is available to non-residential customers served under Rate DS, Rate DP, Rate DT, and Rate TT. The RTP program is voluntary and offers customers the opportunity to manage their electric costs by shifting load from higher cost to lower cost pricing periods and adding new load during lower cost pricing periods. It also provides customers with an opportunity to learn about market pricing and managing their consumption in response to pricing signals with some measure of insulation from pure market pricing exposure and its inherent risks. Binding price quotes are sent to each participant on a day-ahead basis so that the customer may make informed decisions regarding their electric usage. The program is intended to be bill neutral to each customer with respect to their historical usage through a calculation using the Customer Baseline Load (CBL), Billing Demand History (BDH), and the Company’s standard rates.

Customers participating in the RTP Program will be billed monthly based on the following calculation:

$$\text{RTP Bill} = \text{BC} + \text{PC} + \sum_{t=1}^n \{ (\text{CC}_t + \text{ED}_t + \text{ASC}_t) \times (\text{AL}_t - \text{CBL}_t) \}$$

Where:

BC = Baseline Charge
 PC = Program Charge

CC_t = Commodity Charge for hour t
 ED_t = Energy Delivery Charge for hour t
 ASC_t = Ancillary Services Charge for hour t
 AL_t = Customer Actual Load for hour t
 CBL_t = Customer Baseline Load in hour t
 n = total number of hours in the billing period
 t = an hour in the billing period

The Baseline Charge is independent of the Customer's current monthly usage, and is designed to achieve bill neutrality with the Customer's standard offer tariff if no change in electricity usage pattern occurs (less applicable program charges). The Baseline Charge is calculated at the end of the billing period and changes each billing period to maintain bill neutrality for a Customer's CBL. The Baseline Charge is calculated using standard tariff rates applied to the CBL kWh and BDH kW.

The Commodity Charge is designed to recover generation costs. The applicable hourly Commodity Charge (or credit) shall be applied on an hour by hour basis to the Customer's incremental (or decremental) usage from the CBL.

The hourly Energy Delivery Charge is designed to recover the costs for use of the transmission and distribution system to deliver energy to the Customer. The applicable hourly Energy Delivery Charge (or credit) shall be applied on an hour by hour basis to the Customer's incremental (or decremental) usage from the CBL.

The applicable hourly Ancillary Services Charge (or credit) shall be applied on an hour by hour basis to the Customer's incremental (or decremental) usage from the CBL.

III. RTP Tariff Changes 2001 Through 2011

In Case No. 2004-00509, the Commission approved a change to the language in Rate RTP regarding the basis of the commodity charge price quotes. Prior to that time, the hourly prices were the lower of Cinergy's (Duke Energy Kentucky) marginal operating cost for a given hour and the cost of firm generation capacity and energy in the wholesale market for a given hour. In Case No. 2004-00509, the language changed such that the commodity charge going forward was based solely on the expected market price of capacity and energy for each hour, and not the lesser of market or Cinergy's (Duke Energy Kentucky) cost.

In electric base rate Case No. 2006-00172, the Commission approved language that referenced MISO as the source of the day-ahead price quotes.

IV. Customer Load Shifting Resulting From Hourly Prices

The Company believes that participating customers shifted little or no load during the past decade in response to price signals.

In its annual reports the Company stated:

- During 2000, the maximum hourly price for RTP customers was 7.2075 cents per kWh. In contrast, the maximum hourly RTP price during 1999 exceeded 85 cents per kWh. The Company believes that, because of low prices during 2000 associated with cool summer weather, negligible load shifting occurred among RTP customers.
- During 2001, the maximum hourly price for RTP customers was about 50 cents per kWh. The maximum price occurred on August 8. The Company estimates that the load reduction attributable to Real Time Pricing on this date was approximately 2,000 kW.
- During the summer 2002 peak load period, the maximum hourly price for RTP customers was only in the six to seven cents per kWh range. Due to this low price, the amount of price response was negligible.
- During the summer 2003 peak load period, the maximum hourly price for RTP customers was only in the eight to ten cents per kWh range. Due to this relatively low price that occurred for a couple of days, the amount of price response was negligible.
- During the summer 2004 peak load period, the maximum hourly price for RTP customers was only in the nine to ten cents per kWh range. Due to this relatively low price that occurred for a couple of days, the amount of price response was negligible.
- Duke Energy Kentucky's 2005 summer system peak occurred on July 25. Based on an analysis of RTP customer price response during the summer and on the peak day, the Company believes that less than 1 MW of load shifting or demand reduction occurred due to the RTP program.
- Because of the low enrollment and the relatively low hourly prices, Duke Energy Kentucky did not analyze the load impacts of the RTP program during 2006 - 2011. Because of the relatively low hourly prices, and based on previous analyses, the Company believes that little or no load was diverted to periods of lower prices due to the RTP program.

V. Program Cost Effectiveness

Once again, given the few participants and the relatively low market prices for electricity during peak periods, Duke Energy Kentucky has not performed a cost-effectiveness test on the Duke RTP program.

As noted in the previous section, the Company believes that only a small amount of sporadic load shifting occurs in response to price signals. Therefore, the Company believes that no costs have been avoided by the Company, and the program would likely fail most traditional cost-effectiveness tests such as the UCT (Utility Cost Test) and the TRC (Total Resource Cost test). Contrary to this, the Company believes, however, that Rate RTP has value to the Company and customers. The Federal Energy Regulatory Commission and this Commission continue to express interest in time-differentiated pricing just as they have done so for the past five years. This interest appears to be growing and the Company can only expect such interest to continue.

VI. Customer Bill Savings

The table below shows the annual bill savings or losses by the Rate RTP participants for the years 2000 through 2011:

Duke Energy Kentucky
Rate RTP Customer Bill Savings By Year
Case No. 2000-00302

| <u>Year</u> | <u>No. Participants At Year End</u> | <u>RTP Bills</u> | <u>Bills At Standard Tariff</u> | <u>Customer Savings (Loss)</u> |
|-------------|-------------------------------------|-------------------------|---------------------------------|--------------------------------|
| 2000 | 31 | \$22,639,954.72 | \$29,676,331.76 | \$7,036,377.04 |
| 2001 | 30 | \$14,160,398.66 | \$16,794,961.91 | \$2,634,563.25 |
| 2002 | 30 | \$11,997,329.66 | \$13,252,086.35 | \$1,254,756.69 |
| 2003 | 27 | \$11,026,038.83 | \$12,591,758.50 | \$1,565,719.67 |
| 2004 | 25 | \$11,553,419.33 | \$12,456,906.44 | \$903,487.11 |
| 2005 | 18 | \$12,019,161.27 | \$11,269,191.57 | (\$749,969.70) |
| 2006 | 7 | \$3,946,753.25 | \$3,718,898.37 | (\$227,854.88) |
| 2007 | 7 | \$3,200,314.81 | \$3,200,135.46 | (\$179.35) |
| 2008 | 6 | \$2,866,721.96 | \$2,828,942.29 | (\$37,779.67) |
| 2009 | 6 | \$2,958,795.93 | \$3,339,611.40 | \$380,815.47 |
| 2010 | 6 | \$2,888,144.04 | \$3,047,737.37 | \$159,593.33 |
| 2011 | 6 | \$2,901,567.75 | \$3,044,879.09 | \$143,311.34 |
| Totals | | <u>\$102,158,600.21</u> | <u>\$115,221,440.51</u> | <u>\$13,062,840.30</u> |

VII. Recommendations

Despite the low participation and the lack of demonstrable load shifting, Duke Energy Kentucky recommends that Rate RTP should continue in its current form at least until the Company's next electric base rate filing. The Company will consider changes to the program that will either increase participation or enhance the program as part of a future filing. But for now, the program provides participating customers with an opportunity to learn about market pricing, and to understand their own risk tolerance. The Company believes that there are benefits from being able to offer an hourly pricing tariff to customers for economic development and customer service perspectives. The program does provide data regarding customer interest in hourly pricing programs and customers' responses to the hourly pricing signals.

Finally, the Company does recommend one immediate but minor language change to reflect the fact that the Company is now a member of PJM Interconnection LLC (PJM). Rate RTP currently refers to the Midwest ISO (MISO) as the source of the hourly commodity prices. The Company has filed revised tariff sheets that refer to PJM instead of MISO as the source of the market data.

WHEREFORE, Duke Energy Kentucky prays that the Commission enter an order continuing Duke Energy Kentucky's Rate RTP in its current form until the Company's next electric base rate filing.

Respectfully submitted,

Duke Energy Kentucky, Inc.

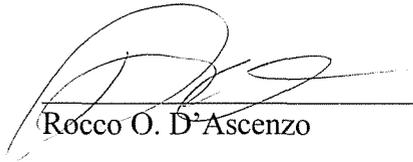


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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing filing was served on the following via overnight mail, postage prepaid, this 26th day of April 2012:

Dennis G. Howard II
Assistant Attorney General
The Kentucky Office of the Attorney General
1024 Capital Center Drive
Frankfort, Kentucky 40602-2000



Rocco O. D'Ascenzo