## COMMONWEALTH OF KENTUCKY

## BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

BACK-UP POWER SUPPLY PLAN OF ) CASE NO. 2009-00429 DUKE ENERGY KENTUCKY, INC. )

## ORDER

On January 23, 2007, Duke Energy Kentucky, Inc. ("Duke Kentucky") submitted its application seeking Commission approval of a three-year back-up power supply plan. Duke Kentucky's 2007-2009 back-up power supply plan, which was approved by the Commission's March 29, 2007 Order in Case No. 2007-00044,<sup>1</sup> runs through December 31, 2009.

In Case No. 2007-00044, the Commission required Duke Kentucky to provide notification of its intentions concerning future back-up power supply plans six months prior to the expiration of the current plan. We also required Duke Kentucky to submit future back-up power supply plans for Commission review no later than 60 days prior to the effective date of the proposed new plan. The Commission finds that Duke Kentucky has complied with those requirements.

Duke Kentucky proposes a 2010-2012 back-up supply plan strategy similar to the 2007-2009 plan approved by the Commission in Case No. 2007-00044. It used standard forecasting methods to estimate its back-up supply needs. It considered supply options available from: (1) the Midwest Independent System Operator ("MISO");

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

(2) responses to a Request for Proposals ("RFP") issued by Duke Kentucky; and (3) fixed forward contracts purchased through the Intercontinental Exchange ("ICE") and/or the over-the-counter market. These are the same supply options considered by Duke Kentucky for its 2007-2009 back-up supply plan.

Duke Kentucky used its Commercial Business Model ("CBM") to analyze the different back-up supply options and to select the optimal back-up power supply plan. The CBM is a proprietary software program that Duke Kentucky uses to project power production requirements and costs under a variety of scenarios. The CBM uses current load forecasts, fuel costs, wholesale power prices, weather conditions, statistical modeling, and extensive historical data related to production costs to predict power needs and costs.

Duke Kentucky projects energy purchases for back-up supply during forced outages for the 2010-2012 time period to be approximately \$17.9 million. Duke Kentucky's proposed back-up power supply plan consists of capacity purchases through bilateral contracts and energy purchases through MISO's daily energy markets, with forward contracts purchased through ICE for scheduled outages. Duke Kentucky states that this back-up power supply plan will best balance cost and risk mitigation. The plan chosen is also the least costly option on an evaluated basis. Rather than obtain its full back-up power requirements for forced and planned outages from MISO's daily energy markets (which appears to be the most economic option if risk is not considered), Duke Kentucky will obtain back-up power through MISO's daily energy market only during forced outages and use fixed-price financial swap purchases for scheduled outages when market conditions appear favorable. The purchases will occur well in advance of

the scheduled outages. This mitigates the risk of price spikes presented by daily call products during scheduled outages since the price of back-up power would be fixed.

In response to its RFP, Duke Kentucky received a proposal for insurance products that was not specifically requested but was included in its evaluation of alternatives. Even at extreme forced outage rates roughly equal to five times Duke Kentucky's actual historical forced outage rates, the insurance products were not economically feasible due to their high deductibles and premiums.

As part of its RFP, Duke Kentucky requested another long-term supply plan involving the exchange of some of its capacity for capacity owned by other electric power companies. Although no responses were received to this request, Duke Kentucky indicated that it may continue to seek a capacity exchange due to the structure of its generation fleet, in which so much of its capacity is concentrated in so few units.<sup>2</sup>

The Commission, having considered the evidence of record and being otherwise sufficiently advised, finds that Duke Kentucky's back-up power supply plan is reasonable and should be approved. The Commission notes that the proposed back-up power supply plan is only for the 2010-2012 period.

## IT IS THEREFORE ORDERED that:

1. Duke Kentucky's back-up power supply plan for the 2010-2012 period is approved as described in its application.

<sup>&</sup>lt;sup>2</sup> Duke Kentucky's generating assets include: East Bend 2, a 414 MW coal-fired base load unit; Miami Fort 6, a 163 MW coal-fired intermediate unit; and Woodsdale units 1-6, which are small gas-fired peaking units.

- 2. Six months prior to the expiration of the 2010-2012 back-up power supply plan approved herein, Duke Kentucky shall inform the Commission of its intentions concerning its back-up power supply plan going forward.
- 3. Duke Kentucky shall submit for review and approval any future back-up supply plans no later than 90 days prior to the effective date of the new plan.

By the Commission

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KENTUCKY PUBLIC SERVICE COMMISSION

ATTEST

Executive Director

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