



139 East Fourth Street, R 25 At II
P O Box 960
Cincinnati, Ohio 45201-0960
Tel. 513-419-1837
Fax. 513-419-1846
dianne.kuhnell@duke-energy.com

Dianne B Kuhnell
Senior Paralegal

VIA OVERNIGHT DELIVERY

December 19, 2008

RECEIVED

DEC 22 2008

**PUBLIC SERVICE
COMMISSION**

Ms. Stephanie Stumbo
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602-0615

Re: Case No. 2007-00300

Dear Ms. Stumbo:

Enclosed please find an original and nine copies each of the Responses to the Second Data Request of Commission Staff in the above captioned case.

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

Sincerely,

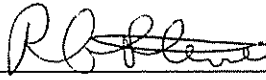
Dianne Kuhnell
Senior Paralegal

cc: Dennis G. Howard II
Parties of record

VERIFICATION


State of Ohio)
) SS:
County of Hamilton)

The undersigned, Richard G. Stevie, being duly sworn, deposes and says that I am employed by the Duke Energy Corporation affiliated companies as Managing Director, Customer Market Analysis; 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.



Richard G. Stevie, Affiant

Subscribed and sworn to before me by Richard Stevie on this 17th day of December, 2008.



NOTARY PUBLIC

My Commission Expires:

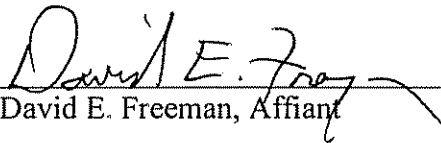


ANITA M. SCHAFER
Notary Public, State of Ohio
My Commission Expires
November 4, 2009

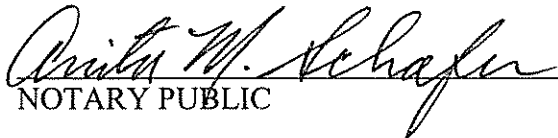
VERIFICATION

STATE OF OHIO)
) SS:
COUNTY OF HAMILTON)

The undersigned, David E. Freeman being duly sworn on his oath, says that: I am employed by Duke Energy Corporation affiliated companies as Director, Integrated Resource Planning for Duke Energy Business Services, LLC; that on behalf of Duke Energy Kentucky, Inc., and says that I have personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of my knowledge, information and belief.


David E. Freeman, Affiant

Subscribed and sworn to before me by David E. Freeman on this 17th day of December, 2008.


NOTARY PUBLIC

My Commission Expires:



ANITA M. SCHAFER
Notary Public, State of Ohio
My Commission Expires
November 4, 2009

STAFF-DR-02-001

REQUEST:

With regard to Strategy 1, *Improve the Energy Efficiency of Kentucky's Homes, Buildings, Industries and Transportation Fleet* and Strategy 2, *Increase Kentucky's Use of Renewable Energy*, explain any changes that will or may impact the utility's fuel or energy requirements for:

- a) the near-term (1-3 years)
- b) the mid-term (4-7 years)
- c) the long-term (beyond 7 years)

RESPONSE:

Strategy 1, Improve the Energy Efficiency of Kentucky's Homes, Buildings, Industries and Transportation Fleet

With regard to Strategy 1, the recommendations in the Governor's plan for years 1 to 3 include:

- Reducing energy usage in state buildings and fleets.
 - Implementing utility energy efficiency programs
 - Completion of a study on the energy efficiency potential
 - Conducting an examination of a public benefits fund for non-utility energy efficiency programs
-
- Setting an Energy Efficiency Resource Standard (EERS) goal of a 16% reduction in energy consumption by 2025
 - Establishing the methodology for examining cost-effectiveness of energy efficiency programs
 - Establishing tax incentives to enhance energy efficiency
 - Initiate a public energy efficiency awareness and education program
 - Developing a robust plug-in hybrid electric vehicle and highly fuel-efficient market

The recommendations in the Governor's plan for years 4 to 7 include:

- Establishing a policy for “smart grid” development
- Evaluating rate design and ratemaking alternatives to enhance the impact of cost-effective energy efficiencies

The recommendations in the Governor’s plan for beyond 7 years include:

- Integrating advanced “smart grid” technologies and communication systems
- Re-evaluate the EERS goal of reducing energy consumption by at least 16% below projected 2025 levels to determine if additional reductions are achievable

At this time, this assessment can only be qualitative. The recommendations in the report do not provide adequate detail to provide estimates of the potential impacts.

If the recommendations in Strategy 1, including the proposed energy efficiency resource standard, are adopted, gas and electric sales will be lower than expected in all three cases due to the implementation of utility sponsored and non-utility sponsored energy efficiency programs. However, at the same time, efforts to promote plug-in hybrid vehicles will cause electricity use to increase faster than expected. The net effects of these objectives are unknown, but will become clearer over time. The uncertainty on the level of effects comes from two areas: (1) are there enough cost-effective programs to be able to achieve the proposed resource standards and (2) will the new plug-in hybrid electric vehicle technology become widely adopted making electricity use increase faster.

To promote the implementation of electric vehicles, the Commission should consider implementing optional utility rate classes that include new, efficient end-use equipment or new technologies like charging stations for plug-in hybrid vehicles without requiring any cash outlay from customers up front.

Duke Energy Kentucky has a long history of implementing utility sponsored energy efficiency programs. On December 1, 2008, the Company submitted an application to expand its energy efficiency efforts in its Save-A-Watt filing. In addition, the Company has commissioned an energy efficiency market potential study to assess how much energy efficiency can be cost-effectively achieved. The Company anticipates using the results of that study to further its efforts at promoting energy efficiency for its customers. Again, the net impacts on energy requirements from the promotion of energy efficiency and the adoption of electric vehicles are unknown at this time.

Strategy 2. Increase Kentucky’s Use of Renewable Energy

With regard to Strategy 2, Kentucky Governor Beshear’s goal is by 2025, Kentucky’s renewable energy generation will triple to provide the equivalent of 1,000 megawatts of

clean energy while continuing to produce safe, abundant, and affordable food, feed and fiber.

The recommendations for in the Governor's plan years 1 to 3 include:

- Require new or substantially renovated public buildings to utilize renewable energy as a percentage of total energy consumption.
- Kentucky's Energy and Environment Cabinet (EEC) will recommend policies and incentives necessary to achieve the state's renewable energy goal.
- Kentucky's Public Services Commission (PSC) will develop state-wide interconnection guidelines for renewable energy systems.
- Kentucky will review its policies and regulations to encourage the responsible use of woody biomass.

The recommendations in the Governor's plan for years 4 to 7 include:

- Kentucky will review and make adjustments to its renewable energy policies and incentive programs as capacity grows.
- Kentucky will amend its interconnection guidelines to allow renewable energy systems up to two megawatts.
- Kentucky will implement forestry and land-use policies and/or regulations to ensure that Kentucky has a sustainable supply of biomass for its wood and power industries.

The recommendations in the Governor's plan for beyond 7 years include:

- Kentucky will annually align its renewable energy policies and incentive programs to be compatible with the state's renewable energy goal.

At this time, this assessment can only be qualitative. The recommendations in the report do not provide adequate detail to provide estimates of the potential impacts.

For the 1-3 year timeframe, Duke Energy Kentucky's (DE-Kentucky) current projection of fuel use is coal and natural gas. DE-Kentucky's load is served by these resources unless there are less expensive purchased resources within the Midwest Independent System Operator (MISO) that can serve the load. Conceivably, if renewables are used by public buildings, renewable energy systems are interconnected to the power grid, and there is an increase in the use of woody biomass, DE-Kentucky's use of coal, natural gas, and purchases from MISO to serve its load would likely be reduced. DE-Kentucky cannot quantify what that decrease would be until Kentucky establishes a timeframe for compliance and incremental percentages that will diversify the state's energy.

In three years, DE-Kentucky will be filing its next Integrated Resource Plan (IRP) that will include evaluation of renewable energy sources. DE-Kentucky's current IRP filed July 1, 2008 included a look at renewable energy sources such as Turnkey Wind projects, Poultry Waste projects, Hog Waste Digesters, fluidized bed biomass, and solar alternatives. DE-Kentucky found that none of these renewable energy alternatives met the lowest possible cost criteria as required in the Kentucky IRP regulations.

For the 4-7 year timeframe, the current projection of fuel use by DE-Kentucky is coal and natural gas, with no new capacity additions required to meet load. As in the 1-3 year timeframe, DE-Kentucky's use of coal and natural gas and purchases from MISO would probably decrease if more renewable energy systems are connected to the power grid and end users use renewable energy sources such as woody biomass.

For beyond 7 years, DE-Kentucky's recent Save-A-Watt filing projects 50 MWs of new wind energy capacity to be required in 2024, which would contribute to Kentucky's goal of 1,000 MWs of clean energy by 2025. In seven years and beyond, the state's energy diversity percentages and compliance requirements will probably be in force, which could change DE-Kentucky's generation resource mix to include more clean energy sources. This could have the effect of lowering DE-Kentucky's current projected use of coal and natural gas.

PERSON RESPONSIBLE: Strategy 1: Richard G. Stevie
Strategy 2: David E. Freeman