

#### **OVERLAND CONSULTING**

10801 Mastin Building 84, Suite 420 Overland Park, KS 66210 913 / 599-3323 Fax 913 / 495-9909

RECEIVED

March 18, 2008

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PUBLIC SERVICE COMMISSION

Ms. Stephanie L. Stumbo Executive Director Kentucky Public Service Commission P. O. Box 615, 211 Sower Boulevard Frankfort, KY 40602

Re: Case No. 2007-00477

Dear Ms. Stumbo:

Enclosed for filing in the above-referenced case are an original and eight copies of Overland Consulting's responses to the data requests of Louisville Gas and Electric Company and Kentucky Utilities Company and East Kentucky Power Cooperative, Inc.

Sincerely,

#### **Overland Consulting**

Howard E. Lubow President

#### COMMONWEALTH OF KENTUCKY

#### BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of.

| AN INVESTIGATION OF THE     | ) |                     |
|-----------------------------|---|---------------------|
| ENERGY AND REGULATORY       | ) | ADMINISTRATIVE      |
| ISSUES IN SECTION 50 OF     | ) | CASE NO. 2007-00477 |
| KENTLICKY'S 2007 ENERGY ACT | ) |                     |

#### CERTIFICATE OF SERVICE

I certify that the responses of Overland Consulting to the data requests of Louisville Gas and Electric Company and Kentucky Utilities Company and East Kentucky Power Cooperative, Inc. have been served upon all parties of record herein, on this 19<sup>th</sup> day of March, 2008, by mailing a true copy thereof, postage prepaid, to the following.

Paul D Adams
Office of the Attorney General
Utility & Rate Intervention Division
1024 Capital Center Drive, Suite 200
Frankfort, KY 40601-8204

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#### Administrative Case No. 2007-00477

# Response to First Data Request Of Kentucky Utilities & Louisville Gas and Electric Company Dated March 11, 2008

#### Question No. 1

Responding Witness: Howard Lubow

- Q. 1 In Overland's March 4, 2008 Review of the Incentives for Energy Independence Act of 2007, Section 50, prepared for the Commission ("Report"), page 53, Overland recommends that the Commission "develop or adopt recognized measurement and verification guidelines, so that actual results of DSM programs can be independently assessed and validated." Given the practical difficulties and costs associated with obtaining actual data for the savings associated with any given DSM measure, in addition to the fact that the savings created by many DSM and energy efficiency measures are discretionary with customers (e.g., use of compact fluorescent light bulbs), please state what kind(s) of "actual results" Overland believes can be obtained cost-effectively and can be adjusted for customers' discretionary behaviors.
- A. 1 A discussion of Monitoring and Verifying benefits is contained in our report in Appendix D, commencing at page 138. Aside from this summary narrative, citations are referenced to more detailed documents available on current industry practices.

The implementation of agreed upon measurement and verification procedures is an integral component of incentive mechanisms for DSM programs. Should the Commission adopt this recommendation, actual procedures should be developed and agreed upon by the parties in a subsequent process.



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Question No. 2

- Q. 2 Please refer to Report pages 53 and 84. On page 53, Overland states, "[S]tandards should recognize that DSM cannot be substituted for power plant development on an undifferentiated basis." How does Overland reconcile that recommendation with its statement on page 84, wherein Overland recommends that the "current statute defining the CPCN process should be modified to require the consideration of demand and supply-side alternatives..."?
- A. 2 The reference and discussion at page 53 is not inconsistent with the recommendation to consider demand and supply-side alternatives in the CPCN process. The point of the discussion at page 53 is to recognize that DSM programs must be evaluated in terms of anticipated impact on load at peak and off-peak periods. Such programs must also be considered in light of reliability and participant response assumptions.

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Administrative Case No. 2007-00477

Response to First Data Request
Of Kentucky Utilities & Louisville Gas and Electric Company
Dated March 11, 2008

Question No. 3

- Q. 3 Please refer to Report page 58, where Overland states, "The Commission should consider the need to revise the current DSM application and approval process to accelerate the procedural timeline for projects below a defined funding level." Does Overland agree that such a "defined funding level" should mean a percentage of a utility's revenues, such that project under a certain percentage of a utility's revenues would be "fast-tracked" for approval?
- A. 3 Assuming that this recommendation were adopted by the Commission, we believe that the appropriate benchmark should be developed and agreed upon between the Commission, the utilities, and other potentially interested parties. However, we do agree that a mechanism that considers relative size (such as revenues) is reasonable.

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#### Administrative Case No. 2007-00477

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#### Question No. 4

- Q. 4 Please refer to Report page 69, where Overland states, "The [RPS] target must be realistic and cost-effective in light of Kentucky geological constraints [.]" Given that renewable sources of electric generation typically are higher-cost than conventional generation, how does Overland define "cost-effective" in this context?
- A. 4 The reference to "cost-effective" in the above question is associated with the realistic assessment of the availability and relative cost of Kentucky-specific renewable resources. Of course, equivalent resources may be purchased in the market from sources outside of the state as well. In any event, "Cost-effective" should meet a "reasonable cost" standard when considering alternative resource options.

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#### Administrative Case No. 2007-00477

# Response to First Data Request Of Kentucky Utilities & Louisville Gas and Electric Company Dated March 11, 2008

#### Question No. 5

- Q. 5 Please refer to Report page 70, where Overland states, "The Commission should consider the need to provide for fast track applications for small-scale generation []" How does Overland define "small-scale generation"?
- A. 5 Assuming that this recommendation were adopted by the Commission, we believe that the appropriate benchmark should be developed and agreed upon between the Commission, the utilities, and other potentially interested parties. However, as a preliminary point of reference, we would define small-scale generation as projects with a capacity of not more than 10 MW.



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Sincerely,

#### **Overland Consulting**

Howard E. Lubow President

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Response to First Data Request
Of East Kentucky Power Cooperative, Inc.
Dated March 11, 2008

Question No. 1

- Q. 1 On page 1, the consultant states that Kentucky consumers use more energy per customer than most other states is this true for electricity specifically? Do Kentucky residential consumers use more electricity than most other states?
- A. 1 The statement contained on page 1 refers to energy consumption. Residential energy consumption is within the national average.

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Question No. 2

- Q. 2 Reference Figure 1-1. Based on the information for EKPC shown in Figure 1-3, should Figure 1-1 be revised to include EKPC's 11,425 GWh sales to its Members?
- Q. 2 Figure 1-1 is based upon data taken directly from EIA. We have no independent knowledge of the criteria or source of the information relied upon in its determination of "Top Suppliers of Electricity". This information source is provided in our Workpapers filed with the Commission.

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Question No. 3

Responding Witness: Howard Lubow

- Q. 3 On page 5 of the report, it indicates that the state's fuel mix was over 70 percent coal-based, as measured by capacity, and that in 1995 the state's fuel mix was approximately 90 percent. Does the consultant agree that the above decline in coal-based fuel mix is relatively large? Is the consultant aware of any other states that have experienced a larger decline in coal-based fuel mix over the past 13 years?
- A. 3 The primary basis for this decline in the percentage of coal-based capacity is the addition of gas-fired peaking facilities over this period. On the basis of annual energy production, coal-facilities were about 95% in 1995, compared to over 90% in 2006.

A number of industry-wide conditions, including industry restructuring and relative commodity prices over the last ten to fifteen years have driven utilities to construct a relatively higher ratio of gas-fired combined cycle and combustion turbines used to meet intermediate and peak-load conditions. However, we have made no specific analysis of the change in generation mix in neighboring states of this timeframe.

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Response to First Data Request
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Question No. 4

- Q. 4 In the Conclusion to Chapter 1, on page 14, the consultant states, "Current prices, however, are likely to rise for a number of reasons. The recent rise in fuel costs are already impacting customer bills, albeit much less than other areas of the country relying more heavily on gas and oil supplies." Does the consultant believe that, relative to other neighboring states, Kentucky will shortly have electric prices that are no longer low? Please explain the answer.
- A. 4 Not necessarily. Given the relatively high reliance on coal-fired generation, the possible passage and implementation of CO<sub>2</sub> legislation represents a potentially greater challenge to Kentucky than other states that are less reliant on coal to generate electricity.

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Response to First Data Request
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Dated March 11, 2008

Question No. 5

- Q. 5 Reference page 22. The report states, "Other states and the federal government are investing in the coal industry." Please provide evidence which supports this statement.
- Q. 5 The statement referenced was contained in our report as a summary of a Kentucky Energy Policy Task Force Report, released in 2005. Overland has no independent support for the statement contained in that report.

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Response to First Data Request
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Dated March 11, 2008

Question No. 6

Responding Witness: Howard Lubow

- Q. 6 On page 43, the consultant states, "The relatively low cost of electricity in the state reduces consumer motivation to conserve." Please explain that statement in more detail. Is the consultant saying that the demand for DSM is directly related to the price of electricity? If Kentucky retail prices increase relatively quickly over the next few years, does the consultant believe that demand for DSM would likewise increase? If Kentucky retail prices decrease over the next few years, would the consultant expect to see a decline in the demand for DSM?
- A. 6 To the extent that a price elasticity of demand exists for residential electric energy consumption, there is an inverse relationship between price and electricity consumed. Many studies have measured this relationship, which is relied upon in econometric energy forecast models.

Assuming that electricity prices rise, consumers will become economically motivated to invest in energy efficiency measures available to reduce consumption. Similarly, utility screening models will also recognize this cost/benefit relationship in consideration of energy efficiency and DSM programs.

However, the level of consumer energy consumption is not fully explained by price. As a result, increases or decreases in energy prices will not have a completely linear effect. For instance, energy conservation has become a higher priority to many consumers in more recent years, as environmental factors have become more recognized.

To answer the final question stated above, regardless of the mitigating factors previously explained, all else equal, a decline in Kentucky retail energy prices would have some dampening effect on the demand for DSM.

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Response to First Data Request
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Question No. 7

- Q. 7 On page 50, the consultant states, "All the jurisdictional utilities in Kentucky employ the California Standard Practice Manual for Economic Analysis of Demand Side Programs. The California SPM, at least in one instance, has been criticized in recent years, on the basis that the tests have a tendency to overstate that cost and undervalue the benefits of programs." Does the consultant believe that the California SPM tends to overstate and undervalue benefits of programs?
- A. 7 Generally, no.

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Response to First Data Request
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Question No. 8

Responding Witness: Howard Lubow

- Q. 8 On page 53, the consultant argues that the Commission should develop a set of standards for how to evaluate DSM programs. Since all utilities examined by the consultant used the California SPM, please explain why the consultant believes that those tests don't represent a standard.
- A. 8 The actual application of screening models varies among utilities. The Commission does not currently review program performance. Industry practice often considers other value drivers to DSM. Measurement and verification standards have not been developed or applied by the Commission to date.

A more complete discussion of this response is found at page 52 of the report.

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Response to First Data Request
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Question No. 9

- Q. 9 Reference the recommendations on page 58 for a procedural timeline for DSM Program review. Does the consultant recommend setting forth a defined timeline for review and approval of DSM filings, much like the time limit for adjudication of rate cases?
- A. 9 Yes; at least for projects below a defined funding level or for modifications to existing projects.

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Question No. 10

- Q. 10 Figure 5-8 on page 67 is taken from a recent EIA report. Does the consultant believe that the capital costs shown in this table are accurate to plus or minus 5%? If not, how accurate does the consultant believe this table to be?
- A. 10. These costs are not accurate to within 5% plus or minus, as they are stated in 2005 cost levels. These costs have escalated substantially over the intervening period to the present. The primary point of the table, however, is to present the relative costs of the various technologies identified.

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Response to First Data Request
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Dated March 11, 2008

**Question No. 11** 

Responding Witness: Howard Lubow

Q. 11 Reference recommendation on page 71, would the consultant also recognize an equivalent "premium" TIER effect for cooperatives?

A. 11 Yes.

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### Administrative Case No. 2007-00477

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Dated March 11, 2008

Question No. 12

- Q. 12 Reference the recommendation on page 106.
  - a. Is there a dollar minimum threshold for capitalizing expenditures?
  - b. For cooperatives, would a premium return component or TIER effect be applicable for the DSM surcharge?
- A. 12(a) There is no dollar threshold for capitalizing costs.
- A. 12(b) Yes.

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### Administrative Case No. 2007-00477

Response to First Data Request
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Dated March 11, 2008

Question No. 13

Responding Witness: Howard Lubow

Q. 13 Reference the recommendation on page 108, would a premium return component or TIER effect be applicable to cooperatives?

A. 13. Yes.