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April 22, 2008

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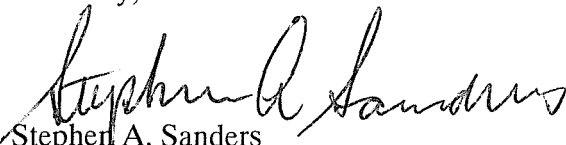
RE: Case No. 2007-00477

Dear Ms. Stumbo:

Please find enclosed for filing in the above-styled case record the Answers to Duke Energy's Second Set of Requests for Information to the Sierra Club.

Thank you for your cooperation. A copy of this document has been mailed to all parties listed on the attached Certificate of Service.

Sincerely,


Stephen A. Sanders
Attorney at Law

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PUBLIC SERVICE COMMISSION

APR 22 2008
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In the Matter of:

**AN INVESTIGATION OF THE ENERGY AND
REGULATORY ISSUES IN SECTION 50 OF
KENTUCKY'S 2007 ENERGY ACT**

**Administrative Case No.
2007-00477**

**ANSWERS TO DUKE ENERGY'S SECOND SET
OF REQUESTS FOR INFORMATION TO THE SIERRA CLUB**

The Sierra Club, by counsel, submits the following in response to Duke Energy's second set of requests for information:

1. Referring to Witness Zinga's Testimony at page 2, please explain what is meant by the phrase "optimizing the quality of life for its citizens." How can the quality of life be optimized?

Government policymakers must weigh the benefits, costs and risks of various policy options before them in order to achieve the optimal outcome for society. This does not mean that the lowest cost solution is the best. For example, it would be much cheaper if we, as a society, did not have to invest in water filtration plants. But would the savings of foregoing these facilities outweigh the health and quality of life issues afforded us by avoiding water-borne diseases and epidemics stemming from unclean water? Likewise, policymakers must determine the level of investment appropriate for Kentucky citizens to help ensure that their electricity needs are met wisely and not at the expense of their health.

Demand-side management enables the utilities, as well as the residents and businesses of the state, to maximize the utilization of every Btu (British thermal unit) of fuel used to produce electricity by making the appliances and equipment that run on electricity as efficient as possible. By maximizing productivity in this manner, consumers can pay less on their electricity bills while maintaining the same quality of life; businesses can lower their expense ratios; and utilities can rein in the demand for electricity and the need for new generating facilities, which in turn, can help avoid

adding even more harmful pollutants into the air resulting from fossil-fuel combustion.

2. Referring to the bottom of page 3 of witness Zinga's Testimony which lists the 18 states and District of Columbia who currently have Public Benefit Fund legislation, is there a particular state's legislation which the witness recommends as a model for Kentucky? Please explain.

There is not a single state in particular that I would recommend over others for Kentucky to emulate. Each state has a unique path that has led to the adoption of that specific form of Public Benefit Fund (PBF). Factors that play a role in developing the best model for a state's residents and businesses include: regulatory climate, type of industry, weather, fuel availability, constituency, and geographic size. California, for example, is a very large state with both a diverse climate and a diverse industrial and agricultural base. In addition to a fast-growing economy, it has experienced a failed market for deregulated electricity. Many of its residents are progressive innovators and they are willing to take risks and make substantial investments in forward-thinking energy efficiency and renewable energy projects with unproven results.

New York and Illinois have historically had quite adversarial relationships between the states' utilities, regulatory bodies, and non-governmental organizations. So it's not surprising that New York utilizes a state-legislated public benefit corporation with a 13-member Board of Directors appointed by the Governor to operate its Public Benefit Fund. Illinois stakeholders established an energy-efficiency trust, funded with a one-time settlement from Commonwealth Edison, the state's largest investor-owned utility, and another trust that is overseen by a state agency.

Kentucky legislators, utilities, regulatory entities, and organizations representing environmental as well as economic concerns need to discuss the merits of models best-suited for the state and craft legislation to provide this framework.

3. Referring to the bottom of page 3 of witness Zinga's Testimony which lists the 18 states and District of Columbia who currently have Public Benefit Fund legislation, is there a particular state's legislation which the witness would not recommend as a model for Kentucky? Please explain.

The only funding mechanism that I would advise against is that used by Minnesota, which supports renewable energy projects through a charge on nuclear fuel storage. In 1994, Minnesota passed the Radioactive Waste Management Facility Authorization Law, which creates about \$16 million annually in a fund for renewable energy. Since Kentucky has no electric generation facilities powered by nuclear fuel, there is no need to design a funding mechanism of this sort.

4. Does Witness Zinga advocate imposing any legislative restrictions on the programs that should be funded with the proposed Public Benefit Fund? If yes, please explain.

Legislation should require that these funds be dedicated exclusively to activities related to energy efficiency, load management, and/or renewable energy programs and projects. The legislation should also prohibit the use of these monies for projects related to coal gasification, carbon sequestration or nuclear research.

I also believe that legislation should include mechanisms in consideration of the unique characteristics of large commercial and industrial electricity users. Such mechanisms may include: a lower funding rate if a volumetric charge is implemented; an annual cap on contributions; or an allowance for energy efficiency investments at their own facilities in lieu of contributing to the PBF. If the last option were to be allowed, industrial and large commercial customers should be required to report to the Public Service Commission the type and expenditure level of energy efficiency investments along with estimated energy and demand impacts supported by evidence of monitoring and/or evaluation efforts.

There are states that have implemented each of the methods listed above. When the City Council of Boulder, Colorado instituted a PBF for energy efficiency, renewable energy and transportation projects, they required a volumetric charge that is 82% and 91% lower for commercial and industrial electricity consumers respectively than for residential consumers. In New Mexico, the Efficient Use of Energy Act of 2005 states that a customer cannot be charged more than \$75,000 per year. Wisconsin statutes take small users under consideration as well by stating that public benefits fees may not exceed 3% of the total of a customer's bill or \$750 per month, whichever is less. And to illustrate the third mechanism listed above, Montana electricity users with load exceeding one megawatt (MW) may choose to fund qualified in-house energy efficiency projects instead of remitting money to their Universal System Benefits Program.

5. Is Witness Zinga aware of any itemization of the specific programs funded with the Public Benefits Funds in the 18 states? If yes, please provide such a list.

Many of the summary reports listed in response to Question #9 also identify the programs comprising their portfolio of programs in a given year.

6. Has Witness Zinga performed any analysis regarding the effectiveness of the various programs supported by the public benefit funds offered in the 18 states and District of Columbia? If yes, please provide such analysis.

No, I have not performed any analysis regarding the effectiveness of programs supported by PBFs. There are dozens of evaluations that have been performed over the last several years on programs offered in states with Public Benefits Funds. The reports listed in response to Question #9 provide information on program effectiveness. While this is only a partial list of all available studies, it provides an understanding of the breadth of analytical work available for review.

7. Referring to Page 4 of Witness Zinga's Testimony, is Ms. Zinga proposing a legislative requirement for municipal utilities and cooperative utilities to participate in a state-wide Public Benefit Funds or to form a comparable fund themselves? Please explain.

Yes, I believe that all energy consumers in Kentucky should contribute to and receive benefits from a statewide Public Benefits Fund regardless of the type of entity from which they receive power. Kentucky policymakers may find the provision used by the Delaware legislature very attractive where separate funds are established so that the ratepayers of one jurisdiction may not access the funds of other utilities for programs delivered in their service territory.

8. Referring to Pages 7 and 8 of Witness Zinga's Testimony, has Ms. Zinga performed any analysis comparing the effectiveness of the various forms of administration of Public Benefit Funds (e.g. utility commission administered Public Benefits Funds, state agency administered Public Benefit Funds and funds administered by either non-profit organizations or other third parties)? If yes. Please explain and provide such studies.

No, I have not personally performed any analysis on the effectiveness of various forms of administration of Public Benefit Funds. Once again, many factors contribute to the funding and administrative mechanisms that a state chooses to adopt for its Public Benefit Fund, and this testimony illustrates that there are as many ways to structure and administer a PBF as there are states. What may be effective in one state may not work as well in another. The energy policymakers, utilities, legislators and non-governmental entities that have been active in establishing energy policy within Kentucky are the parties that will be able to determine the most effective policies and procedures for the state.

9. Referring to page 10 of Witness Zinga's testimony, is Ms. Zinga aware of any other analysis (other than the Wisconsin reports mentioned in her testimony) regarding the effectiveness of the various programs supported by the public benefit funds offered in the 18 states and District of Columbia? If yes, please identify the state(s) and provide such analysis.

There is a wealth of available reports at both the state and program levels. As with other issues related to PBFs, each state handles this in its own way. In addition to summaries of statewide program impacts, there are many program evaluations available for review. Known as program impact evaluation studies, these reports have been a staple of the utility industry for decades and there have been tens, if not hundreds, of program evaluations conducted by utilities serving customers in these states over the past decade alone. There have also been evaluations performed for portfolios of programs. I have merely listed a sampling of the types of reports here, and they in no way demonstrate the full range of reports available to the concerned energy policymaker.

- New York State Energy Research and Development Authority (NYSERDA) Report to the System Benefits Charge Advisory Group, New York Energy Smart Program Evaluation and Status Report – Final Report, March 2007.
- KEMA, Inc., Prepared for the Vermont Department of Public Service, Final Report: Phase 1 Evaluation of the Efficiency Vermont Efficient Products Program, June 10, 2002.
- KEMA, Inc., Prepared for the Vermont Department of Public Service, Final Report: Phase 2 Evaluation of the Efficiency Vermont Efficient Products Program, December 2005.
- PA Consulting Group, Prepared for the State of Wisconsin Department of Administration, Division of Energy, Focus on Energy Public Benefits Evaluation – Semiannual Report (FY06, Year-end), September 27, 2006.

- PA Consulting Group, Prepared for the State of Wisconsin Department of Administration, Division of Energy, Focus on Energy Statewide Evaluation – Interim Benefit-Cost Analysis: FY07 Evaluation Report, February 26, 2007.
- Department of Labor & Economic Growth, Michigan Public Service Commission, Report on the Low-Income and Energy Efficiency Fund, June 1, 2007.
- Department of Labor & Economic Growth, Michigan Public Service Commission, Report on the Low-Income and Energy Efficiency Fund, June 1, 2006.
- Department of Labor & Economic Growth, Michigan Public Service Commission, Report on the Low-Income and Energy Efficiency Fund, June 1, 2005.
- Department of Labor & Economic Growth, Michigan Public Service Commission, Report on the Low-Income and Energy Efficiency Fund, June 1, 2004.
- Department of Labor & Economic Growth, Michigan Public Service Commission, Report on the Low-Income and Energy Efficiency Fund, June 1, 2003.
- Department of Labor & Economic Growth, Michigan Public Service Commission, Report on the Low-Income and Energy Efficiency Fund, June 1, 2002.
- Ecotope, Inc., The American Council for an Energy Efficient Economy (ACEEE), Tellus Institute, Inc., Prepared for the Energy Trust of Oregon, Energy Efficiency and Conservation Measure Resource Assessment for the Residential, Commercial, Industrial and Agricultural Sectors, January 2003.
- TechMarket Works, Opinion Dynamics, Dr. Ken Keating, Megdal & Associates, Morgan Marketing Partners, & Dr. Ed Vine, Prepared for CPUC Energy Division, Final Report, The California 2006-2008 Energy Efficiency Portfolio, A Review of Early IOU Planning Documents, July 1, 2005.
- Massachusetts Division of Energy Resources, Executive Office of Energy and Environmental Affairs Commonwealth of Massachusetts, Massachusetts Savings Electricity: A Summary of the Performance of Electric Efficiency Programs Funded by Ratepayers Between 2003 and 2005, April 2, 2007.
- Division of Energy Resources, Office of Consumer Affairs and Business Regulation, Commonwealth of Massachusetts, 2002 Energy Efficiency Activities, An Annual Report to the Great and General Court on the Status of Energy Efficiency Activities in Massachusetts, Summer 2004.
- The State of New Hampshire Public Utilities Commission, Report to the Legislative Oversight Committee on Electric Restructuring, Results and Effectiveness of the System Benefits Charge, October 1, 2007.

- PA Consulting Group, Prepared for the Maine Public Utilities Commission, Evaluation of The Efficiency Maine Business Program – Final Report, December 5, 2006.
- Pennsylvania Sustainable Energy Board, 2005 Annual Report, December 2006.
- Pennsylvania Sustainable Energy Board, 2004 Annual Report.
- Optimal Energy, Inc., Vermont Energy Investment Corporation, PAH Associates, Prepared for the Connecticut Office of Consumer Counsel, Review of Connecticut’s Conservation and Load Management Administrator Performance, Plans and Incentives, Final Report, October 31, 2003.
- Frontier Associates LLC, Energy Efficiency Accomplishments of Texas Investor-Owned Utilities Calendar Year 2005, June 20, 2006
- New Jersey Office of Clean Energy, New Jersey’s Clean Energy Program Report Submitted to the New Jersey Board of Public Utilities (Reporting Period January 1, 2005 through December 31, 2005), March 28, 2006.
- New Jersey Office of Clean Energy, New Jersey’s Clean Energy Program Report Submitted to the New Jersey Board of Public Utilities (Reporting Period January 1, 2004 through June 30, 2004), November 3, 2004.
- Center for Energy, Economic and Environmental Policy, Edward J. Bloustein School of Planning and Public Policy, Rutgers - the State University of New Jersey, 2005 Program Evaluation, New Jersey Clean Energy Program, Energy Efficiency and Renewable Energy Programs, March 2007.
- Center for Energy, Economic and Environmental Policy, Edward J. Bloustein School of Planning and Public Policy, Rutgers - the State University of New Jersey, 2004 Program Evaluation, New Jersey Clean Energy Program, Energy Efficiency and Renewable Energy Programs, August 26, 2005.
- Center for Energy, Economic and Environmental Policy, Edward J. Bloustein School of Planning and Public Policy, Rutgers - the State University of New Jersey, 2003 Program Evaluation, New Jersey Clean Energy Program, Energy Efficiency and Renewable Energy Programs, July 30, 2004.

10. Referring to page 10 of Witness Zinga’s Testimony discussing the Wisconsin reports on cost effectiveness of their expenditures on renewable energy generation and energy efficiency, do the results mentioned include initiatives other than the programs funded by Wisconsin’s Public Benefit Fund? Do the programs receive funding from sources other than the Public Benefit Fund? Please explain.

Wisconsin has prepared many detailed reports on the effectiveness of its programs over the years. These reports clearly explain the programs examined within a portfolio, the methodology used, and the goals of the analysis. In some cases, programs may include additional funding sources or implicitly reflect program eligibility constraints as in the case of federal funding for low-income energy assistance. Despite these complications, the reports offered by Wisconsin's Department of Energy are insightful studies that not only demonstrate high-level energy savings, but provide detailed results even showing residential and industrial energy bill savings by county.

11. Referring to page 10, paragraph 3, of Witness Zinga's Testimony discussing "freeing up capital" to make it available for other "economic opportunities", please explain and describe with examples, what "other economic opportunities" the witness is referring to.

Demand-side management provides the opportunity for consumers, both business and residential, to lower their monthly electricity bills. When expenses are reduced, households have the opportunity to purchase additional goods or put that money in the bank, which ultimately gets re-invested in the economy. Businesses have the increased ability to re-invest in their businesses, or provide greater value to shareholders.

12. Referring to page 10, paragraph 3, of Witness Zinga's Testimony, is Ms. Zinga aware of any analysis quantifying the economic benefits of shifting investments from energy costs to "other economic opportunities"?

As stated, my testimony referred to the straightforward economic principle that if a household or business is able to reduce expenses in one area, it logically follows that those savings are made available for other purposes. Yes, studies have been performed quantifying the economic effects of strategically pursuing energy policies that encourage energy efficiency and renewable energy within their states. A few of these are listed below:

- State of Wisconsin Department of Administration Division of Energy, Focus on Energy Public Benefits Evaluation, Economic Development Benefits: FY07 Economic Impacts Report, Final: February 23, 2007.
- Black & Veatch Project #135401, Prepared for The Heinz Endowments and the Community Foundation for the Alleghenies, Economic Impact on Renewable Energy in Pennsylvania – Final Report, March 2004.
- Ohio Grantmakers Forum and the Ohio Department of Development's Office of Energy Efficiency, Issue Briefing - Energy, October 2005.
- Renewable Energy Policy Project, Component Manufacturing: Ohio's Future in the Renewable Energy Industry – Technical Report, October 2005.
- Massachusetts Technology Collaborative & Renewable Energy Trust, Energy Efficiency, Renewable Energy, and Jobs in Massachusetts

13. Referring to page 11 of Witness Zinga's Testimony recommending the "volumetric model" to initiate and support a Public Benefits Fund in the state of Kentucky, does Ms. Zinga oppose implementation of any of the other models (i.e. percentage of utility revenues, budget allocation, and performance standard) discussed in her testimony? Please explain.

Neither I, nor the Sierra Club, oppose the implementation of another PBF model in Kentucky. The volumetric model has been recommended because it is a straightforward approach. With this model, as Kentucky grows and its electricity usage follows suit, there will be a corresponding increase in funding to support demand-side management. Likewise, in times of an economic downturn, program funding declines as fewer megawatt-hours are consumed.

The Percentage of Utility Revenues and the Budget Allocation approaches may require the legislature to revisit the funding levels in future years. If, for example, Kentucky chooses to establish a given revenue year on which funding is based, then the purchasing power of this fund declines over time and a re-assessment must be made in the future to determine the appropriate revenue year on which a surcharge should be based in order to provide demand-side management programs at a comparable level in a potentially growing economy. The Budget Allocation approach

transfers the authority for the level of funding from the present legislature into the future with more decision-making ability given to one or more regulatory bodies. Unless the legislation imposes a cap on future surcharge levels, PBF funding can be more uncertain in the future and is subject to the discretion of future regulatory bodies. This uncertainty can be difficult for program planning and budgeting.

The Performance Standard approach is also a bit more complex because it requires greater reliance on the accuracy of forecasting program performance. It also requires that utilities take greater responsibility for their demand-side management activities. Since load management and energy efficiency reductions are relative to electricity growth, funding levels must vary to accommodate changes in program size and/or incentive level needed to meet performance requirements. This approach could have the potential for significant rate impacts.

Should Kentucky energy policymakers choose to institute the volumetric PBF model, they should contemplate the future purchasing power of the PBF when the legislation is designed and a flat volumetric price (mils/kWh) instituted for a specified number of years. With the exception of deflationary economic conditions, the purchasing power of this funding level is higher in the early years of implementation than in later years due to the nature of the time value of money. The amount in the fund varies only by changes in the level of electricity consumption. As economic and demographic growth swells, the fund grows to accommodate these changes, but its growth may not exceed the rate of inflation even though it may be required to serve more households and businesses. In this case, the purchasing power of the fund may decline. It may be beneficial for the legislation to include an escalator so that the volumetric charge could increase by no more than a specified level, perhaps tied to the consumer price index or the producer price index. This may be approved by the Kentucky Public Service Commission annually to allow for increases in DSM funding without additional legislative action. Once again, each state has crafted legislation to fit the needs of that state and Kentucky should follow suit after careful examination of the alternatives.

14. Referring to page 11 of Witness Zinga's Testimony recommending the "volumetric model" to initiate and support a Public Benefits Fund in the state of Kentucky, has the witness performed any analysis regarding the impacts of the other models discussed in her testimony (e.g. percentage of utility revenues, budget allocation, and performance standard)? If yes, please provide such analysis. If no, why not?

I have not performed any analysis regarding the impacts of other models discussed in my testimony. Like many non-profit organizations, Sierra Club encounters budgetary restrictions, which limit its ability to fund extensive analyses. However, these restrictions do not preclude Sierra Club from making a valuable contribution to this proceeding by making the parties aware that millions of people in over one-third of the states in our nation find that a Public Benefit Fund is a useful mechanism for funding energy efficiency and renewable energy programs. The answers to the preceding questions demonstrate that states have extensively studied the effects of their decision-making. Kentucky can learn from the experience of these states and can tailor a PBF mechanism to meet the conditions and circumstances unique to this state.

15. Referring to page 11 of Witness Zinga's Testimony recommending the Public Benefit Fund be administered by a third party board comprised of stakeholders, please identify the "stakeholders" who Ms. Zinga recommends be included on the board.

Kentuckians may want to consider a Board comprising a number of organizations to provide a breadth of perspectives. Such a Board may include representatives from some or all of the following parties:

- investor-owned utilities,
- generation and transmission entities serving rural electric co-operatives, (if participating in the PBF)

- municipal utilities (if participating in the PBF)
- industry-affiliated organizations
- environmental advocates
- public interest advocates
- renewable energy providers
- state ratepayer advocate
- Public Service Commission
- Governor's Office of Energy Policy

While the parties listed above may be considered as potential participants in an administrative body, there are many methods for decision-making and oversight. To illustrate the diversity of approaches, Board composition for New York and Pennsylvania are described below.

NYSERDA in New York has a 13-member Board appointed by the Governor and approved by the State Senate, which includes the Chairmen of the PSC and the New York Power Authority, as well as the Commissioners of the Departments of Environmental Conservation and Transportation. In addition, the Governor appoints two electric and gas utility executives, an environmentalist, a scientist, an economist, a consumer representative, and three members representing the public-at-large.

The Pennsylvania Sustainable Energy Board includes representatives from the Public Utilities Commission, the Pennsylvania Department of Environmental Protection, the Pennsylvania Department of Community and Economic Development, the Pennsylvania Office of Consumer Advocate, the Pennsylvania Environmental Council, and a member of each of their four regional Boards.

CERTIFICATE OF SERVICE

I hereby certify that an original and ten copies of the foregoing answers to Duke Energy's Second Set of Requests for Information to the Sierra Club were delivered to the office of Stephanie Stumbo, Executive Director of the Kentucky Public Service Commission, 211 Sower Boulevard, Frankfort, KY 40601, for filing in the above-styled proceeding and that copies were mailed to the following Parties of Record on this, the 22nd day of April, 2008:

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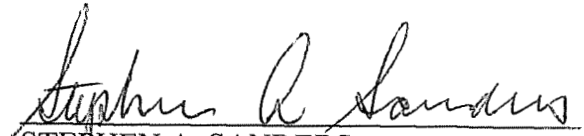
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A handwritten signature in cursive script, reading "Stephen A. Sanders". The signature is written in black ink and is positioned above a horizontal line.

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