Steven L. Beshear
Governor

Leonard K. Peters
Secretary
Energy and Environment Cabinet

Commonwealth of Kentucky
Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, Kentucky 40602-0615
Telephone: (502) 564-3940
Fax: (502) 564-3460
psc.ky.gov

David L. Armstrong
Chairman

James W. Gardner
Vice Chairman

Charles R. Borders
Commissioner

August 13, 2009

Mr. Wallace McMullen
Energy Chair
Sierra Club Cumberland Chapter
12907 Sunnybrook Drive
Prospect, KY 40059

Re: Case No. 2008-00408
Consideration of the New Federal Standards of the Energy Independence and Security Act of 2007

Dear Mr. McMullen:

Pursuant to your request, the comments submitted by the Sierra Club Cumberland Chapter have been filed into the official record of the above-referenced matter. Attached is a file-stamped copy of the Sierra Club's comments. Should you have any questions, please contact Quang Nguyen, Staff Attorney, at 502-564-3940, extension 256.

Sincerely,

Jeff Derouen
Executive Director

QN/ew

cc: Parties of Record

COMMONWEATH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of

CONSIDERATION OF THE NEW FEDERAL STANDARDS OF THE 2007 ENERGY INDEPENDENCE AND SECURITY ACT	]]]]	ADMINISTRATIVE CASE NO. 20008-0408

FIRST COMMENTS OF THE CUMBERLAND CHAPTER OF THE SIERRA CLUB

I. SUMMARY

Kentucky should adopt the new PURPA standards contained in the Energy Independence and Security Act of 2007 (EISA). The goals of the EISA are in alignment with the goals of the Commonwealth, as stated in the Governor's proposed energy strategy, *Intelligent Energy Choices for Kentucky's future: Kentucky's 7-point Strategy*, released November, 2008. Furthermore, the EISA standards are nonspecific enough that it will be easy for the Public Service Commission (the Commission) and utility companies to implement them. The EISA standards will create an opportunity and an impetus to strive for improvements in regulation and operations of utility companies. Implementation of the EISA standards can only be beneficial to Kentucky.

The purposes of the EISA standards, summarized by the Commission as "1) conservation of energy supplied by electric utilities, 2) optimal efficiency of electric facilities and resources; and 3) equitable rates for electric consumers" are highly laudable beneficial to Kentucky.[1] These goals benefit Kentuckians by reducing energy bills, improving the health of Kentuckians and preserving Kentucky's natural heritage. By adopting the EISA standards, Kentucky makes a statement to the rest of the country and to its own citizens that it values and strives for energy conservation, energy efficiency and equitable rates for electric consumers. The Commission should embrace these goals by adopting these EISA standards.

The underlying intent of the federal standards that are considered in this case is to remove regulatory barriers to cost-effective energy efficiency improvements in each state's energy sector. In general, these guidelines address real problems and issues, are well thought-out, and could be implemented in the energy sector of any state. They present Kentucky with an opportunity to replace aspects of the Commonwealth's current regulatory structure with a

[1] *In re* Consideration of the New Federal Standards of the Energy Independence and Security Act of 2007, No. 2008-00408 (Ky. Pub. Serv. Comm. Nov. 13, 2008).

Formatted: Normal, Centered
Formatted: Normal
Formatted: Space Before: 3 pt, Border: Top: (Single solid line, Auto, 0.5 pt Line width)
Formatted: Indent: Left: 1", Right: 1", Space Before: 3 pt
Formatted: Heading 1, Indent: Left: 0", Space Before: 3 pt, Border: Top: (Single solid line, Auto, 0.5 pt Line width)
Formatted: Font: (Default) Times New Roman, Italic
Formatted: Position: Horizontal: 4.13", Relative to: Page, Vertical: -0.05", Relative to: Paragraph
Formatted: Indent: First line: 0.25"

coherent framework for dramatic, sustainable improvements in energy efficiency. All parties should be able to benefit from the regulatory changes that would follow the statewide adoption of these standards, because all parties can benefit when energy waste is reduced.

The EISA standards are very flexible as to their precise implementation, so it can be easy for the Commission and utility companies to implement them. The EISA standards instruct utilities to "integrate energy efficiency resources into their plans" and to "adopt policies establishing cost-effective energy efficiency as a priority resource."[2] State regulatory authority and non-regulated utilities are instructed to "consider" various options to achieve energy efficiency and equitable rates.[3] The provisions for regulation allow the Commission to custom tailor implementation so as to fit this region best. Although the most specificity in the EISA can be found in the Smart Grid Information requirements, even these requirements are fairly minimal and would help keep Kentucky moving forward technologically.[4] Since the EISA allows each state immense freedom in how precisely to achieve the goals of conservation, energy efficiency and equitable rates, the Commission should not hesitate in beginning to adopt the EISA standards.

Deleted:

Formatted: Indent: First line: 0"

II. ADOPTION OF THE EISA STANDARDS WOULD BE BENEFICIAL FOR KENTUCKY

All Kentuckians benefit from conservation of energy, energy efficiency and equitable rates. This is true for a variety of reasons. The primary reason that resonates with all Kentuckians is money. As the Governor's proposed energy strategy notes in its well-documented initial section on energy efficiency, "Nationally, approximately 25 percent of total electricity usage can be saved cost-effectively, at an average cost of three cents or less per saved kilowatt-hour (kWh). New generation sources cost five cents or more per kWh, making efficiency the lowest cost electricity resource."[5] This is an extremely important finding that has numerous implications for Kentucky's energy policies and future economic development. Especially in a time of economic difficulty, no one wants to see energy wasted. Wasting energy requires purchasing more resources such as coal to produce energy, which raises energy bills and increases pollution. Inefficient facilities and appliances waste energy, as well. Saving energy through conservation and energy efficiency will reduce costs for all consumers of energy by eliminating waste and curtailing the need for expensive new generation.

Formatted: Style1

Kentuckians will benefit from energy conservation and energy efficiency through the quality of air they breathe. Kentucky relies primarily on burning coal to create energy. Burning coal creates air pollution and has harmful effects on human health. The medical costs from burning coal are not reflected in the price consumers pay for their monthly bill, but reducing these medical costs will benefit Kentuckians. By conserving energy and becoming more energy efficient, Kentucky can burn less coal and have cleaner, healthier air.

---

[2] Energy Independence and Security Act, Pub. L. No. 110-140, § 532 (a), 121 Stat. 1492, 1666 (2007).
[3] *Id.*
[4] 121 Stat. at 1792.
[5] *Intelligent Energy Choices for Kentucky's Future: Kentucky's 7-Point Strategy for Energy Independence*, 13 (Nov. 2008).

Formatted: Position: Horizontal: 4.13", Relative to: Page, Vertical: -0.05", Relative to: Paragraph

Formatted: Indent: First line: 0.25"

Kentuckians can also benefit from energy conservation and energy efficiency by reducing the demand for coal. Coal mining is not only dangerous for miners, but it often requires destruction of Kentucky's natural heritage, such as through mountaintop removal. Reducing the demand for coal by using energy more efficiently can help reduce the need for hazardous employment in coal mines and preserve Kentucky's natural heritage.

III. ADOPTION OF THE EISA STANDARDS WOULD BE EASY, AS THEY GIVE STATES IMMENSE FREEDOM IN IMPLEMENTATION

Adoption of the EISA standards would be easy for Kentucky, as they leave the Commission and utility companies with a large amount of flexibility in their precise implementation. These standards instruct non-regulated utility companies and the Commission to consider certain policy options, but do not require that the Commission adopt any of them.[6] The standards also require electric utilities to adopt policies that further the goals of the EISA, but again, leave the precise substance of those policies to be determined by each individual company.[7] The only precise standards that are given are in relation to the Smart Grid Information.[8] Adoption of the EISA standards will leave the Commission with considerable freedom in how exactly the goals of these standards are to be implemented.

A. Integrated Resource Planning Requirements are Desirable and Allow Flexibility

Formatted: Space Before: 6 pt

The integrated resource planning (IRP) requirements for electric utilities are desirable, clear, and also flexible. The EISA directs utility companies to "integrate energy efficiency resources into utility, State, and regional plans; and adopt policies establishing cost-effective energy efficiency as a priority resource."[9] All the standards require is for utility companies to adopt cost-effective energy efficiency as a priority resource while planning, although there is an intent that they will then actively strive to implement it as a priority resource. This would have a positive impact on consumers' pocketbooks, human health and natural resources.

Formatted: Indent: Left: 0.5", First line: 0.25"

This standard is not only desirable, but it is also very sensible. When implemented correctly, energy efficiency improvements can be made at about half the total cost (or less) of new supply-side resources. An electric utility will typically find itself with the following choice: Should we meet a given projected increase in demand for electricity over the next 20 years by investing $400 million in energy-conserving demand-side management (DSM) programs or $800 million in new generating capacity and the fuel it will burn? Assume that in either case, the utility will receive full cost recovery via its Commission-approved tariffs. If the utility chooses the supply-side option, its customers' electric needs will be met, but $800 million will need to be added to the utility's revenue requirement and to customers' bills over the next 20 years – a rate increase of $40 million per year. If the utility chooses the energy-saving DSM strategy, its customers' electric needs will be met, but only $20 million per year will need to be added to customers' rates and bills. Choosing to harvest the energy efficiency resources rather than building the

[6] 121 Stat. at 1666.
[7] *Id.*
[8] 121 Stat. at 1792.
[9] 121 Stat. at 1666.

Formatted: Position: Horizontal: 4.13", Relative to: Page, Vertical: -0.05", Relative to: Paragraph

Formatted: Indent: First line: 0.25"

new generating capacity would be equivalent to giving the utility's customers a rate cut of $20 million a year for 20 years.

Currently Kentucky has IRP regulation, 807 KAR 5:058, that requires each jurisdictional electric (or combination electric and gas) utility to provide certain planning information every three years. The Commission staff reviews the information, issues a report, and makes recommendations that the utility is asked to consider when it develops its next IRP three years later. The regulation does not call on the Commission itself to approve, disapprove, or modify the IRPs developed by the utilities. If the utility chooses not to adopt the staff's recommendations, there are no explicit consequences. Adopting the EISA IRP standard would be a desirable improvement to the present regulation. These integrated resource planning provisions should be adopted.

B. Rate Design Modifications to Promote Energy Efficiency Investments are Desirable and Allow Flexibility

Formatted: Space Before: 6 pt

The EISA standard's rate design modifications to promote energy efficiency investments are desirable, clear, and also flexible. The EISA requires the rates to be charged by any electric utility to "align utility incentives with the delivery of cost-effective energy efficiency; and promote energy efficiency investments."[10] For natural gas utilities, the EISA also requires the rates charged to "align utility incentives with the deployment of cost-effective energy efficiency," and also adds four policy options which the Commission would be required only to consider when determining how to align the utility incentives with the deployment of cost-effective energy efficiency.[11] Aligning utility financial incentives with the delivery of cost-effective energy efficiency and promoting energy efficiency investments is a desirable policy goal which the Commission should adopt.

The problem this standard was designed to address is simple: Under traditional ratemaking formulas, the more electricity an electric utility company sells, the more revenue and profit it makes. A critical defect shared by the rate structures of all of Kentucky's jurisdictional electric utilities is the throughput incentive that rewards the utility when it sells more electricity and punishes it severely if the customers begin to save large amounts of electricity. Each utility has a strong financial incentive to sell more electricity at all times, and has a similarly powerful disincentive against helping its ultimate customers improve the efficiency with which they use electricity.

Formatted: Font: Times New Roman, Underline

As a result, Kentucky's electric utility companies have operated much smaller DSM programs for the past 15 years than would have been economically optimal. (Load shifting DSM programs designed to shift peak loads to non-peak periods have tended to be somewhat larger and more effective than efficiency programs.) Instead, the Commonwealth's jurisdictional utilities have invested in new coal-fired power plants that have saddled customers with costs that are significantly higher than it would have cost to save the same amount of energy by improving end-use efficiency. Moreover, additional

Formatted: Style1, Indent: Left: 0.5", First line: 0.25"

Formatted: Position: Horizontal: 4.13", Relative to: Page, Vertical: -0.05", Relative to: Paragraph

Formatted: Indent: First line: 0.25"

[10] *Id.*
[11] *Id.*

coal-fired power plants are now under construction, and are certain to exert significant upward pressure on rates when they come on-line. These power plants may not have been needed if more energy-saving DSM programs had been instituted during the past 10 years.

The EISA standards leave to each state to determine the precise requirements of how to align utility incentives with the delivery of cost-effective energy efficiency and promote energy efficiency. The Commission should adopt these rate design goals because they will be beneficial to Kentuckians.

C. Smart Grid Investment Standard Should be Adopted

Formatted: Indent: Left: 0.5"

Formatted: Indent: Left: 0.5", First line: 0.25"

The Smart Grid Investment Standard of the EISA should be adopted statewide. This standard, section 1307(a)(16), would require utilities to fully assess the potential benefits of cost-effective smart grid technologies prior to investing in conventional grid facilities.[12] Kentucky will benefit from consideration of cost-effective smart grid technologies.

In order to become better acquainted with a new vision for a more advanced, sustainable electric system, we recommend that Kentucky policy makers – including Commissioners, PSC staff, and electric utility personnel, – read Thomas L. Friedman's 2008 bestseller, *Hot, Flat, and Crowded: Why We Need a Green Revolution and How It Can Renew America*. In particular, Chapter Ten describes what the electricity system could look like in 20 years if the utility industry and its regulators were to embrace technological change. Although Mr. Friedman is not a technical expert on electric systems, he has cites the recent writings of many of the foremost experts in the field and has grasped many of the most important implications of their proposals.

In Chapter Ten of the book, Friedman quotes Jim Rogers, the Chief Executive Officer of Duke Energy as saying that instead of spending $7 billion on a new nuclear plant, he would rather the regulators let him spend the same amount of money "building out a smart transmission and distribution grid and helping customers install solar panels on their roofs, Smart Black Boxes in their homes, smart batteries in their cars, and Grid-Friendly chips in their appliances, and then have Duke Energy maintain and service every aspect of that network."[13] (Friedman, pp. 239-40) Given that Jim Rogers is a very prominent spokesperson for the electric utility industry, this visionary view is significant and should be noted in our state.

There is a potential in these innovations that could provide for substantial economic benefit to Kentucky. The standard requiring consideration of Smart Grid investments in conjunction with any transmission investments should be adopted.

[12] 121 Stat. 1791.

[13] Thomas Friedman, *Hot, Flat, and Crowded: Why We Need a Green Revolution and How It Can Renew America*, p. 239-40, Farrar, Straus and Giroux, New York NY, 2008

Formatted: Position: Horizontal: 4.13", Relative to: Page, Vertical: -0.05", Relative to: Paragraph

Formatted: Indent: First line: 0.25"

D. The Smart Grid Information Standard is Reasonable, Beneficial, and Should be Adopted

The standard in the EISA for Smart Grid information, section 1307(a)(17), is reasonable and should be adopted. The EISA states that "all electricity purchasers shall be provided direct access, in written or electronic machine-readable form as appropriate, to . . . time-based electricity prices in the wholesale electricity market; and time-based electricity retail prices or rates that are available to purchasers."[14] Purchasers shall also "be provided with the number of electricity units, expressed in kWh, purchased by them."[15] The EISA standard also states that users shall be given projections as to the expected future price of energy and information about what sources their energy is coming from.[16] Kentuckians would benefit from access to knowledge about their electricity prices and sources. Given access to such information, Kentuckians could take action to reduce their usage during peak load times to reduce their energy requirements, their energy bill, and their environmental impact.

E. The Commission Should Adopt the Industrial Energy Efficiency Provisions

Both sections 373 and 374 of the EISA should be adopted by Kentucky.[17] Section 373 establishes an incentive grant program that creates an opportunity for Kentucky to receive federal funding for the recovery and use of industrial waste.[18] And the Federal standard in Section 374 would provide industrial companies with a range of opportunities to boost their profit margins while simultaneously improving energy efficiency, reducing the utility's revenue requirements, and keeping costs and rates lower for all customers than they would otherwise be. Kentucky would also benefit from recovering industrial waste energy by decreasing the need to burn coal and thereby reducing air pollution.

The EISA articulates several options to recover industrial waste energy.[19] The standard described in section 374 of the EISA is focused on removing existing barriers to the sale of electricity generated by combined heat and power (CHP) facilities and thereby to encourage investment in such facilities. Although Kentucky is a relatively highly industrialized state, there are very few CHP facilities operating here. The proposed federal standard could encourage more use of CHP.

By adopting this section of the EISA, the Commission puts Kentucky in a position to benefit from the millions of dollars in grants that are available to states each year until 2012 for industrial waste energy recovery projects. Accordingly, the Industrial Energy Efficiency Provisions should be adopted.

IV. Conclusion

[14] 121 Stat. 1792.
[15] *Id.*
[16] *Id.*
[17] 121 Stat. 1627, 121 Stat. 1628.
[18] 121 Stat. 1627.
[19] 121 Stat. 1629.

Formatted: Position: Horizontal: 4.13", Relative to: Page, Vertical: -0.05", Relative to: Paragraph

Formatted: Indent: First line: 0.25"

The EISA standards under consideration in this case should be adopted by the Commission. Although there is much flexibility in how they are to be implemented, these federal standards offer Kentucky an important opportunity to update our regulatory structures in ways that will benefit our energy systems. Adoption of the EISA standards will make a statement to the citizens of Kentucky and to the rest of the nation that Kentucky is committed towards achieving energy efficiency, energy conservation and equitable energy rates. Adopting the EISA standards will also create an impetus for Kentucky to advance towards these goals. Such advances will make Kentucky a better place in which to live in terms of its economy, health and environment. We submit that the Commission should formally adopt the EISA standards.

Formatted: Position: Horizontal: 4.13", Relative to: Page, Vertical: -0.05", Relative to: Paragraph

Formatted: Indent: First line: 0.25"