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PUBLIC SERVICE COMMISSION

### COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

A REVIEW PURSUANT TO 807 K.A.R. 5:058 ) OF THE 2009 INTEGRATED RESOURCE PLAN ) FOR EAST KENTUCKY POWER ) COOPERATIVE, INC. )

CASE NO. 2009-106

# SIERRA CLUB, KENTUCKY ENVIRONMENTAL FOUNDATION AND KENTUCKIANS FOR THE COMMONWEALTH'S REPLY TO EAST KENTUCKY POWER COOPERATIVE, INC.'S APPLICATION FOR REHEARING OF ITS JULY 13, 2009 ORDER GRANTING ENVIRONEMNTAL INTERVENORS INTERVENTION

The Sierra Club, Kentucky Environmental Foundation, and Kentuckians for the Commonwealth ("Public Interest Intervenors")<sup>1</sup> respectfully request that the Commission deny EKPC's Application For Rehearing of the Commission's July 13, 2009 Order Allowing for Full Intervention By Environmental Groups ("EKPC Application"). As shown below, EKPC's Application is nothing more than a pitch for a second bite at the apple, mainly in the form of character attacks, because EKPC did not like the Commission's July 13, 2009 Order. The Application must be denied because EKPC's filing is devoid of any facts or law, new or otherwise, that could justify a reversal of the Commission' prior decision.

#### I. FACTUAL BACKGROUND

The Commission's 10-page Order detailed the basis for its granting intervenor status to the public interest organizations. Critical here, is the Commission's finding that the environmental intervenors possess unique expertise in the range of issues within the scope of the IRP, and will "assist the staff in its review of EKPC's IRP without

<sup>&</sup>lt;sup>1</sup> As Kentuckians for the Commonwealth is a social justice group, rather than an environmental group, it is not accurate to refer to the three intervenors as "environmental groups." Therefore we will refer to them as public interest groups.

complicating or disrupting the review."<sup>2</sup> This is pertinent because, as the Commission correctly pointed out, Kentucky law requires EKPC's IRP to include, among other things, cost effective resource options such as "**conservation and load management or other demand-side management programs not already in place**."<sup>3</sup> These requirements completely coincide with the Public Interest Intervenors' intent to address issues of energy efficiency, demand side management and renewable energy.<sup>4</sup>

Given that EKPC evidences opposition to anyone intervening on the basis of

exploring cost effective and innovative ways to diversify EKPC's resource mix, a

reminder of the purpose of Integrated Resource Planning is in order. According to the

American Council for an Energy-Efficient Economy (ACEEE) IRP proceedings are:

"planning processes that evaluate **many different options** for meeting future electricity demands in order to find an optimal mix of resources **that minimizes the cost of electricity supply while meeting reliability needs and environmental objectives.** 

IRPs evaluate all options, from both the supply and demand sides, in a hopefully fair and consistent manner by minimizing costs to all stakeholders, not just costs to the utility; creating a flexible plan that will allow for uncertainty and permits adjustment in response to changed circumstances; and striking a balance by considering all supply and demand options. The purpose of including demand-side options is to save fuel and reduce negative environmental impacts than might not be possible if only supply-side options were considered. Finally, IRPs also include many supply-side measures, ranging from traditional power plants to more innovative sources of electricity supply such as power purchases, independent power plants, cogeneration, and renewable energy sources."<sup>5</sup>

<sup>&</sup>lt;sup>2</sup> Order at p. 10.

<sup>&</sup>lt;sup>3</sup> Order at 7, *citing* 807 KAR 5:058, section 8(1) and (2)(b).

<sup>&</sup>lt;sup>4</sup> Order at p .8. The Public Interest Intervenors also note that their initial review of the IRP reveals that the IRP does not adequately consider combined cycle natural gas plants as a baseload, supply side option. This may be an additional issue that the Public Interest Intervenors address. EKPC does not currently have any combined cycle natural gas plants in its generation mix. Because of the very low cost of natural gas currently and in the foreseeable future, EKPC's lack of combined cycle natural gas plants means that EKPC's "rates" are much higher than then need to be. The IRP should, but currently does not, analyze this situation to find a remedy.

<sup>&</sup>lt;sup>5</sup> See http://www.aceee.org/pubs/i953.htm (emphasis added).

Similarly, after reviewing EKPC's 2006 IRP, the Commission's staff recommended:

EKPC should more fully integrate the analyses of potential DSM programs into the optimization process of its IRP so that DSM is considered, to the greatest extent possible, in the same manner as supply-side resources.

Staff Report On the 2006 Integrated Resource Plan Report of East Kentucky Power Cooperative Case No. 2006-00471 at 21. It is critical to also remember that electricity is a zero-sum game. That is, if demand is reduced through demand side management programs, then supply side resources have to be reduced by an equivalent amount, otherwise, the utility will simply be wasting capital on supply side resources it does not need. Similarly, if renewable energy or combined-cycle natural gas supply-side options are selected, then other supply side options need to be reduced; or, again, the utility will be wasting capital.

### II. ARGUMENT

# A. EKPC's Application Advances No Legal Authority for Rescinding the July 13, Order

EKPC's Application is really a motion to reconsider the Commission's July 13 Order. However, EKPC cites to no authority for the Commission to entertain, much less grant, motions to reconsider. The Commission is a creature of statute and lacks many of the inherent powers of courts. EKPC cites to no case law to support a right to have the Commission reconsider its previous order. EKPC cites to KRS 278.400. See Application at 1. KRS 278.400 provides:

After a determination has been made by the commission in any hearing, any party to the proceedings may, within twenty (20) days after the service of the order, apply for a hearing with respect to any of the matters determined. Service of a commission order is complete three (3) days after the date the order is mailed. The application shall specify the matters on which a rehearing is sought. The commission shall either grant or deny the application for rehearing within twenty (20) days after it is filed, and failure of the commission to act upon the application within that period shall be deemed a denial of the application. Notice of the hearing shall be given in the same manner as notice of an original hearing. Upon the rehearing any party may offer additional evidence that could not with reasonable diligence have been offered on the former hearing. Upon the rehearing, the commission may change, modify, vacate or affirm its former orders, and make and enter such order as it deems necessary.

The plain language of this section indicates that it is addressing a request for a rehearing after a hearing has been held. But EKPC's Application is not requesting a rehearing after the Commission has held a hearing and issued an order on that hearing. EKPC's Application is requesting reconsideration of an order granting a motion to intervene. The plain language of KRS 278.400 does not grant authority for such a request.

Not only does the language of the statute dictate this result, it is a result that makes sense. The Commission has a busy, pressing docket and most of its matters need to be resolved quickly. Allowing parties to second guess the Commission any time it rules on a motion, even if the motion is not dispositive, could greatly increase the Commission's workload and lengthen the time for resolution of matters. For this reason, even courts, although lacking the same time pressures as that of the Commission to quickly decide matters, are clear that motions to reconsider are disfavored. See e.g. Circuit Rule of the United States Court of Appeals for the District of Columbia Circuit

34(j)(2) ("Such motions are disfavored.").

EKPC also cites to 801 KAR 5:001 § 4. See Application at 1. This regulation

states:

Section 4. Hearings and Rehearings. (1) When hearings will be granted. Except as otherwise determined in specific cases, the commission will grant a hearing in the following classes of cases:

(a) When an order to satisfy a complaint or to make answer thereto has been made and the corporation or person complained of has not satisfied the complaint to the satisfaction of the commission.

(b) When application has been made in a formal proceeding.

(2) Publication of notice. Upon the filing of any application the commission may, in its discretion, give all other corporations or persons who may be affected thereby an opportunity to be heard by service upon them of a copy of the petition or by publication of the substance thereof, at the expense of the applicant, for such length of time and in such newspaper or newspapers as the commission may designate. In such cases the form of notice will be prepared by the secretary, and a proof of the publication thereof must be filed at or before the hearing.

(3) Investigation on commission's own motion. The commission may at any time, on its own motion, make investigations and order hearings into any act or thing done or omitted to be done by the public utility, which the commission may believe is in violation of any provision of law or of any order or administrative regulation of the commission. It may also through its own experts or employees, or otherwise, obtain such evidence as it may consider necessary or desirable in any formal proceeding in addition to the evidence presented by the parties.

(4) Conferences with commission staff. In order to provide opportunity for settlement of a proceeding or any of the issues therein, an informal conference with the commission staff may be arranged through the secretary of the commission either prior to, or during the course of hearings in any proceeding, at the request of any party.

(5) Conduct of hearings. Hearings will be conducted before the commission or a commissioner or before a person designated by the commission to conduct a specific hearing.

(6) Stipulation of facts. By a stipulation in writing, filed with the secretary, the parties to any proceeding or investigation by the commission may agree upon the facts or any portion of the facts involved in the controversy, which stipulation shall be regarded and used as evidence at the hearing.

(7) Testimony. All testimony given before the commission will be given under oath or affirmation.

(8) Objections and exceptions. When objections are made to the admission or exclusion of evidence before the commission, the grounds relied upon shall be stated briefly. Formal exceptions are unnecessary and will not be taken to rulings therein.

(9) Transcript of evidence. The commission will cause to be made a stenographic record of all public hearings, and such copies of the transcript thereof as it requires for its own purposes. Participants desiring copies of such transcripts may obtain the same from the official reporter upon payment of the fees fixed therefor.

(10) Briefs and petitions for rehearing. All briefs and petitions for rehearing in any proceeding must be accompanied with notice, showing service upon all other parties or their attorneys, and, in addition to the filed original, ten (10) copies of each such document shall be furnished for the use of the commission.

Presumably, EKPC is referring to subsection (10) but as with the statute that authorized

this regulation, the section refers to rehearings after there has been a hearing, not a

motion to reconsider a non-dispositive order granting intervention. Thus, because EKPC

has failed to provide any legal authority for the Commission to reconsider its July 13

order, the Commission should deny EKPC's application.

# B. EKPC's Application Advanced No Compelling Reasons for Rescinding the July 13 Order

# 1. All of the Evidence Shows that the Public Interest Intervenors Intervened In the IRP in Order to Advance Their Stated Goals

EKPC tries to undermine the Commission's decision by accusing the Public Interest Intervenors of ulterior and/or outright dishonest motives.<sup>6</sup> EKPC's argument is essentially this: The Public Interest Intervenors are not to be trusted. They also inherently hate coal. Because they inherently hate coal and are untrustworthy people, it follows that they will use the information they obtain from this case in other cases. Thus, the Commission should reverse its previous order allowing the Public Interest Intervenors

<sup>&</sup>lt;sup>6</sup> EKPC Application at p. 5.

to intervene or at least not let the Public Interest Intervenors have access to any of the discovery that is deemed confidential.

It is generous to simply call this argument wrong. To begin with, EKPC presents no evidence of its libelous claim that the Public Interest Intervenors and their counsel will violate either the letter or the spirit of any confidentiality agreement in this case. A motion made on false, unsupported claims about what someone will do in the future cannot be granted.

Furthermore, to the extent that EKPC's diatribe is based on any legal hook, it appears to be that based on the part of 807 KAR 5:001 § 3(8)(b) which states that intervention should be granted if it will not be "unduly complicating or disrupting [of] the proceedings[.]" But EKPC does not even attempt to claim that the Public Interest Intervenors will disrupt or complicate this proceeding. Rather, EKPC falsely claims that information in this case will "disrupt or complicate" other proceedings. Thus, EKPC lacks any legal justification for its requested relief. As EKPC has not truly called into question the Public Interest Intervenors' ability to present issues and develop facts that will assist the Commission, we will not re-address this issue which was fully addressed in our motion and reply.

Although not relevant, even if EKPC's false accusation about what the Public Interest Intervenors will do with the information in this case was true, we note that it is deeply disturbing that EKPC believes that other tribunals and courts being able to review information from EKPC is disruptive or complicating. EKPC's fear of having information about it come before the judicial and administrative branches of government

does not bode well for the future of this entity that has already had more than its fair share of run ins with the law.

To shore up its tirade, EKPC provided the Commission with information about the groups, some of which is false and some of which is incomplete. Most of that tirade is not worthy of a response. However, the Public Interest Intervenors will provide some information to help set the record straight.

EKPC tries to paint the false picture of the Public Interest Intervenors being crazed Californians, whose sole goal is to stop EKPC from building the Smith 1 coal-fired plant. The real picture is different.

For example, Steve Boyce hold the position of Vice-Chairperson in Kentuckians for the Commonwealth and has been a dues paying member of that organization for at least 12 years. <u>See</u> Declaration of Stephen S. Boyce (Boyce Dec.), attached as Exhibit 1, at para. 2. Mr. Boyce is also a dues paying member of the Sierra Club and have been so for a quarter century. <u>Id.</u> He has also been a supporter, financially and otherwise, of the Kentucky Environmental Foundation for many years. This includes supporting the Kentucky Environmental Foundation's energy-efficient light bulb sale, which is a nonutility demand side management program.

Mr. Boyce retired in 2003 as a Professor in the Mathematics Department at Berea College. During his time at Berea College, he also held the position of Academic Vice President and Provost from 1996 to 2001 and Acting Academic Vice President and Dean of the College during 1995 – 1996. <u>Id.</u> at para. 3. Mr. Boyce grew up and went to college in Indiana. He has lived in Berea, Kentucky or the surrounding community for <u>40</u> years. He lives with his wife. They are both over 64 years old. Mr. Boyce currently

serve on the Advisory Board for Berea Municipal Utilities which is a municipally owned electric, water and sewer utility. <u>Id.</u> at para. 4. He enjoys engaging in outdoor activities such as hiking, biking, gardening and wood cutting and splitting in Berea, Kentucky and the surrounding areas. <u>Id.</u> at para. 5.

The Boyce home employs passive solar design features to assist in heating and cooling. In addition, it has a solar hot water heating system that supplies at least 75% of its hot water. It also has a solar photovoltaic ("PV") system. Since moving into the current house, the solar PV system has generated almost as much electricity as it has used on a net basis. Thus, Mr. Boyce personally knows that renewable energy and energy efficiency can work in Kentucky. However, Berea Municipal Utilities provides little assistant to the Boyce's efforts, as well as others, to implement renewable energy and energy efficiency. One of the major reasons why Mr. Boyce choose to pay for the considerable upfront cost of a solar PV and solar hot water heating system is to do his part to lessen the amount of pollution caused from using coal to generate electricity. Id. at para. 6.

The lessening of this pollution is a very serious and very real issue for Mr. Boyce. Mr. Boyce has lung-centered issues that have twice resulted in plural and/or paracardial effusion requiring treatment, first in February 2003 and most recently in February 2008. The February 2008 episode resulted in hospitalization for five days and various procedures include cardiocentesis. <u>Id.</u> at para. 7. Mr. Boyce's wife has heart arrhythmia. She was first diagnosed with this condition in November 2003. The treatment has involved approximately 20 electrocardioversions, 2 ablations, 1 valuloplasty and a range of medications. Mr. Boyce has reviewed medical literature and documents from the U.S.

Environmental Protection Agency that indicate that people with heart arrhythmia are particularly susceptible to exposure to particulate matter air pollution. <u>Id.</u> at para. 8.

Mr. Boyce and his wife live approximately 21 miles to the East Kentucky Power Cooperative J.K. Smith Generating Station and roughly the same distance away from East Kentucky Power Cooperative's Dale Generating Station. Mr. Boyce understands that particulate matter that is less than 2.5 microns can, according to the United States Environmental Protection Agency's statement in May 16, 2008 Federal Register at 73 Fed. Reg. 28321, have significant adverse effects on peoples' health including premature mortality and "aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions, emergency room visits, absences from school or work, and restricted activity days), lung disease, decreased lung function, asthma attacks, and certain cardiovascular problems." He understands that according to the United States Environmental Protection Agency, "Individuals particularly sensitive to PM2.5 exposure include older adults, people with heart and lung disease, and children." He believes that he and his wife are included in the category of "older adults," that his wife is included in the category of people with heart disease and that he is included in the category of people with lung disease. Id. at para. 9-11.

Mr. Boyce is concerned that the particulate matter that is less than 2.5 microns and other pollutants that will come from the J.K. Smith Generating Station Units 1 and 2 and the Dale Generating Station will have adverse effects on the health of his wife, himself and his family when they visit. His is actually concerned that the particulate matter that is less than 2.5 microns will contribute to the death of his wife and/or himself. Mr. Boyce believes that East Kentucky Power Cooperative, by making smart changes to

its services and rates and by good integrated resource planning, could lessen the risk of harm to his wife and himself. Id. at para. 12. Mr. Boyce's concern that the pollution from EKPC's coal-fired power plants is overwhelming supported by the best available science. See e.g. See North Carolina v. TVA, 593 F.Supp.2d 812, 822 (W.D.N.C. 2009) (In tort case against coal-fired power plants "Court finds that, at a minimum, there is an increased risk of incidences of premature mortality in the general public associated with PM<sub>2.5</sub> exposure, even for levels at or below the NAAQS standard of 15 [u]g/m<sup>3</sup>."); Ohio Power Company v. EPA, 729 F.2d 1096, 1098 (6th Cir. 1984)(in challenge to Clean Air Act regulation of power plants 25 years ago, court holds "there is now no longer any doubt that high levels of pollution sustained for periods of days can kill. Those aged 45 and over with chronic diseases, particularly of the lungs or heart, seem to be predominantly affected. In addition to these acute episodes, pollutants can attain daily levels which have been shown to have serious consequences to city dwellers."); Sierra Club v. TVA, 592 F.Supp.2d 1357, 1371 (N.D. Al. 2009) (In Clean Air Act enforcement action against coal-fired power plant, court holds "there is no level of primary particulate matter concentration at which it can be determined that no adverse health effects occur."); 70 Fed. Reg. 65,983, 65,988 (Nov. 1, 2005) ("emissions reductions resulting in reduced concentrations below the level of the standards may continue to provide additional health benefits to the local population."); 71 Fed. Reg. 2620, 2635 (Jan. 17, 2006) (US EPA unable to find evidence supporting the selection of a threshold level of PM<sub>2.5</sub> under which the death and disease associated with PM<sub>2.5</sub> would not occur at the population level); Clean Air Task Force's Power Plant Pollution Locator estimates that 64 deaths per year are attributable to pollution from EKPC's Spurlock Station, 30 deaths per year are

attributable to pollution from EKPC's Cooper Station and 7 deaths per year are attributable to pollution from EKPC's Dale Station, available at http://www.catf.us/projects/power\_sector/power\_plant\_emissions/pollution\_locator/ (last visited 7/28/09).

However, protecting his life is not Mr. Boyce's only concern. Having lived and worked in Kentucky for 40 years, he is also deeply concerns about the economic wellbeing of Kentuckians, including the economic well-being of EKPC customers, many of whom are Kentuckian for the Commonwealth and Sierra Club members. He does not believe that EKPC's current or planned way of meeting its customer's energy needs is in the best economic interest of its customers, or Kentuckians in general. He would like to see EKPC develop an Integrated Resource Plan that is in the best economic interest of its customers and Kentuckians in general. Boyce Dec. at para. 13.

Thus, Mr. Boyce does not have an inherent hatred of coal, as EKPC has tried to lead the Commission to believe, but a desire to protect his life and the life of his wife as well as protect the economic wellbeing of EKPC customers, many of who are members of the organization that Mr. Boyce is the Vice-Chair of. Well-being, to Mr. Boyce, includes job creation as well as lower bills. A recent study commissioned by the Public Interest Intervenors found that if EKPC pursued a plan of aggressively implementing renewable energy and demand side management, EKPC could create approximately 8,750 new jobs and that these jobs would be spread across Kentucky. <u>See</u> AN ANALYSIS OF THE ECONOMIC IMPACT OF ENERGY EFFICIENCY AND RENEWABLE ENERGY IN THE EAST KENTUCKY POWER COOPERATIVE REGION at 1, attached as Exhibit 2. The study also found that this strategy would cost

less, that is would result in lower rates, than a strategy based meeting the same needs by building a new coal-fired power plant. <u>Id.</u> at 3.

Mike Hannon is an example of an EKPC customer who is also a member of the Public Interest Intervenors. Mr. Hannon is on the Board of Directors of Kentucky Environmental Foundation (KEF). He has held this position for approximately 25 years. He also volunteers his time to KEF on a variety of projects including KEF's energy efficient light bulb sale which is a non-utility demand side management program. Declaration of Mike Hannon, attached as Exhibit 3, at para. 2. He retired in 2008 as an Environmental Control Supervisor for the Kentucky Division for Air Quality. <u>Id.</u> at para. 3.

Mr. Hannon lives in Paint Lick, Kentucky and has done so for approximately the past 23 years. Before that, he lived for 7 years in Garrard County and before that he lived in Red Lick for approximately 3 years. Before that he went to college at Western Kentucky University. <u>Id.</u> at para. 4.

Mr. Hannon is a customer of Bluegrass Energy Cooperative, which is a member of East Kentucky Power Cooperative (EKPC), and has been for 23 years. <u>Id.</u> at para. 5. He does not believe that Bluegrass Energy Cooperative, and the other EKPC distribution cooperatives, offers adequate services or rates to help him and their other customers use energy in an efficient and economic manner. He believes that having a smattering of demand-side management programs "on the books" is not enough. Rather, he believes that demand-side management programs have to be intelligently designed, marketed and implemented and there have to be enough programs and the right programs to have a real impact for the customers and the cooperatives. <u>Id.</u> at para. 6.

Mr. Hannon also does not believe that EKPC has a mix of types of generating units that result in rates that are in the best interest of EKPC's members, including himself. His electricity rates have gone up dramatically in the last few years. Yet it seems that EKPC is intent on continuing to be almost completely reliant on coal as a fuel source, which is no longer the lowest cost option. <u>Id.</u> at para. 7.

Simply put, Mr. Hannon would like to see EKPC develop an Integrated Resource Plan that results in services and rates that are in his best interest, as well as the best interest of the other EKPC members and Kentucky in general. The Public Interest Groups intervention in this case will help ensure that.

EKPC's Application spends much ink trying to besmirch Sierra Club's Beyond Coal program. Although it is no secret that the Sierra Club has been successfully fighting existing and proposed coal plants for many years now, the Beyond Coal program is just one of several energy-related programs within the Sierra Club.

For numerous reasons, including the creation of green jobs, the stabilization of rates, and the goal of having the United States immediately reduce its reliance on coal and other fossil fuels, the Public Interest Intervenors have in recent years significantly ramped up their green energy work. Environmental organizations are also working to curb climate change. More particular to EKPC's accusations, the Public Interest Intervenors understand that advancing energy diversity in proceedings such as an IRP or RPS, may aid efforts to bring online renewable replacement power and efficiency standards that will make up for lost fossil fuel generation. For this reason, one of the

Sierra Club's biggest programs is its Clean Energy Solutions effort, which employs attorney Gloria Smith.<sup>7</sup>

As its name makes clear, the Clean Energy Solutions program focuses exclusively on solutions and opportunities rather than opposing energy projects. Broadly speaking, the program works to "repower and rebuild America through fixing our economy, transforming our energy future, and slowing and ultimately reversing climate change and its consequences."<sup>8</sup> The Clean Energy Solutions program works to help grow a clean energy economy by: 1) repowering America with green, renewable energy, including wind, solar, biomass and other safe, clean sources of power; 2) rebuilding the U.S. with high-performance homes and buildings that in turn reduce global warming emissions, reduce utility bills, and generate renewable energy; and 3) move towards an energy internet that links homes to a smart grid powered by clean energy that reduces electricity consumption through a national transmission network that supports large-scale renewable energy and local energy generation that frees homes and businesses to produce their own energy.<sup>9</sup>

In order to realize these goals, the Sierra Club is engaged in, among many other things, state-by-state efforts to achieve energy sector improvements through public utility proceedings. The EKPC IRP proceeding is one of many such public utility proceedings the Sierra Club's Clean Energy Solutions program is involved in. Thus, despite EKPC's attempt to impugn the Public Interest Intervenors' motives by alleging subterfuge, Sierra Club's involvement in this proceeding is in furtherance of their green energy work state-

<sup>&</sup>lt;sup>7</sup> See generally http://www.sierraclub.org/energy/

<sup>&</sup>lt;sup>8</sup> <u>Id.</u> 9 <u>Id.</u>

by-state and nation-wide. This nation-wide experience is part of what qualifies the Public Interest Intervenors to participate in this case.

As a related matter, the Public Interest Intervenors are well aware that the Commission will not and cannot revoke the August 19, 2009 CPCN for the construction of the Smith 1 plant in this proceeding. However, for an IRP to have value, it must evaluate all supply and demand side resource options and decide which options are the best. <u>See</u> Kentucky PSC Staff Report On the 2006 Integrated Resource Plan Report of East Kentucky Power Cooperative Case No. 2006-00471 at 21. It is towards this end, that is comparing supply side coal-fired CFB resources with supply side renewable resources and demand side resources on an equal basis, that the Public Interest Intervenors have submitted their discover requests.

### 2. Granting Intervention to the Public Interest Intervenors is Consistent with Commission's Prior Decisions

According to EKPC, the Commission's grant of intervenor status to the Public Interest organizations was an act contrary to precedent given its prior denial of intervenor status to Geoffrey Young in the LG&E/KU"s 2008 IRP case.<sup>10</sup>

Setting aside the merits of Mr. Young's request to intervene, the record is clear that his situation was distinguishable from that of the Public Interest Intervenors here because Mr. Young failed to differentiate himself from all other utility customers.<sup>11</sup> Then, as an interest, he asserted a concern regarding "the impact of air emissions on human health and the environment."<sup>12</sup> Finally, and most importantly, Mr. Young did not

<sup>&</sup>lt;sup>10</sup> EKPC Application at p. 3. EKPC cites no legal authority for the proposition that the Commission, an administrative body, is bound by or can even be guided by precedent.

<sup>&</sup>lt;sup>11</sup> Case No. 2008-00149, In the Matter of: The 2008 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Company, Order of July 18, 2008.

<sup>&</sup>lt;sup>12</sup> <u>Id.</u> at p. 6.

establish any specific experience or expertise in matters under consideration in the 2008 IRP proceeding.<sup>13</sup> Based on these deficiencies, the Commission denied Mr. Young's petition on grounds that: first, the Commission did not have jurisdiction to consider the asserted interests; and second, Mr. Young's cognizable economic interest in the proceeding was fully within the purview of the Attorney General's representation of Kentucky consumers.<sup>14</sup> Third, while not explicit in the decision, Mr. Young's failure to assert specific expertise in any of the IRP subject matters was almost certainly a factor in the Commission's decision.<sup>15</sup>

Unlike in Mr. Young's case, the Commission has already determined that the Public Interest Intervenors' have the expertise to raise issues and facts that will assist the Commission. In large part, this comes from the Public Interest Intervenors' nation-wide experience on energy issues. In this way, unlike Mr. Young, the Public Interest intervenors intend to assist staff in ways the Kentucky Attorney General is simply not equipped to do.<sup>16</sup> Therefore, the Commission's decision to grant intervention was proper and not contrary to precedent.

#### III. CONCLUSION

<sup>&</sup>lt;sup>13</sup> Petition to Intervene of Geoffrey M. Young, (June 12, 2008).

<sup>&</sup>lt;sup>14</sup> Case No. 2008-00149, In the Matter of: The 2008 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Company, Order of July 18, 2008, at p. 6.

<sup>&</sup>lt;sup>15</sup> Mr. Young did note that he had worked for the Kentucky Division of Energy, but did not elaborate on how or whether that position conferred any particular specialty upon him relevant to the IRP.

<sup>&</sup>lt;sup>16</sup> In a recent case similar to this one, the Arkansas Attorney General withdrew its opposition to the Sierra Club intervening in a SWEPCO rate case (Docket No. 09-008-U). The Attorney General originally asserted that it could adequately represent Sierra Club and National Audubon. However, after briefing, the Attorney General withdrew its position on grounds that the environmental issues intervenors intended to assert, e.g., "environmentally friendly rate design, delay of environmental expenditures, energy efficiency and demand side management" were distinct from those of the general body of ratepayers represented by the AG. See Attorney General's Response to Order No. 7 and June 3d, 2009 Filings by Sierra Club, National Audubon Society, Audubon Arkansas, Customers Advancing Responsible Rates and Good Things Boutique (June 5, 2009). In this case, the Attorney General has not objected to the Public Interest Intervenors participation in this case.

As shown above, EKCP failed to advance any credible evidence or argument that would justify the Commission's either rescinding or otherwise weakening its Order of July 13, 2009. Accordingly, the Public Interest Intervenors respectfully request that the Commission deny EKPC's application.

Respectfully submitted,

Robert Ukeiley

Law Office of Robert Ukeiley 435R Chestnut Street, Suite 1 Berea, KY 40403 Tel: (859) 986-5402 Fax: (866) 618-1017 Email: rukeiley@igc.org Counsel for Sierra Club, KEF and KFTC

Of counsel:

Gloria Smith Senior Staff Attorney Sierra Club Environmental Law Program 85 Second Street, 2d Floor San Francisco, CA 94105 Phone: (415) 977-5532 Fax: (415) 977-5793

Dated: August 12, 2009

#### **CERTIFICATE OF SERVICE**

I certify that I mailed a copy of the above by first class mail on August 12, 2009 on the following:

Hon. Mark David Goss Frost Brown Todd LLC 250 West Main Street Suite 2800 Lexington, KY 40507-1749

Counsel for EKPC

Hon. Dennis G. Howard, II Hon. Lawrence W. Cook Assistant Attorneys General Utility and Rate Intervention Division 1024 Capital Center Drive, Suite 200 Frankfort, Kentucky 40601-8204

Counsel for the Attorney General

Hon. Michael L. Kurtz Boelnn, Kurtz & Lowry 36 East 7" Street Suite 1510 Cincinnati, Ohio 45202

Counsel for Gallatin Steel

Hon. Richard Raff Senior Staff Attorney Kentucky Public Service Commission 21 1 Sower Boulevard P. 0. Box 615 Frankfort, Kentucky 40602-0615

Robert Ukeiley

EXHIBIT 1

### **DECLARATION OF STEPHEN S. BOYCE**

I, Stephen S. Boyce, do declare as follows.

1. My name is Stephen S. Boyce. I am over 18 years of age. The information in this declaration is based on my personal knowledge and if called to testify, I would testify as to the facts stated in this declaration.

2. I am a dues paying member of the Sierra Club and have been so for 25 years. I am also a dues paying member of Kentuckians for the Commonwealth and have been so at least 12 years. I hold the position of Vice-Chairperson in Kentuckians for the Commonwealth. I have also been a supporter, financially and otherwise, of the Kentucky Environmental Foundation for many years. This includes supporting the Kentucky Environmental Foundation's energy-efficient light bulb sale, which is a non-utility demand side management program.

3. I hold a Ph.D. in Mathematics from the University of Wisconsin, Madison. I retired in 2003 as a Professor in the Mathematics Department at Berea College. During my time at Berea College, I also held the position of Academic Vice President and Provost from 1996 to 2001 and Acting Academic Vice President and Dean of the College during 1995 – 1996.

4. I grew up and went to college in Indiana. I have lived in Berea, Kentucky or the surrounding community for 40 years. My current address is 304 Center Street, Berea, KY 40403. I live with my wife. We have no plans to move. We are both over 64 years old. I currently serve on the Advisory Board for Berea Municipal Utilities which is a municipally owned electric, water and sewer utility.

5. I enjoy engaging in outdoor activities such as hiking, biking, gardening and wood cutting and splitting in Berea, Kentucky and the surrounding areas. I will continue to engage in these outdoor activities in the future.

6. My house employs passive solar design features to assist in heating and cooling. In addition, we have a solar hot water heating system that supplies at least 75% of our hot water. We also have a solar photovoltaic ("PV") system. Since we moved into our current house, the solar PV system has generated almost as much electricity as we have used on a net basis. Thus, I personally know that renewable energy and energy efficiency can work in Kentucky. However, Berea Municipal Utilities provides little assistant to our efforts, as well as others, to implement renewable energy and energy efficiency. One of the major reasons why we choose to pay for the considerable upfront cost of a solar PV and solar hot water heating system is to do our part to lessen the amount of pollution caused from using coal to generate electricity.

7. I have lung-centered issues that have twice resulted in plural and/or paracardial effusion requiring treatment, first in February 2003 and most recently in February 2008. The February 2008 episode resulted in hospitalization for five days and various procedures include cardiocentesis.

8. My wife has heart arrhythmia. She was first diagnosed with this condition in November 2003. The treatment has involved approximately 20 electrocardioversions, 2 ablations, 1 valuloplasty and a range of medications. I have reviewed medical literature and documents from the U.S. Environmental Protection Agency that indicate that people with heart arrhythmia are particularly susceptible to exposure to particulate matter.

9. My wife and I live approximately 21 miles to the East Kentucky Power Cooperative J.K. Smith Generating Station. I estimate that we live around the same distance away from East Kentucky Power Cooperative's Dale Generating Station.

10. I understand that particulate matter that is less than 2.5 microns can, according to the United States Environmental Protection Agency's statement in May 16, 2008 Federal Register at 73 Fed. Reg. 28321, have significant adverse effects on peoples' health including premature mortality and "aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions, emergency room visits, absences from school or work, and restricted activity days), lung disease, decreased lung function, asthma attacks, and certain cardiovascular problems." I understand that according to the United States Environmental Protection Agency, "Individuals particularly sensitive to PM2.5 exposure include older adults, people with heart and lung disease, and children."

11. I believe my wife and myself are included in the category of "older adults," that my wife is included in the category of people with heart disease and that I am included in the category of people with lung disease.

12. I am concerned that the particulate matter that is less than 2.5 microns and other pollutants that will come from the J.K. Smith Generating Station Units 1 and 2 and the Dale Generating Station will have adverse effects on the health of my wife, myself and my family when they visit. I am actually concerned that the particulate matter that is less than 2.5 microns will contribute to the death of my wife and/or myself. I believe that East Kentucky Power Cooperative, by making smart changes to its services and rates and by good integrated resource planning, could lessen the risk of harm to my wife and myself.

13. Having lived and worked in Kentucky for 40 years, I am deeply concerns about the economic well-being of Kentuckians, including the economic well-being of EKPC customers, many of whom are Kentuckian for the Commonwealth and Sierra Club members. I do not believe that EKPC's current or planned way of meeting its customer's energy needs is in the best economic interest of its customers, or Kentuckians in general. I would like to see EKPC develop an Integrated Resource Plan that is in the best economic interest of its customers and Kentuckians in general.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on August 11, 2009.

Stephen S. Boyce

# EXHIBIT 2

# AN ANALYSIS OF THE ECONOMIC IMPACT OF ENERGY EFFICIENCY AND RENEWABLE ENERGY IN THE EAST KENTUCKY POWER COOPERATIVE REGION

William Tharp, Ph.D. Lori Quillen Ochs Center for Metropolitan Studies July 2009

# SUMMARY

As an alternative to building the proposed Smith #1 plant, an investment in a combination of energy efficiency, weatherization, hydropower and wind power initiatives in the East Kentucky Power Cooperative (EKPC) region would generate more than 8,750 new jobs for Kentucky residents, witha total impact of more than \$1.7 billion on the region's economy over the next three years. This alternative approach would meet the energy needs of EKPC customers at a lower cost than the proposed coal plant.

Unlike projected economic activity that would result from construction of a new coal-burning power plant, investing in renewable energy, efficiency and weatherization would result in jobs and benefits across the region rather than in a smaller geographic area around the site of the proposed coal burning power plant.

Over a three year period of construction and implementation, energy efficiency and weatherization initiatives would create nearly \$1.2 billion in economic activity and more than 5,400 jobs. The development of small scale hydropower generation at 20 sites in the region would create more than \$500 million in economic activity and more than 3,300 jobs.

# RENEWABLE ENERGY SOURCES, ENERGY EFFICIENCY AND WEATHERIZATION COULD MEET ANY NEED FOR ADDITIONAL ENERGY IN THE EKPC REGION

EKPC is currently in the permitting process for the proposed construction of a new 278 Megawatt (MW) coal-burning power plant in Clark County, Kentucky. With the production level



at an assumed 75% capacity factor, the proposed Smith #1 plant would be capable of providing an estimated 1.8 million Megawatt hours (MWh) annually to EKPC customers.

Prior analysis suggests that this additional generation of electricity may be unneeded. Since initially approving the plant, the Kentucky Public Service Commission has acknowledged a change in demand and EKPC has reported that energy load is below projections. As a result, experts have suggested that there may not be a need for new power generation at all.<sup>1</sup> EKPC, however, initially contended that without investment in new energy generation, it will be unable to meet growing demand for power in the region.<sup>2</sup>

If there is a need for additional energy, there are alternative solutions that may meet the current and future electricity needs of EKPC customers. Specifically, renewable energy sources and a strong focus on energy efficiency in the region could begin to provide as much or more energy as the proposed Smith plant.

Alternatives to continued dependence on coal have become both more technologically and economically feasible in recent years, especially given the increased risks associated with coal plants, including the skyrocketing costs of construction and coal prices, impending federal regulation of greenhouse gas emissions and the current economic climate.

Several utilities across the country have achieved significant energy savings through the development of progressive energy efficiency programs that offer incentives and education for both residential and commercial customers. The promotion and support of energy efficiency improvements have become the primary focus of utilities and state regulators in several states, including New York and Vermont.<sup>3</sup>

In Kentucky, and in the EKPC region specifically, the potential for increased residential and commercial energy efficiency is extremely high. There are relatively few state or utility-sponsored energy efficiency programs already in place and a 2006 study by the Midwest Energy Efficiency Alliance found that Kentucky's technical potential for energy efficiency is 30%<sup>4</sup> - higher than any of the other Midwestern states in the study.<sup>5</sup> According to the Energy Information Administration, Kentucky ranked 6<sup>th</sup> in the nation in per capita energy use in 2006.<sup>6</sup>



<sup>&</sup>lt;sup>1</sup> TR Rose Associates, The Right Decision for Changing Times, April 2009.

<sup>&</sup>lt;sup>2</sup> See, Stanley Consultants, Alternatives Evaluation and Site Selection Study for the Proposed J.K. Smith Circulating Fluidized Bed Generating Units, Clark County, Kentucky, September 2006.

<sup>&</sup>lt;sup>3</sup> See, Appendix A for description of these different initiatives.

<sup>&</sup>lt;sup>4</sup> Technical potential is the quantification of energy savings that could be realized if energy efficiency measures were applied in all technically feasible applications regardless of cost.

<sup>&</sup>lt;sup>5</sup> Midwest Energy Efficiency Alliance, Midwest Residential Market Assessment and DSM Potential Study, March 2006, Table 5-15, page 62.

<sup>&</sup>lt;sup>6</sup> According to the Energy Information Administration, Kentucky ranked 6th in the nation in per capita energy use in 2006 - <u>http://www.eia.doe.gov/emeu/states/sep\_sum/html/pdf/rank\_use\_per\_cap.pdf</u>

A 2007 study commissioned by the Governor's Office of Energy Policy concluded that "[O]verall, the savings potential from energy efficiency in Kentucky is large, achievable and significant – it has the promise of 'supplying' the energy needs that will fuel Kentucky's growth and prosperity over the next decade."<sup>7</sup>

Similarly, new hydropower and wind power sources also have been identified as having the potential of providing additional electricity at less cost and lower environmental risk than coal burning power plants.<sup>8</sup> Together, an aggressive, region-wide energy initiative focused on efficiency, weatherization, hydropower and wind could provide significant economic benefit throughout the EKPC region.

THE ELECTRICITY THAT SMITH PLANT WOULD PRODUCE COULD BE MATCHED BY AN ALTERNATIVE PORTFOLIO OF HYDROPOWER, ENERGY EFFICIENCY,

# WEATHERIZATION AND WIND AT A LOWER COST

A combination of efficiency initiatives, weatherization, hydropower and wind could potentially match more than seventy five percent of the planned generating capacity of the Smith Plant at a lower cost per MWh to EKPC consumers.

Zinga and McDonald outlined a portfolio of renewable energy and efficiency programs that could be realistically implemented by EKPC.<sup>9</sup> Based on this portfolio, series of energy efficiency initiatives would reduce demand by approximately 714,000 MWh. A home weatherization program could provide an additional 230,000 MWh in energy savings: projected savings from weatherization are based on the Energy Information Administration's estimate that weatherized homes use an average of 18% less energy, when compared to non-weatherized homes.



<sup>&</sup>lt;sup>7</sup> Kentucky Pollution Prevention Center at the University of Louisville, An Overview of Kentucky's Energy Consumption and Energy Efficiency Potential, August 2007, p. 3.

<sup>&</sup>lt;sup>8</sup> Zinga, S. and A. McDonald. "A Portfolio of Energy Efficiency and Renewable Energy Options for East Kentucky Power Cooperative," March 2009. p.24.

<sup>&</sup>lt;sup>9</sup> Zinga and McDonald, p. 12.

Program Name	Description	Tanget Customer Glass	Panticipants	Amual Savings (WWh)
Air Source Heat Pump Retrofit	Offers incentives to customers who replace electric space heating equipment with high-efficiency air source heat pumps.	Residential	30,000	174,300
Residential Lighting	Acts as a multi-purpose program that increases the penetration rate of compact flourescent lamps in households while raising money for nonprofits and schools by utilizing the efforts of volunteers to take orders for and deliver CFLs to their families, friends & neighbors.	Residential	200,000	60,000
Load Control Programmable Thermostat	Installs a programmable thermostat at a residential customer's location at no charge for the ability to remotely curtail the customer's air conditioner during periods of peak utility system demand.	Residential Customers with Central A/C	100,000	192,600
Air Conditioner Exchange	Distributes new ENERGY STAR® qualified room air conditioners in exchange for older, inefficient units at no cost to the customer.	Low-Income Residential	15,000	4,500
Water Heater Replacement	Replaces standard water heaters with high-efficiency water heaters	Residential	48,000	18,624
Installment Payment Refrigerators	Provides consumers with energy efficient refrigerators without an up- front payment and payments are made on monthly electric bills from bill savings.	Low-Income Residential	10,000	8,930
Geothermal Heat Pump Program	Provides incentives for customers who replace space heaters and electric heat pumps with geothermal heat pumps	Residential	500	3,077
Residential Solar Water Heater Rebate	Provides rebates for customers who purchase and install solar water heaters	Residential	23,500	57,646
Commercial Solar Water Heater Rebate	Provides rebates for businesses that install solar water heaters	Commercial	2,500	43,640
Air Conditioner Tune- Up	Offers commercial customers an analysis of their existing air conditioning systems and discounted services on corrective action needed for the system to operate at maximum efficiency	Commercial	15,000	37,410
Energy Efficiency Lighting	Offers rebates for upgrading existing lighting in commercial establishments for energy efficient lighting systems.	Commercial & industrial	5,000	113,400
Weatherization	Provides weatherization of slightly less than 35% of the estimated 260,000 residential structures in the EKPC region built before 1980, with an anticipated average reduction in energy use of 18%. Weatherization includes the insulation of attics, floors, walls, and pipes, and the sealing of windows and doors.	Residential	91,245	229,017

TABLE 1. ENERGY EFFICIENCY AND WEATHERIZATION PORTFOLIO

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Approximately 636,000 MWh of new power could be generated through small scale hydropower generation at sites across and close to the EKPC region. Wind power – either purchased and/or generated in Kentucky – could produce another 250,000 MWh.

TABLE 2. HYDROPOWER PORTFOLIO<sup>10</sup>

		Av(e)/c(ge
		Generation
₽K0JE48+	County	iMNM(h
Newburgh L&D	Henderson	139,512
Kentucky L&D 1	Carroll	38,133
Kentucky L&D 2	Owen	38,133
Rough River	Grayson	37,668
Kentucky L&D 11	Madison	37,203
Barren River	Barren	36,389
Kentucky L&D 8	Jessamine	32,553
Kentucky L&D 5	Woodford	27,902
Kentucky L&D 3	Owen	27,902
Kentucky L&D 12	Estill	25,577
Kentucky L&D 9	Madison	23,717
Kentucky L&D 10	Clark	23,717
Kentucky L&D 4	Franklin	23,252
Green L&D 6	Edmondson	23,252
Kentucky L&D 13	Lee	18,602
Kentucky L&D 14	Lee	18,602
Barren L&D 1	Warren	18,602
Kentucky L&D 6	Mercer	11,626
Yatesville	Lawrence	9,998
Prestonburg	Floyd	9,301
Fishtrap	Pike	5,022
Paintsville Dam	Johnson	4,650
Grayson	Carter	4,650
Total		635,964

The projected cost per MWh of the alternative portfolio is \$62.10 per MWh – significantly less than the most recent estimate for the Smith plant of \$74.73 per MWh.<sup>11</sup> Costs per MWh reflect total costs, including construction, financing and ongoing operations and maintenance. New federal Cap and Trade regulation of carbon could actually drive the plant's cost per MWh to

<sup>&</sup>lt;sup>10</sup> Location, cost, and energy generation potential of hydro projects were identified through the Idaho National Laboratory Hydropower Economics Resource Database, published April 29,2003. Project costs were adjusted to reflect 2009 dollars. The database was accessed at hydropower.inel.gov/resourceassessment.
<sup>11</sup> See, TR Rose at pp. 39-41.

between \$90 and \$130.<sup>12</sup> The basis for the cost estimate for the alternative portfolio is detailed in Appendix B.

# PROJECTING ECONOMIC IMPACT OF THE RENEWABLE ENERGY, EFFICIENCY AND WEATHERIZATION PORTFOLIO

Based on the projected cost of the renewable energy, energy efficiency and weatherization initiatives outlined above, it is possible to calculate the estimated economic impact for the EKPC region. Investment in renewable energy, efficiency initiatives and weatherization will result in economic activity generated by new investment – including direct, indirect and induced economic activity and jobs.

The total projected investment of \$634.2 million in energy efficiency and weatherization initiatives was allocated for each cooperative on the basis of the number of residential and commercial customers in the cooperative. For example, a cooperative that accounted for one percent of total EKPC residential customers was assumed to benefit from one percent of the investment in residential energy efficiency and weatherization.

The projected investment of \$396.7 million in new small scale hydropower generation was allocated on the basis of the project site: twenty of the proposed hydropower sites, accounting for \$311.8 million of the investment, are in the EKPC region. For the purposes of calculating economic benefits, none of the investment in wind power was included: some or all of the wind power can be purchased from developers in Kentucky and the EKPC region. If it is, the projected economic benefits would increase.

Using cooperative investment levels, the Ochs Center then calculated economic activity resulting from these investments using IMPLAN, an impact modeling software program created by the Minnesota IMPLAN Group, Inc. The IMPLAN model adapts national input-output matrices to the county level so that impact estimates can be generated at the county level of analysis. This model allows for the assessment of employment, output<sup>13</sup> and income<sup>14</sup> impacts at three different levels:

**Direct Impacts:** Impacts directly attributable to the revenues generated by spending. For example, it would include salaries of individuals weatherizing homes and purchases of supplies.

**Indirect Impacts:** Impacts attributable to industry-to-industry transactions only, reflecting the linkages between suppliers. These impacts would include new jobs and income for local suppliers.



<sup>&</sup>lt;sup>12</sup> id.

<sup>&</sup>lt;sup>13</sup> Output is the total value of activity over a given time period.

<sup>&</sup>lt;sup>14</sup> Income includes proprietary (small business) income and employee salaries and benefits for a given industry over a given time period. It is the total money earned resulting from the economic activity.

**Induced Impacts:** Impacts attributable to expenditures in the local economy by employees and owners of directly and indirectly affected firms. These impacts would be seen throughout the local economy as newly employed individuals spend part of their income.

For the purposes of estimating economic impact, construction of hydropower facilities and the weatherization and energy efficiency initiatives are both anticipated to occur over a three year time frame – the same period as the projected construction timetable for the Smith plant. Operation and maintenance spending of approximately \$5 million annually will also result in ongoing job creation and economic activity in those EKPC counties with hydropower sites.

In developing the economic impact model, it was assumed that most jobs directly created by these investments would be within the following different sectors:

- NAICS238221<sup>15</sup> -- Construction: Residential Heating/Plumbing/AC
- NAICS 238211 -- Construction: Residential Electrical
- NAICS 238311 -- Construction: Residential Drywall/Insulation
- NAICS 238222 -- Construction: Non-residential Heating/Plumbing/AC
- NAICS 238212 -- Construction: Non-residential Electrical
- NAICS 237990 -- Construction: Other Heavy and Civil Engineering
- NAICS 221111 -- Hydroelectric Power Generation

However, the nature of regional economic activity is such that construction activity produces indirect and induced economic activity and jobs across all sectors. In other words, weatherization, retrofitting certain appliances and other components of the alternative strategy will create jobs in the service, manufacturing, distribution, and retail sectors as well.

# ECONOMIC IMPACT OF INVESTING IN RENEWABLE ENERGY, EFFICIENCY AND

# WEATHERIZATION

During the three year implementation and construction period, the proposed strategy of renewable energy, efficiency and weatherization will directly create 4,694 jobs in the EKPC region and more than \$1.2 billion in economic activity. When indirect and induced economic activity is included, the strategy would yield a total of 8,759 jobs over three years and more than \$1.7 billion in economic activity.<sup>16</sup>



<sup>&</sup>lt;sup>15</sup> U.S. Census Bureau, North American Industrial Classification System, <u>www.census.gov/eos/www/naics</u>.

<sup>&</sup>lt;sup>16</sup> The exact phasing of the efficiency, weatherization and hydropower projects is unknown. Job and economic activity estimates reflect a total over a three year period.

Overall economic impact in the State of Kentucky would be even greater. The three hydropower projects that would take place outside of the EKPC region - in Henderson, Pike and Warren counties - would generate an additional 938 jobs and \$159.8 million in economic activity over the three year construction period. If some of the wind power is developed within the state, those projects would yield further economic benefits. Additional benefits could also result from energy cost savings to consumers that are then reinvested into the local economy.

Residents in every one of the sixteen distribution cooperatives would see job creation and economic activity as a result of this strategy.<sup>17</sup>

	Employmanic	ឲារផ្សារដ	Interne
EKPC Distribution Cooperative			
Owen Electric Cooperative	1,530	\$201,579,210	\$66,450,289
Blue Grass Energy Cooperative	1,328	\$236,234,784	\$57,558,130
Farmers RECC	1,094	\$132,022,676	\$40,806,186
Jackson Energy Cooperative	990	\$152,580,704	\$40,113,976
South Kentucky Rural Electric	734	\$118,794,323	\$31,802,459
Clark Energy Cooperative	543	\$78,145,359	\$23,990,692
Salt River Electric Cooperative	455	\$75,345,428	\$22,150,713
Nolin RECC	330	\$54,979,923	\$15,893,969
Grayson RECC	312	\$49,473,551	\$13,053,222
Inter-County Energy	298	\$47,398,168	\$13,652,205
Fleming-Mason Energy	257	\$40,664,659	\$11,969,493
Cumberland Valley Electric	229	\$41,625,241	\$10,536,106
Taylor County RECC	216	\$41,474,479	\$8,966,225
Big Sandy RECC	185	\$35,230,613	\$7,530,297
Shelby Energy Cooperative	130	\$25,356,445	\$6,945,905
Licking Valley RECC	128	\$29,193,156	\$6,466,634
Total	8,759	\$1,360,098,720	\$377,886,501

TABLE 3. JOBS AND ECONOMIC ACTIVITY OVER THREE YEAR CONSTRUCTION AND IMPLEMENTATION

By comparison, EKPC projects that the construction of the Smith #1 plant would create up to 700 construction jobs during the estimated three year construction phase. There would be 60 positions at the Smith #1 plant once it is operational.<sup>18</sup> Construction jobs and plant operation positions would likely be concentrated in the area immediately surrounding the plant site in Clark County. Additionally, the Smith #1 plant would only begin to generate construction jobs once the full permitting process is completed.



<sup>&</sup>lt;sup>17</sup> Appendix C contains a list of the counties in each cooperative and a cooperative by cooperative fact sheet on estimated job creation and economic activity.

<sup>&</sup>lt;sup>18</sup> See, Stanley Consultants at p. 7-9.

# APPENDIX A

# CASE STUDIES OF STATE ENERGY EFFICIENCY INITIATIVES NEW YORK

New York Energy Smart is a statewide program run by the New York State Energy Research and Development Authority (NYSERDA). The overall goals of the Energy Smart program are to "[I]mprove New York's energy system reliability and security by reducing energy demand and increasing energy efficiency," and to "reduce the energy cost burden of New Yorkers by offering energy users, particularly the State's lowest income households, services that moderate the effects of energy price increases and volatility and provide access to cost-effective energy efficiency options."<sup>19</sup>

According to the latest annual report, the Energy Smart Program has assisted in the installation of efficiency measures that permanently reduce peak demand by 650 MW and implemented measures that save 3,057 GWh per year across the state. In addition, Energy Smart programs have saved participating customers nearly \$570 million in annual energy costs.

New York Energy Smart supports a wide range of energy efficiency programs, which target residential, commercial and industrial energy customers.

NYSERDA's commercial and industrial sector programs cover new and existing schools, hospitals, office buildings, government buildings, commercial establishments, not-for-profit facilities, and industrial plants. Programs promote competitive markets for energy efficiency services and facilitate the widespread adoption of high-efficiency technologies. Programs targeting commercial and industrial customers include:

**Peak Load Management Program:** The Peak Load Management Program encourages measures for demand management by offering financial incentives to allow participation in dynamic retail pricing, commodity purchase and managing financial risk. The program provides incentives for equipment and technical solutions that enable significant demand reduction resources.

**Enhanced Commercial/Industrial Performance Program:** Information and incentives are provided to improve existing building loads, non-building loads and process equipment.

**Energy Smart Business Partners:** The program focuses on market development. Energy Smart Business partners are allies that agree to work with NYSERDA to promote energy-efficient products and services. In exchange, business partners gain access to special training, tools, guidelines, and performance incentives. NYSERDA works with its business partners to help them differentiate their business, while assuring appropriate quality control mechanisms. The

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<sup>&</sup>lt;sup>19</sup> New York Energy Smart Program Evaluation and Status Report for the Year Ending December 31, 2008. March 2009. Table ES-3, p. ES-5. Accessed at:

http://www.nyserda.org/publications/SBC%20March%202009%20Annual%20Report.pdf on June 26, 2009.

program focuses on the marketing of small commercial lighting, premium efficiency motors, and commercial HVAC units.

**Loan Fund and Financing Program:** Loan Fund and Financing Program expands the availability of low-interest capital to help implement energy-efficiency projects and process improvements. Lenders enroll in the program by signing participation agreements and agreeing to reduce the interest rates on energy –related loans in exchange for a lump sum subsidy paid by NYSERDA.

**Energy Smart Focus Program:** Energy Smart Focus provides services to facilitate and encourage sector-specific energy efficiency improvements and practices.

**High Performance New Buildings Program:** Established to encourage energy-efficient design and building practices among architects and engineers and to urge them to inform building owners about the long-term advantages of building to higher energy efficiency standards.

**FlexTech Technical Assistance Program**: The program provides customers with objective and customized information to facilitate wiser energy efficiency, energy procurement and financing decisions. The program is available to all commercial and industrial customers.

NYSERDA also operates several programs aimed at residential, and specifically low-income customers. The residential energy efficiency programs are designed to influence decisions regarding electricity use and to reduce households' energy bills. The low-income programs are designed to reduce the energy burden of low-income households by improving energy efficiency.

Programs include:

**Single Family Home Performance Program**. This program, which addresses one- to four-unit homes, includes the Home Performance with Energy Star Initiative for existing homes and the New York Energy Star Labeled Homes Initiative for newly constructed homes. These initiatives support market development through recruitment, training and incentives for builders and contractors, in order to encourage them to offer energy efficient options. They also market the benefits of energy efficiency to residential consumers in order to increase demand for efficient products and services. Both components provide additional incentives for low-income households.

**Market Support Program.** This program provides support services to the building performance and low-income programs by increasing the availability of energy-efficient products and by increasing consumer demand.

**Communities and Education Program.** Provides information and education on energy efficiency measures for students, community organizations and energy customers.

**EmPower New York.** This program provides energy efficiency services to utility customers earning less than 60% of the State median income and households enrolled in utility low-income payment assistance programs, targeting both owners and tenants of one-to four-family homes and multifamily buildings with fewer than 100 units. The program coordinates with the delivery of federal weatherization services through New York State Division of Housing and Community Renewal.

# VERMONT

Efficiency Vermont is a nonprofit organization that offers statewide energy efficiency services through a contract with the Vermont Public Service Board.<sup>20</sup> Efficiency Vermont provides technical assistance and financial incentives to households and businesses to help them reduce their energy costs with energy-efficient equipment and lighting and with energy-efficient approaches to construction and renovation.

Efficiency Vermont works directly with business operators, homeowners and renters to reduce their energy costs. The state's energy-efficiency utility also works with Vermont businesses that provide energy-efficient products and services, such as retailers, architects, builders, and electricians.

According to the annual report, Efficiency Vermont has helped reduce annual energy costs for businesses and homes by a total of more than \$31 million since 2000. In 2006, Efficiency Vermont helped more than 10 percent of the state's electric ratepayers complete efficiency investments that resulted in 56,000 MWh of annual electric savings.

Efficiency Vermont provides several rebate and incentive programs that target the purchase of energy efficient lighting and appliances and the use of efficient building practices for new business and home construction. For existing business, Energy Vermont provides services, including:

**Account Management.** Provides customized solutions geared to the specific business needs for mid-sized and large businesses. The solutions include providing energy efficiency information, technical assistance, and financial incentives, and partnering with specialized service providers, from design assistance to financing packages.

**Prescriptive Measures.** Standardized efficiency measures with standard financial incentives. Prescriptive measures include lighting, motors, unitary HVAC equipment, economizers, vending machine controls, LED traffic signals, small refrigeration systems, and transformers.



<sup>&</sup>lt;sup>20</sup> Efficiency Vermont Year 2007 Annual Report. October 2008. Accessed at

http://www.efficiencyvermont.com/stella/filelib/AR2007\_Revised\_MW.pdf on June 26, 2009.
#### APPENDIX B

#### COST ASSUMPTIONS FOR ALTERNATIVE ENERGY PORTFOLIO

The cost of the alternative portfolio of hydropower, energy efficiency, weatherization and wind power is based on the following assumptions:

- Costs for the energy efficiency initiatives are derived from the Zinga and McDonald report, with subsequent adjustments made for the increasing cost of commercial and residential solar water heaters. The cost of implementation of the energy efficiency initiatives is based on financing at six percent over a twenty year period.
- Weatherization costs are assumed at \$3,500 per household. The cost of physical weatherization per household is largely dependent on the age and size of the house. In a recent study on weatherization of housing in Maine, the average cost of weatherization per home was estimated to be \$4,200.<sup>21</sup> Currently, the average value of weatherization services provided by the Weatherization Assistance Program (WAP) is \$2,500.<sup>22</sup> The cost of implementation of the weatherization initiative is also based on financing at six percent over a twenty year period.
- The cost of hydropower is based on data from the Idaho National Laboratory's analysis of hydropower resources in the United States.<sup>23</sup> INEL provides estimates of capital costs and operations and maintenance costs for each of the proposed hydropower locations in 2002 dollars. Capital costs were adjusted upward for inflation based on the Producer Price Index for new construction and operations and maintenance costs were adjusted upward based on the Consumer Price Index. The result is a projected capital cost of \$396.7 million and annual operating costs of \$5.0 million. The cost of construction was financed at six percent over a twenty year period.
- The cost of wind power was estimated at a purchase price of \$80 per MWh. A 2008 U.S. Department of Energy report noted that wind power accounted for 35% of all new electric generating capacity in 2007: a higher percentage of new generating capacity than coal burning power.<sup>24</sup> The same report concluded that the sales price for wind projects built in 2007 was approximately \$45 per MWh, with a range of \$30 to \$65 per MWh.<sup>25</sup> The estimated cost, therefore, reflects the most conservative estimate of alternative cost.



<sup>&</sup>lt;sup>21</sup> State of Maine Housing and Energy Subcommittee. The Governor's Pre-Emergency Energy Task Force Housing and Subcomittee Report: Weatherize All Single and Multifamily Dwellings In Maine. February 2009, p.2.

 <sup>&</sup>lt;sup>22</sup> Department of Energy Weatherization Assistance Program: <u>apps1.eere.energy.gov/weatherization/apply.cfm</u>
<sup>23</sup> See, Idaho National Laboratory, Hydropower Economics Resource Database, April 29, 2003 at hydropower.inel.gov/resourceassessment.

<sup>&</sup>lt;sup>24</sup> Ryan Wiser and Mark Bollinger, Annual Report on U.S. Wind Power Installation, Cost and Performance Trends: 2007 (U.S. Department of Energy, 2008), p. 4.

<sup>&</sup>lt;sup>25</sup> Id. at p. 17.

#### APPENDIX C

#### COUNTIES IN EKPC DISTRIBUTION COOPERATIVES

This appendix includes one page summaries of the potential economic impact of energy efficiency and renewable energy programs for each energy co-op in the EKPC Region.



# Big Sandy RECC

Includes part or all of Johnson, Lawrence, Martin, Floyd, Knott, Breathitt, Magoffin, and Morgan Counties

As an alternative to building the proposed Smith #1 plant, an investment in a combination of energy efficiency, weatherization, hydropower and wind power initiatives in the East Kentucky Power Cooperative (EKPC) region would generate more than 8,750 new jobs for Kentucky residents and have a total impact of more than \$1.7 billion on the region's economy over the next three years. This alternative approach would meet the energy needs of EKPC customers at a lower cost.

Unlike projected economic activity that would result from construction of a new coal-burning power plant, investing in renewable energy, efficiency and weatherization would result in jobs and benefits across the region rather than in a smaller geographic area around the site of the proposed coal burning power plant.



#### Projected Economic Impact for Big Sandy RECC Region\*

	Direct	Indirect	Induced	Total
Income	\$5,270,083	\$1,415,878	\$844,336	\$7,530,297
Output	\$28,634,847	\$3,911,895	\$2,683,871	\$35,230,612
Jobs	112	44	29	185

The total projected economic impact of energy efficiency programs and hydroelectricity in the Big Sandy RECC region is \$42,760,909. Investment in energy efficiency and hydroelectricity is projected to produce \$5,270,083 in direct income and 112 jobs.

	*Economic Impact Definitions
Direct Impacts: Imp	pacts directly attributable to the revenues generated by spending. For example, it would include salarie
o	f individuals weatherizing homes and purchases of supplies.
Indirect Impacts: Im	pacts attributable to industry-to-industry transactions only, reflecting the linkages between suppliers.
Т	hese impacts would include new jobs and income for local suppliers.
Induced Impacts: In	npacts attributable to expenditures in the local economy by employees and owners of directly and
ir	directly affected firms. These impacts would be seen throughout the local economy as newly employe
ir	dividuals spend part of their income.
Income: Includes pr	oprietary (small business) income and employee salaries and benefits for a given industry or time
period.	
Output: The total va	alue of production by an industry over a given time period

# Clark Energy Cooperative |

Includes part or all of Clark, Bourbon, Montgomery, Powell, Menifee, Estill, Madison, Fayette, Bath, Rowan and Morgan Counties

As an alternative to building the proposed Smith #1 plant, an investment in a combination of energy efficiency, weatherization, hydropower and wind power initiatives in the East Kentucky Power Cooperative (EKPC) region would generate more than 8,750 new jobs for Kentucky residents and have a total impact of more than \$1.7 billion on the region's economy over the next three years. This alternative approach would meet the energy needs of EKPC customers at a lower cost.

Unlike projected economic activity that would result from construction of a new coal-burning power plant, investing in renewable energy, efficiency and weatherization would result in jobs and benefits across the region rather than in a smaller geographic area around the site of the proposed coal burning power plant.



#### Projected Economic Impact for the Clark Energy Cooperative Region

	Direct	Indirect	Induced	Total
Income	\$14,291,310	\$6,156,885	\$3,542,497	\$23,990,692
Output	\$49,192,953	\$17,801,156	\$11,151,250	\$78,145,359
Jobs	272	157	113	542

The total projected economic impact of energy efficiency programs in the Clark Energy Cooperative region is \$102,136,051. Investment in energy efficiency and hydro electricity is projected to produce \$14,291,310 in direct income and 271 jobs.

*Ecor	nomic Impact Definitions
Direct Impacts: Impacts directly attributable to the	e revenues generated by spending. For example, it would include salaries
of individuals weatherizing home	es and purchases of supplies.
Indirect Impacts: Impacts attributable to industry-t	o-industry transactions only, reflecting the linkages between suppliers.
These impacts would include new	w jobs and income for local suppliers.
Induced Impacts: Impacts attributable to expenditu	ures in the local economy by employees and owners of directly and
indirectly affected firms. These in	mpacts would be seen throughout the local economy as newly employed
individuals spend part of their in	come.
Income: Includes proprietary (small business) incor	ne and employee salaries and benefits for a given industry or time
period.	
Output: The total value of production by an industr	y over a given time period

## Farmers RECC

Includes part or all of Hart, Barren, Metcalfe, Green, Adair, Edmonson, Larue, and Grayson Counties

As an alternative to building the proposed Smith #1 plant, an investment in a combination of energy efficiency, weatherization, hydropower and wind power initiatives in the East Kentucky Power Cooperative (EKPC) region would generate more than 8,750 new jobs for Kentucky residents and have a total impact of more than \$1.7 billion on the region's economy over the next three years. This alternative approach would meet the energy needs of EKPC customers at a lower cost.

Unlike projected economic activity that would result from construction of a new coal-burning power plant, investing in renewable energy, efficiency and weatherization would result in jobs and benefits across the region rather than in a smaller geographic area around the site of the proposed coal burning power plant.



#### **Projected Economic Impact for Farmers RECC Region**

	Direct	Indirect	Induced	Total
Income	\$26,861,178	\$8,180,504	\$5,764,504	\$40,806,186
Output	\$90,183,774	\$23,698,214	\$18,140,688	\$132,022,675
Jebs	657	235	<b>201</b>	1,093

The total projected economic impact of energy efficiency programs in the Farmers RECC region is \$172,828,861. Investment in energy efficiency and hydro electricity is projected to produce \$26,861,178 in direct income and 657 jobs.

*Economic Impact Definitions
Direct Impacts: Impacts directly attributable to the revenues generated by spending. For example, it would include salaries
of individuals weatherizing homes and purchases of supplies.
Indirect Impacts: Impacts attributable to industry-to-industry transactions only, reflecting the linkages between suppliers.
These impacts would include new jobs and income for local suppliers.
Induced Impacts: Impacts attributable to expenditures in the local economy by employees and owners of directly and
indirectly affected firms. These impacts would be seen throughout the local economy as newly employed
individuals spend part of their income.
Income: Includes proprietary (small business) income and employee salaries and benefits for a given industry or time
period.
Output: The total value of production by an industry over a given time period

### Grayson RECC

Includes part or all of Greenup, Carter, Rowan, Elliott, Lawrence, and Lewis Counties

As an alternative to building the proposed Smith #1 plant, an investment in a combination of energy efficiency, weatherization, hydropower and wind power initiatives in the East Kentucky Power Cooperative (EKPC) region would generate more than 8,750 new jobs for Kentucky residents and have a total impact of more than \$1.7 billion on the region's economy over the next three years. This alternative approach would meet the energy needs of EKPC customers at a lower cost.

Unlike projected economic activity that would result from construction of a new coal-burning power plant, investing in renewable energy, efficiency and weatherization would result in jobs and benefits across the region rather than in a smaller geographic area around the site of the proposed coal burning power plant.



#### Projected Economic Impact for Grayson RECC Region

	Direct	Indirect	Induced	Total
Income	\$9,404,556	\$2,131,481	\$1,517,185	\$13,053,222
Output	\$38,269,378	\$6,466,475	\$4,737,698	\$49,473,551
Jobs	190	69	54	313

The total projected economic impact of energy efficiency programs in the Grayson RECC region is \$62,526,773. Investment in energy efficiency and hydro electricity is projected to produce \$9,404,556 in direct income and 190 jobs.

*Economic Impact Definitions
Direct Impacts: Impacts directly attributable to the revenues generated by spending. For example, it would include salaries
of individuals weatherizing homes and purchases of supplies.
Indirect Impacts: Impacts attributable to industry-to-industry transactions only, reflecting the linkages between suppliers.
These impacts would include new jobs and income for local suppliers.
Induced Impacts: Impacts attributable to expenditures in the local economy by employees and owners of directly and
indirectly affected firms. These impacts would be seen throughout the local economy as newly employed
individuals spend part of their income.
Income: Includes proprietary (small business) income and employee salaries and benefits for a given industry or time
period.
Output: The total value of production by an industry over a given time period

# Jackson Energy Cooperative

As an alternative to building the proposed Smith #1 plant, an investment in a combination of energy efficiency, weatherization, hydropower and wind power initiatives in the East Kentucky Power Cooperative (EKPC) region would generate more than 8,750 new jobs for Kentucky residents and have a total impact of more than \$1.7 billion on the region's economy over the next three years. This alternative approach would meet the energy needs of EKPC customers at a lower cost.

Unlike projected economic activity that would result from construction of a new coal-burning power plant, investing in renewable energy, efficiency and weatherization would result in jobs and benefits across the region rather than in a smaller geographic area around the site of the proposed coal burning power plant.

Includes part or all of Estill, Rockcastle, Jackson, Laurel, Lee, Owlsley, Clay, Leslie, Breathitt, Powell, Garrard, Lincoln, Pulaski, Madison, and Wolfe Counties



#### Projected Economic Impact for the Jackson Energy Cooperative Region

	Direct	Indirect	induced	Total
Income	\$27,303,841	\$7,826,716	\$4,983,419	\$40,113,976
Output	\$109,645,910	\$26,735,634	\$16,199,160	\$152,580,704
Jobs	543	264	184	991

The total projected economic impact of energy efficiency programs in the Jackson Energy Cooperative region is \$192,694,680. Investment in energy efficiency and hydro electricity is projected to produce \$27,303,841 in direct income and 543 jobs.

	*Economic Impact Definitions
Direct Impacts: Imp	pacts directly attributable to the revenues generated by spending. For example, it would include salarie
c	f individuals weatherizing homes and purchases of supplies.
Indirect Impacts: In	npacts attributable to industry-to-industry transactions only, reflecting the linkages between suppliers.
т	hese impacts would include new jobs and income for local suppliers.
Induced Impacts: In	npacts attributable to expenditures in the local economy by employees and owners of directly and
iı	ndirectly affected firms. These impacts would be seen throughout the local economy as newly employe
iı	ndividuals spend part of their income.
Income: Includes pr	oprietary (small business) income and employee salaries and benefits for a given industry or time
period.	
Output: The total v	alue of production by an industry over a given time period

# Nolin RECC

Includes part or all of Hardin, Larue, Grayson, Breckenridge, Hart, Bullitt, Meade, Green and Taylor Counties

As an alternative to building the proposed Smith #1 plant, an investment in a combination of energy efficiency, weatherization, hydropower and wind power initiatives in the East Kentucky Power Cooperative (EKPC) region would generate more than 8,750 new jobs for Kentucky residents and have a total impact of more than \$1.7 billion on the region's economy over the next three years. This alternative approach would meet the energy needs of EKPC customers at a lower cost.

Unlike projected economic activity that would result from construction of a new coal-burning power plant, investing in renewable energy, efficiency and weatherization would result in jobs and benefits across the region rather than in a smaller geographic area around the site of the proposed coal burning power plant.



#### Projected Economic Impact for the Nolin RECC Region

	Direct	Indirect	Induced	Total
lincome	\$10,593,123	\$3,427,881	\$1,872,965	\$15,893,969
Output	\$39,457,417	\$9,807,104	\$5,715,402	\$54,979,923
Jobs	156	108	67	331

The total projected economic impact of energy efficiency programs in the Nolin RECC region is \$70,873,892. Investment in energy efficiency is projected to produce \$10,593,123 in direct income and 155 jobs.

	*Economic Impact Definitions
Direct Impacts: Impac	cts directly attributable to the revenues generated by spending. For example, it would include salaries
of i	ndividuals weatherizing homes and purchases of supplies.
Indirect Impacts: Impa	acts attributable to industry-to-industry transactions only, reflecting the linkages between suppliers.
The	se impacts would include new jobs and income for local suppliers.
Induced Impacts: Imp	acts attributable to expenditures in the local economy by employees and owners of directly and
	irectly affected firms. These impacts would be seen throughout the local economy as newly employed ividuals spend part of their income.
	prietary (small business) income and employee salaries and benefits for a given industry or time
Output: The total valu	e of production by an industry over a given time period

# Salt River Electric Cooperative |

As an alternative to building the proposed Smith #1 plant, an investment in a combination of energy efficiency, weatherization, hydropower and wind power initiatives in the East Kentucky Power Cooperative (EKPC) region would generate more than 8,750 new jobs for Kentucky residents and have a total impact of more than \$1.7 billion on the region's economy over the next three years. This alternative approach would meet the energy needs of EKPC customers at a lower cost.

Unlike projected economic activity that would result from construction of a new coal-burning power plant, investing in renewable energy, efficiency and weatherization would result in jobs and benefits across the region rather than in a smaller geographic area around the site of the proposed coal burning power plant.

Includes part or all of Bullitt, Spencer, Marion, Nelson, Washington, Anderson, Mercer, Jefferson, Shelby, and Larue Counties



#### Projected Economic Impact for the Salt River Electric Cooperative Region

	Direct	Indirect	Induced	Total
income	\$16,229,261	\$4,030,611	\$1,890,841	\$22,150,713
Output	\$56,185,704	\$12,382,391	\$6,777,333	\$75,345,428
lobs	249	131	75	455

The total projected economic impact of energy efficiency programs in Salt River Electric Cooperative region is \$97,496,141. Investment in energy efficiency is projected to produce \$16,229,261 in direct income and 248 jobs.

*Economic Impact Definitions					
Direct Impacts: Impacts directly attributable to the revenues generated by spending. For example, it would include salaries					
of individuals weatherizing homes and purchases of supplies.					
Indirect Impacts: Impacts attributable to industry-to-industry transactions only, reflecting the linkages between suppliers.					
These impacts would include new jobs and income for local suppliers.					
Induced Impacts: Impacts attributable to expenditures in the local economy by employees and owners of directly and					
indirectly affected firms. These impacts would be seen throughout the local economy as newly employed					
individuals spend part of their income.					
Income: Includes proprietary (small business) income and employee salaries and benefits for a given industry or time					
period.					
Output: The total value of production by an industry over a given time period					

# South Kentucky Rural Electric |

As an alternative to building the proposed Smith #1 plant, an investment in a combination of energy efficiency, weatherization, hydropower and wind power initiatives in the East Kentucky Power Cooperative (EKPC) region would generate more than 8,750 new jobs for Kentucky residents and have a total impact of more than \$1.7 billion on the region's economy over the next three years. This alternative approach would meet the energy needs of EKPC customers at a lower cost.

Unlike projected economic activity that would result from construction of a new coal-burning power plant, investing in renewable energy, efficiency and weatherization would result in jobs and benefits across the region rather than in a smaller geographic area around the site of the proposed coal burning power plant.

Includes part or all of Clinton, Wayne, Russell, Casey, McCreary, Rockcastle, Pulaski, Lincoln, Adair, Cumberland and Laurel Counties



#### Projected Economic Impact for the South Kentucky Rural Electric Region

e de la construcción de la constru Construcción de la construcción de l Construcción de la construcción de	Direct	Indirect	Induced	Total
Income	\$19,997,208	\$7,743,429	\$4,061,822	\$31,802,459
Output	\$77,793,498	\$27,931,194	\$13,069,631	\$118,794,323
Jobs	316	265	153	734

The total projected economic impact of energy efficiency programs in the South Kentucky Rural Electric region is \$150,596,782. Investment in energy efficiency is projected to produce \$19,997,208 in direct income and 315 jobs.

# \*Economic Impact Definitions Direct Impacts: Impacts directly attributable to the revenues generated by spending. For example, it would include salaries of individuals weatherizing homes and purchases of supplies. Indirect Impacts: Impacts attributable to industry-to-industry transactions only, reflecting the linkages between suppliers. These impacts would include new jobs and income for local suppliers. Induced Impacts: Impacts attributable to expenditures in the local economy by employees and owners of directly and indirectly affected firms. These impacts would be seen throughout the local economy as newly employed individuals spend part of their income. Income: Includes proprietary (small business) income and employee salaries and benefits for a given industry or time period. Output: The total value of production by an industry over a given time period.

#### About the Ochs Center and the Authors

The Ochs Center for Metropolitan Studies (formerly known as the Community Research Council) is a not for profit corporation based in Chattanooga, Tennessee that conducts data analysis and policy research. In addition to its work in the Chattanooga area, the Ochs Center also works on select projects at the regional and national level.

Dr. William Tharp is a Senior Policy Analyst at the Ochs Center. His recent work includes an analysis of the economic impact of a proposed coal burning power plant in Early County, Georgia, a review of the economic benefits of the May Town Center development in Nashville, a year long study of the economic impact of the Chattanooga Metropolitan Airport and a detailed analysis of workforce trends and needs for the Chattanooga Area Chamber of Commerce. Prior to joining the Ochs Center, Dr. Tharp was a Finance Officer with the Metro Nashville Office of Management and Budget. He holds his Ph. D. in Urban Affairs from the University of Louisville, has taught as an adjunct at Vanderbilt and currently holds the rank of Associate Professor of Public Administration at the University of Tennessee at Chattanooga.

Lori Quillen is a Policy Analyst at the Ochs Center. Her recent work includes an analysis of the economic impact of food production in the Chattanooga foodshed and the economic and health implications of food deserts in the Chattanooga region. Ms. Quillen holds a graduate degree in Public Administration from the University of Oregon and an undergraduate degree from the University of Tennessee at Knoxville.

# EXHIBIT 3

#### **DECLARATION OF MIKE HANNON**

I, Mike Hannon, do declare as follows.

1. My name is Mike Hannon. I am over 18 years of age. The information in this declaration is based on my personal knowledge and if called to testify, I would testify as to the facts stated in this declaration.

2. I am on the Board of Directors of Kentucky Environmental Foundation (KEF). I have held this position for approximately 25 years. I also volunteer my time to KEF on a variety of projects including KEF's energy efficient light bulb sale which is a non-utility demand side management program.

3. I retired in 2008 as an Environmental Control Supervisor for the Kentucky Division for Air Quality.

4. I live in Paint Lick, Kentucky and have done so for approximately the past 23 years. Before that, I lived for 7 years in Garrard, County and before that I lived in Red Lick for approximately 3 years. Before that I went to college at Western Kentucky University.

5. I am a customer of Bluegrass Energy Cooperative, which is a member of East Kentucky Power Cooperative (EKPC), and have been for 23 years.

6. I do not believe that Bluegrass Energy Cooperative, and the other EKPC distribution cooperatives offers adequate services or rates to help myself and their other customers use energy in an efficient and economic manner. Having a smattering of demand-side management programs "on the books" is not enough. The demand-side management programs have to be intelligently designed, marketed and implemented and

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there have to be enough programs and the right programs to have a real impact for the customers and the cooperatives.

7. I do not believe that EKPC has a mix of types of generating units that result in rates that are in the best interest of EKPC's members, including myself. My rates have gone up dramatically in the last few years. Yet it seems that EKPC is intent on continuing to be almost completely reliant on coal as a fuel source, which is no longer the lowest cost option.

8. I would like to see EKPC develop an Integrated Resource Plan that results in services and rates that in my best interest, as well as the best interest of the other EKPC members and Kentucky in general.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on August 11, 2009.

Mike Harr

Mike Hannon