BEFORE THE
ARKANSAS PUBLIC SERVICE COMMISSION

IN THE MATTER OF A NOTICE OF INQUIRY REGARDING THE EXPANDED DEVELOPMENT OF SUSTAINABLE ENERGY RESOURCES IN ARKANSAS	))))	Docket No. 08-144-U

INITIAL COMMENTS OF THE ELECTRIC COOPERATIVES OF ARKANSAS

The Electric Cooperatives of Arkansas[1] ("Electric Cooperatives") hereby submit their Initial Comments regarding the nine questions posed by the Arkansas Public Service Commission ("Commission") in Order No. 1 of this Docket. The Electric Cooperatives appreciate the Commission's consideration of these timely issues and the opportunity to provide comment.

A. GENERAL COMMENTS

The Electric Cooperatives have a long history of developing and encouraging all forms of Sustainable Energy Resources ("SER"). The Electric Cooperatives' SER development includes Energy Efficiency ("EE"), Demand Response ("DR"), Automatic Metering Infrastructure ("AMI") and Renewable Resources ("RR").

Energy Efficiency: For many years, the Electric Cooperatives have provided their retail membership with EE programs that assist them in making wise energy decisions. Some examples of these efforts are: EE education and demonstration

[1] Arkansas Valley Electric Cooperative Corporation; Ashley-Chicot Electric Cooperative, Incorporated; C&L Electric Cooperative Corporation; Carroll Electric Cooperative Corporation; Clay County Electric Cooperative Corporation; Craighead Electric Cooperative Corporation; Farmers Electric Cooperative Corporation; First Electric Cooperative Corporation; Mississippi County Electric Cooperative, Inc.; North Arkansas Electric Cooperative, Incorporated; Ouachita Electric Cooperative Corporation; Ozarks Electric Cooperative Corporation; Petit Jean Electric Cooperative Corporation; Rich Mountain Electric Cooperative, Incorporated; South Central Arkansas Electric Cooperative, Incorporated; Southwest Arkansas Electric Cooperative Corporation; Woodruff Electric Cooperative Corporation; and Arkansas Electric Cooperative Corporation.

programs; residential, commercial and industrial energy audits; recommendations for the sizing of space conditioning equipment; and prior to 1994, rebates for high efficiency heat pumps and water heaters to encourage retail consumers to select EE equipment.

Automatic Metering Infrastructure: Currently, thirteen of the state's seventeen retail electric cooperatives have some amount of AMI in place. A fourteenth electric cooperative is considering its installation. While the capabilities of AMI systems vary by electric cooperative, AMI systems currently offer at least some of the following functions to cooperatives with AMI systems in place: automatic meter reading; outage verification; automatic shut-offs and reconnects; hourly readings; voltage monitoring; and blink counts.

Prepaid metering is currently available at one electric cooperative and is being explored by at least two other retail cooperatives.

Demand Response: The Electric Cooperatives have a very aggressive DR program. The Electric Cooperatives currently have over 700 MW of demand response available during times of system peak. This amount of demand response represents approximately 27% of the Electric Cooperatives' total peak load. Not only do the Electric Cooperatives avoid over 700 MW of peaking capacity but also generating reserves necessary to support that amount of capacity. The Electric Cooperatives are not aware of any other electric utility in the nation with a higher percentage of demand response.

Renewable Resources: In a typical year, Arkansas Electric Cooperative Corporation ("AECC") expects to receive approximately 9% of its electrical generation from renewable hydroelectric generation, which includes approximately 5% from AECC-

owned hydroelectric generation and approximately 4% from preference power purchases from the Southwestern Power Administration. Investment in renewable hydroelectric resources represents approximately 25% of AECC's total investment in production plant.

B. COMMENTS ON THE NINE QUESTIONS

1. What is being done now and what is possible using current technologies to advance the use of SER by electric and gas utilities regulated by the Commission? This includes ascertaining what customers in the various utility rate classes are doing now to promote EE, DR, renewable resources, and AMI in homes, businesses, industry, government buildings, schools, prisons, and other institutions.

The Electric Cooperatives use a variety of communication vehicles and media to advance many elements contained under the definition of SER. These mediums include: *Rural Arkansas* magazine, a full-color magazine sent to each electric cooperative member in Arkansas (current circulation of 390,000 homes and businesses); pamphlets/brochures touting energy efficiency measures for residential and business customers (these measures include compact fluorescent light bulbs, Marathon high efficiency water heaters, geothermal heating and cooling systems, and the importance of insulation in a home); Doug Rye Model Home program standards, Doug Rye Home Remedies radio sponsorship and a new program introduced in 2008, the Energy Efficiency Makeover program.

2. What are the technical potentials for EE, RR, and AMI within the utilities and statewide, under various assumptions about costs, benefits, and economic conditions over the next decade or more?

AMI is a system that could be used to implement communication with the end use customer, the goal of which would be to provide information related to both the customer's use of electricity and its real time cost. AECC is not in possession of any data

that would allow it to estimate the impact of a consumer's use of that information. One would assume that consumers would alter their behavior in relationship to the possible cost impact imposed on consumers. The Electric Cooperatives currently can achieve a demand reduction of approximately 700 MW through interruptible rates, other retail rate structures that coordinate with AECC's rate structure, and direct load control. With this amount of load being controlled, the summer peak demand has approximately 7 to 9 hours that are within 5% of the peak hour. This broad peak period will make achieving additional demand savings through the use of AMI very difficult.

The Electric Cooperatives have encouraged their members to utilize EE since the mid 1970's. The Electric Cooperatives believe that the wise use of energy is in everyone's best interest. Based on a recent study, the Electric Cooperatives believe they could achieve between 45 and 110 MW of additional residential EE related savings by 2018. The EE savings by 2018 for all members would be between 100 MW and 160MW. The range is dependant upon which economic test is employed. However, as the EE increases so does the cost per kW of combined cost to both the member and the Electric Cooperatives. To achieve 45 MW of savings, the study estimated it would cost approximately $850/kW, but to achieve the 110 MW of savings would cost approximately $3500/kW.

Based on studies, AECC believes that the following table is representative of the RR that is available in the State of Arkansas. The column labeled "Economically Feasible" is based on a cost comparison of current levelized cost of the RR with fossil fueled power plants.

Practical Potential	Capability at Peak (MW)	Economically Feasible (MW)	Cost $/MWH
Wood Biomass	**362**	**0**	**93-130**
Agricultural By-Products	**509**	**2**	**32-100**
Landfill & Wastewater	**23**	**23**	**56-95**
Hydroelectric	**196**	**0**	**140-570**
Wind outside NF, high CF Installed Capacity of 438 – 876 MW	**44 - 88**	**44 - 88**	**74-105**
Total	**1,133 – 1,177**	**68 - 112**	

The capability at peak is based on the projected generation available at 6:00 PM during July and August, the time of AECC's peak load demand. The wind capacity available is based on land area outside National Forest property.

3. How can the Commission foster the spread of information about best SER practices of business and industry leaders to ratepayers and the public at large?

The Commission has taken a commendable first step in this effort with Order No. 12 in Docket No. 06-004-R on EE. This collaborative effort contains a substantial endeavor to educate consumers on EE.

4. What, if anything, must happen to remove regulatory barriers to the inclusion of SER in the resource plans of the state's utilities?

The Electric Cooperatives believe that a significant impediment to the development of SER in Arkansas in general is the definition of conservation and the marketing of high efficiency appliances as promotional practices. This definition occurs in the Arkansas Public Service Commission's *Rules and Regulations Governing*

Promotional Practices of Electric and Gas Public Utilities ("Promotional Practices Rules"). For an electric cooperative with a smaller consumer base and more limited resources, the preparation and filing of promotional practice measures under the Promotional Practices Rules is a daunting and burdensome task that inhibits the development of SER in Arkansas.

Further, the Electric Cooperatives suggest that any regulatory requirement that a utility evaluate the economic impact of its conservation programs on other utilities or competing fuels is outdated and counterproductive.

With regard to SER measures that require significant capital investment, such as RR and AMI, regulatory barriers include the inability of a utility to request and receive advance regulatory prudence review and approval, and advance regulatory approval to recover developmental and other costs of such measures from ratepayers as such costs are incurred. Legislative action may be required to remove these regulatory barriers. In order to encourage SER development, it is important that utilities receive advance regulatory assurances of contemporaneous cost recovery.

5. What, if any, incentives are needed to bring about the optimum development of SER?

The Electric Cooperatives do not require any special financial incentives to develop SER. The Electric Cooperatives' only incentive is to provide their members with a reliable electrical supply at the lowest reasonable long-term cost.

6. What utility regulatory models will work best to establish and achieve goals and targets for SER?

The Electric Cooperatives are opposed to mandated SER goals and targets. As is shown by their record, the Electric Cooperatives have aggressively pursued the

development of SER under the current utility regulatory model. Assuming that no mandatory SER goals or targets are imposed on utilities and that the regulatory barriers discussed in answer to Question 4 above are addressed, the Electric Cooperatives believe that the regulatory model would then allow the further development of certain types of SER.

7. What is needed for the utilities to become more aggressive partners in growing and developing SER to the mutual benefit of company shareholders and their ratepayers?

Because an electric cooperative operates on a non-profit basis and is owned and controlled by its members, the interests of its owners and ratepayers do not compete. The Electric Cooperatives have been very aggressive in growing and developing SER because such activity is in the best interest of their members. The Electric Cooperatives do not believe that additional regulatory mandates or incentives are necessary to insure that the Electric Cooperatives will continue to be aggressive and active participants in the development of SER. As is discussed above, the Electric Cooperatives do believe that certain regulatory barriers must be addressed in order to achieve the further development of certain types of SER.

8. How will developments in Congress and the Arkansas Legislature on energy policy, transmission, climate change, and carbon control affect the cost effectiveness of SER, which can be substitutes for traditional supply-side resources?

Legislated policies impact cost by providing penalties or subsidies through mandated compliance, such as with environmental regulations, fuel use requirements, or reliability standards. Mandated compliance with energy efficiency standards and renewable portfolio standards increases demand for certain RR and EE options. Increased demand possibly leads to improved manufacturing and installation techniques,

thus potentially lowering cost. Government support or funding of SER research, development and demonstration projects may advance SER technologies, also potentially lowering cost. However, it is unlikely that RR will be a least cost option for a utility and its ratepayers.

Legislative action enacting and/or ensuring enforcement of building standards would increase the cost effectiveness of EE measures related to the building shell. This legislation would reduce cost by impacting the timing of when the EE measures are performed. With almost all measures impacting the building shell, it is more economical to make a building energy efficient initially than to retrofit improvements. Certain measures, such as slab insulation, can only be done initially.

Appliance efficiency standards, based on legislation, require users to purchase a more efficient option or technology. Over time this possibly results in a lower cost for such option or technology. This potential occurs if there is increased economy of scale with manufacturing or installation or if increased demand improves manufacturing or installation techniques. While more efficient appliances will have a lower operating cost, the cost effectiveness of the increase in efficiency is dependent on the increased capital cost and the cost of energy that is offset. Renewable portfolio standards could have the same type of effect by requiring the use of RR. However, there are possibilities of at least short term effects that will increase the capital cost (decreasing cost effectiveness) when supply is unable to adequately meet demand. Such was the case with solar panels in 2004, when the German government put in place a rebate program that covered half the cost of solar.[2]

[2] Wall Street Journal Online, June 8, 2007, "Solar-Panel Rebate System Helps Spur Demand – and Prices." See www.solarbuzz.com for an illustration of how solar panel prices have increased since 2004.

Legislation can impact the ability for transmission to be constructed, affecting the economics of wind generation. A Department of Energy study evaluated whether, in achieving on a national basis a 20% penetration for wind, it was more efficient to site wind projects close to load or in higher quality wind resource areas that are remote from load and require transmission.[3] The analysis found that it was often more efficient to site wind projects remotely (where wind blows). The analysis found that it would be cost-effective to build more than 12,000 miles of additional transmission, at a cost of approximately $20 billion in net present value terms. Regulators or legislators must decide whether transmission costs related to RR will be allocated directly to the projects or averaged over all current users of the grid.

The production tax credit and other incentives, as passed by Congress, have been instrumental in subsidizing the cost of certain RR. An attorney for Chadbourne & Parke LLP recently stated, "The US government pays as much as 63% of the capital cost of a typical wind farm and 56% of the cost of a solar project through tax subsidies."[4] Whether and to what degree the federal incentives will continue will impact RR cost effectiveness.

In addition to federal incentives, a number of states have provided direct incentives to individuals for installation of certain RR.[5] For example, the California Solar Initiative is a state rebate program with a budget of $3.2 billion over 10 years.[6]

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[3] "20% Wind Energy by 2030, Increasing Wind Energy's Contribution to U.S. Electricity Supply," U.S. Department of Energy, DOE/GO-102008-2567, July 2008, p. 95.
[4] Chadbourne & Parke LLP Project Finance NewsWire, June 2008, "Calculating How Much Tax Equity Can Be Raised," Keith Martin, p. 18.
[5] www.dsireusa.org provides a database of state incentives for RR and EE.
[6] IBID, shown under California "State Rebate Program."

Such subsidies reduce the cost difference between RR and traditional supply-side resources.

Any legislation that places a penalty on carbon will change the cost difference between RR, EE and nuclear power relative to fossil fueled power plants, but the result will be increased costs for the utility and increased rates for consumers. Two of the potential legislative approaches to regulate carbon are a carbon tax or a cap and trade program. With cap and trade, emission allowances can be acquired, depending on the legislation, from an allocation or from purchasing the emission allowances at an auction or in the market. For either a tax or for cap and trade, added costs can also come from installing and operating technology to capture and sequester carbon or from including carbon cost in the fuel cost of plants. The inclusion of carbon cost in fuel cost can impact the economic dispatch order of power plants further increasing the over all cost of electricity.

9. If new legislation is needed to carry out any of the options identified in this Docket as desirable for the State, what should be included in the legislation?

A SER legislative package should take several important factors into account. One overriding factor that must be considered is the ability of Arkansas' ratepayers to pay for significant SER advances. In 2007, Arkansas ranked 48th in personal per capita income. The Electric Cooperatives serve some of the least prosperous areas of Arkansas. As a result, the market in Arkansas for expensive investments in energy efficient appliances and energy efficiency home improvements may be limited, particularly since the payoff for such EE investments for the homeowner is typically not short-term. Even though the long-term benefits of EE are real and demonstrable, EE education alone will

likely not be able to overcome the affordability factor. Likewise, the ability of Arkansas ratepayers to incur increased electric rates to pay for new investments in wind energy (including necessary new transmission investment) and other viable RR may be limited.

Even though progress is being made in the area of technology research and development, a SER legislative package also needs to recognize that electric utilities cannot do what current technology will not allow them to do. As a result, any compliance dates for SER target goals need to be realistic in order to allow for the development of advances in technology that will allow electric utilities to meet such target goals.

It is critical to the Electric Cooperatives that any SER legislation must classify AECC's low-head hydroelectric generation as RR. Since the late 1980s, the Electric Cooperatives have invested over $332 million to retrofit three existing dams on the Arkansas River with approximately 167 MW of environmentally friendly low-head hydroelectric generation. The Electric Cooperatives' commitment to the development of this important RR in Arkansas should be recognized.

WHEREFORE, The Electric Cooperatives respectfully submit their Initial Comments as set out herein, and pray for all other relief to which they may be entitled.

Respectfully submitted,

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CERTIFICATE OF SERICE

I, Stephen P. Williams, do herby certify that on the 15th day of December, 2008, a true and correct copy of the foregoing Initial Comments was mailed by First Class U.S. Mail, with sufficient postage prepaid, to all parties on the service list for this Docket.

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