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APSC Sustainable Energy Resources (SER) Action Guide



**Docket No. 08-144-U
December 2010**

**APSC SER Action Guide
Table of Contents**

Executive SummarySER Action Guide 1

I. Introduction SER Action Guide 3

II. The Commission’s Duty Under Arkansas Law to Consider Sustainable Energy

 Resources SER Action Guide 7

III. Summary of the Sustainability Docket Inquiry SER Action Guide 9

IV. Commission plans to implement and further investigate Sustainable energy

 ResourcesSER Action Guide 16

V. Conclusion SER Action Guide 22

Sustainable Energy Resources Action Guide

Executive Summary:

Since the opening of the Sustainable Energy Resources Docket, Docket No. 08-144-U, (“Sustainability Docket”), in October 2008 the Arkansas Public Service Commission (“Commission”) has extensively explored the development and state of Sustainable Energy Resources in Arkansas. This exploration has included gaining a **better understanding of our nation’s and state’s existing and emerging** sustainable resources and technologies. Simultaneously, the Commission has examined how emerging technology and innovative regulatory paradigms can help modernize the regulatory compact for utilities that promotes a more efficient use of energy while utilizing newer technologies. This Commission examined these new regulatory options through the Innovative Ratemaking Docket (Docket No. 08-137-U). Having educated itself and the community of energy stakeholders, through a dozen public workshops and over 250 filings of testimony, comments and legal briefs across three dockets,¹ the Commission hereby promulgates a Sustainable Energy Resources Action Plan for Arkansas. The Commission takes these actions today with the issuance of ten Orders that have been filed contemporaneously with this Action Plan.² The Orders issued today include the following elements:

¹ On February 3, 2010 this Commission established Docket No. 10-010-U “In the Matter of a Notice of Inquiry into Energy Efficiency to address policy issue related to the implementation of Energy Efficiency.

² This Action Plan is established contemporaneously with ten Orders that serve as the official findings and Orders of the Commission which underlie and form the basis of this Action Plan.

Energy Efficiency:

- Defining and requiring comprehensive energy efficiency programs that meet high standards that will help both customers and public utilities save money by saving energy.
- Aligning utility and customer incentives to save energy, so that public utilities no longer face an economic disincentive to help customers save **energy and reduce customers' energy costs.**
- Promoting custom energy efficiency projects at major industrial and commercial facilities and creating a pathway for large industrial and commercial energy users to self-direct energy efficiency projects.
- Promoting a high standard of evaluation, measurement and verification to ensure that energy efficiency programs deliver value to customers and utilities.
- Initiating docket to explore energy efficiency on the utility side of the meter.

Smart Grid and Emerging Technologies:

- Continuing to monitor Smart Grid projects in Arkansas and around the nation by initiating a docket for the consideration of smart grid, advanced metering infrastructure and related demand response technologies (Docket No. 10-102-U).
- Initiating a docket to consider (a) how electric vehicles will affect the electric grid and to explore whether policy changes are needed to address the charging of electric vehicles from the electric grid; and (b) the potential impact of natural gas vehicle fleets and to explore if policy changes are needed to address the fueling of natural gas vehicles from the natural gas distribution system (Docket No. 10-103-U).
- Initiating a docket to explore efficiency opportunities on the utility side of the meter (Docket No. 10-104-U).

With the adoption of a Sustainable Energy Resources Action Plan the Commission is fulfilling its duties under the Energy Conservation and Endorsement Act of 1977 and other statutory provisions. More importantly, the Commission finds that this Action Plan will establish sound energy policies that are needed for the multitude of changes facing the energy sector and will help to promote a healthy and prosperous Arkansas economy.

I. Introduction: National and global trends compelling the Commission to inquire into Sustainable Energy Resources.

On October 7, 2008, the Arkansas Public Service Commission initiated an inquiry into “the expanded development of Sustainable Energy Resources (SER) within the State of Arkansas, building upon the efforts previously undertaken by the Commission to develop and implement energy efficiency programs in the State under the broad authority of the Arkansas Energy Conservation Endorsement Act of 1977. This inquiry, along with **the Commission’s related dockets, was intended to implement Arkansas’s plenary energy conservation law** and to promote an economically and environmentally sustainable energy future for Arkansas.³ In opening the docket, the Commission stated that “[t]he end product of this Inquiry is to develop a Sustainable Energy Resources Action Guide for this Commission and Arkansas utilities to use in promoting SER initiatives.” **This SER Action Guide (1) provides a report to the public, the State’s public utilities, and various stakeholders on progress to date, (2) explains a number of policy statements from the Commission on important issues, and (3) describes future efforts of this Commission to explore various policy issues pertinent to sustainable energy resource development.**

In initiating this inquiry, the Commission noted that consumers and the utility industry face major changes. Aging energy infrastructure, rising U. S. energy demand, global economic development, national security concerns,

³ Such activity includes adoption in Docket No. 06-004-R of Rules for Conservation and Energy Efficiency, approval of utility energy efficiency program portfolios during each of the past three years, and exploration of further energy efficiency and demand response issues in Docket Nos. 10-010-U (Notice of Inquiry into Energy Efficiency, 09-090-U (Aggregators of Retail Customers), 08-136-U (Transmission), and 08-137-U (Innovative Ratemaking).

environmental concerns, and emerging technology are driving these changes. In 2008, official forecasts projected that U.S. electricity demand would rise 29% by 2030. Even with the subsequent recession, projections of rising demand and aging utility infrastructure raise the question of how and at what cost future energy demand will be met. Not only power generating facilities, but also transmission and distribution infrastructure are a concern: 70% of transmission lines and power transformers are 25 years old or older.

With the growth of the economies of China and India, among others, demand for the steel, copper, cement and other materials to construct utility infrastructure, and the fossil fuels to generate electricity, will likely continue to increase. Increasing global competition for natural resources sharpens longstanding national security concerns in the United States about reliance on both imported and domestic fossil fuels. With the political and military instability concerns in the Middle East, the growing political and international concerns relating to climate change, and the recent British Petroleum oil leak in the Gulf of Mexico, public awareness of the connection between energy policy and our economic and national security has risen to a level not seen since the days of **the 1970's oil**-embargo. And yet, over the last 37-year period little has been done at the national or state level to reduce dependency on imported fossil fuels.

This current heightened awareness is reflected in Congressional and regulatory actions that will ultimately impact decisions at the state government level. During the 2009-2010 session of Congress over 400 bills and resolutions

were introduced involving energy and climate policy.⁴ Over \$28 billion dollars of clean energy and energy efficiency investments formed a central portion of federal economic stimulus legislation, resulting in over \$100 million in grants for projects currently unfolding in Arkansas.⁵ Arkansas utilities have filed pleadings with the Commission noting that these projects may affect energy demand forecasts.

Numerous current federal regulatory efforts to conserve natural resources for economic, national security, public health and ecological reasons will lead to changes in energy and utility practices. While Congress has not adopted new federal legislation to address greenhouse gas emissions, the Environmental Protection Agency (EPA) has moved to develop and ultimately implement regulatory proposals to restrict carbon and other pollutants following the 2007 **United States’ Supreme Court decision in Massachusetts vs. EPA**.⁶ Even without action by Congress, the tightening of federal regulatory controls on carbon, sulfur dioxide, nitrogen oxides, mercury, particulates, various other hazardous air pollutants, on the handling of combustion wastes, and on water-related impacts of energy and power production, could affect the economics and operations of the **nation’s current and planned utility infrastructure.**

The utility industry has recognized the trend towards sustainability through the actions of its trade groups and affiliated organizations. The utility industry, federal agencies, and state regulators have collaborated on a National

⁴ Estimate derived from related bills referred to the key subcommittees of U.S. House and Senate Committees with jurisdiction over energy policy, as reflected on U.S. House and Senate webpages.

⁵ “Obama Signs Stimulus Package Packed with Clean Energy Provisions,” by Kate Galbraith, *New York Times*, February 17, 2009 in “Green: A Blog About Energy and the Environment;” see also, stimulus funding webpage for Arkansas Economic Development Commission.

⁶ 127 S. Ct. 1438 (2007).

Action Plan for Energy Efficiency that has prepared best practice guidelines for the expansion of programs that help consumers save energy. Similarly, the industry, federal and state officials, and non-profit organizations are preparing a National Action Plan on Demand Response, which will promote efforts by utility customers and the industry to lower electric energy demand during costly **demand peaks**. **The Federal Energy Regulatory Commission (“FERC”)** is requiring electric energy markets to develop market-based models to allow companies to compete to aggregate the efforts of numerous smaller customers to manage electricity demand, while recognizing mandates of state law.⁷

Perhaps the most unpredictable driver of change is not government regulation or international growth, but new, emerging technologies. Information technologies, changes in how we power vehicles, distribute generation, and use energy storage technologies promise to change the grid, just as wireless communications and smart phones changed the telecommunications industry. Nanotechnology and materials sciences promise increased efficiencies in grid operations, in energy storage and in solar electricity generation. Electrification of motor vehicles could cause unprecedented changes to grid operations and to customer relations with utility companies. A green building movement and a nascent zero-energy building industry are rewriting the future of residential and commercial energy demand.

Arkansas is no bystander to these changes. In three short years, Arkansas has become home to four major international wind industry manufacturing facilities that are expected to employ several thousand people. Little Rock is

⁷ See FERC Order 719 (A).

home to the Southwest Power Pool (SPP) Regional Transmission Organization, which plans and operates the transmission grid across eight states. SPP is and will be a major player in the planning and development of transmission infrastructure to connect some of the most wind-rich areas of the nation with **some of the nation's largest electric loads.** Fayetteville is home to the National Center for Reliable Electric Power Transmission, a burgeoning applied research program which is on the cutting edge of smart grid technology and the integration of renewable energy into the grid. Even as this guide is being finalized, a consortium of universities across Arkansas has won a \$20 million National Science Foundation grant to develop more cost effective solar cells, biotechnologies and power electronics. The changes that gave rise to the **Commission's Sustainable Energy Resources inquiry almost two years ago have,** if anything, intensified.

II. The Commission's Duty Under Arkansas Law to Consider Sustainable Energy Resources.

The Commission has the responsibility to ensure that public utilities provide adequate, reliable electric and natural gas service, while ensuring that customers pay fair rates and utilities have an opportunity to earn a reasonable **return on their investment.** One might ask how the **Commission's Sustainable Energy Resources inquiry** fits within that mandate.

While any government agency can choose to avoid challenges until they reach a crisis point, this Commission believes it has a clear, strong duty to act in a timely way to promote a more environmentally and economically sustainable energy policy on behalf of citizens and the utility industry. That duty lies partly

in the recognition and acknowledgement of complex trends outlined above. Without a broad understanding coupled with careful action, Arkansans may face major costs, changes in services, or be left behind in areas of economic opportunity. Also, Arkansas statutory law has long recognized the key role of sustainable energy resources.

The Arkansas General Assembly enacted the Energy Conservation Act of 1977—a period when, like today, major investments in new utility infrastructure were being contemplated to meet rising demands. In that Act, the legislature **declared that “the United States is confronted with a severe and very real energy crisis;”** and it provided the Commission the legal authority to pursue **“the overriding public interest in the conservation of natural gas and oil, as well as the use of alternative forms of energy. . .”**⁸ The Act authorizes the Commission to direct utilities to promote energy efficiency, energy demand management, and renewable energy resource development, but it is in no way an incursion into the traditional functions or prerogatives of the public utility industry. Rather, the Commission must always find that its policies are **“beneficial to the ratepayers of such public utilities and to the utilities themselves.”**⁹

Separately, the Commission is charged to consider alternatives to new power plants,¹⁰ and it is empowered generally to investigate in the public interest.¹¹ The Commission has broad authority **and a “duty” to supervise and**

⁸ Ark. Code Ann. §23-3-401

⁹ Ark. Code Ann. §23-3-40(a)(2)

¹⁰ Ark. Code Ann. §23-18-501, *et. seq.*

¹¹ Ark. Code Ann. §23-2-402.

regulate every public utility and to “do all things . . . that may be necessary” in the exercise of that duty.¹²

Given the magnitude of changes evident in the energy industry today, it would be a dereliction of the duties placed on the Commission by the legislature to stand by and avoid action in these policy areas. Thus the Commission has hosted a number of public forums to educate itself, the public, and the broader energy and utility community of stakeholders regarding the changes facing Arkansas utilities and their customers.

III. Summary of the Sustainability Docket Inquiry

The Commission has used the Sustainability Docket to provide public education, to gather information and comments from national leaders and stakeholders. The following public events were a part of the Sustainability Docket that provided an opportunity to educate Arkansans and energy stakeholders on key sustainable energy topics:

March 3, 2009: David K. Owens, Executive Vice President of the Edison Electric Institute, and Ralph Cavanagh, Senior Attorney for the Natural Resources Defense Council, spoke at the Arkansas Electric Cooperative Corporation regarding joint utility-environmental organization efforts to promote energy efficiency.

April 7, 2009: James Rogers, President and CEO of Duke Energy spoke at the Clinton School of Public Service regarding Duke Energy’s Save-a-Watt program in North and South Carolina, where regulations have been designed to remove a utility’s disincentive to energy efficiency in order to promote saving energy.

May 29, 2009: CenterPoint Energy, Inc. CEO David McClanahan and American Electric Power CEO Mike Morris spoke at the Clinton School of Public Service regarding the future of the electric and gas industries and energy efficiency programs in their other jurisdictions.

¹² Ark. Code Ann. §23-2-301.

July 25, 2009: Steve Nadel, executive director of the American Council for an Energy Efficient Economy and Rich Sedano, Director of the Regulatory Assistance Project, spoke at the Arkansas Electric Cooperatives Corporation regarding the potential for energy efficiency to meet energy demand, and on regulatory approaches to align customer and utility incentives to promote energy efficiency.

August 25, 2009: Larry Flowers, National Technical Director of Wind Powering America at the National Renewable Energy Laboratory and Jay Caspary, Director of Transmission at the Southwest Power Pool spoke at the Arkansas Electric Cooperative Corporation on the potential for and challenges of integrating large scale wind power into the grid.

September 30, 2009: Dr. Ahmad Faruqui, a principal with The Brattle Group, and Dr. Eric Woychik, vice president for regulatory affairs at Comverge, Inc., spoke at the William Bowen School of Law regarding the potential for dynamic pricing and the smart grid to reduce costs and provide value to the grid.

December 2, 2009: Dr. David Vincent, Director of the Projects Carbon Trust, spoke at the Arkansas Public Service Commission regarding the public-private partnership in the United Kingdom to invest in energy efficiency technologies that reduce carbon emissions.

December 9, 2009: Wayne Leonard, CEO of Entergy Corporation, spoke at the Clinton School of Public Service. He urged public utilities and regulators to take climate change seriously and endorsed new federal action to control climate emissions.

December 14, 2009: Peter Delaney, CEO of Oklahoma Gas and Electric Company (OG&E), spoke at the Clinton School of Public Service regarding **OG&E's plans to meet all load growth between now and 2020 with energy efficiency, demand management, and renewable energy.**

May 25, 2010: Henry R. Courtright, Senior Vice President of Member and External Relations, Electric Power Research Institute presented an **overview of EPRI's Prism and MERGE analyses, which provide "a technically and economically feasible roadmap for the electricity sector as it seeks to reduce its greenhouse gas emissions over the next few decades."**

October 22, 2010: Energy Efficiency and Renewable Energy in Arkansas Agriculture: Three panels of national and state experts gathered at the Arkansas Farm Bureau Federation to discuss 40 recent projects to increase energy efficiency in Arkansas, potential ways to leverage federal program funding for other projects, and utility-scale biomass energy generation.

October 27, 2010: Bob DeVault, Team Leader, Cooling, Heating and Power Technologies Program, Oak Ridge National Laboratory presented an overview of distributed clean generation. Dr. Alan Mantooth and Dr. Juan Balda of the National Center for Reliable Electric Power Transmission discussed ongoing research on solar technology, energy storage, and integration of renewable energy into the grid at the Arkansas Association of Counties. Dr. Nicholas Brown, Director for Campus Sustainability, University of Arkansas, spoke about power purchase agreements for renewable energy projects. Ms. Jennifer Shweky of Eastern Research Group discussed current and potential projects in Arkansas to capture landfill gas, either for direct use in industrial applications, or to generate electricity.

These public forums have supplemented a robust record of comments, sworn testimony pleadings, and legal briefs that has been developed in the Sustainability Docket, the Innovative Ratemaking Docket, and the Notice of Inquiry into Energy Efficiency Docket which have allowed this Commission to explore specific issues in more detail.

While the public forums have addressed the full range of issues covered by Arkansas law (energy efficiency, demand response, and renewable energy), formal proceedings before the Commission thus far have focused primarily on energy efficiency. A key part of this focus has been implementation of new public **utility energy efficiency programs under the Commission's Energy Efficiency and Conservation rules, adopted in 2007.** Under the rules, public utilities were **required to offer their customers "Quick Start" programs with services such as** home and commercial energy audits and equipment rebates for a three year period from 2007 through 2009. The Quick Start phase of the rules allowed Arkansas public utilities to get up to speed by implementing for the first time, at a modest scale, programs commonly available in other states. Also, public utilities also were required to cooperate in two statewide programs: one to implement

comprehensive home weatherization using a network of non-profit agencies under the **Arkansas Weatherization Program (“AWP”)**, and another one to provide education, training and marketing to promote energy efficiency – the **Energy Efficient Arkansas program (“EEA”)**.

By the end of the Quick Start phase, the Commission determined that each **utility’s portfolio of individual and joint utility energy efficiency programs is cost-effective** and that they benefit both the customers and the public utilities. As noted in the **order that opened this inquiry, “EE is almost invariably the most cost effective” means of meeting energy and capacity requirements.** For customers and utilities, the ratepayer-funded contribution to services and rebates for other customers generally comes at less cost than paying to develop equivalent generation. Currently, residential customers pay about 50 cents on a typical monthly electricity residential bill to support these cost-effective programs. Aside from costing customers less, energy efficiency programs reduce strain on the grid and impose downward pressure on fuel prices, providing a variety of hedges against existing and potential utility operating, capital and regulatory costs. They also develop local employment and economic development through a wide range of services. In these ways and others, energy efficiency programs benefit customers and utilities, promote a more sustainable energy future, and contribute to economic growth.

Commission rules required public utilities to expand the Quick Start **programs into “comprehensive” programs in 2009.** By the end of 2009, it became clear in the SER Docket proceeding and in the separate proceedings reviewing the energy efficiency programs of each public utility, that a series of

policy issues must be resolved in order to achieve comprehensive program implementation. Thus, the Commission established a “Road Map” to address these policy issues for a decision by opening the Notice of Inquiry into Energy Efficiency Docket (“Energy Efficiency Docket”) and organizing the following eleven issues for further exploration within the Sustainability, Innovative Ratemaking, and Energy Efficiency Dockets. The eleven issues were categorized by the Commission as:

1. **How should Arkansas define “comprehensive” energy efficiency programs to maximize cost effective energy efficiency?**
2. What smart grid, demand response and advanced metering programs are Arkansas utilities, or their affiliates in other states, implementing?
3. How should energy efficiency savings be incorporated into each utility **company’s plan to meet future energy demand (“Integrated Resource Planning”)**.
4. When evaluating energy efficiency, should the Commission consider **the fuel used in the “full fuel cycle” (from the extraction of gas in the ground, to the power plant to generate electricity, to a home appliance),** or simply look at the efficiency of an end-use appliance or machine?
5. Should the Commission establish an independent entity to administer energy efficiency programs statewide, on behalf of the utility companies, or should each utility company remain responsible for administration of its own portfolio of programs?
6. **Should large industrial customers be allowed to “opt-out” of paying for and participating in utility company energy efficiency programs,** and if so, should they be required to meet any requirements to save energy and verify those savings?
7. What data should utility companies report to the Commission to assess the effectiveness of energy efficiency programs, and how will the Commission account for administrative costs of providing energy efficiency services?

8. How do Arkansas utility energy efficiency programs, which were initiated in 2007, compare to national best practices as defined by the National Action Plan for Energy Efficiency?
9. Have Arkansas utilities adequately planned to hire and train their own staff to implement energy efficiency programs, and what actions should utilities take to ensure an adequate energy efficiency workforce in the broader market?
10. Are the Commission and the utilities considering the right measures of the value of energy efficiency in required cost-benefit analyses that guide the development and approval energy efficiency programs?
11. **Should the Commission change the way utilities' rates are designed, so that utilities are clearly incentivized to promote energy efficiency, rather than being dis-incentivized by potentially losing money based on reduces sales volumes? If so, how should a new regulatory paradigm be structured?**

Parties to these dockets, including all regulated electric and natural gas **public utilities in Arkansas, the Attorney General (AG), the Commission's General Staff (Staff), major industrial customers, Wal-Mart Stores, Inc. and Sam's Club, Inc. (collectively "Wal-Mart"), Kroger Co., Audubon Arkansas,** and the Arkansas Community Action Agencies Association (ACAAA) have submitted over 250 sets of comments, testimony and legal pleadings in these proceedings.

The Commission held public evidentiary hearings on the definition of **"comprehensive" energy efficiency programs** on September 1, 2010, in Docket No. 08-144-U. The Commission held hearings on independent administration of energy efficiency programs and on whether industrial customers should be allowed to fully or partially opt-out of energy efficiency programs on October 18, 2010, in Docket No. 10-010-U. In the same docket on the following day, the Commission held hearings on full fuel cycle energy efficiency, utility and contractor market staffing and training, and valuing the benefits of energy

efficiency for cost-benefit purposes. On November 3, 2010, the Commission held a hearing on aligning utility and ratepayer incentives to promote energy efficiency. Also, during the year, two working groups including representatives from the Staff, utilities, other parties, and the Arkansas Energy Office (AEO) have met to discuss further details of program administration. These hearings and working groups have established a record ripe for decision on energy efficiency issues.

Turning to the issue of demand response, the Commission has closely followed federal and regional transmission and wholesale market regulatory efforts. Among these has been a FERC requirement that regional transmission **organizations (“RTOs”) develop rules facilitating a wholesale** market for demand response. Bidders into that market would be companies known as **Aggregators of Retail Customers (“ARCs”) that join together and control the electric demand of** many customers. One example might be Wal-Mart, which currently centrally controls electric demand for its retail stores, and currently sells into the market for demand response in regions of the country that already have established such **markets. The Commission has opened “In the Matter of the Impact of FERC** Orders 719 and 719A in FERC Docket No. RM07-19-001 on the **Regulatory Authority of the Arkansas Public Service Commission” (Docket No. 09-090-U)** and established a procedural schedule to address ARCs and other demand response issues once the FERC has approved **SPP’s compliance tariffs pursuant** to Orders 710 and 710-A.

As Drs. Alan Mantooth and Juan Balda indicated in their presentations on October 27, 2010, the traditional topic of demand response increasingly overlaps

with smart grid, distributed storage, and electric vehicle development. These speakers noted that distributed energy storage also may ease the integration of intermittent renewable energy sources such as wind and solar power into the grid. Bob DeVault of Oak Ridge National Labs suggested that, given the strong solar resource in Arkansas and declining solar photovoltaic prices, solar energy may be the most important renewable resource for the future in Arkansas. He also emphasized the potential importance of combined heat and power as a source of efficient power optimally located for grid operations.

In summary, the Commission and numerous stakeholders have spent much of the past year analyzing the significant opportunities and challenges facing energy policymakers seeking to take full advantage of cost effective energy efficiency as the first of many sustainable energy resources. Also, the Commission has touched upon demand response and smart grid issues, and has heard initial public presentations regarding potential challenges and benefits of promoting renewable energy. The development of policies to promote all of these technologies will continue to develop at all levels of government as well as within the private sector.

IV. Commission plans to implement and further investigate Sustainable Energy Resources.

A. Acting on the record regarding energy efficiency

In parallel with the release of this Action Plan, the Commission has issued ten Orders that provide guidance for utilities and other stakeholders on the eleven issues addressed by the Commission since 2008. The Commission provides this

guidance in order for utility companies to incorporate new practices in the annual energy efficiency program filings due in March 2011. That guidance includes:

- Performance targets to raise the level of achievement for energy efficiency programs in Arkansas. These are the first statewide energy performance targets established in a Southeastern state. The targets are moderate, rising from an annual reduction of 0.25% of total electric kilowatt hour (kWh) sales to 0.75% of total electric kwh sales over the next three years (and slightly less for natural gas sales), but require a high level of verification to ensure that utility companies are fairly rewarded, and that consumers get solid cost benefits;¹³
- A checklist to help determine on an annual basis whether utility energy efficiency programs meet a high standard of comprehensiveness. For instance, if utilities help consumers save energy for all major types of end-use equipment, offer specialized programs where it makes sense for specific submarkets, and help consumers meet a wide range of energy efficiency needs at one time, that would be an indication that the programs are comprehensive.¹⁴
- Alignment of utility and customer financial incentives for energy efficiency. Traditionally, when customers save energy, utilities run the risk of losing money. Through a combination of three orders, the Commission has provided that utilities and customers will split the benefits of reduced energy use, allowing utilities to recover the costs of fixed infrastructure

¹³ Performance targets are established in Order No. 17 in Docket No. 08-144-U and Order No. 15 in Docket No. 08-137-U.

¹⁴ The comprehensiveness checklist is established in Order No. 17 in Docket No. 08-144-U.

and earn a profit, while consumers keep the majority of the cost-benefit.¹⁵

An order establishing a program to independently verify energy savings is an important part of this effort.¹⁶

- The establishment of a docket to develop rules or guidelines allowing large commercial and industry customers to self-direct the use of energy efficiency funds. These large energy users play a bigger role in the economy and the utility industry of Arkansas than many other states. It is important for Arkansas to carefully develop the energy efficiency potential of these customers both to make these industries more competitive, and to reduce utility costs for all customers.¹⁷

Taken together, action by the Commission on these issues will enable energy efficiency to be the first priority resource to meet energy demand, whenever it is the most cost effective option.

B. Further energy efficiency issues for development

Several significant energy efficiency issues have been raised, but not fully developed over the past two years:

1. Energy efficiency on the utility side of the meter:

The Commission thus far has focused on energy efficiency on the part of customers as a cost-effective way of reducing demand and energy consumption. However, some utilities and the General Staff of the Commission have noted that substantial energy efficiency resources are available within the generation,

¹⁵ The orders addressing alignment of utility and customer incentives are Order Nos. 14 and 15 in Docket No. 08-137-U.

¹⁶ Order No. 16 in Docket No. 08-137-U establishes that an independent evaluation, measurement, and verification function will be created through new Docket No. 10-102-R.

¹⁷ Order No. 12 in Docket No. 10-010-U finds that a large customer self-direct option will be created through new Docket No. 10-101-R

transmission and distribution system on the utilities' side of the meter. Examples might include more efficient transformers or voltage controls that reduce energy demand. Also utility system efficiency improvements may become a compliance strategy under near-term U.S. Environmental Protection Agency regulation of carbon emissions. In parallel with this Action Plan the Commission initiates a docket¹⁸ to study the scope and nature of these utility system efficiency opportunities, noting that this issue may overlap substantially with smart grid developments.

2. Targeting customer sub-markets with energy efficiency programs:

The record has suggested in several places that sub-market specific energy efficiency programs may yield significant cost effective savings. The energy efficiency collaborative workshop held on July 15, 2009, included evidence that utilities in some states target programs to sub-markets such as hospitals, agricultural customers, municipal water and wastewater applications, and higher education facilities. Similarly, Wal-Mart has detailed industry-leading energy savings practices for its large commercial facilities in Docket No. 10-010-U and elsewhere in the record. Also, the Commission devoted a full day collaborative in October 2010 to agriculture-specific programs. The Commission notes that the U.S. Department of Energy (DOE) has established several alliances and working groups on building technology aimed at sub-markets, including a Retailer Energy Alliance, a Commercial Real Estate Energy Alliance, a Hospital Energy Alliance, and a working group on the restaurant and food service industry.

¹⁸ Docket No. 10-104-U.

Furthermore, the DOE has issued technical documents and user-friendly guides to help builders and renovators make six common types of commercial buildings 30% more energy efficient than standard new buildings. Thousands of architects and builders around the country have used these documents to **significantly reduce energy demand in new or renovated “big box” stores, large and small office buildings, hospitals, fast food restaurants and convenience stores.** Recently, all technical documents under this project have been updated to encourage energy savings at 50% above current building codes.

As part of annual program review of comprehensive energy efficiency program portfolios, the Commission provides that Arkansas utilities will consider the implementation of energy efficiency programs tailored specifically for sub-markets such as hospitals, agricultural customers, municipal water and wastewater applications, and higher education facilities

3. Leveraging non-utility resources:

The AG, SWEPCO, and others have noted that energy efficiency is a statewide issue that goes beyond public utility policy. Building codes, federal and state programs, tax policy and public and private financing mechanisms all affect the ability of a wide variety of customers to make cost-effective investments in energy saving measures. As a part of annual program review of comprehensive energy efficiency program portfolios, the Commission provides that Arkansas utilities will consider coordination of utility energy efficiency programs with other incentives available to customers, as part of their 2011 applications for approval of energy efficiency programs.

C. Demand Response, Smart Grid and Advanced Metering Technology, and Electric and Natural Gas Vehicles.

As noted above, the Commission has collected substantial information on the record in the SER Docket regarding smart grid projects being implemented in other states by sister companies of Arkansas investor-owned public utilities. Also, the Commission anticipates **that FERC will approve SPP's compliance** tariffs pursuant to Order 719 which will allow the parties and the Commission to proceed with Docket No. 09-090-U. Further, the Commission anticipates an application by Oklahoma Gas and Electric Company to implement smart grid and smart meter technology funded partly by federal stimulus funds in the Arkansas portion of its territory. These dockets will allow the Commission to further explore the challenges and opportunities of these technologies through new regulatory policy. Furthermore, with the opening of Docket No. 10-103-U, the Commission has established means to explore how the use of electric and natural gas vehicles will impact our electric grid and natural gas distribution systems.

D. Renewable Energy.

Over the coming months, the Commission will continue to monitor potential Congressional action on a possible national renewable energy standard as well as the legislation, if any, the Arkansas General Assembly may consider regarding energy policy. If either of these actions are addressed by either the Arkansas General Assembly or the U.S. Congress, the Commission will open any and all necessary dockets appropriate for implementation of any new policies.

V. CONCLUSION

The Commission appreciates the many hours of work that parties to the dockets investigating Sustainable Energy Resources and other members of the public have contributed. The public presentations, filings of comments and expert testimony, and actions by public utilities, researchers, public interest advocates, state agencies and others have been essential for the Commission to perform its duty under the law to promote the cost-effective utility service that forms a key basis for our economy. As noted above, Arkansas is no bystander to the global changes in energy markets and technology. Rather, with the help of all participants in these proceedings, we can become a leader.