



OPEN MEETING AGENDA ITEM  
Grand Canyon Chapter • 202 E. McDowell

Phone: (602) 253-8633 Fax: (602) 258-6533 Email



0000139533

RECEIVED

2012 SEP 14 P 1:45

ARIZONA CORPORATION COMMISSION  
DOCKET CONTROL

Arizona Corporation Commission  
DOCKETED

SEP 14 2012

DOCKETED

September 12, 2012

Chairman Gary Pierce  
Commissioners Bob Stump, Paul Newman, Sandra Kennedy, and Brenda Burns  
Arizona Corporation Commission  
1200 W. Washington Street  
Phoenix, Arizona 85007

**Re: 2012 Arizona Public Service Company Integrated Resource Plan, DOCKET NO. E-00000A-11-0113**

Dear Chairman Pierce and Commissioners:

I am submitting written public comments on the proposed Arizona Public Service Company (APS) 2012 Integrated Resource Plan on behalf of the Sierra Club's Grand Canyon (Arizona) Chapter and our 12,000 members, many of whom are APS customers.

The Sierra Club's mission is "to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environments." The Sierra Club and our members have a significant interest in Integrated Resource Planning, especially as it takes a long-term perspective, focuses on reducing dependence on fossil fuels and overall energy use, and enables a transition to clean renewable energy.

Sierra Club appreciates the Arizona Corporation Commission (ACC) requiring the utilities to submit Integrated Resource Plans (IRPs) pursuant to A.A.C. R14-2-703. As noted in the APS filing, this is the first formal resource plan filed with the ACC in 17 years, so it is the first one we have reviewed. We participated in the stakeholder process and found the opportunity to ask questions along the way, quite helpful. It allowed us to better understand the APS planning process and to identify opportunities for alternative strategies to promote energy efficiency and renewable energy.

APS presents four portfolios in its integrated resource plan -- a Base Case, a Four Corners Contingency Case, an Enhanced Renewables Case, and a Coal Retirement case. In each of these portfolios, APS plans to meet the Energy Efficiency Standard requirements. It is encouraging to see APS acknowledge this as a given as it is clearly both required and makes sense economically and environmentally. Energy efficiency is the cheapest and cleanest energy resource and should be a major component of resource planning. Unfortunately, APS did not indicate the magnitude of cost savings attributable to the energy efficiency standard nor did it present a scenario that exceeds the energy efficiency standard requirements.

## Coal Retirement/Transition

The coal retirement portfolio is an important component of APS's resource plan. However, this portfolio, as currently contemplated, is excessively dependent on generation of electricity with natural gas. We recommend that APS include in its next resource plan a new *Coal Retirement* portfolio that also incorporates significant amounts of renewable energy similar to the Enhanced Renewables portfolio in the current plan. Planning a realistic, but aggressive coal retirement strategy makes sense on many levels as explained below.

First, coal generation is bad for our health. Pollution from coal-fired power plants contributes to smog, which can exacerbate conditions such as bronchitis, emphysema, and asthma, plus cause chest pain, coughing, and breathing difficulties. In 2010, coal-fired power plants in Arizona and New Mexico alone emitted 53,000 tons of sulfur dioxide (SO<sub>2</sub>) and 117,000 tons of nitrogen oxides (NO<sub>x</sub>). Coal plant pollution is responsible for 13,000 premature deaths in this country every year, more than \$100 billion in annual health costs, and over 200,000 asthma attacks annually.

Second, burning coal releases toxic mercury that pollutes rivers and streams and contaminates the fish that we eat. In Arizona, 13 lakes and streams have fish consumption advisories for mercury pollution.<sup>1</sup> Mercury is especially dangerous to pregnant women and young children because it's a powerful neurotoxin that can damage the brain and nervous system.

Third, coal plants emit more than 30 percent of the United States' annual carbon dioxide emissions, making them a major contributor to global climate change. Reducing emissions that contribute to climate change is imperative before we experience even more of its devastating impacts. In recent research by James Hansen and others,<sup>2</sup> it was concluded that "... we can state, with a high degree of confidence, that extreme anomalies such as those in Texas and Oklahoma in 2011 and Moscow in 2010 were a consequence of global warming because their likelihood in the absence of global warming was exceedingly small."

Fourth, coal mining has devastating consequences for our natural resources. It pollutes waters, destroys lands, and in some areas results in the loss of entire mountains.

Our future should be focused on phasing out coal and transitioning to clean energy technologies, including energy efficiency, solar energy, and wind energy. The costs of sustainable and renewable sources of energy such as wind and solar are becoming even more competitive,<sup>3</sup> and should be increasing in importance in utility resource portfolios.

---

<sup>1</sup> [http://www.azgfd.gov/h\\_f/fish\\_consumption.shtml](http://www.azgfd.gov/h_f/fish_consumption.shtml) as of July 11, 2011

<sup>2</sup> J. Hansen, M. Sato, and R. Ruedy, "Perception of Climate Change," *Proceedings of the National Academy of Sciences*, Early Edition (August 6, 2012), [www.pnas.org/cgi/doi/10.1073/pnas.1205276109](http://www.pnas.org/cgi/doi/10.1073/pnas.1205276109). accessed 08/06/2012.

<sup>3</sup> Bloomberg News, Wind Power's Best Projects Rival Costs of New Coal-Fired Plants, BNEF Says, April 4, 2011; Bloomberg News, Solar Power May Already Rival Coal, Prompting Installation Surge, April 5, 2011

## **APS Should Identify Retirement Dates for Cholla and/or Navajo**

Since the filing of this IRP, the retirement plan for Four Corners units 1-3 has been approved and those units are expected to be retired by the beginning of 2014. APS will continue to operate units 4 and 5; therefore, the Four Corners Contingency portfolio is no longer applicable. We also now know that the Environmental Protection Agency (EPA) is requiring Selective Catalytic Reduction for the Cholla Power Plant. It would be appropriate for APS to identify and evaluate logical retirement dates for the Cholla Generating Station and the Navajo Generating Station (NGS) within the next three to five years that would minimize cost to ratepayers in its next Integrated Resource Plan. These dates should be determined by evaluating how best to avoid the next round of significant capital expenditures for environmental compliance. In this process, APS should clearly identify the net present value revenue requirement (NPVRR) for operating its portfolio without Cholla and NGS, and compare the "retire Cholla and NGS" NPVRR to the base case NPVRR.

The base case should include sensitivities that incorporate a range of anticipated costs associated with federal EPA regulations on coal-fired generation. These costs should include a range of assumptions for compliance costs for the Regional Haze Rule; the Mercury and Air Toxics Rule (MATS); National Ambient Air Quality Standard (NAAQS) for fine particulates, NO<sub>2</sub>, SO<sub>2</sub>, and ozone; and, regulation of coal combustion residuals as a hazardous substance.

Sierra Club requests that APS provide it and other stakeholders with a detailed breakdown of costs and risks that it will include in the modeling assumptions for Cholla and NGS in the base case.

The Environmental Protection Agency (EPA) recently issued a proposed rule that would require the installation of Selective Catalytic Reduction (SCR) with LNB on Cholla units 2, 3, and 4. (APS does not own unit 4; it is owned by Pacificorp.) APS should modify the base case to assume that installation of SCR on Cholla will be required for the continued operation of the plant. APS should, as noted above, evaluate the early retirement of Cholla. APS should identify all of the un-depreciated plant assets in each of the Cholla and NGS plants, as well as the estimated date that each plant will be fully depreciated based on current net plant.

## **APS Should Include Cost Estimates for Coal Ash Regulation**

Currently, there is limited regulation or oversight relative to coal combustion residues (coal ash) in Arizona, but regulation of coal ash as a hazardous waste is still under consideration by the EPA and is another potential cost associated with coal-fired power plants. EPA is expected to issue a final rule later this year. We ask that APS evaluate the costs of coal ash regulation relative to continued operation of its coal fleet as it will better reflect the true costs associated with coal generation and is another factor tipping the balance toward clean renewable energy and energy efficiency.

## **APS Should Plan for Reducing Overall CO<sub>2</sub> Emissions**

According to the IRP, APS power plants emit about 15.3 million metric tons of carbon dioxide each year. Under the base case portfolio, APS anticipates a reduction in the emission rate (tons per GWh), but an increase over current levels of emissions. APS should pursue plans that result in real emissions reductions as that is the only way we will be able to address the challenges associated with climate disruption.

## Recommendations

We appreciate the ACC's resource planning review which provides an opportunity for people to better understand the planning process and options for reducing pollution, water use, and dependence on fossil fuels. We note that in the scenarios presented in this 2012 IRP, the only portfolio that shows a significant reduction in water use and a significant reduction in CO<sub>2</sub> emissions is the coal retirement portfolio. We recommend that the Commission direct APS, in the next resource planning filing, to modify the current coal retirement portfolio option to substitute more renewable energy for natural gas generation and reduce APS's exposure to gas price uncertainties. We also recommend that the Commission direct APS, in its next resource plan filing, to analyze the potential design for and impacts of an effort to exceed the energy efficiency standard. Lastly, we recommend that the Commission direct APS to include in its next resource plan the analyses of coal plant retirements described above.

Thank you for considering our comments.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sandy Bahr".

Sandy Bahr  
Chapter Director  
Sierra Club – Grand Canyon Chapter