

ARIZONA HOUSE OF REPRESENTATIVES  
Fiftieth Legislature – First Regular Session

**COMMITTEE ON ENERGY AND NATURAL RESOURCES**

Minutes of Meeting  
Monday, February 21, 2011  
House Hearing Room 4 -- 2:00 p.m.

Chairman Pratt called the meeting to order at 4:07 p.m. and attendance was noted by the secretary.

**Members Present**

Mrs. Barton	Mr. Patterson	Mr. Wheeler
Ms. Fann	Miss Reeve	Mrs. Brophy McGee, Vice-Chairman
Mrs. Judd		Mr. Pratt, Chairman

**Members Absent**

Mr. Saldate

Chairman Pratt informed the Members that there will be two presentations on sustainable energy.

**PRESENTATIONS**

**Salt River Project**

Russell Smoldon, Salt River Project (SRP), distributed information to the Members (Attachment 1) and discussed the concept of a Sustainable Energy Authority which will bring together the many necessary pieces to build a sustainable energy future for Arizona.

He stressed the importance of having long-term baseload resources - energy resources available 24/7 - in order to continue to attract businesses to the state; everything runs on electricity these days and Arizona needs reliable energy sources. Mr. Smoldon stated that he anticipates having a bill prepared for next year's Session which will address this important need.

Mr. Smoldon stated that a Sustainable Energy Authority could create a financing mechanism not currently in existence in Arizona for a statewide entity to build central station generation. The Authority would then address renewable energy, energy efficiency, and nuclear power. Mr. Smoldon informed the Members that fossil fuels (coal and natural gas) are no longer reliable sources of energy.

Mr. Smoldon stated that Salt River Project (SRP) is a public power entity which creates hydroelectricity, a baseload resource. He cautioned the Members that the next system of baseload generation will be extremely costly and that financing will be difficult. A new nuclear plant will cost between \$10 and \$15 billion and take twenty years to build; it is a genuine

baseload energy source that emits no CO<sub>2</sub>, but does have waste issues. He stressed the importance of financing for electric generation facilities that do not use fossil fuels as primary resources, but rather use solar, wind, geothermal, hydraulic, tidal, biomass, or nuclear resources.

Mr. Smoldon spoke of the importance of addressing energy efficiency, which would include retrofitting public buildings to create an efficient energy environment. He discussed programs that have been successful in other states including Georgia, Florida, South Carolina, and Wyoming. He explained that possible rate increases now will help to avoid rate shock later, and reiterated the economic advantages of sustainable energy, especially the job creation associated with the construction and running of a new nuclear facility.

Mr. Patterson asked why the legislation was not written for this year. Mr. Smoldon replied that the delay is a process problem: SRP's Board can move quickly on general guidelines, but Arizona Public Service (APS) requires more certainty in the guidelines. Mr. Smoldon explained that he is trying to build specificity into the legislation and the plan for the investors because this is a big policy shift. He also wishes to give the stakeholders adequate time to think about the implications. He stated that he fully intends to have the legislation prepared for the 2012 Session.

Ms. Fann asked if Arizona taxpayers will get dollars back if money is collected up front. Mr. Smoldon replied that a two-pronged approach will be used: revenue bonding early in the process, followed by an assessment on utility bills.

Ms. Fann asked if a nuclear plant is built, will it service all of Arizona and other states as well. Mr. Smoldon explained that primarily it will be a resource for Arizona, but that perhaps other states would access power because of the way the grid is built and the way electrons flow through it. He stated that any power that is exported out of Arizona becomes a direct benefit to Arizona customers when it is billed to the wholesale marketplace.

Mr. Wheeler asked how much of Palo Verde's nuclear power is exported to other states and how much remains in Arizona. Mr. Smoldon replied that, in the summertime, most kilowatts are used in Arizona and not much power passes on to out-of-state customers.

Mr. Wheeler asked what is being asked of the Legislature. Mr. Smoldon explained that he is looking for statewide authority to review and assess projects within the sustainable energy portfolio and look into financing. He added that the Arizona Corporation Commission (ACC) does not provide regulatory certainty that investors will recover their investment eventually, which makes financing extremely difficult.

Chairman Pratt stated that this is an opportunity for Members to become aware of future possibilities that will impact Arizona's growth.

Vice-Chairman Brophy McGee asked about coal options. Mr. Smoldon explained that the federal Environmental Protection Agency (EPA) is regulating coal to the point of shutting it down for CO<sub>2</sub> emissions. This makes coal a risky investment right now. He added that nuclear power has become a very viable investment because it does not have the emission problems.

Gretchen Kitchel, Director of Public Affairs, Arizona Public Service (APS), explained that APS is an investor-owned industry. She informed the Members that APS owns a 29.1 percent share of the Palo Verde Nuclear Plant and SRP owns 17.5 percent. The remaining 53.4 percent is owned by Texas, New Mexico, and California. She stressed that Arizona customers only pay for the part of Palo Verde power that they utilize; power that goes out-of-state is paid for by those customers.

Ms. Kitchel explained that APS, as an investor-owned company, must follow different accounting rules and is more highly scrutinized than the public power entities. She concurred with Mr. Smoldon that financing is critical for projects like this and any savings is important. Energy is a very capital-intensive industry. She added that Arizona is unique among the states with its constitutionally-mandated rate setting by the ACC.

Chairman Pratt informed the members that Tucson Electric Power (TEP) uses coal-fired power and operates under the same standards as APS. Ms. Kitchel added that co-ops are regulated by the ACC, but are not-for-profit.

Ms. Fann stated that while a line of financing is one option, to form a district to do state banking could be another option.

## AREVA

Bryan Dorsey, Director of Government Affairs, AREVA, distributed information about AREVA's sustainable energy portfolio (Attachment 2) and explained that he would:

- give an overview of AREVA and its business practices nationally and globally,
- discuss sustainable technologies,
- explain the benefits that can be realized through the deployment of these technologies,
- describe how states, utilities, and suppliers can align together to deploy these technologies.

Mr. Dorsey explained that AREVA is a global leader in solutions for CO<sub>2</sub>-free power generation in the areas of nuclear energy and renewable energies such as wind, solar, hydrogen, and storage. It has 48,000 employees in the United States.

Mr. Dorsey explained that AREVA offers "go to grid" capabilities for the implementation of nuclear power. He described the many steps involved in financing and construction of nuclear facilities. He discussed AREVA's plans for a fully complementary sustainable energy portfolio, how phased-in application can work, and how AREVA will create a positive regulatory framework in Arizona that encourages the deployment of renewable energy technologies.

He said that AREVA will also support universities and vocational schools and the end results will be job creation, sustainable energy, and tax revenues. Mr. Dorsey explained that, on average, 6,000 jobs can be created with new construction and the indirect and service-related jobs which support the various sustainable energy industries.

Mr. Dorsey concluded his presentation by describing the next steps to be taken to begin alignment:

- bringing all the utilities together,
- working with suppliers to coordinate construction and maintenance, and
- forging a cooperative relationship with government in order to access financing.

Mr. Dorsey stressed that AREVA will provide the technology, build up the local supply chain, engage the universities to ensure a trained workforce, and help Arizona's manufacturers to qualify to become part of AREVA's global supply chain.

Mr. Patterson asked if AREVA has done anything to bring down the \$10 to \$15 billion cost of new nuclear power. Mr. Dorsey explained that AREVA is learning from its experiences around the world, and changes made to the sequencing of construction and shortening time frames are ways to reduce cost. For instance, AREVA has learned how to reduce footpad construction time by one month by adjusting the process of cooling the concrete.

Ms. Fann stated that AREVA is a good example of public-private partnerships in its global projects. She asked how much ownership United States investors have. Mr. Dorsey replied that AREVA is 76 to 80 percent owned by the French government and it does have investors from the Middle East, such as the United Arab Emirates.

Mr. Patterson asked which companies in the United States are competitors to AREVA. Mr. Dorsey replied that there is no direct competitor that does everything in the nuclear sector as AREVA does, but he cited Toshiba-Westinghouse, GE-Hitachi, and Mitsubishi as global competitors.

Chairman Pratt asked if there has been any progress on building a more universal nuclear plant design. Mr. Dorsey replied that there are four or five technologies in nuclear design but that the two main technologies are the boiling water reactor and the pressurized water reactor (used at Palo Verde).

Mr. Patterson asked about AREVA's view on reprocessing of waste. He asked how much reprocessing has increased and if enough waste can be reprocessed so that it can be dealt with on-site. Mr. Dorsey explained that AREVA recycles waste in France by reprocessing the spent fuel, which reduces toxicity by a factor of ten and volume by a factor of five. The waste is then turned into glass and stored in containers. He noted that forty years' accumulation is safely stored in an area the size of an olympic swimming pool.

Mr. Patterson asked if waste storage can be done on-site for each facility. Mr. Dorsey replied that would be a policy decision, but the reprocessed waste is safe for anywhere from 100 to 300 years.

Mr. Patterson asked if there is enough fuel already available that new uranium mines are not really needed. Mr. Dorsey replied that there is a significant amount of spent, recycled fuel that can be used in nuclear reactors today, but the cost to recycle versus the cost to mine new uranium must be considered.

Chairman Pratt asked if the new AREVA processing plant in Idaho will be using uranium mined in the United States or uranium that is imported. Mr. Dorsey replied that his understanding is that the uranium will be obtained from AREVA mines in Canada.

Chairman Pratt thanked the presenters for the information they provided to the Committee.

Without objection, the meeting adjourned at 5:25 p.m.

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Jane Dooley, Committee Secretary

March 8, 2011

(Original minutes, attachments and audio on file in the Office of the Chief Clerk; video archives available at <http://www.azleg.gov>)