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Arizona Corporation Commission

DOCKETED Arizona Must Preserve Solar Portfolio Standard

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by Charles ~~Bensing~~ and Vernon Maysayesva

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Nineteen-ninety-eight was the hottest year on record, according to World Meteorological Services data, and 1997 ranked as the second warmest. In fact, the whole decade will go down as the hottest ever recorded.

This was bad news for certain species of plants and animals, as pollination and reproduction cycles slid out of sync with local ecosystems. Additionally, a punishing onslaught of unusually severe weather events pummeled human populations around the world with 300 MPH typhoon winds, decimating hurricanes, and a brutal series of floods, fires, and droughts. National Climatic Data Center scientist David Easterly has recently sounded a warning, "When you start looking at some of the unprecedented events that have occurred 16 months in a row that set a record . . . the evidence is really starting to mount that something is happening."

And he's not alone. Several thousand respected scientists have concluded that continued global warming is at least partly caused by our heavy reliance on fossil fuels. They say we must drastically and quickly reduce our dependency on carbon-based fuels.

While it is true that Arizona derives a significant amount of its electricity from nuclear power, the lion's share of its power generation comes from coal, the dirtiest fossil fuel. Coal burning power plants emit huge amounts of chemical pollutants. Chief among them are sulfur dioxide (SO₂) and nitrogen oxides (NO₂) which contribute to acid rain, regional haze and respiratory diseases, and carbon dioxide (CO₂) which increases the risk of global warming. Coal-fired power plants also emit significant amounts of mercury, a highly toxic chemical, which deposits itself in lakes and waterways and concentrates in the food chain.

Arizona utilities draw electrical power from several large coal-fired power plants located in Northern Arizona and neighboring states. Residents in Phoenix and Tucson receive what they perceive to be clean electricity, but the pollution caused by the generation of this power is suffered by the residents and ecosystems of Northern Arizona, New Mexico and Nevada.

The good news is that Arizona has a clean energy alternative—its huge resource of solar energy. When electricity or heat is made directly from solar energy, no toxic chemicals or climate-changing greenhouse gases are emitted into the atmosphere. The utility restructuring legislation passed last year by the Corporation Commission recognized the potential benefits of this clean and abundant power source and wisely mandated a modest “solar portfolio standard.” A solar portfolio standard requires that all electrical power suppliers must generate a specified percentage of their electricity from a solar source. Arizona’s solar portfolio standard mandates that utilities provide a .5% solar portion in 1999, increasing to 1% in the year 2002. Neighboring states are echoing this trend: Nevada passed a .2% solar requirement rising to 1% by 2010, and New Mexico lawmakers are considering a renewable energy portfolio standard of .75% in 2001 rising to 1.5% in 2005. In-state solar procurement would qualify for a double credit.

Nevada is promoting solar enterprise zones where industry would be given special incentives to develop businesses that would capitalize on the state's abundant solar energy. New Mexico's support for solar is attracting manufacturers of photovoltaic solar electric panels, and sales to individuals installing remote solar systems on houses is brisk.

Unfortunately, the Corporation Commission is considering rewriting, suspending or eliminating Arizona's solar portfolio standard. Suspension or elimination might prove to be an unwise move. Not only would a shift to renewable energy dramatically improve public health over time, it would also help build an in-state solar industry with large export potential while creating lots of new jobs. Solar power generation creates two and a half times more jobs per kilowatt than power generated from nuclear power plants and twice as many jobs per kilowatt than coal-fired generation. Moreover, a solar portfolio standard provides the necessary stable and predictable market for renewable developers—which helps reduce financing costs. Already, a number of

Arizona businesses and utilities are actively marketing and manufacturing solar equipment. Examples include Native Sun, a Hopi-owned business that installs remote solar power systems, Golden Genesis in Scottsdale, and APS and Tucson Electric Power affiliate Global Solar Energy.

And what about the cost to electricity customers? The additional cost of a half percent of solar generated power on Arizona's grid would increase rates only minimally. Most polls say households are willing to pay up to \$2 more per month extra for renewable energy. Of course, as more solar generation comes on-line, the price of solar power will drop. When the public health, employment and environmental benefits are factored in, solar could prove to be the most economical energy choice. Plus, everyone benefits from a reduction of the potentially catastrophic impacts of global climate change.

The solar portfolio standard is truly an idea whose time has come, and it represents the collective wisdom and consensus of many parties. These parties desire to see Arizona assume a leadership role in the generation of clean, renewable energy. It might be a serious mistake, then, for the Corporation Commission to terminate the solar portfolio standard. If it must be modified, perhaps a slower phase-in might be considered. But if the public interest would be clearly served, the Arizona solar portfolio standard should be vigorously defended.

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