

# ARIZONA STATE SENATE

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TO: THE JOINT LEGISLATIVE AUDIT COMMITTEE  
REPRESENTATIVE JOHN HUPPENTHAL, CHAIRMAN  
SENATOR ROBERT BLENDU, VICE CHAIRMAN

**RECEIVED**

DATE: November 29, 2004

DEC - 3 2004

SUBJECT: Sunset Review of the Solar Energy Advisory Council

**SPEAKER'S OFFICE**

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Attached is the final report of the sunset review of the Solar Energy Advisory Council, which was conducted by the Senate Commerce and House of Representatives Utilities and Municipalities Committee of Reference.

This report has been distributed to the following individuals and agencies:

Governor of the State of Arizona  
The Honorable Janet Napolitano

President of the Senate  
Senator Ken Bennett

Speaker of the House of Representatives  
Representative Jake Flake

Senate Members  
Senator Barbara Leff, Co-Chair  
Senator Marsha Arzberger  
Senator Robert Blendu  
Senator Dean Martin  
Senator Victor Soltero

House Members  
Representative John Nelson, Co-Chair  
Representative Manuel Alvarez  
Representative Andy Biggs  
Representative Meg Burton Cahill  
Representative Lucy Mason

Solar Energy Advisory Council  
Office of the Auditor General  
Department of Library, Archives & Public Records

Senate Majority Staff  
Senate Research Staff  
Senate Minority Staff  
Senate Resource Center

House Majority Staff  
House Research Staff  
House Minority Staff  
Chief Clerk

*Senate Commerce and  
House of Representatives Utilities and Municipalities  
Committee of Reference*

**SOLAR ENERGY ADVISORY COUNCIL**

**Background**

The Joint Legislative Audit Committee (JLAC) assigned the sunset review of the Solar Energy Advisory Council to the Senate Commerce and House of Representatives Utilities and Municipalities Committee of Reference (COR). Pursuant to A.R.S. § 41-2954, the COR completed the sunset review.

The Solar Energy Advisory Council (SEAC) began in 1975 as the Solar Energy Research Commission (Commission), charged to develop a plan to meet the requirements of the National Solar Energy Research Institute pursuant to the United States Solar Energy Research and Demonstration Act of 1974. In 1987, the name of the Commission was changed to the Solar Energy Advisory Council.

The purpose of SEAC is to give advice on matters relating to solar energy. Housed under the Arizona Department of Commerce's (ADOC) Energy Office, SEAC is required to assist and advise ADOC on matters relating to the development and use of solar energy and other renewable energy resources in Arizona. SEAC is funded by ADOC.

SEAC is also required to identify long-range programs that are feasible and require significant technological development; identify solar energy technologies that are feasible and practical in the short-term; encourage the cooperation and direct involvement of academic, business, professional and industrial sectors with expertise or knowledge in solar energy technology; and make recommendations on standards, codes, certification and other programs necessary for the growth of solar energy use.

SEAC consists of 14 governor-appointed members, each serving three-year terms, and the chairman of the Arizona Power Authority. Three members of SEAC represent each of the state universities. The remaining members have knowledge in specific solar energy technologies or represent a private industry involved in the application of solar energy to commercial, industrial or residential uses. The President of the Senate and the Speaker of the House of Representatives, or their representative, serve as nonvoting, advisory members to SEAC. Members appointed by the Governor are eligible for up to \$30 per day for each day of attendance at meetings. The Governor selects the chairman of SEAC from among the members.

A.R.S. § 41-3005.06 stipulates the SEAC is to terminate on July 1, 2005.

## **COR Sunset Review**

The COR held one public hearing on Thursday, November 18, 2004, to review SEAC and take testimony.

Mike Pasqualetti, Chair of SEAC, gave a presentation on SEAC and its responsibilities and funding. Discussion was held regarding the Energy Office of ADOC, its funding and staffing levels, and how it relates to SEAC. The Director of the Energy Office and a staff member also testified.

## **COR Recommendations**

The COR recommends that the Solar Energy Advisory Council be continued for ten years.

## **Attachments**

1. Sunset report requirements pursuant to A.R.S. § 41-2954, subsections D and F
2. Meeting Notice
3. Minutes of Committee of Reference Hearing

KM/ac

August 24, 2004

Senator Barbara Leff  
Arizona State Senate  
1700 West Washington  
Phoenix, AZ 85007

Dear Senator Leff:

On behalf of the Solar Energy Advisory Council, I herewith submit responses to the sunset review process prescribed in Title 41, Chapter 27, Arizona Revised Statutes, and as requested in your letter to me June 24, 2004.

I emphasized the past two years, and divided the report into two parts. Part I includes responses to A.R.S. § 41-2954. Part II includes responses to the "additional questions". I also have included copies of minutes for the past year. There is no requirement in our statute for an annual report.

The following items in Part I are not applicable to the Council: Numbers 4, 5, 6, 7, 11, 12.

The following items in Part II are not applicable to the Council: numbers 2, 5.

#### Part I

#1 - The objective and purpose in establishing the agency:

The legislature directed the council to:

- Assist and advise the director (Commerce/Energy) on matters relating to the development and use of solar energy and other renewable energy resources including recommendations for the utilization or disbursements of federal and state funds for solar purposes.
- Encourage efforts by research institutions, local government institutions and homebuilders in obtaining technical and financial support from the federal government for their activities in solar and advanced alternate energy systems.
- Identify and describe the solar energy technologies that are feasible and practical in terms of short-term application of retrofit, new construction and conservation projects within five years.
- Identify and describe long-range programs that are feasible and require significant technological development. Programs having similar technological gradients shall be formulated to encompass the period of time from the present through the year 2020.
- Encourage the cooperation and direct involvement of academic, business, professional and industrial sectors that are determined to have special expertise or knowledge of solar energy technology.
- Make recommendations to the director on standards, codes, certifications and other programs necessary for the orderly and rapid commercialization and growth of solar energy use in this state for consideration by the appropriate jurisdictional bodies.

#2 – The effectiveness with which the Council has met its objective and purpose and the efficiency with which it has operated.

- The Council receives requests for information, endorsements, and aid from the public and the press corps
- There is an on-going exchange of ideas and information among the members of the Council, and between the Council and the Energy Office.
- Other examples are contained elsewhere in this document

#3 – The extent to which the Council has operated with the public interest.

- The Council has provided a forum or discussion on renewable energy
- The Council has invited outside speakers and has made presentation to state officials
- The Council members have written letters, supported legislation, given testimony, met with community leaders, made presentations at numerous forums, developed proposals for funding, and provided educational materials
- The council assists the Energy Office in outreach efforts with the public.

#8 - The extent to which the Council has addressed deficiencies in its enabling statutes that prevent it from fulfilling its statutory mandate.

- The Council has made many presentations to promote dialogue with several appropriate government agencies and directors, and to provide a liaison function with other agencies and the public. This has included elected officials, ADEQ, and the Arizona School Facilities Board, and several other organizations within Arizona and without.
- The council has recommended for appointment to Council representatives of organizations that have similar missions and that are charged with promoting solar and renewables. These recommendations have been made in an attempt to include a diverse group with differing backgrounds to provide input from as many points of interest as possible.
- Attempts by the Council have failed to attract representation from the State Senate, the State House, or the Arizona Power Authority, despite that these appointments are called for in the enabling legislation.

#9 - The extent to which changes are necessary in the laws of the Council to adequately comply with these factors.

- Representation on the Council should be made explicit, beyond the present required representation. Such stipulation could, for example, call for one representative from each of the follows:
  - a. electric utilities (rotating term)
  - b. urban (rotating term)
  - c. rural
  - d. municipality
  - e. tribal
  - f. solar hot water community
  - g. photovoltaic community
  - h. "green building" community

- i. Civic/environmental organization
- j. Wind and/or geothermal community
- One path toward a tightened relationship between the Council and the Office of the Governor would be for the Chair of the Council and the membership of the Council to be eligible for reappointed with a change in Governor, with the stipulation that 50% of the Council would be subject to replacement at that time.

#10 - The extent to which the termination of the Council would significantly harm the public health, safety or welfare.

- The volunteer council, appointed by the Governor, receives no state funding, and is Arizona's only official board or commission to promote renewable energy
- Terminating the Council would leave the state with no official group that can represent, advise and assist the state's participation in the development of renewable energy.
- Reduced attention to renewable energy in Arizona would have the following negative side effects: Arizona (which has the greatest solar energy resource) would receive a stain on its reputation as a forward-looking state. To the extent that conventional energy sources were used instead of renewable, environmental quality would suffer. Greater reliance on renewable energy development in the state would increase energy surety, including emergency preparedness and supply reliability. Expanding the renewable energy industry in Arizona has potential for substantial positive impacts on economic development.
- The Council has helped draft and introduce numerous bills over the years, and it is the state's only independent group that has representation covering a wide geographical area and a variety of technologies. Termination of the Council would eliminate this diverse group from representing a wide variety of renewable energy interests throughout the state that would otherwise not have representation. (Legislation has included bills that would prevent homeowners' associations from arbitrarily prohibiting rooftop solar energy equipment; requiring new homes to contain plumbing that would allow for simple installation of a solar water heater; encourage energy efficiency in new construction and in state buildings.)

## Part II

# 1 - Describe the role and function of the Council including major activities/projects, accomplishments and obstacles to success.

- Advisory to the Arizona Department of Commerce Energy Office
- Helped craft legislative bills (e.g. HB2324, HB2526, HB2527 & HB2528, HB2613)
- Met with and advised Governor Hull on solar energy prospects for Arizona
- Contributed significantly to the Battelle study, commissioned by the Department of Commerce
- Prepared talking points on solar energy for Governor Napolitano
- Made presentation to:
  - a. Steven Owens, ADEQ
  - b. William "Bill" Bell, Executive Director, Arizona School Facilities Board
- Hosted presentations by:
  - a. Craig Cox, Executive Director, Interwest Energy Alliance (Denver)

- b. Arizona World's Fair representatives
  - c. Michael Neary, AriSEIA
- Chair made presentations and attended meetings as follows (at no cost to EO):
  - a. Mexico City
  - b. Jerusalem
  - c. Scottsdale (2)
  - d. New Orleans
  - e. Denver
  - f. Reno
  - g. Renewable Energy Conference
  - h. Phoenix
- The following are projects that originated with the SEAC
  - a. Civano project (sustainable housing development)
  - b. Annual Solar Boat Race, held on Town Lake, originated with the SEAC
  - c. Arizona Solar Center ([www.AzSolarCenter.org](http://www.AzSolarCenter.org))
  - d. Solar Video (aired on KAET) (an update of the 1988 video)
  - e. Solar Kiosk (a traveling exhibit)
  - f. Meeting with Gov. Hull (5/2002) resulted in a media campaign for solar that included press releases, CD-Rom Solar Tour of Arizona (that is now on the Solar Center), Op-ED piece, and a proclamation for 2002 October being solar month.
  - g. Campaign was to promote the solar home tours.
  - h. As the number one priority identified by the SEAC in July 1999, the Arizona Energy Office applied for and received a Million Solar Roofs grant in 2000 to develop a traveling exhibit for solar energy. The exhibit was completed in April 2001. Over 10,000 people have used one or more of the exhibits interactive programs. The display has been on location at the Arizona State Capitol, Arizona Science Center, Arizona Historical Museum (Papago Park), Coconino County Fair (Flagstaff), Maricopa County Fair (Phoenix), Camp Verde Home Show (Camp Verde), City of Scottsdale Building Permit Office, Mustang Library (City of Scottsdale) and the Hot Topics - cool solutions Conference (Tucson).
  - i. The other two top priorities identified by the Council involved the Arizona Solar Center. One dealt with developing information for the Center, and the other was for promotion. In 2002 the Arizona Energy Office secured a grant for \$22,000 for the Arizona Solar Center to develop materials for the website. The Energy Office also has committed \$2,500 toward the operation of the website. Energy Office staff continue to develop material for posting on the site -- the most recent being the Solar Benefit Model. The Solar Benefit Model is a series of pages that allow a consumer to calculate the approximate energy/cost savings they will realize by installing a solar water heater. The model produces specific information for three locations in Arizona: Phoenix, Tucson, and Flagstaff. All calculations are based on SRCC ratings for equipment and solar water heating loads for each of the three locations. The consumer must enter their own personal data (tax bracket, loan terms,

purchase price, etc . . . ) and their utility rate (standard rates for APS, TEP and SRP are provided for input).

- j. In the fall of 2003, the solar short videos that were produced as part of the kiosk/traveling exhibit were put into a digital format and uploaded to the solar center.)

#3 - An identification of the problem or the needs that the Council is intended to address.

- a. Increase development and utilization of all renewable energy resources
- b. Increase public awareness of the benefits and affordability of many renewable energy technologies
- c. Encourage the support and expansion of renewable energy research and development
- d. Provide a forum and expertise for the development and evaluation of programs and policies for renewable energy

#4 - A statement, to the extent practicable, in quantitative and qualitative terms, of the objectives of the Council and its anticipated accomplishments

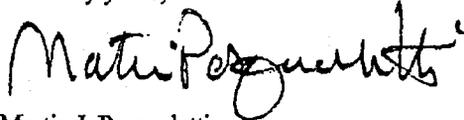
- a. See throughout this document

#6 - An assessment of the consequences of eliminating the Council or of consolidating it with another agency.

- a. Would send the wrong message about Arizona's support for renewable energy
- b. Would discourage further economic development in the area of renewable energy
- c. Would yield potential primacy in renewable energy development (especially solar) to neighboring states and foreign countries
- d. Would eliminate an essential source of public information and education on renewable energy.

Should you need any additional information, please contact me at [Pasqualetti@asu.edu](mailto:Pasqualetti@asu.edu), or 480-965-4548.

Sincerely yours,



Martin J. Pasqualetti  
Chair  
Arizona Solar Energy Advisory Council

## ARIZONA STATE LEGISLATURE

### INTERIM MEETING NOTICE OPEN TO THE PUBLIC

#### SENATE COMMERCE AND HOUSE OF REPRESENTATIVES UTILITIES AND MUNICIPALITIES COMMITTEE OF REFERENCE FOR THE SUNSET HEARING OF THE SOLAR ENERGY ADVISORY COUNCIL

**Date:** Thursday, November 18, 2004

**Time:** 12:00 p.m.

**Place:** Senate Hearing Room 1

#### AGENDA

1. Call to Order
2. Opening Remarks
3. Presentation by the Solar Energy Advisory Council
4. Public Testimony
5. Discussion
6. Recommendations by the Committee of Reference
7. Adjourn

#### Members:

Senator Barbara Leff, Co-Chair  
Senator Marsha Arzberger  
Senator Robert Blendu  
Senator Dean Martin  
Senator Victor Soltero

Representative John Nelson, Co-Chair  
Representative Manuel Alvarez  
Representative Andy Biggs  
Representative Meg Burton Cahill  
Representative Lucy Mason

11/1/04

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# ARIZONA STATE LEGISLATURE

## SENATE COMMERCE AND HOUSE OF REPRESENTATIVES UTILITIES AND MUNICIPALITIES COMMITTEE OF REFERENCE FOR THE SUNSET HEARING OF THE SOLAR ENERGY ADVISORY COUNCIL

Minutes of the Meeting  
Thursday, November 18, 2004  
12:00 p.m., Senate Hearing Room 1

### Members Present:

Senator Barbara Leff, Cochair  
Senator Robert Blendu  
Senator Dean Martin  
Senator Victor Soltero

Representative John Nelson, Cochair  
Representative Manuel Alvarez  
Representative Andy Biggs  
Representative Meg Burton Cahill

### Members Absent:

Senator Marsha Arzberger

Representative Lucy Mason

### Staff:

Brandy Martin, Senate Commerce Committee Research Analyst  
Kimberly Martineau, Senate Commerce Committee Assistant Research Analyst  
Todd Sanders, House of Representatives Research Analyst

Senator Leff called the meeting to order at 12:03 p.m. and attendance was noted.

**Martin Pasqualetti, Chairman, Arizona Solar Energy Advisory Council (Council)**, explained that there are 14 members on the Council. He mentioned that the Council deals with all renewable energy, which includes wind power and geothermal development, as well as solar and biomass energy.

Mr. Pasqualetti referred to an Arizona Highway Magazine article regarding solar energy that was published in August, 1975. He pointed out that it was recognized long ago that solar power was plentiful in Arizona. He suggested that by covering only one-tenth of the Goldwater Bombing Range with solar tanks, Arizona could generate enough electricity for the state. Arizona has more solar energy than any other state in the nation. He stated that he feels that solar energy is the most important, significant, and valuable natural resource in Arizona and if properly developed, it could be an enormously effective economic development engine.

Mr. Pasqualetti noted that Arizona has made some substantial strides, explaining that Tucson Electric Power, Arizona Public Services (APS), and Salt River Project (SRP) are installing solar facilities on residential homes. The portfolio standards and the money available through the surcharge, as well as the advocacy of the Council, have moved the State in the right direction.

Mr. Pasqualetti mentioned that the Council is not a line item in the budget, rather it operates from overcharge money. The Council has represented Arizona in the solar industry by making itself available for consultation and as a clearing house for information about solar energy for several years. He suggested that the Council should be a line item in order to have the funds to encourage facilities to move to Arizona. There is no one in the Department of Commerce (DOC) dedicated exclusively to solar energy.

In response to Senator Leff, Mr. Pasqualetti replied that the Council's recommendations are given to the director of the DOC Energy Office. He noted that the Council can give advise, support solar, and raise the visibility of solar.

In response to Senator Soltero, Mr. Pasqualetti replied that a company (Kyocera) planned to put a solar facility in Scottsdale; however, they were unable to get any cooperation from DOC. Therefore, Kyocera located their facility elsewhere.

Mr. Pasqualetti mentioned that he feels the line item in the budget should represent an individual within DOC who is advocating solar, since it is an important and large economic development engine for Arizona. In response to Senator Leff, Mr. Pasqualetti replied that the Energy Office at DOC previously employed approximately 50 people and now there are only 17.

In response to Representative Burton Cahill, Mr. Sanders stated that he feels the downsizing of employees at the Energy Office was related to the alternative fuel issue. The Energy Office increased staff to handle the enormous workload produced due to the alternative fuels program that peaked in 2001. Subsequently, that program was cancelled and many of the employees were transferred to other agencies.

In response to Senator Leff, Mr. Sanders replied that the oil overcharge monies have decreased over the past few years.

**Jim Arwood, Energy Office, DOC**, explained that the Energy Office increased staff in the late 1980s. In 1987, Arizona received a lump sum overcharge settlement from Exxon Oil. Since that date, several other settlements were also received. In the 1970s, consumers were overcharged at the gas pumps that led to a nationwide settlement. These various settlement monies funded the Energy Office and its programs. In the early 1990s, the Energy Office had approximately 54 staff members, with 12 of those employees dedicated to solar energy issues. In the past two years, 75% of the settlement monies were used to offset budget shortfalls, and as the money has decreased over the years, so has the staff. Currently, the remaining oil overcharge money is used to help leverage grants from the federal government to sustain programs.

Mr. Arwood added some information about the company that wanted to move a manufacturing facility to either Phoenix, San Diego, or Mexico. He pointed out that the DOC director and deputy director visited with representatives from Kyocera, and DOC sent a member to Japan to visit with Kyocera. However, Kyocera eventually located their facility in Mexico.

Mr. Arwood indicated that DOC does support the continuance of the Council as they are a valuable asset to the Energy Office. He noted that approximately 40% of his time is spent on solar energy. In years past, he spent 100% of his time on solar energy; however, because of attrition, he has had to take on other responsibilities.

In response to Representative Nelson, Mr. Arwood agreed that wages were a determining factor in Kyocera selecting Mexico for their facility.

**Tom Hansen, Vice President, Tucson Electric Power**, testified in support of continuing the Council. He pointed out that Arizona has watched California, Japan, and Germany implement solar development programs that are far in advance of what Arizona has been able to do. He suggested that to allow the Council to sunset at this time would be detrimental towards developing a long-lasting, sustainable solar program. In time, they hope to expand the coordination between the Corporation Commission, the Legislature, and the Governor's office to bring solar energy development to the State. He emphasized that Arizona has the best resources, land area, availability, and the will to move the solar energy industry forward.

Mr. Pasqualetti added that individuals in Mexico, Israel, and Japan have stated that Arizona is not actively supportive of solar energy. He mentioned that Arizona has the largest solar energy resource; however, only 12 megawatts are being developed.

**George Seitts, Director, Energy Office, DOC**, testified in support of continuing the Council, which has been in business for 30 years. In response to Senator Leff, Mr. Seitts replied that he will guarantee that DOC will work on improving the image of Arizona regarding solar energy.

Representative Nelson commented that the Council includes a group of individuals with expertise in the solar energy field. He suggested that Arizona has enough solar energy to share with the world.

**Representative Nelson moved to continue the Solar Energy Advisory Council for ten years. The motion CARRIED by a voice vote.**

Attached is a list of the individuals who registered their position on the continuation of the Council (Attachment 1).

There being no further business, the meeting was adjourned at 12:32 p.m.

Respectfully submitted,



Carol Dager  
Committee Secretary

(Tapes and attachments on file in the Secretary of the Senate's Office/Resource Center, Room 115.)