

**CITY OF SCOTTSDALE  
ENERGY ADVISORY COMMITTEE  
ENVIRONMENTAL QUALITY ADVISORY BOARD**



**WEDNESDAY, DECEMBER 6, 2006  
MAIN CIVIC CENTER LIBRARY  
3839 NORTH DRINKWATER BLVD  
SCOTTSDALE, ARIZONA 85251**

**PRESENT:** Jim Mulloy, Chair  
Jimmy Leung, Vice-Chair  
Keith Thompson, Committee Member (arrived 8:30)  
Penny Allee Taylor, Committee Member (represented by Brian O'Donnell)  
Dave Walker, Committee Member  
Eddie Scholz, Committee Member (arrived 9:24)  
Bill Shaeffer, Committee Member

**ABSENT:** Joe Campodall'Orto, Committee Member  
Stephen Anderson, Committee Member  
Lori Glover, Committee Member  
Herjinder Hawkins, Committee Member  
Angela Creedon, Committee Member

**STAFF:** Chuck Skidmore, Energy Management Engineer

**OTHERS:** Michele Cohen, EQAB Member  
Danny Johnson, Fleet Director

1) **Call to Order**

Chair Mulloy called the meeting to order at 7:50 a.m.

2) **Roll Call**

A formal roll call confirmed the presence of Committee members as stated above. It was noted that the meeting started without a quorum although other members were expected to attend later. Chair Mulloy remarked that they are working on the composition of the Committee and that a total of nine members may be the right size.

3) **Approve minutes of last meeting**

Approval of the minutes of the November 1, 2006 was deferred, given the absence of a quorum.

4) **Introductions**

Michele Cohen, Chair of the Green Building Advisory Committee and a member of the Environmental Quality Advisory Board, introduced herself.

5) **Public Comment**

No members of the public wished to address the Committee.

6) **Subcommittee Reports**

c) **Benchmarking**

Chair Mulloy reported that Mr. Scholz is leading the benchmarking subcommittee. They had a meeting with facilities staff to learn what they are doing about energy management. They selected a couple of buildings for a pilot project.

Mr. Brian O'Donnell asked what year of the International Energy Code the City is under. Mr. Chuck Skidmore, Energy Management Engineer, replied that the City is under 2000 but is in the process of switching to 2003. A discussion ensued on the implications of being up to date with the current Energy Code.

a) **Energy Plan**

Mr. Dave Walker opined that energy reduction should start with education and that public buy-in is essential. He described the work he did for the Riverside Unified School District in California. Discussion followed on the need for a long-term mission for the Energy Committee. EQAB is also reviewing this question, which has yet to be fully defined. Mr. Shaeffer suggested getting the City to support biodiesel and ethanol public fuelling stations so that Scottsdale residents could use alternative fuel vehicles.

Ms. Cohen commented that the Committee is in a unique situation. One goal is to advise the City on environmental matters; the second goal is to recommend how citizens should be involved. She opined that although EQAB carries out several educational and outreach activities such as the annual EnviroKidsFest, it is more difficult to achieve the Board's goals within the City. She would recommend focusing on those aspects.

Chair Mulloy commented that the real work gets done in the work groups and asked for volunteers. Mr. O'Donnell expressed willingness to help with benchmarking. Chair Mulloy said he will withdraw from the benchmarking work group. This group arose because the Mayor wants to know how the City is doing in respect to other cities. Chair Mulloy hopes that a portfolio of energy and resource information about City buildings can be developed with the help of City employees.

**b) Alternative Fuels**

Dr. Leung remarked that Mr. Danny Johnson, Director of Fleet Management for the City, has been a leader in the use of alternative fuels by the City.

**7) New Business**

**a) Scottsdale's Use of Alternative Fuels - Then, Now, Next Steps by Danny Johnson, Director of Fleet Management**

Mr. Johnson described the Valley of the Sun Clean Cities Association, whose focus is to get away from dependence on foreign oil by substituting alternative fuels such as E85, biodiesel, or compressed natural gas (CNG). It is a challenge to get the message out to the public. Mr. Johnson outlined fleet initiatives around the Valley and shared information from a recent conference of the Rocky Mountain Fleet Managers Group. He noted that there are many different initiatives, but that information does not circulate among the various groups.

Mr. O'Donnell asked whether buses that run on liquefied natural gas (LNG) are low emission. Mr. Johnson said that they do emit particulates. He added that biodiesel also emits particulates. In the ensuing discussion it was noted that there are many issues associated with this question. Mr. Shaeffer pointed out that today we enjoy a choice of fuels and can choose the best one for the particular application.

Mr. Johnson described recycling programs that the Scottsdale fleet is using. Staff recycle antifreeze, oil, used filters, paper, cardboard, et cetera. He commented that even in the City, people outside the fleet are unaware of the extent of the recycling programs. Scottsdale has been using alternative fuels since 1982. He described the first fuels program. This states that if a vehicle can run on either conventional or alternative fuel, the alternative fuel is to be the fuel of first choice. However, employees resist following this policy because of the time it takes to refuel the vehicles. The City fleet has a requirement to use 100,000 gallons of (CNG) annually. In fact, the fleet is using about 20,000 gallons per year. The CNG is only available at the main garage. The Capital Projects Management department has made a firm commitment to use CNG, and their ten vehicles account for most of the consumption.

Mr. O'Donnell assured the Committee that SouthWest Gas does not have a huge financial interest in selling CNG, but it is a clean fuel and their employees use it. Mr. Johnson stressed that to enforce the use of CNG, the City has to set a policy. It is hard to change the dynamics at the supervisory level.

Dr. Leung asked whether departments are rewarded for using alternative fuels. Mr. Johnson replied that there is a program that rewards individuals. Ms. Cohen suggested that setting up friendly competition between different departments and work groups might encourage employees to endure the perceived inconvenience of refueling with alternative fuels in hopes of winning something for their group. She noted that this would depend on the culture in the workplace.

Mr. Johnson stressed that the City has to pay for 100,000 gallons of CNG annually whether it is used or not. The most they have ever used was 50,000 gallons. Now the vehicles are not offered anymore.

He described the fuel savings realized by switching part of the City fleet to biodiesel. Consumption of biodiesel has risen from 100,000 gallons in the first year of the program to 564,000 gallons last year. He outlined details of the alternative fuel credit system. Mr. O'Donnell asked for an estimate of emission reduction. Mr. Person has been working to determine this figure. Ms. Cohen asked about the remainder of the fleet. Mr. Johnson said that the bulk of the remaining fleet is police cars which are not available for diesel fuel. The department has tried to buy diesel Jeeps (no longer available) and hybrid Escapes. He stated that if the City had a policy regarding alternative fuel in place, it would be easier. Reviewing mileage averages on fleet vehicles, Mr. Johnson stated that the average weekly mileage of non-police vehicles is about 100 miles, so CNG is a viable option. Dr. Leung opined that saving energy needs to be part of the mission.

Mr. Johnson described his efforts to reduce fleet size and bring in alternative fuel vehicles that can be configured for different applications, commenting that this is a hard sell even though it saves money. Mr. O'Donnell agreed that it a fleet manager cannot make policy. Mr. Johnson submitted a draft internal policy, but it was not adopted. The policy for ordering vehicles has however been changed by the City Manager. Departments must now state how a vehicle will be used and then Mr. Johnson finds a product that meets the requirements. A dialogue ensued. Mr. Johnson opined that communications within the City would make it possible to save energy, funds, reduce emissions, and provide service at the same level. Chair Mulloy noted that the LEED Gold policy for City buildings set a precedent that could perhaps be leveraged. Mr. O'Donnell suggested that the Energy Advisory Committee could help draft a policy which would make it easier to implement changes.

Mr. Shaeffer distributed detailed information about alternative fuel and flex fuel vehicles. Ms. Cohen expressed an interest in learning more about the new diesel vehicles already available in Europe. Mr. Shaeffer noted that the information will enable the Committee members to be prepared to discuss alternative fuels for the general public.

Mr. Johnson outlined the State's current energy regulations. The Energy Advisory Committee can play a role in reaching those goals. He distributed a flyer of frequently asked questions about hydrogen fuel. A discussion on hydrogen vehicles ensued. Mr. O'Donnell cautioned that it will be necessary to figure out how to handle the liability and flammability situation. Standards are very important. Mr. Johnson noted that Las Vegas has had hydrogen vehicles for years. Other cities also have hydrogen vehicles in their fleets, and APS is running hydrogen vehicles. He suggested partnering with APS to tap into their expertise. Scottsdale would be the first Arizona city to use hydrogen vehicles. He noted that funds are available through the Department of Energy. If a hydrogen fuel cell was in place at the CNG facility, it could be made available to the public.

Dr. Leung summarized that the overall purpose of this discussion is to:

- (1) be energy-efficient;
- (2) reduce emissions;
- (3) achieve these goals in a cost-effective manner.

He asked Mr. Johnson where he sees this going. Mr. Johnson said that he sees the next step as hybrids powered by alternative fuels. This will be a bridge technology to ultimately reach hydrogen technology. Hydrogen is easily produced from many sources, but today is too expensive to produce. He noted that use of alternative fuels in the public sector will encourage the general public to switch away from gasoline.

Responding to a question by Mr. Skidmore, Mr. Johnson recommended approaching economic development to see what funding is available for a hydrogen demonstration project. If there is minimal cost to the City it is easier to convince people to commit to a pilot program. Without a grant application it would not be feasible to do a demonstration project. He described a CNG demonstration project he was involved in while working in Washington, D.C., which was carried out at no cost to the city.

Mr. Skidmore suggested that the Energy Advisory Committee should brainstorm paths to get to where they want to go in this regard. These recommendations could be brought to EQAB. Dr. Leung agreed that the subcommittee should work on this approach. He would like to present something to the next meeting of EQAB and offered to do this with information from Mr. Johnson. EQAB can then discuss strategy. A discussion ensued about setting up a hydrogen fueling facility for a demonstration project. Mr. Skidmore commented that they need to form a working group to continue.

In further discussion, Mr. Johnson opined that car manufacturers need to produce alternative fuel vehicles suitable for fleet use. Chair Mulloy asked him whether he is interested in revisiting the draft fleet policy with the work group. Mr. Johnson replied he can bring it to a meeting.

Mr. Thompson remarked there are many misconceptions about hydrogen, and shared his experience with a project at APS. Mr. Skidmore clarified that the only danger of explosion with hydrogen or CNG is a leak in a contained area.

## 8) **Announcements**

Chair Mulloy noted that seven committee members were in attendance at various times throughout the course of the meeting. He thanked Mr. Johnson for his presentation.

### a) **Meeting dates and times**

Work group, Friday, December 8<sup>th</sup> at 9191 East San Salvador Drive at 8:00 a.m.

## 9) **Adjournment**

With no further business to discuss, the meeting adjourned at 9:42 a.m.

Respectfully submitted,

A/V-Tronics, Inc.