



January 18, 2011
10:30 a.m. to 11:30 a.m.
Council Chambers Conference Room B-2

Chairperson Knaack called the meeting to order at approximately 10:00 a.m. She then introduced Councilmember Alvarez to staff and welcomed her to the Council Sustainability Committee.

Council Sustainability Committee Members:

Present were Councilmember/Chairperson Yvonne Knaack (Barrel District), Vice Mayor Steve Frate (Sahuaro District), and Councilmember Norma Alvarez (Ocotillo District)

City Staff Members:

Larry Broyles, Stuart Kent, Doug Kukino, Deborah Mazoyer, Jo Miller, Tabitha Perry, Stephen Rot, Nancy Schwab, Pam Wertz, Bob Manginell, and Marilyn Clark

I. Approval of Minutes

Chairperson Knaack called for a motion to approve the minutes for the November 16, 2010 Council Sustainability meeting. Vice Mayor Frate made a motion to approve. The motion was seconded by Chairperson Knaack. The minutes from the November 16, 2010 Council Sustainability Committee meeting were approved as written.

II. Presentation on Green House Gas Inventories and Climate Change

Stephen Rot, Interim Environmental Resources Director, and Jo Miller, Environmental Program Manager, presented this agenda item.

During his opening remarks, Mr. Rot addressed the Committee by saying that previous presentations to the Sustainability Committee had provided information to them on established city programs, and that this presentation would provide information to them on a relatively new and highly debated topic of Green House Gas Inventories and Climate Change.

Mr. Rot stated that it was important to note that current federal regulations relating to green house gases are targeted at very specific and large sources, such as power plants, chemical refineries, and landfills. He mentioned that other than the city landfill, there are no other current green house gas regulatory requirements directly associated with city facilities or operations. The intent of the presentation is to provide Committee members with some general information on green house gases and green house gas

inventories, and to identify activities that the city has undertaken that result in overall green house gas reductions. Mr. Rot then turned the presentation over to Jo Miller.

Ms. Miller gave an overview of green house gases, where she explained that green house gases are gases that absorb, or trap heat in the atmosphere. The primary greenhouse gases are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated gases. Carbon dioxide is the largest component of green house gases, comprising somewhere around eight-five percent of total U.S. emissions. In the United States today, green house gas emissions increased between 1990 and 2008 by approximately fourteen percent. Most of this increase was the result of increased power production and transportation fuel consumption, which are primarily carbon dioxide emissions.

The primary source of green house gas emissions is the combustion of fossil fuels. The combustion of fossil fuels to generate electrical power is the largest source of green house gas emissions at around forty-two percent of carbon dioxide emissions. Transportation related fossil fuel combustion accounts for about thirty-two percent of carbon dioxide emissions. Other sources of green house gases include decomposition processes, such as landfills and wastewater treatment plants, as well as industrial and agricultural operations.

Completing a green house gas inventory for an organization's operations involves identifying what specific activities and processes create green house gases. Next a determination is made for the total power, natural gas, and fuel consumed for a given year. For example, city operations might include total electricity used by buildings and facilities, streetlights and traffic signals, water and wastewater operations, as well as fuel consumption by vehicle fleets and employee commutes.

Typically, inventories convert all emissions to a carbon dioxide-equivalent number which is usually in metric tons. This is because each green house gas has a different capacity to absorb or trap heat. After completion, the carbon dioxide-equivalent numbers provide a benchmark for measuring future green house gas emissions, with the goal being to reduce emissions. The process is very technical and involves a lot of data management. Completing and maintaining an organization's green house gas inventory generally requires additional city resources.

From the global to the local perspective on the topic of climate change, most people are familiar with scientists developing atmospheric models of the impacts of green house gases on the planet. There are federal regulations that require green house gas reporting for specific and large facilities such as power plants, chemical refineries, and landfills. Regionally, Maricopa County is discussing the possibility of a regional-scale green house gas inventory, and the possibility of using the data for regional air quality and energy use modeling. On the local level, some cities are completing inventories in anticipation of possible mandates.

Power production and energy consumption is the largest contributor to carbon dioxide emissions. It makes sense on many levels for the city to become more energy efficient. The recent Energy Efficiency Community Block Grant has enabled the city to continue to become energy efficient. All projects funded by the Energy Efficiency Community Block Grant are required to track and report green house gas reductions. Transportation is the second highest producer of carbon dioxide. As seen in the previous Fleet Management presentations, the city continues to make decisions within Fleet Management to help reduce fuel consumption. Additionally, the City of Glendale is the first in the region to build a landfill methane gas to energy facility which in itself is a remarkable accomplishment in reducing green house gas emissions. This concluded the presentation.

Committee members asked several questions throughout the presentation, none of which required action or follow up on the part of staff. The presentation was for informational purposes only.

III. **Staff Updates**

Chairperson Knaack introduced Nancy Schwab, the new Energy Education Specialist, to the Committee. Ms. Schwab is currently teaching the Watt Watchers Programs and coordinating the new Green Living Classes for the City of Glendale.

Staff informed the Committee that a new Schedule of Topics for the calendar year 2011 will be presented to them at the February 15, 2011 meeting.

ADJOURNMENT

The meeting was adjourned at approximately 10:53 a.m.

NEXT MEETING: February 15, 2011
10:30 a.m. to 11:30 a.m.
Council Chambers Conference Room B-2

TOPIC: New Youth Programs: Recycling & Energy

Respectfully Submitted,



Marilyn Clark, Recording Secretary