

DATE ISSUED: September 18, 2003 REPORT NO: 03-178 (REV.)

ATTENTION: San Diego City Council
Agenda of September 23, 2003

SUBJECT: 50 Megawatt Renewable Energy Commitment and formation of ~~an~~
a Sustainable Energy Independence Advisory Board (SEIAB)

SUMMARY

Issue - Should the City Council:

- (1) Adopt a resolution creating a commitment to install 50 Megawatts of renewable fueled energy generation, on public and private buildings, within the City of San Diego by the end of calendar year 2013?
- (2) Create ~~an a Sustainable Energy Independence~~ Advisory Board by amending section 26.04 of the Municipal Code to change the title and provide special focus on renewable energy by the Sustainable Energy Independence Advisory Board (SEIAB)?
- (3) Direct the City Manager and City Attorney to provide resources necessary to support the efforts of the Sustainable Energy Independence Advisory Board (SEIAB)?
- (4) Direct the City Manager to require all new City facility construction and remodel projects over 5000 square feet to include at least 10 percent renewable fueled electric generation with a primary preference for solar systems?

Manager's Recommendations –

- (1) Accept the report.
- (2) Adopt a resolution creating a commitment to install 50 Megawatts of renewable fueled energy generation over the next 10 years.
- (3) Amend municipal Code section 26.04 to create a nine member Sustainable Energy Independence Advisory Board.
- (4) Direct the City Manager and City Attorney to assign the resources necessary, including consultants, to support the efforts of the (SEIAB)
- (5) Direct the City Manager to require all new City facility construction and remodel projects over 5000 square feet to include at least 10 percent renewable self-generation with a primary preference to solar systems.

- (6) Amend Council Policy 900-14 to include the 10 percent renewable requirement for all new City facility construction and remodel projects over 5000 square feet.

Fiscal Impact: Variable, depending on specific actions adopted.

BACKGROUND

On August 7, 2003, Mayor Murphy and Councilmembers Zucchet and Frye reaffirmed their vision and support for the Mayor's Goal # 9, Pursue Energy Independence. Together they stated a new City commitment to install 50 megawatts of renewable fueled electricity generation in public and private buildings within the City of San Diego by the end of calendar year 2013. During the press conference held at the Environmental Services Department's Miramar Operations Station, the City's first energy independent building, the Mayor emphasized the City's progress in achieving Goal # 9 including the creation of the Energy Conservation and Management Division to oversee the continuing coordination of energy issues. Energy conservation both at home and in the workplace was highlighted as one of the most effective methods in reducing reliance on distant power sources. Councilmember Zucchet discussed the dwindling reserve of fossil fuel sources and spoke of the potential for new jobs and economic growth in the San Diego region that could be supported by this new commitment to renewable energy sources such as solar systems. Councilmember Frye reviewed the environmental benefits of producing energy from renewable fuel sources and announced the proposal for the formation of an Sustainable Energy Independence Advisory Board to provide recommendations to the City Council for implementation measures that could achieve the commitment of installing 50 MW of renewable fueled electric generation by 2013.

DISCUSSION

The need for renewable fueled local electricity generation was clearly demonstrated by the August 14, 2003 failure of the electric transmission grid in New York, Ohio, Michigan and Canada. The multiple day electricity interruption for 50 million customers, following a nine second cascading power overload of the transmission grid, could have been partially mitigated by establishing numerous small renewable fueled generation systems serving local power need without relying on utility transmission lines. These renewable fueled generators, typically called distributed generation, produce electricity at a cost that is usually higher than market priced electricity delivered over the transmission grid. This occurs because the cost of fuel and economies of scale favor the larger more heat efficient power plants. While even a large number of renewable fueled generators are not expected to completely replace the base load requirements of a region, they can reduce the peak or maximum real time load which in turn reduces operating stresses that cause transmission lines to fail.

There are several beneficial attributes of renewable fueled distributed generation. First, renewable generation is typically installed at the location where the power will be consumed allowing the customer to obtain full output capacity from the generator because there is no transmission line power loss. This is in contrast to typical large utility

generator power delivery where longer distances from generator to customer create power losses that increase directly with increasing distance. Second, in the case of solar systems, there is no requirement to provide a fuel source other than pointing the array toward the sun. Third, using renewable landfill gases without a generator being installed, the landfill gas is typically flared to the atmosphere without beneficial use. This flared landfill gas can increase the amount of greenhouse gases in the atmosphere. Fourth, installing renewable distributed generation provides significant potential for the creation of jobs in the local economy where the distributed generation is installed.

In the ongoing Long Term Resource Plan was submitted by San Diego Gas & Electric to the California Public Utilities Commission, SDG&E recognized the benefit of some local renewable fueled distributed generation. Adopting a renewable goal for public and private buildings within the City will support the long term supply of energy.

The Sustainable Energy Independence-Advisory Board should be formed by amending current Municipal Code Section 26.04 to specify the new board title and designate the following membership to focus on the renewable energy commitment:

San Diego Regional Energy Office – 1 representative
San Diego Gas & Electric – 1 representative
Environmentalist – 1 representative
Labor Organization – 1 representative
Solar System Manufacturer/Installer – 1 representative
Building Industry – 1 representative
Chamber of Commerce – 1 representative
Undesignated – 3 2 Representatives

The duties and functions of the SEIAB would include:

1. Advise the City Council and City Manager through the Mayor on energy policy and be responsible for recommending future energy guidelines to accomplish the goals of the “Energy 2030, The San Diego Regional Energy Strategy” adopted by SANDAG in July 2003;
2. Determine the best and most cost effective method to implement the City’s 50 MW renewable energy commitment;
3. Determine how the City can remove barriers to renewable energy for public and private buildings;
4. Determine how the City can provide incentives (financial or otherwise) for development of renewable energy resources;
5. Work with City Staff to develop innovative mechanisms for financing renewable energy systems;
6. Become aware of and develop competence in energy issues and be broadly representative of community interests;
7. Seek participation by regional business and political leaders and public interest groups in energy issues;
8. Coordinate energy planning activities with the City’s Energy Conservation and Management Administrator;

9. Perform such other studies as may be specifically requested by the Mayor and Council and provide information and advise thereon;
10. Report progress achieved to City Council no later than January 3, 2004 and every six months thereafter.

SEIAB members would be appointed by the Mayor from recommendations submitted by Council. Members need not be City residents to be members of the SEIAB. Staff for the SEIAB will be provided by the Environmental Services Department's Energy Conservation and Management Division.

The adoption of the 50 megawatt renewable goal and creation of an Sustainable Energy Independence-Advisory Board supports the Mayor's goal # 9 and will assist the local utility in achieving its renewable resources power procurement needs, foster economic development, improve the environment and help provide electrical reliability in the San Diego region.

ALTERNATIVE

- (1) Do not commit the city to a goal installing 50 Megawatts of renewable fueled energy generation by 2013 and continue to rely on out of area electrical power.
- (2) Do not create an Sustainable Energy Independence-Advisory Board.

Respectfully submitted,

Tom Blair
Energy Administrator

Richard L. Hays
Environmental Services Director

Approved:

George I. Loveland
Senior Deputy City Manager

Attachments: [1. Resolution Amending Council Policy No. 900-14](#)
[2. Ordinance Amending Section 26.04](#)
[3. Council Policy 900-14](#)
[4. Draft Resolution](#)