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POLICY BOARD AGENDA

Friday, July 12, 2002

10:00 a.m.

SANDAG

**401 B Street, 7th Floor Board Room
San Diego, CA 92101**

AGENDA

- **PUBLIC COMMENTS/COMMUNICATIONS**

- **SOLVING THE REGION'S ENERGY CHALLENGES**
 - **Basic Facts, Challenges, and Opportunities**
 - **Available Projects, Programs, and Local and Regional Actions**
 - **Organizing to Better Influence our Energy Future**

MISSION STATEMENT

The 18 cities and county government are SANDAG serving as the forum for regional decision-making. SANDAG builds consensus, makes strategic plans, obtains and allocates resources, and provides information on a broad range of topics pertinent to the region's quality of life.

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Friday, July 12, 2002

SANDAG POLICY BOARD MEETING

SOLVING THE REGION'S ENERGY CHALLENGES

Action: DISCUSSION

Introduction

Since 2000, the region has faced high and volatile energy prices. Like the rest of the state, the region has fallen behind in the development of sorely needed energy-related infrastructure and faces the need for substantial energy infrastructure investments in the coming years.

Much of the information in this report comes from the preliminary work on the San Diego Regional Energy Infrastructure Study ("Study"), which is being conducted by Science Applications International Corporation (SAIC) under the direction of the San Diego Regional Energy Office (SDREO). The Study is jointly funded by the City of San Diego, the County of San Diego, Port of San Diego, the San Diego Association of Governments, the San Diego County Water Authority, SDREO, and the Utility Consumers Action Network (UCAN). The Study focuses on non-transportation energy needs of the region.

A draft of this Study is expected to be released this summer. The SDREO will use the Study to draft a Regional Energy Strategy ("Strategy") for SANDAG consideration by the end of the calendar year. The objective of the Strategy is to provide answers to the major energy questions facing the region. The Regional Energy Policy Advisory Council (REPAC), including the appointments made by the SANDAG Board at the June business meeting, will provide community and technical input and guidance for the Strategy.

The Problems: The Market, Supply and Cost

The San Diego region spent over \$6 billion on electricity and natural gas over the past two years, roughly 3.4 percent of the region's Gross Regional Product. Of this amount, more than \$3.8 billion left the region's economy. During the same time period, the region spent nearly \$155 million more on electricity and natural gas than it did the year before. Despite the cost increases, conservation efforts cut energy use by 16% and saved the region over \$200 million.

While state authorities feel that adequate supply of electricity exists to prevent rolling blackouts this summer, the prognosis in the mid-to-long term is less certain and of particular concern. From 2002 through 2030, it is estimated the region will spend approximately \$162 billion on electricity and natural gas. As the region learned from the last two years, the risks and cost of losing control of our

Key Issues

- What are the most critical energy problems facing the region?
- What energy projects and programs are needed to solve these problems and what local and regional actions are needed to carry them out?
- How can the region better organize to positively influence its energy future?

Basic Facts

- Electricity demand is estimated to double by 2030.
- This increased demand is the equivalent output of seven to eight new power plants.
- Additional electricity and natural gas transmission facilities are needed.
- The increased demand can be met by a combination of new power plants, repowering or replacing existing power plants, energy efficiency, small scale generation, and renewable resources.
- There will be a much higher growth in energy demand in Northern Baja California and significant opportunities for the larger binational region to cooperate in solving energy supply issues.

energy destiny are extremely high. Although the impacts of the current crisis continue to be significant, the opportunities that can be realized (or missed) through planning are equally impressive. By improving electricity end-use efficiency by only one percent per year, the region can save over \$21 billion through 2030. A slightly more aggressive efficiency target of improving efficiency by two percent per year saves over \$38 billion. Eliminating growth altogether in electricity end-use would save nearly \$57 billion. A return on investment from energy efficiency and small-scale, customer owned power generation of \$5 for every \$1 invested is possible.

In addition, the region could create thousands of new jobs in our communities over the 30-year period by maximizing the use of small-scale power technologies (like cogeneration plants, solar photovoltaics and fuel cells). Future energy development will require careful and probably more costly environmental controls to ensure the region's quality of life is maintained. This is another reason for aggressive energy efficiency initiatives.

Over the past several years, the energy markets and state and federal oversight have failed in providing adequate and reasonably priced energy. The primary problem that our region and other areas of the state are now facing is that we have been reactive to the evolving crisis and have had very little influence on the demand and supply options that have been selected. The region can no longer afford a reactive approach to the highly fragmented energy market. New supply options must be chosen using a much broader and comprehensive perspective beyond traditional approaches.

Potential Projects, Programs, and Actions

The critical energy challenges facing the region in the next several years, as well as over the next several decades, present the opportunity for pro-active intervention at the local and regional level. The kinds of questions that need to be answered in considering the regional energy action agenda include:

- To what extent should the San Diego region be self-sufficient in meeting electricity supply needs?
- What is the most advantageous priority and timing for selecting among various energy options such as in-region power generation, transmission facilities to connect to out-of-region supplies, and energy efficiency and small-scale and renewable technologies?
- Does the region need to improve the way it works on energy issues to be more pro-active and effective in securing the best energy future possible?

Potential Actions

- Support and participate in electricity and natural gas supply projects (with appropriate environmental and timing constraints).
- Support and participate in energy efficiency, small-scale power and renewable resource initiatives.
- Better organize at the regional level to more effectively impact project and program planning and development.
- Work with Northern Baja California on coordinating binational energy projects.

The following is a listing of some of the more important action items that could be addressed.

Electricity

- Replacing the South Bay Power Plant should result in significant efficiency benefits and the opportunity to improve environmental performance. While planning for this project should be started soon, careful consideration should be given to the location of the replacement plant with respect to regional transmission system needs and environmental issues.

- Significant benefits can be derived from repowering the Cabrillo Power Plant in Carlsbad to achieve improved efficiency and environmental performance.
- Additional transmission to the south, north and potentially east should increase reliability, control prices, and improve the overall self-reliance of the region.
- The region should attempt to diversify supply in order to create more options and limit price volatility.

Natural Gas

- Natural gas supply and distribution infrastructure for residential and small commercial customers is currently adequate. New power generation needs will drive the need for additional gas supply and infrastructure for the region.
- There is a concern for the growing dependence on a single fuel resource. Natural gas production is slated to peak and begin to decline in the 2010 to 2015 time period. Supply diversity should be pursued to help mitigate this issue.
- Longer-term (15 years and beyond), natural gas supplies may need to be augmented by new resources such as Liquefied Natural Gas (LNG).

Energy Efficiency, Renewable Resources, and Small-Scale Power Generation

- The largest energy saving measures includes real-time and time-of-use pricing, residential and commercial retrofit of existing buildings, and new construction that exceeds Title 24 Building Code standards.
- Substantial potential for small-scale power generation and renewable resources exist within, and in close proximity to, the County. These options can improve the region's available local supply of clean resources and also can provide significant economic benefits to the region. Although these resources will require continued public financial support in the near-term, over time they will become more cost-effective.

Regulatory and Policy

- The region should position itself for more active involvement in relevant energy infrastructure, supply and pricing regulatory and legislative proceedings.
- Better regional organization and coordination should be evaluated to improve integrated energy planning and to support the implementation of critical projects and programs that will provide a hedge against volatile energy market behavior.
- The region should pursue more binational cooperation and coordination of new energy development.

Can the region better organize for energy success?

The short-fused nature of last year's energy crisis prompted many public agencies to take unilateral action to protect their citizens, limit costs and protect the health and welfare of their communities. Effective involvement in the region's energy future suggests a more coordinated and pro-active approach, options include:

- ◆ Continue with the status quo.
- ◆ Better engage the regulatory and legislative process to try to ensure that the industry and state and federal regulators act in the best interests of the region. The Regional Energy Policy Advisory Council could be the forum for establishing consensus and developing recommendations to SANDAG and others.
- ◆ Evaluate new or improved regional coordination and organization to more effectively plan future resource needs and participate in public-private ventures to ensure the region's energy supply needs are met. Examples of the types of actions that could be taken include issuing revenue bonds to assist financing of power plants, small-scale and renewable generating technologies and efficiency programs, and aggregating public agency energy development and efficiency program opportunities to reduce costs of implementation. These types of functions could be incorporated into the responsibilities of one or more existing entities, or creation of a new entity could be considered.