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DEPARTMENT OF
PUBLIC WORKS

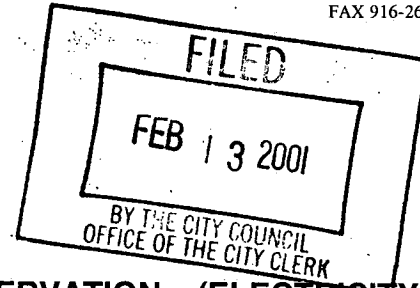
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February 2, 2001



City Council
Sacramento, California

Honorable Members in Session:

SUBJECT: REPORT BACK ON UTILITY CONSERVATION (ELECTRICITY AND NATURAL GAS SUPPLY REPORT)

LOCATION AND COUNCIL DISTRICT: Citywide

RECOMMENDATION:

This report is for information only and does not request any actions from Council at this time.

CONTACT PERSON: Rick Matsuo, Supervising Engineer, 264-5904
Brian Reilly, Senior Engineer, 264-8427

FOR COUNCIL MEETING OF: February 13, 2001

SUMMARY:

This report will outline the City's effort to conserve and reduce its energy consumption due to the State's energy crisis. Conservation measures including past, present and future programs will be covered in detail.

The City of Sacramento continues to voluntarily curtail electricity consumption at the request of the Sacramento Municipal Utility District (SMUD), to maintain energy efficiency in the operation and maintenance of its facilities and to actively engage in the pursuit of energy efficiency projects to reach beyond the mandated Title 24 Energy Efficiency Standards.

Furthermore, the City has taken immediate action to reduce its electricity consumption with a goal of implementing additional long-term energy efficiency measures in accordance with the Governor's 7% (Approx. 7,300,000 KWH) electricity reduction goal, urging residents and businesses of our City to do the same.

COMMITTEE/COMMISSION ACTION:

None.

BACKGROUND INFORMATION:

On January 30, 2001, SMUD Board of Director Larry Carr and Assistant General Manager Jim Shetler presented an overview to City Council with regard to California's present energy crisis. This follow-up report will identify short-term energy conservation guidelines as well as recommend long-term energy efficiency measures.

While California's electricity use (demand) has increased steadily, generation (supply) in the State has failed to keep pace. As a result, Governor Gray Davis has asked Californians to reduce electricity consumption with regard to the State's supply shortage.

In addition to the shortage of electricity that California continues to experience, the rising cost of natural gas has escalated to unprecedented levels.

Electricity History:

In September of 1996, the Legislature enacted, and Governor Wilson signed, Assembly Bill AB 1890 to restructure California's electric utility industry. The goal of the legislation was to expand customer choice and to lower electricity rates.

Although AB 1890 established a new market structure that provided for a completely competitive electric generation market where end-use customers have a choice to directly negotiate the supply of generation through alternate energy providers, the Bill has fallen well short of its expectations.

On February 6, 1997, the SMUD Board, in order to meet the competitive challenge initiated by AB 1890, adopted a policy that enabled customers in their service territory to choose their electric energy supplier for the generation commodity only. In 1998, the City successfully entered into an agreement with SMUD yielding guaranteed savings comparable to that of alternate energy providers.

Today, California faces a severe imbalance between the supply and demand of energy. To mitigate the statewide energy crisis, Governor Davis has called for Californians to reduce and conserve energy. In response, the City of Sacramento has proactively, aggressively, and reasonably engaged in energy conservation measures through the direction of our City Manager.

Natural Gas History:

Between 1984 and 1993, the California Public Utilities Commission (CPUC), in conjunction with the Federal Energy Regulatory Commission (FERC), issued a series of decisions

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intended to restructure the natural gas industry. In these decisions, the CPUC unbundled gas sales from transportation services, reformed gas purchase contracts, and opened access to interstate pipeline transportation capacity to promote gas supply competition.

In November 1995, PG&E announced its intent to completely restructure its natural gas services under a program known as the PG&E Gas Accord. The main objective of the program was to increase customer choice by changing PG&E's role in procuring natural gas supplies for its customers. On August 1, 1997 the CPUC approved the provisions of the PG&E Gas Accord.

The deregulation of gas in California induced major changes in the utility industry. Under deregulation, gas service was unbundled into three distinct functions: transmission, distribution, and commodity. Natural gas end users were no longer required to purchase energy from a single source provider for these services.

In January 1998, the City of Sacramento signed its first service agreement for the supply of natural gas from an alternate provider. The City has continued to purchase gas commodity at a guaranteed discount to PG&E's cost of gas.

Energy Conservation Program:

In order to reduce energy consumption within the City, voluntary staff participation is essential to the success of the program. Additionally, education of the City's employees as well as its Citizens will aid in the further reduction of energy demand.

• ***What has the City done in the past?***

Dating back to 1992, the City has made significant strides with regard to demand-side management reform. Twenty-three projects have amounted to over \$440,000 in annual energy savings and \$535,000 in SMUD rebates. Ultimately, the replacement and conversion to more energy efficient lighting, heating, ventilating and cooling equipment (HVAC), and light emitting diode (LED) technology have curtailed the City's energy consumption by over 6,400,000 KWH (Approx. 6.1% reduction annually).

Additional savings have also been realized as a result of negotiated agreements with the City's energy service providers. Cumulative savings exceeding \$200,000 from natural gas and electric services agreements have been credited over a three year period.

• ***What is the City doing now?***

The City of Sacramento has taken immediate action to reduce its electricity consumption by enacting emergency energy conservation measures such as turning off lights and office equipment when not in use, reducing light levels when in use, and lowering heating temperature settings as well as many other measures.

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In addition, the City is voluntarily curtailing electricity consumption at the request of the Sacramento Municipal Utility District (SMUD) during peak demand shortages. The City is also maintaining energy efficiency in the operation and maintenance of its facilities and is actively engaging in the pursuit of energy efficiency projects to reach beyond the mandated Title 24 Energy Efficiency Standards.

The City has recently been approved to receive \$162,500 in LED traffic signal grant funding under AB970's Peak Load Reduction Program. This retrofit project will result in further reducing the City's energy consumption by 1,600,000 KWH (Approx. 1.5% reduction by June 1, 2001) including an estimated annual energy savings of \$91,000.

Through progressive education efforts by City personnel, the City will be positioned to better manage its energy resources by further reducing consumption with a goal of implementing additional long-term energy efficiency measures in accordance with the Governor's 7% (Approx. 7,300,000 KWH) electricity reduction goal, urging residents and businesses of our City to do the same.

• ***What is the City planning for the future?***

Public Works staff is planning to implement various energy programs, projects, and agreements based on available funding. These include:

- Promotion of educational programs such as public service announcements in cooperation with SMUD and PG&E.
- Completion of LED traffic signal retrofit.
- Retrofit of lighting controls such as occupancy sensors within existing facilities where applicable.
- Incorporation of energy efficient design for the Civic Center project that exceeds Title 24 Standards by 25%.
- Conversion of park irrigation pumps to variable speed drive technology.
- Installation of energy reporting software system for utility tracking options, validation of billing accuracy, energy benchmarking, development of energy projections, and report generation.
- Re-negotiation of energy services agreement for electricity:

Staff is evaluating other energy efficient technologies based on available incentives and payback analysis. These include:

- Solar energy (photovoltaics)
- Chilled water storage systems
- T-5 fluorescent lamps
- Indirect/direct evaporative cooling

While the City continues to undertake efforts to reduce energy consumption and implement energy efficiency measures, additional resources must be made available to maximize the benefit of future energy measures to the City and to its Citizens. The establishment of a long-term sustainable energy management program is vital to the development of energy

conservation measures and policies, monitoring of results, and keeping abreast of new technologies.

FINANCIAL CONSIDERATIONS:

The FY00-01 Midyear report recommends that City Council appropriate \$500,000 of the anticipated increase in Utility User's Tax to establish a capital project to support the implementation of energy conservation measures. Staff will report back to City Council in 60-90 days with a specific energy conservation work program.

ENVIRONMENTAL CONSIDERATIONS:

There are no environmental considerations for this report at this time.

POLICY CONSIDERATIONS:

This policy consideration is consistent with the City's goals of reducing energy consumption and continuing to implement energy efficiency measures for its facilities.

ESBD CONSIDERATIONS:

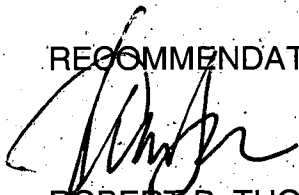
None, since no good or services are being purchased with this report.

Respectfully submitted,

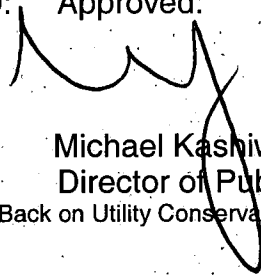


Ken Grehm
Supervising Engineer

RECOMMENDATION APPROVED: Approved:



ROBERT P. THOMAS
City Manager



Michael Kashiwagi
Director of Public Works

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