THE CITY OF SAN DIEGO

MANAGER'S REPORT

DATE ISSUED: November 19, 2001 REPORT NO. 01-252

ATTENTION: Committee on Rules, Finance and Intergovernmental Relations
Agenda of November 21, 2001

SUBJECT: Energy Conservation and Management Status Report No. 8

REFERENCE: Manager's Report Nos. 01-175, 01-183, & 01-211

SUMMARY

THIS IS AN INFORMATION REPORT. NO ACTION IS REQUIRED ON THE PART OF THE COMMITTEE OR THE CITY COUNCIL

BACKGROUND

On February 12, 2001, City Council directed the City Manager to implement Mayor Murphy's recommendation to establish an energy oversight position to administer San Diego's efforts toward achieving energy self-reliance and conservation. Following an initial report to the Rules Committee on February 21, 2001 regarding the energy emergency and the status of the City's energy conservation and management efforts, the Environmental Services Department was directed to provide the Committee with monthly status reports. This is the eighth status report in response to the Committee's direction.

DISCUSSION

While the Summer 2001 energy supply and reliability emergency has abated and the State has not experienced a rolling blackout since May 8, 2001 or a staged emergency since July 3, 2001, the energy crisis is not over but has just evolved to a different phase. The new phase of the energy crisis is financial. Current energy rates are a minimum of 50% higher than pre-deregulation rates

and are projected to significantly increase again in Summer 2002. Energy rates are projected to remain at these higher levels for years into the future to pay off the debt incurred by the State in making energy purchases for California's utility companies and the high energy costs in the long-term (up to 10 year) contracts entered into by the State to provide energy reliability. The energy crisis has also been replaced as a focus in the media by the tragic events of September 11, 2001 and on-going security and safety concerns. Never the less, the energy crisis has not ended and is having and will continue to have a major financial impact on the City into the future. Therefore, efforts to manage energy consumption and pursue energy independence need to remain a high priority for the City.

State Energy Purchases

On January 17, 2001, Governor Davis issued an Executive Order directing the California Department of Water Resources to begin purchasing electricity for California's utility companies when their creditworthiness became questionable and major energy generation companies refused to sell power to them.

On October 19, 2001, the Department released an updated estimate of its energy purchase revenue requirements showing a 20% decrease in projected costs compared to its previous estimate. The decrease was attributed to conservation, lower natural gas prices, reductions in spot market prices due to market stability established by long-term energy contracts and an increase in direct access allowed by the California Public Utilities Commission (CPUC).

The Department now projects total costs for purchasing power on behalf of Pacific Gas & Electric, Southern California Edison and San Diego Gas & Electric for the period of January 17, 2000 through December 31, 2001 to be $17.2 billion. This is a $4.2 billion decrease from the Department's previous estimate of $21.4 billion issued on August 9, 2001 and is consistent with usage data recently released by the Governor's office and the California Energy Commission (CEC). Those press releases showed total August power purchase costs to be $815 million, down $100 million from July costs and only 40% of the $2 billion power purchase costs incurred in May 2001. The CEC released electricity consumption numbers for September and October 2001 indicating Californians used 8% less energy during peak periods and 12.3% less total energy compared to September 2000. For October peak use was down 8.8% and overall energy use down 1.8% compared to October 2000.

The Department is seeking to issue $12 billion in long-term bonds to pay for its power purchases prior to October 1, 2001, to further lower its costs and potentially reduce customer electricity rates. Effective October 1, 2001, SDG&E commercial energy rates were increased by 20% with the entire increase dedicated to paying the cost of State power purchases.

City Energy Usage and Cost

Higher energy rates since deregulation have significantly increased the City's total cost of electrical energy since 1999 even though energy consumption has decreased through energy conservation and efficiency. In FY 1999, total energy costs were approximately $17.8 million. For FY 2002, total costs are expected to exceed $30 million even with capped energy rates, 20/20 rebates, energy efficiency improvements and conservation efforts by City employees.

The following table shows a comparison of energy consumption and costs from January through August in 2000 and 2001:

Energy Consumption and Cost Comparison
January – August 2000 v. 2001

	Consumption (kWh)		**Cost (Dollars)**	
Month	2000	2001	2000	2001
Jan	17,872,471	13,831,796	$1,294,900	$2,743,702
Feb	18,251,637	14,461,656	$1,264,821	$2,669,273
Mar	16,082,192	14,912,895	$1,194,095	$2,955,593
Apr	19,949,804	16,869,673	$1,255,014	$3,125,122
May	15,466,431	14,868,166	$1,438,665	$1,930,502
Jun	14,726,251	17,668,803	$1,822,731	$1,863,959
Jul	32,691,718	18,674,183	$3,403,707	$2,144,576
Aug	17,908,196	18,174,826	$3,636,824	$1,876,971
Total	149,948,700	129,461,998	$15,310,747	$19,309,702
% Change		**- 14%**		**+ 26%**

It is difficult to directly compare energy costs in 2000 versus 2001 because of the variables that impact total costs including legislatively capped rates versus market prices, retroactive rebates and the 20/20 rebate program. If energy consumption in 2001 had remained at the same levels as 2000, total energy costs for 2001 would have been over $22 million; therefore, the 14% reduction in energy consumption resulted in over $3 million in cost avoidance.

AB 206 Municipal Utility Districts

This bill by Assembly Member Mark Wyland (R-Del Mar) was intended to permit the establishment of a County-wide municipal utility district in San Diego County and included a provision for an initial Board of Directors composed of two elected officials each from the City, the County and three members from the other cities in the county to establish the district and take it through its formative years. Through the legislative process all of the San Diego specific portions of the bill were deleted. The bill that was enacted and sent to the Governor requires the

participation of two public agencies to initiate the formation of a municipal utility district and deleted the provision on dividing a public agency, except for a city, in the formation of a district. The bill also authorized a county to be considered a public agency for these and certain other related purposes relative to the unincorporated area of a county.

Because of the overriding concern with the $10 billion in debt incurred by the State to purchase energy and the need to sell revenue bonds to cover that debt, the Governor vetoed AB 206. In his veto message, he expressed his support for the formation of new municipal utility districts, but indicated they must be structured to bear a fair share of the energy costs assumed by the State. Further, the Governor stated that he would sign legislation next year if it met the conditions expressed in his veto message.

Retroactive Energy Cost Rebates

When the cost impacts of deregulation first became apparent, the Legislature enacted AB265 that placed a ceiling of 6.5 cents per kWh on energy, retroactive to June 2000, for customers with a monthly demand of less than 100 KW during nine of the preceding 12 months. In its First Extraordinary Session of 2001, the Legislature enacted AB 1X 43 which extended this rate cap to customers with a monthly demand greater than 100 MW retroactive to February 2001.

On July 12, 2001, the California Public Utility Commission passed a resolution enabling larger customers to be covered by the initial rate ceiling back to June 2000. The new criteria allowed larger customers to receive a credit for the difference between 6.5 cents per kWh and market prices in any month with a demand of less than 100 MW between June 2000 and February 2001. SDG&E reviewed the City's energy accounts and recalculated the bills that met the CPUC's criteria and were eligible for the retroactive credits for the difference between the market price and the 6.5 cents per kWh capped price. In SDG&E's October billing, the City received credits totaling $1,221,350.16 for the 39 accounts that qualified for rebates. This amount does not include Metropolitan Wastewater Department accounts, which are billed separately, and are estimated to be eligible for up to an additional half million dollars in rebate credits. The following table shows the facilities or departments receiving retroactive credits in October:

FACILITY/DEPARTMENT	# OF ACCOUNTS	TOTAL $ CREDIT
Community Concourse	1	$261,306.13
Library	4	$36,384.41
Park & Recreation	4	$35,049.44
Police	2	$137,590.49
Public Works Operations Stations	2	$88,217.47
Qualcomm Stadium	1	$155,155.23
Water	24	$475,916.45
World Trade Center	1	$31,730.54
Totals	39	$1,221,350.16

City of San Diego Summer Action Plan – 20/20 Rebates

As part of its effort to reduce summer energy demand and usage, the State implemented the 20/20 Energy Rebate Program. Under the program, SDG&E customers that reduced energy use by 15% or more during July through September 2001, compared to the prior year, received a 20% rebate on the electric energy portion of their energy bill. When combined with the savings from reduced energy consumption, total savings were 30 to 35% compared to the prior year.

On June 19, 2001, Council approved the City's Summer Energy Action Plan with its goal of reducing energy consumption in City facilities by 15% compared to last summer's energy usage and qualify for the State's 20/20 rebates. Over the three months of the 20/20 Program, July through September, a total of 4,738 City energy account bills showed reductions in energy consumption of 15% compared to the same period in 2000, and qualified for $186,148 in State 20/20 rebates. Total savings, 20/20 rebates plus cost avoidance resulting from reduced energy consumption, exceeded a half million dollars compared to the same period last year.

Winter Energy Savings Plan

With the end of the Summer 2001 Energy Emergency period on September 30, many employees asked if the City could go back to using energy as it did before the start of the energy emergency. The simple answer is no. Although we have moved beyond the summer energy supply crisis, the City is still being impacted by the higher energy costs resulting from deregulation and will be for years into the future.

City energy bills have doubled since deregulation, in spite of all of our energy efficiency projects and conservation efforts. New electrical energy rates that became effective October 1, 2001, have the potential to increase City energy costs by $3 million or more per year; so continuing energy conservation measures to control City energy costs is still very important.

A Winter Energy Savings Plan has been developed and a brochure will be distributed to City employees in mid November. The plan focuses on actions City employees can take to use energy wisely and reduce energy consumption without impacting their comfort or productivity.

Photovoltaic Project Status

The first Request for Proposal (RFP) for the design and installation of photovoltaic systems on two Environmental Services Department facilities, the Ridgehaven "Demonstration Green" Building and Environmental Services Operations Center on Miramar Place, was issued to the five short listed firms, Kerr Light Corporation, Kyocera Solar, Miralles, Wu & Shimizu, Power Lite Corporation and Siemens Buildings Technologies on November 2, 2001. Metropolitan

Wastewater Department will issue an RFP for PV systems for three of its buildings, MOC I, II & III in Kearny Mesa, in early January 2002.

The timeline for the Environmental Services Department projects are as follows:

RFP issued to Contractors	November 2, 2001
Contractor's Proposals Due	December 3, 2001
Complete proposal review by City staff	December 14, 2001
Docket project for Council consideration	January 7, 2002
Issue Notice To Proceed for project construction	January 21, 2002

Under this schedule, the projects will be completed prior to Summer 2002 when reduced energy consumption will be most needed and will provide the greatest cost savings.

In cooperation with the Corporate Sponsorship and Development Program, the RFP now includes an opportunity for firms responding to the RFP to enter into a marketing partnership with the City. The marketing partnership would provide cash, services or discounts to the City in return for access to the commercial marketing potential of being associated with the City.

Conversion of Traffic Signals to LED Bulbs

Over the past few years, in excess of 30,000 red and green bulbs in City traffic signals have been converted from incandescent bulbs to light-emitting diode (LED) bulbs that are over eight times more energy efficient and significantly reduce energy consumption and costs. Since July, traffic signals qualified for over $50,000 in rebates through California's 20/20 Energy Rebate Program because energy use was reduced by more than 15% compared to the prior year.

When Rosecrans Street and Balboa Avenue were transferred to the City for maintenance by the State, 30 signalized intersections were added to the City's inventory of 1,410 signalized intersections. While CalTrans had converted the red bulbs at those intersections to LED bulbs, 492 green incandescent bulbs still needed to be converted to LED bulbs to reduce energy costs.

The City has obtained $80,000 in grant funding from SDG&E to fund conversion of the 492 green incandescent bulbs at the 30 intersections transferred from CalTrans. Additionally, Street Maintenance Division staff will convert green incandescent bulbs at other City intersections to completely use the rebate funds available from SDG&E. At last count, approximately 1,000 green incandescent bulbs, not including the 492 bulbs in CalTrans signals, at City traffic signals still need to be converted to LED bulbs. The $80,000 grant from SDG&E exhausted current year funding for LED conversions. Street Maintenance Division will schedule the replacement of the remaining green incandescent bulbs with LED bulbs if grant funds become available in 2002.

Joint Submission for CPUC Funding with SDG&E

The Energy Conservation and Management Division is working with SDG&E on a joint submission to the California Public Utilities Commission (CPUC) for funding energy conservation and educational outreach programs. The programs proposed to be submitted for funding include: 1) a residential building permit waiver for homeowners and residential contractors who retrofit homes built prior to 1978 with energy efficient equipment and building materials, 2) electronic educational kiosks to be located in public facilities to provide citizens with information on energy conservation and the ability to print rebate forms for energy efficient equipment and appliances, 3) elementary and junior high school energy presentations and materials to teach students about energy resources and energy conservation, 4) an adult energy education and outreach program to provide City residents with information regarding energy conservation and funding or rebate programs to help them improve the energy efficiency of their residence or small business to reduce energy consumption and energy costs, and 5) funding to establish a revolving fund to pay for energy efficiency improvements at General Fund facilities.

While the CPUC has not yet set a deadline for submission of proposals for programs to be funded in 2002 using Public Goods monies, the City and SDG&E plan to submit joint or separate funding proposals before the end of the year. The CPUC funding, if granted, would fully support the proposed programs and would not require additional City funding.

Library Energy Audits

At the request of the Library Department, Energy Division staff met with SDG&E staff and negotiated for SDG&E to conduct energy audits of all City branch libraries. The audits were completed in mid-October and analyzed the potential energy savings from improvements to or replacement of existing energy (lighting and HVAC) systems.

The audit report concluded that significant energy savings could be achieved by upgrading existing energy systems in twenty-eight branch libraries. The audit report estimated that an investment of $137,500 to implement SDG&E's recommendations could reduce energy consumption by almost 367,000 kWh per year and provide almost $49,000 per year in energy cost savings. With SDG&E rebates of just over $25,000, the improvements would have a simple payback of 1.85 years based on pre-October 1, 2001 energy rates.

Unfortunately, by the time SDG&E issued its Audit Report, the Express Energy Efficiency Program rebate funds were exhausted for 2001. The City will be able to apply for Standard Performance rebate funds in 2002, which provide a higher level of rebates than the Express Efficiency Program. This extra time will allow City staff to refine the recommendations and pursue funding for the full cost of the improvements, which must be completed in order to qualify for the rebates.

Regional Energy Infrastructure Study

On September 6, 2001, Council authorized the City to participate in a partnership with the San Diego Regional Energy Office, County of San Diego, County Water Authority, Port of San Diego, San Diego Associations of Governments (SANDAG) and the United Consumer Action Network (UCAN) to undertake a comprehensive study to evaluate the long term (2002-2030) energy infrastructure needs of the San Diego region including parts of Baja California Del Norte.

Following an intensive RFP process, Science Applications International Corporation (SAIC), a San Diego based firm with more than 5,000 employees in the region, was selected to conduct the study. San Diego Regional Energy Office, as the Project Manager, negotiated a scope of work and contract with SAIC valued at $400,000. The study, which is to be completed in March 2002, will serve as the foundation for a community-wide discussion and the development of a comprehensive Regional Energy Strategy by June 2002.

The study will evaluate projected regional energy demand, supplies and infrastructure needs using four scenarios, a base case of continuing the build out of conventional power plants and importing energy, the moderate deployment of distributed generation and use of renewable resources, the aggressive deployment of distributed generation and use of renewable resources, and the appropriate employment of emerging technologies such as fuel cells, real time metering, etc over a 30-year horizon. The study will also address critical questions such as projected regional demand for energy, required energy supply levels and potential roles for public agencies in future energy markets.

Results of the study will form the basis for development of a regional energy strategy and the discussion of issues related to the development of local government energy policies.

CONCLUSION

The Summer 2001 energy supply and reliability crisis has been resolved. However, energy reliability came at a high cost as evidenced by the energy purchase costs incurred by the State that are now being passed on to commercial customers through energy rate increases that became effective on October 1, 2001.

The City's Summer Energy Action Plan achieved its desired result with 4,738 City facility energy bills receiving 20/20 rebates of $186,148 and total energy cost savings exceeding a half million dollars compared to the same period in 2000.

The energy crisis is not over, it has just moved into a new phase. The City's goal of pursuing energy independence and making San Diego a model city in terms of energy conservation and utilization of renewable energy resources has been validated by the events during the Summer 2001 energy emergency. Staff has now shifted its focus to implementing long-term energy efficiency projects to reduce energy consumption and control costs in the new era of higher

priced energy.

Respectfully submitted,

Approved by:

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Robert A. Epler
Interim Energy Administrator

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George I. Loveland
Senior Deputy City Manager

LOVELAND/HAYS/RAE