

COUNTY OF SAN MATEO

Inter-Departmental Correspondence

Date: January 30, 2001

Board Meeting Date: February 6, 2001

TO: Honorable Board of Supervisors
FROM: Supervisor Mike Nevin, President of the Board
SUBJECT: County Energy Efficiency Measures

RECOMMENDATION

Accept this report and direct staff to continue its evaluation of alternatives to further reduce our current energy demands

Key Facts

The deregulation of the energy industry and the "Stage 3" events of the past month have highlighted that the State of California is dependent on "out-of-state energy". The economy of the State and the County will continue to need these "out-of-state" energy sources, until such time as demand is reduced, our own resources developed or alternative sources of energy are perfected.

Discussion

Developing resources and perfecting alternative sources of energy may be out of the purview of County government, but the County has aggressively been involved in conserving energy and reducing energy consumption, not just during this crisis but for the past six years. The following is a summary of the actions that this Board has taken and some additional ideas to consider in order to reduce our energy use even further.

Energy Conservation in Retrospect

Our Board agreed in 1995 to participate in the Federal Environmental Protection Agency's (EPA) Green Lights Program with the first major project consisting of replacing approximately 8,900 lights and the associated ballasts at five County Facilities (Hall of Justice, the County Office Building at 455 County Center, the Law Library, a wing of the County Jail in Redwood City, and the Probation Department Administration Building at Hillcrest in San Mateo). This project initially cost \$560,000 and replaced lighting in approximately 520,000 square feet of County-owned space. The cost of the project was repaid over a four year period from the energy savings associated with using more energy efficient lighting.

The County also incorporated energy efficient lighting projects as well as energy management controls in all of its new building and renovation projects. These projects included the General Hospital in San Mateo, the five story Office Building at 555 County Center in Redwood City, the Health Center in Daly City,

Honorable Board of Supervisors

Subject: County Energy Efficiency Measures

January 30, 2001

Board Meeting Date: February 6, 2001

Page 2

the HSA Building in North Fair Oaks, renovation of the 4th and 6th floors and the Board of Supervisors Chambers in Hall of Justice, and the Traffic and Small Claims Court building in Redwood City, and represents 700,000 square feet of County owned space

In 2000 the Board approved another \$1 6 Million energy efficiency program which expanded the lighting retrofit work to an additional 230,000 square feet of County-owned space in nine other facilities (Central Courts, Dependent Children' Home, the Elections Building, the East Palo Alto Government Center, the Sheriff's Honor Camp, the north county Detention Facility, the Redwood City parking structure, the Women's' Correction Facility and the Work Furlough Facility) In addition, the project includes changes in energy controls, the replacement of heating, ventilation and air conditioning units with high efficiency units, and the installation of thermal pane glass to reduce heat loss These projects have the secondary impact of reducing emissions associated with energy consumption, which includes 383 tons of carbon dioxide, 2,247 pounds of nitrous oxide and 1,347 pounds sulfur dioxide annually

Energy Conservation Today

The County has also taken steps to reduce energy usage by implementing measures which incrementally save energy and make staff and the public aware that conservation is one of the most effective tools we have in conserving energy These measures include reducing the amount of light that remains on in hallways and in structures before and after the business day (Parking Garage, Hall of Justice, County Office Buildings), lowering the ambient temperature of all domestic hot water except in kitchen areas, lowering the temperature of water used in the facilities' heating systems, and reducing the dependence on air conditioning chillers and evaporators and utilizing the outside air to cool buildings We do not have an estimate at this time on the amount of energy that these steps will save, but these measures certainly indicate that conservation measures are available to reduce our energy consumption

Energy Conservation in the Future

Building Evaluations

The Board approved the funding of a comprehensive evaluation of the 2 5 million square feet of County-owned facilities This evaluation, completed in October 2000, identified over \$33 Million in current deficiencies and projected key dates when major energy consuming building systems will require renewal or replacement Input from this facility evaluation together with the associated monitoring programs will assist staff in making funding recommendations in the new 5 Year Capital Improvement Program to be completed in October 2001 Energy Savings projects were a priority for funding in this plan

Honorable Board of Supervisors

Subject: County Energy Efficiency Measures

January 30, 2001

Board Meeting Date: February 6, 2001

Page 3

Green Building Design

We are currently investigating using solar film and window coverings on the Hall of Justice to improve lighting while not increasing heating and cooling requirements and using the parameters of "green" energy" efficient buildings (taking advantage of natural light, solar heating, etc) in all future building projects undertaken by the County; and evaluating using our emergency generators when possible to "exercise" the generators and reduce peak electrical loads to avoid blackouts We are also evaluating using the services of an Energy Coordinator - either a County position, consultant or contractor to monitor and improve on our energy usage

Fiscal Impact

The programs that we have been involved in were based on investing capital dollars that are paid back in cost avoidance energy savings in the future, and these savings will certainly be more as the price of energy increases However, the rising cost of energy can negate the savings of these past programs, and therefore we must continue to look for ways to reduce costs by conserving on the energy that we use

Supervisor Michael D Nevin
President, San Mateo County Board of Supervisors

MDN.sdd

Nevin Energy Savings Jan 25 Staff Report to BS2 doc