



EL DORADO COUNTY GRAND JURY 2009-2010

ENERGY CONSERVATION AND COST SAVINGS

Case No. GJ 09-003

REASON FOR REPORT

The Grand Jury received a citizen complaint that El Dorado County, California, Board of Supervisors Policy Number A-I8, Energy Conservation Policy, is not being enforced.

BACKGROUND

Board of Supervisors Policy Number A-I8 was adopted on June 5, 2001. Policy A-I8's stated purpose is to identify conservation and cost saving measures related to energy consumption as well as outline procedures in the event of sustained and/or rotating electrical outages. Policy A-I8 sets heating and cooling practice such that all mechanical equipment in County-owned buildings or leased space will be set to provide a maximum of 68 degrees for heating and a minimum of 78 degrees for cooling. Policy A-I8 also provides that temperatures in Juvenile Hall, Mental Health inpatient/outpatient facilities, or other identified facilities may be set at 73 degrees cooling.

BOS Policy A-I8 may be referenced at: www.co.el-dorado.ca.us/BOSPolicies/pdf/A-I8.pdf

METHODOLOGY

The Grand Jury inspected County-owned buildings and County-leased spaces. The Grand Jury interviewed staff members, supervisors, and department heads. The Grand Jury requested and reviewed documents related to this investigation.

The 2009-2010 EI Dorado County Grand Jury has arrived at the following findings:

1. EI Dorado County spends more than \$2 million annually for heating, air-conditioning, and lighting in County-owned and leased buildings.
2. Board of Supervisors (BOS) Policy A-18 does not designate a specific department or official to ensure that the County complies with, nor has the BOS enforced compliance with this Policy.
3. Centralized computer systems permit Department of Transportation (DOT) personnel to set minimum and maximum temperatures at multiple County-owned buildings from a single location. The remaining County-owned buildings, and the County-leased buildings, do not have centralized computer management systems and therefore, temperatures are set on an individual basis.
4. BOS Policy A-18 directs that mechanical equipment in County-owned buildings or leased space will be set to provide a maximum of 68 degrees for heating and a minimum of 78 degrees for cooling.
5. Some County-owned buildings have old and outdated HV AC units and, when combined with changes in inside office configurations, these conditions make it difficult to keep all employees comfortable through the different seasons. Notwithstanding the old and outdated equipment and changed interior configurations, DOT personnel do have the capability to set mechanical equipment in County-owned buildings or leased space to provide a maximum of 68 degrees for heating and a minimum of 78 degrees for cooling.
6. The DOT has not required personnel to comply with BOS Policy A-18. DOT personnel do not maintain equipment in County-owned buildings or leased space in accordance with BOS Policy A-18. This is a deliberate decision motivated by a good-faith desire to keep County employees more comfortable.
7. The County does not have a detailed master plan to identify, replace, and update old and inefficient heating and air-conditioning units. The County has deferred replacement of old and inefficient HV AC units with the result that units break and no replacement parts are available, and/or other units are cannibalized for parts.
8. The County does not have a capital reserve set aside to replace and update old and inefficient HV AC units.
9. The California Energy Commission has estimated that raising the thermostat in the summer from 73 degrees to 78 degrees can save 15 percent in energy costs, and that lowering the thermostat in the winter from 73 degrees to 68 degrees could save 25 percent in energy costs. If it is assumed that 40 percent

Of the County's energy bill is for HV AC, then these two changes could save the County as much as \$160,000 annually.

RECOMMENDATIONS

1. The Board of Supervisors should appropriate funds for a capital improvement account to replace old and inefficient heating and air-conditioning equipment.
2. The Department of Transportation should prepare a detailed plan for replacing old and inefficient heating and air-conditioning equipment.
3. The Board of Supervisors, through the CAO, should direct the Department of Transportation to take all steps necessary to ensure that personnel within his/her Department set mechanical equipment in County-owned buildings or leased space to provide a maximum of 68 degrees for heating and a minimum of 78 degrees for cooling.
4. The Department of Transportation should educate El Dorado County employees about the costs-savings benefits in complying with BOS Policy A-18, and should encourage County Employees to dress appropriately to be comfortable in these temperature ranges.
5. Each County Department should designate a supervisor as the point of contact for employee complaints of uncomfortable temperatures, so that the supervisor can determine whether BOS Policy A-18 is being complied with, and if not, communicate the problem to appropriate maintenance personnel.

RESPONSES

Responses to both numbered findings and recommendations in this report are required in accordance with California Penal Code §933 and §933.05. Address responses to: The Honorable Suzanne N. Kingsbury, Presiding Judge of the El Dorado County Superior Court, 1354 Johnson Blvd., South Lake Tahoe, CA 96150.

ACKNOWLEDGEMENT

The County Department of Transportation should be recognized for applying for the \$812,423 Energy Efficiency and Conservation Block Grant program which is funded through the American Recovery and Reinvestment Act (Federal stimulus dollars).

Facilities Inspected:

- Boiler Room, Building B, El Dorado County Government Center, Placerville, California
- Control Room, Building 3, 2850 Fairlane Court, Placerville, California
- County-leased facility at 3057 Briw Road, Placerville, California
- El Dorado County Library, Placerville, California

Interviews Conducted:

- Building Maintenance personnel
- Building Operations Supervisor
- Capital Group, Executive
- Citizen complainant
- Deputy Director, Facilities Engineering, DOT

Documents Reviewed:

- California Energy Commission letter dated August 3, 2009, to the El Dorado County Supervisors inviting the County to apply for \$812,423 in federal stimulus dollars (American Recovery and Reinvestment Act money)
- Department of Transportation's Response to Grand Jury Inquiry of November 30, 2009, containing:
 - a. Description of all energy audits that have been performed within the past five years;
 - b. Description of all plans for replacing inefficient heating, ventilation, air conditioning (HV AC) and lighting equipment;
 - c. Description of County Master Plan, Capital Improvement Fund, etc.;
 - d. Reports of power consumption by each El Dorado County facility;
 - e. Report of all funds received from the Federal and State Governments for increasing energy efficiencies;
 - f. Report of all plans for spending federal and state monies for increased energy efficiencies;
 - g. Information on the annual expenses for electricity, propane and natural gas for HV AC and lighting for all facilities under the jurisdiction of the County government.
- El Dorado County Board of Supervisors Agenda Item dated August 11, 2009, approving letter for support for the Lake Tahoe Green Energy District.

FINDINGS

In accordance with the California Penal Code §933 and §933.05, each numbered finding and recommendation will be responded to by the governmental entity to which it is addressed. The responses are to be submitted to the Presiding Judge of the Superior Court.