

THE CALIFORNIA STATE UNIVERSITY  
Office of the Chancellor  
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Long Beach, California 90802-4275  
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**Date:** February 1, 1989

**To:** Presidents

**From:** W. Ann Reynolds  
Chancellor

*W Ann Reynolds*

**Subject:** Systemwide Energy Conservation and Utilities Management  
Executive Order No. 538

I am transmitting to you a copy of Executive Order No. 538 which delegates to Presidents, or their designees, authority to implement The California State University's policies and goals with respect to Energy Conservation and Utilities Management. This Executive Order further implements the Governor's Executive Order (No. D50-86) on "Energy Conservation in State Buildings."

The policies and goals contained in this Executive Order were formulated after extensive consultation with members of the California State University Academic Senate and campus facilities personnel. The Board of Trustees subsequently adopted these goals and policies at its meeting of November 16, 1988 (Resolution No. RCPBG 11-88-50).

In accordance with the policy of The California State University, the campus President has the responsibility for implementing Executive Orders where applicable and for maintaining the campus repository and index for all Executive Orders.

Guidance or assistance on the implementation of this Executive Order or an explanation of its intent should be directed to the Chief of Energy and Utilities Programs, Division of Physical Planning and Development at (213) 985-9497.

WAR:sf

Attachment

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**Distribution:** Vice Presidents, Academic Affairs  
Vice Presidents, Administration/Business Affairs  
Executive Deans  
Business Managers  
Directors of Plant Operations  
Energy Coordinators  
Chancellor's Office Staff  
Trustees' Audit Staff

**THE CALIFORNIA STATE UNIVERSITY**  
**Office of the Chancellor**  
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**Executive Order No.:** 538

**Title:** Policy Statement on Energy Conservation and Utilities Management for The California State University and Energy Consumption Reduction Goal for 1992/93 Compared to 1986/87

**Effective Date:** February 1, 1989

**Supersedes:** No Prior Executive Order

This Executive Order is issued pursuant to Sections 1 and 2 of Chapter III of the Standing Orders of the Board of Trustees of The California State University, and in response to the request by Governor Deukmejian to the Board of Trustees to implement the intent of his statewide Executive Order No. D50-86 titled Energy Conservation in State Buildings.

**I. Delegation of Authority**

Authority is hereby delegated to each President, or his/her designee, to implement the following Board of Trustees' Energy Conservation and Utilities Management goal and policy as adopted by the Board during its November 16, 1988 meeting subject to the conditions stated in this Executive Order. To the extent that some of the provisions contained herein involve coordination with the Chancellor's Office staff, each President shall take whatever steps are necessary to coordinate and provide input to the Division of Physical Planning and Development, Office of the Chancellor, to assist in its formulation and implementation of a systemwide Energy Program.

**II. Energy Conservation Goal**

Each campus of The California State University will reduce its energy consumption by 15% by fiscal year 1992/93 compared to energy consumption recorded in fiscal year 1986/87 measured in British Thermal Units per gross square foot of building space per year. For the purposes of compiling the energy consumption, all energy resources used both in State and non-State supported areas of the campuses will be included.

**III. Revised Policy on Energy Conservation and Utilities Management**

The policy of the Board of Trustees of The California State University on Energy Conservation and Utilities Management is as follows:

**General Provisions**

1. All CSU buildings and facilities, regardless of the source of funding for their operations, will be operated in the most energy efficient manner without endangering public health and safety and without diminishing the quality of education.
2. All CSU campuses will continue to identify energy efficiency improvement measures to the greatest extent possible, undertake all necessary steps to seek funding for their implementation and, upon securing availability of funds, expeditiously implement the measures.

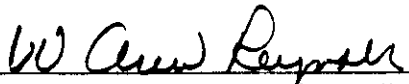
3. All future CSU new construction, remodeling, renovation and repair projects will be designed for optimum energy utilization, lowest life-cycle operating costs, and in compliance with all applicable energy codes (Second Generation Title 24 Energy Codes) and regulations. In instances where a project's current funding does not include energy features consistent with lowest life-cycle costing, augmentations will be sought, when warranted. In the areas of specialized construction which are not regulated through the current energy codes, such as historical buildings, museums, and auditoriums, the CSU will apply prudent standards to ensure that these facilities are designed for optimum energy efficiency. Incorporation of energy efficient design features in the project plans and specifications will receive a high priority next only to meeting health, life-safety code elements and the academic program needs of the project within the available project budget.
4. The CSU will promote the use of cost-effective renewable and non-depleting energy sources, wherever possible, both in new construction projects and in existing buildings and facilities.
5. The CSU will take all necessary steps to provide adequate, reliable and cost-effective utilities infrastructure at all of its campuses for meeting the needs of the present and planned future buildings and facilities.
6. The CSU will actively seek all available sources of funding for implementing energy efficiency improvement and utilities infrastructure renewal projects. The sources of funding will include federal and State budget appropriations, federal, State and private sector grants opportunities, and other unique public/private sector financing arrangements which have been made available through legislative actions in California and the United States Congress. In the event these funding sources are unable to meet the requirements for an approved energy program, priorities within the existing support appropriations will be examined to determine if funds could be made available for project development purposes.
7. The CSU will cooperate with federal, State and local governments and other appropriate organizations in accomplishing energy conservation and utilities management objectives throughout the State; and inform students, faculty, staff and the general public of the need for, and methods of, energy conservation and utilities management.
8. Each CSU campus will designate an Energy/Utilities Manager with the responsibility and the authority for carrying out Energy Conservation and Utilities Management Programs. The Chancellor's Office will have the responsibility to coordinate the individual campus programs into a systemwide program.
9. The CSU will monitor energy usage on all campuses and the headquarters buildings monthly, and prepare a systemwide semi-annual and an annual report on energy utilization.
10. Each CSU campus will develop, implement and update a campuswide five-year Energy Conservation and Utilities Management Plan which will include proposals for utilities' master plan, facility utility audits, project feasibility studies, energy and utilities capital outlay and repair/upgrade projects, energy efficiency maintenance training, energy awareness and professional development programs. The individual campus plans will be consolidated into a systemwide five-year plan.
11. To monitor the effects of energy conservation efforts on instructional programs and environment, the campus Energy/Utilities Managers shall solicit and evaluate feedback from faculty, staff, and students.

#### **Operations and Maintenance Provisions**

1. Purchased energy resources on CSU facilities will not be used to heat above 68 °F or cool below 78 °F. Domestic hot water temperatures will not be set above 115 °F. These limits will not apply in areas where other temperature settings are required by law or by specialized needs of equipment or scientific experimentation.

2. Campus Energy/Utilities Managers will make the necessary arrangements to achieve optimum efficiency in the use of natural gas, electricity, or any other purchased energy resources to meet the heating, cooling, and lighting needs of the buildings and/or facilities. Except for areas requiring special operating conditions, such as electronic data processing facilities, or other scientifically critical areas, where rigid temperature controls are required, buildings and/or facilities temperatures will be allowed to fluctuate between the limits stated above. Simultaneous heating and cooling operations to maintain a specific temperature in work areas will not be allowed unless special operating conditions dictate such a scheme to be implemented.
3. Scheduling of buildings and/or facilities (building) usage will be optimized consistent with the approved academic and non-academic programs to reduce the number of buildings operating at partial or low occupancy. To the extent possible, academic and non-academic programs will be consolidated in a manner to achieve the highest building utilization. Further, the scheduling of buildings will be implemented in a manner to promote Central Plant and individual building air conditioning system shutdown to the greatest extent possible during the weekend and other holiday periods. Campus Energy/Utilities Managers will make all attempts to change or update building operating schedules to match the changes in the academic programs on a continuing basis.
4. All air conditioning equipment, including supply and return air fans, are to be shut off on weekends, holidays and for varying periods each night, except where it would adversely affect instruction, electronic data processing installations and other scientifically critical or 24-hour operations.
5. Outdoor air ventilation will be set at 5 CFM/person or such other higher limits as prescribed by State law or regulations. This restriction does not apply to situations where 100% outside air is called for by properly installed and tuned economizer cycles and in designated smoking areas where the rate may be as high as 15 CFM/person.
6. All windows in buildings and/or facilities which are air conditioned will be kept closed and as secure as possible to prevent loss of conditioned air.
7. Portable electric heaters and fans are not to be used in CSU facilities unless specifically required by occupants because of medical conditions, failure of the building heating, ventilating or air conditioning systems, or when building heating, ventilating or air conditioning systems cannot be adjusted to achieve minimum comfort levels within the provisions established under Item No. 1. Such exemptions will be granted by Campus Energy/Utilities Managers on a case-by-case basis. Use of refrigerators for non-instructional purposes should be consistent with good energy management practices. Each campus will prepare their own guidelines on this area to discourage proliferation of personal refrigerators.
8. All lighting, except what is required for security purposes, will be turned off when buildings and facilities are unoccupied, such as at the end of the workday. Custodial personnel will turn lights back on only for the time actually required for custodial work.
9. All CSU campuses will, to the greatest extent possible, change custodial hours from evening/night shifts to day shifts to reduce custodial energy usage. Any revisions to the custodial shift schedule will be made in consultation with the Energy/Utilities Manager. Building ventilation and lighting systems will not be operated any more or longer than what is required under health and safety codes during the low load custodial occupancy periods.
10. Indoor lighting will be reduced in number and/or wattage, wherever possible, to provide for the minimum but adequate lighting levels consistent with the needs of instructional programs and State mandated standards for the efficient and effective use of the spaces. Existing incandescent lamps for general purpose lighting will be phased out and future incandescent lamps will not be allowed unless exempted for very limited and specialized tasks by the Campus Energy/Utilities Managers.

11. Outside lighting on building exteriors and campus grounds will be maintained at levels necessary to provide security and safety to promote confidence within the campus community. Good energy management practices shall be observed within this guideline.
12. Purely decorative lighting on CSU campuses beyond reasonable display lighting, inside or outside, will not be added. Existing decorative lighting beyond reasonable display lighting will be eliminated on a continuing basis. In general, decorative lighting will not be used for commercial or holiday purposes unless specifically exempted by the Campus President.
13. All natural gas fired boilers on the campuses will be tuned at least twice annually, and brought up to maximum efficiency unless automated combustion controls are installed. In the case of automatic controls, verification of combustion efficiency shall be conducted routinely or at least once monthly for Central Plant and quarterly for decentralized boilers. A permanent record of these readings will be maintained on each campus.
14. All CSU campuses will maintain their energy plant and utilities infrastructure improvements in good working order and will undertake preventive maintenance schedules to maintain highest possible system efficiencies and, hence, lowest operating costs.
15. When replacing energy consuming and/or utilities infrastructure equipment, the most cost-effective models will be selected. Life-cycle costing procedures, instead of first capital cost only, will be utilized as the basis for all future equipment selection. All possible efforts will be made to secure additional funding if required to effect lowest life-cycle procurement.
16. All CSU campuses will implement a utilities chargeback system to recover costs of utilities provided to self-support and external organizations.
17. All CSU campuses will take every necessary step to conserve water resources, including such steps as installing controls to optimize irrigation water, reducing water usage in restrooms and showers and promoting the use of reclaimed water. In the event of a declaration of drought, the CSU will cooperate with the State, city and county governments to the greatest extent possible to effect additional water conservation.
18. The CSU will encourage continuing energy conservation and lowest utilities operating costs on its campuses by instituting appropriate fiscally responsible incentive plans designed to recognize and reward meritorious achievements by campus staff, faculty, and students beyond normal expectation. These incentive plans will be designed in such a fashion that they are adaptable to changing budget constraints from year to year.

  
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W. Ann Reynolds, Chancellor

Date: February 1, 1989