

# MANAGEMENT MEMO

NUMBER: <b>MM 05-14</b>
DATE ISSUED: August 16, 2005
EXPIRES: Until superseded
ISSUING AGENCY: DEPARTMENT OF GENERAL SERVICES

SUBJECT:  
**PROCEDURES FOR ENERGY MANAGEMENT IN STATE BUILDINGS DURING NORMAL OPERATIONS AND ELECTRICAL EMERGENCIES**

REFERENCES:  
Executive Order S-12-04  
Executive Order D-15-00  
Supersedes Management Memo 04-11 Issued May 12, 2004

## About this Management Memo

This Management Memo provides information about efficient energy management in state buildings during normal operations and actions state agencies should take during electrical emergencies.

This memo replaces MM 04-11, which expired on May 12, 2005. There are minor procedural changes; the main changes are in the formatting of some of the documents.

## Procedures for Electrical Emergencies

The table below contains links to documents that provide detailed instructions on controlling energy usage. The energy management practices of all state agencies should conform to these procedures.

Emergency Status	Link to Procedures
No emergency	<a href="#">Standard Operations</a>
Stage 1 Electrical Emergency	<a href="#">Curtailment Measures</a>
Stage 2 Electrical Emergency	
Stage 3 Electrical Emergency	
Rotating Outage or Blackout	<a href="#">Safety Tips During Outages and Blackouts</a> <a href="#">Emergency Preparedness</a>

State agencies should print a copy of these procedures and incorporate them in departmental Emergency Plans in order to be prepared for an electrical emergency.

## Exception

Some departments may need to employ conservation measures that are more or less restrictive, based on operational needs. Department energy management personnel must communicate department-specific instructions to the appropriate staff.

*Continued on next page*

---

**Background**

Federal law requires that the California Independent System Operator (CAISO) maintain a specified level of energy reserves available to the electrical grid at all times. When reserves reach dangerously low levels because electrical demand is high, the CAISO may declare a Stage 1 Electrical Emergency to bring about a reduction in demand. The CAISO escalates the emergency to Stage 2 and then Stage 3 if curtailment measures do not successfully reduce demand. Finally, the CAISO may use rotating outages to balance the demand for electricity to the available supply.

The Emergency Preparedness Manager in the Department of General Services/Office of Risk and Insurance Management (DGS/ORIM) will alert departments, universities, and community colleges when the CAISO declares an Electrical Emergency.

---

**Emergency  
Communication**

The DGS Emergency Preparedness Manager will use E-mail and an automated telephone message system to reach Primary Contacts (Energy Management Teams), whose names and phone numbers/e-mail addresses departments have submitted to the DGS/ORIM.

Only the DGS Emergency Preparedness Manager will issue the triggering notice to implement the Stage 1-3 curtailment measures defined in this memo. Other information sources such as the CAISO and local utility websites may issue warnings; however, the DGS Emergency Preparedness Manager must substantiate these notifications before state agencies initiate curtailment measures.

The DGS/ORIM periodically conducts tests of its notification system. The test message also contains information on how to change Primary Contact information. Questions about the notification process should be directed to [DGSEnergyInfo@dgs.ca.gov](mailto:DGSEnergyInfo@dgs.ca.gov).

---

**Related  
Information**

DGS California Energy Alert

- <http://www.energy.dgs.ca.gov/default.htm>

Department of Personnel Administration

- [Employee Leave and Safety during Rolling Blackouts](#),  
January 23, 2001
- [Appropriate Attire during Summer Months](#),  
May 18, 2001

*Continued on next page*

---

## STATE ADMINISTRATIVE MANUAL

### Contact Information

We hope that these recommendations will assist you in using energy efficiently. Our goal is to ensure that proactive safety and energy reduction measures will create a safe environment for our employees and customers working in State buildings when electrical emergencies occur. We encourage you to work closely with your building manager to effectively implement these procedures. Please direct questions to:

Mike Langley  
Energy Management Contact  
DGS Green Team  
(916) 375-5991  
[Mike.Langley@dgs.ca.gov](mailto:Mike.Langley@dgs.ca.gov)

---

### Signature

Original signed by Ron Joseph, Director

---

Ron Joseph  
Director

### Attachments:

# Standard Operating Efficiency Procedures

---

**Reference**

Management Memo 05-14

---

**General**

State departments should follow the Standard Operating Efficiency Procedures described below:

- Department Directors or their designees should appoint Energy Coordinators for each location their department occupies. Energy Coordinators should work in conjunction with the Facility Manager to carry out Standard Operating Efficiency Procedures.
  - At the end of the workday or when not needed, employees should turn off lights, computers, monitors, printers, and scanners, except for equipment designated as 24/7 or for which there is a specific need for after hours operations (e.g., e-mail, e-mail servers, fax machines or other essential equipment).
  - Enable automatic power-down or “Energy Saver” feature on all copiers, printers, and other electrical equipment.
- 

**Hours of Operation**

- State-owned and leased buildings will be operational from 6:00 AM through 5:30 PM Monday through Friday (excluding facilities that are designated as 24/7 or continuously operational). All non-essential lighting and other electrical loads shall be minimized outside of normal building hours. Agencies are expected to make a reasonable determination as to what functions must continue outside of these hours.
  - Facilities/organizations with employees who work outside of normal business hours must have the express approval of the Building Manager.
- 

**Building Heating and Cooling Systems**

- When it will enhance energy efficiency, interior air shall not be mechanically heated above 68°F in winter nor mechanically cooled below 78°F in summer unless such a temperature in a particular job or occupation may expose employees to a health and safety risk. Employees should consider dressing appropriately in anticipation of decreasing/increasing office temperatures.
-

## Standard Operating Efficiency Procedures, Continued

---

### **Building Heating and Cooling Systems**

(Continued)

- Whenever possible, building operators shall operate and adjust controls to get optimum advantage from outside temperatures for meeting cooling demand (e.g., using outside air economizers and night flush cycles). Avoid operating chillers and compressors when possible. All “pre-cooling” options for buildings shall be employed.
- Building temperatures shall be allowed to fluctuate within an acceptable range to avoid wasteful over-control patterns. This range may vary with each building’s control system; the target range is plus or minus four degrees F from the temperature set point for a total fluctuation of eight degrees F. Simultaneous or alternate heating and cooling operations to maintain exact temperature in work areas shall be avoided.
- Prohibit use of personal fans and heaters without the express written consent of the building manager.
- Keep windows and doors closed to prevent loss of heated or cooled air.
- Adjust window blinds or coverings, if installed, to prevent solar heat gain during summer and prevent heat loss in winter.
- Order data center operations to maintain ambient temperature settings at manufacturer specification maximums.
- Do not set domestic hot water temperatures above 105 degrees F unless this conflicts with a Code requirement for your facility. Building operators and tenants shall take every opportunity to minimize hot water usage.

---

### **Year-Round Maintenance**

- Inspect and maintain ducts, air filters, and related hardware to maximize effectiveness at the lowest acceptable power use.
  - Tune up all forced and induced draft gas and oil-fired boilers at least twice annually. If there are automated combustion controls, verification of combustion efficiency shall be conducted at least twice annually.
-

## Standard Operating Efficiency Procedures, Continued

---

### Lighting

- Turn off all lights in unoccupied rooms. Install occupancy sensors if possible.
  - Reduce lamps in number and/or wattage to provide the lighting level appropriate for the activities of the area affected. Please see the [Illumination Levels Table](#).
  - Replace incandescent lighting with higher efficiency fluorescent or, if applicable, high intensity discharge (HID) lighting wherever possible.
  - For fluorescent lights, make a special effort to replace older “core and coil” ballasts with newer energy-efficient electronic ballasts.
  - When cost effective, install automatic daylight controls in day-lit zones (near windows and under skylights).
  - Significant energy savings are possible by the selection of lower level general ambient lighting with small-area task lighting for higher level lighting requirements – an approach particularly appropriate for computer use areas. Use light colored ceiling, wall, and floor surfaces to boost overall illumination levels (dark surfaces absorb light). Keep lighting fixtures clean to maintain lighting levels.
  - Have custodial personnel turn lights on only as needed and turn lights off when their work is done. Where possible, have custodial personnel work in teams to complete cleaning on each floor of multi-story buildings.
-

## ILLUMINATION LEVELS

TYPE OF AREA	FOOTCANDLES	
	Horizontal	Vertical
General and Private Office Reading # 2 pencil or softer, ball-point pen, photocopies, keyboard, 8 and 10 point type	<b>30</b>	
Open plan office Intensive VDT use	<b>30</b>	<b>5</b>
Classrooms Reading # 2 pencil or softer	<b>30</b>	
White Boards		<b>5</b>
Chalk Boards		<b>50</b>
Machine Rooms – Active Operation	<b>30</b>	
Mail Sorting, machine equipment service	<b>50</b>	
Stairways and corridors	<b>5</b>	
Toilets and Washrooms	<b>5</b>	<b>3</b>

[Adapted from: IESNA LIGHTING HANDBOOK 9<sup>th</sup> Edition – 2000  
 IESNA Lighting Design Guide, Chapter 10