State of California

Green Building Action Plan

Work In Progress

(Detailed direction that accompanies Governor's Executive Order S-20-04)

1. PUBLIC BUILDINGS

1.1. <u>State Buildings</u>

All employees and all State entities under the Governor's jurisdiction shall immediately and expeditiously take all practical and cost-effective measures to implement the following goals specific to facilities owned, funded, or leased by the State:

1.1.1. Green Buildings

1.1.1.1. The U.S. Green Building Council (USGBC) has developed green building rating systems that advance energy and material efficiency and sustainability known as Leadership in Energy and Environmental Design for New Construction and Major Renovations (LEED-NC) and LEED Rating System for Existing Buildings (LEED-EB)

1.1.1.2. All new State buildings and major renovations of 10,000 sq. ft. and over and subject to Title 24 will be designed, constructed and certified at LEED-NC Silver or higher, (or LEED-EB as applicable.) Certification to an equivalent or higher standard is acceptable as approved by the Green Action Team. Life cycle cost assessment methodology as defined in Section 1.1.1.3 shall be used in determining cost effective criteria. Building projects less than 10,000 sq. ft. shall use the same design standard, but certification is not required.

1.1.1.3. The California Sustainable Building Task Force (SBTF) in consultation with the Department of General Services (DGS), Department of Finance (DoF), and the California Energy Commission (CEC) shall define a life cycle cost assessment methodology that shall be used to evaluate the cost effectiveness of building design and construction decisions and their impact over a facility's life cycle, and shall propose this methodology to the Green Action Team within six months of this Order.

1.1.1.4. Each new building or large renovation project initiated by the State shall also evaluate the merits of clean on-site power generation.

1.1.1.5. All existing State buildings over 50,000 square feet shall meet LEED-EB standards (including meeting an Energy Star rating of at least 75, or equivalent established by the CEC) by no later than 2015 to the maximum extent cost-effective per Section 1.1.1.3.

1.1.2. Energy Efficiency

1.1.2.1. All State-owned buildings will reduce the volume of energy purchased from the grid, with a goal to reduce their energy consumption by at least 20% by 2015 (as compared to a 2003 baseline) by undertaking all cost-effective operational and efficiency measures as well as onsite renewable energy technologies. Alternatively, buildings that already have taken significant efficiency actions must achieve a minimum efficiency benchmark to be established by the CEC.

1.1.2.2. Consistent with Executive Order S-12-04 all State buildings are directed to investigate "demand response" programs administered by utilities, the California Power Authority, or the CA ISO, to take advantage of financial incentives in return for agreeing to reduce peak electrical loads when called upon, to the maximum extent cost effective for each facility.

1.1.2.3. All occupied State-owned buildings, beginning no later than July 2005 and completed by 2007, shall be benchmarked for energy efficiency, using guidelines established by the CEC according to Section 2.2.2. Building managers of low-rated buildings shall prepare a plan to undertake cost-effective efficiency retrofit projects.

1.1.2.4. All State buildings over 50,000 square feet shall be retro-commissioned, and then re-commissioned on a recurring 5-year cycle, or whenever major energy consuming systems or controls are replaced. This will assure that energy and resource consuming equipment is installed and operated at optimal efficiency;

1.1.2.5. DGS and other State agencies will seek out and select whenever cost-effective State facility leases for spaces of 5,000 square feet or more in buildings that meet a minimum U. S. EPA Energy Star rating whenever such spaces are cost-effective and meet the State's programmatic needs, beginning in 2006 for new leases, and beginning in 2008 for renewal leases;

1.1.2.6. All State agencies that purchase or operate electrical equipment such as computers, printers, copiers, refrigerators, and unit air conditioners shall insure that these are Energy Star-rated where cost-effective and that procurement goals and operating practices minimize energy and resource use and impacts.

1.1.3. Financing and Execution

1.1.3.1. The DoF, in consultation with the CEC, State Treasurer's Office, DGS, and the Infrastructure Bank, shall identify and develop appropriate financing and project delivery mechanisms to facilitate State building energy and resource efficiency projects. These mechanisms shall include the use of the life cycle cost methodology described in Section 1.1.1.3. and shall maximize the use of outside financing, including loan programs, revenue bonds, municipal tax-exempt leases and other financial instruments supported by project savings, and to minimize the use of General Funds for these purposes. The DoF shall report its findings and recommendations on financing and delivery mechanisms to the Green Action Team by July 2005; and

1.1.3.2. The DoF will develop additional mechanisms to encourage and incentivize cost-effective projects improving energy efficiency, such as sharing at least 25% of the net savings with the operating department or agency.

1.1.3.3. DGS shall report to the Governor each year on progress toward attaining the 20% energy use reduction target for 2015 in State buildings, and make recommendations on any changes in rules or procedures to ensure this goal is met.

1.2. <u>Schools</u>

1.2.1. New School Construction

1.2.1.1. By December 31, 2005 the Division of State Architect (DSA), in consultation with the Office of Public School Construction, the CEC, and other appropriate organizations, shall lead the adoption of technical resources and guidelines that will enable schools built with state funds to be resource and energy efficient. The State agencies shall consider all available guidelines and technical resources including the Collaborative for High Performance Schools (CHPS), The United States Green Building Council and its LEED guidelines, The Department of Energy's Best Practices and Federal Energy Management Program, and the Sustainable Building Industry Council.

1.2.1.2. Until December 31, 2005, DSA shall use best efforts to enable schools to have the technical resources and guidelines to be designed and built in a manner that is resource and energy efficient, and that enhances student performance.

2. ALL COMMERCIAL AND INSTITUTIONAL BUILDINGS (including private sector buildings, State buildings and schools)

2.1. <u>CPUC- Ratepayer-Supported Efficiency Programs</u>

2.1.1. The California Public Utilities Commission (CPUC) can play a major role in leading action to achieve this building-centered energy and resource efficiency agenda by funding a statewide campaign to inform building owners and operators about the compelling economic benefits of energy efficiency measures, benchmarking, and building commissioning. This campaign should seek to present integrated information in a way that motivates and enables building decision-makers to reach the 20% efficiency goal for commercial and institutional buildings. The CPUC is urged to do this in collaboration with the CEC, utilities, the real estate industry, energy service companies, architects, engineers and the Flex Your Power program's outreach efforts. These efforts should assure that that suggestions and guidelines for mechanisms to finance efficiency improvements are available via Energy Commission or other websites, utility programs, and the CPUC-sponsored statewide motivational campaign.

2.1.2. The CPUC should assure that ratepayer-supported efficiency incentives and technical assistance programs for commercial and institutional building owners and tenants are strengthened or improved as necessary to contribute toward a 20% or more efficiency gain improvement by 2015, compared to 2003.

2.1.3. The CPUC is requested, in collaboration with the CEC and all of California's utilities, to ensure that ratepayer-supported energy efficiency outreach, technical assistance and incentive programs:

- produce greater measured efficiency gains per dollar of program expenditure;
- encourage increasing levels of efficiency investments in longer term payback measures than those now typically occurring, including the use of new or improved incentive programs, (such as utility bill discounts, incentives based on measured performance, and "on bill" financing);
- include building commissioning and advanced metering practices in programs wherever appropriate; and
- to submit a report to the Governor biannually, commencing September 2005, regarding those actions it has taken toward these ends.

2.1.4. The CPUC is requested to determine the level of ratepayer-supported energy efficiency and clean generation funding so as to contribute toward the 20% efficiency goal, and to submit its determination to this end to the Governor by September 2005.

2.2. CEC – Building Benchmarking and Commissioning

2.2.1. A combination of benchmarking the energy efficiency of all buildings, and conducting commissioning activities that ensure that buildings and their energy systems are operated at their optimal designed efficiency, can contribute towards the overall goal of 20% by 2015.

2.2.2. The CEC, in consultation with other governmental agencies, public and private utilities, and representatives of the business community, shall propose by July 2005 a simple building efficiency benchmarking system for all commercial buildings in the State. This should be California-specific, coordinated with the US EPA Energy Star benchmarking system, and should clarify which buildings are energy efficient.

2.2.3. The CEC shall develop guidelines and standards for commissioning activities to achieve operational and maintenance efficiency savings in commercial and public buildings.

2.2.4. The CEC shall prepare and submit to the Governor's office by July 2005 a plan, timetable and recommendations to accomplish benchmarking of all commercial and public buildings in California, including benchmarking at the time of sale, as well as a system by which benchmarking ratings can be disclosed to tenants, buyers, and lenders to advise them in making decisions.

2.3. CEC and State Licensing Boards – Standards and Enforcement

2.3.1. That the State agencies with responsibility for building standard amendments to the State's building code, shall develop and consider adoption of building code amendments to ensure that:

2.3.1.1. All proven, cost-effective, and achievable energy and resource efficiency, health and safety technologies and design practices are considered and employed in new non-residential buildings, with the goal to increase efficiency by 20% by 2015 compared to the Title 24 non-residential building standards adopted in 2003.

2.3.1.2. Standards capture increased energy and resource savings and applicability for the building floor space that annually undergoes renovation, and at specified points in the life of existing buildings; and

2.3.1.3. Commissioning and other approaches ensuring the achievement and persistence of efficiency measures are incorporated into the building and appliance standards process.

2.3.1.4. Training and fee-based private-sector delivery of these commissioning services is available in California.

2.3.1.5. This is done on a schedule whereby strengthened standards are adopted or updated beginning in 2006.

2.3.2. The CEC along with the building and construction industry State Licensing Boards shall undertake an expanded standards enforcement effort. This should include development of new tools to aid building officials, communication with equipment marketers to ensure their compliance with California appliance standards, and assurance by the State licensing boards that licensed-contractors comply with the standards.

2.4. New Tools and Strategies

2.4.1 The CEC shall promptly complete its report required by Assembly Bill 549 (Statutes of 2001) and submit this to the Governor's Office and Legislature by October 2005, including a plan for voluntary and regulatory strategies to capture energy and peak demand savings in existing buildings in California.

2.4.2 The Governor will ask the California Public Employees Retirement System and State Teachers Retirement System to consider:

- Cutting energy use of California real estate investment portfolio by 20% by 2015 through cost effective means including but not limited to retro-commissioning and retrofitting of energy consuming systems, and

- Adopting a commitment to seek certified LEED or Energy Star-rated buildings in their commercial real estate investments, and

- Devoting a portion of their Clean Technology investment portfolio to activities that facilitates green and advanced energy efficiency technologies in buildings.

3. LEADERSHIP

3.1. Green Action Team

3.3.1. That to ensure progress toward the goals of this Order, there is hereby established an interagency team know as the "Green Action Team," composed of the Director of the Department of Finance, and the Secretaries of Business, Transportation, and Housing; Environmental Protection; Resources; Education; State and Consumer Services Agencies; the Team will invite participation by a CPUC commissioner and a real estate industry representative and which will have a chair selected by the Governor.

3.3.2. That to advise the Green Action Team, a Real Estate Industry Leadership Council is hereby created, consisting of at least five private sector commercial real estate leaders.

3.3.3. That the Green Action Team, in cooperation with other agencies and organizations as appropriate, shall oversee and direct progress toward the goals of the Green Building Order, and shall recommend any additional actions, mandates or legislation that may be warranted to ensure progress consistent with the Green Building Order.

3.3.4. That the Sustainable Building Task Force, as requested by the Chair of the Green Action Team, shall perform support activities for this Order.