

---

# **Agenda Item #11**


---

**INTER-OFFICE CORRESPONDENCE**  
**Los Angeles Unified School District**

**INFORMATIVE**

**TO:** Members, Board of Education  
Ramon C. Cortines, Superintendent

**DATE:** February 24, 2009

**FROM:** Joseph A. Mehula   
Chief Facilities Executive

**SUBJECT:** Sustainability Initiatives Quarterly Update

**BACKGROUND**

The Board passed a resolution on October 23, 2007, directing the Superintendent to provide quarterly reports on progress toward achievement in the goals of energy and water conservation. The purpose of this Informative is to be responsive to that direction, and provide the Board with a summary of the activities of the District's Sustainability Program.

As indicated in the January 2008 informative to the Board regarding Sustainability, the Sustainability Steering Group was assembled in early 2008, comprised of all the major groups representing the District including:

- New Construction
- Existing Facilities
- Education
- Procurement
- Food Services
- Transportation
- OEHS
- The Office of General Counsel
- Communications

The Steering Group is co-chaired by the Chief Facilities Executive, the Chief Operating Officer, and the Chief Academic Officer.

The efforts of the Sustainability Steering Group and the Sustainability Initiatives Program have led to the development of a comprehensive Sustainability Plan that we are pleased to present for the Board's review at the Facilities Committee Meeting of March 5, 2009. This plan is designed to achieve significant reductions in:

- Utility Expenses in Electricity, Gas, and Water
- Fuel Expenses
- Greenhouse Gas Emissions
- Toxic Materials
- Waste Stream Costs

The reductions are targeted to be accomplished through:

- New school designs that maximize energy and water use efficiencies while maximizing renewable energy capacity and improving indoor air quality
- Acquisition of new clean fuel buses and fleet vehicles, and retrofitting existing buses for greater fuel efficiencies and improved emissions
- Implementation of utility efficiency measures in existing facilities
- Procurement of environmentally friendly materials and supplies
- Installation of renewable energy on school sites, and
- Recycling and waste stream management programs

Communications and curriculum programs are being developed and implemented concurrently with the implementation of the Sustainability programs.

#### **NEW CONSTRUCTION ACCOMPLISHMENTS:**

- Since 2001, the District has built more than 70 schools, to high efficiency energy standards, and currently has more than 50 schools under construction or finishing design which will be completed prior to 2012, a little more than one every month.
- All of these are CHPS designs, with equivalence to LEED standards, and exceed Title 24 energy conservation standards by at least 30%.
- New schools are designed to provide the infrastructure that will enable each site to produce at least 30% of its required energy from renewable resources. Sites will be evaluated individually to determine their maximum potential renewable generation capacity.
- New Construction is working toward designing the State's first new "grid neutral" K-12 schools.

#### **EXISTING FACILITIES ACCOMPLISHMENTS:**

##### **Energy Efficiency and Renewable Energy**

Staff recently announced plans to implement a "50/50 Program." This plan combines Energy Efficiency and Renewable Energy initiatives to reduce the District's current energy usage by more than 50 million kilowatt hours annually, and create 50 megawatts of renewable energy capacity by 2012, moving the Los Angeles Unified School District closer to energy independence.

There are three major components to this strategic plan:

- Energy efficiency measures and CHPS implementation in existing facilities
- Renewable energy installations in existing facilities
- New school designs that incorporate energy efficiency, CHPS and renewable energy

### **Renewable Energy Accomplishments:**

- Installation of the solar panels at the Pico Rivera Warehouse was completed on December 29, 2008.
- On February 10, 2009 the Board authorized staff to purchase and install photovoltaic solar arrays at eight LAUSD sites (7 school sites and the Local District 5 office) that will generate 3.7 MW of energy.
- Nearly 500 LAUSD sites have been evaluated and more than 58 sites have been determined to be the strongest candidates for solar panel installation. Additional sites are being evaluated every week for installation viability.
- Staff conducted a second RFQ which resulted in five additional bidders becoming pre-qualified.

### **Energy Efficiency and CHPS Implementation in Existing Facilities**

- The implementation of energy efficiency projects is a key component to the program to reduce the energy the District currently uses. Energy efficiency projects cost less than renewable energy projects in dollars per kWh installed, they reduce the amount of renewable energy capacity required for each facility, and bring us closer to compliance with the energy portions of CHPS and LEED standards in existing schools.
- The District's efforts in energy efficiency have been focused on developing specifications for energy management systems, and identifying the best sites to devote funding resources to complete key projects in existing schools over the next four years, in order to achieve a reduction of more than 50,000,000 kWh annually, a 10% reduction from the 2006-2007 base year.
- Staff is participating in CHPS and LEED pilot programs for Existing Schools, that will focus on what can be improved in current maintenance and operations practices leading to reductions in utility usage, while improving the safety and learning environment in each school.

### **PROCUREMENT ACCOMPLISHMENTS:**

- Issued the RFPs for Sustainable Materials and E-waste recycling
- Report for the implementation of the "Buy Green" resolution has been completed.

### **TRANSPORTATION ACCOMPLISHMENTS:**

- Secured 80 new Compressed Natural Gas school buses in 2008, **bringing the total CNG fleet to 172.**
- SCAQMD Grant Application pending award for 260 New CNG Transit buses in 2008/09.
- Submitted supplemental application for an additional 224 new alternative fueled school buses in January, 2009.
- Delivery of 100 Gasoline Ultra Low Emission Vehicles (ULEV), purchased with Measure Y funds scheduled for March, 2009.
- Bio-Diesel Pilot Project to test B20 fuel on 93 heavy duty diesel school buses and 25 heavy duty diesel tractor trucks commenced in November 2008.

- The Sun Valley Garage CNG fuel station was completed Fall 2008.
- Gardena Garage CNG fueling expansion under design and contract review. Scheduled completion Winter, 2009.
- GPS vehicle tracking software contract award scheduled for April, 2009. ROI based on mileage and fuel usage reductions.
- Propane school bus purchase awarded for 90, 17- passenger lift buses serving Special Education program travelling students.

### **OEHS ACCOMPLISHMENTS:**

#### **WasteWise Hall of Fame Award**

- The Environmental Protection Agency selected LAUSD for induction into WasteWise Hall of Fame in for continuous excellence in waste reduction efforts and the support of the initiatives of the WasteWise Program, and for serving as role model for other program members. The District will be honored at the 2008 WasteWise & National Partnership for Environmental Priorities (NPEP) Conference in October of this past year.

#### **Recycling Program Update**

- In October 2005, the Board of Education adopted a new waste and recycling goal to reduce the amount of waste the District disposes in landfills from 50 to 70 percent by 2020.
- From 1999 to 2007 the District landfill diversion rate has increased from 43 to 58% for schools and non-school facilities. Total disposal cost savings of \$2.3 million for the year 2007.
- For the year 2007 the District landfill diversion rate for construction sites was 73% for a total disposal cost savings of \$7.5 million.

#### **Styrofoam Recycling Pilot Program**

- Pilot program conducted from March to June 2008 at Alexandria and Cahuenga Elementary Schools.
- Approximately 10, 500 Styrofoam trays (~252 lbs) collected per week.
- Eliminated approximately \$594 in bin rentals and transportation costs per year.
- Avoided \$206 in landfill disposal costs per year.
- Based on the pilot program results, we will be working with Procurement Services Division to implement a District-wide styrofoam recycling program.
- OEHS has been a key partner in the development of the Districts "carbon footprint" by working with the Office of General Counsel and the Sustainability Steering Group to identify all of the possible sources of Green House Gas Emissions.

**COMMUNICATIONS ACCOMPLISHMENTS:**

- Communications Staff recently completed a comprehensive Sustainability Communications plan, designed to inform District staff and schools, other school districts, industry partners, government officials, and the general public about the achievements of the program.
- Cheryl Lopez of Dahlia Heights Elementary School has been nominated for the Global Green Individual Environmental Leadership Award.

**AB 32 COMPLIANCE ACCOMPLISHMENTS:**

- The Office of General Counsel, in coordination with other Staff efforts throughout the District, including OEHS, and the Energy Unit, to identify the District's "carbon footprint", and to track the progress of the California Air Resources Board as it finalizes its standards on AB 32 Compliance.
- Staff completed the preliminary "carbon footprint" assessment of LAUSD in January 2009, and will prepare a report for the Board's review in April, 2009.

**CURRICULUM ACCOMPLISHMENTS:**

- Academic Staff is continuing to develop a partnership with the California Energy Commission (Environmental Education Initiative) and the California Public Utilities Commission, and other national organizations to develop and promote Sustainability components in curriculum for K-12.
- The Academic Department currently has several operating programs in schools (California Partnership Academies and Small Learning Communities) that are directly related to one or more components of Sustainability.

**Other Sustainable Achievements**

- On February 9, 2009 "We Build Green" was launched. Participants in the "We Build Green" program will receive state approved construction training focused on solar technology, design and installation, and will be competitively positioned for jobs created from LAUSD's goal of 50 MW of solar installations by 2012.
- On January 13, 2009 "ISEE Green" was launched. This program allows returning ISEE students will learn about "green" technologies, and receive specific training on solar panel technology and installation.

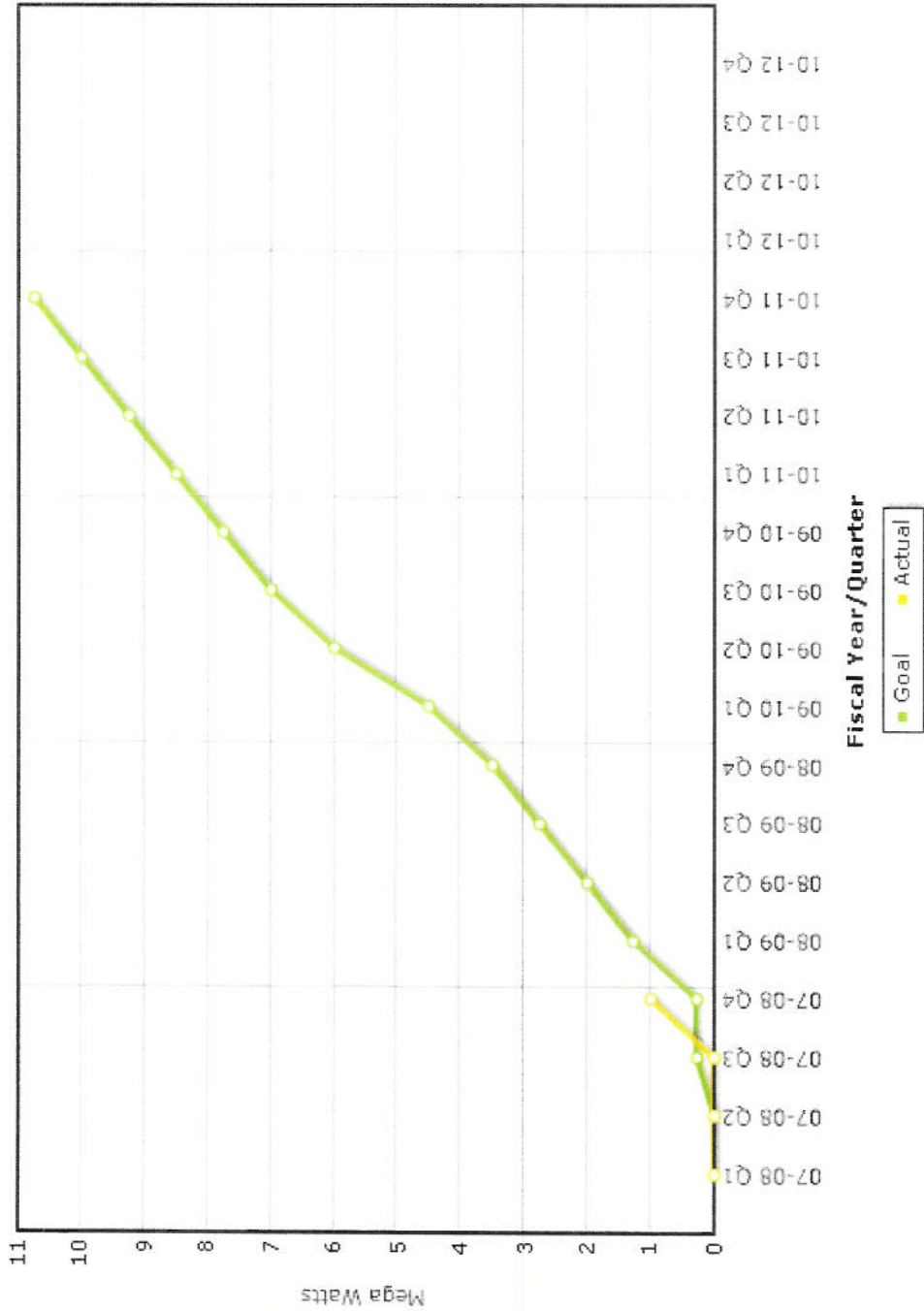
The Sustainability Program is continuing to employ a combination of strategies in energy efficiency, environmentally friendly practices, and renewable energy installations to enable the District to move forward toward energy independence, while providing significant recurring operational savings.

cc:

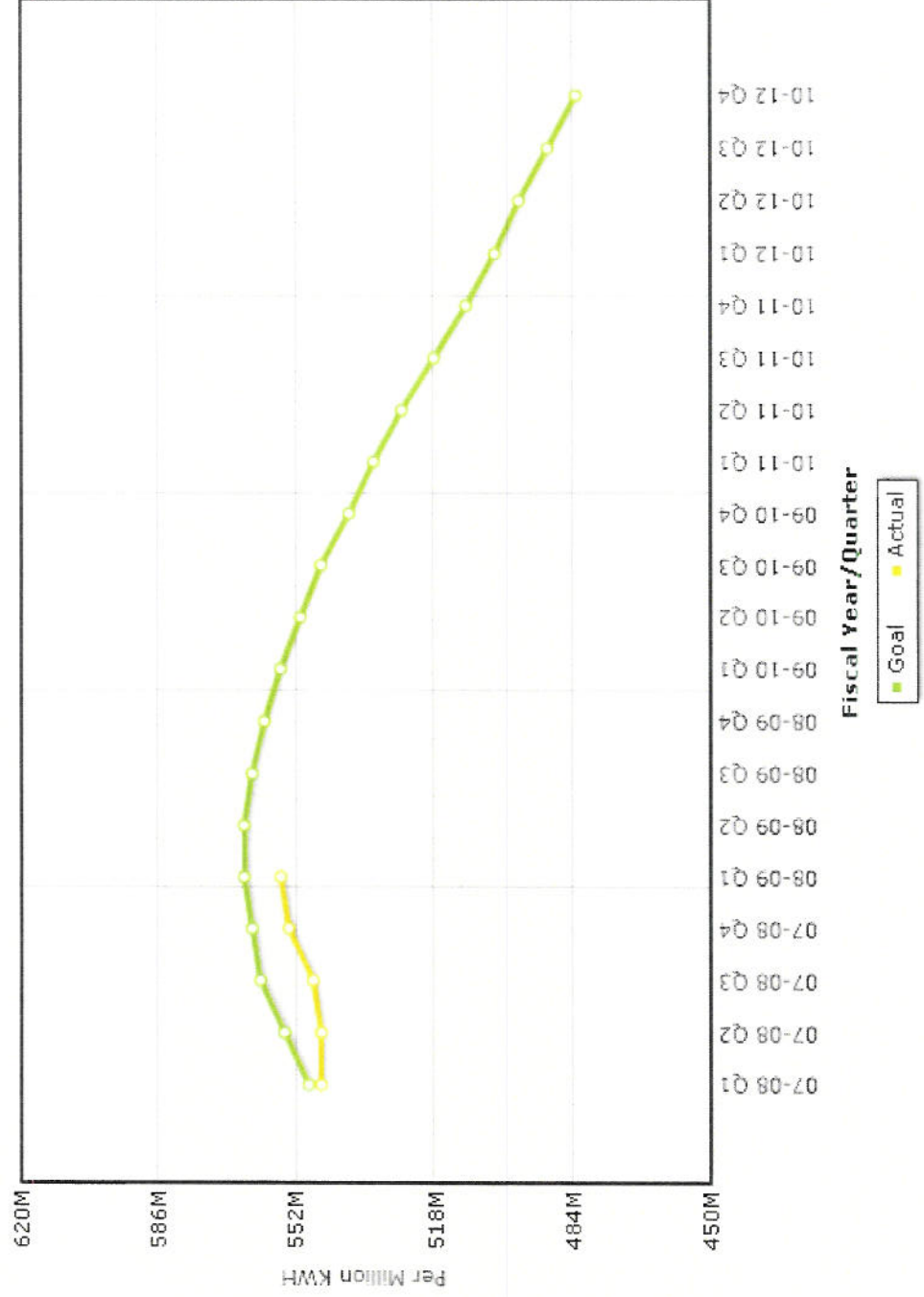
J. Morris  
D. Holmquist  
J. Crain

B. Felser  
J. Thornton  
R. Ross

# Acquire 50 MW of renewable energy by 2012



# Reduce Annual Energy Consumption by 10%



# Reduce annual water consumption by 200 million gallons by 2012

