



August 27, 2009

**Agenda Item 8.0: Library Sustainability**

**TO: Sacramento Public Library Authority Board Members**

**FROM: Don Tucker, Director of Facilities**

**RE: Library Sustainability**

**RECOMMENDED ACTION:**

1. **Accept** this report updating the Board on actions taken and planned to provide environmental sustainability in Library operations.

**BACKGROUND**

In January 2009, staff presented more than 300 assessment items that would help move the Library forward. Five of those assessment items, scheduled for completion in July 2009, pertain directly to sustainability in Library operations. They are:

151. Reduce reliance on and usage of personal appliances such as space heaters and refrigerators to save energy and maintain safe work environments (Tucker, Nash, Wallace - July 2009).
152. Gather energy usage cost statistics for all branches and evaluate on a cost per square foot per hour open basis (Tucker, Keith Roberts - July 2009).
155. Convert cleaning chemicals to 100% Green Seal certified in compliance with green housekeeping LEED objectives (Wallace, Tucker - July 2009).
157. Develop policies that directly address reduction of the Library's "carbon footprint" (Wallace, Tucker - July 2009).
158. Reduce the margins for printed materials to use less paper and reduce costs (Wallace, Tucker, Shaffer - July 2009).

This report will give the Sacramento Public Library Board an update on the status of each of these and the long-range plan for implementation of related efforts.

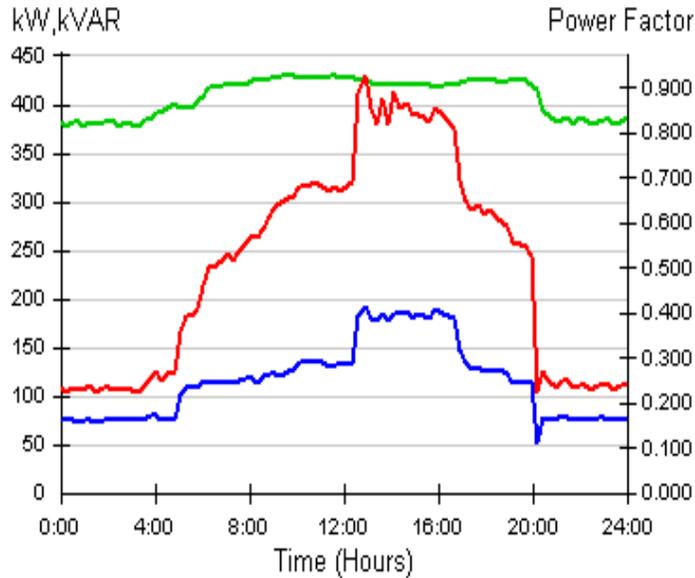
**Reduce Reliance on and Usage of Personal Appliances**

In mid 2007 there were thirty six refrigerators in the Central Library alone. A small number were installed during construction to meet specific programming needs in the building but most had been added one at a time throughout the years, and most were small, inefficient personal refrigerators. These contributed to a daily power usage curve that never dropped below about 100 kWh, even in the middle of the night.



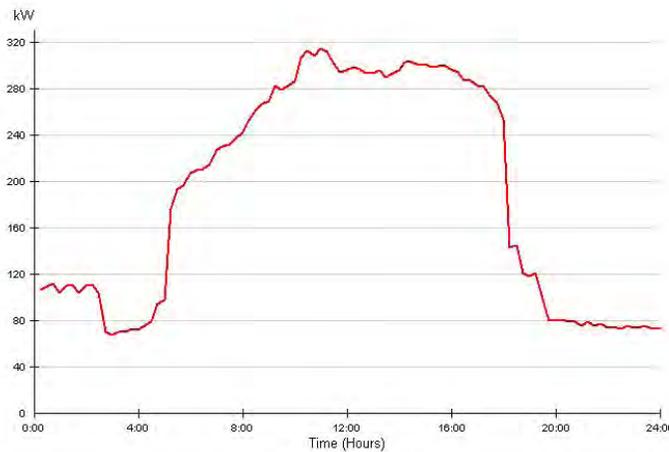
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October 30, 2008: Note that the red line never drops below 100KwH between 8pm and about 5am. Much of this was due to appliances running throughout the night.

As of the January 2009, the number of refrigerators was down to nineteen, still high, but down almost 50% from 2007.

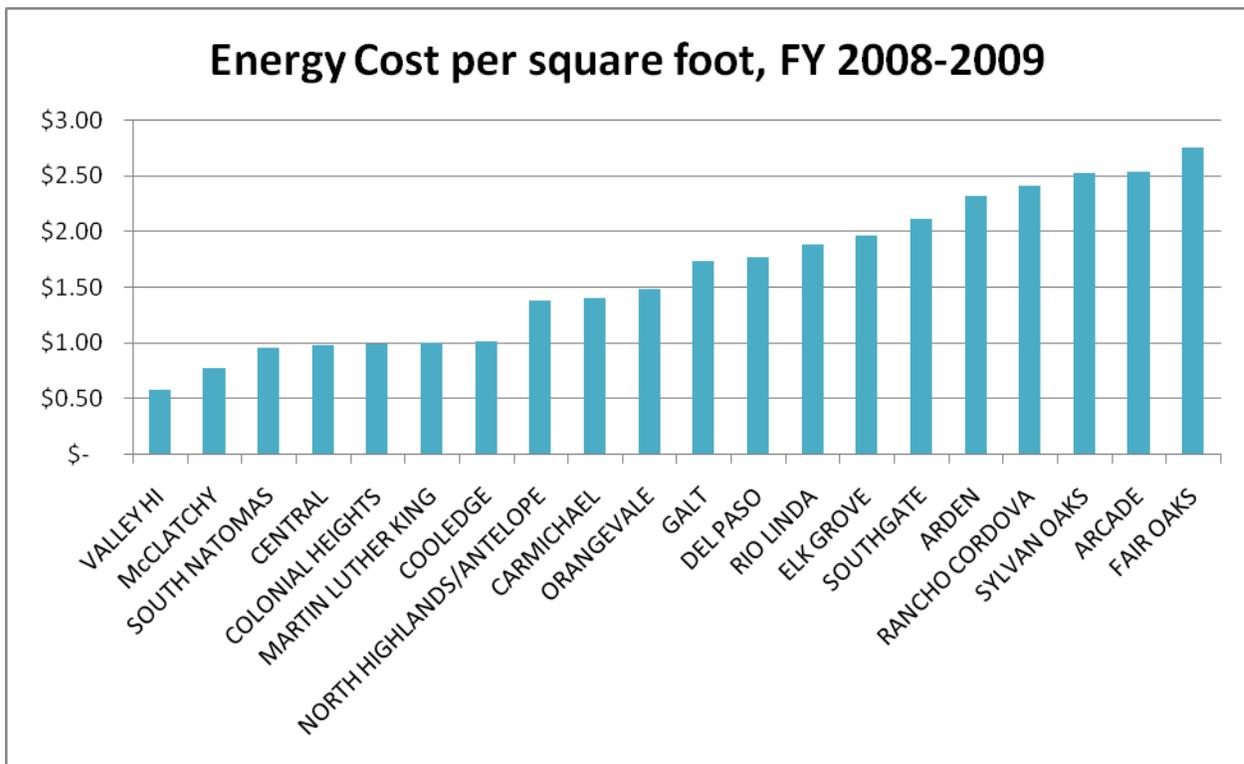


May 1, 2009: Note that the red line now drops below 80KwH at night, saving an estimated \$14.40 per day, or \$5,256 per year.



**Gather Energy Usage Cost Statistics for All Branches**

Each branch library is unique in its architectural design and mechanical systems, so energy conservation strategies must be developed that acknowledge the costs “built-in” to each branch. For example, branches with high ceilings like Arcade and Rancho Cordova tend to be more expensive to heat and cool, while small, well insulated buildings like McClatchy tend to be less expensive. In addition, newer buildings like South Natomas are more energy efficient, while the Central Library benefits on a square foot basis by the scale of the mechanical systems.



As new libraries are designed and remodels are undertaken in existing facilities, special attention is paid to the energy efficiency and cost of operation. This is especially true at the new Valley Hi-North Laguna Library, where low energy use is systemically designed throughout the building. This branch is on target for a Leadership in Energy and Environmental Design (LEED) Gold Certification.

**Convert cleaning chemicals to 100% Green Seal certified**

Green housekeeping standards are being adopted throughout the custodial industry and the Library has been very active in converting our systems over to safe, environmentally friendly chemicals. They are demanded by our staff and customers. Green Seal is an independent non-profit agency that creates standards, tests and certifies cleaning products as safe and environmentally friendly.



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The conversion to Green Seal products has been dramatic, as evidenced by these before and after photos of cleaning chemicals in use at the Central Library.

Before:



After:



One of the most important cleaning needs to be addressed was the replacement of chlorine bleach as a disinfectant. Chlorine bleach is inexpensive and highly effective as a virucidal/bactericidal, but it is highly caustic and potentially lethal if handled incorrectly. A new product now in use at the Library is made from only .5% hydrogen peroxide and is much safer to use but kills HIV, Hepatitis B and C, as



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well as tuberculosis bacteria after only 60 seconds. It has a Health, Flammability and Reactivity Hazard Rating of 0 as stated on the Material Safety Data Sheet (MSDS).

#### **Develop policies that directly address reduction of the Library's "carbon footprint"**

This is a very wide-ranging topic but the Library is doing many things in partnership with the City and County to address this:

- Partnership with the City on performance contracting. This project is working with AECOM to identify energy saving projects throughout the City that can be implemented immediately and funded through guaranteed energy savings in the future.
- Implementation of at least LEED Silver certification for all new buildings and tenant improvements.
- Conversion to hybrid vehicles when the Library fleet vehicles are cycled out of use.
- Specifying products and furnishing with a high percentage of recycled content, especially in our custodial and office paper products.
- Increased use of virtual meetings to reduce the need for travel.
- Continued support for employee use of local mass transit options.
- Recycling paper, books, cans, bottles and other materials whenever possible. The current economy has hurt many recycling companies but the Library will continue to seek the best practices in this area.

#### **Reduce the margins for printed materials to use less paper**

Library staff have explored this option and found that the small reduction of whitespace on any given document would have a negligible effect on total paper use. Instead, the Library has pursued a strategy of overall reduction of printed materials, using electronic publishing instead. The most notable example of this is the Library News, now available exclusively in electronic form.