

Memorandum

City of Lawrence

City Manager's Office

To: David L. Corliss, City Manager

From: Eileen Horn, Sustainability Coordinator

CC: Mark Thiel, Charles Soules, Tammy Bennett, Mike Lawless, Mark Hecker, David Woosley, Cynthia Wagner

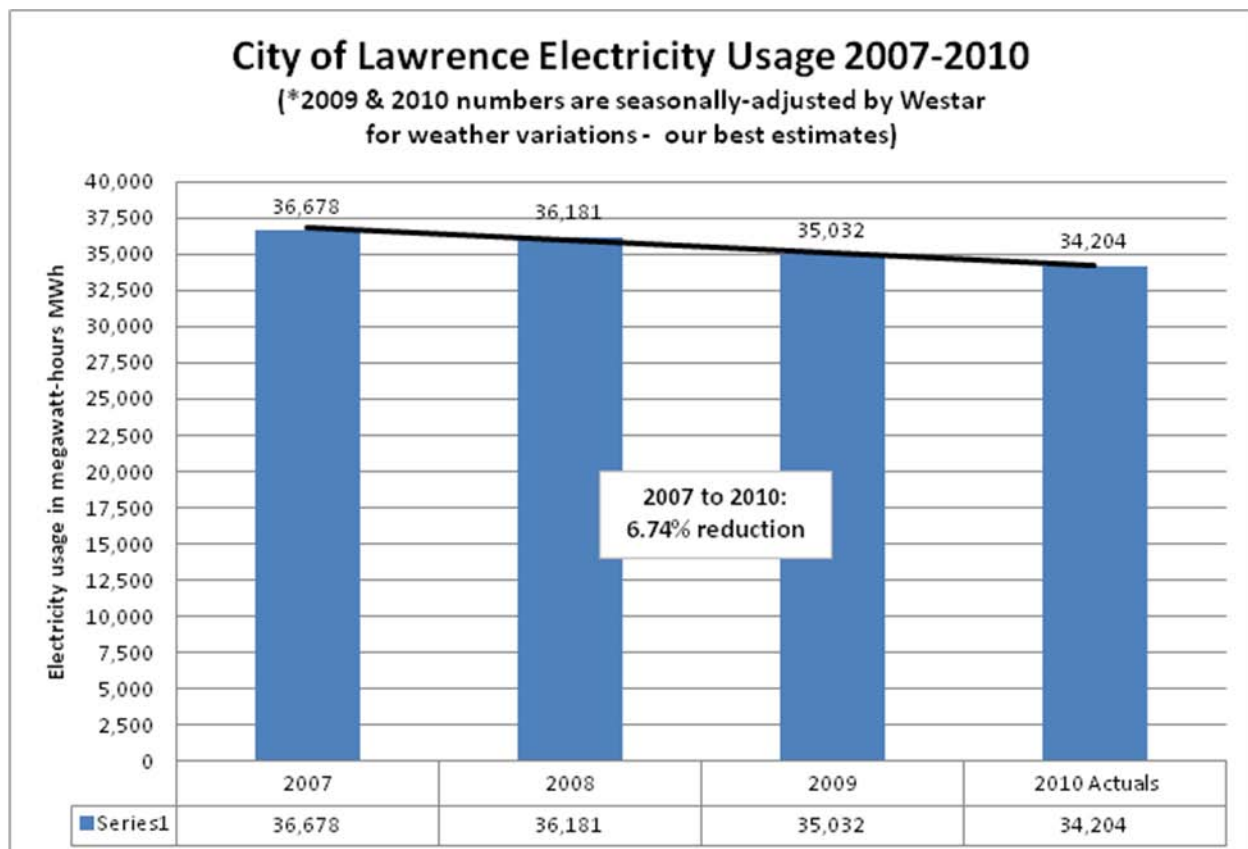
Date: February 16, 2011

RE: Electricity usage update, review of 2010 energy-saving projects, next steps

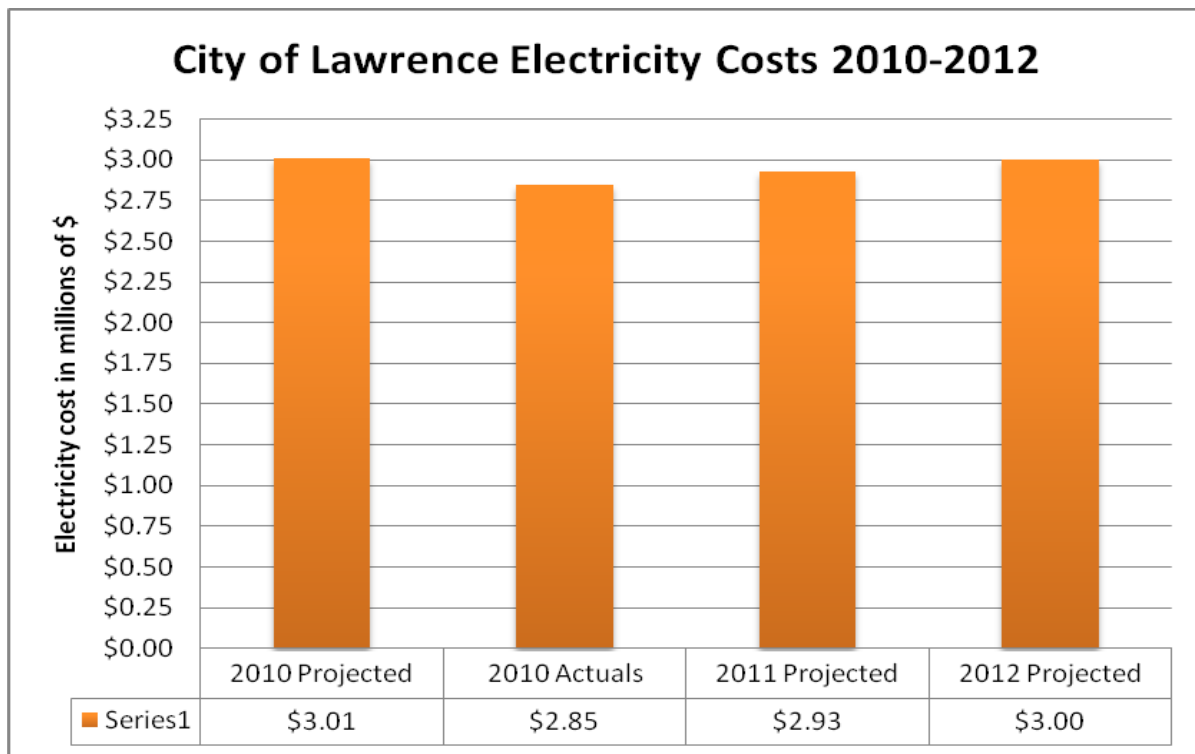
Energy efficiency projects continue to be a priority for City departments. This past year, real strides have been made to not only pursue cost-effective energy efficiency upgrades, but also monitor and track the energy and dollar savings that result.

The addition of the Sustainability Coordinator position has provided the opportunity for staffing dedicated to monitoring energy usage, coordinating energy saving projects with City departments, and fostering energy efficiency initiatives throughout the Lawrence community.

These efforts have resulted in tangible energy-use reductions. Since 2007, the City has reduced energy usage from 36,678 MWh to 34,204 MWh, a 6.74 % reduction in energy usage. If there had been no rate increases since 2007, this would have saved us approximately \$160,000.



In 2010, the City came in well under our projected electricity costs. While Westar has projected our usage to stay relatively constant through 2011 and 2012, anticipated rate increases in upcoming years result in projected increases for City electricity bills. Therefore, energy-cutting initiatives remain high priority.



These energy savings can be attributed to both an increasing awareness of energy efficiency opportunities and technologies among City departments. There are concerted efforts amongst City staff to seek energy efficient equipment when available, and to strive for energy-saving behaviors in our operations. **Notable projects undertaken by various City departments in 2010 include:**

✓ Public Works:

- Lighting retrofit in Riverfront Parking Garage- monthly savings of \$500.
- Lighting retrofit and occupancy sensors installed at Fire/Med #4.
- Solid Waste building (1140 Haskell) completed a full energy audit to ID priority improvements.
- Temperature settings in city buildings reduced – resulting in 10-15% projected HVAC savings.
- LED lights in traffic signals are currently saving the city approximately \$50,000/yr. It is estimated that completing the LED conversion at remaining intersections would reduce cost an additional \$17,000/yr.

✓ Utilities:

- Pursuing an energy audit of the water system through Wichita State’s Environmental Finance Center, a grant-funded opportunity.
- In discussions with Westar to pursue an interruptible service agreement (while not saving energy directly, may reduce costs associated with peak charges).

✓ Parks and Recreation:

- Installed energy-saving fans at the Aquatic Center.
- Retrofitted the East Lawrence Rec Center lighting to T-8 fluorescent bulbs.
- Assessed the feasibility of solar photovoltaic and solar thermal panels at the Prairie Park Nature Center.

The City/County Sustainability Coordinator has focused her efforts on assisting the city to track our energy usage trends, identify areas for improvement, and collaborate with City staff to pursue cost-effective projects that save energy, save money, and reduce our greenhouse gas emissions. **The following are energy-saving projects coordinated by the Sustainability Coordinator since May 2010:**





- ❑ **Implemented EnergyCAP software** to track energy use and plan efficiency projects. (80% complete) This software will generate easy-to-use reports for comprehensive utility bill tracking (natural gas, electricity, water, solid waste, fuels). These reports will allow us to calculate dollar savings attributable to energy management projects, and strategically plan projects with the best return on investment.
 - ❑ **Convened an Energy Management Work Group of department directors**, meets monthly to review EnergyCAP data, recommend energy efficiency project priorities.
 - ❑ **Joined the Kansas Energy Office's Take Charge Challenge.** This Challenge will provide \$25,000 to Lawrence to provide education and resources to our citizens, helping them to reduce their energy use, save money, and help us beat Manhattan. The town that wins receives \$100,000 for an energy-saving project in the City.
http://www.lawrenceks.org/take_charge_challenge
- Hey Lawrence! Help us **BEAT** Manhattan in the

Take Charge Challenge

Save Energy - Save \$\$\$

We're in it to win it!

Here are four easy ways to get started:

 - 1 Schedule an Efficiency Kansas  home energy audit.
 - 2 Make the  switch to compact fluorescent bulbs.
 - 3 Enroll in Westar's  energy efficiency programs.
 - 4 Attend a Take Charge! Challenge  event.

Visit **www.TakeChargeKansas.org** to register your CFL switches.
- ❑ **Applied for and received a Resourceful Kansas FREE energy assessment for a City building.** This is a Dept. of Energy-funded, statewide effort to support Kansas municipalities as they improve their facilities.
www.resourcefulkansas.org
 - ❑ **Tracked and reported the Energy Efficiency and Conservation Block Grant projects** – including the 85% complete library HVAC retrofit, which will result in energy savings of up to 20-30% per unit per year.
 - EECBG projects (total grant funds awarded \$858,600)
 - Library HVAC retrofit: \$436,420 – 80% complete
 - Sustainability Coordinator position: \$100,000 – ongoing
 - Library lighting upgrades: \$150,000 - will initiate with retrofit of building
 - Downtown LED streetlights: \$172,180 – will begin Spring 2011
 - ❑ **Coordinated City efforts with Westar's SmartStar rollout.** As of 2/14: The pilot neighborhood (Deerfield) deployment is now complete and Westar reports that everything is operating as intended. Citywide deployment is still on target to begin in June, in concert with the launch of the Energy Engage web portal. Westar is still working on the exact schedule for the meter exchange, but City Hall is likely to be one of the early commercial meter installations.