

**Executive Order 07 (2009) Implementation Report
Calendar Year 2011
Update on Programmatic Activities**



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Energy Efficiency Building Upgrades – Guaranteed Energy Savings Contracting

The Department of Central Management Services has continued to convene the Energy Efficiency Committee, which is charged with operational focus on the implementation of energy projects, particularly those which are undertaken specifically to reduce the energy usage at State-owned facilities. This committee, comprised of the Departments of Central Management Services, Commerce and Economic Opportunity, and the Illinois Capital Development Board, has worked to refine the technical and procedural points needed to implement energy efficiency upgrades at several complexes operated by the Illinois Departments of Human Services and Central Management Services. Our plan is to undertake these upgrades through the implementation of Guaranteed Energy Savings Contracts, which will ensure energy usage reductions by means of financial performance guarantees from the project design/build contractors. The specific sites identified for this initiative are:

Ludeman Developmental Center
Chicago-Read Mental Health Center
Suburban-North Regional Office Building
Chicago Medical Center Office and Laboratory Building
Illinois Rehabilitation and Education Center – Wood Street
Illinois Rehabilitation and Education Center – Roosevelt Road

A technical selection committee has been empanelled to review the eventual strategic implementation proposals once pre-contracted Energy Service Companies (ESCOs) have had an opportunity to survey the sites. The committee has had two initial meetings to develop selection criteria to be used in assigning the work. It is anticipated that the ESCOs will be engaged in preliminary site survey work during January 2012.

The developing plan calls for the projects to proceed under the general partnership of CMS, CDB and DCEO and the user agencies, utilizing a pool of contractors pre-qualified by the Illinois Finance Authority using CMS' procurement process. The project implementation team will coordinate with the user agencies on the scope of energy conservation measures which will be proposed for implementation through the procurement. In addition to the technical aspects of defining the ultimate construction scopes for selected sites, the team will also be focused on integration of key baseline development and guarantee evaluation steps.

Energy Benchmarking and Energy Efficiency Portfolio Standards (EEPS) Initiatives

CMS has launched applications with the Smart Energy Design Assistance Center (SEDAC), a technical advisory group operated by the University of Illinois at Urbana-Champaign, to assess

the energy efficiency opportunities at 5 facilities under its management control. The targeted buildings are as follows:

1. Rockford Regional Office Building
2. Champaign Regional Office Building
3. Springfield Regional Office Building
4. Franklin Complex (ISP Headquarters – Springfield)
5. Dickson Mounds Museum in Lewistown (DNR)

These locations were selected because they all are equipped with gas-fired air conditioning systems similar to the equipment replaced at the Michael A. Bilandic Building in 2009. The replacement of that system with more thermally-efficient electric air conditioning equipment decreased the energy intensity of the Bilandic Building by 68%. It is reasonable to anticipate that significant energy savings can be obtained through similar investments at these locations. The audits will identify the opportunities available through updates to the lighting and associated controls systems in addition to the aforementioned heating and air conditioning equipment, targeted to reduce energy usage and maintain or improve existing comfort conditions. We will also be looking to coordinate all available resources (capital funding, EEPS electricity and gas efficiency rebates, etc.) so as to move as quickly as possible from identifying measures to implementing solutions.

Reports are now being submitted by SEDAC recommending energy efficiency upgrades for these sites. Our plan is to use these recommendations to schedule these sites for implementation of energy efficiency measures, possibly through a similar Guaranteed Energy Savings Contracting process discussed earlier for DHS and CMS facilities. We have also identified an additional pool of up to 130 sites for which SEDAC assessment assistance will be requested on a rolling basis going forward into calendar year 2012.

Other Energy Efficiency Upgrade Initiatives

Leased Space Energy Efficiency

The Department of Central Management Services has continued its outreach efforts to generate interest among the State's landlords to participate in the DCEO's Energy Efficiency Portfolio Standards program, designed to provide construction rebates to offset a portion of the capital investment required to reduce and/or streamline the usage of electricity in buildings rented by the State. Working with the landlords of several sites leased by the State of Illinois, we have facilitated lighting retrofits at locations where the State bears primary utility costs through landlord participation in the state-administered Energy Efficiency Portfolio Standards program. Through these upgrades, we anticipate annual electricity usage reductions of over 869,000 kilowatt-hours at six leased sites, corresponding to an energy cost savings of roughly \$87,000 per year. Through inclusion of Energy Star specifications in our build-out requirements, we hope to identify other opportunities to improve the energy efficiency of our leased space portfolio, even as we implement an ongoing consolidation effort targeted at reducing the size of that portfolio and maximizing the utilization of state-owned space.

State-Owned Space Energy Efficiency

Utilizing in-house resources, we have nearly completed a multi-year project to upgrade specialized lighting fixtures installed along the balcony rings at the James R. Thompson Center. Implementing this upgrade on roughly 140 fixtures per floor on floors 2 through 16, our retrofits are computed to have reduced lighting power requirement for these fixtures by up to 719,200 kilowatt-hours/year, a 73% reduction from the original output for these lights. Review of our overall trend for the Thompson Center establishes that electricity usage in Calendar Year 2010 declined by over 2 million kilowatt-hours when compared with Calendar Year 2007. We are presently working with the CDB to include a lighting upgrade scope which will address other fixtures and the lighting controls network at the JRTC, which will continue the downward trend of lighting power demand at this major energy-intensive building.

Energy Supply Procurement and Statistical Accounting Management

Executive Order 7 (2009) called for the Department of Central Management Services to continue to consolidate utility procurement and payment processes at the Director's discretion. Implementation of these measures has been limited by the overall fiscal condition of the State, which made implementation of these measures impractical and more perilous given the then-current state of financial, administrative and procedural infrastructure to ensure that further consolidation did not impede the timely and prudent payment of monthly utility bills for the over 10,000 State-owned and leased accounts which would be subject to this mandate. However, we have continued to manage the consolidated procurement of deregulated electricity and natural gas supply. Statistics available through October 2011 render the following highlights:

Electricity Procurement

- Electricity usage was approximately 546,000,000 kWh in FY 2009.
- Usage reduced by 5.8 million kWh in FY 2010 and was 5.5 million kWh below its 2009 levels for FY 2011.
- Electricity supply cost in FY 2010 was \$1.7 million less than the FY 2009 cost of roughly \$42.5 million.
- Supply cost in FY 2011 was roughly \$6.4 million less than in FY 2009.
- Supply cost for FY 2012 (through October) is projected to be roughly \$2 million less than the comparable period in FY 2009.
- **The cumulative impact is a cost savings of approximately \$10.1 million since FY 2009.**

Natural Gas Procurement

- Gas purchases for the accounts in our bulk purchase program were approximately 18.6 million therms in FY 2009.
- Purchases in FY 2010 were roughly 17.4 million therms, a 7% reduction.
- Purchases in FY 2011 were approximately 16.4 million therms, another 6% off of the FY 2010 purchase totals.
- Supply cost in FY 10 was \$5.3 million less than in FY 09.
- FY 11 supply costs declined by another \$700,000.

- Supply cost for FY 2012 (October 2011 only) is roughly \$77,400 less than the comparable month in FY 2010.
- Purchase of the same volume of gas bought in FY 2012 at FY 2009 prices computes to a savings of \$1,548,838 for the first quarter of FY 2012.
- **The cumulative impact is a cost savings of approximately \$7.54 million from FY 2009 through FY 2011.**

Green Power Purchases

Beginning in Fiscal Year 2009, the State entered an agreement with the Springfield City Water Light and Power to purchase 100% of CMS' Springfield-based electricity load (approximately 56 million kilowatt-hours annually) through the utility's wind-generation portfolio. While this did not result in savings or cost reductions per-se, it did contribute to our ability to offset our exposure to performance-based penalty through the Chicago Climate Exchange.

- Before Governor Quinn took office in January 2009, the State was contracted to purchase 24.5 million kilowatt-hours in green power through the statewide contract.
- Governor Quinn executed the Inter-Governmental Agreement with CWLP during his first months in office.
- As a result, in Fiscal Year 2009, we purchased 90 million kilowatt-hours of green power through the Statewide contract and our agreement with CWLP.
- In May, 2010, we increased the purchase of "green power" on the statewide supply contract (serving State locations in the ComEd and Ameren service areas) from 5% of total usage to 25% of total usage.
- Our FY 2010 green power purchases remained at 90 million kilowatt-hours despite the non-Springfield usage reduction.
- Our FY 2011 green power purchases were approximately 176 million kilowatt-hours.
- Our FY 2012 green power purchases are estimated through October to be approximately 59.5 million Kilowatt-hours.
- The overall price of that power, including the increased green purchase premium, resulted in a 17% reduction in supply costs over FY 2009 levels.

Summary/Conclusion

The costs and savings reported above include the impact of the CWLP and statewide "green power" premiums. The totals do **not** include corresponding regulated utility cost savings associated with usage reductions due to the fact that we do not yet have complete data for the historical periods from utility service providers. However, what is shown in these reports is that based on usage and price reductions in both commodities, **the State has seen a cumulative deregulated and green energy purchase savings of approximately \$17.64 million since FY 2009.**

Statewide Utility Database System Development

In support of the benchmarking goal and other energy monitoring efforts, CMS completed a contract to develop a database which will collect energy usage and cost statistics directly from utility providers for the 10,000+ accounts assigned to the Executive Agencies of state government. This database is now essentially complete with technical work now in progress to migrate the system to the State's intranet platform. It will be maintained through a multi-year Inter-Governmental Agreement with the Energy Resources Center of the University of Illinois at Chicago (UIC-ERC).

The system will give us the ability to accumulate, analyze and audit the various categories of energy usage and cost at the included accounts, identifying potential billing errors and documenting, through usage correlations to environmental outputs, our overall building-related environmental footprint. It will also facilitate our efforts, by data export to the Portfolio Manager or other benchmarking tools, to compare our facilities' energy performance to other similar types of facilities throughout the national database of Energy Star Partners.

Thus far, we have gotten an initial data transfer file structure templates from Ameren/Illinois (electricity and gas utilities) and pledges of same from ComEd, Peoples Gas/North Shore, and NICOR by the end of March. Other data sources (most notably Springfield's municipal utility division) have been consulted but have yet to provide data supply options and/or sourcing agreements.