Proposed Changes to DCEO's Energy Efficiency Portfolio

May 21, 2010

Illinois Department of Commerce and Economic Opportunity

<u>Executive Summary</u>

During the first program year of the Energy Efficiency Portfolio, DCEO fell short of meeting the annual energy savings goal and the municipal and school targets. DCEO is proposing a range of modifications to its Energy Efficiency Portfolio Plan to address the challenges in meeting its goals. DCEO's plan includes the following:

- **Incentive levels**. Increase the Public Sector Energy Efficiency incentives by 50% for local government, k-12 schools, and community colleges and by 15% for university, state and federal projects
- **DCEO goals**. Adjust DCEO's energy savings goals in the third program year to 13% (32,454 MWh) of the goal for the Ameren Illinois territory and to 14% (87,771 MWh) of the goal for the ComEd territory.
- **Program targeting**. Offer special promotions that target energy efficiency measures of particular potential. Examples may include water treatment plants, exterior lighting, or gym lighting.
- **Clarify market sectors**. Clarify the Public Sector Energy Efficiency eligibility rules to include museums, zoos, gardens, etc. located on public lands and the scope of the Lights for Learning program to include both public and private k-12 schools.
- **Program changes**. Develop a new program targeted to Public Housing Authorities, expand Retro-commissioning program, upgrade standards for low income programs.
- **Implementation Assistance**. Provide additional implementation assistance to potential applicants through Building Industry Training and Education (BITE) program.
- **Enhanced Marketing and Outreach**. Expand Marketing and Outreach by using social networking (Twitter and Facebook), Illinois Energy Office website, and State of Illinois press office; developing a brand along the lines of ActOnEnergy or SmartIdeas; and more effectively using DCEO Regional offices/staff, utility External Affairs and Account Managers, and Trade Ally network.
- **Leveraging of funds**. Leverage ARRA funds available to entitlement and non-entitlement communities from the Energy Efficiency and Conservation Block Grant (EECBG) program and the Clean Energy Community Foundation with EEP funds to maximize energy efficiency opportunities.
- **Innovative financing.** Assist communities in pursuing innovative Financing Mechanisms including Energy Performance Contracting (EPC), Green Energy loans from the Treasurer's Office, state "moral obligation" loan guarantees from the Illinois Finance Authority, and on-bill financing.

Introduction

According to Sec. 8 -103 (e) of the Illinois Public Utilities Act, if the Department is unable to meets its Energy Efficiency Portfolio (EEP) kWh savings goal, it is to propose modifications to its EEP plan and submit the changes to the Illinois Commerce Commission in a joint filing with the utilities. Under the EEP statute and plan approved by the ICC, the Department has three distinct goals:

Annual energy savings goals – Achieve an agreed upon percentage of the annual kWh load reduction goal (21.4% ComEd/18.6% Ameren in first program year)
Municipal carve-out – Procure at least 10% of the portfolio from local governments, schools, and community colleges (10% of the statewide budget or 40% of DCEO's budget).
Low income target – Develop programs targeted to low income households based on their proportionate share of utility revenues (determined to be 6.0% of the total or 24% of DCEO's budget).

DCEO First EEP Year Goals

Category	Goal	Measure	% of Goal
Energy Savings Goal	**18.6% Ameren** **21.4% ComEd**	14,159 MWh Ameren 40,412 MWh ComEd	50%
Portfolio Budget	**25% of Portfolio**	$12.9 million	70%
Municipal Goal (Local govt., schools, & community colleges)	**10% of Portfolio**	$5.16 million	59%
Low Income Target	**6% of Portfolio**	$3.1 million	106%

As shown above, DCEO fell short of meeting the annual energy savings goal and the municipal carve-out; however, it met and slightly exceeded the low income target. While the required filing must only address the total savings goal, DCEO has elected to address all three goals in its revised plan. The discussion and analysis below examines potential options for modifying DCEO's plan to ensure that DCEO is able to meet all three of its mandates.

From Sec. 8-103 (e) of the Public Utilities Act:

"If the Department is unable to meet incremental annual performance goals for the portion of the portfolio implemented by the Department, then the utility and the Department shall jointly submit a modified filing to the Commission explaining the performance shortfall and recommending an appropriate course going forward, including any program modifications that may be appropriate in light of the evaluations conducted under item (7) of subsection (f) of this Section. In this case, the utility obligation to collect the Department's costs and turn over those funds to the Department under this subsection (e) shall continue only if the Commission approves the modifications to the plan proposed by the Department."

Annual Energy Savings Goals

The statute requires DCEO to administer 25% of the statewide portfolio of programs, which all parties have interpreted as meaning 25% of the funding in each utility territory, but it does not specify DCEO's energy savings goal. Rather it requires that DCEO and each utility agree upon "the measureable percentage of the savings goals associated with measures implemented by the utility or Department." Developing DCEO's percentage share of energy savings involved several key assumptions and decisions:

> "The utility and the Department shall agree upon a reasonable portfolio of measures and determine the measurable corresponding percentage of the savings goals associated with measures implemented by the utility or Department."

- DCEO would not be expected to achieve savings proportional to its funding (25%) because of the nature of the sectors it was serving. Low income programs were not required to pass the TRC test and would be more expensive to deliver relative to other programs. Also, DCEO's Plan committed 10% of its funds to Market Transformation Programs (training and technical assistance) that would not achieve easily measurable energy savings.
- Due to the short time frame for planning and to avoid marketplace confusion, DCEO agreed to set its incentives for its public sector programs at the same level as the utilities for their business programs. Those incentives were based on analysis conducted by ICF, Inc., a consulting firm that was hired by both ComEd and Ameren to assist in portfolio development.
- DCEO estimated the energy savings from its Public Sector programs based on analysis conducted by ICF and estimated the low income energy savings based on USDOE/USEPA Energy Star Calculators.
- DCEO assumed a net-to-gross ratio (NTG) of 0.80 and a 95% realization rate for all its programs, as recommended by ICF, to calculate net savings.
- For low income new construction and gut rehab projects, the projects would start during the program year but not be completed until the following year; so no energy savings were planned for this program in the first year.
- Finally, no energy savings would be claimed for any Market Transformation Programs, such as the Smart Energy Design Assistance or Building Industry Training and Education, during the first 3-year plan.

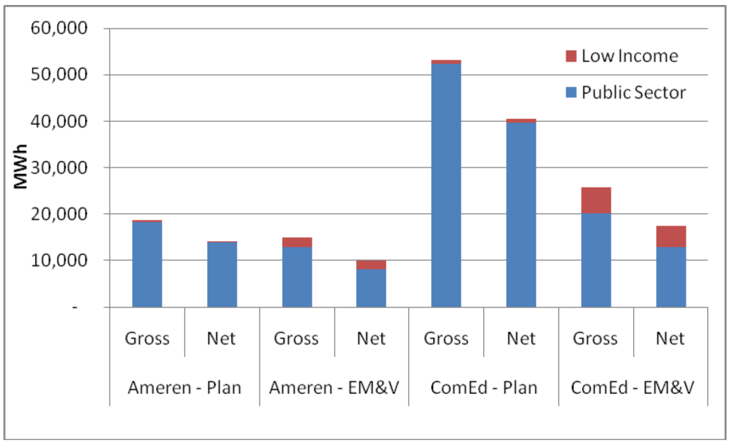
The table below summarizes DCEO's energy savings goals and the percentages of each utility territory's goal allocated to DCEO, as included in the Three-Year Plan approved by the Illinois Commerce Commission. DCEO's percentage of Ameren's goal was lower than its percentage of ComEd's, because Ameren's electric rates were lower, and the funds to be collected were lower proportional to the goal.

DCEO Energy Savings Goals (MWh)

	Program Year 1			Program Year 2			Program Year 3		
	Total	ComEd	Ameren	Total	ComEd	Ameren	Total	ComEd	Ameren
Public Sector	53,695	39,764	13,932	108,028	79,668	28,361	164,720	121,667	43,054
Low Income	876	649	227	2,687	1,986	701	5,088	3,754	1,334
TOTAL DCEO	54,572	40,412	14,159	110,716	81,653	29,062	169,808	125,421	44,387
Statewide	264,895	188,729	76,166	547,236	393,691	153,545	815,890	584,077	231,813
DCEO %	20.6%	21.4%	18.6%	20.2%	20.7%	18.9%	20.8%	21.5%	19.1%

The actual energy savings achieved during the first program year as determined by the Program Evaluation conducted by Navigant (previously Summit Blue) are shown below:

First Program Year - Plan versus Evaluated Savings



DCEO only achieved 50% of its total energy savings goal statewide. The percentage achieved was higher for the Ameren territory than for the ComEd territory, 70% versus 43%. The Public Sector programs fell short of the planned savings, but the Low Income programs actually exceeded their goal by 600%. The Public Sector entities did not apply for EEP funding at the rate expected and many of them did not complete the projects when they did apply. In addition, the evaluators discounted the gross energy savings of the Public Sector programs more than expected. (See discussion below on program barriers.)

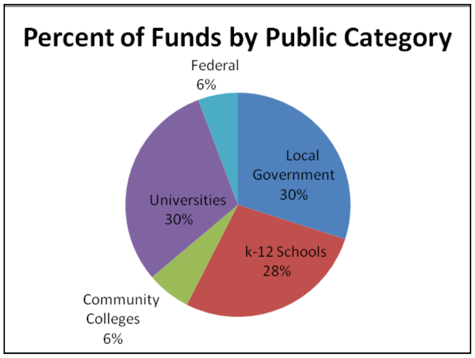
Municipal Carve-out Goal

> "A minimum of 10% of the entire portfolio of cost-effective energy efficiency measures shall be procured from units of local government, municipal corporations, school districts, and community college districts. The Department shall coordinate the implementation of these measures."

The statute directs DCEO to administer programs to procure energy efficiency from local government, municipal corporations, school districts, and community colleges. A minimum of 10% of the portfolio must be directed to these public entities. DCEO and the utilities interpreted the mandated percentage as applying to the overall EEP budget. Thus 10% of the total budget or 40% of DCEO's budget is to be dedicated to the "muni carve-out". To meet this mandate DCEO could award grants or rebates to any of these public entities for energy efficiency projects at their facilities or award grants to the local governments or school districts to administer energy efficiency programs. The plan focused on grant/rebate programs for projects, rather than for administering programs. An exception during program Year 1 was the grant to the Chicago Housing Department to administer an energy efficiency program for low income housing.

Applications by Public Sector Category

Category	Applications
Local Governments	71
k-12 Schools	61
Community Colleges	10
Universities	9
State	0
Federal	21



The majority of applications received under the Public Sector Energy Efficiency (PSEE) Program were from local governments, k-12 schools, and community colleges - more than 82% of the total. Given the smaller average size of these projects, they represent a somewhat smaller 57% of the Public Sector energy savings. In total, DCEO spent 5.9% of the total statewide EEP budget on the muni carve-out, short of the required 10%. On a utility-territory basis, DCEO achieved 37% of the goal in Ameren and 66% of the goal in ComEd.

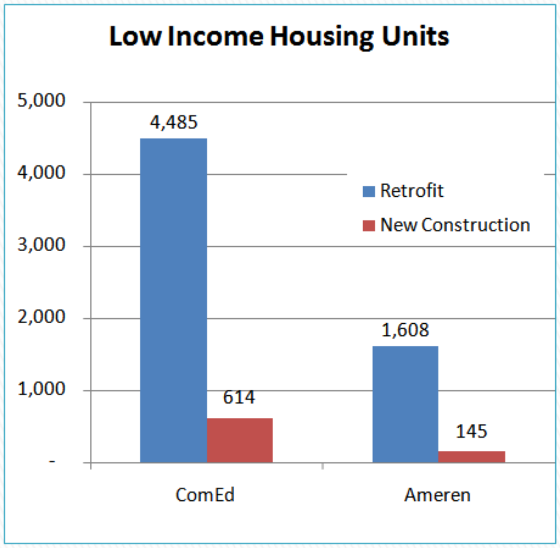
Public Sector Energy Efficiency Programs
Spending by Local Governments, k-12 Schools, and Community Colleges

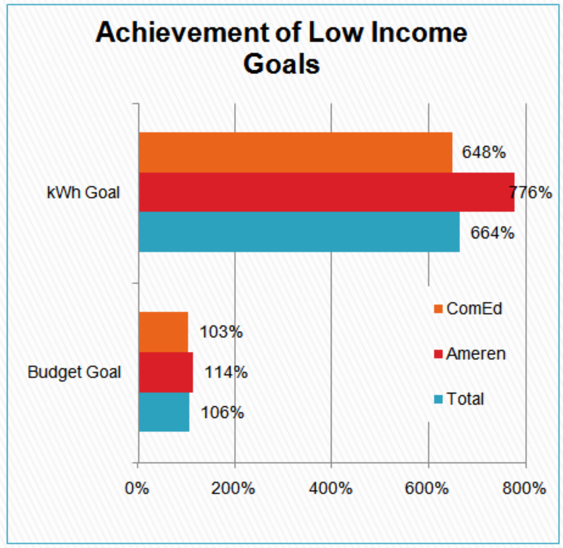
	Ameren	ComEd	Total
Incentive Budget for Local Govt., Schools, & Community Colleges	$1,339,000	$3,821,800	$5,160,800
Expenditures			
Local Govt. - EE incentives	$159,575	$815,764	$975,339
Local Govt. - low income		$500,000	$500,000
Schools - EE incentives	$194,129	$703,716	$897,845
Schools - Lights for Learning	$103,600	$296,400	$400,000
Comm. Colleges - EE incentives	$13,698	$192,389	$206,087
Comm. Colleges - training & educ.	$25,000	$27,380	$52,380
TOTAL	$496,002	$2,535,649	$3,031,651
Percent of total portfolio budget	3.7%	6.6%	5.9%
Percent of 10% goal achieved	37%	66%	59%

Low Income Goal

> "[P]resent a portfolio of energy efficiency measures proportionate to the share of total annual utility revenues in Illinois from households at or below 150% of the poverty level. Such programs shall be targeted to households with income at or below 80% of the area median income."

At the time of Plan development the statute required the utilities in cooperation with the Department of Health Care and Family Services (DHFS) to present a portfolio of programs targeted to low income households. Because of DCEO's experience with administering low income programs, the Department agreed to include the low income programs in its portfolio and to coordinate with DHFS on those programs. (Subsequently, the DHFS Weatherization and Low Income Energy Assistance Programs were transferred to DCEO.) Specifically, the statute required that the low income portfolio be proportionate to the share of total annual utility revenues in Illinois from households at or below 150% of the poverty level. In its plan filing, the Department documented that the low income proportionate share was equal to approximately 6%. Again, the utilities and Department interpreted this as applying to the overall EEP budget; thus, 6% of the total EEP budget or 24% of DCEO's budget was to be targeted at local income households.





DCEO exceeded its mandated goal, spending slightly more than 6% of the EEP budget on low income programs. In terms of energy savings, the Low Income programs exceeded the program goals by several hundred percent. More Affordable Housing construction projects were completed during the First Program Year than anticipated and the Residential Retrofit Programs were more cost-effective than expected due to the particular mix of measures implemented.

While DCEO did meet the Low Income goal in its plan, three issues call for addressing the low income goal in its revised plan. One, the implied directive in the statute to provide at least part of the EEPS low income funds to the LIHEAP Weatherization Program (Wx) may not be appropriate for the next year or two when the Wx Program has $240 million in federal ARRA Stimulus funds to administer. Additional funds from EEP are unnecessary until those extra funds are expended. Two, the funding levels in EEP are increasing significantly this year to approximately $10.5 million, thus indicating a need for more program development to distribute the funds to fill other needs. And finally, one such need or opportunity identified during the first program year is Public Housing Authorities (PHAs). PHAs are municipal corporations serving low income populations and could be eligible for both the Public Sector Programs and Low Income Programs. However, PHAs largely "fell through the cracks" of the existing program structure and did not participate in the programs.

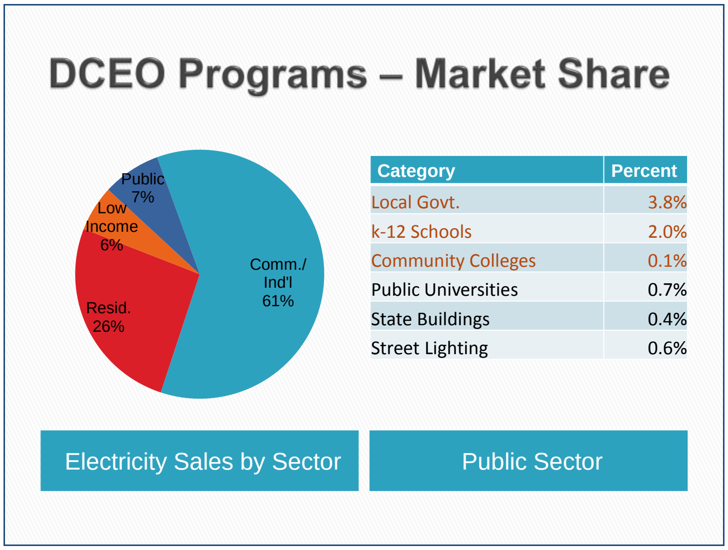
Summary of Challenges

Low Incentive Levels

DCEO staff has heard repeatedly that its incentives are too low. The Program Evaluators also found through its surveys that Public Sector program applicants frequently cited the low incentives offered by the programs as a barrier to program participation. Local governments and schools across Illinois are suffering from the effects of the recession and are unable to find the funds to install energy efficiency measures. Even in good economic times, the approval process in the government sector is slow and energy efficiency must compete against many other priorities.

DCEO Market

Another challenge for DCEO is the size of the markets that it has agreed to serve. Public Sector entities use only about 7% of electricity statewide and low income households about 6%. Overall, DCEO is administering 25% of EEP funds statewide, but is only serving 13% of the market with its portfolio of programs. In addition, low income programs do not have to pass the TRC test, are more costly to deliver, and achieve limited energy savings. The vast majority (98%) of DCEO's energy savings in its First Year were targeted at the Public Sector. Therefore, to have a chance at meeting its goals, DCEO would need to receive applications from public entities at two to three times the rate that utilities receive business applications.



Category	Percent
Local Govt.	3.8%
k-12 Schools	2.0%
Community Colleges	0.1%
Public Universities	0.7%
State Buildings	0.4%
Street Lighting	0.6%

Economic Stimulus Programs

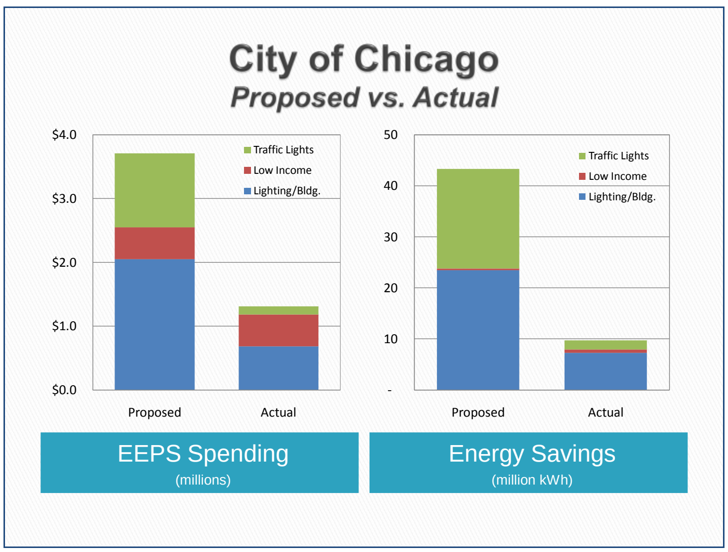
Another challenge has been the availability of American Recovery and Reinvestment Act (ARRA) funding. In Illinois, 52 cities and 10 counties in the state are entitled to funds from the U.S. Department of Energy under the Energy Efficiency and Conservation Block Grants program. In total, they are receiving more than $90 million to use for energy projects within their borders. Most have chosen to use the money for energy efficiency measures in their own facilities. While ARRA requires grant recipients to leverage existing state programs, DOE has put tremendous pressure on the local governments to spend the funds quickly. Most have chosen not to bother to apply for EEP funds, but to pay for 100% of project costs with EECBG funds.

Franchise Agreements

Under franchise agreements between local governments and ComEd authorizing the Company to deliver electricity within their boundaries, most local governments in northern Illinois do not pay for most of the electricity that they use. Rather, the businesses and residences in the city pay a franchise fee that covers the cost of electricity for the city. Therefore, the governments have very little direct incentive to reduce their energy use. Additionally, many street lights in downstate Illinois cities are owned by Ameren, thus excluding a natural market in the Ameren territory for DCEO's Public Sector Energy Efficiency programs.

Clean Energy Community Foundation
For more than ten years, the Clean Energy Community Foundation (CECF) has offered energy efficiency programs to schools and public buildings for lighting. Despite discussions between DCEO and the CECF, the Foundation has chosen to continue to offer programs that overlap or duplicate the DCEO Public Sector Energy Efficiency programs. The Foundation has well-established relationships with vendors and contractors; it has taken time to educate these vendors and contractors about DCEO's programs.

Projects Delayed or Canceled
Approximately 70 projects out of the 240 applications received during the First Program Year were either canceled or delayed until the Second Program Year. In most cases the explanation was the inability to find the rest of the funds in the municipal or school budget to complete the project, although some applicants seem to have canceled their projects in anticipation of ARRA funding. The quantity of funds and energy savings canceled by the City of Chicago was particularly significant. Chicago submitted about $2.5 million in applications that would have lead to 23 million kWh of energy savings in City buildings and low income housing. In addition, the City had planned to submit an additional application for $0.9 million for LED traffic lights, which would have reduced another 19 million kWh. In actuality Chicago only spent about $1.2 million to save less than 10 million kWh. DCEO would have met its energy savings and muni carve-out goal in the ComEd territory if Chicago were able to complete the proposed projects.



EM&V results
A final problem that contributed to how much DCEO missed its first year goals, is the relatively high net-to-gross ratio (NTG) and low realization rate determined by the program evaluators. NTG is intended to capture both free ridership (that is, projects that would have occurred anyway absent the EEPS program) and spillover (additional energy savings instigated by the existence of the program, but not directly funded with a program incentive). In other words, it measures how much of the gross energy savings can be attributed to the program on net. The realization rate is an engineering estimate of the actual energy reductions versus that estimated by the program. For the most part, DCEO does not question the evaluation results. In two areas the evaluation

hurt DCEO. First, due to the limited funding available for EM&V in the First Year Program, the evaluations did not attempt to measure spillover. Second, due to the small sample size in the evaluation of DCEO's Custom PSEE program, the low realization rate for a single applicant greatly reduced the energy savings that could be claimed for the program. A subsequent study based on the metering of the projects involved, demonstrated that the energy savings were considerably higher than that allowed by the evaluator.

Comparison of Net-to-Gross and Realization Rates
in the Plan and EM&V Reports

	Plan Assumptions		EM&V Results*	
	NTG	Real. Rate	NTG	Real. Rate
Public Sector				
Standard	0.80	0.95	0.63/0.62	1.39/1.12
Custom	0.80	0.95	0.72	0.78
Lights for Learning	0.80	0.95	0.80	0.80/0.78
Low Income				
New Construction/Gut Rehab	0.80	0.95	1.00	0.95
Residential Retrofit	0.80	0.95	1.00	0.80

*First number Ameren/second number ComEd

Analysis of Options

Meeting its goals in the future will take a range of strategies including adjusting incentive levels, expanding DCEO's market, conducting targeted sales/programs, expanding marketing and outreach, developing new programs, and leveraging of ARRA funds.

Incentive Levels
Given all of the feedback that its Public Sector Energy Efficiency incentives are way too low for most local governments and schools, DCEO's first priority is to adjust incentive levels. Experience from DCEO's Green Spring promotion, from its ARRA programs, and from working with the Illinois Municipal Electric Agency give an indication of what incentive levels may be sufficient to bring in public sector projects. Adjusting the incentives will also require adjusting DCEO's share of each utility's energy savings goal, because each kWh saved will cost more.

Green Spring. To test the effect of higher incentive levels, DCEO offered promotional incentive rates this spring for applications processed after March 5 and by April 22 (Earth Day). DCEO increased incentives for universities, state and federal government by 15% and doubled incentives for the municipal carve-out – local governments, k-12 schools, and community colleges – from previous levels. The promotion was very successful in generating interest in the program. During the promotional period, DCEO received approximately 215 applications (50% of the total received this program year). More than 80% of the applications were from local governments and schools, who were being targeted with the higher incentives.

Response to Green Spring Promotion

Utility	Applications		Incentives		kWh	
	non- green spring	green spring	non- green spring	Green spring	non- green spring	Green spring
ComEd	106	141	$ 3,603,288	$ 4,313,554	31,570,708	17,994,648
Ameren	78	74	$ 2,212,584	$ 1,877,133	17,802,401	7,138,757
Total	184	215	$ 5,815,872	$ 6,190,687	49,373,109	25,133,406

Note: Preliminary numbers, subject to change. Energy savings numbers do not include custom projects.

ARRA and IMEA. DCEO has found in administering ARRA program that offering incentives of 50% of project costs brought in quite a few local government and school projects. For example, DCEO received 180 applications in response to its Community Renewable Energy Program RFP, in which applicants were eligible for up to 50% of project costs if they were a public entity. The Illinois Municipal Electric Agency has also found that incentives of at least 50% are necessary for many local governments to consider energy efficiency projects. The ARRA and IMEA experience, indicates that the incentives may not need to be quite as high as the Green Spring incentive levels to bring in school and local government projects.

Several options are compared in the analysis below, including:

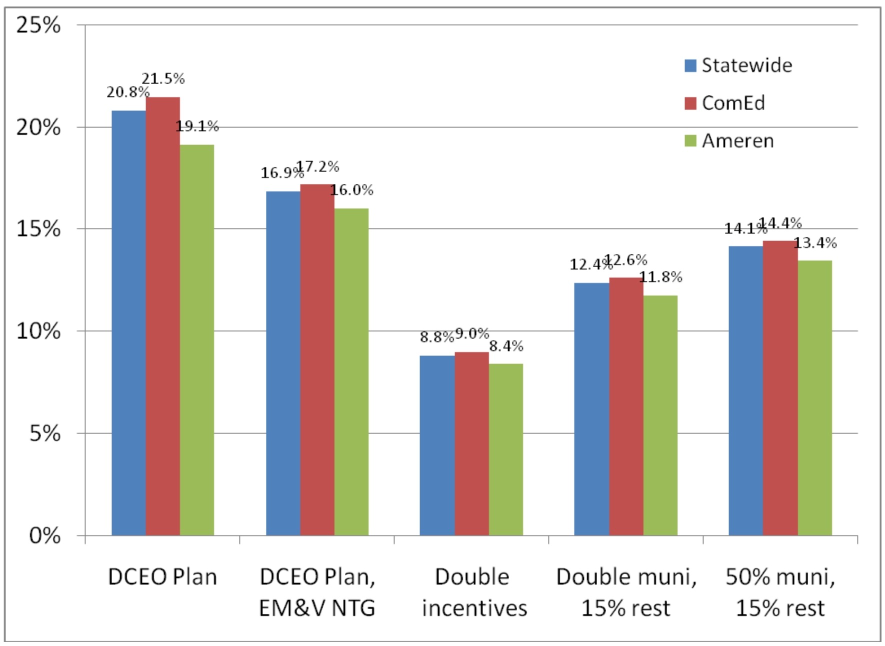
1. Current incentive levels, with adjusted EM&V values
2. Doubling of all incentives
3. Doubling of incentives for *muni carve-out*, 15% increase for other public entities
4. 50% increase incentives for *muni carve-out*, 15% increase for other public entities

DCEO's Third Year energy savings goals are 19.1% of the Ameren Illinois territory goal and 21.5% of the ComEd territory goal. Taking into account the lower NTG and realization rates determined by the First Year Program evaluation reports, DCEO would only achieve 16.0% and 17.2% of the goals for each utility, <u>with no change in incentives</u>. Doubling of incentives would reduce DCEO's share to about 8.4-9%, and doubling just the muni carve-out sectors would reduce it to 11.8-12.6 %. Option 4, increasing the incentive for the muni carve-out sectors by 50% and the incentive for other sectors by 15%, would enable DCEO to achieve 13.4% of Ameren's goal and 14.4% of ComEd's, if all of the funds are expended.

Comparison of Scenarios for Revised DCEO EEPS Plan
(millions of kWh saved)

Program	DCEO Plan - Original Assumptions	1. DCEO Plan - EM&V Adjusted	2. Double current incentives	3. Double muni, 15% rest	4. 50% muni, 15% rest
Public Sector	164.7	131.1	65.1	94.6	109.0
Low Income	5.1	6.4	6.4	6.4	6.4
Total	169.8	137.5	71.9	100.9	115.4

Comparison of Scenarios for Revised DCEO EEPS Plan
(percent of goal)



Based on the experience from ARRA, IMEA and Green Spring, DCEO is recommending Option 4: increase incentives for the muni carve-out sectors (local governments, k-12 schools, and community colleges) by 50% and increase incentives by 15% for other public entities (universities, state and federal). The Green Spring incentive levels may be higher than is necessary to bring in school and local government projects. The 50% increase for the muni carve-out sectors (local governments, k-12 schools, and community colleges) will increase the incentive levels to approximately 50% of project costs for most measures and should ensure that DCEO receives enough applications to meet the 10% goal mandated by the statute for these sectors. The 15% increase in incentives for the remaining public entities should help bring in more projects from universities, and state and federal government. DCEO will need to assess the success of the revised incentives every few months and make revisions as necessary.

Market Share
Another option for maximizing the chances for meeting DCEO's Energy Savings Goals in the future is to add additional markets to DCEO's portfolio. Several sectors make sense as potential targets for extending DCEO's programs because they are a logical extension of DCEO's existing programs or already cause confusion among potential applicants. Some possible sectors to consider include museums (particularly those on public land), private k-12 schools, private universities.

Many museums, zoos, botanical gardens, etc., particularly those in the Chicago area, are located on public lands and often are viewed as public facilities, even if they are run by not-for-profit organizations. The total energy consumption in such institutions is relatively small, less than 0.2% of ComEd's total energy demand, but it is a market that DCEO could easily serve. The State already has a well established relationship with many of those institutions. For purposes of the ARRA State Energy Program eligibility, these institutions were considered "public" and were eligible for program categories that were dedicated to public projects. Museums, zoos, botanical gardens, and similar facilities should be eligible for the Public Sector Energy Efficiency programs, specifically from the *muni carve-out* funds.

Private k-12 schools and private colleges and universities would also be a logical extension of DCEO programs. Approximately 25% of the energy consumption in the educational category is currently served by ComEd and 75% by DCEO (based on ComEd account data). About 60% of college and university enrollment in Illinois is in private institutions. Adding private k-12 schools, colleges and universities would add about 0.8% to DCEO's market share. The Lights for Learning Program, in particular, has been complicated by restricting DCEO EEP funds to public schools. DCEO has had to use other funds (Energy Efficiency Trust Fund) to provide funding for private schools and thus the energy savings cannot be counted towards the EEP goals.

Another sector that DCEO could serve is the Large Industrial customers. Under the Natural Gas EEPS, DCEO is responsible for working with large self-directing customers (SDCs). These are the very largest customers that may choose to opt out of the Natural Gas EEP and run their own efficiency programs instead. DCEO also has established relationships with many large customers through its Manufacturing Energy Efficiency Program (now called Large Customer Energy Analysis Program) and through the Energy Resources Center at the University of Illinois-Chicago, which provides technical assistance to industrial entities through the Industrial Assessment Center, Combined Heat and Power Midwest Application Center, and Save Energy Now Program. With assistance from ERC and SEDAC, this sector would be a logical extension of the state's current programs.

Targeted sales/promotions
Another promising option for securing additional energy efficiency projects from the Public Sector is to offer targeted promotions for particular measures or sub-sectors. Water treatment plants, gym lighting, and exterior lighting are several possibilities that have significant potential. DCEO could work towards transforming the market for particular sub-sectors. For example, promoting energy efficient motors for public water treatment plants across the state could very-

cost-effectively reduce energy use by these facilities. SEDAC, ERC or other contractors selected from the BITE RFP could assist in reaching out to the selected sectors.

Program Development and Revisions
DCEO is exploring several program revisions or new programs.

Public Housing Authority (PHA) Program. PHAs were underserved by existing programs in Year 1, not quite fitting either the Public Sector or Low Income programs offered. During the Second Program Year, DCEO hired the Building Research Council at the University of Illinois, Champaign-Urbana (now part of SEDAC), to provide technical assistance to PHAs. They conducted audits for them and helped them determine how they could benefit from EEP programs. SEDAC is working on a program design for a new EEP low income program directed at PHAs. The program will include technical assistance on energy performance contracting (EPC), because U.S. HUD reduces funding for energy bills if they are reduced, unless the PHA enters into an EPC.

Project Implementation Assistance. Members of the Stakeholder Advisory Group and the program evaluators have recommended that DCEO put more funding into providing technical assistance to governmental entities to assist them in applying for EEP funding and identifying other financing options. DCEO plans to redirect Building Industry Training and Education (BITE) programs towards such "enhanced implementation assistance". DCEO would continue some existing BITE programs - such as Building Operator Certification, building codes training, and Home Performance with Energy Star training - and with the rest of the funds, issue an RFP to solicit applications for Project Implementation Assistance. Proposed assistance could encompass all eligible public sector entities, or preferably focus on single or selected sectors, such as municipalities, public schools, community colleges, public universities, libraries, park districts, or water treatment districts. The grants would be performance-based, where the payment structure is based on kWhs saved or amount of program incentives requested.

Expand Retro-commissioning. DCEO's Retro-commissioning (Rx) program has been limited to a few pilot projects administered by Nexant and SEDAC. Based on the interest in the program, we have concluded that the funding for the Rx is too limited (only $200,000 in Year 1 rising to $400,000 in Year 3). The utilities are putting considerably more funds into their Rx programs. DCEO is proposing to increase the funding in Year 3 to $1.25 million and to use an outside administrator to run the program.

Other Changes. DCEO is still reviewing the new prescriptive measures being offered by ComEd and Ameren. DCEO will likely add to the list of prescriptive measures in its Standard PSEE program and may enhance its standard for Low Income new construction projects to allow for R-5 windows. DCEO may cap the funding for the Lights for Learning Program at $400,000 rather than the $800,000 in its original plan. This could change if private schools are added to the program.

Marketing and Outreach
Enhanced marketing and outreach is another critical element of DCEO's Plan. The Illinois Energy Office plans to create and execute a marketing strategy concentrating its limited resources on the greatest opportunities to achieve an increase in program participation in order to maximize energy savings using the allotted program funds. Our multilayered approach is as follows:

- Use DCEO social networking such as Twitter and Facebook to make program announcements and share success stories.
- Solicit the State of Illinois press office to write and distribute press releases to statewide media to increase awareness of the EEPS program. Ameren and ComEd will additionally benefit from these efforts.
- Use the DCEO Office of Energy website to announce program information/updates and success stories.
- Create and develop a brand for the Illinois Energy Office along the lines of ActOnEnergy or SmartIdeas.
- More effectively use DCEO Regional offices/staff to promote programs within their assigned region.
- Communicate on a regular basis (at least quarterly) with utility External Affairs and Account Managers.
- Develop stronger Trade Ally relationships by communicating regularly through e-newsletters and webinars.
- Participate in Trade Shows as budget allows.
- Increase outreach staff in order to participate in more Community outreach events.

Leveraging of ARRA and Other Funds
While ARRA programs have contributed to the dearth of Public Sector applications in Program Year 1 and 2, the ARRA programs can also be an opportunity. DCEO is administering the ARRA Energy Efficiency and Conservation Block Grants (EECBG) on behalf of the 1,300 non-entitlement communities and state facilities. DCEO is partnering with the Illinois Association of Regional Councils and the regional planning agencies as its program administrators to leverage ARRA and EEP funds for local energy efficiency projects. In the program guidelines, DCEO has required that program applicants with projects eligible for EEP funds must first apply for EEP funds before being eligible for EECBG funds. DCEO also plans to request assistance from DOE and the Midwest Energy Efficiency Alliance (who has a grant from DOE to provide technical assistance to EECBG grant recipients) to reach out to Block Grant entitlement communities to encourage them to use EECBG funds to "supplement rather than supplant" EEP funds, as called for in the ARRA.

Another opportunity is to work more closely with the Clean Energy Community Foundation to ensure that the EEP and CECF programs are complementary rather than offering competing or duplicative programs.

Innovative Project Financing
DCEO has also begun to focus efforts on assisting and encouraging its program constituents to take advantage of the growing range of innovative financing opportunities.

EPC Technical Assistance. Energy Performance Contracting (EPC) is an innovative arrangement for designing, installing and financing energy improvement projects where the savings achieved by the project are guaranteed to amortize the cost of the project over the term of the agreement. Because of some bad experiences with EPC 10-15 year ago, DCEO created an EPC technical assistance program. The Department provides technical services to public entities, such as state facilities, municipalities, public housing authorities, K-12 schools, colleges, universities and not-for-profit facilities to help them effectively use performance contracting to finance energy efficiency retrofits, cogeneration or alternative energy investments. The program has helped secure energy investments of nearly $200 million, generating annual savings of more than $25 million. DCEO is working to integrate this important program into its EEP program and to coordinate it with assistance provided through the SEDAC program and new Public Housing Authority program.

Illinois Treasurer’s Office. The Illinois Treasurer created the Green Energy program to encourage energy efficient development and improvements by offering low-interest loans to businesses, non-profit organizations and local governments in Illinois. The Treasurer’s Office secures below-market interest rates for borrowers who finance their purchase or installation of energy efficient and renewable energy equipment at participating lenders. The Green Energy program eligibility criteria include proof of participation in DCEO, ComEd, or Ameren EEP programs.

Illinois Finance Authority. Under P.A. 96-817 the IFA is authorized to provide moral obligation loan guarantees for energy efficiency projects. Commercial, industrial, municipal and not-for-profit entities are eligible to apply for both new construction and retrofit projects. However, they must apply for other available Federal, State or utility financial incentives (such as EEP incentives) before applying to IFA for this credit enhancement.

Property Assessed Clean Energy (PACE). P.A. 96-481 authorized municipalities to enter into agreements with property owners to finance renewable energy and energy efficiency improvements through their property taxes.

On-bill financing. The General Assembly under P.A. 96-0033 required utilities to offer on-bill financing programs for residential customers and small-business customers. The Illinois Commerce Commission is holding hearings and meetings to finalize this program, and the state’s utilities are beginning to work with lenders and others to develop on-bill finance programs to respond to the law.

Credit for SEDAC and Codes Training

SEDAC spillover. The Smart Energy Design Assistance Center provides several levels of assistance ranging from phone advice for businesses and governmental entities on energy efficiency measures to whole building analyses of potential energy savings and their associated economic benefits. SEDAC brings in many applicants under the utility's C & I programs as well as under DCEO Public Sector Programs. In addition, many of these same entities often make reductions beyond those incentivized by the State and utility programs. SEDAC conducts quarterly surveys of the ECMs implemented by each of its clients and has developed a database to track these reductions. The database could be used to document spillover reductions.

Building Codes Training. Since DCEO is already mandated under the Building Energy Efficiency Act to provide technical assistance on building energy conservation codes, the utilities and DCEO agreed that DCEO would address energy codes in its plan. The approved plan included funding for the Building Industry Training and Education Program (BITE), including building codes training to improve understanding of and compliance with the code and to promote adoption of Green Codes that push beyond the current International Energy Conservation Code (IECC) adopted by Illinois. The plan did not try to measure or claim credit for the resulting energy savings, but other states have added as much as 3% to their annual energy savings through codes-related programs. DOE is currently testing and refining methods for measuring the rate of compliance with energy codes. DCEO would like to apply those methods and claim credit for energy savings directly attributable to the BITE codes training funded from EEP, including successful efforts to encourage adoption of Green Codes. It may not be possible to begin documenting the energy savings until the next three-year plan, but DCEO would like to explore options during the third program year and report to the SAG and ICC on its findings.

Staffing and Project Data Management

Finally, two areas that evaluators identified in particular where DCEO should take action are expanding staffing levels and developing a more functional project database. DCEO has expanded staff during the past few months with ARRA funding. As the ARRA program winds down, the new staff will be transferred to the EEP electric and new EEP gas programs. DCEO is also has hired a contractor to build a database with much greater functionality. The database is being designed to better serve the needs of project tracking, monitoring, accounting, and evaluation.

Recommendations

DCEO is planning a range of modifications to its Energy Efficiency Portfolio Plan to address the challenges in meeting its energy saving goals, and the related municipal carve-out and low income goals. DCEO plans to increase its incentive levels and adjust its energy savings goals to make them more realistic. DCEO also plans more targeting of programs to seize opportunities to transform certain markets. It also seeks to clarify eligibility rules to include public museums (and related facilities) in its Public Sector Programs and private schools in the Lights for Learning Program. The revised Plan calls for a new program targeted towards Public Housing Authorities, expansion of the Retrocommissioning Program, and use of training and education funds for "enhanced implementation assistance". The Plan also includes enhanced marketing and outreach efforts as a critical element to ensure the various program changes are effective in better serving the Public Sector and Low Income markets. It also seeks to leverage Federal funds and to promote innovative financing mechanisms. The Plan recommends exploring opportunities for quantifying and claiming credit for market transformation programs, such as SEDAC and building codes training. Finally, as recommended by the Program Evaluators, the revised Plan includes expanding DCEO EEP staff and development of a more robust and functional database.

The Revised Plan in summary:

- Public Sector Energy Efficiency Incentives and Goals
    - Increase incentives for local government, k-12 schools, and community colleges by 50%.
    - Increase incentives for university, state and federal projects by 15%.
    - Adjust DCEO's energy savings goals in the third program year to 13% (32,454 MWh) of the goal for the Ameren Illinois territory and to 14% (87,771 MWh) of the goal for the ComEd territory.
- Program targeting
    - Offer special promotions that target energy efficiency sectors or measures of particular potential. Examples may include water treatment plants, exterior lighting, or gym lighting.
- DCEO Market Sectors
    - Clarify the Public Sector Energy Efficiency eligibility rules to include museums, zoos, gardens, etc. located on public lands (or otherwise serving a public function) under the 10% municipal carve-out.
    - Revise the scope of the Lights for Learning program from public k-12 schools to include private k-12 schools as well.
- Program Changes
    - Develop a program targeted to Public Housing Authorities.
    - Expand Retro-commissioning program.
    - Add more prescriptive measures to Standard Program and R-5 windows to Low Income Program new construction standards.
- Implementation Assistance
    - Issue RFP for entities to provide "enhanced implementation assistance" for public applicants through Building Industry Training and Education (BITE) RFP, with performance-based payments.
- Enhanced Marketing and Outreach
    - Effectively use social networking (Twitter and Facebook) and State Energy Office website to make program announcements and share success stories and the State of Illinois press office to write and distribute press releases to increase awareness of EEP program.
    - Create and develop a brand for the Illinois Energy Office along the lines of ActOnEnergy or SmartIdeas.
    - Use DCEO Regional offices/staff more effectively to promote programs within their assigned region.
    - Communicate on a regular basis (at least quarterly) with utility External Affairs and Account Managers.
    - Develop stronger Trade Ally relationships by communicating regularly through e-newsletters and webinars.
    - Participate in Trade Shows as budget allows.
    - Increase outreach staff in order to participate in more Community outreach events.
- Leveraging of ARRA and other funds
    - Use partnership with ILARC and the regional planning agencies to leverage EECBG for non-entitlement communities with EEP funds.

    - Reach out to EECBG entitlement communities with assistance of DOE and MEEA encourage them to use ARRA funds to "supplement rather than supplant" EEP funds.
    - Work more closely with Clean Energy Community Foundation to ensure that the programs are complementary rather than continue to offer competing or duplicative programs.
- Innovative Financing Mechanisms
    - Integrate Energy Performance Contracting (EPC) technical assistance program into EEP Public Sector and Public Housing Authority programs.
    - Coordinate and collaborate with Treasurer's Office and Illinois Finance Authority to promote use of Green Energy below-market rate loans and state "moral obligation" loan guarantees.
    - Explore potential for PACE and on-bill financing to assist DCEO program constituents.
- Quantify and claim credit for market transformation programs (for second Three-Year Plan):
    - Explore opportunities for measuring the spillover energy efficiency benefits of the Smart Energy Design Assistance Program, based on the quarterly surveys of past recipients of design assistance, to be implemented in second Three-Year Plan.
    - Test methods to measure energy savings attributable to Codes training programs that increase compliance rates for state Energy Conservation Building Codes or that assist local governments in adopting Green Codes.
- Staffing and Data Management
    - Expand State Energy Office staff dedicated to EEP.
    - Develop more functional database to support project tracking, monitoring, accounting, and evaluation.