

Response to the Environmental Law and Policy Center - ELPC 1.8

Provided by: Agnes Mrozowski

Assistant Deputy Director

Department of Commerce and Economic Opportunity

(217)557-7808

- 1.8 Has DCEO considered the feasibility of offering a public sector data center program – including design and technical assistance – as part of the Smart Energy Design Assistance Center or its public sector energy efficiency programs?

Yes, DCEO has considered offering a public sector data center program.

It has been DCEO's determination that the Public Sector, with the exception of universities, has not had the need to implement such projects.

At the time of this three year plan filing, DCEO has determined that including a Public Sector Data Center program would not be worthwhile. However, DCEO plans to continue to fund these projects through its Public Sector Custom Program and provide technical assistance through SEDAC.

If during the course of the next three year plan, the demand for a Data Center program increases, DCEO will strongly consider designing a pilot program.

Response to the Environmental Law and Policy Center - ELPC 1.9

Provided by: Agnes Mrozowski

Assistant Deputy Director

Department of Commerce and Economic Opportunity

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1.9 Please explain why DCEO has not included a targeted public sector data center program with measure incentives and technical assistance, including design services for both retrofit as well as new construction applications.

Yes, DCEO has considered offering a public sector data center program.

It has been DCEO's determination that the Public Sector, with the exception of universities, has not displayed the need to implement such projects.

Of the few projects DCEO have completed, some are large and some very small.

These projects are very expensive to implement on a large scale. Two large projects were completed at UIUC and SIUC.

An obvious problem that arises is the determination of baseline energy consumption. The newer equipment is metered, older or distributed servers are not.

Response to ELPC 1.13

Provided by: Stefano Galiasso

Research Engineer

Energy Resources Center at the University of Illinois at Chicago

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- 1.13 Please provide an estimate of the number, type, and technology of low income and public sector lighting measures that are anticipated to be put in service in during the Plan 3 timeframe.

The number of lights are provided in the tables below.

Public Sector Programs	Technology	Number of measures		
		North	South	Total
<i>Standard Program</i>	Energy Star CFL	2,376	1,155	3,531
	Flourescent Delamping	34,113	29,264	63,377
	High Performance T8	37,691	16,147	53,838
	LEDs	22,114	11,065	33,179
	Occupancy Sensors	24,870	14,012	38,882
	Multi-level Light Switching	341	108	449
	LED Traffic Lights	925	157	1,082
	T5 Fixtures	22,548	14,955	37,503
	Efficient Street Lighting	23,389	7,792	31,181
			168,367	94,655
<i>Custom Program</i>	Efficient Street Lighting	16,263	6,262	22,525
<i>STEP</i>	LED Exit signs	5,535	1,746	7,281
	Energy Star CFL	2,112	672	2,784
	Exterior LED	39	12	51
	Occupany Sensors	4,953	1,563	6,516
			12,639	3,993

(continued)

Low Income Programs				
<i>PHA</i>	T12 to T8 Relamp & Reballast	8,124	2,565	10,689
	Energy Star CFL	30,369	17,439	47,808
	LED Exit Sign	843	303	1,146
	High Performance T8	60	30	90
	Pulse start or Ceramic Metal H	375	930	1,305
	Energy Star Ceiling Fan	960	150	1,110
	Bi-level Lighting Control	1,200	300	1,500
	Occupancy Sensors	1,164	180	1,344
		43,095	21,897	64,992
<i>Wx</i>	Energy Star CFL	199,805	68,743	268,548
	Interior Hardwired Fixture	670	248	918
	Energy Star Ceiling Fan	262	113	375
		200,737	69,104	269,841
<i>Energy Savers</i>	Energy Star CFL	13,224	9,930	23,154

For more details on each measure, please refer to the batch files contained in JLH 1.02 Data Request.

Response to ELPC 1.23

Provided by: Stefano Galiasso

Research Engineer

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1.23 On page 8 and 9 of the DCEO plan, street lighting is identified as having immense energy efficiency potential in Illinois in the range of 18% of the total economic potential in the public sector. That being the case, does DCEO include LED street and area lighting technologies in its proposed Plan 3 (e.g., public sector core or targeted programs or in other elements of Plan 3 programs)? If so, what LED or other lighting measures are eligible and when will these new lighting technologies be eligible and in-use?

DCEO does include LED street and area lighting technologies in its proposed Plan 3, under its Standard Program.

In particular, for street lighting, based on a market analysis, it is estimated that the technologies currently employed are the following:

Arterial 400W	Arterial 310W	Residential 250W	Residential 150W	Alley 250W	Predestrian 100W	Pedestrian 50W	Flood 400W
6.87%	26.73%	8.40%	30.55%	22.94%	1.07%	3.09%	0.35%

Equivalent LED lamps (mostly “cobra heads” type) are

Conventional	GE Product	Watts	Lumens		LED	Lumens
100W	12471 HR100A38	100	2,695		30W	2,634
100-150W	26427 LU100/CP	100	8,550		43W	3,978
100-150W	26429 LU150/55/CP	150	14,400		60W	5,486
150-250W					90W	7,862
250-400W	26430 LU250/CP	250	25,200		120W	10,500
400W					150W	13,706
400W+	26431 LU400/CP	400	45,000		180W	16,156

Incentives will range between 40%-60% of installed cost, depending on Watts saved, and will be available beginning June 1st 2014.

Response to ELPC Data Request 2.1

Provided by: David Baker

Manager of Energy Division, Illinois Energy Office

Illinois Department of Commerce and Economic Opportunity

217-785-5222

- 2.1 Referring to his Rebuttal Testimony, page 5, Lines 67-71, Witness Baker stated that Mr. Crandall specifically recommended that DCEO offer an additional targeted program for data centers. Witness Baker also states that DCEO may shift funds among the subprograms depending on the applications received.
- a) Is DCEO intending to implement Mr. Crandall's recommendation for an additional targeted program for data centers?
 - b) If not, why not?
 - c) Is DCEO saying that whether it implements a targeted program for data centers depends on the applications received?
 - d) If it depends on the actual applications received, how would DCEO implement a targeted program for data centers once the programs are underway and given that developing a targeted data center program entails much more than simply shifting funds.
 - e) If it depends on the actual applications received for data centers, what is the level of applications above which DCEO would initiate a targeted data center program?

As stated in Agnes Mrozowski's rebuttal testimony, DCEO has considered offering a public sector data center program. DCEO has determined, however, that the Public Sector, with the exception of universities, has not displayed the interest to implement such projects. DCEO, at the time of the plan filing, has only received data center applications or inquiries from universities. This does not warrant a targeted program.

DCEO plans to continue to fund data center projects through its Public Sector Custom Program and provide related technical assistance through SEDAC. If, during the course of the next three year plan, the demand for a targeted data center program increases, DCEO will strongly consider designing a pilot program with the assistance of SEDAC. It is difficult to pin down an exact number of projects that would trigger the need for a targeted program.

Response to ELPC Data Request 2.3

Provided by: Agnes Mrozowski

Assistant Deputy Director

Illinois Department of Commerce and Economic Opportunity

217-557-7808

1.1 Referring to Mrozowski Rebuttal Testimony, page 4, regarding the Self Direct Program:

- a) What criteria does/will DCEO use to approve applications (line 47)? **The criteria used to determine if an applicant is approved is based on the program requirements stated in 220 ILCS 5/8-402. The criteria include: (1) customer of natural gas utility must have a North American Industry Classification system code number that is 22111 or any code number beginning with the digits 31, 32, or 33, and (2) has an annual natural gas usage in the aggregate of 4 million therms or more within a service territory or 8 million therms statewide, or more than 60% of the natural gas usage is as a feedstock.**
- b) When considering applications, does/will DCEO assess:
 - i) The proposed energy savings? **No, proposed energy savings information is not part of the application. The application is only for determining if a company is eligible to participate in the Self-Direct Customer program. It is not for considering proposed energy efficiency projects. Information on proposed energy savings is provided in the annual reports provided by self-direct customers after they have been approved for the self-direct program.**
 - ii) The cost effectiveness of the proposed energy efficiency measures? **No, cost effectiveness is not mentioned in the statute. We do not look at cost-effectiveness as part of the application process.**
The incremental cost of the energy efficiency improvement the customer is proposing? **No. There is no energy efficiency improvement information included in the application.**
 - iii) The portion of the cost that goes into line or process changes that benefit the self-direct customer by increasing output (e.g., expansion of production capability versus increasing the efficiency of production capability)? **No, this is not considered in the application process or mentioned in the statute.**
 - iv) Please explain each of the above answers in detail.
- c) Please describe how DCEO verifies compliance with the self-directing customer requirements? **Self-Direct Customers are required to submit an annual report each year describing what funds have been deposited into the reserve account**

and energy efficiency measures that have been implemented. More specifically, DCEO request that each annual report include the following:

- Documentation that the reserve account was established and the annual funding level required to be in the account. The funding level is equal to 2% of the customer's cost of natural gas, composed of the commodity cost and delivery service charges paid to the gas utility, or \$150,000.00, whichever is less.
- A listing of all deposits and reductions to the reserve account during the reporting year and the reserve account balance by month. If the deposits within the year amount to less than \$150,000, provide a justification for the reduced deposits.
- Verification by an officer or plant manager of the company, or by a registered professional engineer or certified energy efficiency trade professional, that any funds withdrawn from the reserve account were used for energy efficiency measures.
- A description of energy efficiency measures undertaken by your company and paid for in whole or in part with funds from the reserve account during the program year. This includes project descriptions, drawings, plans, or other related information. Indicate the facility(ies) where the work was completed.
- An estimate of the energy saved (in terms and \$ savings), or to be saved, by the measure and rationale for determining the estimate. This may include model results and calculations.

DCEO reviews these reports and determines whether the SDC has provided sufficient information on the requested information. DCEO also verifies that SDCs have spent at least a portion of their deposits into the reserve account within the first three years of being in the program, and that they do not maintain more than a 3-year balance of required deposits in their reserve account.

- d) Does DCEO's verification of compliance with the self-directing customer requirements:
- i) Entail verification that the customer qualifies to participate? **Yes, this is determined at time of application.**
 - ii) Entail verification that the customer has established an energy efficiency reserve account? **This information is required in the SDC's annual report. We do not verify compliance beyond what is provided in the report. 220 ILCS 5/8-402 is vague and does not specify what type of verification should be conducted, DCEO is working to establish a guideline for verification of compliance beyond what is provided in the annual reports. However, the statute only requires what is requested in the annual reports.**
 - iii) Entail verification that the customer properly funded the account? **This information is required in the SDC's annual report. DCEO does not verify compliance beyond what is provided in the report. 220 ILCS 5/8-402 are vague and do not specify what type of verification should be conducted.**

- iv) Entail verification that the energy efficiency measures/projects were installed as set forth in the approved application? **Energy Efficiency measures are not set forth in the application. That statute states Energy Efficiency projects are of the customers choosing.**
- v) Entail verification of the gross energy savings from the implemented project?
DCEO does not verify beyond what is provided in the report. 220 ILCS 5/8-402 is vague and does not specify what type of verification should be conducted.
- vi) Entail verification of the net energy savings from the implemented project, net above what the customer would have done without the self-direct fund?
DCEO does not verify beyond what is provided in the report. 220 ILCS 5/8-402 is vague and does not specify what type of verification should be conducted.
Entail verification of the net energy savings from the implemented project, adjusted for energy consumption changes associated with the expansion or contraction of productive capability?
DCEO does not verify beyond what is provided in the report. 220 ILCS 5/8-402 is vague and does not specify what type of verification should be conducted.
- vii) Entail verification of the cost-effectiveness of the energy saved?
Per statute, DCEO does not look at cost-effectiveness of energy efficiency measures that are implemented by self-directing customers.
- viii) Entail verification of additional process requirements? Please specify and describe.
DCEO does not verify beyond what is provided in the report. 220 ILCS 5/8-402 are vague and do not specify what type of verification should be conducted.
- ix) Entail verification of additional impact requirements? Please specify and describe.
DCEO does not verify beyond what is provided in the report. 220 ILCS 5/8-402 is vague and does not specify what type of verification should be conducted.
why.

Response to ELPC Data Request 2.4

Provided by: Agnes Mrozowski

Assistant Deputy Director

Illinois Department of Commerce and Economic Opportunity

217-557-7808

Referring to Mrozowski Rebuttal Testimony, pages 6-8, regarding program flexibility, what is the scope of the program and budgetary flexibility DCEO is requesting (e.g., page 7, lines 98-100)? Please specify the criteria that DCEO is proposing to follow in determining whether it can modify some aspect of its programs without review and approval.

During the course of the EEPS program, DCEO has not improperly used its commission granted flexibility. Nor has any party in this proceeding provided an example of an occurrence. DCEO has kept interested parties who participate in the Illinois SAG – including those parties to this docket – informed of how we are implementing its approved portfolio of services.

The criteria for program and budget flexibility are as follows:

DCEO administers its portfolio with six separate budgets, one for each utility territory. Each utility territory uses DCEO programs differently; a program could be oversubscribed in Ameren Gas and undersubscribed in NICOR Gas. While planning the portfolio, it is often difficult to anticipate program subscription by territory. Budget shifts within each of the utility territory budgets to meet the program subscription demand within a specific sector are necessary.

DCEO has utilized program and budget flexibility within Public Sector and Low Income Residential. This is to move funds from an underperforming program to a higher than expected performing program with the same sector. This is done per utility territory.

If DCEO has remaining administration funds in a utility territory and a project can be funded within that same territory, DCEO will shift funding to either Low Income

or Public Sector to pay for a project that would have otherwise not received incentive funds.

DCEO has reallocated public sector funding for Public Housing Authority projects because they are Municipal Corporations and could be considered either low income or public sector.

There are always unique instances where flexibility is required. DCEO communicates with the utilities and the SAG on a regular basis to discuss these unique instances and appreciates feedback.

Response to ELPC Data Request 2.5

Provided by: Agnes Mrozowski

Assistant Deputy Director

Illinois Department of Commerce and Economic Opportunity

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2.5

Referring to Mrozowski Rebuttal Testimony, pages 8-9, lines 139-141 regarding data centers:

- a) How will DCEO determine whether “the demand for a targeted data center program increases?”
- b) If DCEO does not have a data center program, how will it know whether the demand for it has increased?
- c) How much would the demand have to increase to cause DCEO to design a pilot program?

As stated in my rebuttal testimony, DCEO has considered offering a public sector data center program. DCEO has determined, however, that the Public Sector, with the exception of universities, has not displayed the interest to implement such projects. DCEO, at the time of the plan filing, has only received data center applications or inquiries from universities. This does not yet warrant a targeted program.

DCEO plans to continue to fund data center projects through its Public Sector Custom Program and provide related technical assistance through SEDAC. If, during the course of the next three year plan, the demand for a targeted data center program increases, DCEO will strongly consider designing a pilot program.

DCEO will carefully monitor data center applications and inquiries through SEDAC. If DCEO sees an increase in the number of projects which would require a specific budget allocation and program design, DCEO will begin exploring a pilot program to address this need.

Response to ELPC Data Request 2.8

Provided by: Agnes Mrozowski

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2.8 Referring to Mrozowski Direct Testimony Ex. 1.0, pages 33 and 34. In support of the statement offered regarding street lighting, please provide DCEO's best estimate of the magnitude of the "natural market" of street lights owned by Ameren in downstate Illinois in terms of MWh's of energy efficiency potential in its service territory or in downstate Illinois.

The total energy efficiency potential of street lighting in Ameren's service territory as calculated in the DCEO Energy Efficiency Potential Study is approximately 44,285 MWh. This is based on an estimated 23.1% utility ownership of street lighting.

Response to ELPC Data Request 3.1

Provided by: Agnes Mrozowski

Asst. Deputy Director

Illinois Department of Commerce and Economic Opportunity

3.1

Please refer to the direct testimony of Phil Mosenthal at pp. 24-27 and the direct testimony of Geoff Crandall at pp. 3-5, regarding DCEO's request for flexibility to modify programs.

- a) Would DCEO be willing to accept Mr. Mosenthal's recommendation at p. 25 of his direct testimony that any shifts in budget that result in a variance from planned annual program budgets of 20% or more would trigger goal adjustments, provided that this threshold was interpreted to apply to shifts in spending between DCEO's public sector, market transformation, and low income programs at the portfolio level?

Although DCEO hesitates to agree to limitations that could jeopardize timely response to market demands, DCEO will agree to this at an overall portfolio level.

- b) Notwithstanding DCEO's response to the previous question, does DCEO intend to continue to inform and consult with the SAG regarding other significant program or budget adjustments?

Yes.

Response to ELPC Data Request 3.2

Provided by: Agnes Mrozowski

Asst. Deputy Director

Illinois Department of Commerce and Economic Opportunity

3.2

Please refer to the rebuttal testimony of Agnes Mrozowski at pp. 8-9, regarding data centers.

- a) In addition to the steps noted in Ms. Mrozowski's testimony, would DCEO be willing to refine or update its potential study within the next six months to include the savings potential for public sector data center projects in Illinois?

Yes.

- b) Would DCEO be willing to present the results of the updated potential study at a meeting of the SAG?

Yes.

- c) Does SEDAC and/or the ERC have the expertise necessary to provide technical assistance for data center projects through DCEO's Public Sector Custom Program?

Yes.

- d) For cases in which SEDAC and/or ERC staff does not have sufficient expertise, will DCEO obtain additional expertise to provide the necessary technical assistance for data center projects.

Yes. If this were to become necessary, DCEO would follow Illinois State Procurement policies to provide the necessary technical assistance for data projects.