



Illinois Department of Commerce & Economic Opportunity

Illinois Energy Now

2014-2017 EEPS Plan

August 5, 2013

Today's Meeting

- Overview of Legislation as it pertains to DCEO
- Program Summary
- Introduce New Programs
- Portfolio Issues/Policy
- Feedback from SAG

Preliminary Plan Considerations

- The integrated electric and natural gas plan presented today is preliminary and may be modified
- Seeking Stakeholder feedback
- Final budgets need to be confirmed
- Consistent programs throughout the State
- Portfolio is balanced across programs
- Achievable goals consistent with Potential Study
- Perspective on Net To Gross

DCEO Program Success

Achieved energy load reduction goals first 3 years, although not plan goals

Achieved statewide energy savings plan goals for both Electric and NG programs in PY4 (Draft evaluations)

Maximized IL-based public/private sector partnerships with State/Universities/not-for-profits

Leveraged other Energy Office funds with EEPS dollars to support total portfolio success & provide statewide program coverage

Examples of EEPS Leveraging

Program	Description
Affordable Housing Public Housing Lights for Learning	Supplemented with EETF to offer programs statewide. For low income programs allows to keep “whole building” focus in coop and muni areas.
Home Performance	Supported initially with EETF and federal funds, supplemented through cooperative efforts with Workforce Bureau
Building Operator Certification	Partnered w/ Workforce to expand training, including veterans pilot
Codes Training	EETF supported work group meetings and analysis of opportunities for expanding codes compliance programs. SEP funded pilot study to measure baseline compliance.
Municipal Utilities	Used EETF to partner with IMEA and Nicor to support joint gas/electric programs in muni utility areas
Electric Coops	Used EETF and SEP funds to support residential EE in coop areas – HomeE and geothermal programs
Tornado Rebuild	Provided funds to Ameren to offer comprehensive energy efficiency programs to Harrisburg households rebuilding after tornado
Clean Energy	Coordinating program funding on outdoor lighting and water treatment plants

Legislative Requirements

8-103/8-104(e) (EEPS)/third plan under this legislation

Statutory Requirements:

- Electric statutory goals rise to 2% by 2015
- Natural gas statutory goals rise from 0.8 to 1.2 % by 2017
- DCEO's share is 25% of funding
- 10% municipal carve out/40% of DCEO budget
- Statutory low income target for the electricity portfolio and equivalent percentage for natural gas portfolio/24% of DCEO budget
- Statute requires DCEO to integrate delivery of electric and natural gas efficiency programs
- Natural gas 20% of savings

DCEO proposed 2 programs to IPA

1.

Expanded Street lighting program, managed through DCEO with technical support from ERC

2.

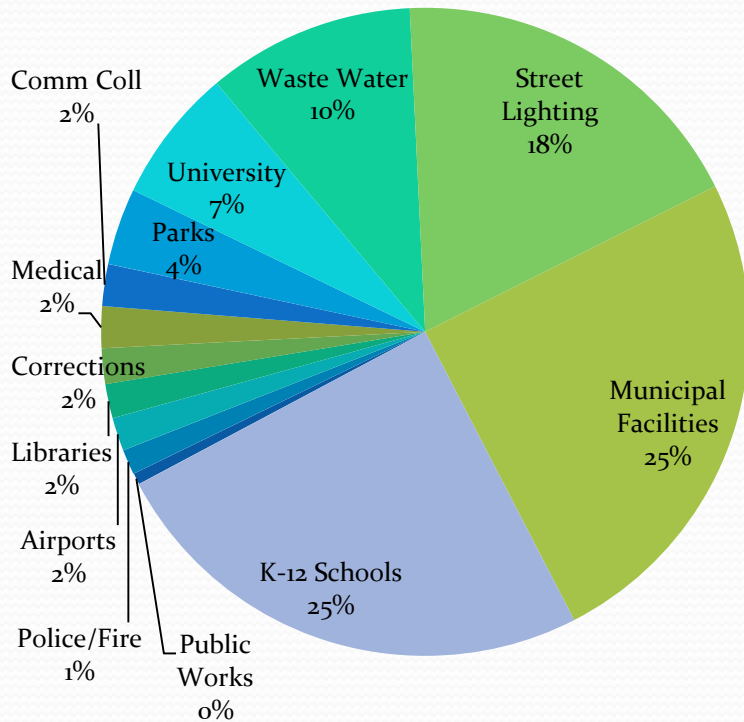
Expanded Energy Savers multi-family program, managed by CNT

Data and Information Guiding 3-year Plan Design

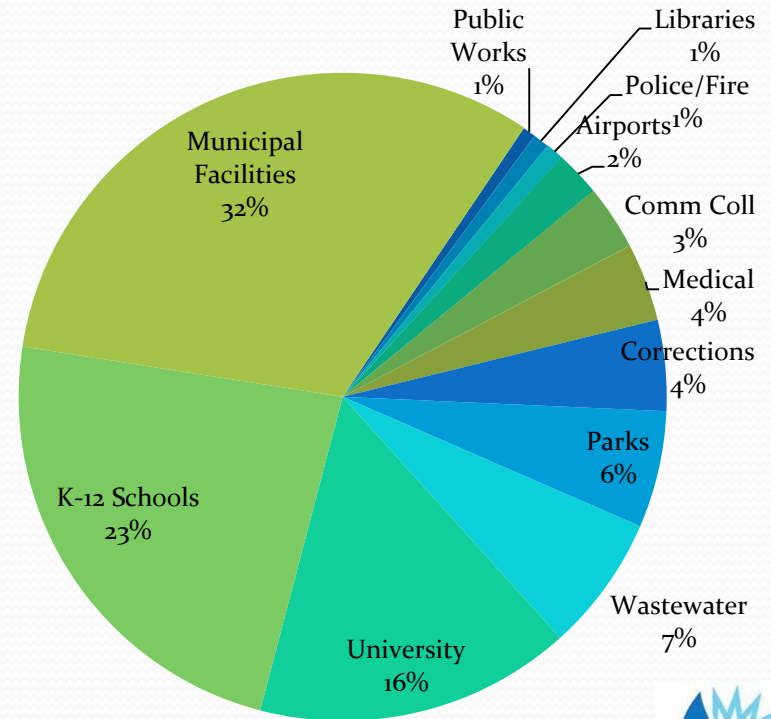
- Previous two plan cycles experiences
- PY4 Evaluation results
- ARRA experiences and lessons learned
- Potential Study completed July 10, 2013
- Same suite of programs/incentives offered statewide
- TRC is applied at Portfolio level
- Research on new programs/measures

Economic Potential in Public Sector

Electric

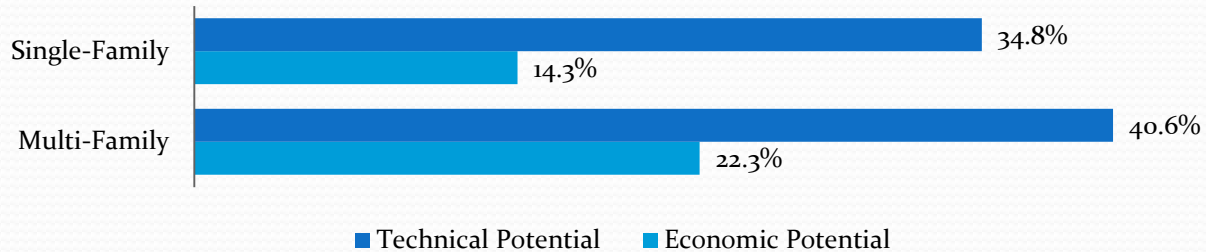


Natural Gas

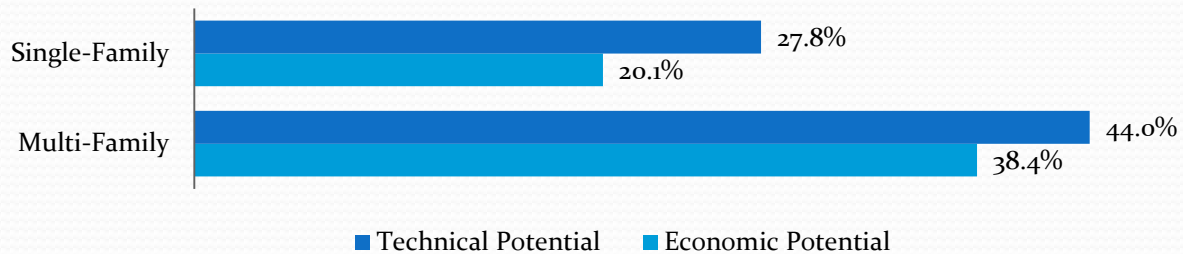


Technical & Economic Potential in Low Income Housing

Electric



Natural Gas



Research Toward Development of New Programs & Measures

- NGA Industrial/CHP Policy Academy
- Water Treatment Plant Pilot Program
- Codes Work Group
- Third Party Codes Inspectors Pilot Study
- Advanced Outdoor Lighting Program

Program Partners

Who	Role
DCEO	Administers Standard and Custom Programs, Affordable Housing and Residential Retrofit programs
SEDAC	Administer RCx, New Construction, Public Housing Performs energy assessments for all EEPS sectors
ERC	EEPS Modeling, Boiler Tune Up, Green Nozzle Direct Install, Trade Ally Network
MEEA	Codes, BOC, Lights for Learning, Direct Install Schools/Park Districts, IL Home Performance
IHDA	Coordinate affordable housing construction, single family and multi-family retrofit
LIHEAP Wx	Administers low income weatherization services through Community Action Agencies
Urban Wx	Administers low income weatherization services in economically distressed areas
CNT	Administers multi-family Energy Savers program, expanding statewide
ADM	Third Party Evaluator – currently contracted through the end of PY6/3

DCEO Budget

DCEO is allocated up to 25% of the funding cap to administer its programs.

- **Electric:** \$54-\$55 M per year
- **Gas:** \$21.1 M per year

DCEO Budget Breakout (\$M)

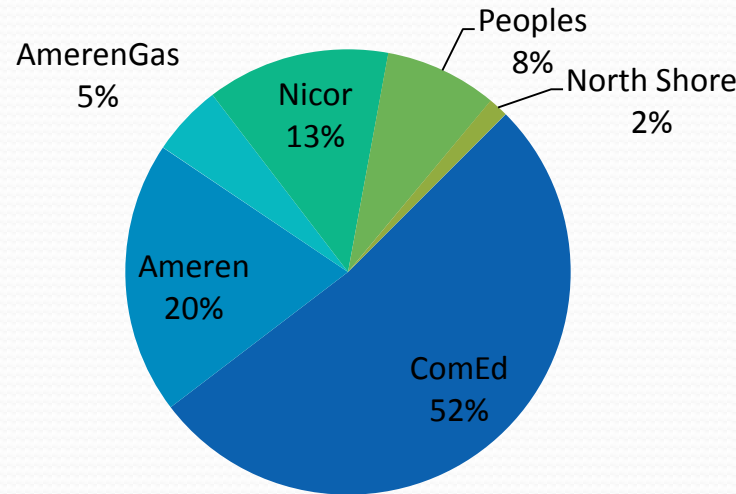
Program Area	% DCEO	Electric	Gas	Total
Public Sector	53%	\$28.7	\$11.2	\$39.9
R&D	3%	\$1.6	\$0.6	\$2.3
Low Income	24%	\$13.0	\$5.1	\$18.1
Market Trans.	10%	\$5.4	\$2.1	\$7.5
EM&V	3%	\$1.6	\$0.6	\$2.3
Admin/Marketing	7%	\$3.8	\$1.5	\$5.3
Total	100%	\$54.1	\$21.1	\$75.3



DCEO Funding by Utility Territory

(millions)

Year	ComEd	Ameren	AmerenGas	Nicor	Peoples	North Shore	TOTAL
PY 7	\$39.3	\$14.9	\$3.9	\$10.0	\$6.1	\$1.1	\$75.3
PY 8	\$39.7	\$15.1	\$3.9	\$10.0	\$6.1	\$1.1	\$76.0
PY 9	\$39.9	\$15.2	\$3.9	\$10.0	\$6.1	\$1.1	\$76.2
TOTAL	\$118.8	\$45.3	\$11.7	\$30.0	\$18.4	\$3.3	\$227.5



DCEO Energy Savings Goals

Based on potential study and modeling

Less than statutory load reduction goals, due to rate caps

Electric

- Public Sector: 1.0%
- Low Income: 0.23%

Natural Gas

- Public Sector: 0.7%
- Low Income: 0.11%

Savings goals as % program areas

Program Area	Electric	Million kWh/yr	Gas	Million therm/yr
Public	83.0%	119.5	75.3%	3.8
R&D	2.3%	3.3	2.7%	0.1
Low Income	10.4%	15.0	15.6%	0.8
Market Trans.	4.3%	6.2	6.4%	0.3
EM&V	-	-	-	-
Admin.	-	-	-	-
Total	100%	144.0	100%	5.0

Illinois Energy Now – Electric Summary

Program	PY 7		PY 8		PY9		Total		Cost effectiveness	
	Budget (1,000's)	MWh Savings	Budget (1,000's)	MWh Savings	Budget (1,000's)	MWh Savings	Budget (1,000's)	MWh Savings	First year (\$/kWh)	Lifetime (\$/kWh)
Standard Program*	\$14,455	55,668	\$14,520	55,918	\$14,542	56,003	\$43,519	167,589	0.24	0.015
Custom Program*	\$3,343	14,805	\$3,359	14,871	\$3,364	14,894	\$10,066	44,570	0.22	0.012
Retro-Commissioning	\$2,162	17,734	\$2,171	17,813	\$2,175	17,840	\$6,507	53,387	0.10	0.020
New Construction	\$720	4,913	\$724	4,935	\$725	4,943	\$2,169	14,791	0.12	0.012
Boiler Tune-Up	-	-	-	-	-	-	-	-	-	-
Targeted Large Projects**	\$9,000	36,721	\$9,040	36,886	\$9,054	36,942	\$27,094	110,549	0.25	0.014
Direct Install***	\$360	1,868	\$362	1,877	\$362	1,880	\$1,085	5,625	0.16	0.020
Public Housing Authority	\$2,835	3,224	\$2,848	3,239	\$2,852	3,244	\$8,535	9,707	0.88	0.050
Affordable Housing	\$3,544	884	\$3,560	888	\$3,566	890	\$10,669	2,662	4.07	0.244
Residential Retrofit	\$5,078	4,946	\$5,101	4,969	\$5,108	4,976	\$15,287	14,891	1.07	0.057
Energy Savers Multi-family	\$1,418	1,620	\$1,424	1,627	\$1,426	1,630	\$4,267	4,878	0.92	0.052
Market Transformation	\$5,365	529	\$5,389	531	\$5,397	532	\$16,150	1,593	-	-
Administration & EM&V	\$5,365	-	\$5,389	-	\$5,397	-	\$16,150	-	-	-
TOTAL	\$53,646	142,913	\$53,888	143,555	\$53,970	139,951	\$161,504	430,242	0.38	0.036

*Includes Aggregation/Key Accounts. **CHP, Water Treatment, High Impact Natural Gas. ***Green Nozzle, k-12 Direct Install. 16

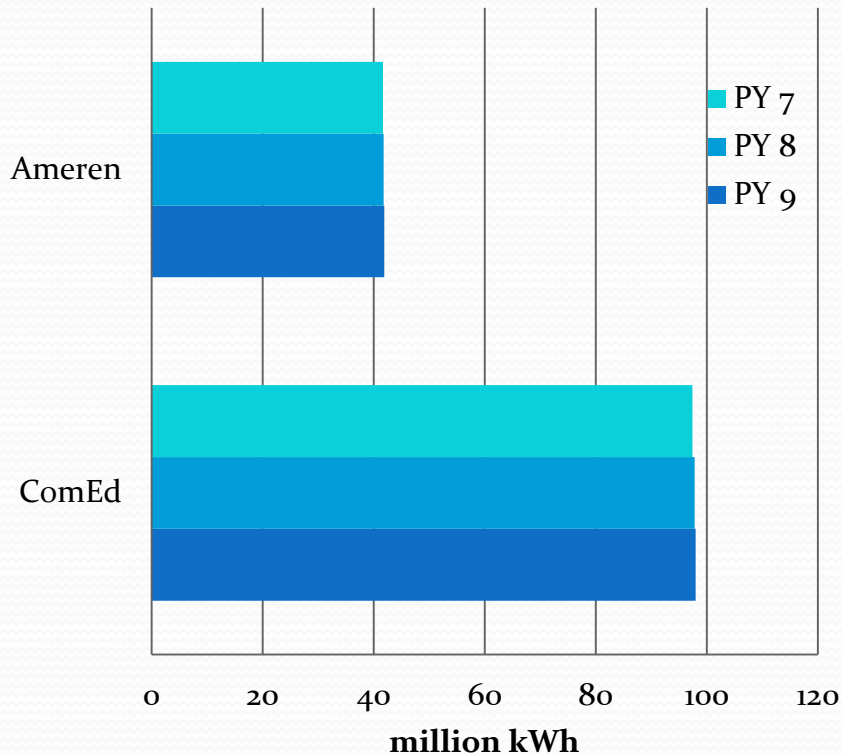
Illinois Energy Now – Gas Summary

Program	PY 7		PY 8		PY9		Total		Cost effectiveness	
	Budget (1,000's)	Therm Savings	Budget (1,000's)	Therm Savings	Budget (1,000's)	Therm Savings	Budget (1,000's)	Therm Savings	First year (\$/Therm)	Lifetime (\$/thrm)
Standard Program*	\$4,815	464	\$4,819	464	\$4,821	465	\$12,552	1,393	8.13	1.36
Custom Program*	\$954	259	\$955	260	\$955	260	\$2,863	779	3.13	0.25
Retro-Commissioning	\$838	971	\$839	971	\$839	972	\$2,516	2,913	0.73	0.15
New Construction	\$279	108	\$280	108	\$280	108	\$ 839	323	2.21	0.22
Boiler Tune-Up	\$500	557	\$500	557	\$501	558	\$1,501	1,672	0.81	0.13
Targeted Large Projects**	\$4,000	927	\$4,003	927	\$4,004	928	\$12,007	2,782	3.38	0.23
Direct Install***	\$230	759	\$230	759	\$230	760	\$690	2,278	0.26	0.04
Public Housing Authority	\$1,165	124	\$1,165	124	\$1,166	124	\$3,496	372	9.67	0.55
Affordable Housing	\$1,456	105	\$1,457	105	\$1,457	105	\$4,370	315	13.89	0.83
Residential Retrofit	\$2,086	552	\$2,087	552	\$2,088	552	\$6,261	1,656	3.78	0.20
Energy Savers Multi-family	\$582	438	\$583	438	\$583	438	\$1,748	1,315	1.36	0.08
Market Transformation	\$2,113	-	\$2,115	-	\$2,115	-	\$6,343	-	-	-
Administration & EM&V	\$2,113	-	\$2,115	-	\$2,115	-	\$6,343	-	-	-
TOTAL	\$21,132	5,263	\$21,146	5,266	\$21,153	5,268	\$63,431	15,798	4.02	0.37

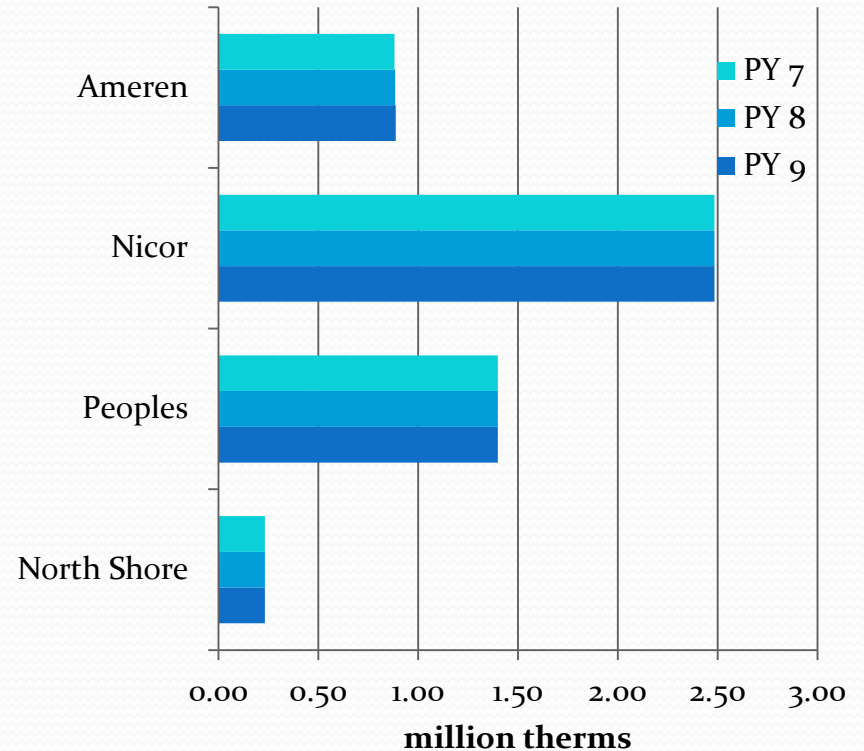
*Includes Aggregation/Key Accounts. **CHP, Water Treatment, High Impact Natural Gas. ***Green Nozzle, K-12 Direct Install.

Savings by Utility Territory

Electric



Natural Gas



Public Sector Programs

Core Programs

- Standard and Custom Programs
- New Construction
- Retro Commissioning
- Boiler Tune-up Program
- Municipal Aggregation/Key Accounts

Targeted Programs

- Waste Water Treatment Plant
- Combined Heat and Power (CHP)
- High Impact Natural Gas Efficiency (HINGE)
- Direct Install – schools, green nozzles, parks
- Advanced Outdoor Lighting

Public Sector Detail

	Approximate Budget (1,000)	Electric Savings (MWh)	Gas Savings (1000 therms)	TRC	TRC w/NEBs
Core Programs					
Standard Program	\$9,822	31,845	162	2.85	3.12
Custom Program	\$4,503	14,804	259	1.70	1.86
Retro-Commissioning	\$3,000	17,733	970	1.85	2.03
New Construction	\$1,000	4,913	107	1.10	1.21
Aggregation/Key Accounts	\$7,000	20,022	175	1.30	1.43
Boiler Tune-Up	\$500	-	556	5.38	5.92
Targeted & Direct Install					
CHP	\$5,000	23,909	321	1.75	1.93
Water Treatment Plant Program	\$5,000	12,811	-	1.08	1.19
High Impact Natural Gas Efficiency	\$3,000	-	605	1.05	1.16
Green Nozzle	\$90	-	319	16.55	18.27
School Direct Install	\$500	1,868	440	3.55	3.91
TOTAL	\$39,415	127,908	3,918	1.89	2.08

Natural Gas Self Direct Customers

- Large gas users may apply to DCEO to be designated a “Self-directing Customer” (SDC)
- Large users that use 60% or more of their natural gas as a feedstock may also apply to be an “Exempt Customer”
- Approved entities must:
 - Create an energy efficiency reserve account, equal to the lesser of 2% of the customer’s cost of gas or \$150,000
 - Use such funds to undertake energy efficiency measures
 - Annually report to DCEO on expenditures and energy savings.
- Status
 - 37 large gas users were approved as Self-Directing Customers
 - 2 were approved as Exempt Customers (gas as a feedstock)
 - 914 million therms were exempted from the Natural Gas Efficiency Portfolio, almost 12% of annual usage

Natural Gas Self Direct Results

- Submitted reports to DCEO October 2012 on first year funding reserve and expenditures.
- In the first year of the program, the original 30 SDCs accrued \$3.2 million in their reserve accounts
- 18 SDCs reported that they conducted some energy efficiency projects during year 1, spending approximately \$388,000 from the reserve accounts (12% of reserves).
- Projects included:
 - boiler replacement
 - replacement of steam traps
 - replace air compressor with new heat-recovery air compressor
 - installation of controls to automate steam flow system
 - repair leaks in gas distribution system
- Estimated savings from these projects are 4.7 million therms

HB 1534 – reopens SDC

- Amends the Public Utilities Act.
- Provides that a customer that has not already been approved by the Department of Commerce and Economic Opportunity may apply to be designated a self-directing customer or exempt customer that uses natural gas as a feedstock between September 1, 2013 and September 20, 2013, on a form approved by the Department.
- Provides that customer applications that are approved by the Department shall be considered to be a self-directing customer or exempt customer for the current 3-year planning period effective December 1, 2013.
- Effective immediately.
- Sent to Governor

Low Income Programs

**Funding level based on <150% of poverty level
Programs serve <80% Area Median Income (80 AMI)**

Core Programs

- Energy Efficiency Affordable Housing Construction Program
- Residential Retrofit Program
- Illinois Public Housing Authority Program

New or Expanded Programs

- CNT Energy Saver's, expanded statewide
- IHDA financing for downstate Energy Saver's
- Partnership with DCEO Urban Weatherization

Low Income Program Detail

	Approximate Budget (1,000)	Electric Savings (MWh)	Gas Savings (1000 therms)	TRC	TRC w/NEBs
Public Housing Authority	\$4,000	3,224	124	0.91	0.99
Affordable Housing Construction	\$5,000	885	105	0.33	0.37
Residential Retrofit	\$7,163	4,946	551	1.30	1.43
Energy Savers Multi-family	<u>\$2,000</u>	1,620	438	1.23	1.35
Subtotal	\$18,163	10,675	1,218	0.94	1.03

Market Transformation

Training, Education, and Technical Assistance Programs

Expanding efforts to measure spillover and attribute savings

- Smart Energy Design Assistance Center (SEDAC)
 - Design assistance/energy evaluations
 - Energy Performance Contracting – technical assistance
 - Training and education
- Building Industry Training and Education (BITE)
 - Building Energy Code Training and Technical Assistance
 - Building Operator Certification
 - Lights for Learning
 - Illinois Home Performance
 - Project Technical Assistance
- DCEO Trade Ally Program
- New Programs
 - Codes Training and Compliance – joint effort with utilities
 - Behavioral programs

Market Transformation Programs with Measurable Savings

Program	Comments	Estimated Savings
Building Operator Certification	Evaluated last two years	1.6 M kWh 1,700 therms
Building Codes Training	Evaluation in progress	
SEDAC Design Assistance	Evaluation in progress	
Energy Performance Contracting	To be evaluated in the future	
Lights for Learning	Evaluated each year	0.7 M kWh

New Programs/Policy

- Combined Heat and Power and Geothermal, capturing total efficiency gains based on new definition of EE
- Third Party Codes Inspectors – utility partnership
- More targeted programs – water treatment facilities, green nozzle and school direct install, high impact gas projects
- Energy Savers multi-family program statewide
- Using Net in analysis, plan to argue for Gross not Net
- Additional Behavioral Programs

Other Portfolio Costs

Evaluation, Measurement and Verification – 3%

Portfolio Administration – 5%

Marketing – 2%

Summary

- DCEO submits its plan with each utility to the ICC.
- DCEO requests consistent plan approval throughout the utility territories.