Expanding ESPC Projects with Non-energy Benefits

NASEO

Energy Policy and Technology Outlook Conference

February 10, 2012

Agenda

- The Needs
- ESPC Can Help Meet Needs
- Expanding a Project with NEBs
- Valuing and Monetizing NEBs
- NAESCO Work on NEBs

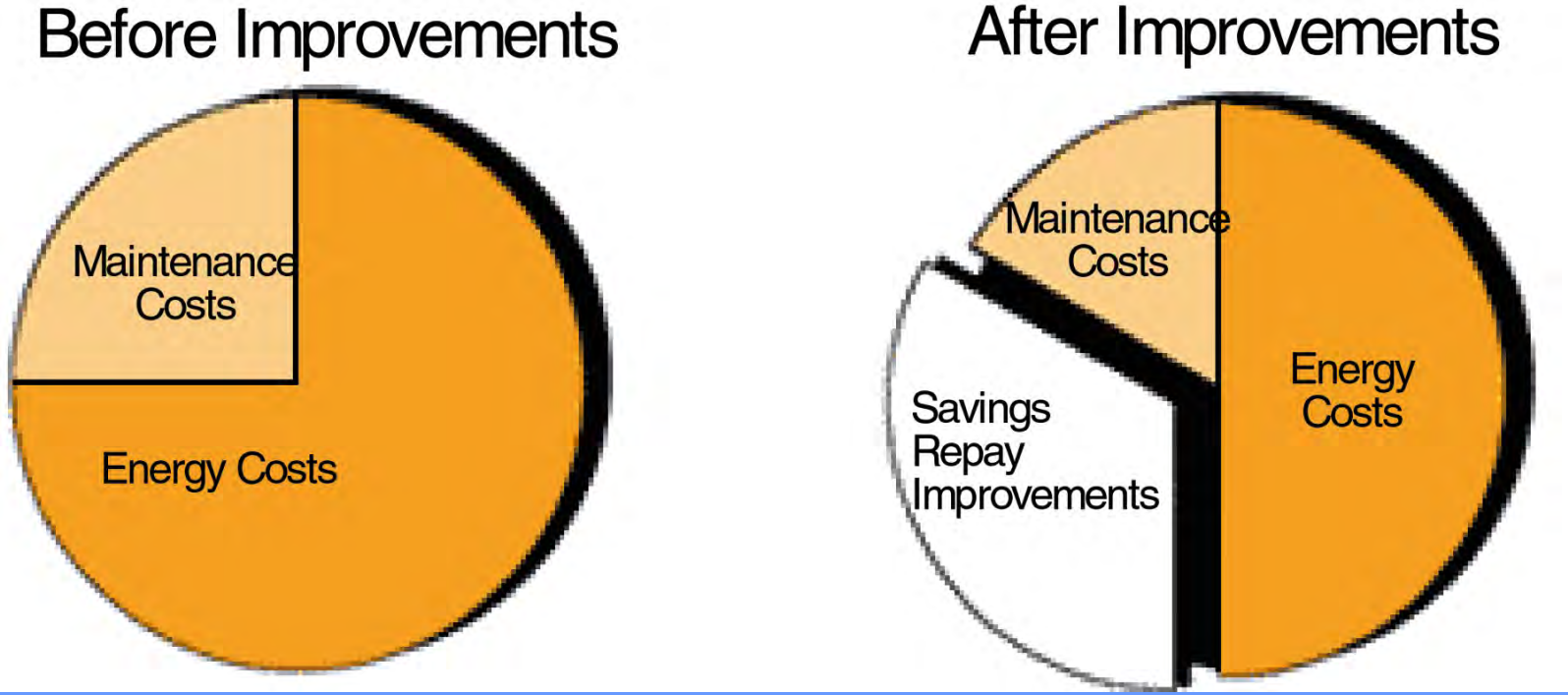
The Needs

- States need new jobs
  - Recovery very slow
  - Construction industry in depression
- State and local facilities need improvements
  - $ Billions of deferred capital improvement and maintenance
- ESPC can meet the needs

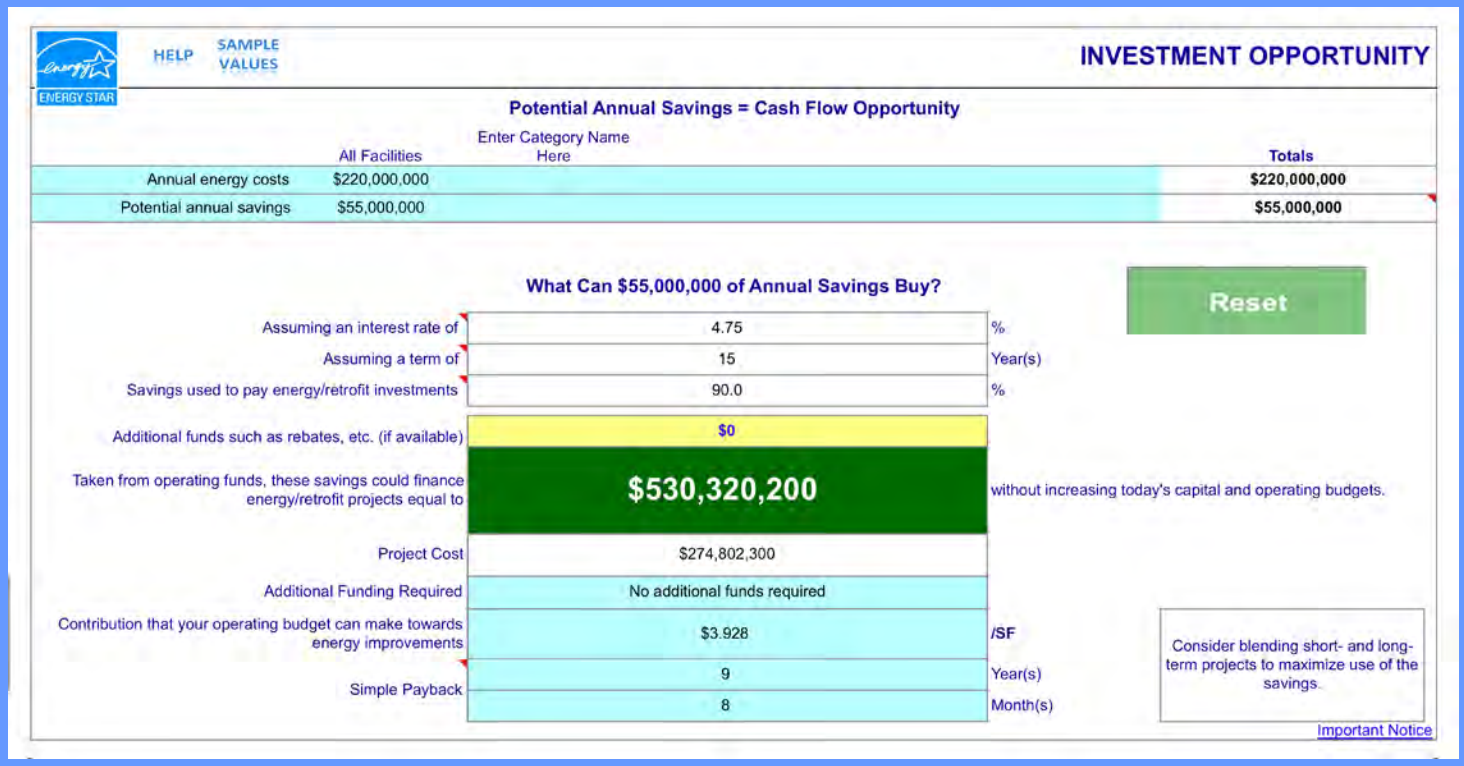
ESPC Available in Every State

- Every state and local government wastes large amounts of energy
- Every state has engineers and construction trades ready to work
- Every state has a competitive private finance industry with the required capital

ESPC Produces Non-energy Savings



Example – Georgia ESPC Potential



HELP SAMPLE VALUES

INVESTMENT OPPORTUNITY

Potential Annual Savings = Cash Flow Opportunity

	All Facilities	Enter Category Name Here	Totals
Annual energy costs	$220,000,000		$220,000,000
Potential annual savings	$55,000,000		$55,000,000

What Can $55,000,000 of Annual Savings Buy?

Reset

Assuming an interest rate of	4.75	%
Assuming a term of	15	Year(s)
Savings used to pay energy/retrofit investments	90.0	%
Additional funds such as rebates, etc. (if available)	$0	
Taken from operating funds, these savings could finance energy/retrofit projects equal to	$530,320,200	without increasing today's capital and operating budgets.
Project Cost	$274,802,300	
Additional Funding Required	No additional funds required	
Contribution that your operating budget can make towards energy improvements	$3.928	/SF
Simple Payback	9	Year(s)
	8	Month(s)

Consider blending short- and long-term projects to maximize use of the savings.

Important Notice

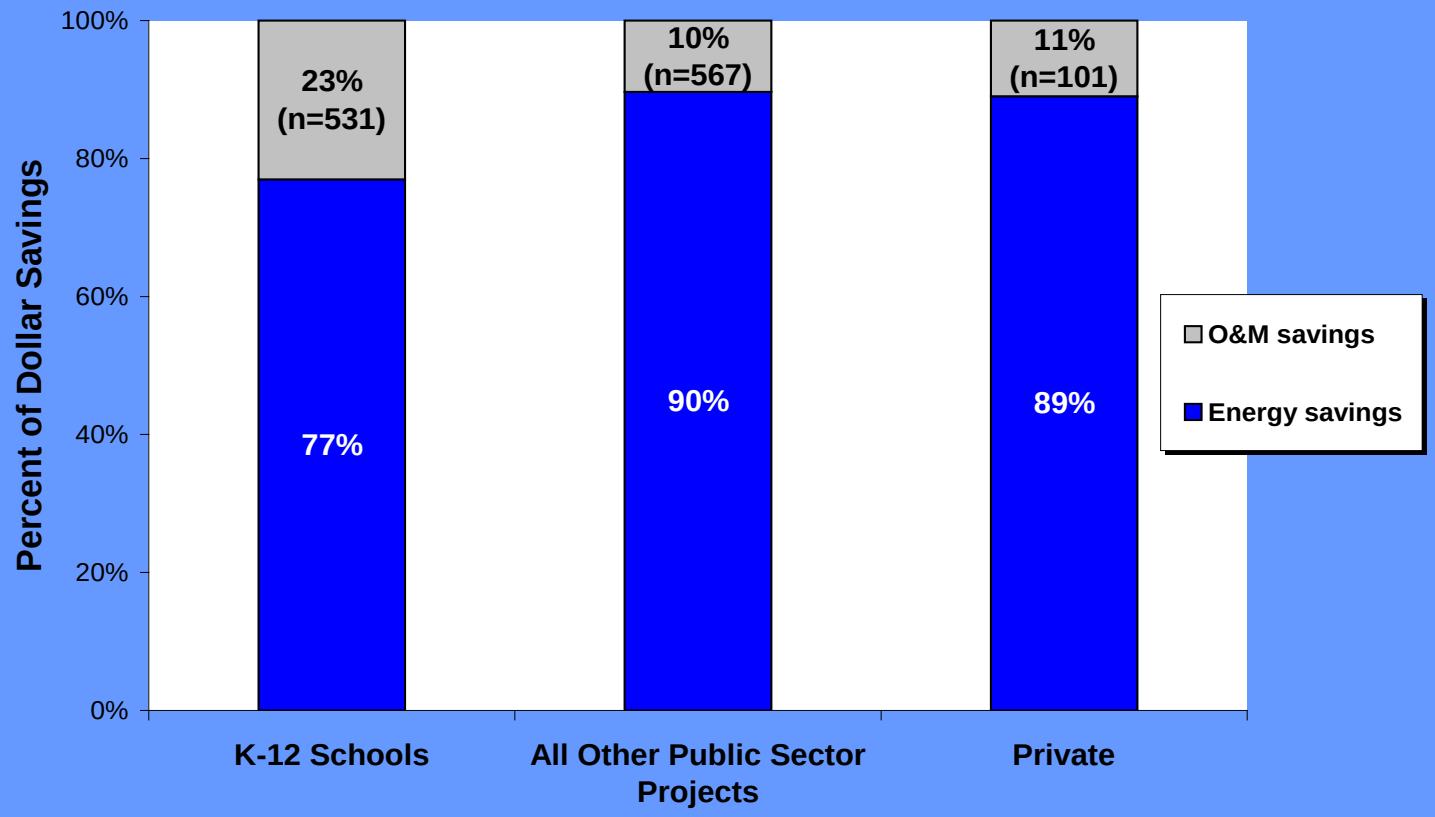
Expanding a Project with NEBs

- O&M savings
- Electric systems capacity credits
- Carbon reduction credits
- Lower environmental compliance costs
- Worker health and productivity improvements
- Avoided capital costs

NEBs Used Frequently

Market Segment	N	Percent of Projects Reporting….		
		O&M Savings	Other Non-energy Savings	Any Non-energy Savings
K-12	1,081	43%	2%	49%
Private Projects	514	18%	1%	20%
All Other Public/Institutional Sector	1,670	28%	2%	34%

NEB Savings are Significant



Valuing and Monetizing NEBs

- State standards vary from 0% to 100%
  - Louisiana lawsuit – M&V on O&M
- Not in IPMVP
- Federal ESPC programs permit NEBs
- Valuation methodology in FEMP guidelines
- How do we move forward?

NAESCO Work on NEBs

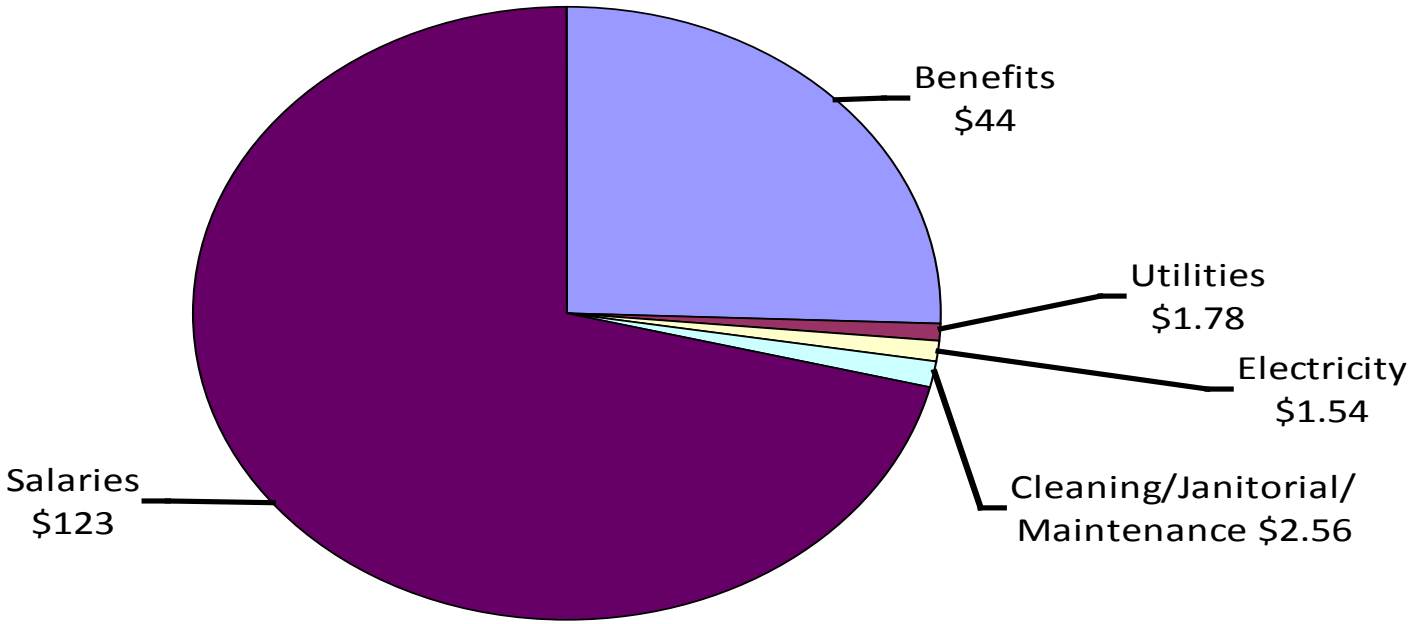
- 2008 NYSERDA project
- 2010 draft manual for O&M and avoided capital costs
- 2012 project pending

RELATIVE RANKING OF THE PERCEIVED VALUE OF NEBs FROM NAESCO SURVEY

- Reduced maintenance and operating costs
- Avoided utility system capacity costs
- Avoided environmental emissions
- Improved productivity and health

Quantification vs. Perception of NEBs Value

ANNUAL OFFICE COSTS/SQUARE FOOT



DATA SOURCES:

- Department of Labor, Bureau of Labor Statistics, June 2000. Based on an average annual salary of $53,373 and annual benefits of $14,040. Average office space per worker is 319 SF, from the BOMA International 2000 Experience Exchange report.
- Building Owners and Managers Association, 2000 Experience Exchange Report.
- International Facility Management Association, Benchmarks III, Research Report #18, 1997.
- Assumptions include an energy rate of $.08 per kWh, annual burn hours of 3,640, and a power density of 0.9 watts /SF.

Sample M&V on NEBs

Item	Year Spending	Documentation Source	Ref Note	Period Spending	Documentation Source	Ref Note	Parties' Initials
EMS (Controls)	xxx	Replacement cost of obsolete system -- amortized over 10 years	Base 3	$0	District records -- no capital allocated for EMS system	2007-1	
Jones School Mechanical	xxx	Replacement cost of obsolete system -- amortized over 10 years	Base 5	$0	District records -- no capital allocated	2007-5	
Jackson Elementary Mechanical	xxx	Replacement cost of obsolete system -- amortized over 10 years	Base 6	$0	District records -- no capital allocated	2007-6	
Washington	xxx	Replacement cost of obsolete system -- amortized over 10 years	Base 7	$0	District records -- no capital allocated	2007-7	
Bond Issuance Fee	xxx	Estimated cost to issue bonds for capital improvements	Base 8	$0	District records -- no bonds issued	2007-8	
Lafayette Mechanical	xxx	Replacement cost of obsolete system -- amortized over 12	Base 9	$0	District records -- no capital allocated	2007-9	

Conclusion

- Customers want to maximize ESPC projects
- Monetized NEBs offer significant value
- Need standardized methodologies for M&V
  - Meet the needs of the customers
  - Meet the needs of the market for monetized NEBs

Questions?

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