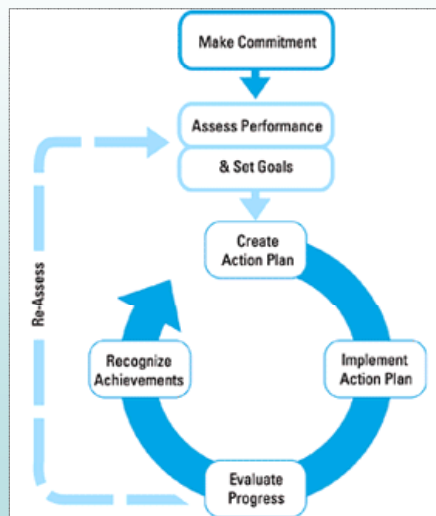




Cost Effective Packages (CEP²) for Municipal EE Projects

Team Leaders Meeting
January 27, 2010

Guidelines for Energy Management



http://www.energystar.gov/index.cfm?c=guidelines.guidelines_index

Visit www.energystar.gov
Under "Buildings & Plants" click on
"Guidelines for Energy
Management"



Benchmarking

- All facilities that apply for utility incentive monies **MUST** be benchmarked.
- AB 1103 will go into effect starting in 2011 and commercial buildings will need to benchmark using ENERGY STAR Portfolio Manager (ESPM).
- Both utilities will automatically update energy use data monthly through ESPM, but the kinks to this feature are still be worked out.



Core Utility Programs to Leverage

Program Name	Utility	Benefits
Customized Solutions (formerly SPC & AEEP)	SCE	Calculated incentive based on measure type, i.e. lighting, HVAC, pumping, other + CEP enhanced incentive
Express Solutions (formerly Express Efficiency)	SCE & SCG	Itemized standard rebate based on EE installation + CEP enhanced incentive for electric saving measures
Retrocommissioning (RCx)	SCE & SCG	Calculated incentive of \$0.09/kWh + \$100/kW + CEP enhanced incentive + \$1/therm
Business Energy Efficiency Program (BEEP)	SCG	Calculated incentive of \$1 / therm
On-Bill Financing (OBF)	SCE & SCG	Zero % financing for eligible EE projects



Project Examples

To determine Simple Payback the CEP team will need to know:

- Installation Costs
 - Material Costs
 - Labor Costs
- Annual Energy Savings
 - kWh
 - kW
 - Therms
- Utility Billing Rate (\$/kWh or \$/Therm)



Example 1: Lighting Project

T12 → T8 parking structure retrofit

- Installation Cost - \$40,000
- Annual Energy Savings – 120,327 kWh
14 kW
- Utility Billing Rate - \$0.13/kWh



Lighting Project cont.



	Incentives	Final Cost	Simple Payback
Estimated Cost of Equipment & Labor (no incentives)	\$0	\$40,000	2.6
Standard SCE rebate (Customized Solutions)	\$7,400	\$32,600	2.1
CEP Enhanced Incentive (Silver Level or Tier I)	\$14,600	\$25,400	1.6



Example 2: Chiller Project

Early retirement of Chiller in Corporate Yard

- Installation Costs - \$125,000
- Annual Energy Savings – 80,400 kWh
27 kW
- Utility Billing Rate - \$0.13/kWh



Chiller Project cont.



	Incentives	Final Cost	Simple Payback
Estimated Cost of & Labor (no incentives)	\$0	\$125,000	12
Standard SCE rebate (Customized Solutions)	\$14,760	\$110,240	10.5
CEP Enhanced Incentive (Silver Level or Tier I)	\$19,584	\$105,416	10.1



CEP²

Combine the early retirement of Chiller with T12 → T8 retrofit

- TOTAL Installation Costs - \$165,000
- TOTAL Annual Energy Savings – 200,727 kWh
41 kW
- Utility Billing Rate for both - \$0.13/kWh



Packaging both Projects cont.



	Rebates	Final Cost	Simple Payback
Estimated combined Cost of & Labor (no incentives)	\$0	\$165,000	6.3
Combined Standard SCE rebate (Customized Solutions)	\$22,160	\$142,840	5.5
Combined CEP Enhanced Incentive (Gold Level or Tier II)	\$40,225	\$124,775	4.8



Benefits of Packaging



- Packaging projects averages out overall simple payback to make larger projects more attractive to decision makers.
- Combining energy savings for both projects may push City into next SCE Tier Level and therefore make the City eligible for a larger rebate.
- Any "CEP" with less than 10 year payback may qualify for OBF as long as projects are tied to same meter.





Q & A

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