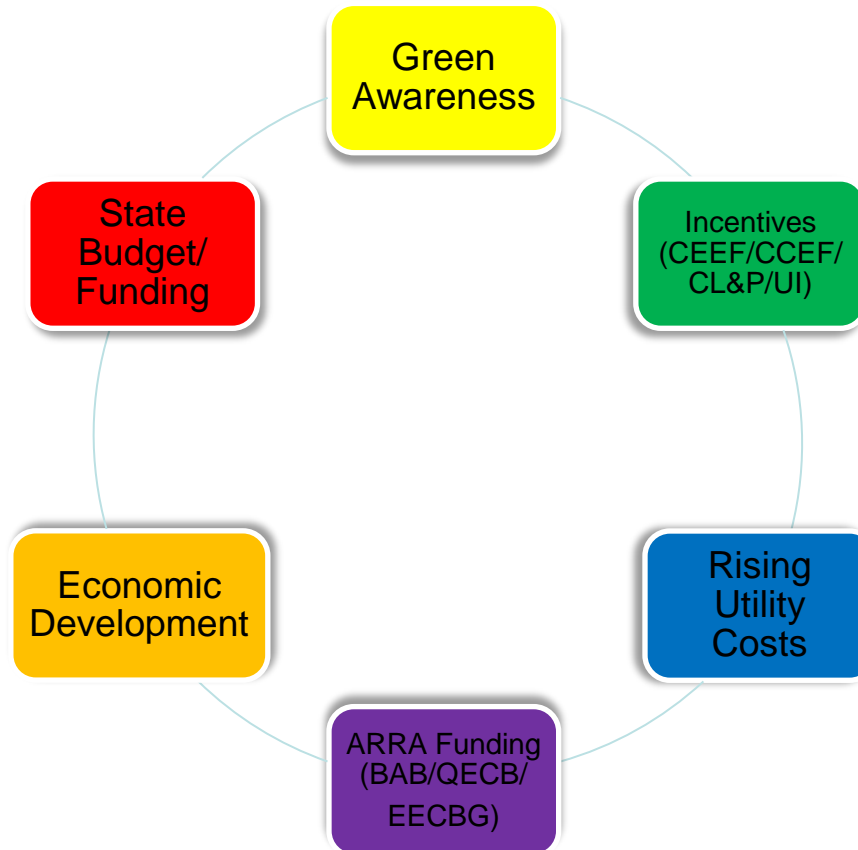


Energy Efficiency & Performance Contracting



What's Going on in Connecticut?



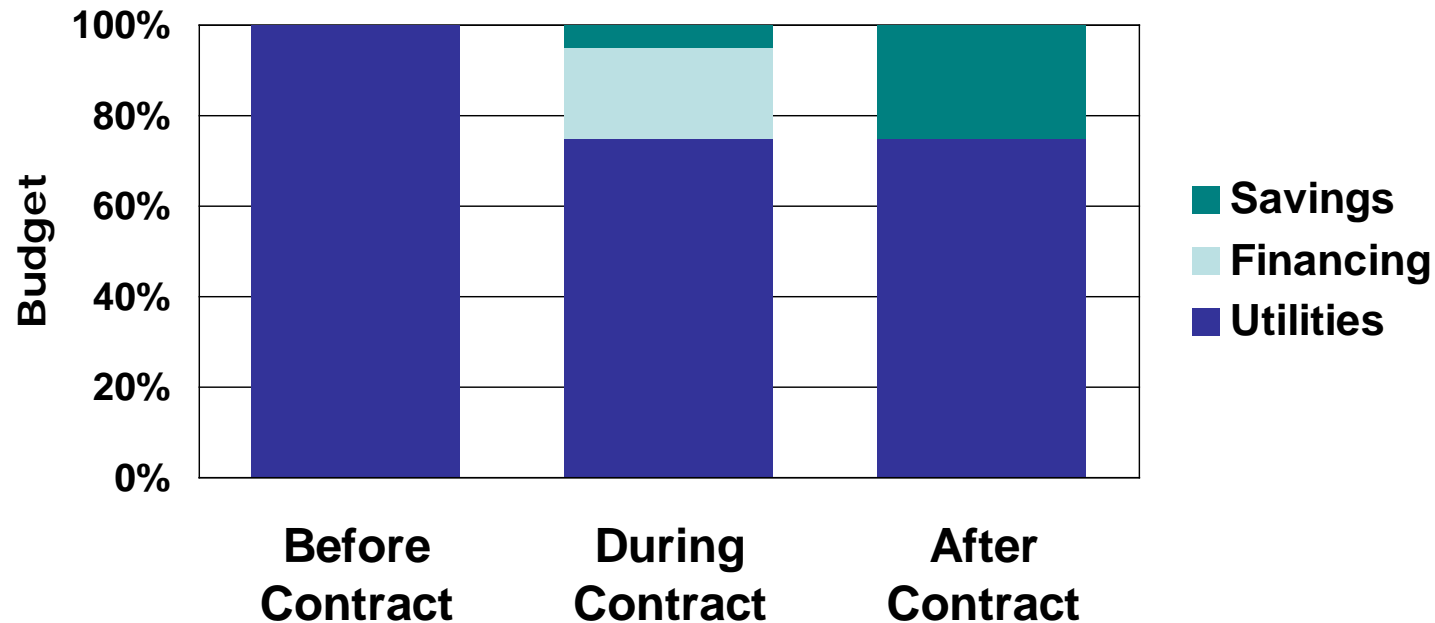
- **Need to improve infrastructure**

- Replace aging equipment
- Save money on energy
- Reduce manpower and maintenance costs
- Increase control over the learning environment
- Do this without spending capital dollars
- Do this without incurring additional debt

**Performance Contracting:
Savings Pays for work, not taxpayers**

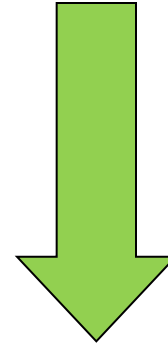
What is Performance Contracting?

Energy related capital improvements paid from future energy and operating cost savings



Energy Performance Contracting

- Reduce energy usage
- Reduce water usage
- Reduce operating and maintenance costs
- Reduce emissions
- Reduce waste



In short, **Performance Contracting** is a procurement tool that allows you to leverage the savings you get from making building improvements in order to pay for the improvements.

How does it work?

Measure Description	Payback	Investment	Annual Savings
Elementary School			
Lighting Improvements	3 Years	\$9,767	\$2,916
Lighting Controls	3 Years	\$33,526	\$12,345
Insulation Measures	4 Years	\$12,366	\$3,322
Replace Motors	6 Years	\$12,451	\$2,205
Domestic Water Conservation	6 Years	\$4,039	\$707
VFD on Hot Water Pump	8 Years	\$6,558	\$780
Install New DDC EMS	9 Years	\$34,860	\$3,852
New High Efficiency Boilers	13 Years	\$114,442	\$8,761
Photovoltaic Generation - 5kW PV	37 Years*	\$50,000	\$734
Subtotal	7.8 Years	\$278,009	\$35,622
Municipal Building			
Replace Steam Traps	3 Years	\$15,389	\$5,794
Lighting Improvements	3 Years	\$20,884	\$6,970
Domestic Water Conservation	4 Years	\$3,110	\$860
Install New DDC EMS	7 Years	\$22,604	\$3,023
New High Efficiency Boilers	17 Years	\$59,577	\$3,483
Replace Air Cooled Chillers	33 Years	\$103,126	\$3,114
Subtotal	9.7 Years	\$224,690	\$23,244
High School			
Retro-Commissioning	3 Years	\$55,234	\$18,012
Lighting Controls	3 Years	\$12,661	\$3,894
Lighting Improvements	4 Years	\$247,266	\$55,544
Heat Pumps Controls	7 Years	\$7,869	\$1,050
Kitchen Fume Hood Controls	7 Years	\$40,464	\$6,010
Replace Windows	25 Years	\$28,720	\$1,133
Replace Roof Top Units	37 Years	\$495,192	\$13,228
Pool Heating - Solar Thermal System	16 Years	\$195,000	\$12,134
Photovoltaic Generation - 10kW PV	37 Years*	\$100,000	\$1,468
Subtotal	10.5 Years	\$1,182,406	\$112,473
Totals	10 Years	\$1,685,105	\$171,338
* Payback calculation includes utility rebate of \$4.50/Watt			

Key:	
Green	Low Hanging Fruit
Yellow	Good Payback
Blue	Infrastructure Improvement

Cash Flows Calculations	
Guaranteed Savings:	\$171,338
Total Project Cost:	\$1,685,105
# of Years:	12
Lease Payments:	\$2,005,480
Over 12 Years:	\$50,581
Assumption(s):	
Utility Rebates (deducted from Project Cost)	\$107,500
Interest Rate (Tax Exempt)	3.9%
Municipal Lease	
No Escalation in Energy Prices Expected in Next 10 Years	

Year	Lease Payments	Guaranteed Savings	Net Cashflow
1	\$167,123	\$171,338	\$4,215
2	\$167,123	\$171,338	\$4,215
3	\$167,123	\$171,338	\$4,215
4	\$167,123	\$171,338	\$4,215
5	\$167,123	\$171,338	\$4,215
6	\$167,123	\$171,338	\$4,215
7	\$167,123	\$171,338	\$4,215
8	\$167,123	\$171,338	\$4,215
9	\$167,123	\$171,338	\$4,215
10	\$167,123	\$171,338	\$4,215
11	\$167,123	\$171,338	\$4,215
12	\$167,123	\$171,338	\$4,215
	\$2,005,480	\$2,056,061	\$50,581

Energy Performance Contracting – Things to Know



Things to Know

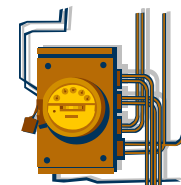
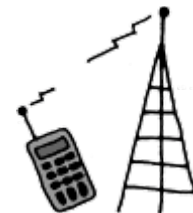
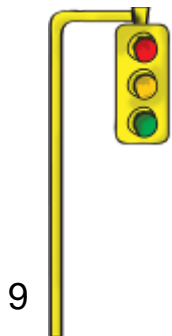
- Energy and water savings are guaranteed by us: our engineers can determine the impact the building improvements will have on your utility bills so we guarantee those elements of our work
- Improvements are made with no impact to the taxpayers
- Projects have a single source responsibility and utilize a life-cycle versus a first cost approach
- Your operating costs can be reduced without capital expenditures
- Your environment is healthier and more productive

Johnson Controls is the largest supplier of performance contracting guarantees in the U.S.



Infrastructure Improvements

- Street, garage and park lighting
- Water and wastewater efficiencies
- Facilities improvements
- HVAC and central plants updates
- Automated meter reading (water, gas, electric)
- Traffic signals
- Video surveillance for variety of uses such as high crime areas, traffic
- Municipality-wide or facility wireless infrastructure



What will you achieve?

- Create a better environment for students and employees
- Improve energy efficiency
- Reduce expenses and operating costs
- Reduce GHG emissions
- Increase security and safety
- Improve reliability of municipal services



In short, we can help you improve the health of your community!



JCI Projects in Connecticut

- ✓ Town & Schools of East Hartford – Phases I & II
- ✓ Town & Schools of Fairfield – Multiple Phases
- ✓ Norwalk Hospital
- City of Shelton
- Town & Schools of Ridgefield
- Lawrence & Memorial Hospital



Next Steps

- Feasibility Study – No cost, preliminary audit
- Procurement Phase
 - Select an ESCO
- Detailed Audit Phase
 - Negotiate an audit agreement
 - Conduct the audit
 - Review the results
 - Select the scope of services



Next Steps

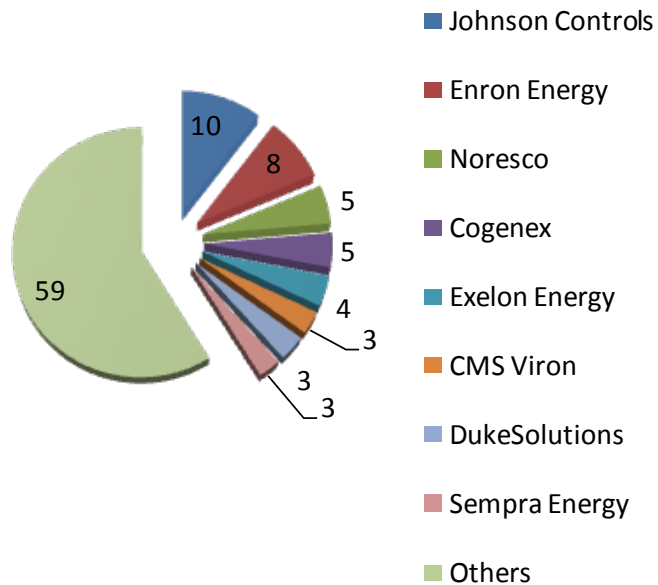
- **Construction Phase**
 - Finalize the Performance Contract including guarantee of savings and measurement and verification details
 - Institute the energy conservation measures, perform construction to install scope of services
- **Measurement and Verification Phase**
 - Measure and verify the energy savings annually, reports comply with ARRA requirements

Johnson Controls

- Incorporated in 1885
- Headquarters in Milwaukee, WI
- 136,00 employees worldwide
- \$36B FY08 sales
- 1900 performance contracts nationwide with \$3.5B in guarantees
- 140 performance contracts in municipalities and schools in the Northeast

Market Leadership

Performance Contract Market: Market Share of Key Market Participants, 2001



Questions ?