



Utility Programs to Help Cities and Schools Capture Energy Savings and Environmental Benefits Right Now

U.S. EPA National Sustainable Communities Conference
March 10, 2009

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CLEAResult Consulting, Inc.

- We design and implement energy-efficiency and renewable energy programs
 - Current managing about 30 programs in 8 states – many focused on schools and cities
- Primary offices in Texas, Arkansas, Virginia, and Nevada
- www.CLEAResult.com



Need in Local Public Buildings

- Many public buildings are operated with less attention to energy performance than most commercial buildings.
- The least efficient local public buildings use three times or more energy than the best performing buildings
- Energy costs are usually the 2nd largest operating expense for K-12 schools.



Opportunities in Public Buildings

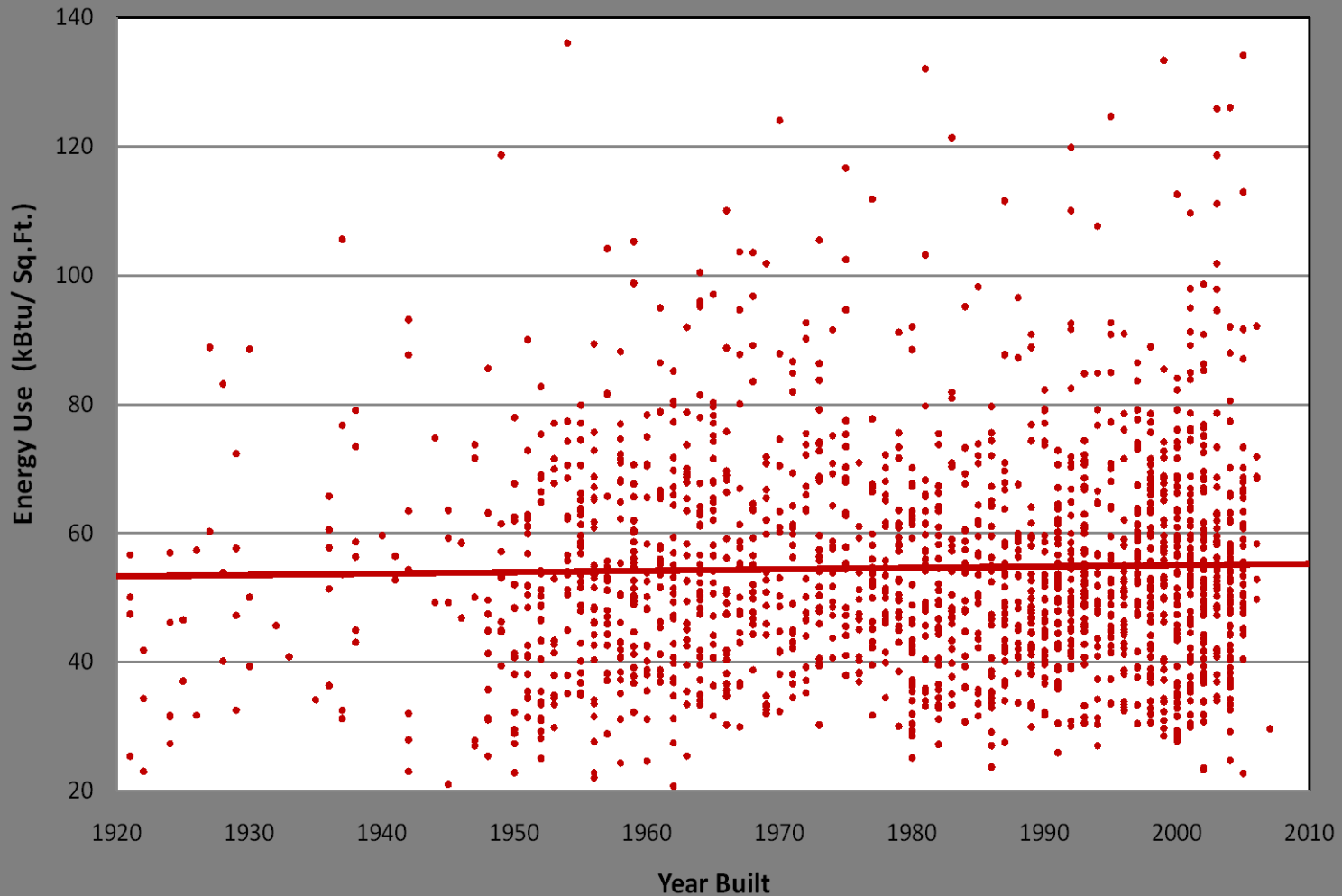
- Better operations and maintenance procedures alone can reduce energy use by as much as 5-15%.
- With added investments, reducing energy use by 30% or more is possible.
- Worth billion\$ in savings and environmental benefits
- Funding and assistance is often available

Common Misperceptions: Age and Use determine costs

- Reality:
 - Little consistent correlation between energy consumption and building age.
 - Type of school building determines only a small difference in energy use.



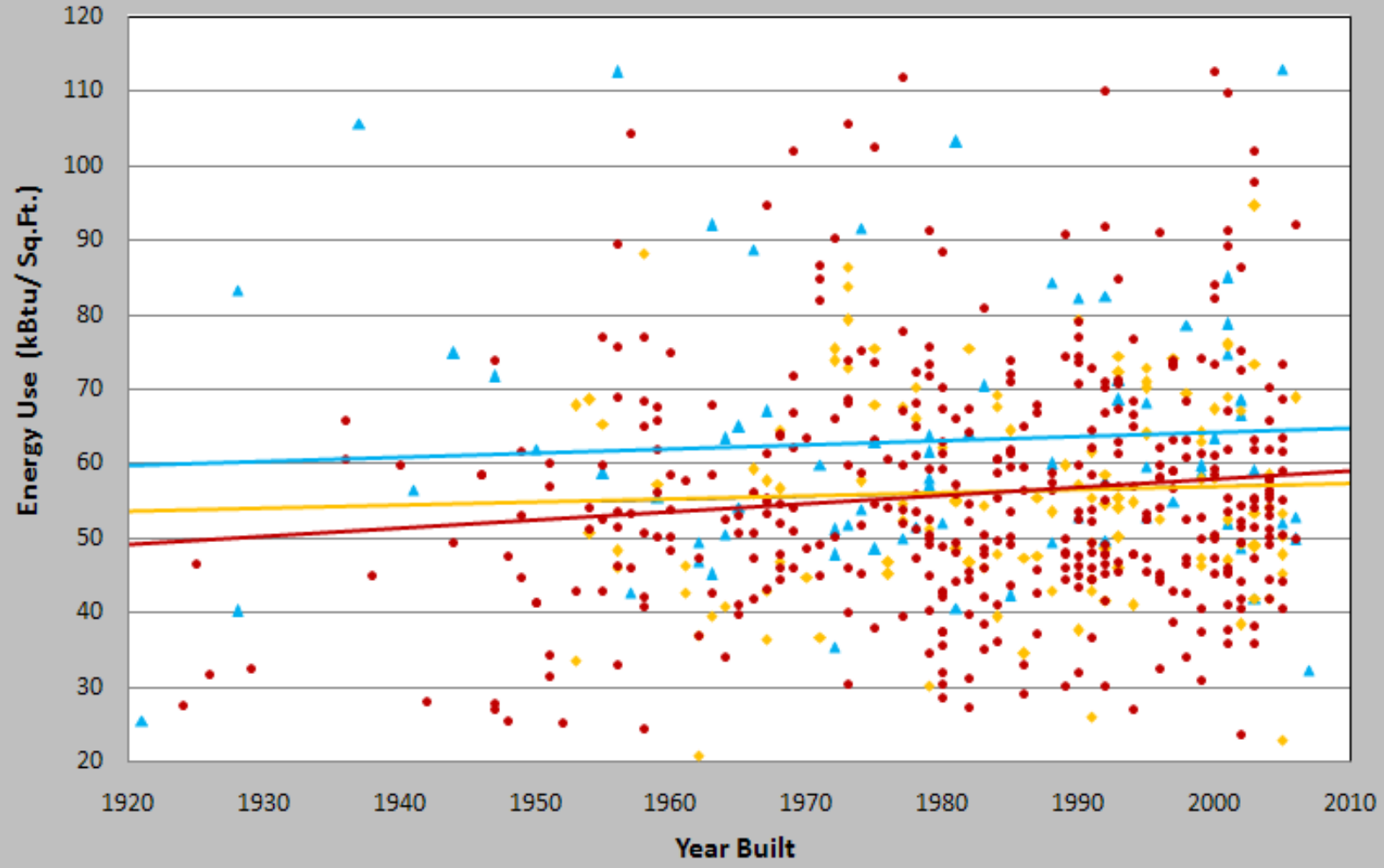
Texas & Nevada Energy Use per Sq.Ft. by Year Built





Regional Energy Use per Sq.Ft. by Building Type and Year Built

▲ High Schools ● Middle Schools ● Elementary Schools





Utility Programs

- Assistance and funding programs are offered by utilities in many states
- Examples today:

CitySmartSM

SCORESM

- Some form of these are currently by offered twelve utilities in six states



What is CitySmartSM

- Geared to address unique municipal needs
- Provides technical and management assistance
- Provides **Cash Incentives**
- Provides **Benchmarking**
- Provides **Energy Management Master Planning**
- Entirely voluntary participation
- No direct cost for eligible municipal governments



What is SCORESM

- Geared to address unique needs K-12 schools and higher education institutions
- Provides technical and management assistance
- Provides **Cash Incentives**
- Provides **Benchmarking**
- Provides **Energy Management Master Planning**
- Entirely voluntary participation
- No direct cost for eligible colleges and schools districts



Benefits

- Improve your energy management practices
- Reduce energy use and costs
- Earn utility incentive dollars
- Receive technical and management support
- Get third-party recognition for success



Cash Incentives

- Usually based on peak kW and/or kWh reductions
- Often thousands of dollars
- Preapproved and paid for completed projects
- Usually paid directly to the school district or government entity
- Requires participation in Program and applications



Building Performance Benchmarking

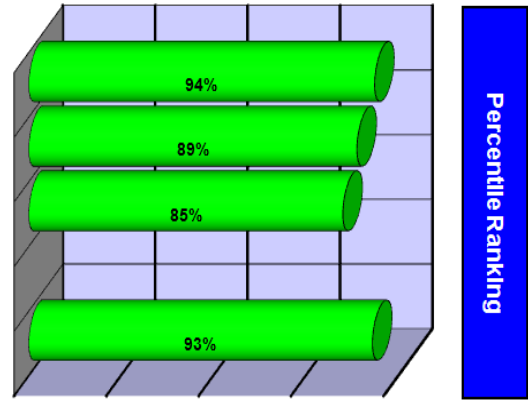
- Compare energy use in your buildings
 - To your other building
 - To similar buildings regionally
 - To similar buildings nationally (using the U.S. EPA Portfolio Manager)
- Presented in a simplified graphic format



Energy Performance Benchmarking Analysis

High Performing School

Local Texas Benchmarks	TX Average*	Your School
Annual Energy Use (kBtu/sq.ft.)	46.4	30.8
Annual Energy Cost (\$/sq.ft.)	\$1.20	\$0.81
Annual Energy Cost (\$/student)	\$157	\$100
National Benchmark	National Average	Your School
U.S. EPA Portfolio Manager Score	50	93



* Average for schools in similar climate regions of the state.

(Higher percentiles indicate lower energy use / lower costs)

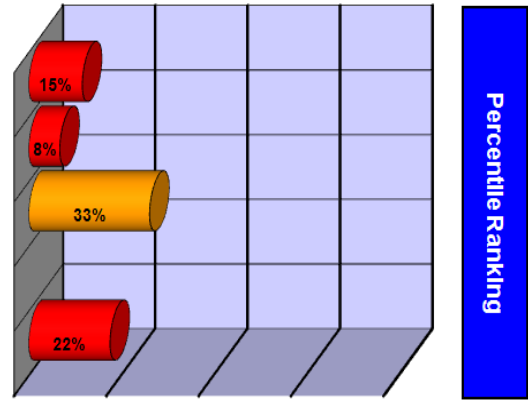
Building Characteristics		Energy Use/Cost Data	
Year Built	2002	Beginning Billing Month	January-07
Floor Area (sq. ft.)	70,400	Ending Billing Month	December-07
Number of Students	571	Electricity Usage (KWh)	464,940
Number of PCs	125	Electricity Cost (\$)	\$51,616
Type of Heating System	Gas Heating Only	Natural Gas Usage (therms)	5,797
Weekly Operating Hours	50	Natural Gas Cost (\$)	\$5,358
		Total Energy Cost (\$)	\$56,975



Energy Performance Benchmarking Analysis

Low Performing School

Local Texas Benchmarks	TX Average*	Your School
Annual Energy Use (kBtu/sq.ft.)	46.4	65.6
Annual Energy Cost (\$/sq.ft.)	\$1.20	\$1.91
Annual Energy Cost (\$/student)	\$157	\$190
National Benchmark	National Average	Your School
U.S. EPA Portfolio Manager Score	50	22



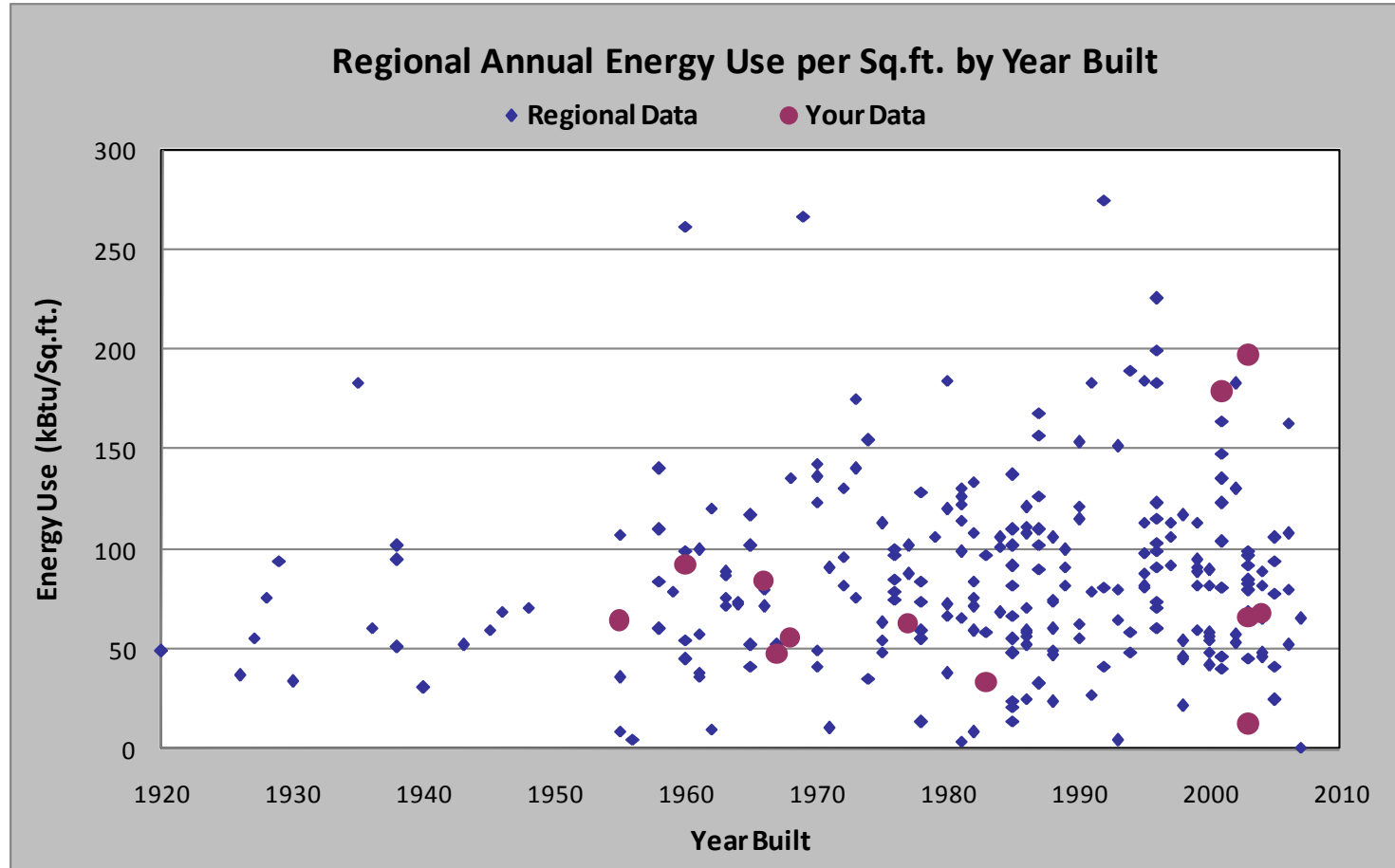
* Average for schools in similar climate regions of the state.

(Higher percentiles indicate lower energy use / lower costs)

Building Characteristics		Energy Use/Cost Data	
Year Built	1960	Beginning Billing Month	August-06
Floor Area (sq. ft.)	44,026	Ending Billing Month	July-07
Number of Students	444	Electricity Usage (KWh)	687,520
Number of PCs	163	Electricity Cost (\$)	\$79,177
Type of Heating System	Gas Heating Only	Natural Gas Usage (therms)	5,439
Weekly Operating Hours	55	Natural Gas Cost (\$)	\$5,056
		Total Energy Cost (\$)	\$84,233



Comparison to Peers





Benchmark Management Practices

1. Funding and Procurement
2. Planning and Decision-Making
3. Communication and Coordination
4. Evaluation and Assessment
5. Information and Monitoring
6. Energy Management Processes
7. Personnel and Skills
8. Incentives and Timing



Energy Master Planning

- Sets criteria for decision-making
- Outlines planned actions
- Assigns responsibility and accountability
- Sets realistic scale and timeline
- Defines measurable results
- Evolves and adapts as needed
- Captures management or public endorsement



How to Get Benefits

- Contact your local utility ask ask if they offer a program or encourage them to do so.
- Contact CLEAResult and we will direct you to the right people or provide information about the programs we implement.



More information

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