

Tracking Energy Performance Improvements

U.S. EPA ENERGY STAR

Networking Meeting

Washington, DC

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Why Listen to Me?

ENERGY STAR *Portfolio Manager* Use:

- 2,700 Buildings Benchmarked
- New York
- Wisconsin
- Texas
- Massachusetts
- New Jersey



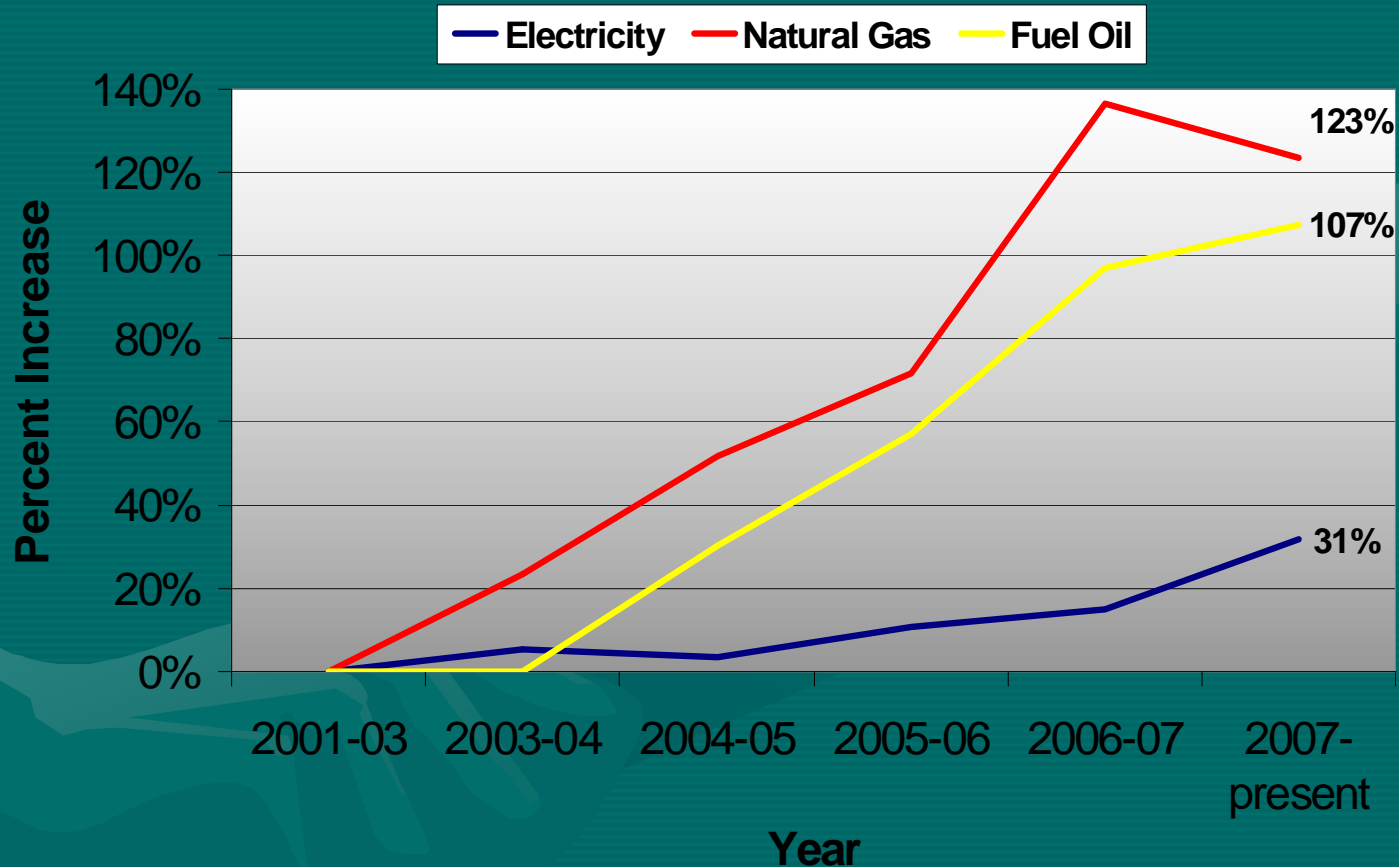
Energy... Why Do You Care?

- Energy Cost
- Productivity
- Health & Safety
- Environmental Impact
- Other?



Why Care About Energy Cost?

New York State Schools Energy Cost Trends



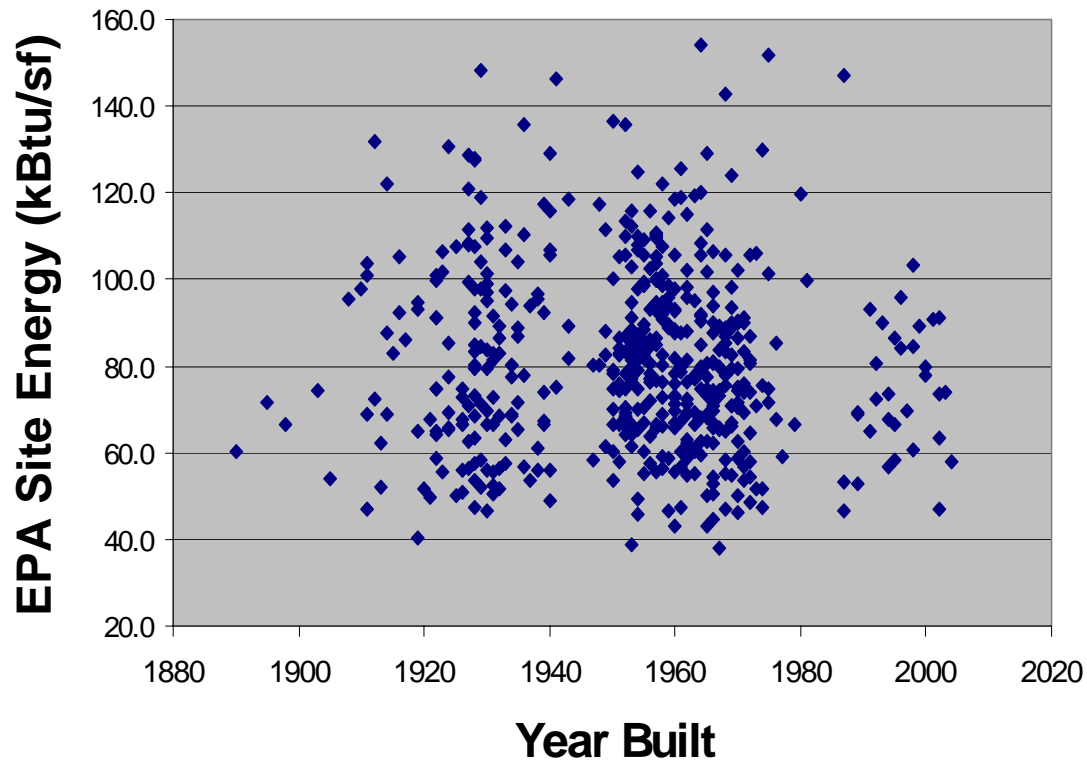
Where Do I Start?

- My Oldest Buildings
- My Biggest Buildings
- My Buildings With the Longest Operating Hours
- My Buildings in the Harshest Climate
- My Buildings With the Most A/C
- ???

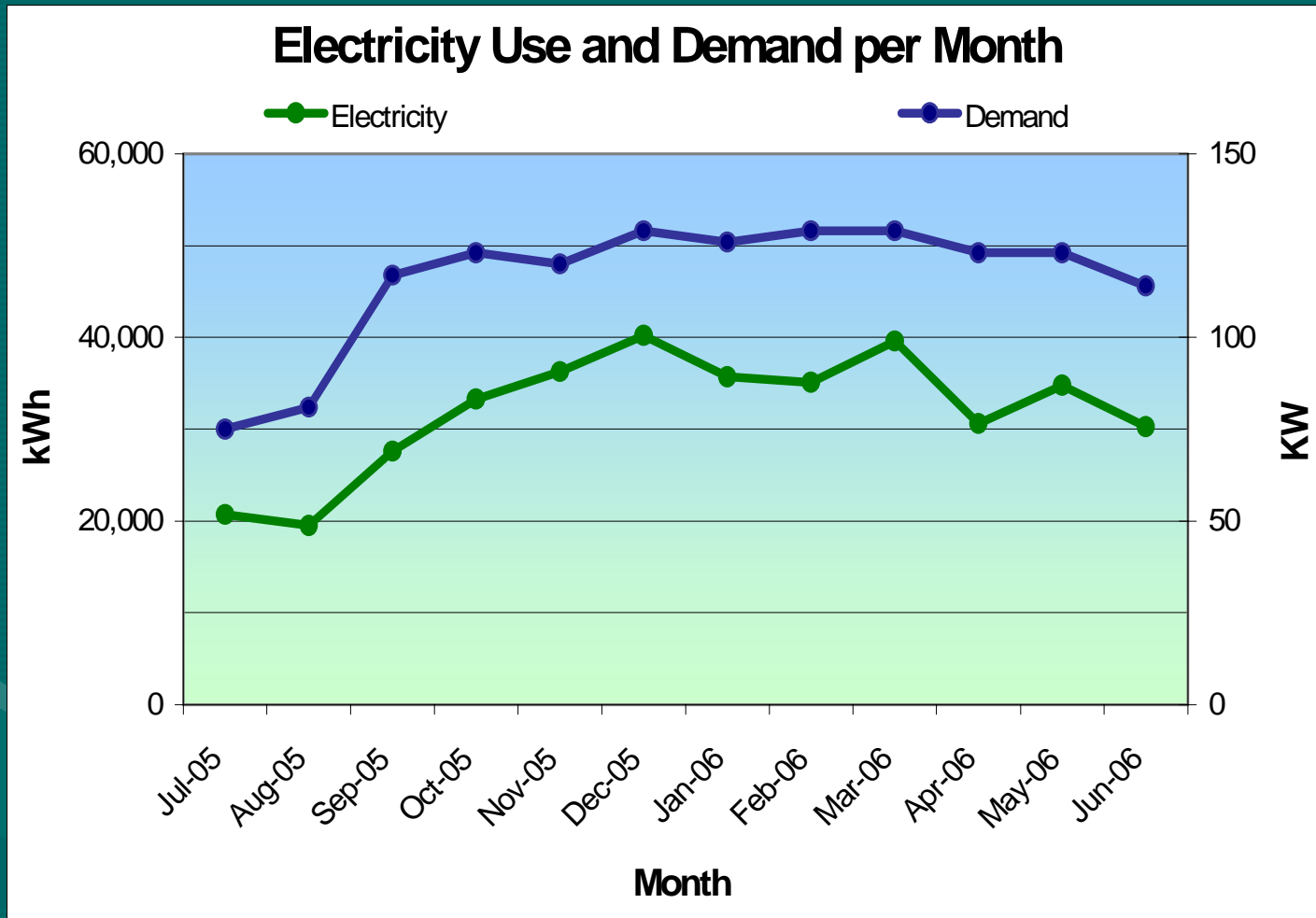


Where Do I Start?

Year Built vs. EPA Site Energy (kBtu/sf)

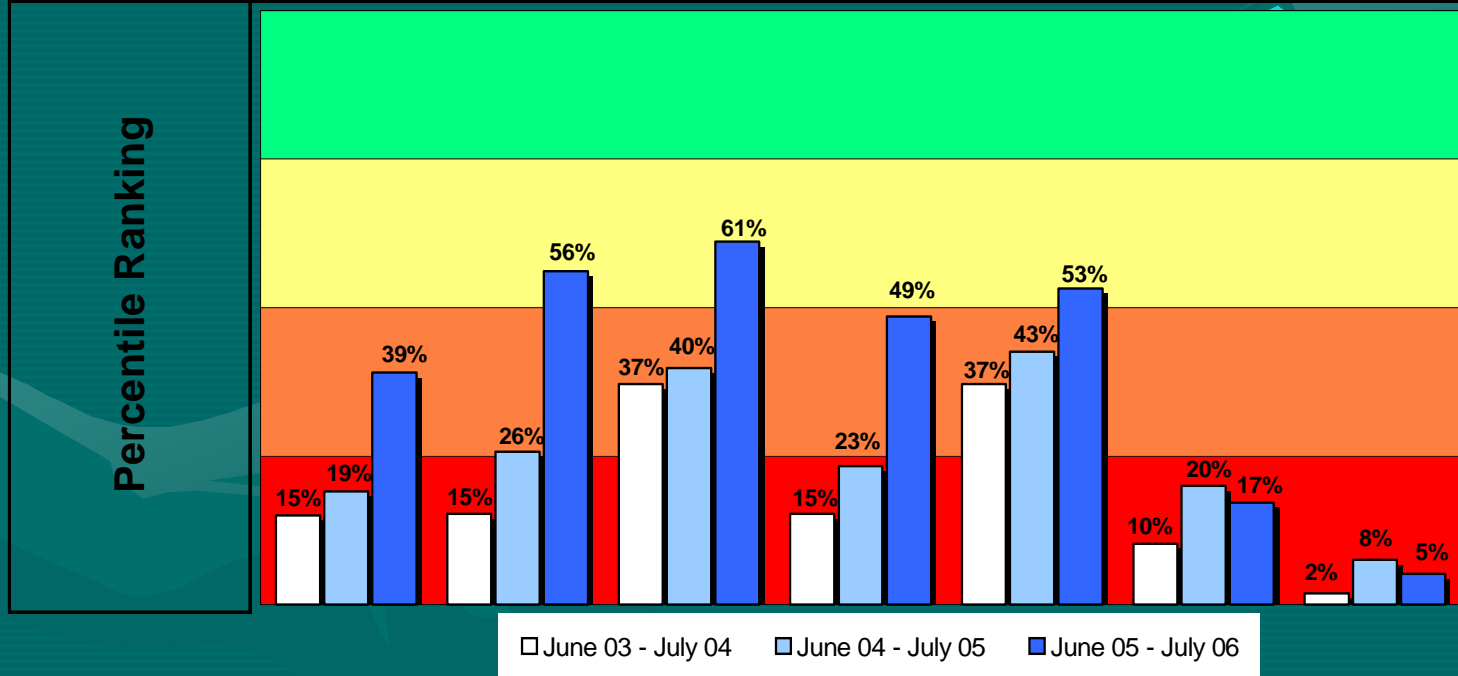


What Can I Track?



What Can I Track?

Schools	U.S. EPA Portfolio Manager Score	New York State Schools (annual data)					
		Total Energy Use (kBtu/sq.ft.)	Electric Use (kWh/sq.ft.)	Heating Fuel Use (kBtu/sq.ft.)	Weather Adjusted Heating Fuel Use (Btu/ sq.ft./HDD)	Total Energy Cost (\$/sq.ft.)	Total Energy Cost (\$/student)
03-04 NY Average	50	81	5.9	58	9.2	\$1.23	\$200
04-05 NY Average	50	77	5.8	55	8.5	\$1.39	\$231
05-06 NY Average	50	77	5.8	55	8.5	\$1.39	\$231
June 03 - July 04	15	102	6.6	79	10.1	\$1.65	\$412
June 04 - July 05	19	92	6.4	70	9.1	\$1.71	\$428
June 05 - July 06	39	76	5.4	58	8.3	\$1.77	\$443



What Good Does It Do?

New York State K-12 Schools

Use of *Portfolio Manager*:

- 21% decrease in overall energy consumption
- 200% improvement of EPA *Portfolio Manager* Score — from 21 to 62



What Good Does It Do (cont'd.)?

- Slight decrease in electricity use despite:
 - 100% increase in average percent air conditioning, and a
 - 53% increase in number of PC's per student.
- Increase of *only* 40% in cost per square foot despite:
 - 123% increase in the price of natural gas,
 - 107% increase in the price of fuel oil, and
 - 31% increase in the price of electricity.



For More Information

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