

# LET'S SAVE ENERGY

## School Energy Efficiency News

KSBA-SEMP ... Cultivating energy efficiency, best practices in Kentucky school districts



December 2016

## \$123 million:

### Total energy savings for seven years, with 98 percent of school districts cutting energy use

Total energy use in Kentucky school districts continue to decline, while square footage of school facilities continues to increase. Energy costs per MMBTU continue to increase and is expected to continue to rise.

The major yardstick for these calculations is energy use intensity (EUI), which measures energy use (kBtu) per square foot. For the base year 2009-10, the statewide EUI index was 65.4 kBtu per square foot. In 2013-14 the EUI index was 60.9, and continued dropping steadily, now at 52.0 kBtu per square foot for 2015-16. Further, the corresponding cumulative avoided cost during that period through consumption reduction, rate corrections, rebates, refunds and utility case interventions is over \$123 million. Significantly, 98 percent of districts reduced energy consumption over the same period.

KSBA's School Energy Managers Project (SEMP) has funded and trained local school energy managers

since 2010. Current funding is in partnership with Louisville Gas & Electric/Kentucky Utilities Company and Kentucky Power Company. SEMP personnel help school districts:

- Break down analytical and technical issues.
- Develop and implement energy management plans.
- Comply with statutory and board policy requirements.
- Track energy usage.
- Coordinate recognition events.
- Consolidate and report statewide energy data to Legislative Research Commission and the Energy and Environment Cabinet.
- Collaborate with the Kentucky Energy and Environment Cabinet, utility companies, and other stakeholders to work on energy-saving activities.

Figure 8. MUNIS K-12 Facility Energy Expenditures

FY2000 - FY2016

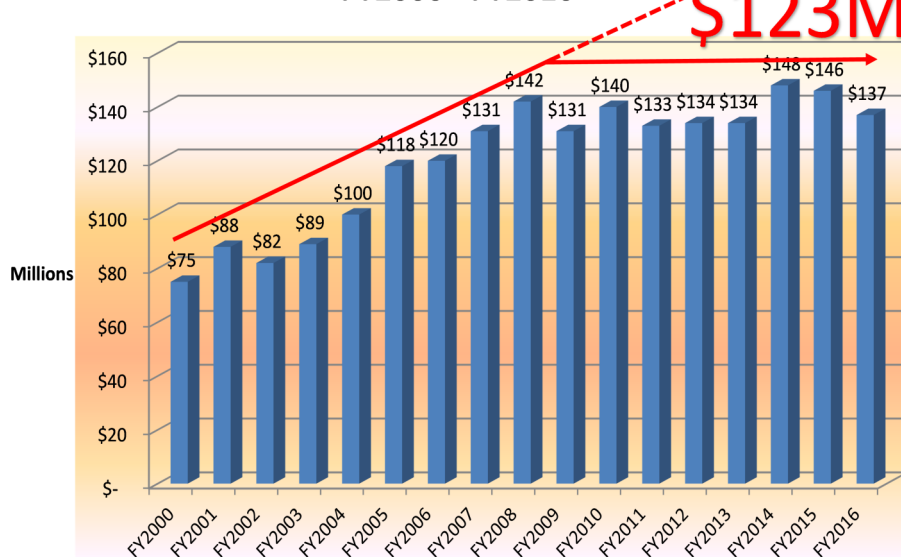


Figure 8 at left shows the MUNIS-reported school energy costs from fiscal year 2000 through fiscal year 2016. This graph shows that these costs had nearly doubled between fiscal years 2000 and 2008. The red lines on the graph illustrate the projected trajectory of costs and the cumulative savings of over \$123 million.

**TABLE 2, District Ranking by Energy Use Intensity for FY2016**

Rank	District	2016 EUI	2010 EUI	Rank	District	2016 EUI	2010 EUI	Rank	District	2016 EUI	2010 EUI	Rank	District	2016 EUI	2010 EUI
1	Owen	33.2	62.5	45	Christian	44.2	70.1	89	Paducah	50.4	73.9	93	Jefferson	56.8	68.2
2	Nelson	34.8	51.5	46	Pendleton	44.3	55.9	90	Newport	50.6	44.5	94	Wolfe	57.1	dnr
3	Marion	35.3	60.3	47	Glasgow	44.3	62.6	91	Lincoln	50.6	70.7	95	Bardstown	57.1	72.9
4	Scott	35.9	53.3	48	Calloway	44.4	56.2	92	Carlisle	50.7	46.9	96	Ludlow	57.5	107.9
5	Oldham	36.1	45.7	49	Henry	44.5	67.9	93	Campbells	50.8	76.4	97	Pikeville	57.8	81.9
6	Walton-Verde	36.2	44.6	50	Trimble	44.5	53.7	94	Livingston	51.0	56.9	98	Mayfield	57.9	60.9
7	Butler	36.5	42.8	51	Williamstown	44.8	63.3	95	Jenkins	51.1	dnr	99	Laurel	58.2	dnr
8	East Berns	37.8	dnr	52	Science Hill	44.9	56.5	96	Owensboro	51.2	70.1	100	Martin	58.2	dnr
9	Trigg	37.8	60.2	53	Floyd	44.9	52.0	97	Wayne	51.3	64.2	101	Bath	58.6	87.8
10	Anderson	38.2	52.3	54	Burgin	45.0	60.5	98	Fort Thomas	51.3	72.2	102	Bowling Green	59.0	73.6
11	Bullitt	38.2	53.7	55	Lawrence	45.1	68.6	99	Adair	51.4	71.1	103	Ashland	59.5	75.1
12	Corbin	39.0	51.6	56	Russellville	45.2	52.5	100	Hickman	51.5	67.6	104	Anchorage	60.2	73.8
13	Jessamine	39.2	50.3	57	Garrard	45.4	51.5	101	Russell	51.5	80.5	105	Raceland-Worthington	60.5	67.0
14	Shelby	39.2	71.6	58	Clark	45.6	74.7	102	Harlan County	51.6	55.7	106	Danville	61.2	64.6
15	Erlanger	39.5	56.9	59	West Point	45.7	dnr	103	LaRue	51.8	55.1	107	Berea	61.3	75.7
16	Harlan Ind	40.4	52.3	60	Boyle	45.7	65.9	104	McCracken	52.0	62.7	108	Todd	62.2	70.0
17	Warren	40.5	50.7	61	Casey	45.8	49.5	105	Fulton Ind.	52.1	69.0	109	Cumberland	62.4	71.1
18	Hazard	40.8	87.2	62	Crittenden	45.9	57.1	106	Mercer	52.2	78.3	110	Johnson	62.6	78.2
19	Middlesboro	40.9	97.2	63	Murray	46.0	47.2	107	Webster	52.5	75.5	111	Knott	62.7	dnr
20	Greenup	41.1	64.1	64	Carter	46.0	59.3	108	Taylor	53.0	64.7	112	Breckinridge	62.8	72.1
21	Meade	41.3	48.7	65	Metcalfe	46.1	60.9	109	Letcher	53.0	62.9	113	Covington Ind	63.2	80.5
22	Fulton Co	41.4	69.4	66	Caldwell	46.2	60.7	110	Caverna	53.4	84.2	114	Eminence	63.5	85.3
23	Robertson	41.4	114.5	67	Augusta	46.4	55.6	111	Muhlenberg	53.4	68.5	115	Henderson	64.0	74.1
24	Woodford	41.6	63.5	68	Monroe	46.6	54.7	112	Rowan	53.7	72.3	116	Boone	64.1	74.0
25	South Gate	41.7	47.2	69	Russell Ind	47.0	70.3	113	Nicholas	53.8	80.7	117	Barbourville	65.0	76.8
26	Paris	41.7	59.6	70	Dawson Springs	47.3	61.0	114	Lewis	53.9	65.6	118	Ballard	65.7	80.1
27	McLean	41.8	45.9	71	Lyon	47.8	53.7	115	Grant	54.0	70.7	119	Fayette	65.9	78.2
28	Elliott	42.3	dnr	72	Bell	48.1	81.5	116	Franklin	54.4	87.3	120	Somerset	66.1	89.8
29	Lee	42.4	78.3	73	Fleming	48.1	69.8	117	Magoffin	54.4	64.7	121	Bellevue	66.4	68.4
30	Hancock	42.6	57.8	74	Knox	48.1	64.8	118	Boyd	54.5	81.2	122	Hart	67.9	73.5
31	Pineville	42.7	58.5	75	Williamsburg	48.4	54.9	119	Washington	54.5	83.5	123	Simpson	68.0	73.6
32	Gallatin	42.8	60.0	76	Logan	48.5	54.5	120	Bourbon	54.5	65.0	124	Marshall	69.3	70.9
33	Estill	42.8	53.4	77	Madison	48.6	56.4	121	Hopkins	54.7	71.7	125	Elizabethtown	69.5	76.9
34	Hardin	43.0	54.3	78	Ohio	48.9	64.4	122	Owsley	54.8	dnr	126	Campbell	71.7	70.2
35	Jackson Co	43.1	55.2	79	Barren	49.1	49.8	123	Pike County	55.0	64.9	127	Menifee	72.1	90.4
36	Frankfort	43.3	80.7	80	Grayson	49.1	60.0	124	Carroll	55.2	82.9	128	Montgomery	75.3	70.2
37	Whitley	43.3	57.7	81	Bracken	49.3	55.0	125	Dayton	55.2	67.4	129	Powell	75.3	97.0
38	Edmonson	43.8	58.7	82	Beechwood	49.8	68.8	126	Leslie	55.2	69.4	130	Green	75.5	88.2
39	Kenton	43.8	64.9	83	Spencer	49.8	dnr	127	Morgan	55.7	116.8	131	Fairview	77.5	79.7
40	Allen	43.8	57.1	84	Daviess	49.9	53.9	128	Rockcastle	55.7	59.9	132	McCreary	87.1	94.8
41	Cloverport	44.0	72.7	85	Union	50.0	69.1	129	Graves	56.0	dnr	133	Jackson Ind	102.0	117.6
42	Silver Grove	44.1	69.2	86	Pulaski	50.2	60.9	130	Clay	56.1	63.3				
43	Clinton	44.1	53.5	87	Mason	50.2	59.2	131	Perry	56.3	67.0				
44	Paintsville	44.1	53.3	88	Harrison	50.4	61.9	132	Breathitt	56.7	64.0				