

LET'S SAVE ENERGY

School Energy Efficiency News

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



December 2017

\$170 million saved in seven years

Saving \$170 million is no small feat, but that is what Kentucky school districts have done by reducing energy demand and consumption.

It has been said many times that "What gets measured, gets done." With facility costs nearly doubling between 2000 and 2008, state leaders directed all districts to begin measuring and managing energy resources. While a few districts initiated local programs, this directive was the impetus for KSBA to begin a statewide program to support district efforts.

By the 2010 fiscal year, Kentucky districts began "measuring" by tracking and reporting annually the energy consumption and costs for all school facilities. Additional supports from KSBA became available and districts began understanding the complexities of managing energy resources. The graphs below reflect the significant statewide success.

Here are a few major milestones over the past eight years:

- One of the key measurements became the Energy Utilization Index (EUI)*, also called KBTU per square foot. Nationally, the EUI for schools is 73. Statewide district EUIs have improved since

2010, moving from 65 KBTU per square foot per year to 49.6 KBTU per square foot per year.

- In 2010, Butler County Schools was the most efficient district in Kentucky with an EUI measurement of 42.7. Butler County is the second most efficient district in 2017 and has improved more than 20 percent over the time period. (*The best made more than a 20 percent improvement!*)
- The 2017 leader is Owen County Schools, which improved its EUI measurement from 62.5 in the 2010 fiscal year to 33.2 in the 2017 fiscal year.
- In 2013, three districts were operating below an EUI of 40. Today, 21 districts operate below an EUI of 40 with several pushing the threshold of 30 EUI.
- Corresponding consumption savings, rate savings, refunds, etc. now total more than \$170 million and continue to grow rapidly.
- Even with conditioned space growing about 1 percent annually and after numerous rate increases, Kentucky is spending nearly the same today on energy as it did in the 2010 fiscal year. (The commonwealth is heating and cooling more space and has offset rate increases through greater energy efficiency!)
- The number of ENERGY STAR-labeled buildings has grown from six in 2006 to 422 today, indicating another measurement of success.

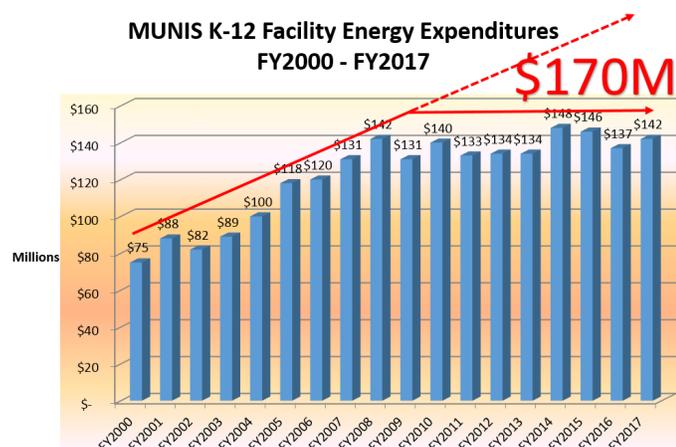
When Kentucky districts were directed to measure and manage energy resources, many stakeholders came together and, along with KSBA, changed the profile of Kentucky's energy utilization for schools.

Saving energy means saving money for educating our kids!

Truly what gets measured is getting done.

*the amount of energy consumed, measured in thousands of British Thermal Units (KBTU), and divided by the gross conditioned area in square feet.

MUNIS K-12 Facility Energy Expenditures
FY2000 - FY2017





FY2017 District Ranking by Energy Use Intensity



Rank	District	2017 EUI	2010 EUI	Rank	District	2017 EUI	2010 EUI	Rank	District	2017 EUI	2010 EUI	Rank	District	2017 EUI	2010 EUI
1	Owen	33.2	62.5	45	McCreary	43.2	94.8	89	Danville	48.8	64.6	133	Bardstown	55.2	72.9
2	Butler	33.5	42.8	46	Gallatin	43.3	60.0	90	Bracken	49.0	55.0	134	Anchorage	55.3	73.8
3	Nelson	33.6	51.5	47	Meade	43.4	48.7	91	Paducah	49.4	73.9	135	Pikeville	55.6	81.9
4	Walton-Verona	34.2	44.6	48	Hardin	43.4	54.3	92	Boyd	49.4	81.2	136	Rowan	55.6	72.3
5	Scott	35.4	53.3	49	Allen	43.7	57.1	93	Madison	49.5	56.4	137	Ashland	55.6	75.1
6	Oldham	35.8	45.7	50	West Point	44.2	dnr	94	Fleming	49.6	69.8	138	Harrison	55.7	61.9
7	Jackson County	36.7	55.2	51	Clark	44.2	74.7	95	Bell	49.8	81.5	139	Webster	55.7	75.5
8	Bullitt	37.0	53.7	52	Murray	44.3	47.2	96	Mayfield	49.8	60.9	140	Rockcastle	56.6	59.9
9	Newport	37.2	44.5	53	Clinton	44.3	53.5	97	Lincoln	49.8	70.7	141	Bath	57.0	87.8
10	East Bernstadt	37.3	dnr	54	Cloverport	44.4	72.7	98	Calloway	50.0	56.2	142	Boyle	57.3	65.9
11	Christian	37.4	70.1	55	Logan	44.5	54.5	99	Glasgow	50.0	62.6	143	Johnson	57.3	78.2
12	Marion	37.8	60.3	56	Carter	44.5	59.3	100	Mason	50.1	59.2	144	Hickman	57.4	67.6
13	Fulton County	37.9	69.4	57	Martin	44.8	dnr	101	Caverna	50.2	84.2	145	Dayton	58.4	67.4
14	Jessamine	37.9	50.3	58	Floyd	44.9	52.0	102	Russellville	50.2	52.5	146	Adair	58.5	71.1
15	Corbin	38.2	51.6	59	Spencer	45.0	dnr	103	Lyon	50.3	53.7	147	Bowling Green	58.5	73.6
16	Warren	38.2	50.7	60	Daviess	45.1	53.9	104	Pike County	50.5	64.9	148	Bellevue	58.9	68.4
17	Pineville	38.6	58.5	61	Barren	45.3	49.8	105	Breathitt	50.8	64.0	149	Breckinridge	58.9	72.1
18	Lee	38.8	78.3	62	Ohio	45.4	64.4	106	Bourbon	50.8	65.0	150	Laurel	59.1	dnr
19	Anderson	39.1	52.3	63	Dawson Springs	45.6	61.0	107	Pulaski	50.9	60.9	151	Ballard	59.7	80.1
20	Shelby	39.4	71.6	64	Knox	45.6	64.8	108	Fulton Ind	51.3	69.0	152	Barbourville	60.7	76.8
21	Robertson	39.9	114.5	65	Estill	45.7	53.4	109	Beechwood	51.4	68.8	153	Cumberland	61.5	71.1
22	Greenup	40.4	64.1	66	Silver Grove	45.8	69.2	110	Harlan County	51.6	55.7	154	Henderson	62.1	74.1
23	Woodford	40.6	63.5	67	Williamstown	45.9	63.3	111	Fort Thomas	51.9	72.2	155	Fayette	62.8	78.2
24	Elliott	40.8	dnr	68	Kenton	45.9	64.9	112	Muhlenberg	52.1	68.5	156	Fairview	62.9	79.7
25	Erlanger	41.0	56.9	69	Jenkins	45.9	dnr	113	Graves	52.3	dnr	157	Powell	63.0	97.0
26	Williamsburg	41.1	54.9	70	Ludlow	46.4	107.9	114	LaRue	52.3	55.1	158	Elizabethtown	63.5	76.9
27	Harlan Ind	41.2	52.3	71	Caldwell	46.5	60.7	115	Livingston	52.5	56.9	159	Montgomery	63.8	70.2
28	Hancock	41.2	57.8	72	Edmonson	46.6	58.7	116	Garrard	52.6	51.5	160	Berea	64.2	75.7
29	Trigg	41.2	60.2	73	Monroe	46.6	54.7	117	McCracken	52.9	62.7	161	Boone	65.5	74.0
30	Hazard	41.3	87.2	74	Paintsville	46.8	53.3	118	Perry	53.0	67.0	162	Campbell	65.6	70.2
31	Southgate	41.7	47.2	75	Henry	47.1	67.9	119	Knott	53.0	dnr	163	Mercer	66.0	78.3
32	Owensboro	41.9	70.1	76	Magoffin	47.1	64.7	120	Clay	53.0	63.3	164	Somerset	66.2	89.8
33	Middlesboro	41.9	97.2	77	Campbellsville	47.1	76.4	121	Hopkins	53.0	71.7	165	Marshall	66.4	70.9
34	Paris	41.9	59.6	78	Lawrence	47.4	68.6	122	Washington	53.0	83.5	166	Eminence	67.1	85.3
35	Morgan	42.0	116.8	79	Leslie	47.4	69.4	123	Raceland-Worthington	53.1	67.0	167	Hart	67.5	73.5
36	McLean	42.0	45.9	80	Owsley	47.4	dnr	124	Letcher	53.5	62.9	168	Simpson	68.6	73.6
37	Whitley	42.3	57.7	81	Russell Ind	47.5	70.3	125	Lewis	54.2	65.6	169	Green	69.7	88.2
38	Augusta	42.3	55.6	82	Science Hill	47.5	56.5	126	Franklin	54.4	87.3	170	Menifee	71.1	90.4
39	Trimble	42.4	53.7	83	Wayne	47.8	64.2	127	Carroll	54.5	82.9	171	Covington Ind.	72.7	80.5
40	Wolfe	42.4	dnr	84	Union	47.9	69.1	128	Todd	54.7	70.0	172	Nicholas	73.5	80.7
41	Crittenden	42.4	57.1	85	Taylor	47.9	64.7	129	Russell County	54.7	80.5	173	Jackson Ind	100.1	117.6
42	Metcalfe	42.8	60.9	86	Burgin	48.0	60.5	130	Grant	54.9	70.7				
43	Casey	42.9	49.5	87	Pendleton	48.1	55.9	131	Jefferson	55.1	68.2				
44	Frankfort	43.1	80.7	88	Grayson	48.6	60.0	132	Carlisle	55.2	46.9				

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