

# SCHOOL ENERGY MANAGERS PROJECT

## Kentucky Board of Education

December 6, 2017

*Ron Willhite, Director*

*Kentucky School Boards Association-School Energy Managers Project*



# School Energy Managers Project

- Originated March 2010
- Federal Funding - \$5 Million – FY2010 to FY2012
- Energy Cabinet - \$800,000 - FY2013 to FY2016
- Utility DSM Funding - \$4.4 Million - FY2014 forward

# Energy Manager

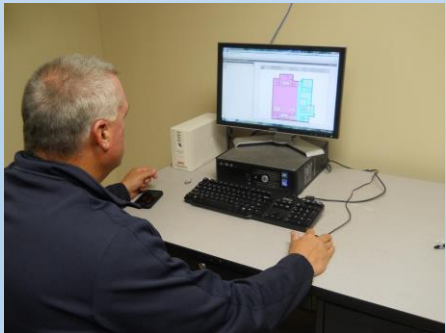
- Dedicated Resource

- No Priority Shuffling – Boots on the Ground
- Significant ROI (NON Classroom Position Saves Multiple Classroom Positions)
- Knowledgeable Connection to Utility Companies



- Skilled Resource

- Evaluates and Presents Energy Saving Options
- Facilitates Policy Compliance
- Translates Technical Information



# KSBA Functions

- Funding & Technical Support
- Energy Manager Training
- Utility Billing and Service Issues
- Data Tracking and Reporting Assistance
- Stakeholder Collaboration
- Rate Case Intervention



# KSBA - SEMP Message

## Best Fuel Source – Energy Efficiency

- Doesn't Require New Technology
- Can Do It Today
- Reduces Greenhouse Gas
- Lowers Cost

# What have schools done

- Employed Energy Managers
- Facility & Operation Audits
- Behavior - Staff/Student Involvement
- Implemented Efficiency Measures
  - Adjusted HVAC temperature set points
  - Incorporated HVAC temperature set backs
  - Building Automation Systems
  - Equipment Upgrades
  - Lighting Retrofits
- Performance Contracts

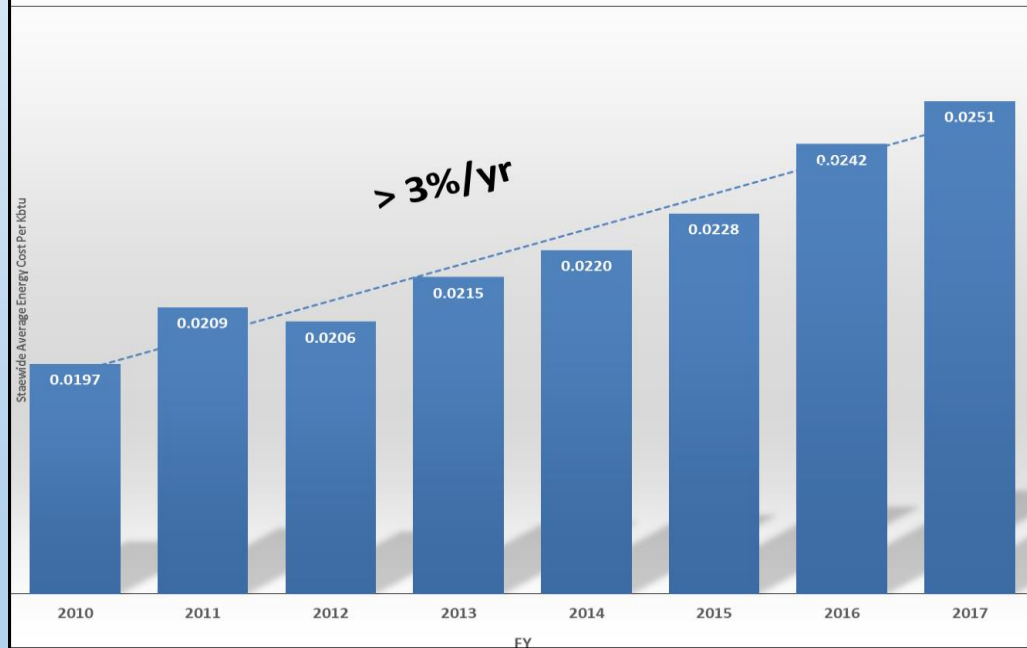




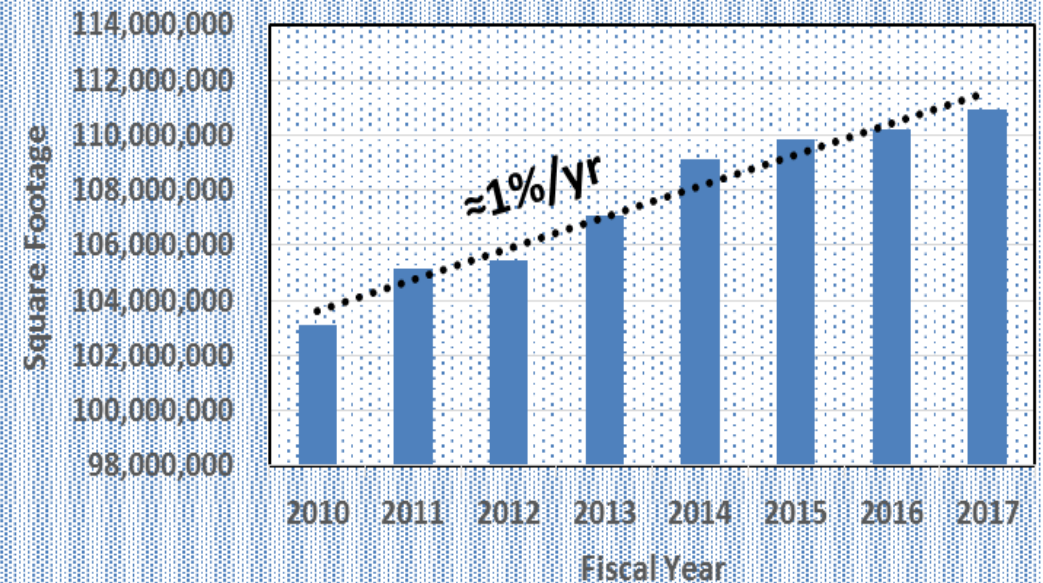
# ANNUAL SCHOOL ENERGY REPORT

## UTILITY COSTS AND SPACE INCREASES

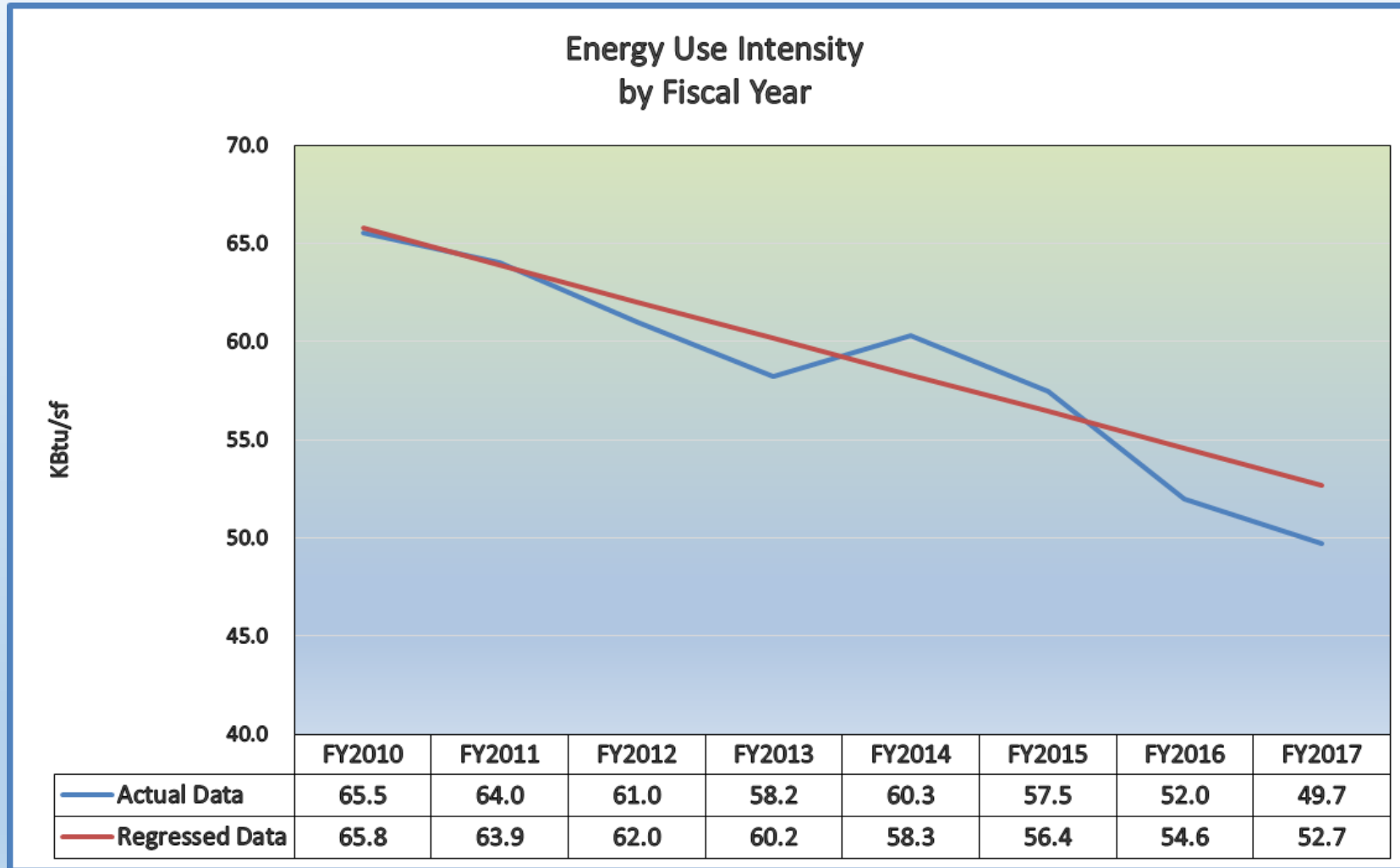
Figure 4, Cost of School Energy per KBtu  
by Fiscal Year



Conditioned Square Footage



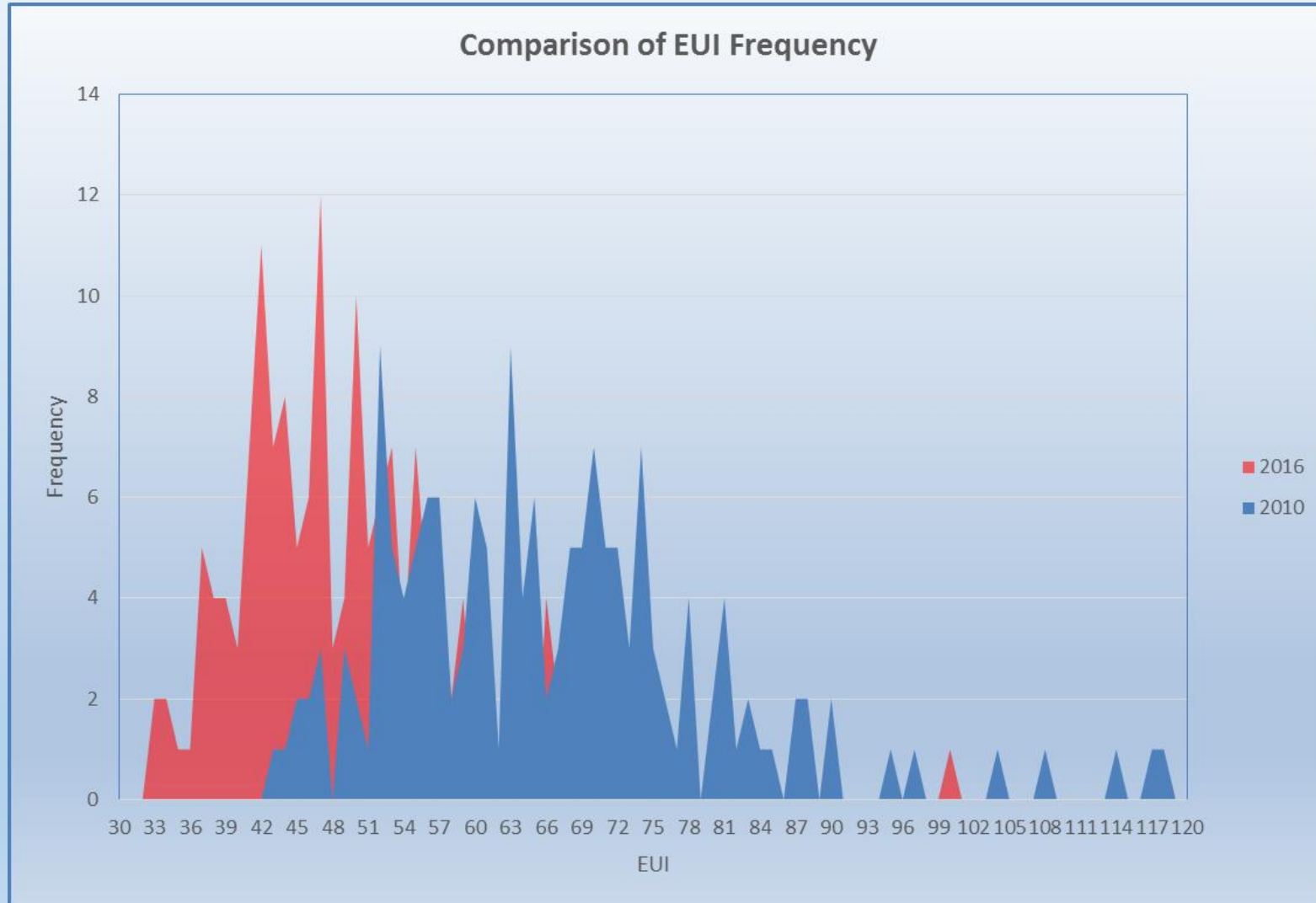
# DISTRICTS BECOMING MORE EFFICIENT



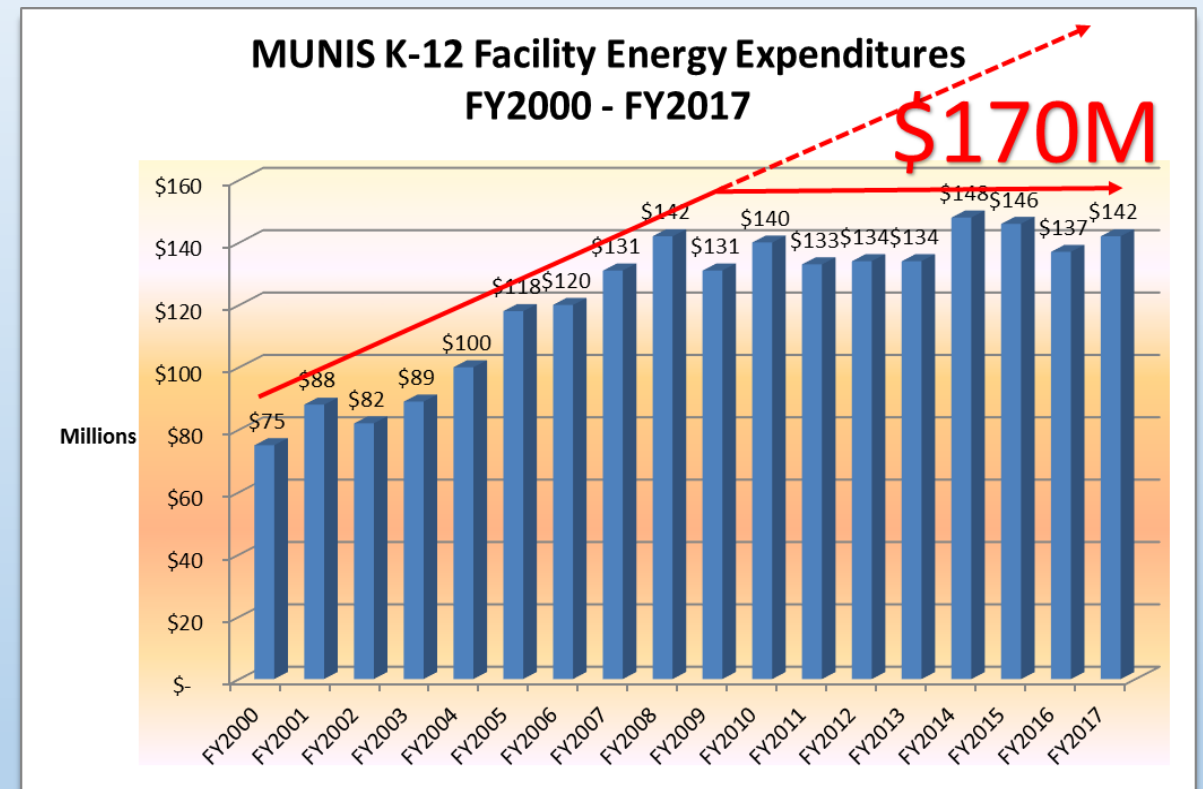
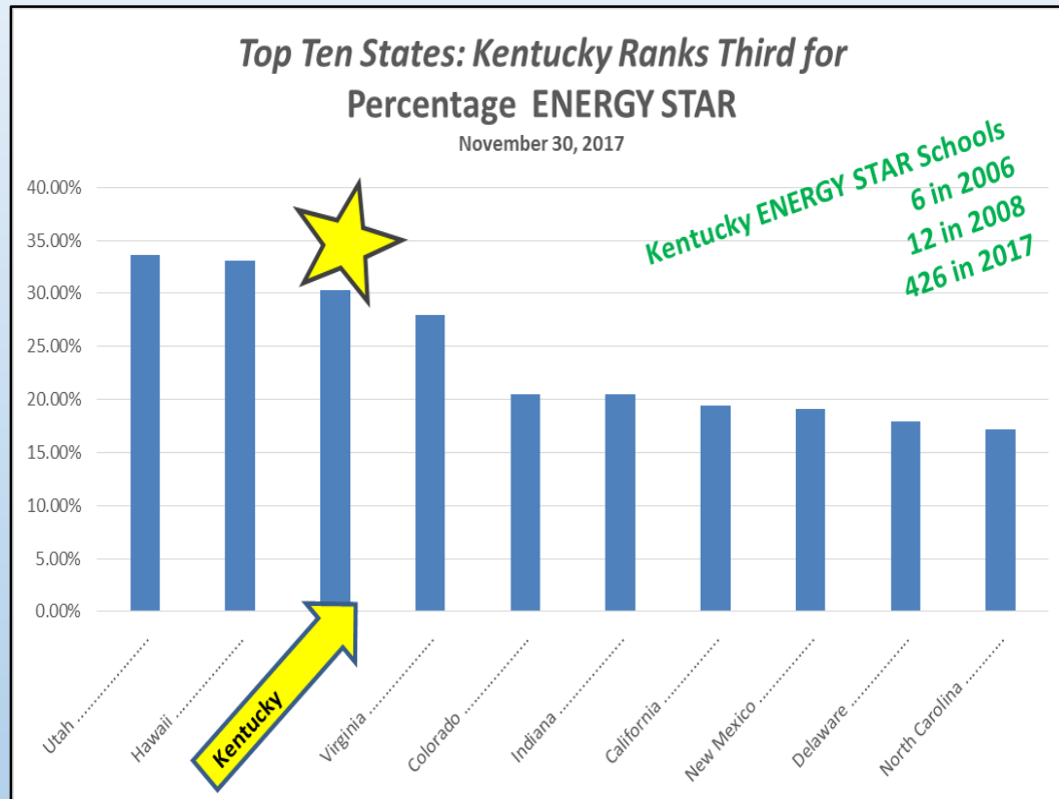
EUI: Energy Use per Square Foot



# EUI FREQUENCY DISTRIBUTION



# RESULTS



# ANNUAL ENERGY SAVINGS POTENTIAL



Annual Energy Savings Potential				
Level	EUI	Incremental Savings	Annual Savings	Districts Operating below
Base Year, FY2010	65.5			
Current	49.7		\$42M	
ENERGY STAR	50	\$10M	\$52M	95
Best Performers	40	\$29M	\$81M	22
BAG Performance	30	\$55M	\$136M	0



EUI: Energy Use per Square Foot

# UTILITY RATE CASE INTERVENTION

- 2016 KU/LGE
  - Request Reduction - \$3.3 M → \$.7 M
  - Pilot School Rate - \$1.5 M Benefit
- 2016 Kentucky Power (Pending)
- Duke (Pending)





**April 16 – 17, 2018**

**Embassy Suites**

**Lexington, KY**

