



State/University Partnership Benefits Rural Small Businesses

ACEEE RURAL ENERGY CONFERENCE

OCTOBER 22, 2018

Kansas Corporation Commission/ Kansas State University

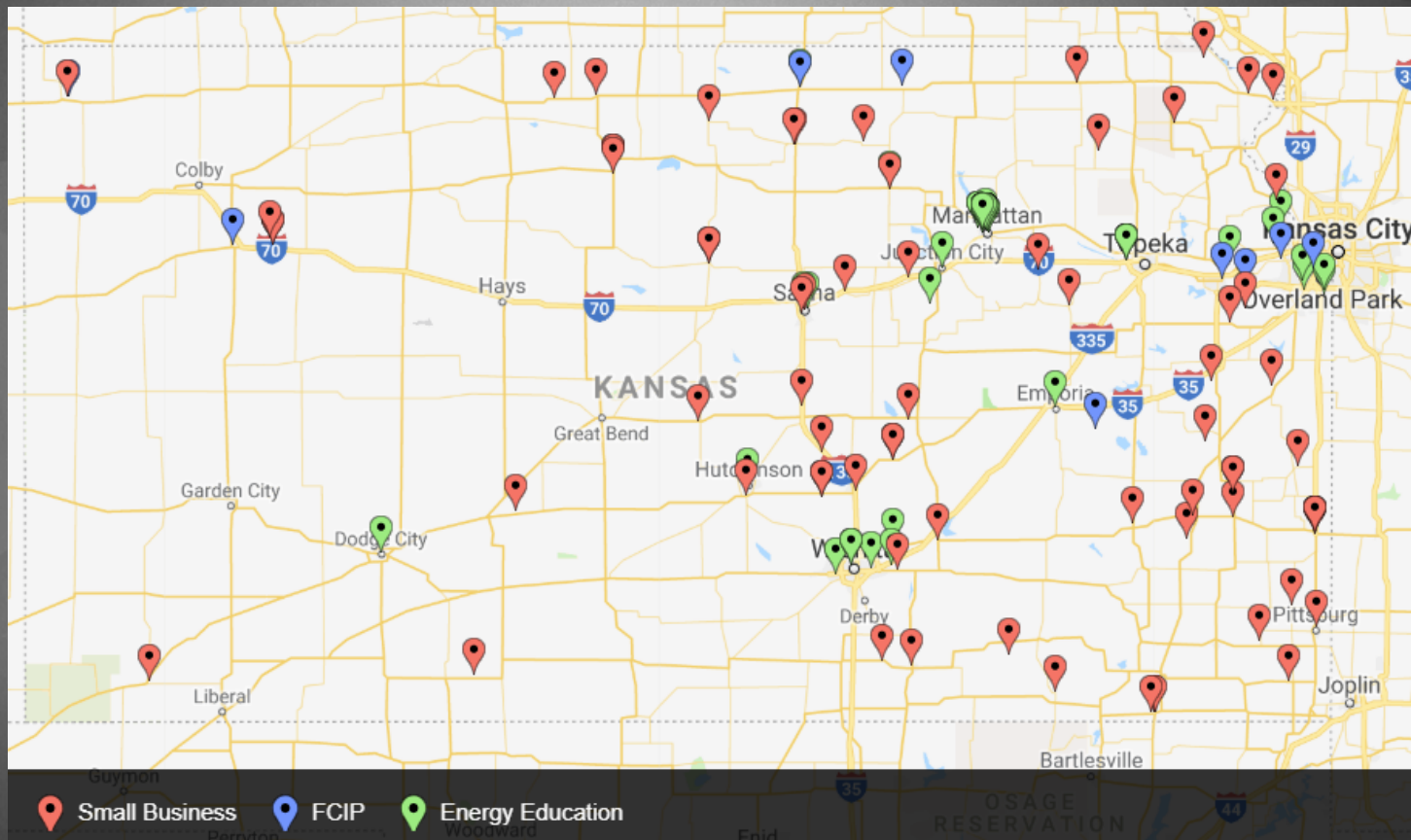
- Extended partnership to Kansas State University Engineering Extension in 2016
 - Small Business Energy Program
 - Energy Education
 - Facility Conservation Improvement Program (FCIP)



Small Business Energy Program

- Provides –
 - Free energy audits to rural small businesses
 - For-profit businesses
 - Populations less than 50,000
 - Small Business Administration small business size standard
 - Technical assistance in applying for U.S. Department of Agriculture Rural Energy for America Program (REAP) Grant
 - If approved, reimburses up to 25% of eligible project costs

Small Business Energy Program – Results



Small Business Energy Program – Results

- 71 energy assessments since 2016
 - 3,400,000 kWh annual savings identified
 - \$345,000 annual savings identified
 - 42 counties
- REAP grant applications
 - 28 facilities (22 approved; 2 pending; 4 denied) – 79%
 - 43 projects (34 awarded; 4 pending; 5 denied) – 79%
 - USDA contribution - \$409,000
 - 1,800,000 kWh savings
 - \$199,000 annual savings

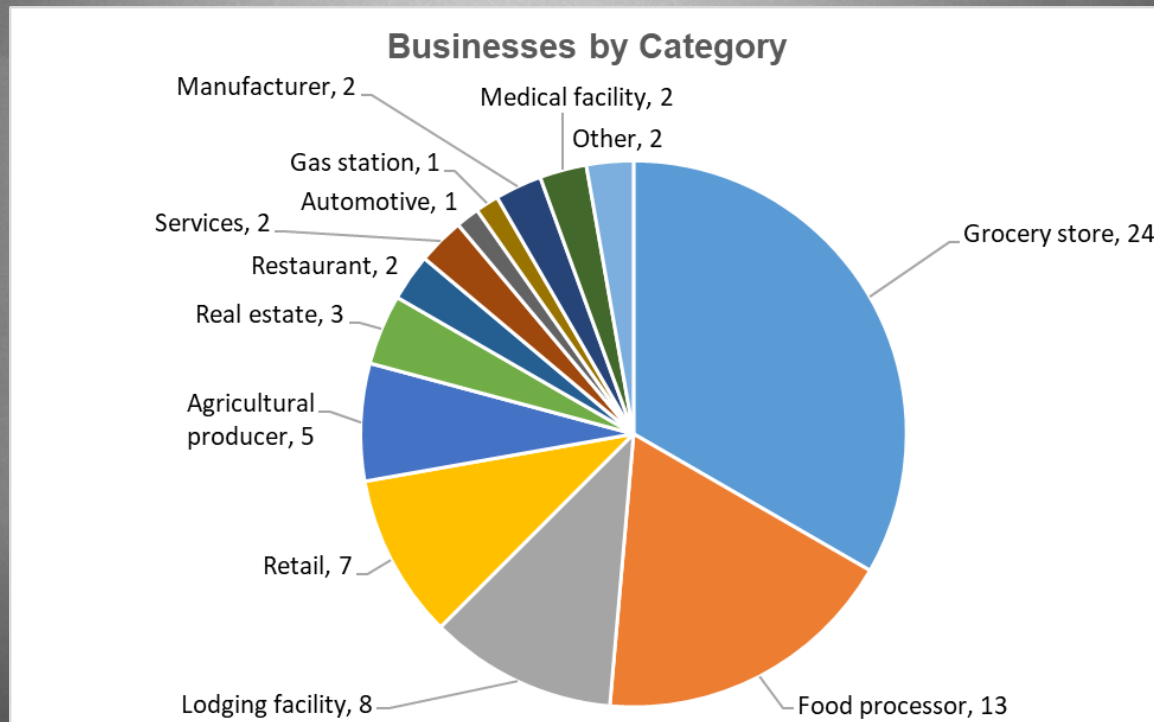
3,400,000 kWh is enough energy to annually power –

- 316 homes
- 6,469 incandescent lightbulbs (60W)
- 45,662 LED lightbulbs (8.5W)
- 887,149 smartphones for one year

Small Business Energy Program – USDA

USDA REAP Grants (Kansas)							
	Grants submitted		Grants Approved		\$ Funding Approved		\$ Funding Returned to National
	\$20K or less	>\$20K	\$20K or less	>\$20K	\$20K or less	>\$20K	
2014	8	4	8	4	\$72,639	\$164,335	\$3,901
2015	13	7	13	7	\$171,689	\$766,001	\$279,310
2016	23	8	23	8	\$160,868	\$387,122	\$0
2017	17	6	16	3	\$168,378	\$406,000	\$0
2018	39	7	32	5	\$336,865	\$252,300	\$0

Small Business Energy Program – Businesses



Small Business Energy Program – Projects

- 58 projects
 - Lighting – 23 (40%)
 - Refrigeration – 10 (17%)
 - Renewable energy – 10 (17%)
 - Building envelope – 9 (16%)
 - Equipment replacement – 4 (7%)
 - HVAC – 2 (3%)

Small Business Energy Program – Lighting

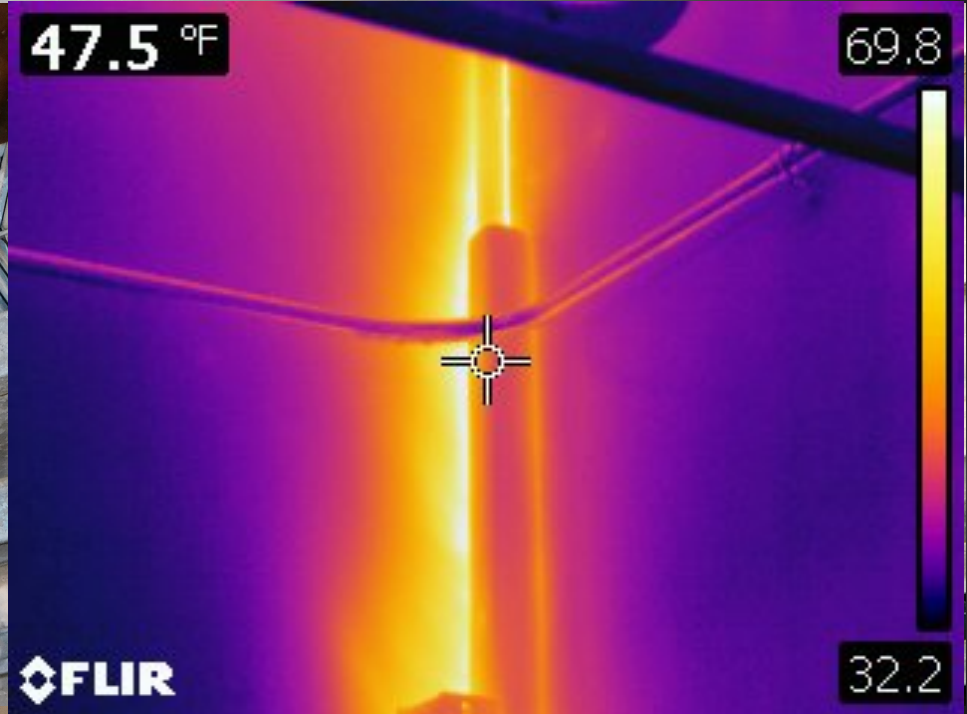
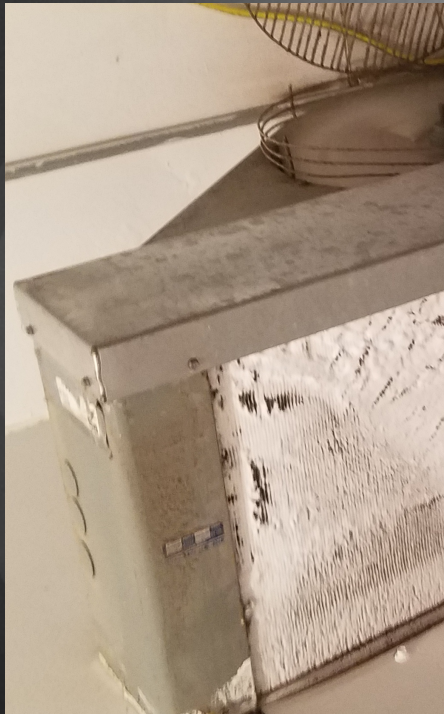
- 23 projects (40%)
- 1,056,700 kWh savings
- \$101,000 annual savings
- \$393,669 total project costs
- Average payback – 3.9 years
 - 40% of projects with payback < 3 years

Energy Assessments – What We Do

- Energy Assessment
 - Interview owner/manager
 - Determine square footage
 - Collect data for energy-consuming devices, exterior, building envelope
 - Collect name plate information for compressors, coolers
 - Conduct visual inspection of interior, exterior, roof, basement
 - Collect data using infrared imaging, light meters
- Energy Report
 - Yearly and monthly energy consumption
 - Calculations, simple payback



Energy Assessments – What We See



Energy Assessments – What We See



Energy Assessments – What We See



Small Business Energy Program – Before and After



Before



After

Small Business Energy Program – Before and After



Before



After

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