

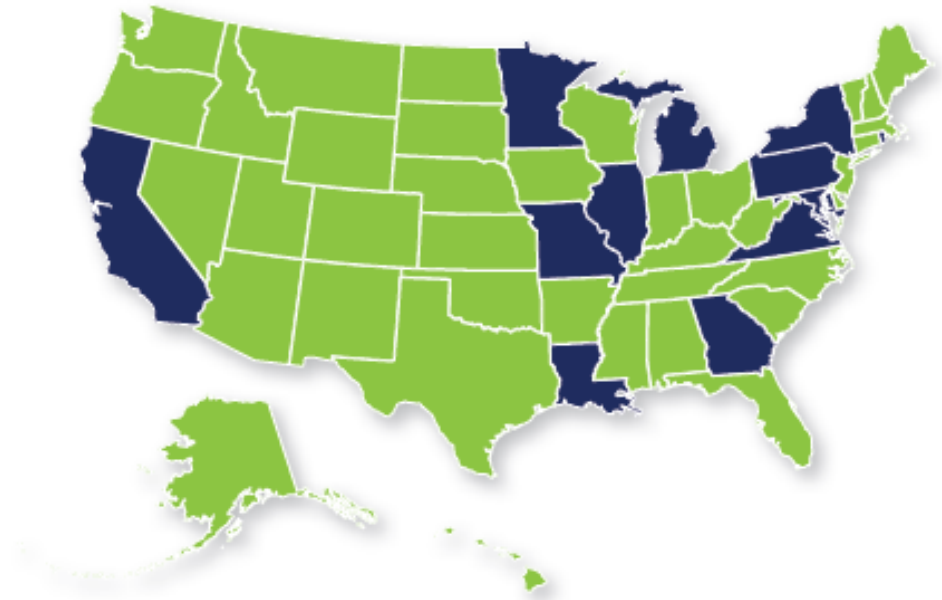


SCALING UP ENERGY EFFICIENCY in Missouri's Affordable Multifamily Housing

April 6th, 2019

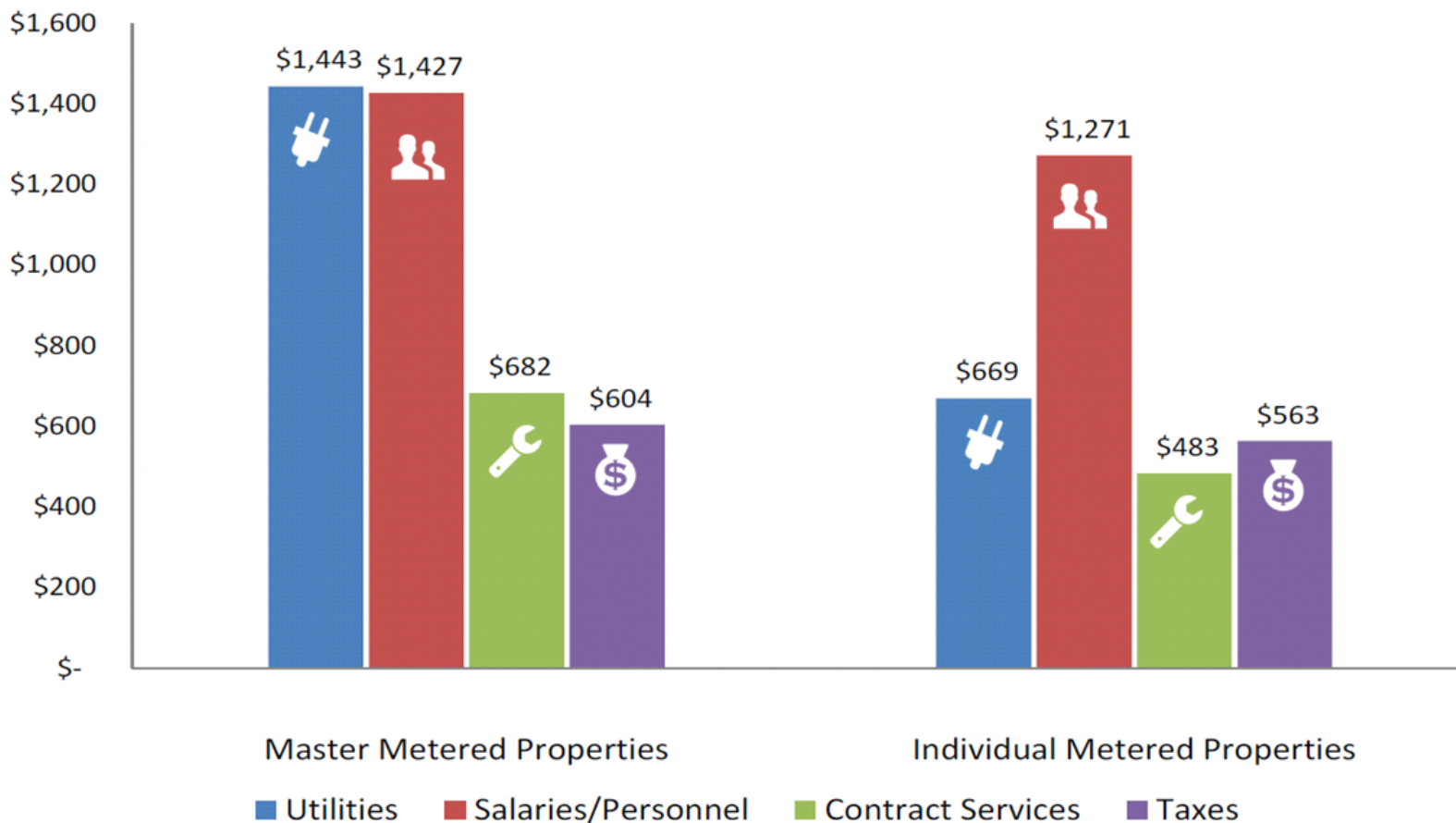
Energy Efficiency for All

**Mission: making
multifamily
homes healthy
and
affordable
through energy
efficiency**

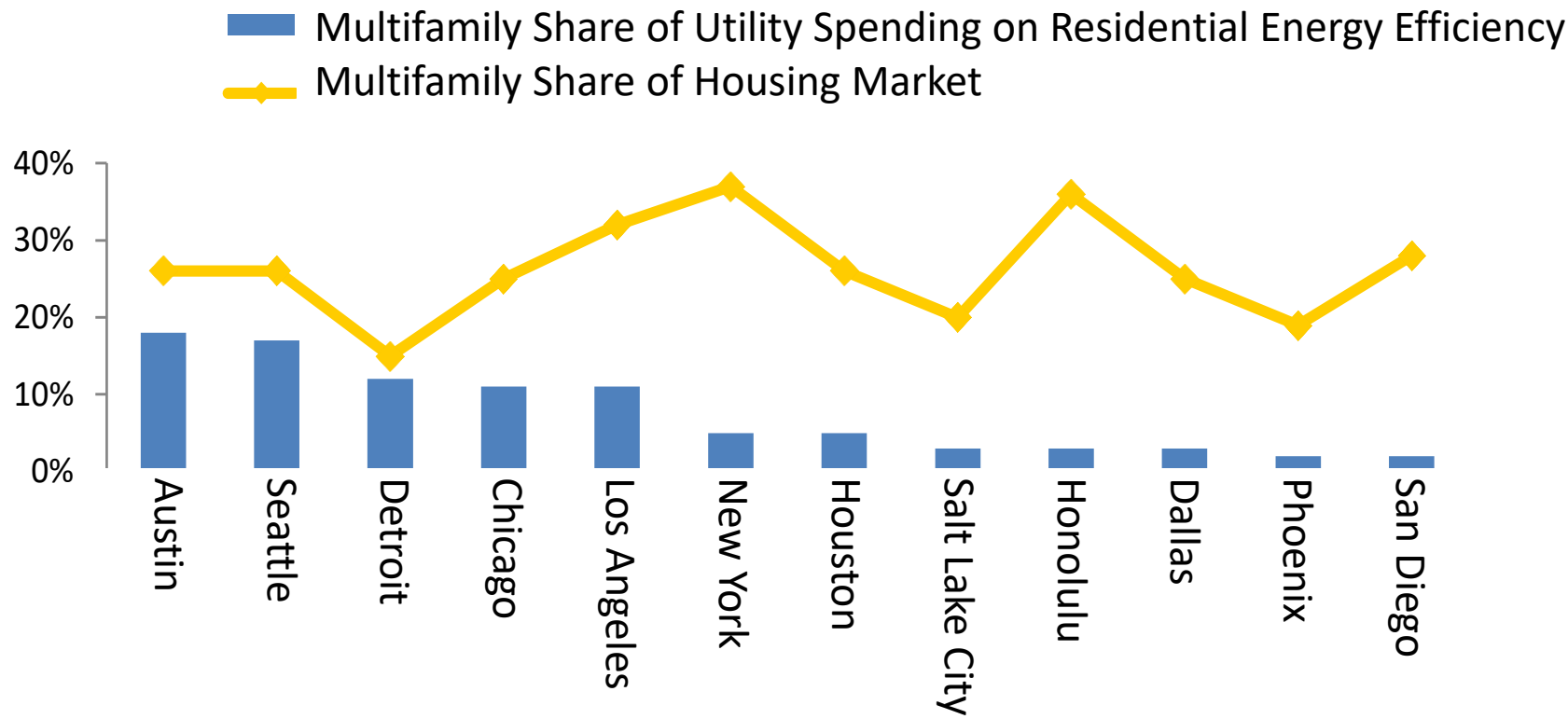


**Working to reach 5 million
homes in twelve states
across America**

Energy costs present the best opportunity to reduce operating expenses and help sustain affordable housing



Multifamily is often overlooked

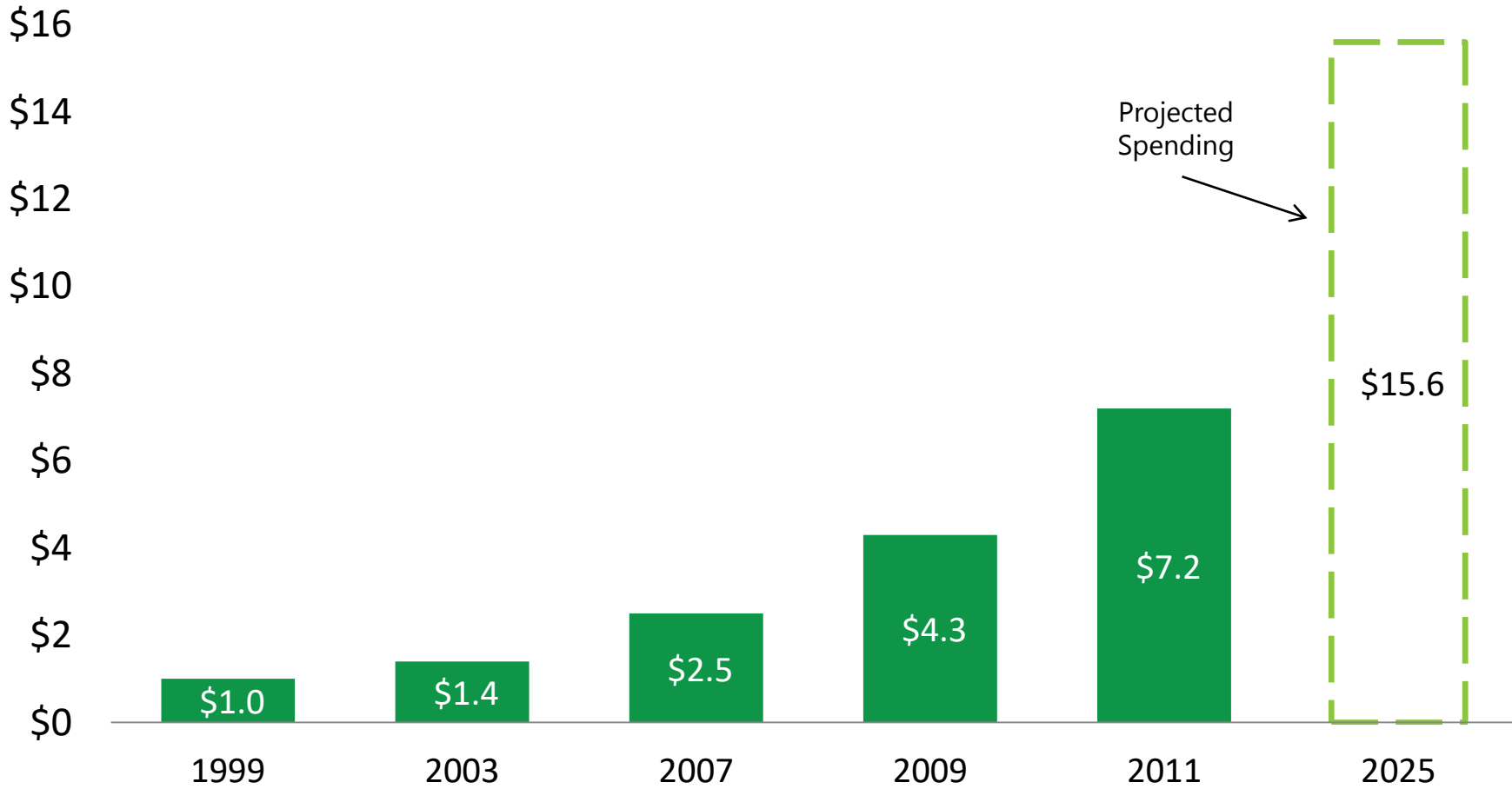


Missouri Energy Burden

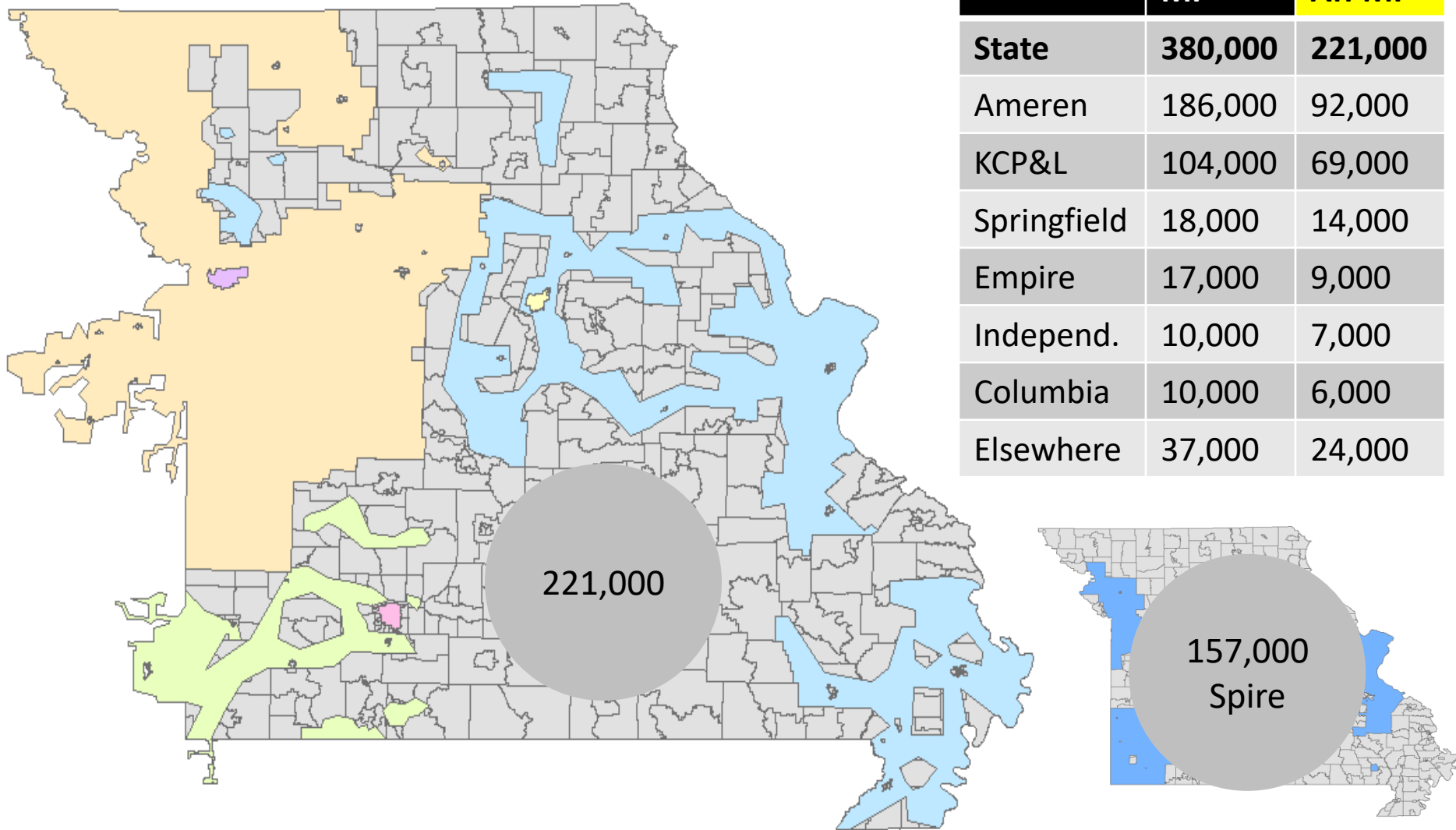
County_Only	Individual HH Shortfall	Number of Households	Aggregate Shortfall	Home Energy Burden
Jackson County	\$1,494	22,295	\$33,306,396	26.7%

To put this in perspective, the highest earners in the County only have an energy burden of 5.5% Meaning they spend a significantly smaller percentage of their income on utility bill payments. This is a major issue and shows the inequality across utility customers. We would like the energy costs for low-income individuals and communities to be much closer to other customers to range from 5-9% of income as opposed to 25-30%, as is.

Annual Utility Energy Efficiency Program Spending (in Billion \$)

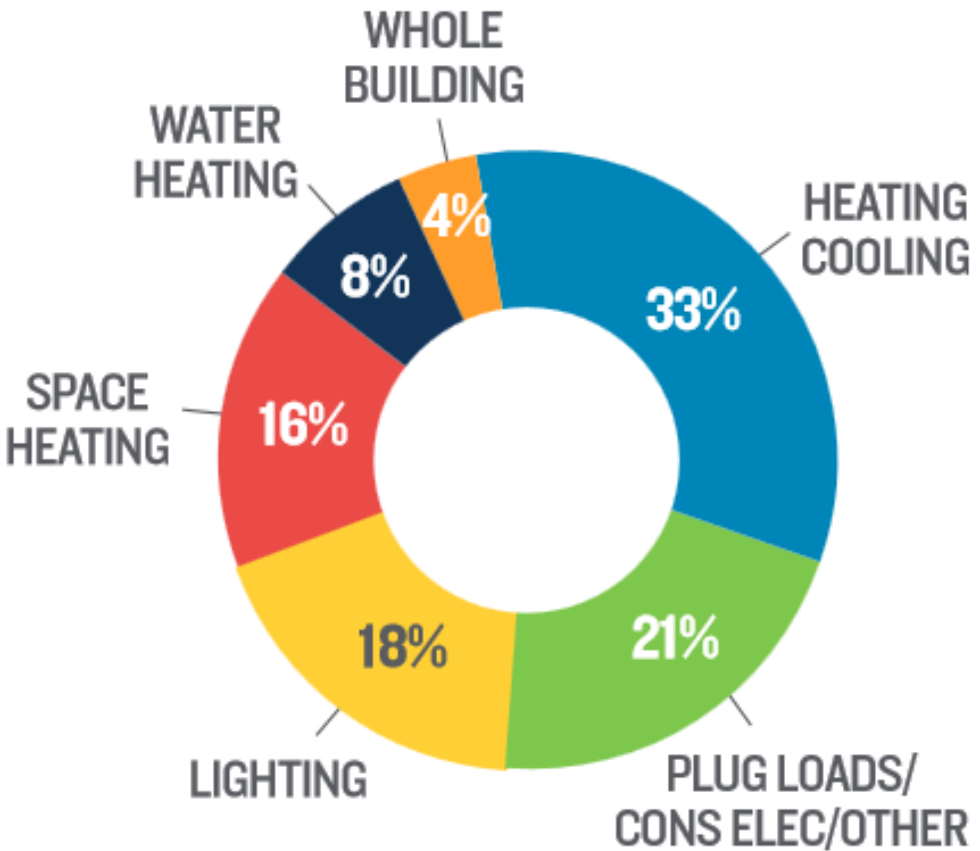


Size of the opportunity



	MF	Aff MF
State	380,000	221,000
Ameren	186,000	92,000
KCP&L	104,000	69,000
Springfield	18,000	14,000
Empire	17,000	9,000
Independ.	10,000	7,000
Columbia	10,000	6,000
Elsewhere	37,000	24,000

Results – Cumulative Electric Energy Savings by End Use, 2034



Results – Cumulative Electric Savings Potential, 2034

State	Economic				Maximum Achievable			
	No NEBs		High NEBs		No NEBs		High NEBs	
	GWh	% of Load	GWh	% of Load	GWh	% of Load	GWh	% of Load
GA	1,200	26%	1,579	34%	804	17%	1,071	23%
IL	1,085	32%	1,264	37%	744	22%	879	26%
MD	846	28%	1,085	36%	578	19%	739	25%
MI	761	37%	881	43%	529	26%	649	31%
★ MO	530	23%	664	28%	358	15%	459	20%
NY	2,768	34%	3,257	40%	1,981	24%	2,513	31%
NC	946	29%	1,266	39%	629	19%	852	26%
PA	774	29%	936	35%	532	20%	671	25%
VA	905	30%	1,128	38%	620	21%	838	28%

Results – Costs and Benefits, Maximum Achievable Scenario (2015-2034)

	No NEBs				High NEBs			
State	Total Costs	Total Benefits	Net Benefits	BCR	Total Costs	Total Benefits	Net Benefits	BCR
Total								
MO	\$213	\$402	\$190	1.9	\$412	\$1,305	\$894	3.2
Electric only								
MO	\$178	\$336	\$158	1.9	\$348	\$1,134	\$786	3.3
Gas only								
MO	\$35	\$66	\$31	1.9	\$63	\$171	\$108	2.7

Note: All dollars are present value 2015 Million \$

KCP&L and Spire MFLI Programs

- KCP&L and Spire currently offer a range of energy efficiency upgrades for qualifying customers.
- All KCP&L customers are eligible to receive the “Energy Savings Kit”.
- The Energy Savings Kit provides up to 12 LED bulbs, up to four faucet aerators, up to two efficient-flow shower heads, water heater pipe wrap, and up to two smart power strips.
- These measures are all free and only require permission from the building owner to get started.

KCP&L and Spire MFLI Programs (cont.)

- KCP&L also offers a more robust and custom rebate program for Multifamily building owners.
- To qualify electrical serviced must be provided by KCP&L, be located in Missouri, and has to be in subsidized housing. This requires for at least 50% of the residents to be at or below 200% of the Federal Poverty Limit.
- KCP&L has a long list of measures available and we recommend any interested owner in pursuing an energy audit to identify the building's biggest energy needs.
- These measures include insulation upgrades, HVAC replacement, Programmable Thermostats, heat pump, boiler, or furnace replacement, interior lighting upgrades, water heating, and refrigerators upgrades.

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KCP&L and Spire MFLI Programs (cont.)

- Spire has a range of rebates available for customers.
- Residential programs include rebates for Gas Furnaces, Boilers, Electronic Thermostats, Gas Storage Water Heaters, and Space and Water Heating Systems ranging from \$200-\$450.
- Commercial programs include – Gas Space Heating Hot Water Boilers, Gas Space Heating Steam Boilers, Boiler Tune-Ups every two years, they are offering over a dozen Food Service Equipment rebates for gas equipment, and they also offer rebates for custom projects.

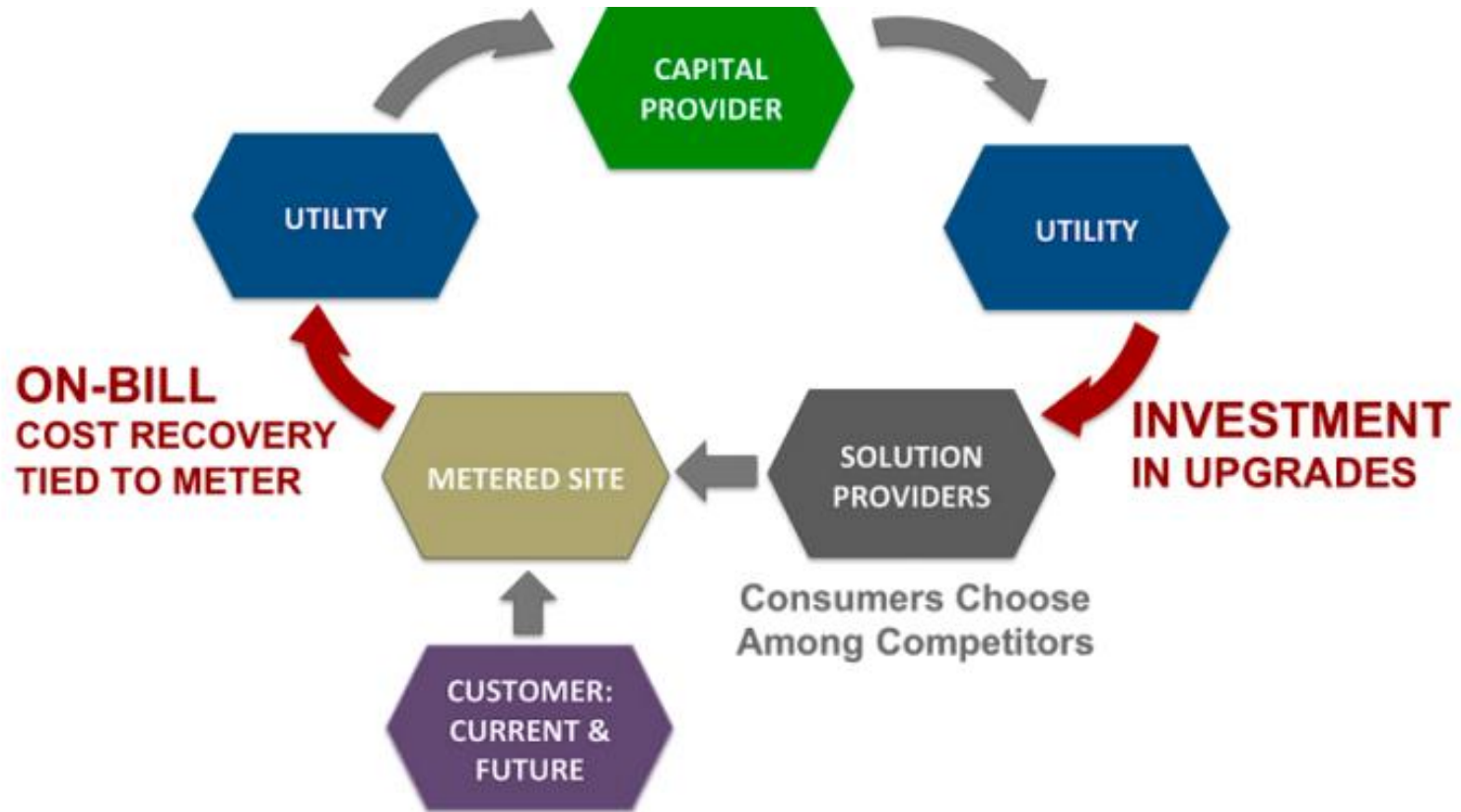
IP&L Current EE Rebates

- Commercial rebates have been fully expended until July 2019.
- Residential rebates are still available for central air conditioners (\$108-\$384), heat pumps (\$259-\$701), and heat pump water heaters (\$300).
- It could be beneficial for building owners in the area if IP&L can co-deliver their commercial rebates with Spire, when available again, similarly to the efforts from KCP&L and Ameren with Spire.

PAYS (Pay As You Save)

- [PAYS Video](#)
- Pay As You Save® ("PAYS®") is a market-based system that allows utilities to invest in energy efficiency upgrades on the customer side of the meter and assure immediate net savings to the participating customer.
- The idea behind PAYS® is for energy-saving upgrades to be installed in a customer's home or building, but the utility pays the up-front cost of the installed energy-saving measures.
- To recover its costs, the utility puts a fixed charge on the customer's electric bill that is significantly less than the estimated energy savings from the upgrades.
- The customer sees immediate net annual savings by incurring less expense for energy while paying a fixed charge that is below the total estimated energy savings. Once the utility recovers its costs, the customer will no longer have a "PAYS" charge on their bill.

PAYS continued



Pay As You Save® and PAYS® are registered trademarks of Energy Efficiency Institute, Inc.

1. Commissions in Kansas, Kentucky, Hawaii, and New Hampshire along with utility oversight boards in

Want to learn more?



Please consider donating at www.renewmo.org or join us at our KC Office Kick Off Fundraiser next Thursday, April 11th from 6-8 PM at SunSource Homes (322 Southwest Blvd KC MO). We will have food and drinks available, including donated beer from Boulevard Brewery.

Thank you

Questions/Comments?