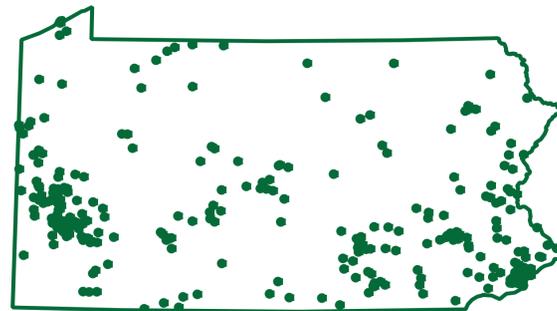


Pennsylvania Residential Energy Efficiency Study

In 2018, Pennsylvania's Statewide Evaluator, led by NMR Group Inc, conducted a residential efficiency study in existing homes as required by the state's energy efficiency law, Act 129. Auditors inspected 289 randomly selected homes across the state to characterize the current baseline energy efficiency level of the housing stock. Auditors collected data on insulation, heating and cooling equipment, appliances, lighting, air leakage, duct leakage, and occupant's willingness to pay for upgrades. This study will be used to update the state's Technical Reference Manual and support the Phase IV energy efficiency market potential study.



All over
Pennsylvania

Key Findings

HERS Index Score¹



Homes, regardless of vintage, are 61% less efficient than a home built to code in 2009.

Air Infiltration¹ (ACH50)



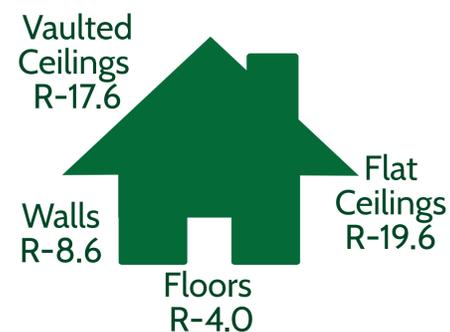
Homes have 63% more (worse) air infiltration than a home built to code in 2009.

Duct Leakage to Outside¹ (LTO CFM25/100 sq.ft.)



Duct systems have 83% more (worse) leakage than those in a home built to code in 2009.

Average Insulation



Walls, ceilings, and floors are between 48% and 87% less efficient than a home built to code in 2009.

¹Based on a subset of 72 homes that received full energy modeling.

Averages

Age



65 Years

Heating



86.3 AFUE

Cooling



13.1 SEER

Water Heating



0.78 UEF

LED Saturation



20%

Saturation Over Time

The share of efficient equipment is increasing over time, but the shares of efficient refrigerators and freezers have plateaued.

		2011	2013	2018
ENERGY STAR	LED and CFL Bulbs	18%	24%*	40%*
	Refrigerators	20%	31%*	31%
	Freezers	7%	15%*	10%
	Clothes Washers	24%	26%	40%*
	Dishwashers	38%	44%	56%*
	Room ACs	21%	26%	33%

* Significantly different from the previous study at the 95% confidence level.

Lighting Highlights



PPL was the first EDC to stop incentivizing CFLs and exclusively support LEDs. As a result, PPL has a significantly higher saturation of LEDs than all other EDCs.

LED bulbs are replacing inefficient incandescent bulbs, while the share of CFL bulbs remains constant.

