



## Case Study: Stokes Home

The Stokes home located in Jamestown is heated with propane and wood. With improved air sealing and insulation, the Stokes' are finding that the new high-efficiency propane furnace is being used less and less. Also helping cut the propane use in half is the efficient wood stove and circulating fan. Wood fuel is readily available thanks to Colorado's pine beetle troubles and should remain a low cost option for years. When burned efficiently, as with the Stokes' new stove, the carbon emissions are roughly equal to the wood decomposing naturally.

Becoming increasingly unhappy with high utility bills the Stokes learned of the rebate program with Insulate Colorado through the Center for ReSource Conservation and were motivated to act.

### Energy Efficiency Measures Installed:

1. Propane furnace
2. Efficient wood stove
3. Attic insulation

**Total Measure Cost:**  
\$5,800

**Estimated Savings:**  
\$900 (annually)

### Estimated Payback Period and Return on Investment:

Payback: 15.5 years  
Return on Investment: 6.4%

### For more information contact:

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**Year Built:** 1948

**Home Size:** 1,750 ft<sup>2</sup>

**Energy Audit Date:**  
May 2008

**Pre-audit Annual Energy Consumption:**  
800 gal. propane

**Post-action Annual Energy Consumption:**  
400 gal. propane

**Carbon Reduction:**  
5,800 lbs CO<sub>2</sub>

### Future Energy Efficiency Measures Planned:

1. Additional air-sealing
2. Upgrade freezer

A full winter has passed since the improvements went into place. By staying warmer and saving money the Stokes are inspired to continue making small upgrades to their home. Up next is more air-sealing and addressing the heavy electricity users in the house.

