

Sealing Your Home's Envelope

duct insulation & DUCT SEALING

- **Approximately 25% of the energy your heating system uses is wasted through duct system energy losses. Properly sealing and insulating your ducts can save you potentially hundreds of dollars each year!**
- **Measurements of air leakage from ducts have shown that in most houses air leaks are greatest at the following connections: from the furnace to the duct, at branches in the duct system and at connections from the duct to the registers**
- **You should seal your ducts before insulating them, since adding insulation may make some air leaks difficult to access, and insulation itself typically will not stop those leaks**
- **Very often, ductwork is installed outside of conditioned spaces—in attics, crawl spaces, basements and garages. Ducts in these locations leak air to and from these unconditioned spaces—which means you're paying to heat the outside!**
- **Properly sealing your ducts can also improve your home's indoor air quality**



ROI (return on investment) CALCULATIONS FOR HOME ENVELOPE ENERGY EFFICIENCY UPGRADES

Efficiency Upgrade	Payback Time in Years	Added Cost	Annual Savings	10-Year Savings	Annual ROI
Duct sealing	1.5	\$450	300	\$3000	66.7%
Duct insulation	2.5	\$450	\$180	\$1800	40%

AVAILABLE UTILITY REBATES AND FEDERAL TAX REBATES

Efficiency Upgrade	PSE Utility Rebate	Federal Tax Credit
Air Duct Sealing	FREE to qualifying customers	10% of materials cost, up to \$500 max cap
Air Duct Insulation	50% of the cost, up to \$200	10% of materials cost, up to \$500 max cap, attic ducts R-8, all other ducts R-6

2011 federal tax credits are limited to 10% of costs (up to \$500) with certain provisions and exceptions; check with your tax professional for guidance on all tax matters. ROI calculations are based on saving \$15 over the course of the year. The calculations come from GreenandSave.com, and are based on comprehensive local and national research and a combination of reports from the U.S. Department of Energy, the EPA, ENERGY STAR® for Homes Program, US Green Building Council's LEED for Homes Program, American Council for an Energy-Efficient Economy (ACEEE), International Energy Conservation Code, PLUS information directly from University Studies, Architects, Manufacturer Specifications, Distributors, seasoned Builders and Installers, and Homeowners with actual Performance Feedback.



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