



## Maryland Home Performance with ENERGY STAR® Urciolo Residence



**Customer:**  
Anna Urciolo

**Location:**  
Rockville, Maryland

**Work completed:**  
March 2008

**Improvements:**

- Air sealing
- Duct sealing
- Attic insulation increased to R-50
- Insulated cantilever floors and basement joists
- Water heater and furnace flue repair

**Benefits:**

- 480 kWh saved annually
- 273 therms saved annually
- 5,172 pounds of reduced carbon dioxide emissions
- 26.5% annual energy savings
- Eliminated serious health risk
- No more cold rooms

**Project cost:**  
\$5,115

**Annual savings:**  
\$600

### Meet Anna Urciolo

Anna Urciolo lives in a thirty-eight year old home in Rockville, Maryland. The Levitt style home, its layout and its energy issues, are typical of Washington, D.C. area homes.

### Why Anna Decided to Make Changes

Concerns about the environment and indoor air quality as well as her interest in energy efficiency inspired Anna to make energy improvements. When she moved into the home four years ago, a flue pipe from the furnace was not connected properly. Anna had lingering doubts about if it had been properly fixed. Also, during the winter, some rooms in Anna's house were uncomfortably cold.

### Getting Started

Anna called Aspen Enterprises, participating contractors with the Maryland Home Performance with ENERGY STAR program, and scheduled an energy audit. Aspen performed several tests on the home's mechanical equipment and building shell to determine the causes of her home's comfort, health, and energy issues.

### Findings

- Aspen found that the furnace flue was disconnected about 6" above her second floor ceiling. This allowed unsafe amounts of carbon monoxide to spew into Anna's attic.
- Air leaks and moisture problems
- Poorly-installed insulation in the attic and around the basement's joists

### The Improvements

- An HVAC contractor fixed the dangerous furnace flue issue
- Aspen performed extensive air sealing on the house (reducing air leakage by 50%)
- Aspen increased the attic insulation from R-5 to R-50

### Results

Through the energy improvements, Anna eliminated a serious health risk, increased the home's energy efficiency and made her home more comfortable for all seasons. She reduced her annual CO<sub>2</sub> emissions by an estimated 5172 pounds, the equivalent of not driving a car for 5 months each year! The total project cost Anna \$5,115 and it is projected to save her \$600 per year at current energy prices.