

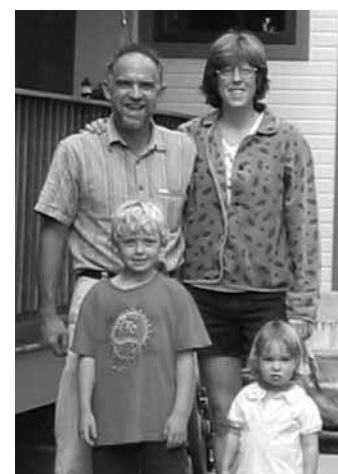


ENERGY FEATURES

- Pre-plumbed for solar hot water
- Hydronic heating system; Energy Start boiler
- Whole house ventilation with heat recovery heat exchanger
- Solar tempered windows and overhangs
- Whole house fan
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- "Healthy Soy foam insulation
- High performance windows from Alpen Glass

GREEN FEATURES

- Water based floor finishes
- Mostly no VOC interior paints some low-VOC
- FSC certified lumber for decks and doors
- Bamboo wood flooring on second floor
- Low water use toilet
- Engineered lumber for floor joints and roof



Will Toor, Mariella Colvin and Family

Year Built 1928 (expanded in 2005)

Home Size 1903 Sq.Ft.

Architect/Designer

Terra Verde, Robert Ross

Builder

John Martini/Jim Walker

Solar Contractor:

Independent Power Systems

City of Boulder Green

Points Profile 25 required, 59 received

Toor Colvin Home

Excessive Efficiency

Will Toor and Mariella Colvin

When our second child was born, we decided that we would expand our home (which was about 1400 square feet including the basement), so that each of our kids could have their own bedroom. We wanted to try to reuse as much of the existing home as possible, and to minimize the energy consumption of our home. We were also motivated to make the home healthier, as we had old windows and siding with peeling lead paint we wanted to remove.

Our first hope was to build a passive solar home. Unfortunately, we could not figure out a good way to provide adequate solar mass, given the fact that we were leaving the existing basement, foundation, and first floor, so we aimed for a solar tempered home with good insulation, high performance windows tuned to the directions, well designed overhangs, and a hydronic heating system.

Given our limited budget, we were not interested in paying for architectural frills, fancy fixtures, expensive countertops, etc., -but we were willing to pay more up front for greater energy efficiency, and considered paying more for other "green" aspects on a case by case basis.

Overall, we are very happy with our new home. It is much brighter, cooler in the summer, and we anticipate it will be much warmer in the winter. We do still have a few more plans. We pre plumbed for solar domestic hot water, and plan to install a system when the new federal tax credits are available in 2006. And, when the PUC finally establishes the PV rebate rules mandated by Amendment 37, Independent Power, Inc will be installing a 2KW PV system, which should produce close to 100% of our total electricity consumption.

UTILITIES USE

Electricity Use:

April: 165 KWH

May: 188 KWH

June: 204 KWH

July: 212 KWH

(Higher months reflect use of fans and portable swamp cooler.)

Natural Gas Use:

April: 32 therms

(avg daily temp = 50 degrees)

May: 20 therms

June: 20 therms

July 12 therms

(Hot water comes from a passive side arm off the boiler, and should be at its highest efficiency during the winter when the boiler is needed for space heat. 20 therms in the summer are higher than Will and Mariella hoped for and they plan to move ahead with solar hot water when new federal tax credits become available after January 2006.)