



ENERGY STAR® Home Energy Rating System (HERS) Scale



3,500 SF | Built in 2008
7,700 Ft Elev | Evergreen, Colorado

Confirmed HERS Performance Rating **-3**

This exquisitely-crafted zero net energy home is designed in a traditional south-west adobe style. Hidden within natural finishes and sustainably-harvested log forms, the home boasts the best techniques and technologies in high-performance home construction.

Electricity

Grid-tied 10 kW ground-mounted PV array, producing 14,400 kWh per year

Heating

- Passive solar gain via south glazing
- Hydronic forced-air provided by fan coil

in ducts that use solar-heated water to transfer heat to the fresh air stream.

- 240 evacuated tubes serves as primary hot water source
- 1,200 gallon stainless steel tank (photos) insulated with 13" open-cell foam on all sides for solar thermal storage

Cooling

- Enerboss 710 Series with integral ERV and hydronic fan coil air handling unit
- Passive cooling in summer is achieved by opening 8 windows electronically every evening, filling the house with moun-

tain cool air, and closing them in the morning.

Advanced Energy Design

- Exterior walls - (Outside to inside) 1" EPS foam + 2x6 studs + 1.5" resilient channel + 2 layers drywall + 7" Icynene spray foam in cavity = R-30 (photos)
- 12" Icynene on roof underside = R-45
- TexSton limestone exterior finish
- 4" max. fly-ash concrete slab-on-grade foundation on top of 4" EPS insulation
- Duxton fiberglass windows with directionally-tuned Heat Mirror glazing