



ENERGY STAR® Home Energy Rating System (HERS) Scale



6,000 SF | Built in 2008
7,500 Ft Elev | Indian Hills, Colorado

Projected HERS Performance Rating **14**

This Indian Hills Zero Energy Home proves that zero energy does not have to mean zero style. From the home's beautiful architecture with complex roof lines, intricate interior woodwork and high-end custom finishes it is difficult to see that the home is solar-powered; but it is.

Electricity

Grid-tied 10 kW roof-mounted PV array, producing 14,400 kWh per year with expected household consumption at 14,400 kWh per year

Heating

- Passive solar gain through south glazing and solar thermally-heated hydronic fan coil in ductwork
- 15 kW electric fan-coil in ductwork
- 180 evacuated tubes as primary hot water source
- 1,500 gallon stainless steel tank insulated with 13" open-cell foam on all sides as solar thermal storage

Advanced Energy Design

- Exterior walls (Outside to inside) 2x4 stud wall + 1/4" airspace + 2x4 stud wall + 2 layers drywall. 7" Icynene spray

foam in cavity.

- Thermally broken R-28. 2x4 walls staggered, foam between king studs for extra thermal break.
- 12" Icynene on underside of roof in un-vented attic = R-45
- 4" maximum fly-ash concrete slab-on-grade foundation on top of 4" EPS insulation
- Triple pane windows