

Welcome to the Rodney Green Dog House!

Here is some information about this green house.

As we hope you noticed, there is a large solar tracking array that generates 3.6kw of electricity for our home. Everything in our home is powered by this renewable source. Even with the short days of winter, we have, so far, generated more power than we have used! If you go into the kitchen, you'll see an iPad running the SunPower application that shows energy consumption (gray) versus energy generated (yellow) for the day, month or year. Help yourself and play around with this fun app.

There are many reasons why even in the winter cold, we can generate more electricity than we use:

- High Performance Building Envelope includes 6" blown in cellulose and 2-3" of closed cell polyurethane spray foam totaling an approximate R-38 for exterior walls and R-50 for the roof
- Sierra Pacific Energy Star Rated windows, Solatube and Aerolenz skylights, insulated fiberglass exterior doors, under slab insulation and Insulated Concrete Form (ICF) stem walls
- Geothermal radiant heating and cooling system including (5) 200 ft. geo thermal wells and 5 ton heat pump. We are heating or cooling from underground temperature that is always around 55 degrees.
(http://www.consumerenergycenter.org/home/heating_cooling/geothermal.html)
- Energy Star Rated appliances, including Sub-Zero refrigerator (high-end appliance package)
- LED and CFL (Energy Star Rated) lighting and fixtures throughout

Because the house is so well sealed, our builder implemented the following:

- Air Energy Recovery Ventilation system, including dehumidification for radiant cooling during monsoon season
- Filtered air exchange system for indoor air quality
- Radon Mitigation System prevents radon gas infiltration
- Non-formaldehyde cabinetry, non-VOC paints and finishes, Tobias natural plaster
- Kiva fireplace with outside air vent and sealed, gasket glass doors
- Automatic garage ventilation system

We tried to use as much recycled materials as possible. These materials include:

- Recycled Quartz countertops
- Ceramic tile with high recycled content throughout
- Bamboo Cabinetry throughout
- Bamboo, cast iron and Swanstone sinks
- Cellulose insulation (recycled newspaper)
- Finger jointed studs for framing
- Recycled 200 year old vigas
- Trex (reconstituted wood) railings
- SYNlawn (recycled products and renewable resources) artificial grass

While we had to drill a well for our water, we still strive to use as little of this precious resource as possible. In terms of water efficiency, the home features:

- Dual flush toilets
- Waterless urinals
- Low flow faucets and showerheads
- Timed control hot water recirculation system
- Extensive rain barrels for roof catchment
- Whole house water filtration system
- Drinking water filtration system

We are also very proud of the outside, built-in banco (bench), which doubles as our doggy tunnel, featuring nano-gel pet flaps from Freedom Pet Pass Energy Efficient Pet Doors.

Our goal is to attain a *Gold* certification through Build Green New Mexico, utilizing the National Green Building Standard.