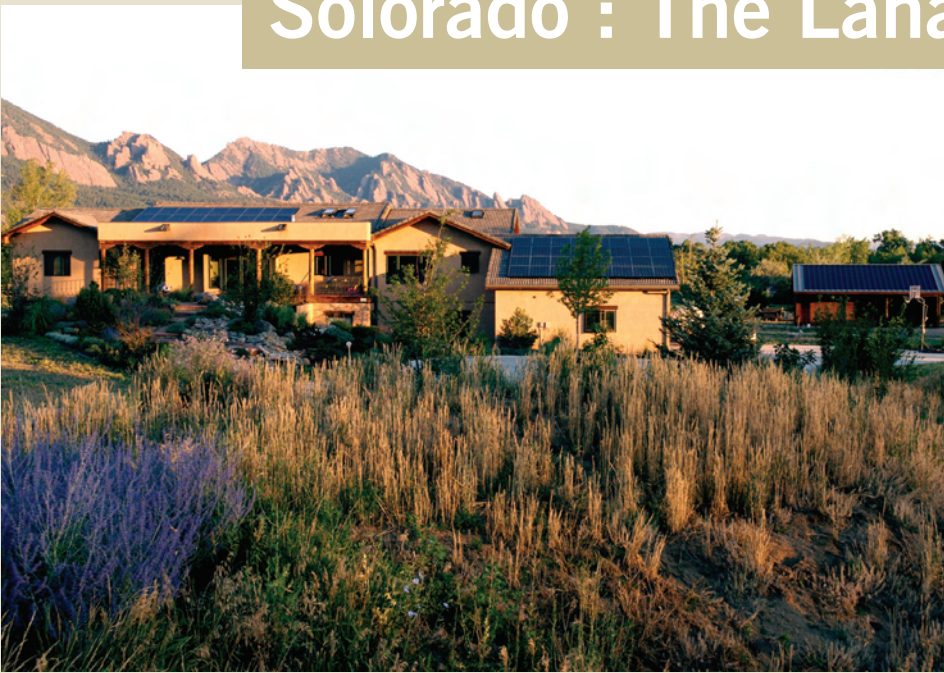


Solorado : The Laham Residence



Year Built 1975; renovation started in 2001

Home Size 6000+ Sq.Ft.

Contractors:

Sun Electric Systems

(see ad on page 35)

Next Generation Energy

(see ad on page 35)

Robert Howard Associates

Sustainability with a View

Darrell & Trish Laham

Like many people we have spoken with in Boulder, we first saw this property while riding our bikes to Eldorado Springs. We saw a beautiful Southwestern house that had been neglected, abused and orphaned in a two acre sea of weeds. In March 2005 we purchased it and have been working to restore and improve it since. We live here with our three young children. The offices of my renewable energy company Solorado, are also here.

We want this property to be a wonderful place to raise and teach our children. It is a luxurious home that in time (after the solar thermal is installed) will be near-zero energy use. We believe in being responsible for the energy that we use. Because we use a lot of electricity, and because we can afford to generate it cleanly ourselves, we decided to install the 3 large PV arrays (11.3 KW total). We integrated the arrays to look good with the tile roof of the house and garage, and with the metal standing seam roof of the barn.

My advice to homeowners thinking about solar thermal and PV is to collaborate

with a reliable Colorado installer if you can afford it—and it takes less to afford it now because of the rebates. If you can't justify the expense for your own home or office you should support utility scale renewable energy such as wind farms or concentrating solar power. It will take large investments in both types of infrastructure to reduce Colorado's severe over-reliance on coal & gas burning plants for our electricity production.



The Laham Family

ENERGY FEATURES

- 3 kW Unisolar building-integrated PV on barn
- 11.3 kW PV system, in 3 arrays, 1 grid-tied, 2 with battery backup
- Radiant floor and hot water base-board heating
- Lots of daylighting
- 11 ceiling fans
- 5-zone Mitsubishi room cooling system
- Extra high-density stucco

WATER FEATURES

- Xeriscaped garden

RE-USE/SALVAGE FEATURES

- House frame recycled from original 1975 structure
- Reused telecom batteries for PV backup