

CASE STUDY:

Hill 'n Dale Townhomes
San Diego, CA



The largest of the three systems has 36 Buderus SKN 3.0 collectors, and a 1,200 gallon Haase Energy storage tank.

System at a Glance

- Number of independent systems: 4
- 90 solar collectors in total
- 3,290 gallons of storage capacity in total
- Collectors: Buderus SKN 3.0 glazed flat plate
- Estimated Hot Water Consumption: 3,370 Gal/Day

Energy & Performance

- Annual natural gas savings: 15,624 therms
- Annual energy cost reduction: \$20,624
- Solar fraction of total energy required: 75%
- 25-year projected savings: \$1,304,000*

*Assumes a 7% annual increase in natural gas costs, and 25 year system life.

Environmental Benefits

Reduction in natural gas consumption: 15,624 therms/yr
Reduction in CO2 Emissions: 91 tons/yr.
Equivalent to removing 19 cars from the road.

About Adroit Solar

Adroit solar is the premier commercial solar hot water installer in southern California, with more large-scale solar domestic hot water systems installed in San Diego in the last 10 years than any other contractor.

If you have a need for a lot of hot water, and wish to reduce your utility bill, please call (858) 483-3568 or e-mail info@adroitsolar.com today!

Overview:

At the Hill 'n Dale Townhomes in San Diego, solar hot water systems had been installed in the late 70's, and were near the end of their useful life. It was a no-brainer for the board members to vote on implementing a new system.

Adroit Solar, a certified Vaillant Solar Systems installer, was contracted to design and install the four systems. In less than two months, the systems were up and running and the owners could not be happier. Jim McCorkle a board member of the HOA explains, "The systems were past end of life, and were leaking, partially plugged, and not working well anymore. The craftsmanship and attention to detail demonstrated by Adroit was exceptional. The new systems are now up and running, and are projected to provide over 75% of the energy for heating the water for the homeowners at Hill N' Dale."



Haase Energy solar storage tanks are un-pressurized fiberglass reinforced plastic. Modern materials eliminate rust and corrosion problems common with steel tanks, and extend the life of the system.

System Schematic

As the collectors are warmed by the sun, energy is absorbed by a fluid which is pumped through a heat exchanger in the solar tank. The energy in the tank pre-heats the water entering the existing water heating system, reducing gas consumption by approximately 65% on an annual basis.

