

USA: Centex - Avignon

BIODATA

PV community name: Centex - Avignon
Kind of urban area: Residential – urban
Main building type in community: Houses - single houses
New/Retrofit/Added: New district/community
Type of project: Commercial project
Start of operation: Year 2007
City, state, etc.: Pleasanton, CA
Country: USA
Latitude: N37 39' 44"
Longitude: W121 52' 28"

PV SYSTEM CHARACTERISTICS

Total PV power: 105 kWp DC
Number of houses/buildings: 30 single-family homes
PV power per unit: 3.5 kWp DC
Energy yield per year: 3456 kWh per system
Main PV system type: Grid-connected - demand side
Main PV application type: Inclined roof – PV roof tiles
Main PV module type: PV roof tile
Main PV cell type: Mono-crystalline silicon
PV module manufacturer/brand: Sun Power/SunTile
Inverter manufacturer/brand: -
Investment for PV systems: \$10 000-\$15 000 for PV and efficiency

OWNERSHIP

Building owner: Inhabitant
PV owner: Inhabitant
PV energy user: Inhabitant

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PV COMMUNITY DESCRIPTION

PV Community Brief

Avignon is a high-end home community, with prices starting at \$1,6 million. The homes are estate style homes, yet are a Centex "Powersave Plus" community. The homes start at 400 square meters and the land parcels are 1 200 – 2 400 square meters for 28 of the homes. Two homes are on parcels 10 000 – 20 000 square meters and have maintained vineyards. The community was marketed as "Sunshine and Wine". Pleasanton is a highly desirable community because of its public transportation connection to San Francisco, avoiding urban traffic problems

Grid issue

There were no specific grid issues. Pacific Gas and Electric has been interconnecting homes since California policy started in the mid 1990's. The homes were design to exceed the aggressive California Building Energy Code, Title 24, by 25%. Between the efficiency options and solar, the average monthly bill is reduced from \$134 to \$39.

California utilities are most interested in demand reduction and these homes have a peak demand of only 1 kW which is excellent for an estate style home.

Urban planning and architectural issues

Centex is one of the largest builders in the US, having built more than 33,000 homes in 25 states in 2005. This community was designed as a high end community bordering a California vineyard with very large land parcels. Alameda County also part of the Cool Counties Climate Stabilization Initiative.

Economic / financial issues

Incentives are available to builders and to home owners. In January 2006, the California Public Utilities Commission (CPUC) adopted a program—the California Solar Initiative (CSI)—to provide more than \$3 billion in incentives for solar projects with the objective of providing 3,000 MW of solar capacity by 2017 from residential and commercial projects combined. Homeowners will receive \$2.50/Watt AC for residential systems, with the incentives awarded as a one-time, up-front payment based on expected system performance. Several counties offer incentives to builders including free technical advice and waiving of fees on solar projects; some counties offer rebates to homeowners on solar equipment.

There is also the federal \$2,000 tax credit for homeowners who purchase solar electric and solar water heating systems as well as a \$500 tax credit for those who purchase energy-efficient equipment like furnaces, air conditioners and water heaters. Also, many utilities in California offer a rebate for energy-efficient construction, usually \$500 per house.

Other remarks

At a time when the housing market in the US is near a standstill, Centex like other builders finds the "Powersave Plus", which is efficiency and PV to differentiate its home product even in the high-end home market. Avignon like other solar communities sold out immediately.

COMMUNITY INFORMATION

Project leader company: Centex Homes

Other project company: ConSol

Project's www: www.centexhomes.com

<http://www.consol.ws/>