CODE

-2,943 kWh
126% SAVINGS

$1,750
110K Gal WATER

$-336
30K Gal WATER

ENERGY COSTS

Annual

Estimated
Natural Gas
5,089 kWh
0.16
$ 2,086
119 %

Heating Fuel Type
Electric
5,089 kWh
0.16
$ 2,086
119 %

Total converted kWh Site
Energy Use Intensity
W/hour/0cc
Solar PV Production
11,208 kWh
16.12 kBTUs/ft²
Total energy
11,208 kWh
16.12 kBTUs/ft²

Net kWh with Renewables
$1,750
0.16
$ 336
110K Gal WATER

Utility Rate per kWh
$ 0.16
$ 336
30K Gal WATER

Total (net) Energy Costs
$ 1,750
$ -336
2,086
119 %

How close? Within % of attaining Zero Energy (approx)

100 %

Zero E How close? Within 100%

ENERGY COSTS

$1,750
110K Gal WATER

$-336
30K Gal WATER

RENEWABLE ENERGY

Ownership
Documented
Solar PV system size
System PV annual production
Ann Prod Source
Ann Prod Source Detail
Documentation
Production as % required/year
Number Panels
Grid Integration
Panels - Yr Installed
Inverter Yr Installed
Array Orientation
Location
Cost New: Gross
Present Value
Present Value Date
Present Value Calc Source
Solar Installer Name
Solar Installer Email

Notes
Production is actually 140% of demand (1st yr). Net cost after rebates $13,264

ENCLOSURE

Air Leakage
CFM50
Air Tightness Improved
Air Changes/Hour @50
Tight/Leaky Visual Check

Air Seal
Attic
Walls
Floors
Mech System
Elect System
Soil Gasses

38
15
4

Insulation
Attic F/R Val
Attic F/R Type
Walls R Val
Walls Type

60
13
6

Insulation Exterior
Walls R Val
Walls Type
Foundation Perimeter R Val
Foundation Perimeter Type

8

Quality Insulation Inspection
Walls
Construction Type
Wall Thickness

2 x 4 Wood

Attic 1 Area

38
15
4

Attic 1 Type
Attic 2 Type

2 x 4 Wood

Energy Upgrade COMPLETED 06/01/2017

energydocshpc@gmail.com

GOALS Comfort, Energy Efficiency
SOLUTIONS Air Seal, Insulation, Ventilation,

E Doc D, Redding, CA 96003

5.3 kW Solar PV

Actual vs modeled E

2372 ft² CFA
YR Built 2017
SFR detached

Author AjO: Little
Role: HP Consultant

★ The existence of a feature does not guarantee optimum performance. Design, install, operations, each are essential.
See details of this project and others @ AjO.earth
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CFA

YR Built 2017
SFR detached

5.3 kW Solar PV

Actual vs modeled E

2372 ft² CFA
YR Built 2017
SFR detached

Author AjO: Little
Role: HP Consultant

★ The existence of a feature does not guarantee optimum performance. Design, install, operations, each are essential.
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<td>1st Foundation Type</td>
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<td>Foundation Thermal Boundary Enclosure</td>
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<th>WATER</th>
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<tr>
<td>Fuel Type</td>
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Year Installed: 2017
Rated Efficiency: 60%
Location: Conditioned space

Hot Water Distribution
Type: Trunk & Branch
# Cups to deliver hot: 12
# Seconds to deliver hot: 6

WATER EFFICIENCY
Efficient Fixtures:
- Kitch faucet: ≤ 2.0 GPM
- Dishwasher: ≤ 1.5 GPM
- Showers: ≤ 2.0 GPM
- Toilets: ≤ 1.28 GPM

Exterior:
- Climate approp. Indscp
- Irrigation: low-water Turf: ≤ 25%

Water Consumption annual
- Water Consumption Total: 110,000 gal
- Water Savings: 80,000 gal
- Water Savings: 73%

INDOOR AIR QUALITY
Interior Air is Filtered at
- Filter Type: Pleated
- Filter Thickness: 2 in
- Filter Size (inches): 20 X 30

Moisture Control:
- Vapor Retarder installed
- Capillary Break installed
- Other Moisture Ctrl Strategies

Materials:
- Low Formaldehyde wood
- Low/No VOC paints/finishes
- Low/No VOC Sealants

LIGHTING
≥ 90% Energy Efficient

Appliances:
- Refrigerator Energy Star CEE Tier: 4+
- Washer Energy Star CEE Tier: 4+
- Dryer Energy Star CEE Tier: 4+

IF SOLD
Project Budget:
- Energy Efficiency: $40358
- Total: $40358

VALUATION
Cost Approach:
- Remaining Effective Life:
  - REL Enclosure: 75 yrs
  - REL Heat: 20 yrs
  - REL Cool: 20 yrs
  - REL Ventilation: 20 yrs
  - REL Water Htr: 15 yrs
  - REL Mech Systems Total: 20 yrs
  - REL Enclosure: 100 yrs
  - REL Heat: 25 yrs
  - REL Cool: 25 yrs
  - REL Ventilation: 25 yrs
  - REL Water Htr: 25 yrs
- Income Approach: Present Value
  - PV Enclosure: $33325
  - PV Mech Systems: $2250
  - PV Solar: $17600
  - Present Value Total: $53175

PV of Energy Savings Inputs:
- Solar calcs: PValue pdf

Notes:
$ savings from energy efficiency measured in first year $980/yr. This amount will increase relatively as energy costs rise.

GREEN CERT
3rd Party Inspected:
- Status: Passed
- Entity: HERS
- Date: 05/01/2017
Photo Gallery Pg 1

House front

Advanced framing, less wood

5.3 kW Solar PV

Fujitsu 3/4 ton mini-split heat pump: heating & cooling

Monthly energy - end uses. Measured

Actual compared to modeled