

SOLAR PRODUCTION REPORT

Project: Residential Solar Installation

Property Address: 123 Sunshine Avenue, Solar City, CA 94123

Customer: John & Sarah Anderson

System Size: 8.4 kW DC / 7.2 kW AC

Report Date: October 15, 2023

SYSTEM PERFORMANCE SUMMARY

Page 1 of 3: Production Overview

This report provides detailed production data and performance metrics for the installed solar photovoltaic system at the above address.

PRODUCTION SUMMARY:

- System Commissioned: April 10, 2023
- Days in Operation: 188
- Total Energy Generated: 7,438 kWh
- Average Daily Production: 39.6 kWh
- Peak Daily Production: 56.2 kWh (June 21, 2023)
- Estimated Annual Production: 12,870 kWh
- Performance Ratio: 98.3%
- CO₂ Emissions Avoided: 5.37 metric tons
- Equivalent Trees Planted: 88

MONTHLY PRODUCTION ANALYSIS

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Page 2 of 3: Monthly Performance Metrics

MONTHLY PRODUCTION DATA:

April 2023: 834 kWh (21 days)

May 2023: 1,364 kWh

June 2023: 1,532 kWh

July 2023: 1,620 kWh

August 2023: 1,487 kWh

September 2023: 984 kWh

October 2023: 419 kWh (15 days)

PERFORMANCE METRICS:

- Specific Yield: 4.71 kWh/kWp/day (average)
- System Efficiency: 19.8%
- Performance Index: 1.04 (exceeding projections by 4%)
- Sunny Days: 142
- Partially Cloudy Days: 38
- Cloudy Days: 8
- Hours of Production: 2,444
- Average Daily Sunshine Hours: 13.0
- Grid Outages: 1 (4 hours on July 23, 2023)

FINANCIAL & ENVIRONMENTAL IMPACT

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FINANCIAL PERFORMANCE:

- Energy Cost Avoided: \$2,418.35
- Average Monthly Savings: \$402.89
- Utility Rate: \$0.325 per kWh
- System Cost: \$24,500 (after incentives)
- Payback Period Projection: 6.2 years
- 25-Year Savings Projection: \$92,750
- ROI: 378% (over 25 years)

ENVIRONMENTAL IMPACT:

- CO₂ Emissions Avoided: 5.37 metric tons
- Equivalent in Gas-Powered Cars: 1.17 vehicles off the road
- Equivalent in Miles Driven: 13,483 miles
- Equivalent in Coal Burned: 5,924 pounds
- Equivalent in Smartphones Charged: 657,184
- Carbon Sequestration Equivalent: 88 trees grown for 10 years
- Water Saved (vs. fossil fuel generation): 4,163 gallons
- Landfill Waste Avoided: 1,823 pounds