

Residential PVT System | Bradenton, FL

Introduction

In 2016, Mirasol FAFCO Solar installed a CoolPV® system on a Florida residence owned by Jerry Pollard. Pollard's system is comprised of 40 275 Watt CoolPV panels.

FAFCO CoolPV is an enhanced solar electric panel that generates electricity and heats water using the same valuable roof space, a technology known as Photovoltaic-Thermal or PVT. It can produce up to four times the power of PV alone. Because CoolPV cools the solar electric module, CoolPV can generate up to 20% more electricity than standard PV systems. CoolPV allows customers to save money while increasing their home value with an environmentally friendly and innovative product.

System Performance

In the first year, the system produced 18 MWh of electricity. Additionally, 31 MWh of thermal energy was produced to heat his swimming pool. The system produces 12% more electricity per year than estimated with a standalone PV system.



Contact Information

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Energy Production			
	ESTIMATED	ACTUAL	BONUS
ELECTRICITY	16,500 kWh	18,400 kWh	12%
THERMAL	31,000 kWh – ACTUAL		
COMBINED	49,400 kWh - ACTUAL		

Electricity production estimated with pvwatts.nrel.gov

Energy Equivalencies		
	Electricity	Electricity and Thermal Combined
Metric Tons of CO2 Saved	13.7	36.8
Pounds of Coal Burned Saved	15,000	40,200
Equivalent Acres of U.S. Forest	16	43

Energy Equivalencies Found at www.epa.gov

System Information

Location:	Bradenton, FL
Application:	Swimming Pool Heating / Grid-tied
Rated Power Output:	57.8 kW Combined
Swimming Pool Surface	392 ft ² (15,000 gallons)
Solar Panels	40x FAFCO CoolPV® 275W
Panel Orientation Details	12 at 245°, 28 at 155° All 40 at 18° tilt
Yearly Energy Output:	49.4 MWh (31.0 Thermal, 18.4 Electrical)
Yearly CO2 Reduction:	84,000 lbs
System Format:	Drainback system
Backup Heating:	Heat Pump

