

Performance of CIGS flexible module arrays on different field mountings

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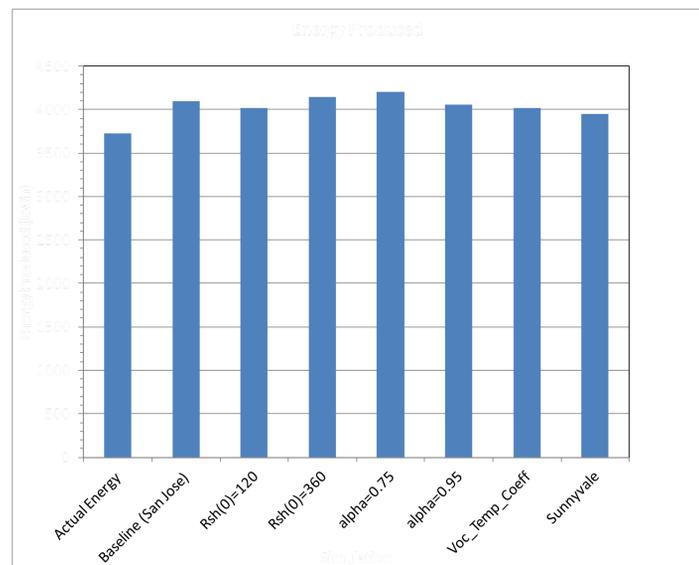
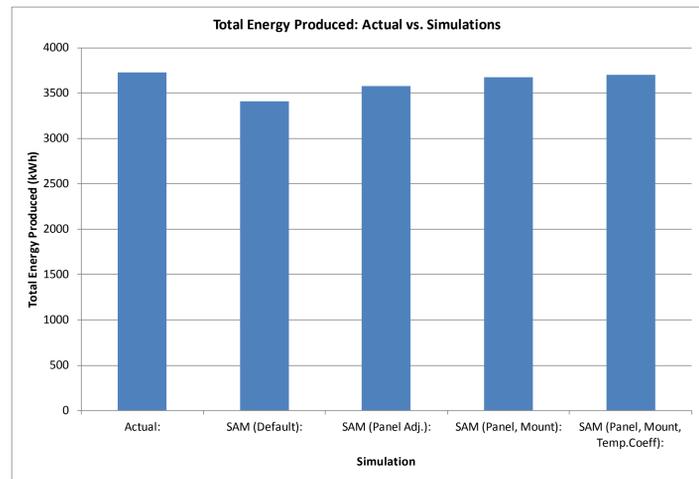
Solopower, 5981 Optical Ct., San Jose, CA 95138

Introduction

- Three Flexible Arrays have been studied with different mountings:
 - Standing Seam Metal Roof (SSMR)
 - Metal brace with open rack ("Solobrace")
 - TPO membrane stuck to Asphalt roof
- System Advisor Model (SAM) and PVSyst software programs have been used for simulations.

SAM and PVSyst Simulations

- Simulations were performed with different methodologies and successive simulations closely matched the actual energy produced.
 - Graphs shown for Solobrace Mounting



Photos

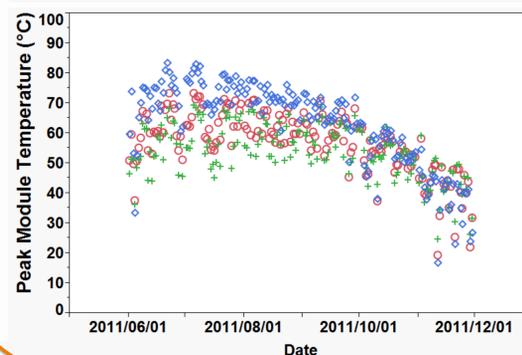
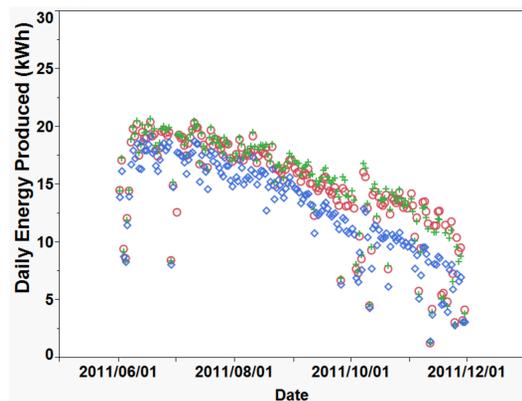
SSMR

Solobrace

TPO

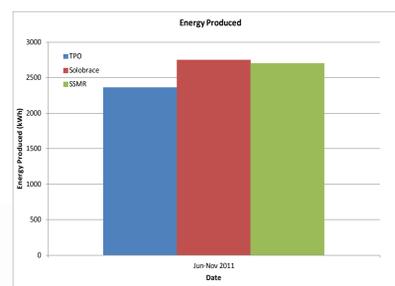


Energy Produced & Peak Module Temperature



- SSMR
- + Solobrace
- ◇ TPO

Conclusion



- TPO (0° tilt) the hottest in summer, Solobrace (Rack-mount, 17° tilt) is the coolest.
- Performance Ratio of TPO is 93% of that of Solobrace (rack-mount) over Jun-Nov 2011.