

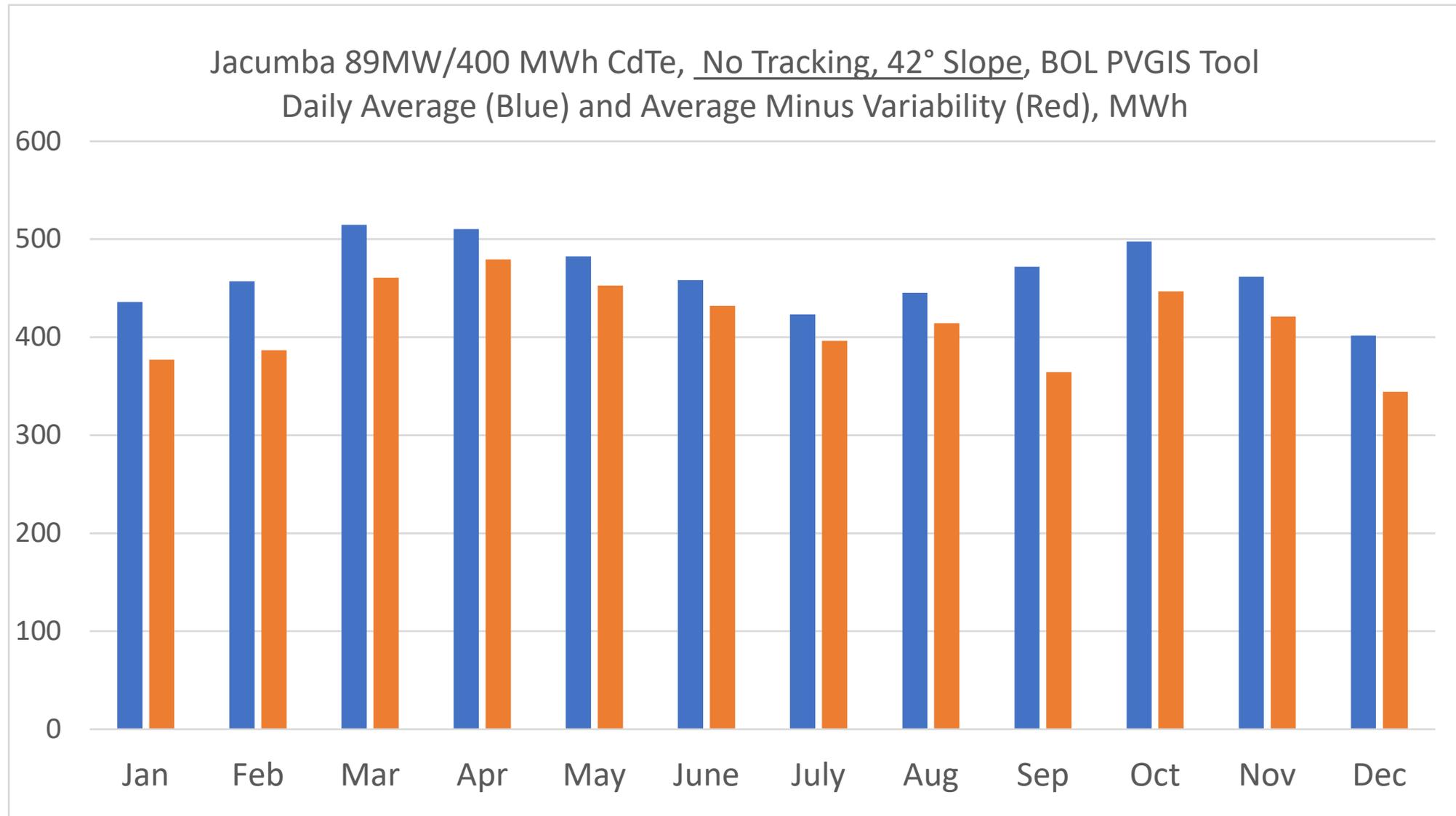


# Public Discussion—SDCP BOD

May 26, 2022

- Hypothetical Hybrid 90/360 Solar Array Topology Comparison

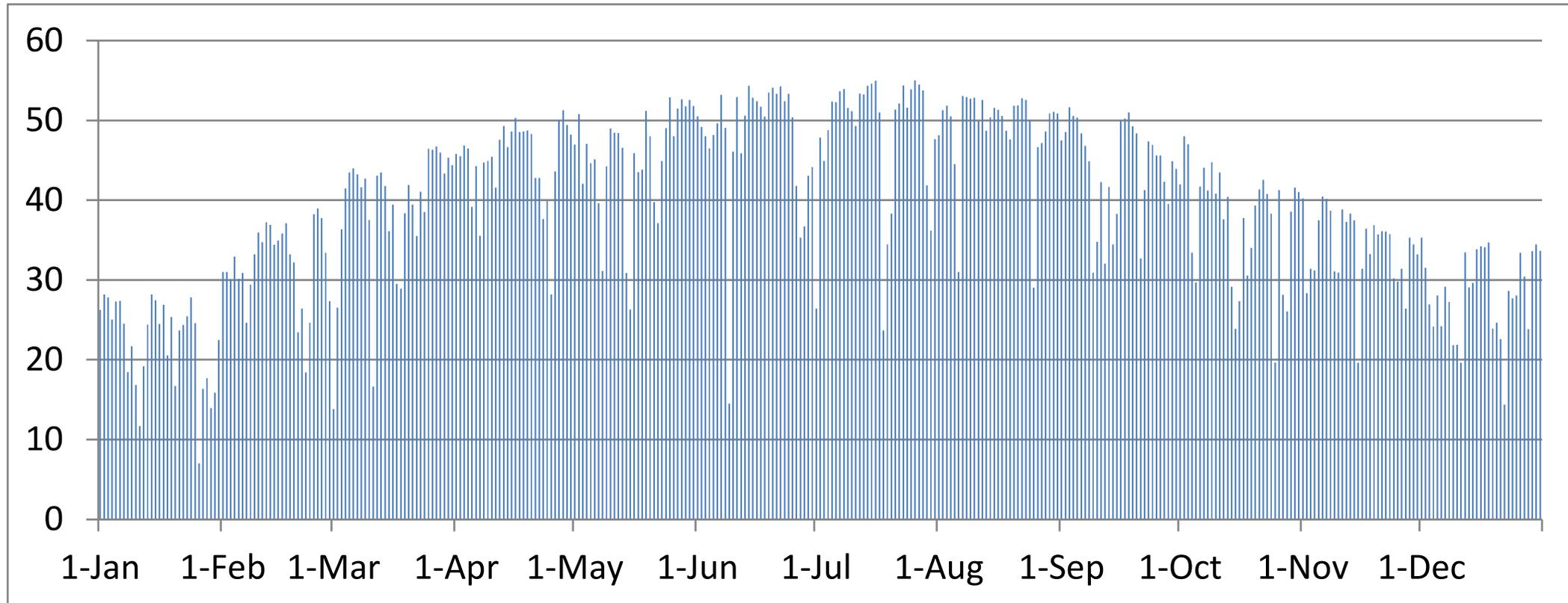
Dave Peterson  
Retired Engineer



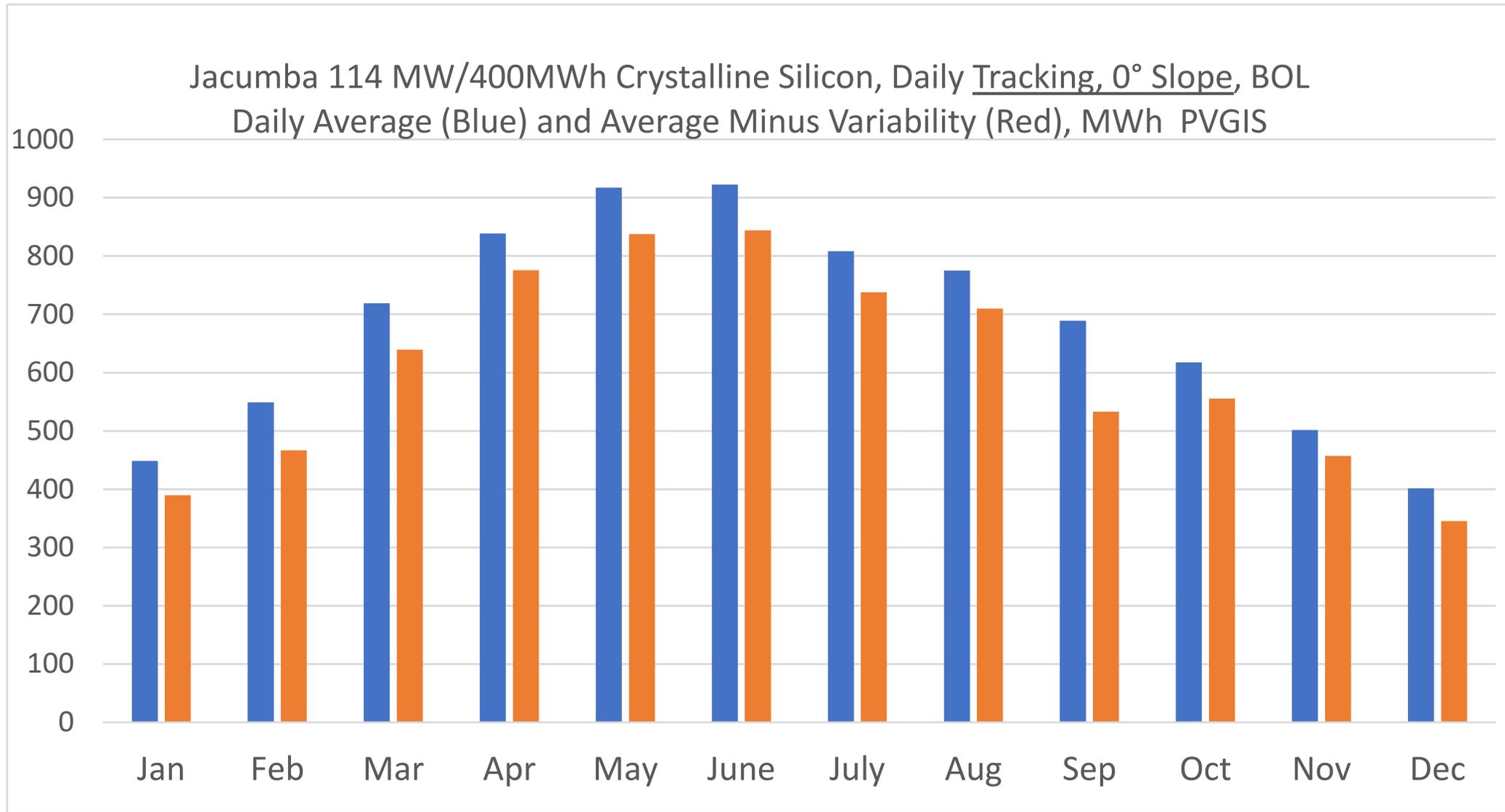
- Land use of less that 0.5 square miles



# Daily PV GWh -2015 CAISO Renewables Watch



- Dec/Jan storm loss clearly visible, 10 months have excess solar



- Extra “free” over-generated electricity competes with the electricity being produced by solar-only farms and home rooftops



# Summary of Makeup Electricity CO2 Emission Weight for 4 Cases

Renewable Source	Natural Gas Plant Makeup Electricity Emission (mtCO2/10 years)	Car Equivalent @ 2 tons per Car
Hypothetical 50 MW Wind Farm Using 2014 MISO Wind Profile with 30 MW Truncation to increase Capacity Factor (see April 28 comments)	540,000	270,000
Topology 1, Hypothetical Non Tracking Jacumba 90/360 Farm Using CAISO 2015 PV data to calculate winter CO2 emission	26,280	13,140
Topology 1, Use of overgenerated electricity during the day, Using Natural gas generation for nighttime	1,167,782	583,891
Topology 2 (Page 4) , Hypothetical Tracking 104 MW Jacumba Hybrid 90/360 Farm using 2015 CAISO PV data, winter makeup	26,280	13,140
Topology 2, Use of overgenerated electricity during the day, Using Natural gas generation for nighttime	2,210,769	1,105,385