

Public Discussion—SDCP BOD – May 25, 2023

Recommendations for PGE Solar PPAs



Strategic Plan recommendations for PGE solar renewables

- Assumes either Topaz or Agua Caliente are available (both PGE PPAs)
- Today, both Farms were designed to provide Max MWh/year (Spring/Summer peak), their Winter power nosedives
- Inexpensive "Long term" storage capability is still to be demonstrated
- Realistically, this requires fossil fuel generation for power makeup during the winter, starting with PPA transfer and running out to the 2040's

Strategic Plan recommendation

- Both farms could be upgraded by removing alternate East to West rows and adjusting panel slope, 58° for Topaz, 54° for Agua Caliente
- Slope adjustment provides maximum December MW
- Removed panels would be relocated to a new "Relocated Panels" farm
- Construction done over several Spring seasons provides USA jobs
- Either site could then be upgraded into a "Hybrid" farm, grid friendly
- Available during evening peak price, low CF period

With the slope modification –Both sites could then meet the "100% Renewables by 2035" requirement with minimum overgeneration

PGE PPA Site Details



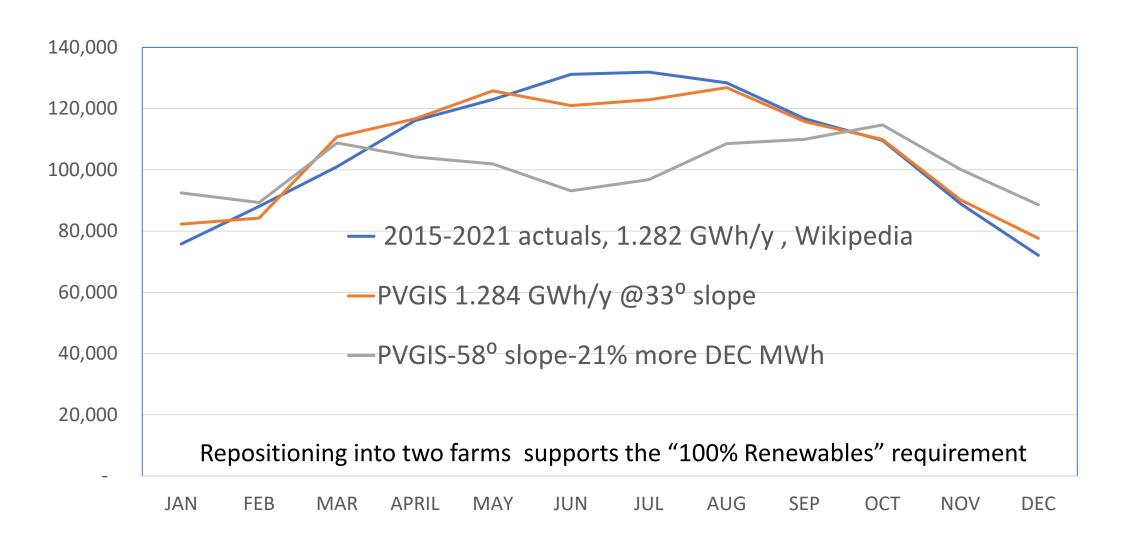


- Topaz, 690 MW, PGE PPA with Berkshire Hathaway
- 51 miles east of San Luis Obispo
- Expensive, \$3.62/W, E-W rows
- Agua Caliente, 370 MW, PGE PPA with NRG Energy
- Located north of Dateland AZ- Southwest Power link
- More Expensive, \$4.86/W--Goofy 16° azimuth angle
- Both have Max Annual Energy (MAE) @32° slope
- CdTe Panels were "Made in the USA"

Detailed Wikipedia Monthly data review for both shows robust power history -25-year refinancing?



Topaz Solar Farm, 1,282 GWh/y, \$3.62 per Watt





Agua Caliente Dateland AZ Solar Farm 374 MW, 727 MWh/y, \$4.81/Watt

