



Public Discussion—SDCP-- April 21, 2023

- Strategic Planning Meeting Comments
 - Agenda item, DER Plan
 - Agenda Item, Plan Modifications

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Add a Study to the DER Plan: MUD EV charging

- 46% of San Diego householders live in Multi-Unit Domiciles (MUDs)
 - Grid provides household power, MUD roof area is insufficient
- Most older MUDs have no EV charge stations
- So , most San Diego MUD dwellers will not buy EV's
- SDG&E's Power Your Drive (PYD) MUD ports cost \$23k (2019 Avg)
Averaged 25 MUD sites per year (2016-2019), 10 ports per site
- The 2019 PYD charge port capacity factor was 0.03 (3040 ports)
- For 20XX: Find a way to get HOA Board/apartment owner financing to add solar roofs for MUD outside lights, pool, laundry and 2 to 6 charge ports



Add a Study to Modify the Plan: Use of Repurposed EV Battery Modules

- The use of retired, repurposed EV battery modules has been proposed to reduce Hybrid farm battery cost
 - Goal: Extend EV battery module life another 10 years?
- If the savings are sufficient, PPA procurement of Hybrid batteries without subsidies might be feasible (A Long Shot)
- Study partners should include Arevon and, most importantly, Tesla
- Include a few Demonstration Modules (from collisions?) in a Vikings Megapack?

- Clarify the strategy for using repurposed modules in Hybrid farms
- Enhances the chance of meeting the SDCP 2035 goal
- https://calepa.ca.gov/wp-content/uploads/sites/6/2022/05/2022_AB-2832_Lithium-Ion-Car-Battery-Recycling-Advisory-Group-Final-Report.pdf



Add a Study to Modify the Plan: Reduce Geothermal Risk

- Geothermal electricity production would be desirable for the 20xx plan
 - Don't know yet whether repurposing EV batteries is going to be viable
- History-ORMAT's Brawley Complex
 - In 2012,—Corrosive brine and insoluble solids caused injection pump failures
 - Original PPA was for 50 MW, Currently producing 7 MW,
 - Ormat took a \$200M charge against earnings
- Fund ORMAT to further “Study” the Brawley problem. Study would:
 - Purge the corrosive reservoir portions with freshwater to reduce insoluble solids
 - Support well drilling if needed
 - Continue the purge until acceptable brine quality and required flow are achieved
 - Dispose of the sludge!! Next Slide
- 50 MW times 24 hours/day =1200 MWh- Equivalent to Two (2) Vikings
- Not an option if there is a risk to existing 7 MW SCE production, 2031 PPA, find another reservoir



Sludge Disposal

- First store the sludge in a catch basin
- Compact it through evaporation
- Send it to Nevada in barrels to the nuclear waste site? Probably not
- Instead of Nevada, transport and pump it back underground into a geothermal reservoir that is already thermally depleted
 - There would be no requirement for continuous operation
 - Find a pump that only breaks down once-in-a-while
- Get it all planned and approved beforehand