



Rancho Seco Solar Ecosystem Services Assessment

Isn't it funny how some things can sound so technical, yet be so beautiful? How would you describe a project that nurtures butterflies, grows flowers, feeds farm animals and supports some of the richest agricultural land in California?

In early 2020, we completed an assessment of the options and operational issues involved with the integration of ecosystem services into the Rancho Seco II Solar Project. Elements of the project, as well as research to evaluate its effectiveness, will be implemented beginning in 2021. This is a unique opportunity to evaluate long-term, land-based carbon storage benefits; create vital pollinator habitats; support working lands and agricultural values; and enhance multiple ecosystem services across this solar site. Our proposed project scope includes:

- Seeding California Central Valley prairie plants
- Planting hedgerows of native flowering shrubs around perimeters of solar arrays and access roads
- Implementing prescribed sheep grazing for weed management within solar array fields
- Rehabilitating soil to support successful seed germination
- Testing the impact of solar panels on milkweed, a critical habitat for the monarch butterfly

These native plants trap carbon in their extensive underground root systems, which can actually remove greenhouse gas emissions from the atmosphere!

We conducted this initial technical assessment of project options in partnership with our Power Generation staff and the third-party developer of the site DESRI Renewables. Our inquiries even inspired the developer to plan for grazing at the site, instead of spreading herbicides and mowing.

We also actively participate in EPRI's Power in Pollinators initiative, which promotes and supports pollinator conservation among energy utilities. The partnership shares the latest scientific findings, case studies and tools to assist with the integration of pollinator-friendly practices into utility vegetation, facilities and land management.

If this work is successful, we can potentially expand its scope to help improve agricultural yields and sustain our local food supply.