Kaukonahua Solar – Low and Moderate Income (LMI) Community Based Renewable Energy Engagement Meeting

January 9, 2023

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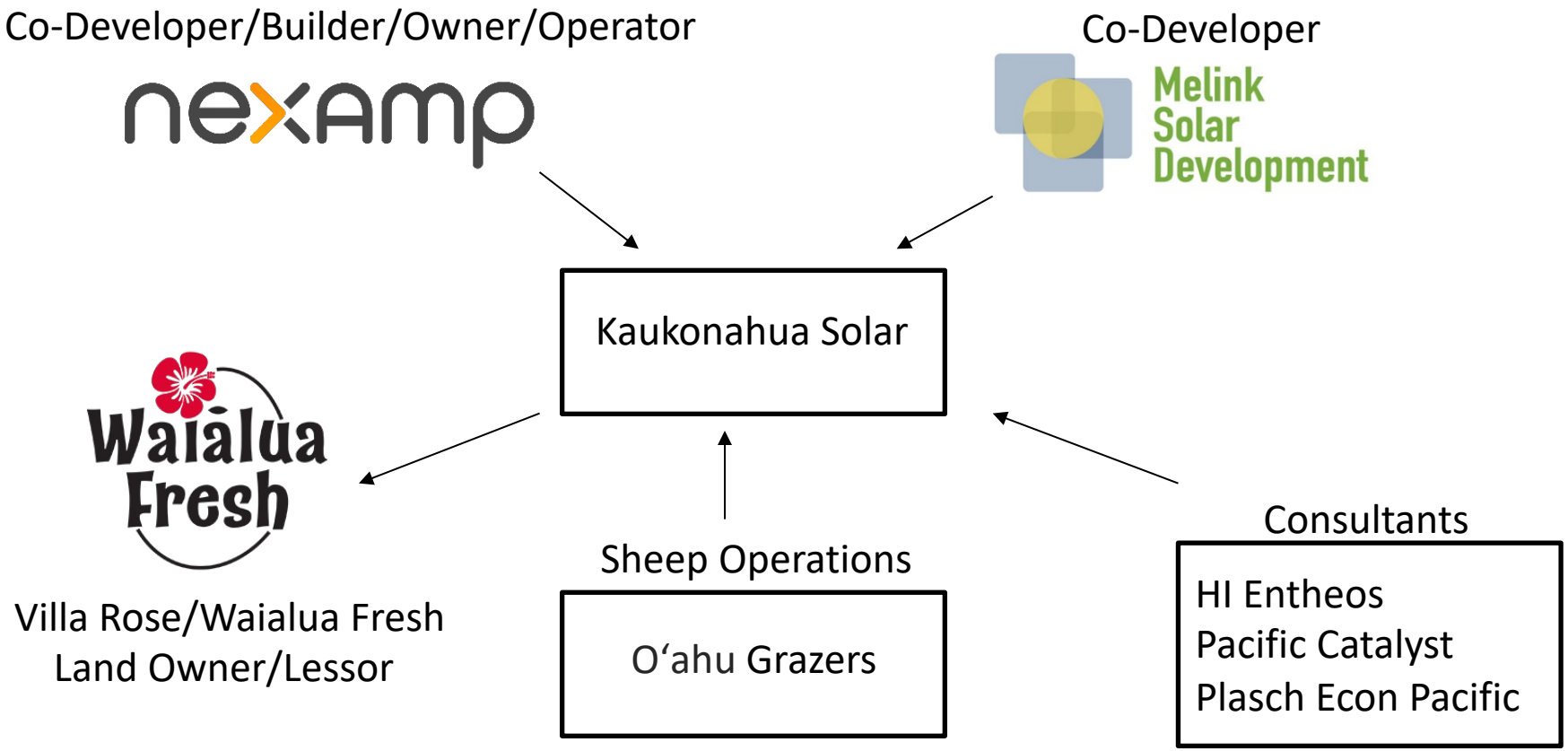
Introductions – Kaukonahua Solar + Sheep Farm Team

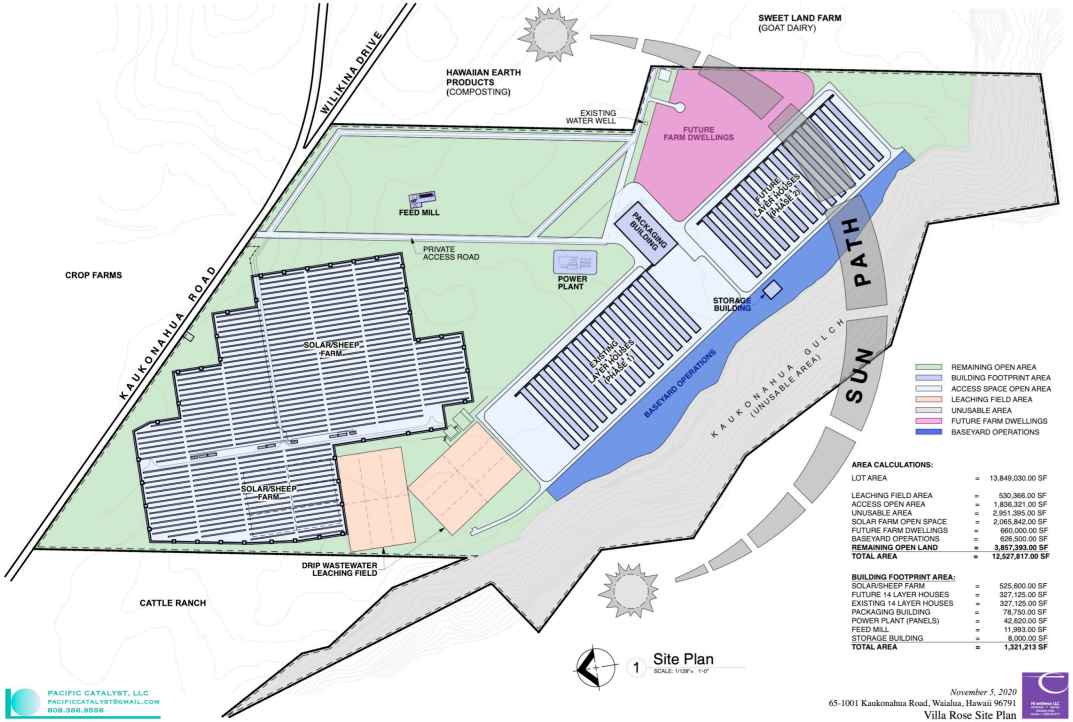


Villa Rose/Waialua Fresh

- Hidden Villa Ranch and Rose Acre Farms formed Villa Rose 10 years ago.
- Waialua Fresh is the egg brand.
- Farm was built to generate positive, measurable social and environmental impact giving back to the community and the land that has hosted it.
- Main goal is to help Hawaii rely less on egg imports (one day replace all the eggs coming from the Mainland).
- Waialua Fresh is completely off-grid operation
  - Solar Powered
  - Energy Independent
  - Carbon Neutral
- The farm is expected to create 125 temporary jobs during the construction phase and at the full build out, create 65-75 permanent jobs.

Villa Rose/Waialua Fresh (continued)

- Chicken waste is being processed into carbon-rich fertilizer that is distributed and shared locally.
- Wastewater is used for irrigation, so there is zero runoff.
- Villa Rose is committed to helping provide renewable energy options to the local community.



Kaukonahua Solar + Sheep Farm

- 6-Megawatt (AC) solar on 60-acre easement
- Dual-use solar and agriculture project
  - › Agriculture options are limited to prevent chickens from contracting bird flu; cannot grow crops that would attract diseased pests (egret, mongoose)
- Solar panels covering < 5 acres of 60 acres
  - › 52-degree tilt, tracking path of sun
  - › Less than 10% of site
  - › Remaining open space within fenced boundary for sheep grazing
- Can host 200 lambs/year
  - › Fresh meat will be supplied to O‘ahu restaurants and markets
- Project will serve surrounding low-to-moderate income families (approx. 1,100 homes) with monthly electricity savings for 20+ years

Kaukonahua Solar + Sheep Farm (continued)

- Permitting and Utility Commission Review – 02/2023 to 06/2024
  - › Special Use Permit - DPP, Planning Commission, Land Use Commission
  - › Conditional Use Permit
  - › DLNR - Dept of Land and Natural Resources
  - › SHPD - State Historic Preservation Div
- Interconnection Review – 02/2023 to 11/2025
- Construction/Commissioning – 08/2024 to 11/2025
- Website - nexamp.com/kaukonahua-road-solar

Community Benefits

- Villa Rose/Waialua Fresh
  - Increasing local food production
  - Job creation
  - Economic development
  - Sustainable approach to operations, providing care for natural resources

- Kaukonahua Solar + Sheep Farm
  - Supplemental support to egg farm construction and operations
  - Provides clean energy at guaranteed savings to LMI households under the CBRE program
  - Dual-use approach within project footprint preserves agricultural use of the land
  - Increases local meat production
  - Job creation (including local labor and prevailing wage commitments)
  - Educational and job-training opportunities

Community Based Renewable Energy (CBRE) – LMI O‘ahu

Melink Solar Development

Hawaiian Electric

NEWS RELEASE

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FOR IMMEDIATE RELEASE

Hawaiian Electric announces 7 solar projects to benefit low- and moderate-income customers on O‘ahu, Hawai‘i Island and Maui

HONOLULU, Nov. 22, 2022 – Hawaiian Electric has selected seven solar projects on O‘ahu, Hawai‘i Island and Maui to be the first on each island to offer the shared solar program (also known as community-based renewable energy or CBRE) to help lower the electric bills of customers who meet low- and moderate-income (LMI) levels and are unable to install privately-owned rooftop solar.

A competitive bidding evaluation process, which accounted for the cost of the projects as well as non-price factors including community outreach, was used to evaluate the proposals. On O‘ahu, a shared solar LMI project co-developed by Nexamp Solar and Melink Solar Development was selected. On Hawai‘i Island and Maui, three projects on each island were selected, all of which are being developed by Nexamp Solar. Next, Hawaiian Electric will work with the selected developers to finalize the 20-year contracts.

Once the projects are available on Hawaiian Electric’s CBRE Portal, LMI customers – including those who are renters and apartment residents – may become “subscribers” to a facility on their respective island. Once the projects are built and online, the subscribers receive credits on their monthly electricity bill based on their level of participation in the following projects:

Island	Project	CBRE Megawatt Capacity	Project Website
O‘ahu	Kaukonahua Solar	6 MW (Solar only)	nexamp.com/kaukonahua-road-solar

CBRE – LMI O‘ahu (continued)

- Act 100 of Hawai‘i State Legislature directed Hawai‘i Public Utilities (PUC) to establish a “community-based renewable energy” tariff (Section 269-27.4, Hawai‘i Revised Statues).

- The stated intent of the program is “to make the benefits of renewable energy generation more accessible to a greater number” of Hawai‘i residents and businesses who would otherwise be unable to directly participate in renewable energy generation for reasons such as lack of up-front capital for their own renewable energy system; building or home location, which may not receive enough sunlight or may be located on a saturated circuit; building type or roof design that may not be able to physically support the solar panels; proximity or other limited access to the utility grid; and/or property ownership status (e.g., renters, lessees).

- A **Subscriber Organization** is a company, organization, or group of people who owns, develops, or operates a CBRE project in an electric utility’s service territory.

- A **Subscriber** is a customer (in the service territory of the same electric utility) who agrees to pay a Subscriber Organization for a portion of the output from the Subscriber Organization’s renewable energy project. These credits are applied to the Subscriber’s electric utility account to offset a portion of the Subscriber’s electricity bill.

- It is important to note that Subscribers purchase the renewable energy credits from a Subscriber Organization and the electric utility applies those credits to the Subscriber’s electric bill.

Source: Hawai‘i State Energy Office

CBRE – LMI O‘ahu (continued)

- ✓ Subscribers will enter a “Subscriber Agreement” with Kaukonahua Solar
- ✓ Kaukonahua Solar will sell the kWh generated to Hawaiian Electric
- ✓ Hawaiian Electric will convert the purchased kWh to a dollar amount
- ✓ Subscribers will receive a credit from Hawaiian Electric based on their share of Kaukonahua Solar - deducted from monthly utility bill
  - ✓ based on a preset credit rate, the amount of electricity generated and the size of the customer’s subscription

How It Works

community solar with nexamp

- ✓ Guaranteed discount
- ✓ No upfront costs
- ✓ No cancelations fees
- ✓ No long-term commitment; can cancel with 90 days' notice
- ✓ No credit check or FICO score requirement

CBRE – LMI O‘ahu (continued)

- Households in Honolulu County spent an average of 1.5% of their income on electricity bills.

- The electricity burdens were 8.7% for households earning below 30% of Area Median Income (AMI) in Honolulu County.
  - There are 45,812 households in Honolulu County that are earning below 30% of AMI

- The electricity burdens were 12.4% for households with income below Federal Poverty Level (FPL) in Honolulu County.
  - There are 29,269 households in Honolulu County with income below FPL.
  - For households below FPL, % of income spent on electricity ranges from 11.4% to as much as 15.8% depending on owner vs rental and single-family home vs condo

- Big opportunity to help these households to reduce their overall electricity burdens via a CBRE project

Source: Electricity Burdens on Hawai’i Households: DBEDT STATE OF HAWAII July 2021 and U.S Department of Energy, Office of Energy Efficiency and Renewable Energy. (2020) Low-Income Energy Affordability Data – LEAD Tool – 2018 update

CBRE – LMI O‘ahu (continued)

Table 5. Average monthly electricity cost and electricity burden: Honolulu County

Household Type		Housing count[1]	Average annual income	Average monthly electricity cost	Average electricity burden[2]
All households		311,525	$102,561	$130.8	1.5%
House tenure	Owners	173,697	$129,087	$139.2	1.3%
	Renters	137,828	$69,131	$120.3	2.1%
Building structure[3]	Single-family house	187,481	$124,425	$150.1	1.4%
	Condo/apartment	123,653	$69,597	$101.8	1.8%
Area median income (AMI)	100%+ AMI	124,235	$178,038	$145.9	1.0%
	80-100% AMI	37,256	$92,392	$135.5	1.8%
	60-80% AMI	41,400	$69,202	$129.0	2.2%
	30-60% AMI	62,822	$44,816	$120.8	3.2%
	0-30% AMI	45,812	$14,315	$103.3	8.7%
Federal poverty level (FPL)	400%+	143,992	$159,094	$135.8	1.0%
	200%-400%	95,861	$76,252	$137.3	2.2%
	150-200%	22,805	$39,320	$121.8	3.7%
	100-150%	19,597	$27,677	$113.2	4.9%
	0-100%	29,269	$10,018	$103.8	12.4%
All households below the Federal poverty level					
House tenure	Owners	7,687	$8,867	$117.0	15.8%
	Renters	21,582	$10,428	$99.1	11.4%
Building structure[3]	Single-family house	10,653	$12,217	$137.3	13.5%
	Condo/apartment	18,521	$8,799	$84.8	11.6%

1. The sums of housing units of some subgroups are not necessarily equal to total housing units due to rounding.
2. Household electricity burden is the percentage of household income spent on electricity bills. It is calculated as the ratio of the average annual electricity cost to average annual household income for each household group.
3. A small number of other building structures, including mobile homes, trailers, boats, RVs, vans, etc., are excluded from this table.

Source: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy. (2020). Low-Income Energy Affordability Data - LEAD Tool - 2018 Update.

Source: Electricity Burdens on Hawai’i Households: DBEDT STATE OF HAWAII July 2021 and U.S Department of Energy, Office of Energy Efficiency and Renewable Energy. (2020) Low-Income Energy Affordability Data – LEAD Tool – 2018 update

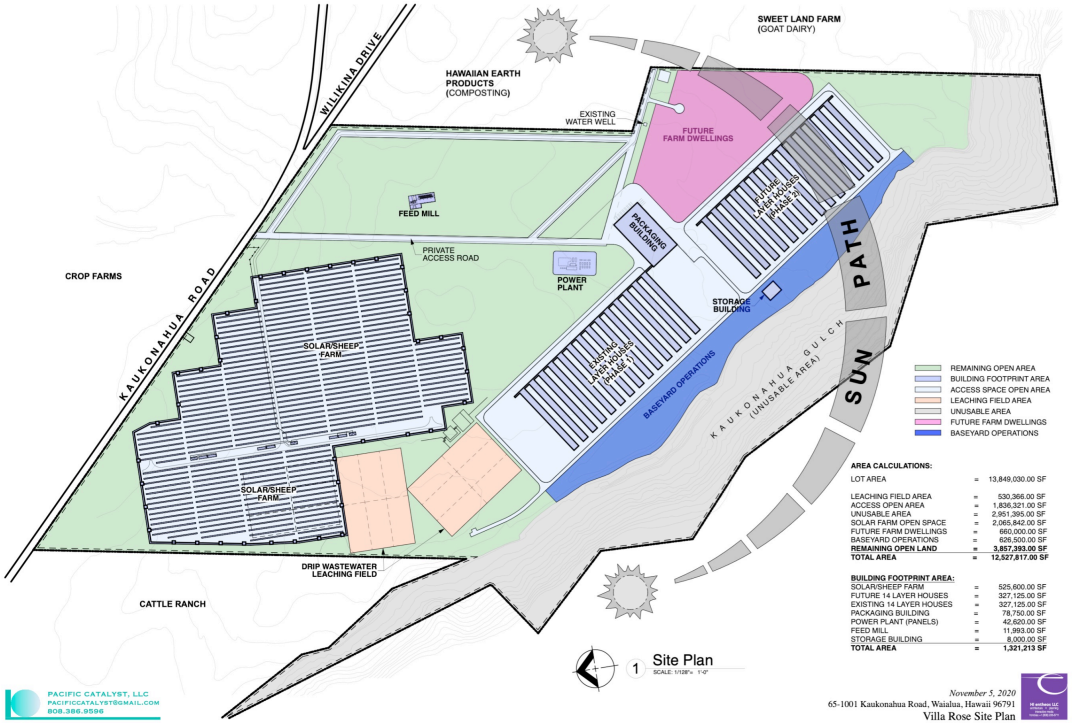
Agriculture Report

- The project will occupy 60 acres within the 318 acres parcel owned by Villa Rose LLC d/b/a Waialua Egg Farm
  - Waialua Egg Farm = 102 acres at full development
  - Livestock grazing/other = 88 acres
  - Leach field = 12 acres
  - Gulch land = 68 acres (unusable)

- The project site has favorable agricultural conditions for both crop farming and livestock grazing.

- Only livestock grazing would be compatible with Waialua Egg Farm because of the biosecurity risks to the chickens.

- For the foreseeable future, the highest and best agricultural use of the project site- as well as other Villa Rose agricultural lands not used for the egg farm- will be livestock grazing.



Source: Draft Kaukonahua Solar/Sheep Farm at Villa Rose: Impacts on Agriculture Report – Plasch Econ Pacific LLC

Agriculture Report (continued)

- Kaukonahua Solar will enter into a contract with O‘ahu Grazers for sheep grazing services (Kaukonahua has executed an LOI with O‘ahu Grazers).
- O‘ahu Grazers is family owned and operated.
- O‘ahu Grazers manages the sheep at all 4 solar/sheep farms on O‘ahu.
- At full sheep operations, revenues will be derived from:
  - Lamb sales = 7,000 pounds/year
  - Grazing fees = keep solar panels clear of vegetation
- At the end of easement term, the solar equipment will be removed, and the land will continue to be used for agriculture. Thus, the land will be preserved for current and future agricultural uses and will **not** be lost to development.

Source: Draft Kaukonahua Solar/Sheep Farm at Villa Rose: Impacts on Agriculture Report – Plasch Econ Pacific LLC

Cultural Impact/Archaeological Assessments

- Full Cultural Impact and Archaeological Assessments have already been completed for the Project by ASM Affiliates.

- ASM Affiliates is a professional cultural and heritage resources management consulting firm with over 40 years of experience providing archaeology, historic preservation throughout the western and Pacific U.S.

  - From a cultural assessment perspective, a public notice was published by the Office of Hawaiian Affairs for the Project in 2020, with no responses received.

  - ASM further attempted to contact three organizations, one agency, and six individuals via email and/or phone, four of which responded as documented in the Cultural Impact Assessment.

ASM affiliates

Archaeology • History • Anthropology • Architectural History

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507-A E. Lanikaula Street, Hilo, HI 96720

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820 Mililani Street, Suite 700, Honolulu, HI 96813

Source: Cultural Impact Assessment for the Kauonahua Solar Project Area/ Draft Archaeological Assessment for the Kaukonahua Solar Project Area Reports – ASM Affiliates

Cultural Impact/Archaeological Assessments (continued)

- Findings
  - Report concluded that "***it is the findings of this study that no direct adverse impacts on traditional cultural practices or valued cultural, historical, or natural resources are anticipated for the proposed Kaukonahua Solar project***."
  - "***Given the decades of intense pineapple and sugar cultivation, it is unlikely that subsurface historic properties will be identified as demonstrated by the previous archaeological studies conducted in the project area vicinity***."
  - "***However, to ensure the protection of any subsurface sites, artifacts, of burials that may be inadvertently discovered, it is recommended that an archaeological monitor be present during all subsurface development activities***."
  - The Archaeological Assessment concluded that "***the Kaukonahua Solar Project will not impact any known archaeological historic properties***."
  - The results of the current study support a determination of effect of "***no historic properties affected***."
  - "***With respect to the historic preservation review process of the Department of Land and Natural Resources–State Historic Preservation Division (DLNR–SHPD), our recommendation is that no further work needs to be conducted within the project area prior to or during project implementation***."

Source: Cultural Impact Assessment for the Kauonahua Solar Project Area/ Draft Archaeological Assessment for the Kaukonahua Solar Project Area Reports – ASM Affiliates

Biological Survey

- Full Biological Survey (flora and fauna) has already been completed by H.T. Harvey & Associates (over 50 years of experience).

- Findings
  - "***This study did not find any botanical concerns; the Biological Study Area is highly disturbed pasture and farmland, and all plants observed were nonnative, introduced species***."
  - "***No potential wetlands or non-wetlands waters of the U.S. were found within the Biological Study Area***."
  - "***H.T. Harvey & Associates' recommends that the Kaukonahua Solar Project only use species that are already used on Oahu as forage plants***."
  - "***No native wildlife species were observed in the Biological Study Area***."
  - Although none were observed, Cattle egrets are common on the island. However, they are listed as an injurious species and may be managed as pests. "***It is unlikely that the proposed Project…would have an adverse impact on the population of this species***."
  - Although none were observed, the open pasture/farmland could be suitable Hawaiian short-eared owls (or pueo). As a result, the "***Project should consult with the Hawaii Department of Land and Natural Resources***" to seek guidance on conservation measures that can be incorporated.
  - Although none were observed, Hawaiian hoary bats are known to occur on Oahu. "***H. T. Harvey & Associates recommends that Kaukonahua Solar Project follow the USFWS guidelines, which recommend that no trees greater than 15 feet tall be trimmed or removed during the bat pupping season from June 1 to September 15; and to not use barbed wire***."

- All recommendations, both biological and archaeological, will be incorporated into the Project plans.

Source: Kaukonahua Solar Farm Project Biological Survey Report – H.T. Harvey & Associates

Next Steps and Q/A

All attendees will have 30 days, from today, to submit written comments that will be included in Hawaiian Electric's submission to the Public Utility Commission (PUC) of its application for a satisfactory PUC Approval Order

Please submit written comments to: **kaukonahuasolar@nexamp.com**

Project updates will be posted to the nexamp.com/kaukonahua-road-solar website

Next project update meeting dates : 4/28/2023, 7/28/2023 and 12/18/2023

Questions?

Thank You.

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