February 5, 2021

Ms. Tracy Camuso, AICP
Associate Principal
G70
111 South King Street, Suite 170
Honolulu, Hawaii 96813

Dear Ms. Camuso:

SUBJECT: Special Use Permit Petition by Mahi Solar, LLC
Tax Map Keys 9-2-001: 020 (por.), 9-2-004:003 (por.), 006 (por.),
010 (por.), and 012 (por.), Kunia, Oahu, Hawaii

We have reviewed your Special Use Permit (SUP) Petition, hereinafter referred to as the Petition, for the Mahi Solar Project (Project), received on December 23, 2020, and request additional information and/or clarification be submitted in order to determine whether the Petition is complete for further processing. The additional information and/or clarification requested should address the following:

1. Paragraph two of Section 3.1 states that U.S. energy production from petroleum sources is approximately 0.3 percent of all sources of energy production. This statistic appears questionable as data provided by the U.S. Energy Information Administration indicates energy production in 2019 to be approximately 31 percent of all major energy sources (see https://www.eia.gov/energyexplained/us-energy-facts/). Please correct or clarify whether the information you provided is accurate and the source of the data.

2. The Petition area constitutes five non-contiguous areas. Area 4 is comprised of three distinct areas; Areas 4a, 4b, and 4c. Yet, Area 2 is comprised of two areas, but each area is not identified individually, i.e., Area 2a and 2b. For consistency, the Department of Planning and Permitting (DPP) suggests separate labels identifying each of the sub-areas be provided for Area 2. It is also recommended that any data regarding each of the areas be broken down to the sub-area level (Areas 2 and 4) in addition to providing their aggregate totals. Are we to understand that the substation adjacent to Area 5 is not part of the area calculations for Area 5?
3. On page 3-2, under the Ownership section, Table 3.1 is mislabeled in the text as Table 4.1.

4. The second paragraph, under the Ownership section on Page 3-2 needs further explanation as to the purpose of the Conditional Use Permit (minor) for Joint Development and how it is germane to the Project and this Petition.

5. Section 3.2 should be expanded to discuss the amount of actively farmed areas, undeveloped and fallow agricultural land, and overgrown natural vegetation by each Area. Additional details as to what is being cultivated in each of the five areas should be included as it is important information to the Project's Agrivoltaic Program.

6. Many of the Project components, described in Section 3.4, are permitted uses within the State Land Use Agricultural District, such as transformers, utility lines, communication equipment, and solar panels over Land Study Bureau Class D or E rated soils. Have the acreages for these uses been deducted from the land area totals in this Project?

7. Please provide the total acreage across the Project site that comprises each of the soil types in the Land Study Bureau rating system.

8. “Agrivoltaics” offers exciting possibilities of combining the capture of clean, local energy and increased local food production. However, it is essential to find crops and combinations of uses that will work well in Hawaii’s unique growing conditions. The Project involves the use of Important Agricultural Lands (IAL). These include lands voluntarily designated by Monsanto (State Land Use Commission (LUC) Docket No: DR17-59, dated November 15, 2017) and lands identified by the DPP in the Oahu IAL Mapping Project, August 2018. The City and County of Honolulu's IAL map has been adopted by the Honolulu City Council (Resolution 18-233, CD1, FD1) and is currently before the LUC. Section 4.2.4 should expand this discussion of the land included in the LUC declaratory rulings, and Figures 4.4. and 4.5 modified accordingly.

Note that Section 205-43, Hawaii Revised Statutes, states as follows:

“Important agricultural lands; policies. State and county agricultural policies, tax policies, land use plans, ordinances, and rules shall promote the long-term viability of agricultural use of important agricultural lands and shall be consistent with and implement the following policies:

(1) Promote the retention of important agricultural lands in blocks of contiguous, intact, and functional land units large enough to allow flexibility in agricultural production and management;

(2) Discourage the fragmentation of important agricultural lands and the conversion of these lands to nonagricultural uses;
Direct nonagricultural uses and activities from important agricultural lands to other areas and ensure that uses on important agricultural lands are actually agricultural uses;

Limit physical improvements on important agricultural lands to maintain affordability of these lands for agricultural purposes;

Provide a basic level of infrastructure and services on important agricultural lands limited to the minimum necessary to support agricultural uses and activities;

Facilitate the long-term dedication of important agricultural lands for future agricultural use through the use of incentives;

Facilitate the access of farmers to important agricultural lands for long-term viable agricultural use; and

Promote the maintenance of essential agricultural infrastructure systems, including irrigation systems.”

As the Project involves IAL lands and lands proposed for IAL designation, the Petition should include detailed information how each of the above policies would be implemented by the Project.

9. The DPP is concerned about the potential net loss of land in active crop production, especially IAL, from this Project. While the AgriVoltaics Program provides research into the viability of compatible solar and agricultural activities, it does not provide the existing acreage devoted to agricultural production. Knowing the base count would be helpful to measure the success of the program going forward.

Table 2 of the Project’s Agricultural Plan in Appendix C of the Petition devotes 350 acres of the Petition Area for flowers for honey production or alfalfa forage. This is a generous allocation when bees may range anywhere and sheep pasture already has 200 acres allocated for their grazing. The Agricultural Plan should detail the likely yields from the acreages stated in Table 2. While the AgriVoltaics Program will conduct research into compatible crops, the research and recommendations for the types of crops that will be successful for this Project should have been already completed and the results included as part of this SUP Petition. Experimenting during the Project provides no guarantee of productive compatible solar and agricultural activities.

10. The Hawaii Agricultural Research Center (HARC) expressed strong commitment and has partnered with the Petitioner to pursue implementation of the AgriVoltaics Program. However, it appears that the Project’s Agricultural Plan is a plan to conduct research rather than an implementation plan to growing specific crops. Therefore, the Agricultural Plan should provide a timeline on the completion of research and when the Petitioner intends to begin agricultural
production. Also, HARC should submit assurances that they will be continually conducting research, providing support to farmers, and sharing the results of their research with others in the local solar and agricultural industries for the life of the Project? Beyond just studying what types of solar-compatible farming could work, will there be any actual farming operations and productive agriculture, or will this always be a research center for the life of the Project?

11. In addition, will each property owner be implementing its own Agricultural Plan or is the Agricultural Plan in Appendix C the plan for all areas? Is the Petitioner planning to acquire Areas 1-5 from the current owners to aggregate all parcels into a single-farm lot for Agricultural Plan purposes?

12. What type and height of fencing will encircle the five areas of the Project? The Petition indicates on page 4-17 that barbless wire will be used for security fencing. Does that include fencing for the proposed electrical substation and electrical switchyard which are planned to be owned and managed by the Hawaiian Electric Company?

13. In Section 4.6, regarding Cultural and Historic Resources, when will consultation be conducted with the appropriate agencies and persons to ascertain Pohakea Trail’s historic location and possible status so that the trail can be accounted for in the Project’s site plan and the trail access plan for Pohakea Trail be completed?

14. Was the Glint and Glare analysis in Section 4.10 of the Petition given to the Federal Aviation Administration or the Hawaii Department of Transportation – Airports Division for their review and concurrence? If yes, a copy of their concurrence letter should be included in the SUP Petition, Appendix H.

15. A completed AIS should be submitted as part of the Petition in order to support the DPP’s determination that the Petition is complete and acceptable for further processing. The DPP encourages the Petitioner to consult with the State Historic Preservation Division as soon as possible.

16. Low visual screening plants, clustered at intervals as shown as the Landscaping Treatments A and B, will have minimal impact in screening the Project from public view. Please provide landscape treatments of sufficient density, height, and span to be an effective screen or provide an explanation why the chosen landscape treatment is chosen.

17. The potential impacts and mitigation measures for identified biological resources in Section 7.2.3 of the Petition suggest that the clearing and grubbing of vegetation can occur only between September 16 and December 31 to avoid the elepaio breeding season (January to July) and the Hawaiian hoary bat pupping season (June 1 to September 15). Please describe how the construction schedule for clearing and grubbing, and installing the PV panels will be completed within in this narrow timeframe.
18. The Petition should acknowledge that the State of Hawaii Agribusiness Development Corporation proposes to construct improvements to the Waiahole District Irrigation System in the Kunia area of central Oahu, portions of which can be found extending into the Petition Area, and discuss the extent of these improvements what impacts they may have on the Project.

Without the above-requested information, the Petition cannot be accepted for further processing at this time. As we anticipate revising the Petition to be a significant undertaking, we will provide an additional 30 days from the date of this letter in which to re-submit a complete Petition. If adequate information is not submitted or adequately addressed by said deadline, this Petition will be deemed rejected.

Should you have any questions, please contact Franz Krainitz, of our staff, at 768-8046.

Very truly yours,

Dean Uchida
Director Designate

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