



Home Lands Solar



HCDA Request for Variances



Department of Business, Economic Development & Tourism
Hawai'i Community Development Authority

7/22/2021

Arion Energy, LLC
Kalaeloa Home Lands Solar
HCDA Conditional Use Permit Application

Prepared for:

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INTRODUCTION

Kalaeloa Home Lands Solar ("KHLS") is a photovoltaic development ("PV") that is proposed for installation on land owned by the Hawaii Department of Hawaiian Home Lands ("DHHL"). The proposed location is the 29.84-acre parcel designated by TMK# (1) 9-1-013:029. The photovoltaic installation will contribute to Hawaii's electrical renewable energy portfolio through Hawaiian Electric's Community-based Renewable Energy Program ("CBRE"). DHHL has provided authorization for the KHLS project.

Full development of the project is dependent on successful competitive procurements that are estimated to be completed gradually over a 15-year time frame. The initial PV installation will cover only 7 acres of the parcel and produce 1.725 MW of energy, but future allocations will be sought to expand the development to produce 30 MW and cover up to 26 acres of the land area. Construction on the initial portion of the project could begin within three months following completion of this and all related permits.

A Conditional Use Permit for the project was obtained on July 7, 2021 because the parcel is located within the T-3 General Urban transect zone. Solar PV is one of the few appropriate uses of the land due to restrictions imposed by its proximity to the crosswind runway at John Rogers Field ("JRF") at Kalaeloa Airport. This Request for Variance from certain design standards is submitted concurrently with the Development Permit application.

REQUEST FOR VARIANCE UNDER KALAELOA RULES

Variances under HAR § 15-215-81 provides a mechanism for relief from the strict application of the Kalaeloa Community Development District Rules ("Kalaeloa Rules"), Hawaii Administrative Rules ("HAR") § 15-215-81. The Hawaii Community Development Authority board ("HCDA") has authority to grant a variance where the property's unique and special conditions justify. *See* HAR § 15-215-81(a).

To grant a variance, HCDA must find that:

- (1) Uniqueness. That there are unique physical conditions, including irregularity, narrowness or shallowness of lot size or shape, or exceptional topographical or other physical conditions peculiar to and inherent in the particular lot; and that, as a result of such unique physical conditions, practical difficulties or unusual hardship arise in complying strictly with the standards of the rules;
- (2) Self-created hardship. That the practical difficulties or unusual hardship claimed as the basis for a variance has not been created by the owner or by a predecessor in title;

- (3) Minimal deviation. That the variance, if granted, is the minimum deviation necessary to afford relief; and to this end, the decision-maker may permit a lesser variance than that applied for;
- (4) Character of the transect. That the variance, if granted, will not alter the existing or planned character of the transect in which the lot is located; will not substantially impair the appropriate use or development of adjacent property; and will not be detrimental to the public welfare; and
- (5) No adverse impact. The variance would result in development that is not detrimental to or that would adversely impact adjacent properties.

See HAR § 15-215-81(d).

KHLS is requesting the following three variances:

1. HAR §15-215-43(c), Architectural Standards: Allow an increase the fence height of along Western Perimeter Road from three feet to six feet. Fence will be chain-link with privacy fabric.
2. HAR § 15-215-44, Landscape: Modify the requirements for landscaping and automatic irrigation within the required front yard area.
3. HAR §15-215-46. Open Space. Eventual modification of the minimum requirement for open space. At full development the parcel may have less than the required 20% open space.

ANALYSIS

KHLS's variance request satisfies the requirements set forth in the Kalaeloa Community Development District Rules ("Kalaeloa Rules") set forth in HAR § 15-15. A summary of compliance is set forth below.

1. HAR §15-215-43, Architectural Standards.

HAR §15-215-43(c): *Fences, walls and hedges may be constructed or installed to a height of six feet in any side yard or rear yard and to a height of three feet in any portion of a front yard or side yard that faces a thoroughfare.*

Variance request: KHLS requests a variance that will allow a six-foot tall chain-link fence along the Western Perimeter Road and the remaining perimeter for security. The fence will include a visual barrier cloth or similar as a security measure to obscure views within the solar PV compound. While there is no clear "front yard" the Western Perimeter Road is the only side of the parcel having frontage that is readily accessible to the public.

Compliance: This requested variance meets all the required findings of fact under HAR § 15-215-81(d). The project is unique in that the fence height limit set forth in the Kalaeloa Rules must be increased for safety reasons. There is no "front yard" in the typical sense of a residential area – the subject parcel is more typical of industrial areas. Having a three-foot height fence will not provide an adequate barrier to protect intruders from entering the property and potentially harming themselves, others or the equipment on the project. Since these are unmanned facilities the increased fence height is essential to ensuring security. In addition, the increased fence height will not detract from positive visual aspects of the area or alter the character of the T3 zone as the project is near the airports and industrial lots. Although the parcel will be landscaped, the Western Perimeter Road is primarily used for industrial purposes and will not adversely affect the adjacent properties or cause visual blight. The parcel is unavailable for most other uses. Finally, there is minimal deviation as there is no clear front yard for the project.

2. HAR §15-215-44, Landscape.

HAR § 15-215-44(1), (4): *All required yards shall be landscaped. Landscaping shall have an automatic irrigation system with rain or moisture sensor, or with a system that eliminates water waste.*

Variance request: KHLS is requesting a variance that modifies the requirement for landscaping and automatic irrigation on the parcel, to include only perimeter landscaping and temporary irrigation. Vegetation of any type is not desirable within a solar PV generation facility. Weed mat or other barriers to vegetation will be placed beneath the solar panels to reduce vegetative growth and maintenance. Perimeter vegetation will be designed to be based on xeriscape plants consistent with the plants recommended for T3 zone in the Kalaeloa Rules. A temporary irrigation system will be installed along the Western Perimeter Road, which is the only accessible side of the property. The temporary irrigation system will be shut off at the appropriate time after the landscaping is established, as determined by the project landscaper.

Compliance: This variance request likewise meets the requirements of the Kalaeloa Rules. The project is unique in that the functionality requires minimal vegetation or landscaping near the equipment in order to be effective. Limiting the irrigation system by using xeriscape plants would also limit the need for an irrigation system. All solar equipment requires limited visual detractions or barriers to the sun and is not a self-created hardship. KHLS would maintain the requirements along the accessible perimeter of the property to maintain the character of the transect zone and limit the deviation from the Kalaeloa Rules. There is no adverse impact to the adjacent airport property; conversely, this request is consistent with the adjacent airport property as vegetation is limited in these areas for aircraft operational safety.

3. HAR §15-215-46. Open Space.

HAR 15-215-46(c): *For any project in the Kalaeloa CDD, a minimum of twenty per cent of each lot shall be provided as open space. One third of this requirement shall be satisfied at grade, with the remaining two-thirds at any elevation.*

Variance request: The complete lot coverage at full development is limited to 55%, including open space between panels and the vacant areas surrounding transmission equipment and internal roads. Lot coverage also varies with the angle of the panels at various times of the day. In an abundance of caution, KHLS is seeking a variance as the solar PV equipment will not provide for open space in the traditional sense at full development.

Compliance: KHLS is requesting a final density of up to 90% at full development of the project exceeding the design standard by 10%. As stated above, the actual open space calculation is 45% of the parcel due to the nature of solar PV installation. However, even if the open space calculation does not include interior open space, there is still significant justification for the variance. The unique characteristics of solar PV require that open space is limited due to the propensity to grow invasive species including buffelgrass, Koa Haole, and Kiawe. Open space is not needed because personnel and other potential uses are limited due to FAA restrictions. On the other hand, maximizing usable space for solar PV panels will maximize the renewable energy output for the community in compliance with HAR § 15-215-81(d). Thus, the property is unique in that the property's highest and best use is to have minimal open space.

The difficulties in use for the property are a function of the type of project (which is encouraged in T3 zone) and not self-created hardship. Increasing the density of the property for solar PV would not adversely affect the character of the transect zone nor adversely impact neighbors. The project area is bordered by the Kalaeloa Airport, land owned by the U.S. Navy, and existing solar generating equipment on three sides. The Western Perimeter Road separates the parcel from industrial uses on Campbell Park on the fourth side. Increasing the project density will have no negative impact on the adjacent lots. Finally, the reduction in open space is commensurate with the increased production of renewable energy in favor of the community and is the minimal deviation required to maximize production.

CONCLUSION

Based on the foregoing, KHLS meets the five requirements for its variance request, pursuant to HAR § 15-215-81. Therefore, KHLS seeks approval from HCDA of its variance request.