KALAELOA HOME LANDS

SOLAR

A community-based Renewable Energy Project

built on Hawaiian Home Lands
WHO WE ARE

Dr. Nick Azari (CEO) and Tim Olsen (CTO) have been active solar energy developers in Hawaii since 2009 and have completed projects Mililani, Pearl City, Kalihi, Kahului and Kapaa. 25 projects in various stages of development. His background in financial management gives Arion a solid economic base and the ability to take projects through all the stages of development.

- 4 Times Supermarket Stores on Oahu, Kauai and Maui
- Shima’s Supermarket in Waimanalo
- Waimea Canyon Shopping Plaza in Kekaha, Kauai
- Kamehameha Shopping Center
- Pacific Allied Products bottling plant- Campbell Industrial Park
Community-based Renewable energy is a program to allow anyone to subscribe to solar power generation without installing solar on your own roof. Subscribers get a discount on their electric bills, and the HECO gets cheaper power without investing in the infrastructure.
**KALAELOA HOME LANDS SOLAR**

- **DHHL Parcel # 9-1-013:029** (29 acres). The western perimeter is Saratoga Street (aka Western Perimeter Rd.)
- **Southern boundary is Lake Champlain St.**
- **Northern Boundary is Kalaeloa Solar I**
LAND-USE 1
FAA RESTRICTIONS

• THE PARCEL IS WITHIN THE RUNWAY PROTECTION ZONE OF THE KALAELOA AIRPORT CROSSWIND RUNWAY. POTENTIAL LAND USE IS RESTRICTED BY THE FAA TO USES THAT HAVE A LOW PROFILE AND DO NOT REQUIRE FREQUENT OCCUPATION OR USES THAT MAY IMPACT AIRCRAFT OPERATIONS.
LAND USE 2. KALAELOA MASTER PLAN

- The 2006 KALAELOA Master Plan designated the parcel as Eco-industrial. For the purposes of the Master Plan, Eco-industrial uses are defined as environmentally compatible industries that benefit the entire population of Oahu. Potential industries such as solar or hybrid energy generation, bio-filtration, or other such technologies are compatible in these parcels. These industries require large land areas and are located within the airport’s accident potential zones where height restrictions limit development."
LAND USE 3
KCDD RULES
HAR 15-215

• KCDD RULES PLACE THE PARCEL IN THE GENERAL URBAN ZONE (T-3).

• FAA RESTRICTIONS SPECIFICALLY PROHIBIT ALL PERMITTED USES IN THE T-3 ZONE AS DEFINED IN KCDD TABLE 1.7.

• T-3 IS AN INAPPROPRIATE TRANSECT DESIGNATION FOR THE PROPERTY.
PROPOSED USE

• One of only two Oahu projects awarded in HECO’s competitive RFP

• Phase I is currently approved and will cover less than 5-acres and produce 1.7 Mw (340 houses). Connection is to the power corridor in Campbell Industrial Park

• Future allocations are anticipated. At full development, solar panels will cover more than 85% of the parcel area and power more than 3,000 houses
FULL DEVELOPMENT WITHIN 15 YEARS

- Allocations from HECO are on a competitive basis. Full buildout will depend on HECO’s rollout schedule and the economic benefits of Community-Based Renewable Energy

- Power for more than 3,000 homes at full development
• Facility can only be seen from Saratoga St. (Western perimeter Road. Other sides are not accessible.

• Currently dry scrub land with illegal dumping issues

• Replaced by privacy fence with landscaping Plants from Table 1.10 such as Naupaka
BENEFICIARIES

- Substantial revenues to DHHL and beneficiaries
- Preferential offering to Hawaiian Home Lands tenants,
- Other subscribers who wish to reduce electric bills and participate in carbon-free electric generating (3,000 homes +)
- Residents and visitors who like to breath clean air
- One step toward 100% renewable mandate
PERMIT REQUIREMENTS

1. Development Permit: Triggered by lot size > 40,000 SF

2. Conditional Use Permit: Solar farms are permitted in T-3 transect following approval of CUP

3. Variance: Required for
   - Architectural standards: 6-foot chain-link fence
   - Landscape: Landscape plantings with approved plants only around perimeter fence at Saratoga Street. Temporary irrigation system provided
   - Open Space: At full development lot will have more than 85% coverage
<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>KCALAELOA RULES</th>
<th>REQUIREMENTS (Allowable)</th>
<th>PROPOSED</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANSECT ZONE</td>
<td>§15-215-23(b)(3) Transect Zones, Figure 1.2 [Regulating Plan] and Figure 1.3 (Development Standards Summary)</td>
<td>Transect Zone: T-3 General Urban Zone</td>
<td>Solar farm</td>
<td>A solar farm is permitted in Transect T-3 following approval of a Conditional Use Permit. An application for a CUP is submitted concurrently with the DP application.</td>
</tr>
<tr>
<td>SITE AREA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROJECT TYPE</td>
<td>HAR 15-215-78 Development</td>
<td>Development</td>
<td>Development permit</td>
<td>Land areas over 40,000 sf require a Development permit</td>
</tr>
<tr>
<td>FRONTAGE TYPE</td>
<td>15-215-39 Detailed in Figure 1.6</td>
<td>No buildings are proposed</td>
<td>Frontage type is not applicable to this project</td>
<td></td>
</tr>
<tr>
<td>LAND USE</td>
<td>§15-215-40, Land Use, and Figure 1.7 (Land Use)</td>
<td>Mixed use with commercial emphasis</td>
<td>Solar Farm</td>
<td>A solar farm is permitted in Transect T-3 following approval of a Conditional Use Permit</td>
</tr>
<tr>
<td>BUILDING PLACEMENT</td>
<td>HAR 15-215-41 Figure 1.8</td>
<td>Not applicable</td>
<td>No buildings will be constructed</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>BUILDING FORM</td>
<td>HAR 15-215-42</td>
<td>Not applicable</td>
<td>No buildings will be constructed</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>ARCHITECTURAL STANDARDS</td>
<td>HAR 15-215-43 Figure 1.3</td>
<td>Frontage Type, Building Type, Building Form</td>
<td>No buildings will be constructed</td>
<td>A variance will be requested to permit a 6-foot occluded chain-link fence.</td>
</tr>
<tr>
<td>SETBACKS</td>
<td>Figure 1.3 C. (Setback)</td>
<td>5’-15’ Front Yard Setback</td>
<td>compliant</td>
<td>Solar farm will have perimeter roads</td>
</tr>
<tr>
<td>LANDSCAPE</td>
<td>§15-215-44, Landscape</td>
<td>Landscape plan, Table 1.10 plantings, trees, sprinklers</td>
<td>Sprinklers and approved plantings only along the perimeter of Saratoga St.</td>
<td>Variance will be requested from permanent sprinkler requirement</td>
</tr>
<tr>
<td>RECREATION SPACE</td>
<td>§15-215-45</td>
<td>25 SF of recreation per 1000 of industrial.</td>
<td>No industrial development</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>
## Conformance to KCDD Rules

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Description</th>
<th>Requirement Details</th>
<th>Variance</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Open Space</strong></td>
<td>§15-215-46, Open Space</td>
<td>20% of each lot</td>
<td>85+% lot coverage at full development</td>
<td>Variance will be requested from open space requirements at such time as full development is subscribed</td>
</tr>
<tr>
<td><strong>Parking</strong></td>
<td>§15-215-47 Parking and Loading</td>
<td>One (1) off-street stall per 450 SF of floor area</td>
<td>No buildings will be constructed</td>
<td>Not Applicable</td>
</tr>
<tr>
<td></td>
<td>§15-215-47(1), Loading</td>
<td>Loading spaces are required from 5,000 SF of floor area</td>
<td>No buildings will be constructed</td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Bicycle Parking</strong></td>
<td>§15-215-47(m), Bicycle Parking</td>
<td>Within 400 feet of building entrance</td>
<td>No buildings will be constructed</td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Green Building</strong></td>
<td>§15-215-48, Green Building</td>
<td>Project qualification based on green building rating system</td>
<td>No buildings will be constructed</td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Large Lot Development</strong></td>
<td>§15-215-62 Walkability and pedestrian Orientation</td>
<td>Design standards for large lots</td>
<td>No buildings will be constructed.</td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Historic and Cultural Sites</strong></td>
<td>§15-215-63, Historic and Cultural Sites</td>
<td>Developer shall obtain a letter from SHPD which confirms that the developer has complied with all requirements</td>
<td>No Effect</td>
<td>Project is in compliance with §15-215-63</td>
</tr>
<tr>
<td><strong>Dedication of Public Facilities</strong></td>
<td>§15-215-64(a), Public Facilities Dedication</td>
<td>The developer shall dedicate land for public purposes</td>
<td>There will be no publicly accessible space</td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Joint Zone Development</strong></td>
<td>§15-215-64 multiple transects</td>
<td>Land use requirements</td>
<td>Project will be within T-3 transect</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>
SUMMARY

- **Proximity to the crosswind runway and aircraft operations severely restricts practical use of the parcel.**

- **Solar Generation** is one of the very few land uses consistent with FAA guidance, the KMP, and KCDD Rules (contingent on obtaining a CUP).

- **Surrounding land use is Military, Industrial, and existing solar. Very low visual impacts.**

- **Parcel cannot be used for other general urban (T-3) uses which include housing and commercial.**

- **Project will help DHHL beneficiaries and others through funding and carbon-free generation.**

- **No archeological resources identified**
THANK YOU