



KALAELOA HOME LANDS SOLAR

A COMMUNITY-BASED RENEWABLE ENERGY PROJECT

BUILT ON HAWAIIAN HOME LANDS

ARION ENERGY

Dr. Nick Azari (CEO) - PhD in Electrical Engineering; 11+ years of experience in financial management, 13 years of experience in renewable energy development

Tim Olsen (CTO) – Masters in Mechanical Engineering from Virginia Tech; specialized in renewable energy development since mid-1980s

Hawaii Solar Projects

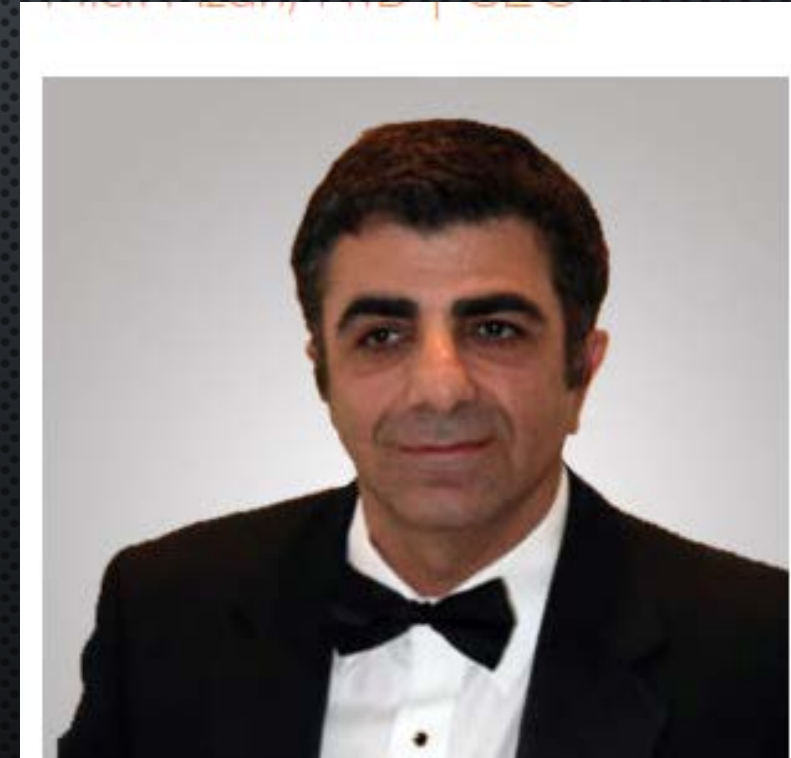
Completed 13 Commercial & Industrial projects in Hawaii which include:

- Times Supermarket in Lihue
- Waimea Canyon Shopping Plaza (Kekaha)
- Times Supermarket Kamehameha Shopping Center
- Times Supermarket in Mililani

3 awarded community solar projects under development

Currently developing 18 CBRE projects on the islands of Oahu, Maui and Hawaii

Arion was awarded one utility scale project (8.8 MWdc) in HECO's stage 2 rfp in 2019



KALAELOA HOME LANDS SOLAR

- DHHL PARCEL # 9-1-013:029 (29 ACRES). THE WESTERN PERIMETER IS WESTERN PERIMETER RD.
- SOUTHERN BOUNDARY IS LAKE CHAMPLAIN ST.
- NORTHERN BOUNDARY IS KALAELOA SOLAR I



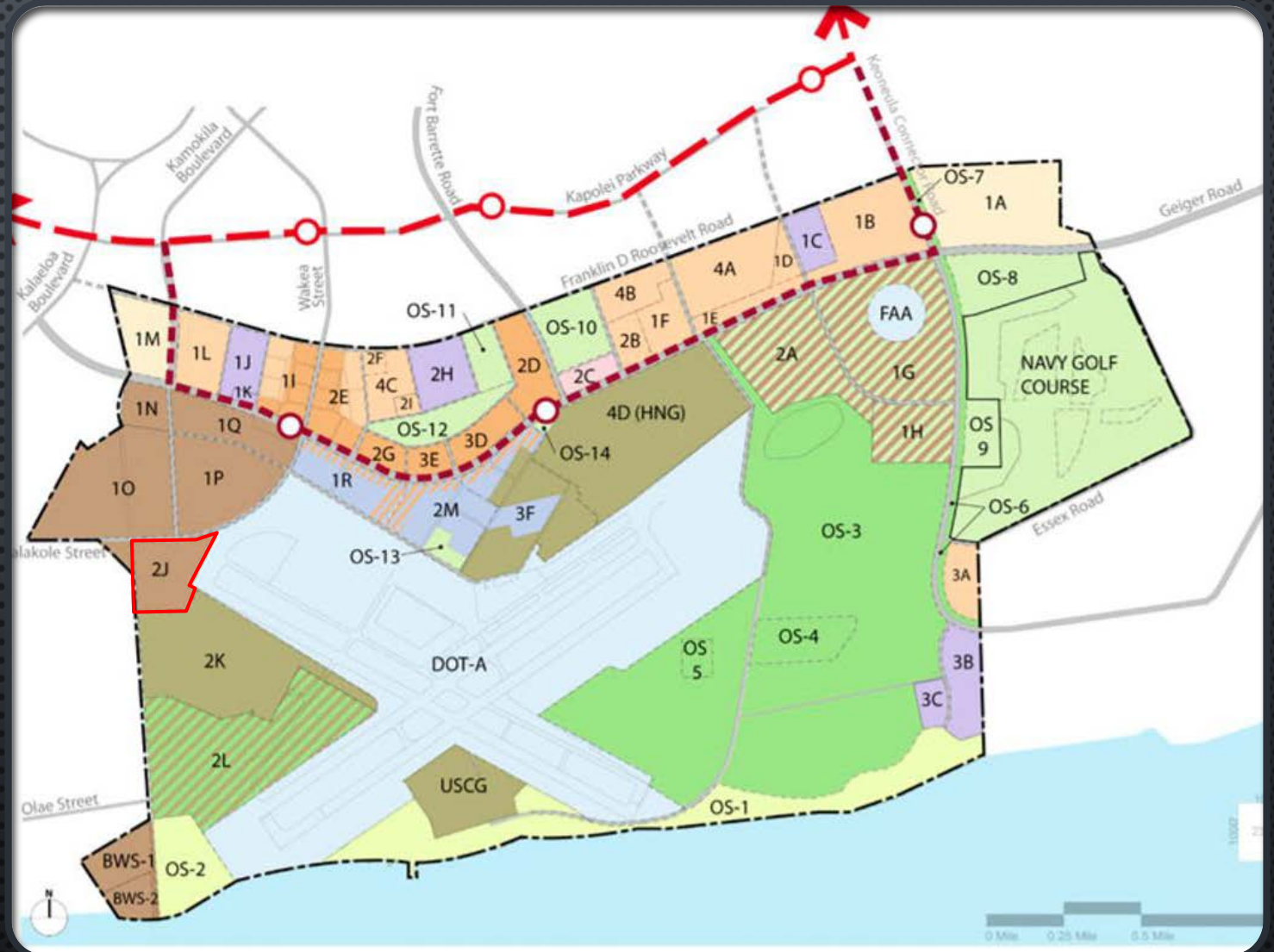
FAA RESTRICTIONS

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.



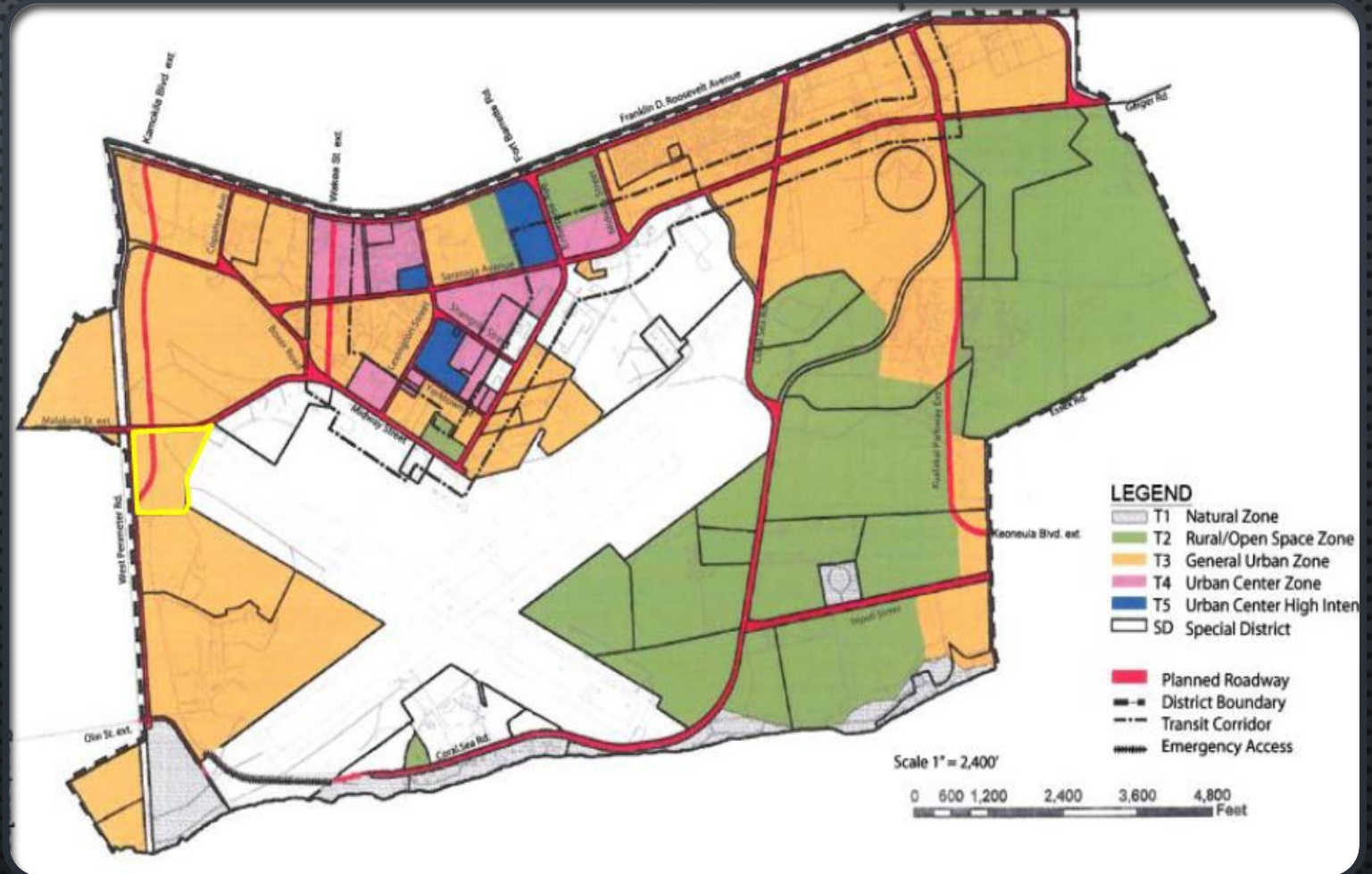
KALAELOA MASTER PLAN

- DESIGNATED ECO-INDUSTRIAL
- ENVIRONMENTALLY COMPATIBLE INDUSTRIES THAT BENEFIT THE POPULATION OF OAHU
- POTENTIAL INDUSTRIES SUCH AS SOLAR OR HYBRID ENERGY GENERATION, BIO-FILTRATION, OR OTHER SUCH INDUSTRIES



KALAELOA CDD RULES

- T-3 TRANSECT ZONE
- FAA RESTRICTIONS SPECIFICALLY PROHIBIT ALL PERMITTED USES IN THE T-3 ZONE AS DEFINED IN KCDD TABLE 1.7.
- T-3 SOLAR FARMS ALLOWED WITH CONDITIONAL USE PERMIT ("CUP")
- CUP OBTAINED 7-7-2021



PERMIT REQUIREMENTS

- (1) CONDITIONAL USE PERMIT: SOLAR FARMS ARE PERMITTED IN T-3 TRANSECT FOLLOWING APPROVAL OF CUP – **COMPLETED JULY 7, 2021**
- (2) DEVELOPMENT PERMIT: TRIGGERED BY LOT SIZE > 40,000 SF
- (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 MAY HAVE MORE THAN 85% COVERAGE

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 MOST OF THE PARCEL AREA AND POWER MORE THAN 3,000 HOUSES. THIS REQUEST IS FOR FULL BUILDOUT.



COMMUNITY BASED RENEWABLE ENERGY

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 HECO gets cheaper power without investing in the infrastructure

Up to 5,400 ground mounted, PV Panels that track the sun

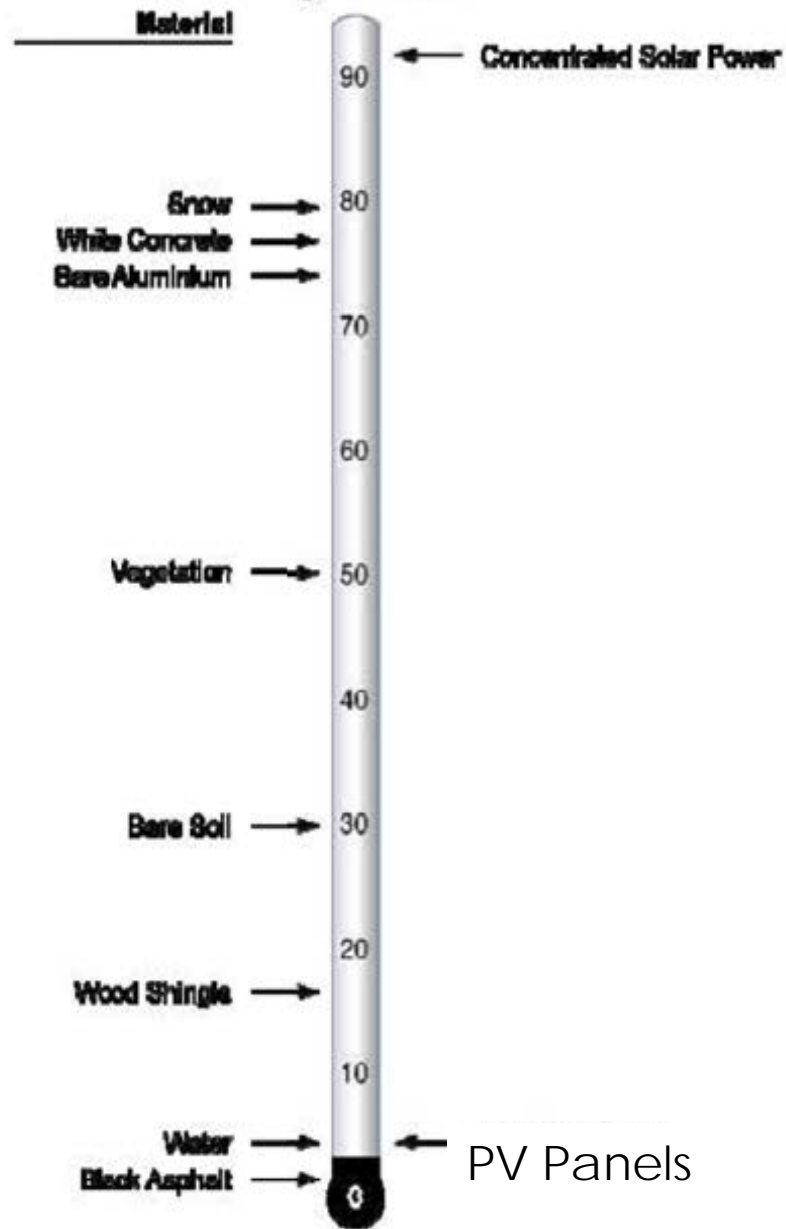


FULL DEVELOPMENT WITHIN 3-5 YEARS

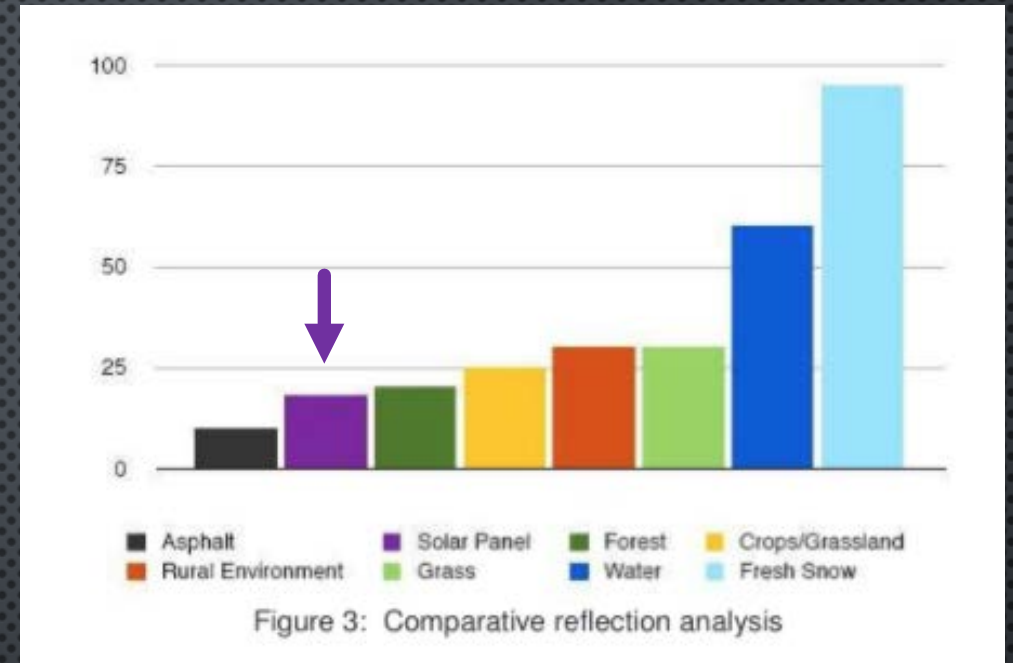
- ALLOCATIONS FROM HECO ARE ON A COMPETITIVE BASIS. FULL BUILDOUT WILL DEPEND ON HECO'S ROLLOUT SCHEDULE AND THE ECONOMIC BENEFITS OF COMMUNITY-BASED RENEWABLE ENERGY
- POWER FOR MORE THAN 3,000 HOMES AT FULL DEVELOPMENT



% Reflected Light



GLINT and GLARE



A Glint and Glare Study was commissioned for this project. AZTEC Engineering Group concluded.

"It has been demonstrated that in a few cases when there is some risk of glint by the PV modules, the airplane will also be directly facing the sun and the corresponding reflections from the ocean. It can be concluded that glint from the PV modules will not have any relevant effect on airplane' visibility nor deteriorate the actual approaching of takeoff flight conditions."



VIEW PLANE

- 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

BENEFITS

- SUBSTANTIAL REVENUES TO DHHL AND BENEFICIARIES
- PREFERENTIAL OFFERING TO HAWAIIAN HOME LANDS BENEFICIARIES,
- OTHER SUBSCRIBERS WHO WISH TO REDUCE ELECTRIC BILLS AND PARTICIPATE IN CARBON-FREE ELECTRIC GENERATING (3,000 HOMES +)
- REDUCE 400,000 TONS OF EMISSIONS
- SUPPORTS STATE 100% RENEWABLE ENERGY GOALS



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