HALE KUAWEHI SOLAR PROJECT

Public Open House Posters

October 29, 2018

Waimea Middle School, Waimea, HI

INNERGEX | Renewable Energy. Sustainable Development.

Welcome

TODAY'S OBJECTIVES

1. Share information on the proposed solar project
2. Gather your feedback
3. Answer your questions

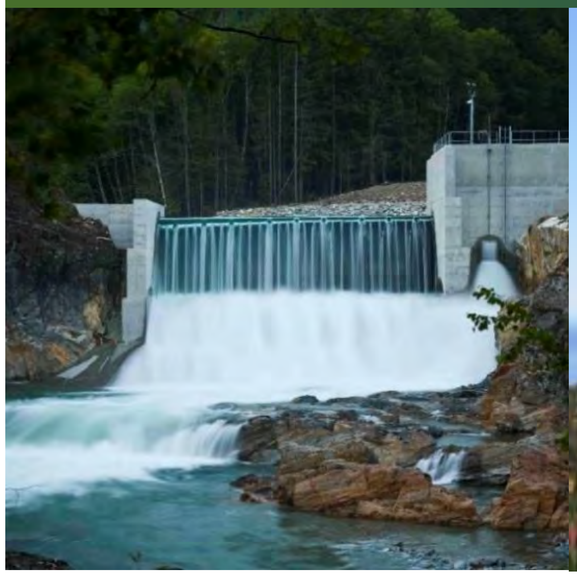
INNERGEX RENEWABLE ENERGY INC.

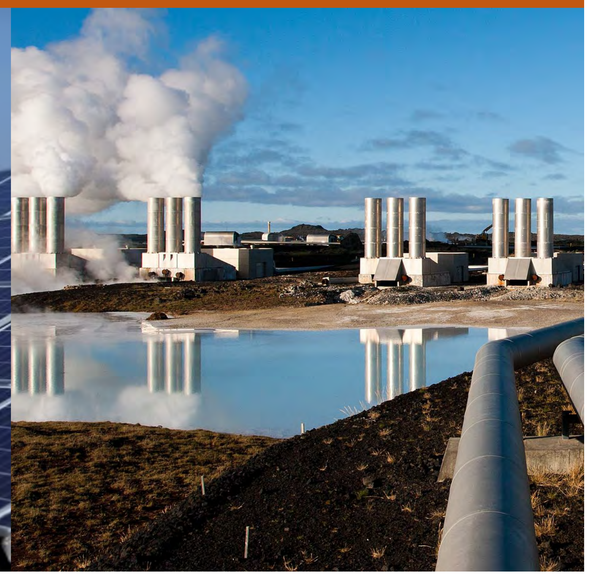
Innergex Renewable Energy Inc. is a global renewable energy player that develops, acquires, owns and operates hydroelectric facilities, solar farms, wind farms and geothermal facilities.

Innergex carries out operations in Canada, the United States, France, Chile and Iceland.

Established in 1990

Head Office in Canada

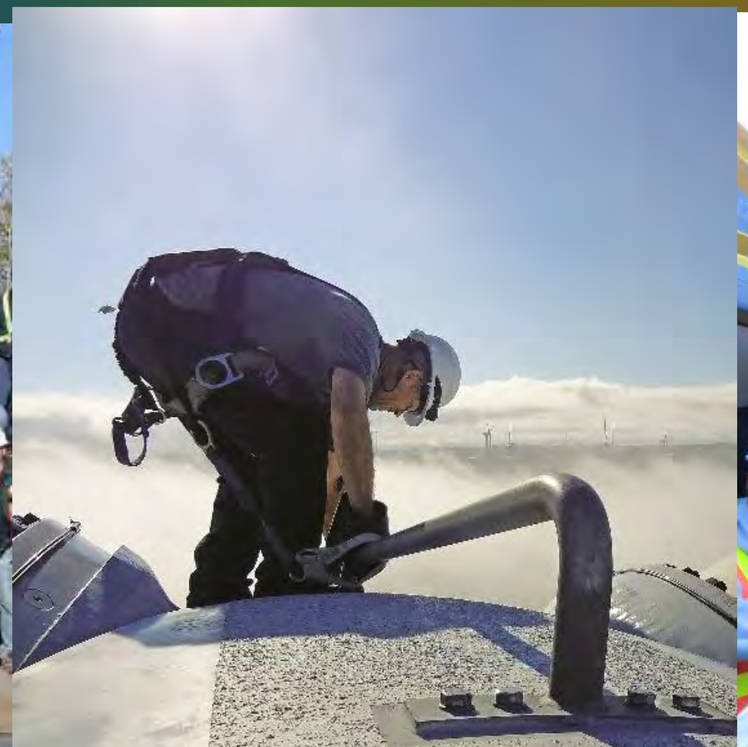




INNERGEX | Renewable Energy. Sustainable Development.

INNERGEX VALUES

Integrity	Transparency	Responsibility	Collaboration
1	2	3	4



RENEWABLE ENERGY IN HAWAI'I

The State of Hawai'i has set a goal to achieve

100%

renewable energy generation by 2045

In 2017, 57% of electricity used by Hawaii Electric Light Company customers came from renewable energy sources

By 2022 Hawaiian Electric Companies is seeking to add 390 MW of renewable energy to their energy mix through a competitive procurement process.

Of that, Hawaii Electric Light Company is seeking to add

70 MW

Out of respect to Hawaiian history and tradition, we wanted to give the project a name that would reflect the rich cultural history of Hawai'i. After extensive research, including spiritual prayers, this is the name that was given by Kuma Micah L.K. Kamohoalii.

HALE

"House" This word can also mean host or hospitable. It is the understanding that the hale is where things of great importance are kept and stored, a source of good energy and a place of peace and calm where one may always return to.

KUA

"Back" or "to carry on the back" as in hard work. In Hawaiian, the back was one of the most important areas of the body. This is where strength and hard work derives, like the western saying "put your back into it!"

WEHI

"Adornment or To Beautify" This word commemorates the natural lush beauty of Hawai'i and the power of our natural elements around us, as we live in an oasis of beauty.

KUAWEHI

This word describes the suns rays and the powerful energy these rays hold.

HALE KUAWEHI SOLAR PROJECT

The Hale Kuawehi Solar Project is a proposed 30 MW solar photovoltaic + 120 MWh battery storage project located on Parker Ranch, near Waimea.

~100,000
High efficiency solar panels

Enough to power ~16,750 homes

The project was submitted to Hawaii Electric Light Company as part of a request for proposals for renewable energy projects and is currently under negotiations for a contract.

WHY HERE?

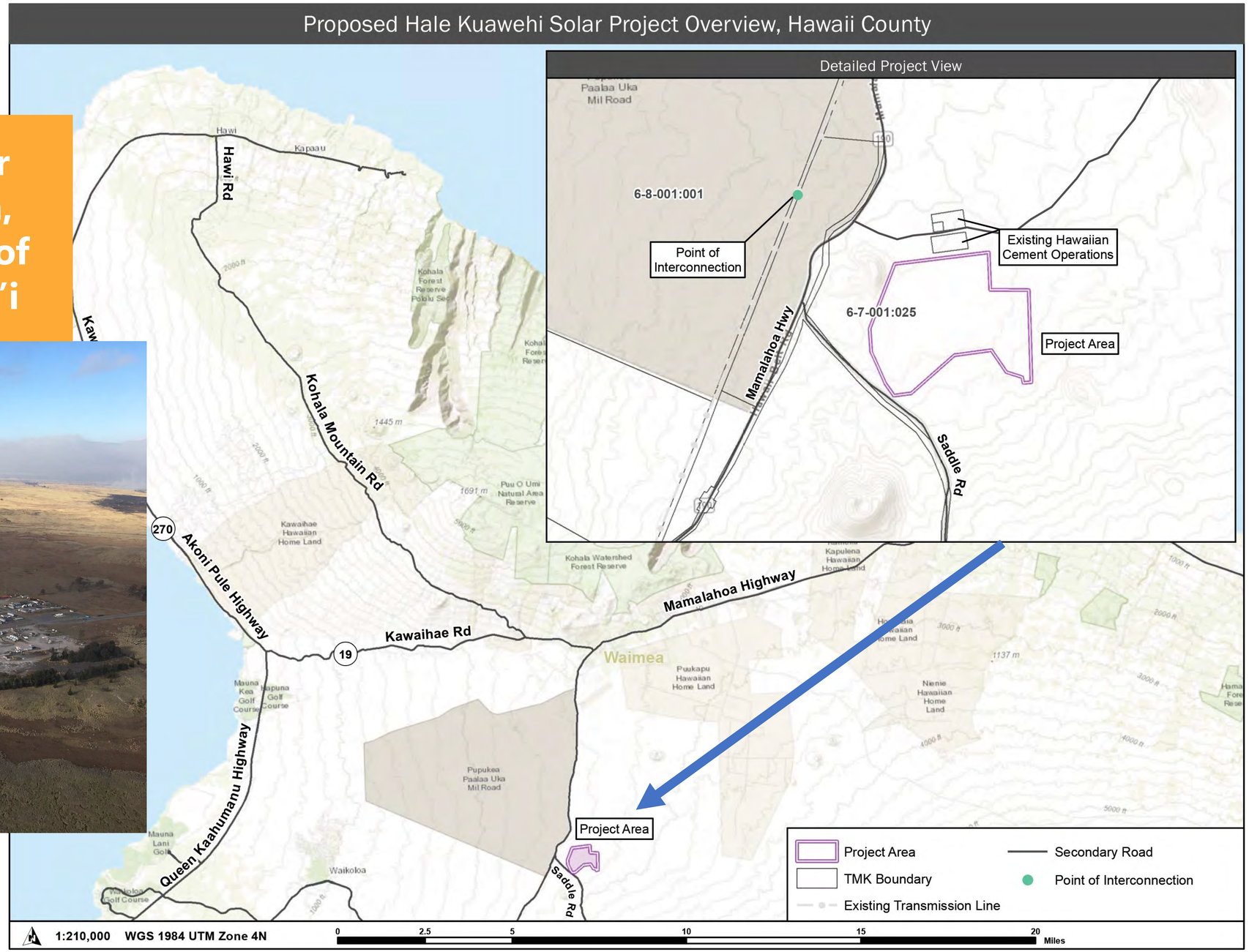
The Island of Hawai'i is blessed with an abundance of renewable energy potential including energy from the sun. Parker Ranch is ideally situated to host a solar project as it is an area rich in solar resource potential. Additionally, there is an existing Hawaii Electric Light Company transmission line within 0.7 miles of the proposed project area which limits the amount of new line required.

The Hale Kuawehi Solar Project will enable the Island of Hawai'i to reduce its dependency on expensive imported oil, help the State achieve its renewable energy goals and provide a reliable and stable source of electricity to consumers both during the day and at night.

The project is anticipated to comply with the South Kohala Community Development Plan, which contains objectives and policies in support of alternative energy.

PROJECT AREA

Parker Ranch, Island of Hawai'i



SOLAR ENERGY

The sun is a highly stable and predictable resource, which makes solar technology correspondingly reliable and easy to use. The sun's energy is converted directly into electricity by a PV solar panel, named after the "photovoltaic" phenomenon, where light energy, in the form of photons, can be converted to electricity using certain materials that naturally generate a flow of electrons when exposed to light.

As this process requires no fuel or moving parts, it creates no emissions during operations. As a result, solar energy is one of the cleanest, most renewable forms of energy around.

Innergex currently owns interests in 4 solar photovoltaic and 1 solar thermal farms

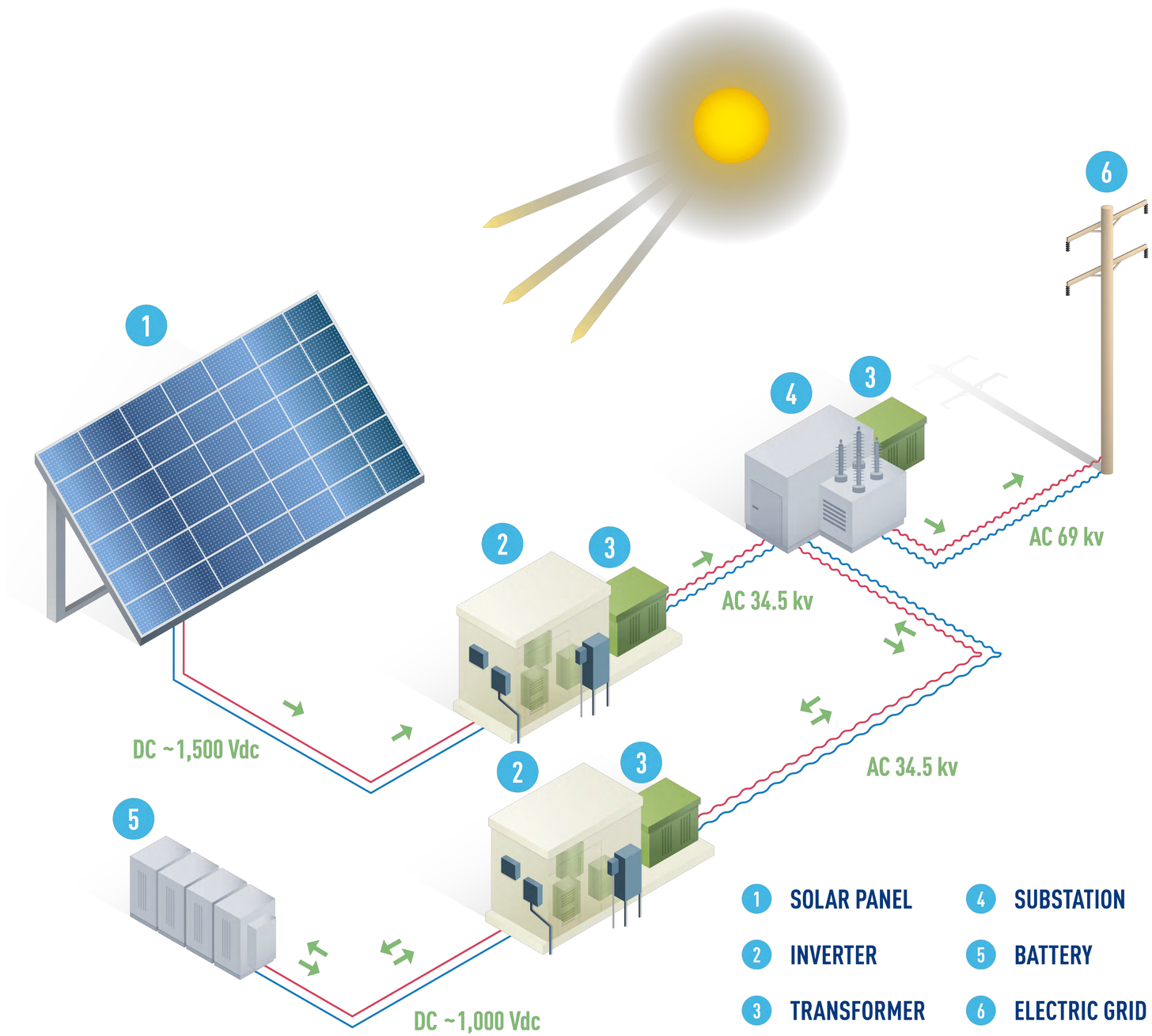
United States	Canada	Chile
334 MW	33 MW	9 MW

HOW WILL THE PROJECT WORK?

Photovoltaic solar panels collect energy from the sun to generate electricity.

The power generated can either charge the batteries or send power to the main grid.

The batteries charge from the solar array during daylight hours and send power to the grid when it needs it most, day or night.

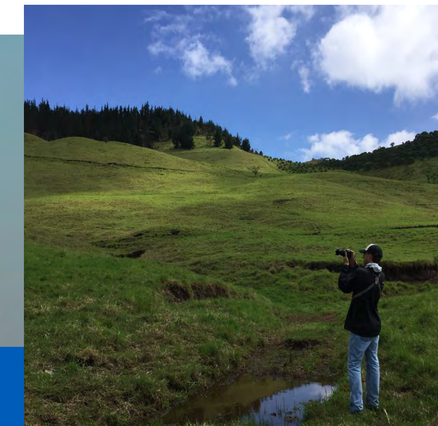


ENVIRONMENTAL STUDIES

Detailed wildlife and site-specific surveys and studies will be completed to assess potential Project impacts, required mitigation, design limitations, and to refine required permitting criteria.

General Plant and Wildlife Surveys

Invertebrate Survey: Blackburn Sphinx Moth Survey



Determination of Wetlands and Waters

Pre-construction Biological Clearance Surveys

Phase 1 Environmental Site Assessment

Visual Impact Analysis

Noise Modeling

Traffic Impact Assessment

ARCHAEOLOGICAL AND CULTURAL STUDIES

Important aspects to consider before finalizing the design and building of a project are the potential archaeological, cultural and historical properties the project could impact.

Archaeological Inventory Survey

- Archival research
- Surface survey
- Test excavations
- Data analysis
- Reporting

BENEFITS

We have three community benefit strategies for sharing benefits with the local community that reflect the economics of the Project.

Local supplier procurement and employment	Community contribution	Community event sponsorships and participation

CONSTRUCTION PHASES

1 Land preparation and roadwork

2 Foundations and underground cabling

3 Install support racks and solar panels

4 Electrical substation and transmission line

5 Battery storage installation

6 Fencing and commissioning

EQUIPMENT

Solar Panel

High efficiency panels that are 400+ watts provide optimal energy production and minimize the footprint of the solar project

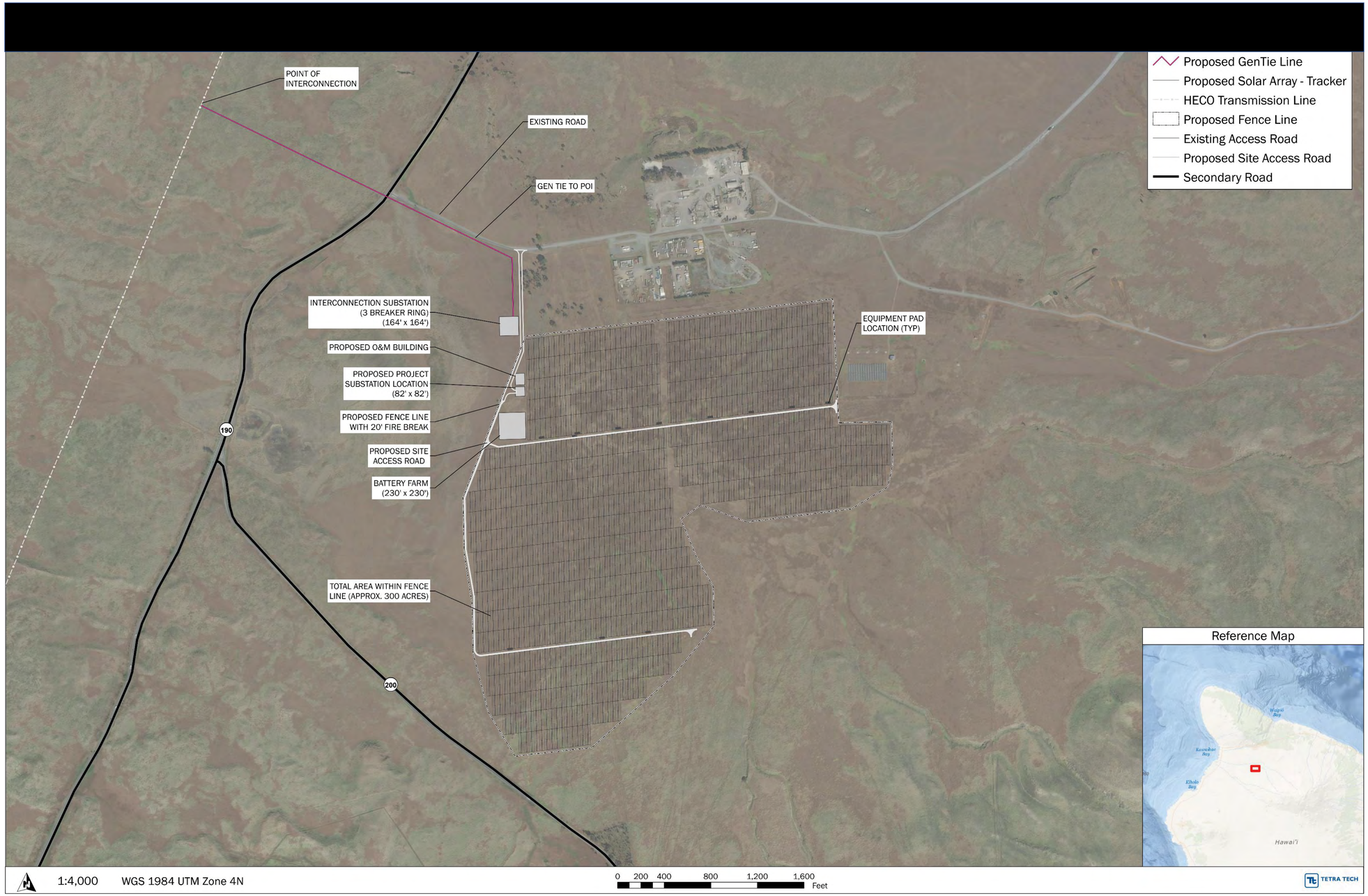
Solar Single-Axis Trackers

Increase energy output by 10-20% compared to fixed tilt foundations and have proven reliability under severe weather conditions

Battery Storage

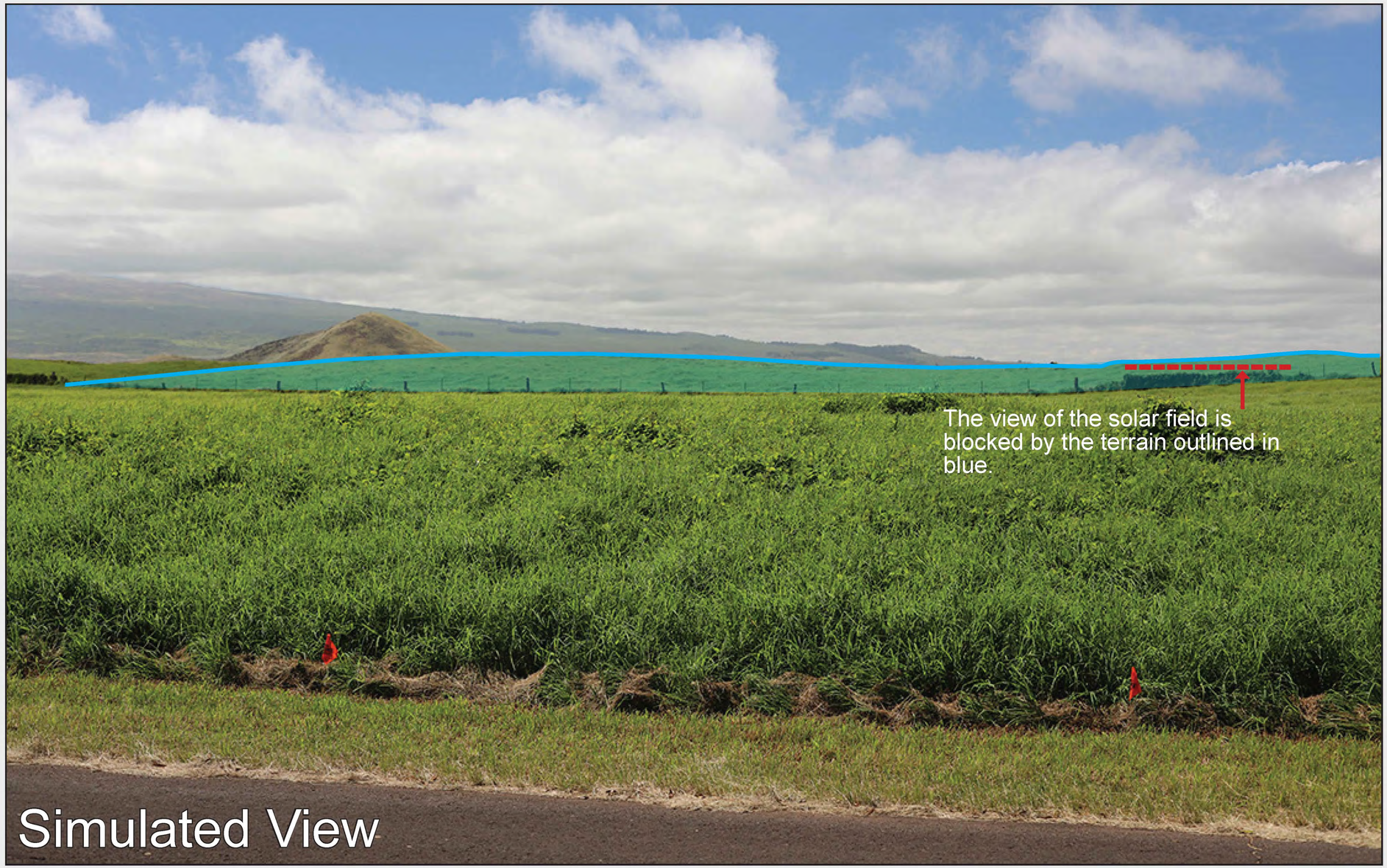
Lithium-ion battery storage improves grid resiliency with major benefits such as load shifting to deliver power when it is needed most

PRELIMINARY PROJECT OVERVIEW



This conceptual layout is based on topographic data. The next version of the layout will incorporate archaeological, cultural, environmental and technical study results as well as balancing economic and social perspectives. At times, these various considerations may conflict with each other but we will strive to make development decisions that appropriately balance these considerations, with the intent of developing the best possible project.

The photograph above has been cropped to show a wide angle view with the below photograph's area shown in yellow.

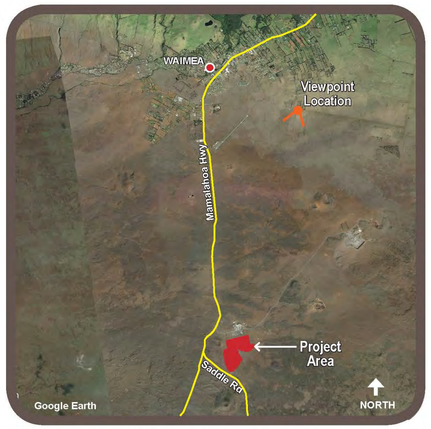


The photograph shows the view toward the Project area from the Waimea Hawaiian Homestead HOA. From this observation point, the area would not be visible because the solar field would be completely screened by rolling terrain indicated by the blue shading.

HALE KUAWEHI SOLAR PROJECT

PHOTO SIMULATION

Waimea Hawaiian Homestead Homeowners Association Area



VICINITY MAP

Photograph Information

Time of photograph: 10:50 AM
Date of photograph: 9-22-2018
Weather condition: Partially Cloudy
Viewing direction: South
Latitiude: 20° 0' 19.30" N
Longitude: 155° 38' 43.37" W
Photo Location: Photo taken from along Poliahu Road, approximately 225 feet east of Uakikoni Alanui Road and 2 miles southeast of Waimea.

The photograph above has been cropped to show a wide angle view with the below photograph's area shown in yellow.

The photograph shows the view toward the Project area from North Waimea. From this observation point, the area would not be visible because the solar field would be completely screened by vegetation indicated by the blue shading.

HALE KUAWEHI SOLAR PROJECT

PHOTO SIMULATION

North Waimea

VICINITY MAP

Photograph Information

Time of photograph: 2:36 PM
Date of photograph: 9-22-2018
Weather condition: Overcast
Viewing direction: South
Latitiude: 20° 1' 42.43" N
Longitude: 155° 40' 32.36" W
Photo Location: Photo taken from along Lihipali Road, approximately 345 feet north of Konokohau Road in the Waimea community.

The photograph above has been cropped to show a wide angle view with the below photograph's area shown in yellow.

The photograph shows the view toward the Project area from the intersection of Mamalahoa Highway and Saddle Road. From this observation point, the area would be partially screened by rolling terrain. The simulated view depicts the portion of the solar field that would be visible from this location.

HALE KUAWEHI SOLAR PROJECT

PHOTO SIMULATION

Mamalahoa Highway and Saddle Road

VICINITY MAP

Photograph Information

Time of photograph: 4:56 PM
Date of photograph: 9-22-2018
Weather condition: Overcast
Viewing direction: East
Latitiude: 19° 56' 9.04" N
Longitude: 155° 41' 15.15" W
Photo Location: Photo taken from the intersection of Mamalahoa Highway and Saddle Road, and approximately 6 miles south of Waimea.

The photograph above has been cropped to show a wide angle view with the below photograph's area shown in yellow.

The photograph shows the view toward the Project area from Saddle Road, approximately 1 mile south of Mamalahoa Highway. From this observation point, the majority of the area would be visible with a limited portion screened by vegetation. The simulated view depicts the portion of the solar field that would be visible from this location.

HALE KUAWEHI SOLAR PROJECT

PHOTO SIMULATION

Saddle Road

VICINITY MAP

Photograph Information

Time of photograph: 5:20 PM
Date of photograph: 9-22-2018
Weather condition: Overcast
Viewing direction: East
Latitiude: 19° 55' 25.80" N
Longitude: 155° 40' 36.18" W
Photo Location: Photo taken from Saddle Road, approximately 1 mile south of Mamalahoa Highway, and approximately 6.6 miles south of Waimea.

TIMELINE

- **February 2018** Request for Proposal Issued ✓
- **April 2018** Request for Proposal Bids Submission ✓
- **June 2018** Short List Group Notification and Best and Final Offer ✓
- **September 2018** Final Award Group Selection and Contract Negotiations Begin ✓
- **December 2018** Execute Power Purchase Agreement (PPA)
- **2019** Public Utilities Commission Approval of the PPA
- **2019-2021** Complete Archaeological and Cultural Surveys, Environmental and Technical Studies and Obtain Permits and Approvals
- **Q3 2021** Estimated Construction Start
- **Q2 2022** Commercial Operation Date
- **Operation**: 25-Year PPA Timeframe

COMMUNITY ENGAGEMENT IS ONGOING THROUGHOUT THE ENTIRE PROCESS.

Mahalo.

Your opinion is important!

Please provide us with your feedback by filling out the form or submit your comments at **hawaiisolar@innergex.com**

INNERGEX

Renewable Energy.
Sustainable Development.

www.innergex.com