

Kūihelani Solar Phase 2



August 27, 2024



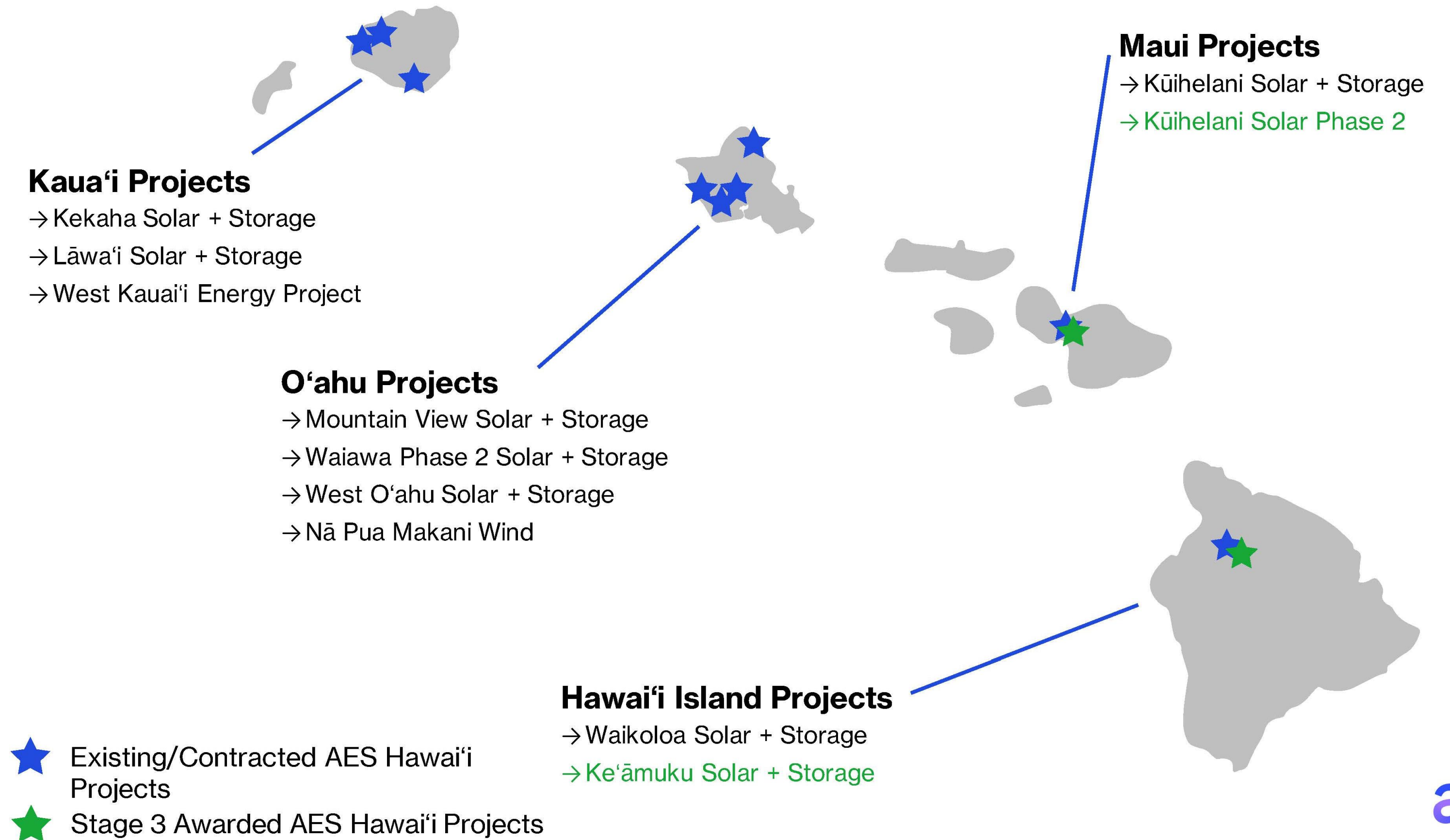
Agenda

- Meeting Recorded
- Project Specifications
- Benefits & Preliminary Feedback
- Anticipated Timeline
- Studies and Design Considerations
- Community Benefits
- 30-Day Comment Period –
September 26, 2024
- Q&A -
 - Chat Function
 - Raise Hand to Appear on Camera



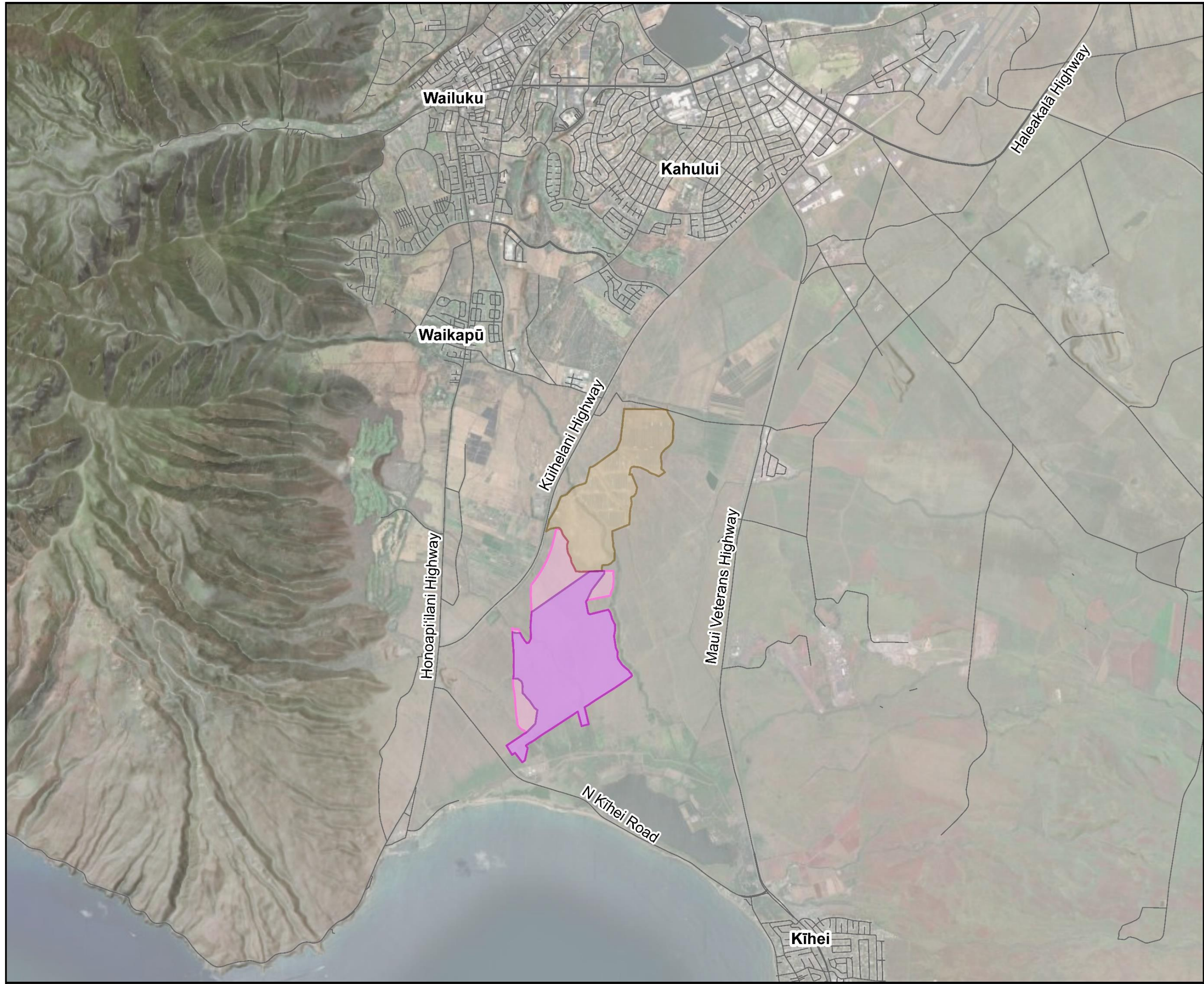
Kūihelani Solar Phase 2

AES Hawai'i's Statewide Presence



Project Specifications

- 40 MWac Solar Photovoltaic (PV) Array
- 160 MWh Battery Energy Storage System (BESS)
- Landowner: Mahi Pono
 - ~730 acres Study Area
 - ~575 acres Preliminary Project Area
- 25-year Power Purchase Agreement (PPA)
- 2027 Guaranteed Commercial Operations Date (GCOD)
- Decommissioning
- Primary Approvals:
 - PUC/HECO PPA
 - Maui County Special Use Permit - Planning Commission
 - State Special Use Permit - State Land Use Commission



**Kūihelani Solar
Phase 2 Project**

**Figure 1
Project Vicinity**

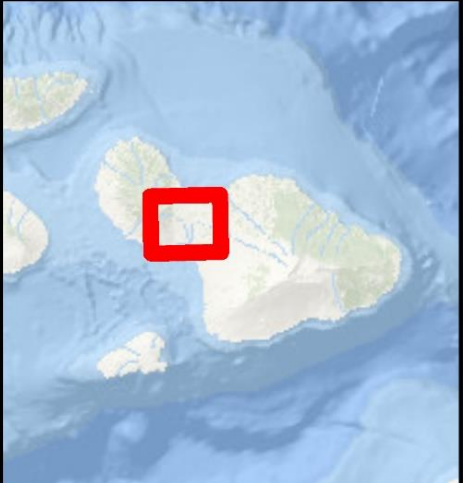
MAUI COUNTY, HAWAII

- Project Study Area
- Preliminary Project Area
- Existing AES
- Kūihelani Solar Plus Storage Project
- Roadway

aes Hawai'i

Tt TETRA TECH

Reference Map

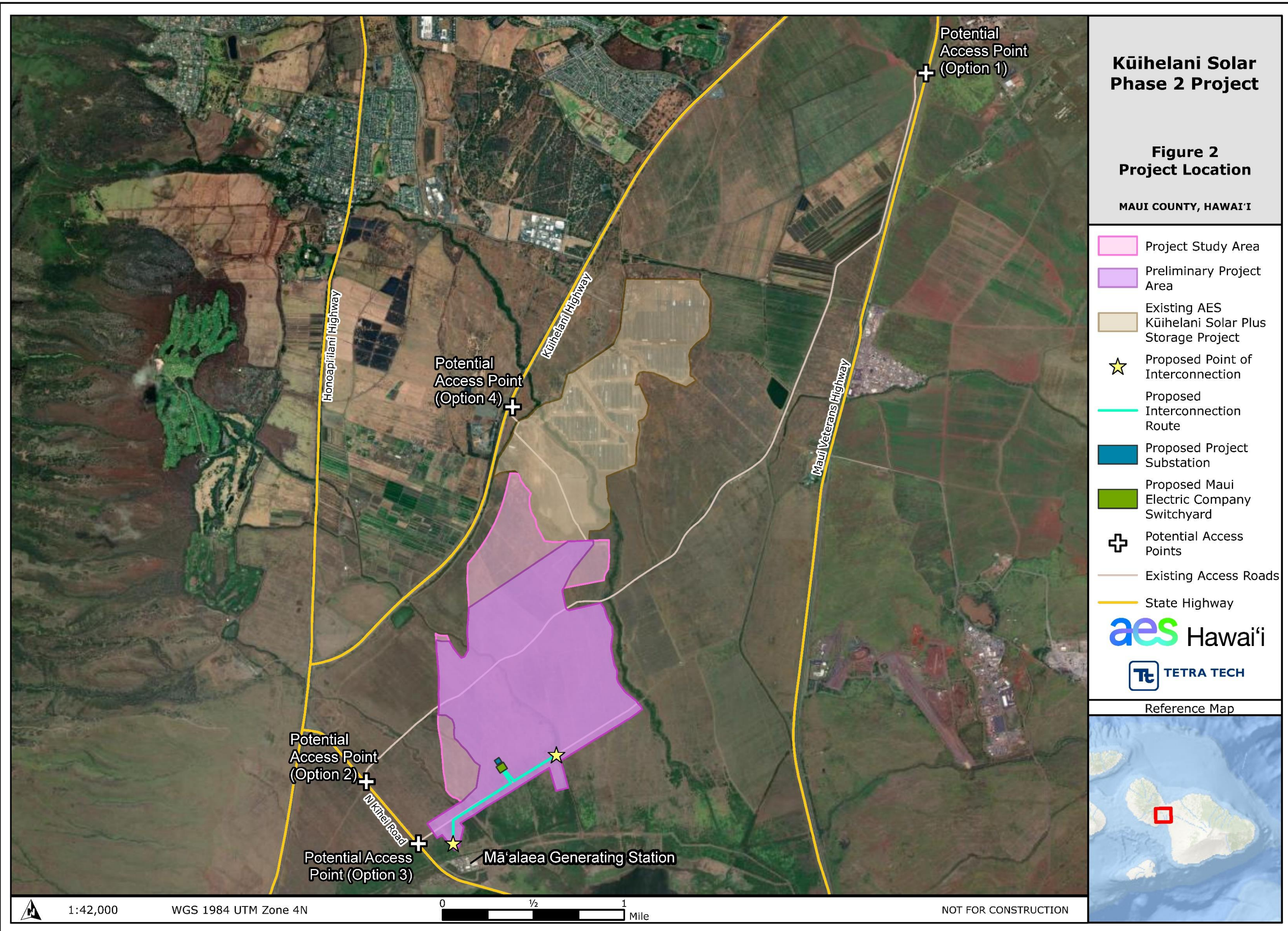


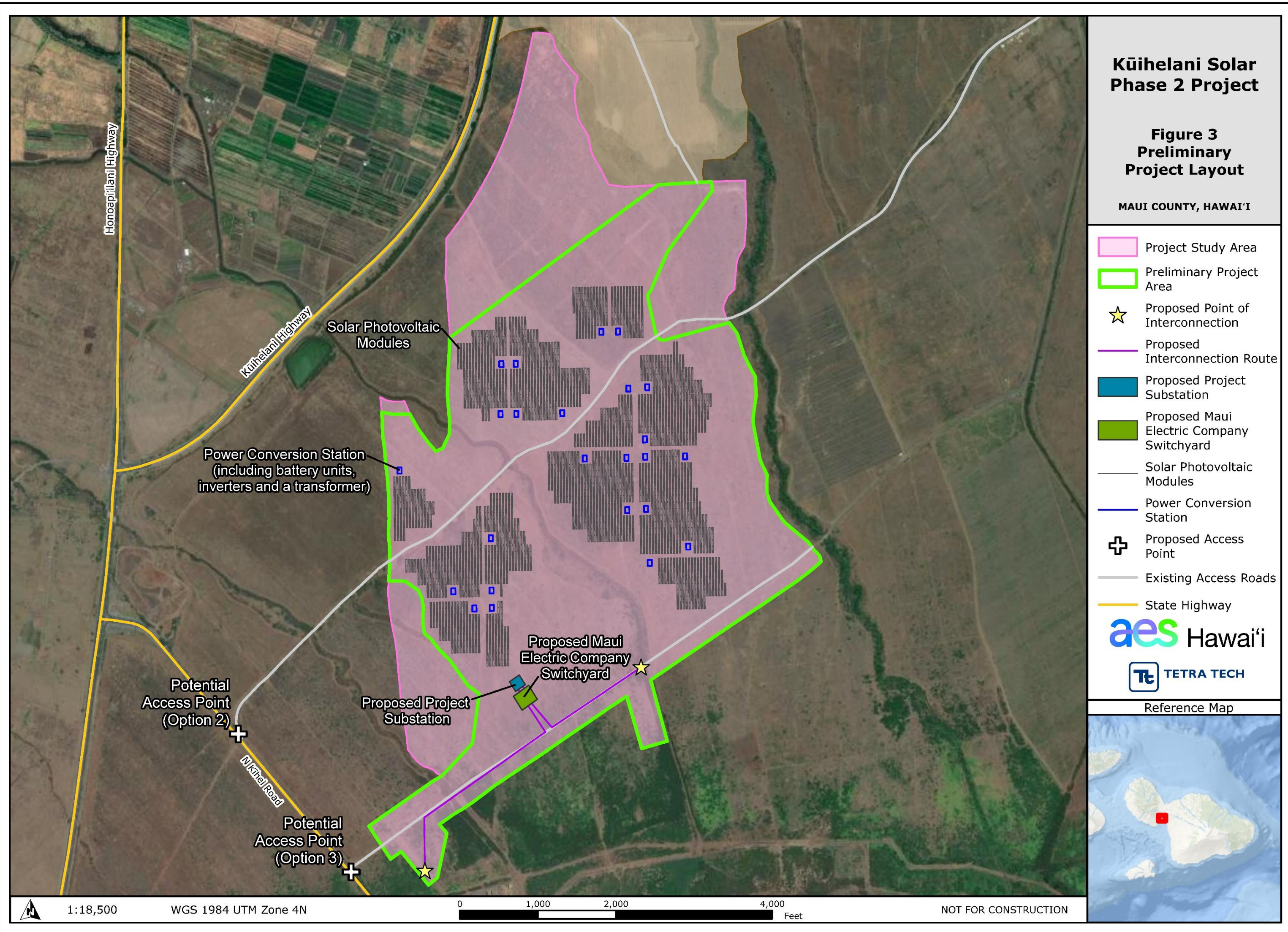
1:75,000

WGS 1984 UTM Zone 4N



NOT FOR CONSTRUCTION





**Kūihelani Solar
Phase 2 Project**

**Figure 3
Preliminary
Project Layout**

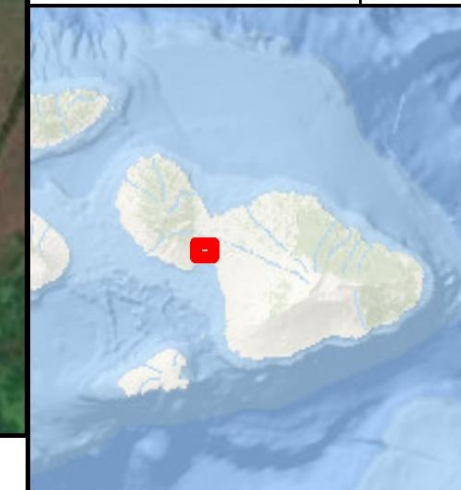
MAUI COUNTY, HAWAII

- Project Study Area
- Preliminary Project Area
- Proposed Point of Interconnection
- Proposed Interconnection Route
- Proposed Project Substation
- Proposed Maui Electric Company Switchyard
- Solar Photovoltaic Modules
- Power Conversion Station
- Proposed Access Point
- Existing Access Roads
- State Highway

aes Hawai'i

Tt TETRA TECH

Reference Map



1:18,500

WGS 1984 UTM Zone 4N

0 1,000 2,000 4,000 Feet

NOT FOR CONSTRUCTION

Representative Photos of Equipment

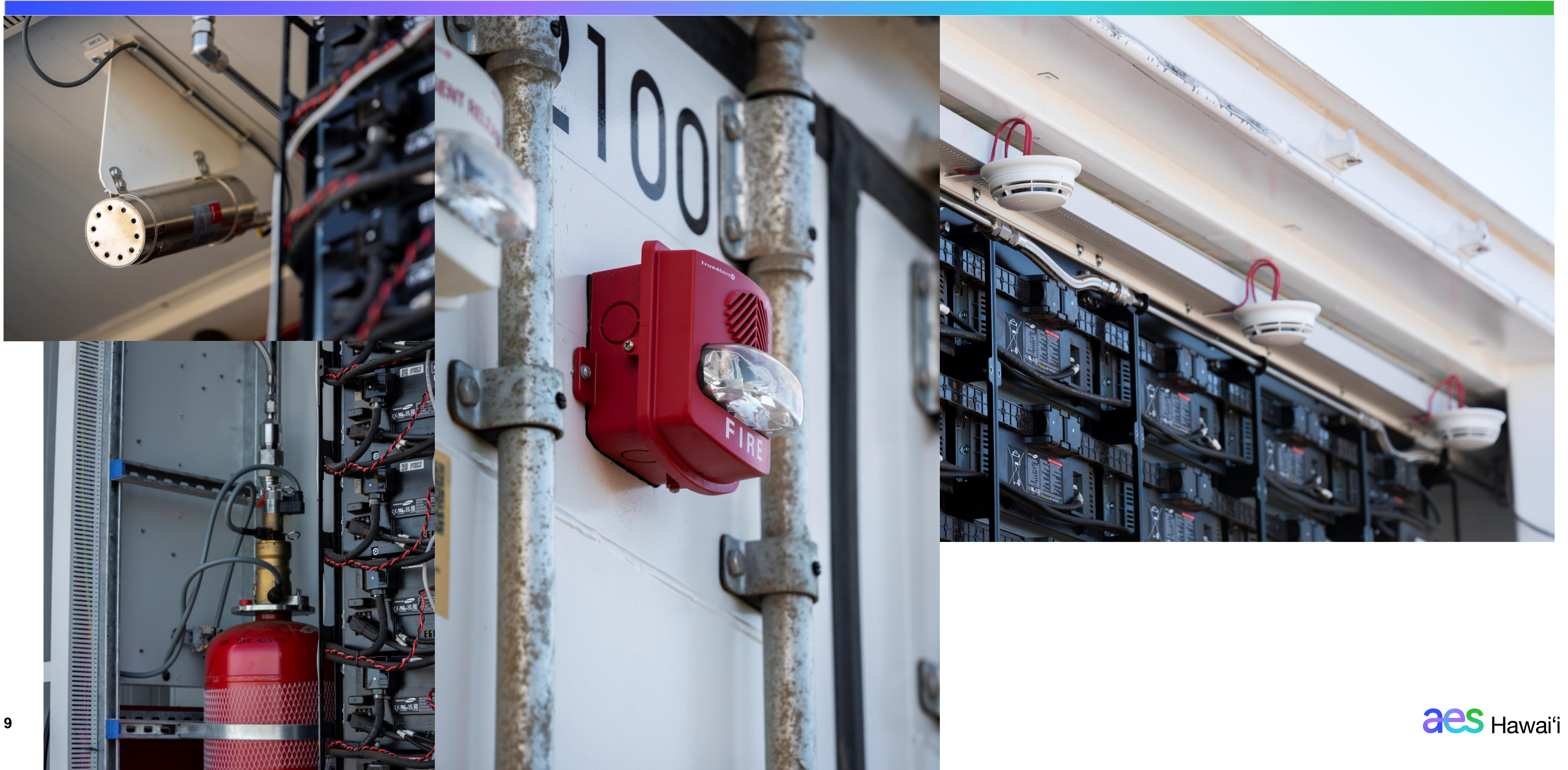
Solar Panels



Battery
Energy
Storage
System



Representative Photos of Equipment



Kūihelani Solar + Storage



Waikoloa Solar + Storage



Kūihelani Solar + Storage



Project Benefits & Preliminary Feedback



Project Benefits - Environmental



~ **10%** of Maui's energy needs*



~ **18,425** homes powered annually*



4.3M barrels of oil avoided*

*Subject to Change

Project Benefits - Economic



~\$209 million to the economy*

- Direct, indirect, and induced economic activity



~1,300 jobs*

- Direct, indirect, and induced full-time-equivalent (FTE) jobs

*Subject to Change

Project Benefits - Cost


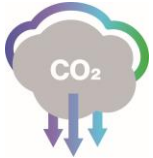



Low, stable price



Supports sunsetting of traditional fossil fuel plants and grid modernization

Pre-Award Public Sentiment Survey

- 359 Maui Residents
 - Survey conducted from February – March 2022
 - Margin of error +/- 5.8 % points, 95% confidence interval.
- **70% Support**, 16% neutral, 7% opposed, 7% don't know
- Top Reasons
 - Reduces costs of electricity 
 - Cuts down on fossil fuel use 
 - Good for the environment or climate & community 

Anticipated Project Timeline

Q1 2024 – Q1 2026

Project design and engineering

Q1 – Q3 2025

PUC PPA review and approval

Q3 2024 – Q3 2026

Agency consultation, approvals, and permitting

Q3 2026 – 2027

Construction and commissioning

2027 Operation

Proposed commercial operation date



Studies and Design Considerations



Cultural and Archaeological Studies



- **Literature Review and Field Investigation (LRFI) – Completed**
- **Cultural Impact Assessment – In process**
 - Consultation
 - Lineal and cultural descendants
 - Kūpuna, kama‘āina, cultural practitioners
 - Community groups
- **Archaeological Inventory Survey (AIS) – In process**
- **Archaeological Monitoring Plan**

Compatible Agriculture



Partnering with Local Agricultural Operators

- Partnering with Agricultural Experts and Consultants
- Local Farmers/Ranchers
- No-Cost Land Lease
- Financial Support

Balancing Resources

- Limiting Water Use

Potential Agricultural Activities

- Grazing
- Honey Production
- Limited Cultivation

Achieving Hawai'i and Maui Agriculture and Energy Goals Together

- Landowner + Developer + Local Ag Partners

Traffic Study



- **Traffic Study** – Traffic Impact Analysis Report (TIAR) in process
- **Construction Traffic – Best Management Practices**
 - Deliveries During Off-Peak Hours
 - Construction Traffic Management Plan
 - Multiple Access Points
- **Minimal new traffic once operational**
 - 4-5 Vehicles/Day

Wildfire Mitigation



- Clearance Zones
- Vegetation Management
- Fire Breaks
- Innovative Fire Suppression and Alarm Technology
- Emergency Response Plans
- Multiple Access Points Including Emergency
- County Fire Codes and State Regulations
 - Engagement with the local fire department and emergency response agencies throughout permitting, construction and operations
 - Project plans are reviewed by county fire officials prior to permit approvals

Visual Simulations



- Representative simulations from publicly accessible viewpoints
- Focal length to simulate view from naked eye
- Photograph taken from human-scale height
- Glint/Glare analysis

Existing Conditions



Simulated Conditions



**Kuiheilani 2
Solar Project**

*VISUAL SIMULATIONS
10% Rev. Design 1*

Maalahi Street



VICINITY MAP

Photograph Information

Maalahi St
Time of photograph: 12:30 p.m.
Date of photograph: 11/20/2023
Weather condition: Partly Cloudy
Viewing direction: Southeast
Latitude: 20.863246° N
Longitude: -156.517474° W



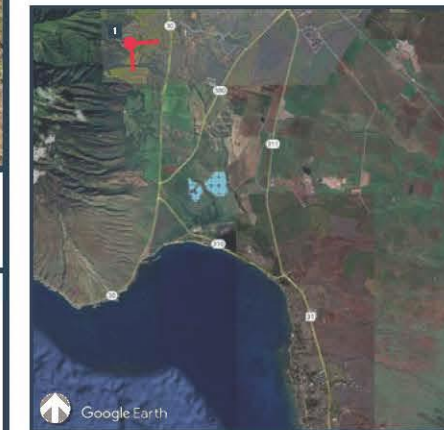
Existing Conditions



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Maalahi Street



VICINITY MAP

Simulated Conditions

Highlighted



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Existing Conditions



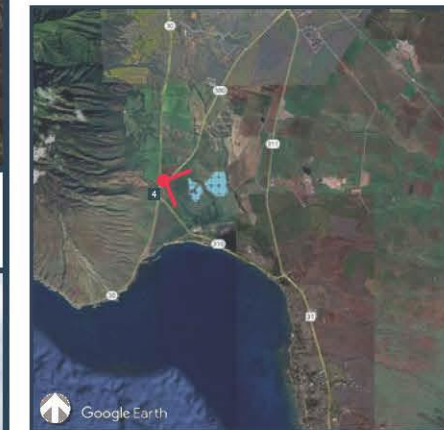
Simulated Conditions



**Kuiheilani 2
Solar Project**

*VISUAL SIMULATIONS
10% Rev. Design 1*

Kuiheilani Highway



VICINITY MAP

Photograph Information

Kuiheilani Hwy
Time of photograph: 1:10 p.m.
Date of photograph: 11/20/2023
Weather condition: Partly Cloudy
Viewing direction: East-southeast
Latitude: 20.817343° N
Longitude: -156.504602° W



Existing Conditions



Simulated Conditions

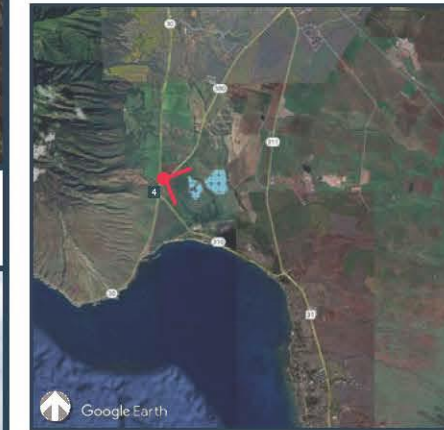
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Existing Conditions



Simulated Conditions



Views of the Project Area, shown overlaid in green, are obstructed by foreground terrain and vegetation.

Kuiheilani 2 Solar Project

*VISUAL SIMULATIONS
10% Rev. Design 1*

Maalea Harbor



VICINITY MAP

Photograph Information

Maalea Harbor
Time of photograph: 12:00 p.m.
Date of photograph: 02/23/2024
Weather condition: Partly Cloudy
Viewing direction: Northeast
Latitude: 20.796502° N
Longitude: -156.510418° W



Existing Conditions



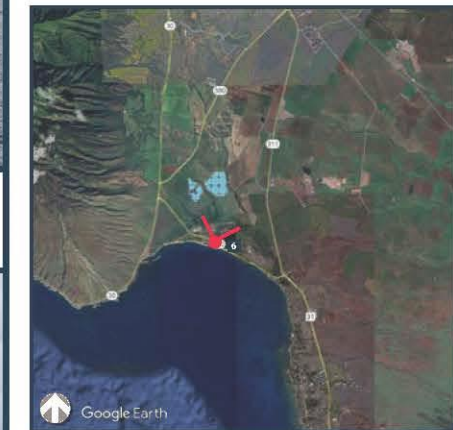
Simulated Conditions



**Kuiheilani 2
Solar Project**

*VISUAL SIMULATIONS
10% Rev. Design 1*

Kealia Boardwalk



VICINITY MAP

Photograph Information

Kealia Boardwalk
Time of photograph: 12:50 p.m.
Date of photograph: 02/23/2024
Weather condition: Partly Cloudy
Viewing direction: North-northeast
Latitude: 20.796214° N
Longitude: -156.487986° W



Existing Conditions



Simulated Conditions

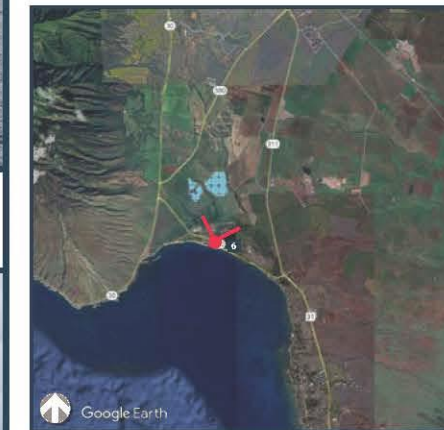
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Kealia Boardwalk



VICINITY MAP

Photograph Information

Kealia Boardwalk

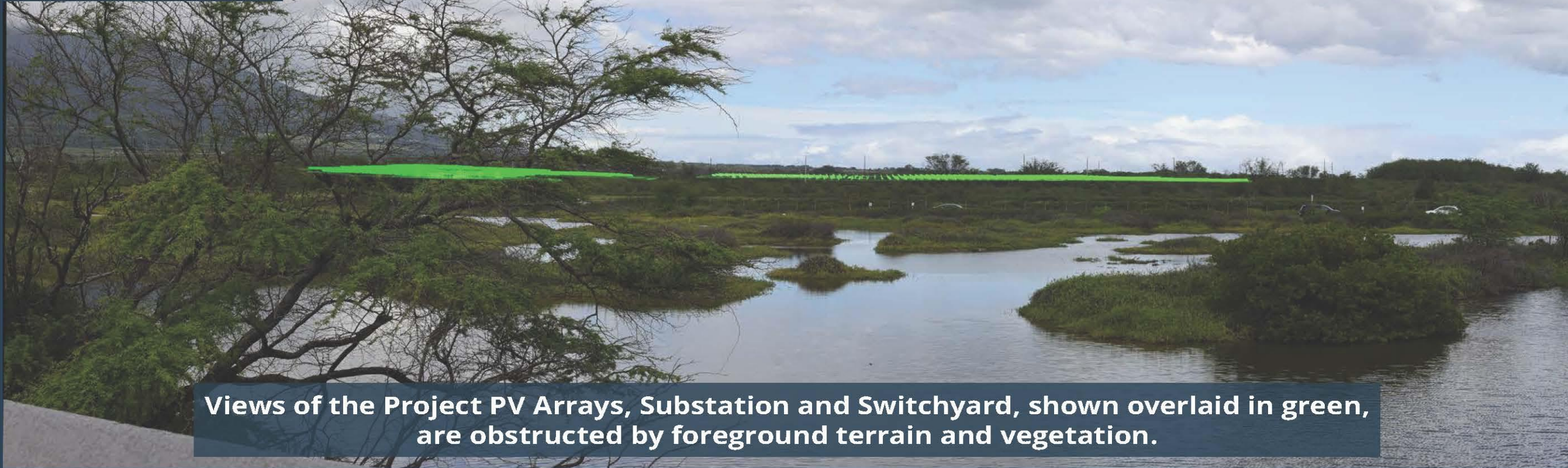
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Existing Conditions



Simulated Conditions



Views of the Project PV Arrays, Substation and Switchyard, shown overlaid in green, are obstructed by foreground terrain and vegetation.

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Simulated Conditions



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N Kihei Rd



VICINITY MAP

Photograph Information

N Kihei Rd
Time of photograph: 2:00 p.m.
Date of photograph: 11/20/2023
Weather condition: Partly Cloudy
Viewing direction: North
Latitude: 20.787193° N
Longitude: -156.469102° W



Existing Conditions



**Kuiheilani 2
Solar Project**

*VISUAL SIMULATIONS
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N Kihei Rd



VICINITY MAP

Simulated Conditions

Highlighted



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N Kihei Rd
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Weather condition: Partly Cloudy
Viewing direction: North
Latitude: 20.787193° N
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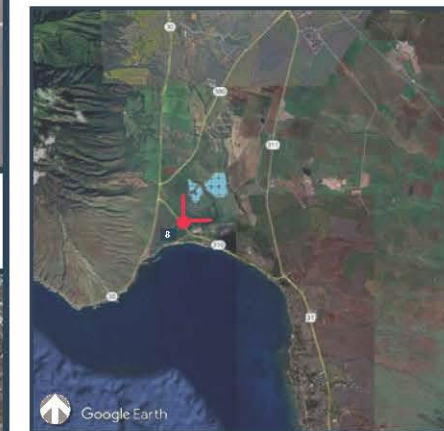
Existing Conditions



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N Kihei Rd



VICINITY MAP

Simulated Conditions



Photograph Information

N Kihei Rd
Time of photograph: 1:25 p.m.
Date of photograph: 02/23/2024
Weather condition: Partly Cloudy
Viewing direction: Northeast
Latitude: 20.802601° N
Longitude: -156.498494° W



Existing Conditions



Simulated Conditions

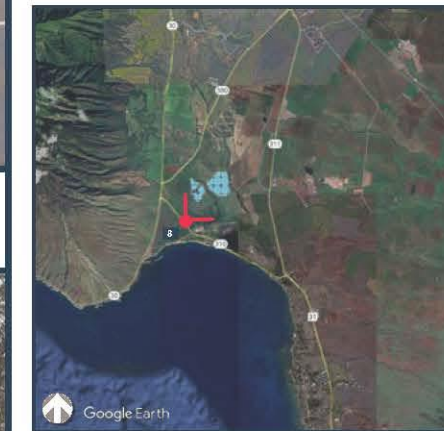
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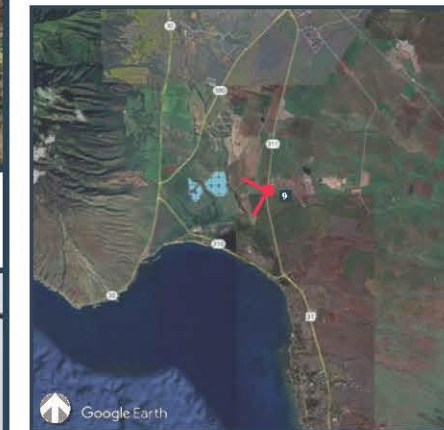
Simulated Conditions



**Kuiheilani 2
Solar Project**

*VISUAL SIMULATIONS
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Maui Veterans
Highway



VICINITY MAP

Photograph Information

Maui Veterans Hwy
Time of photograph: 2:40 p.m.
Date of photograph: 11/20/2023
Weather condition: Partly Cloudy
Viewing direction: West
Latitude: 20.814519° N
Longitude: -156.468175° W



Existing Conditions



Simulated Conditions

Highlighted



**Kuiheilani 2
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Maui Veterans
Highway



VICINITY MAP

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Existing Conditions



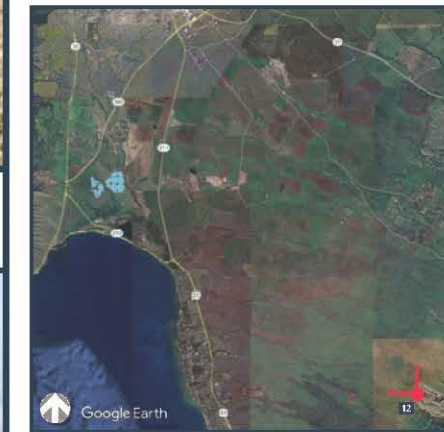
Simulated Conditions



**Kuiheilani 2
Solar Project**

*VISUAL SIMULATIONS
10% Rev. Design 1*

Waiohuli
Community Center



VICINITY MAP

Photograph Information

Waiohuli Community Center
Time of photograph: 11:15 a.m.
Date of photograph: 11/20/2023
Weather condition: Partly Cloudy
Viewing direction: Northwest
Latitude: 20.732253° N
Longitude: -156.360228° W



Existing Conditions



Simulated Conditions

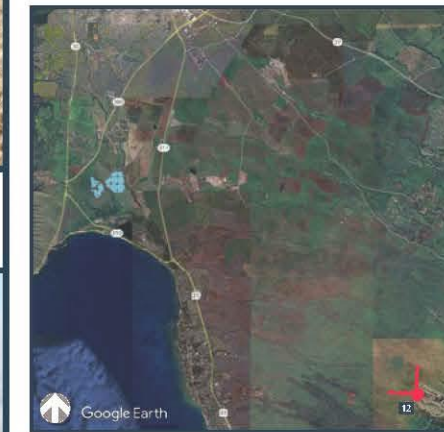
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**Kuiheilani 2
Solar Project**

*VISUAL SIMULATIONS
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Waiohuli
Community Center

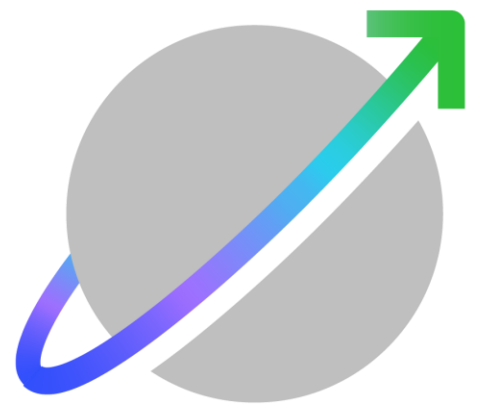


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Supporting the Community



aes Hawai'i

Community Benefits Package (CBP)

- 6 Months After Operation Date
- \$120,000/year
- 25 years - PPA Duration
- Community-Identified Beneficiaries
- AES Hawai'i Foundation - No-Cost Administration
- Input Welcome

Project Summary

- 40MW solar PV + 160 MWh battery storage
- 18,425 homes powered
- ~10% of the island's energy needs
- ~ 1,300+ jobs generated
- ~\$209M+ in economic output
- 25-year PPA term
- 2027 online
- \$120,000/year in Community Benefits
- 70% support

Feedback Welcome

- 30-day comment period through September 26
- Comments on overall project and design
- Comments on community beneficiaries of CBP
 - kuihelani2solar@aes.com
 - <https://www.aes-hawaii.com/kuihelani-40mw>



Mahalo!

Contact us:

Email: kuihelani2solar@aes.com

<https://www.aes-hawaii.com/kuihelani-40mw>