



Ke‘āmuku Solar + Storage Project



August 13, 2024
Community Meeting

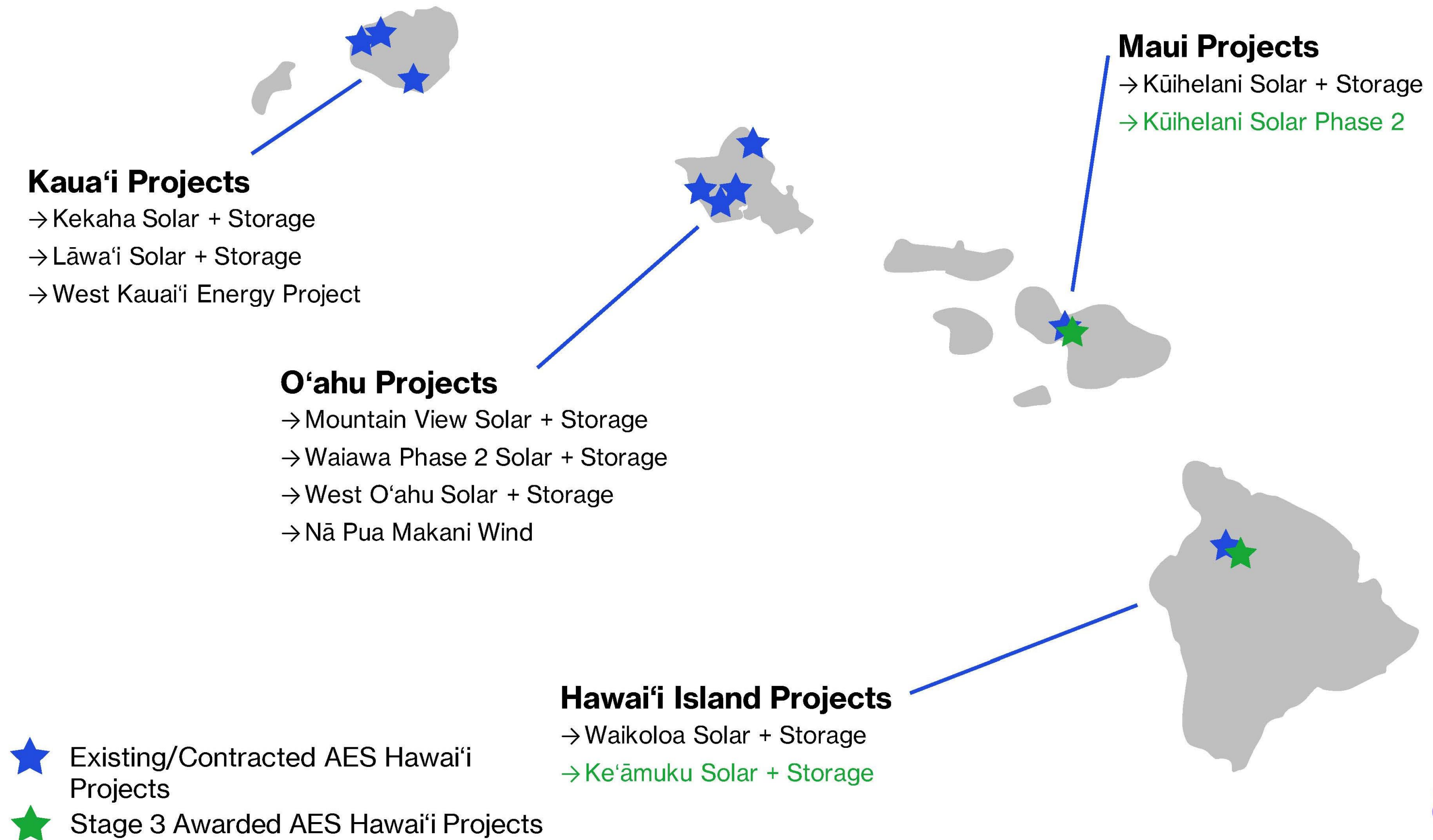


Agenda



- Meeting Recorded
- Project Specifications
- Project Benefits & Preliminary Feedback
- Anticipated Project Timeline
- Studies and Design Considerations
- Community Benefits
- 30-Day Comment Period – September 12, 2024
- Q&A -
 - Chat Function
 - Raise Hand to Appear on Camera

AES Hawai'i's Statewide Presence



Project Specifications

- 86 MWac solar photovoltaic array
- 344 MWh Battery Energy Storage System (BESS)
- ~700 acres on 1,090 acres of land owned by AES Hawai'i
- 25-year Power Purchase Agreement (PPA)
- 2030 Guaranteed Commercial Operations Date (GCOD)
- Decommissioning




Preliminary Vicinity Map



Ke'āmuku Solar + Storage Project

Figure 1 Project Vicinity

HAWAII ISLAND, HAWAII

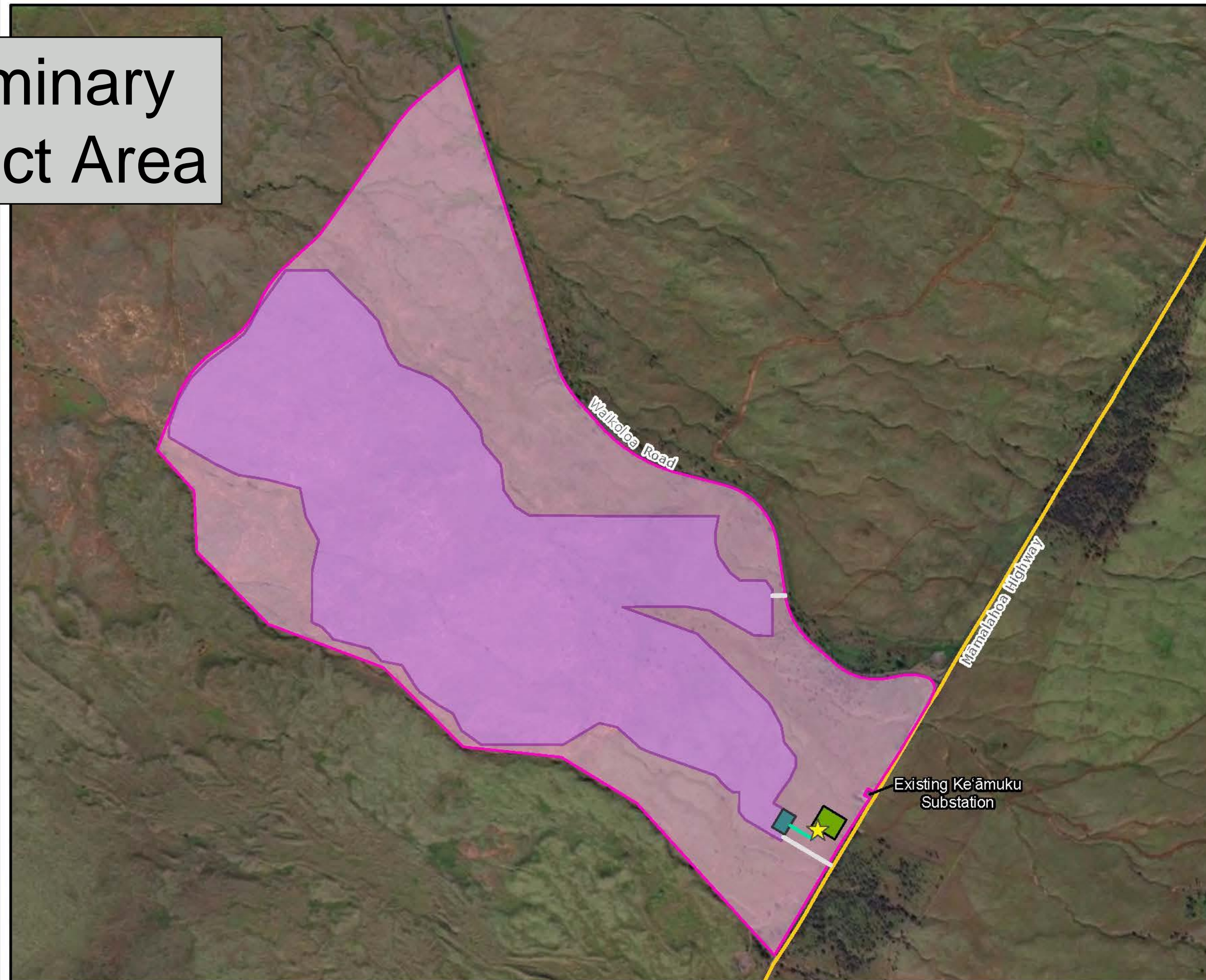
-  Study Area
-  Existing AES Hawai'i Waikoloa Solar + Storage Project
-  Roadway



Reference Map



Preliminary Project Area



Ke'āmuku Solar + Storage Project

Figure 2 Project Location

HAWAI'I ISLAND, HAWAI'I

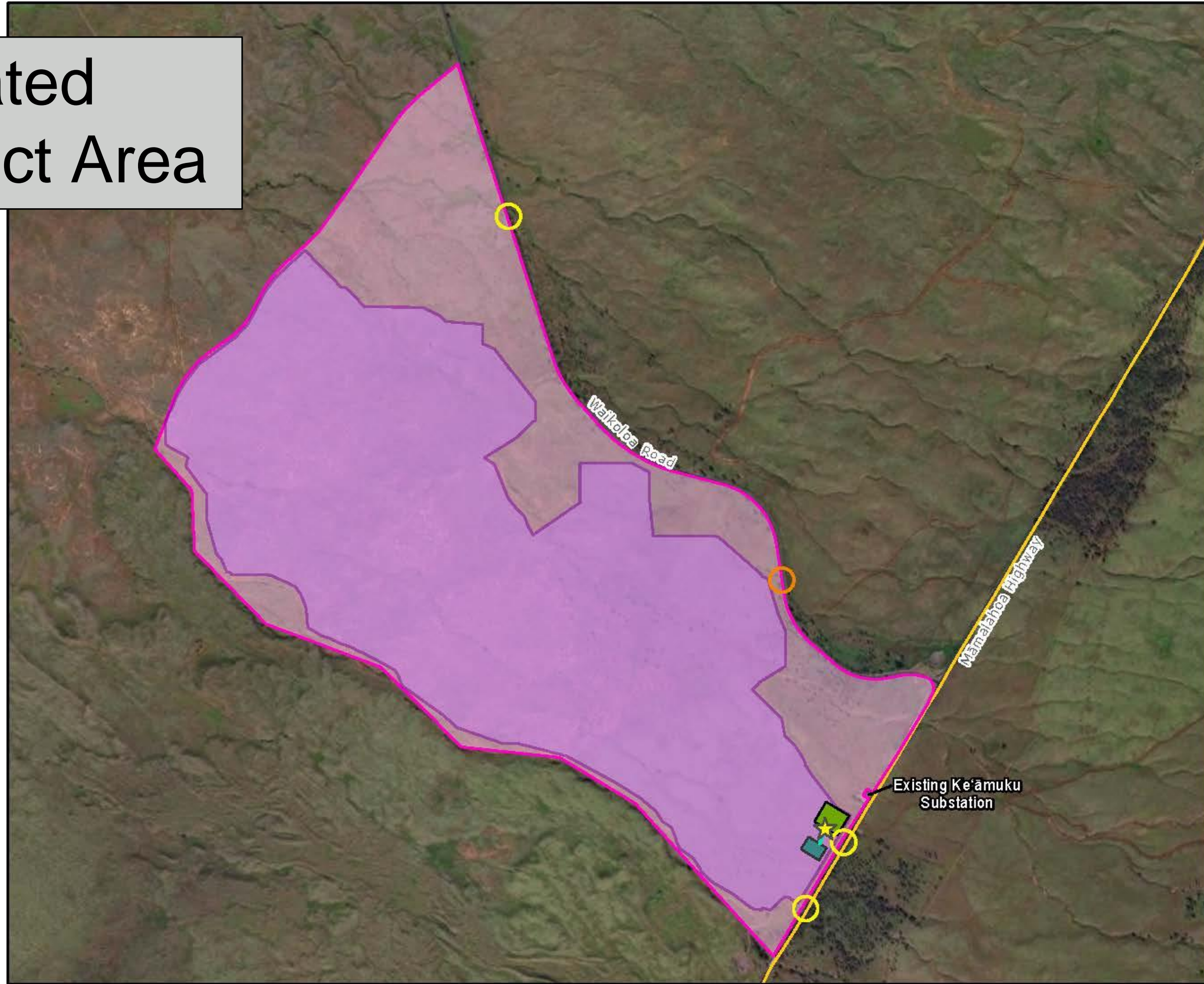
- Project Study Area
- Preliminary Project Area
- Proposed Point of Interconnection
- Proposed Interconnection Route
- Proposed Ke'āmuku Switching Station (Hawai'i Electric Light Company)
- Proposed Project Substation
- Proposed Access
- State Highway



Reference Map



Updated Project Area



Ke'amuku Solar + Storage Project
Figure 2 Project Location
HAWAII ISLAND, HAWAII

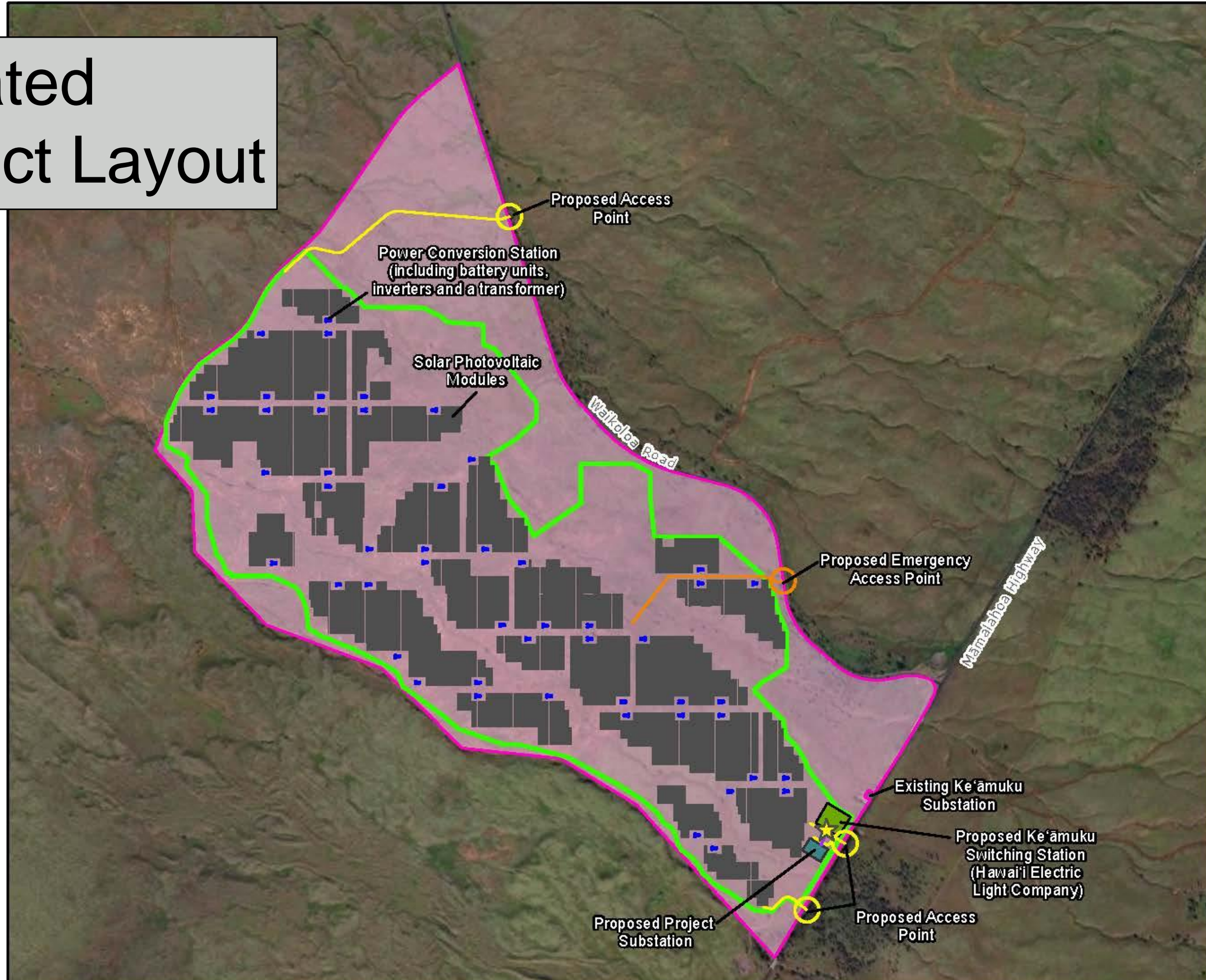
- Project Study Area
- Preliminary Project Area
- Proposed Point of Interconnection
- Proposed Interconnection Route
- Proposed Ke'amuku Switching Station (Hawaii Electric Light Company)
- Proposed Project Substation
- Proposed Access Points
- Proposed Emergency Access Point
- State Highway

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Tt TETRA TECH



1:21,000 WGS 1984 UTM Zone 4N 0 1/2 1 Mile NOT FOR CONSTRUCTION

Updated Project Layout



Ke'amuku Solar + Storage Project

Figure 3 Preliminary Project Layout

HAWAII ISLAND, HAWAII

- Project Study Area
- Preliminary Project Area
- ★ Proposed Point of Interconnection
- Proposed Interconnection Route
- Proposed Ke'amuku Switching Station (Hawai'i Electric Light Company)
- Proposed Project Substation
- Solar Photovoltaic Modules
- Power Conversion Station
- Proposed Access Points
- Access Road
- Proposed Emergency Access Point
- Emergency Access Road

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TETRA TECH



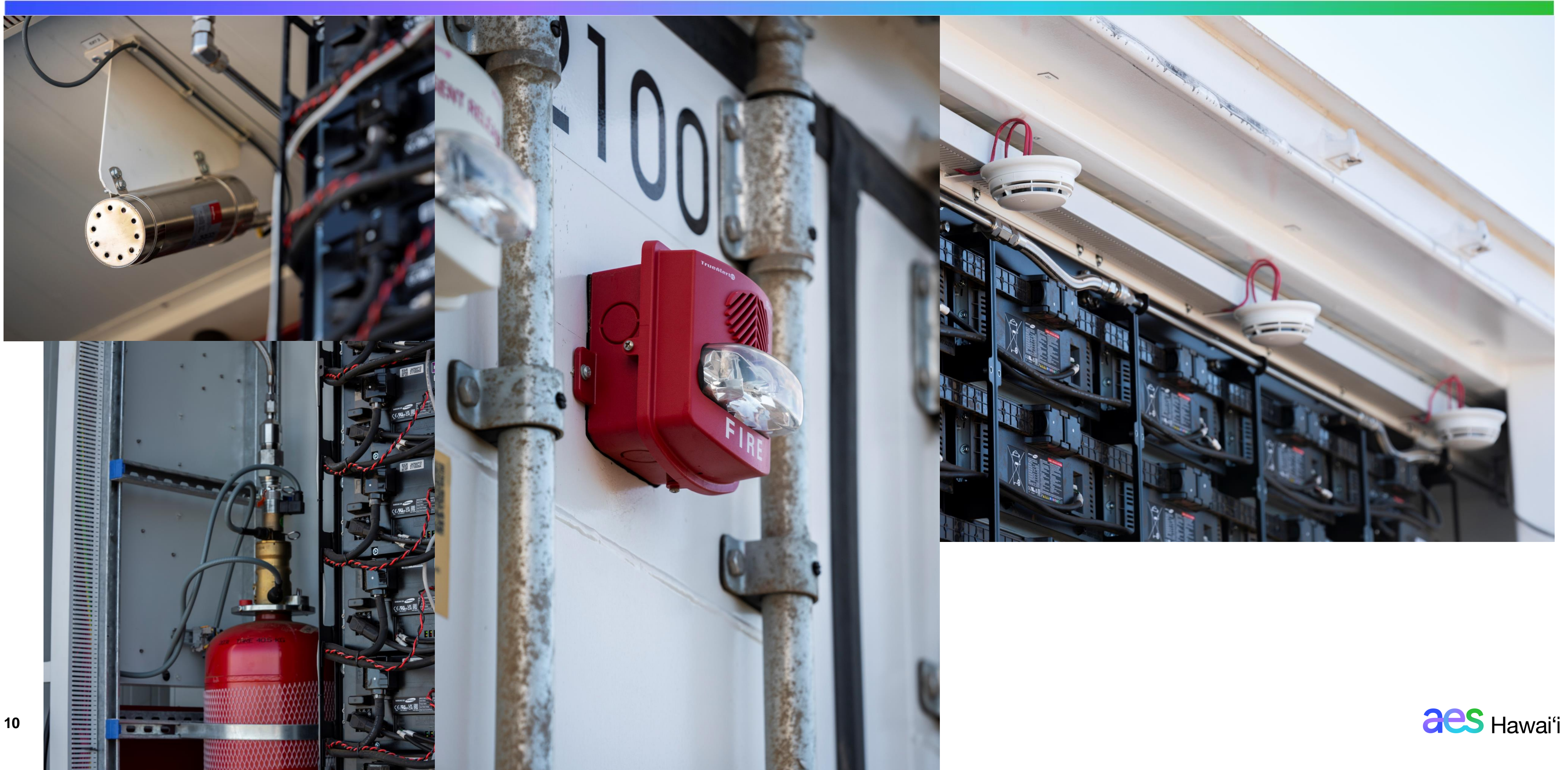
Representative Photos of Equipment

Solar Panels

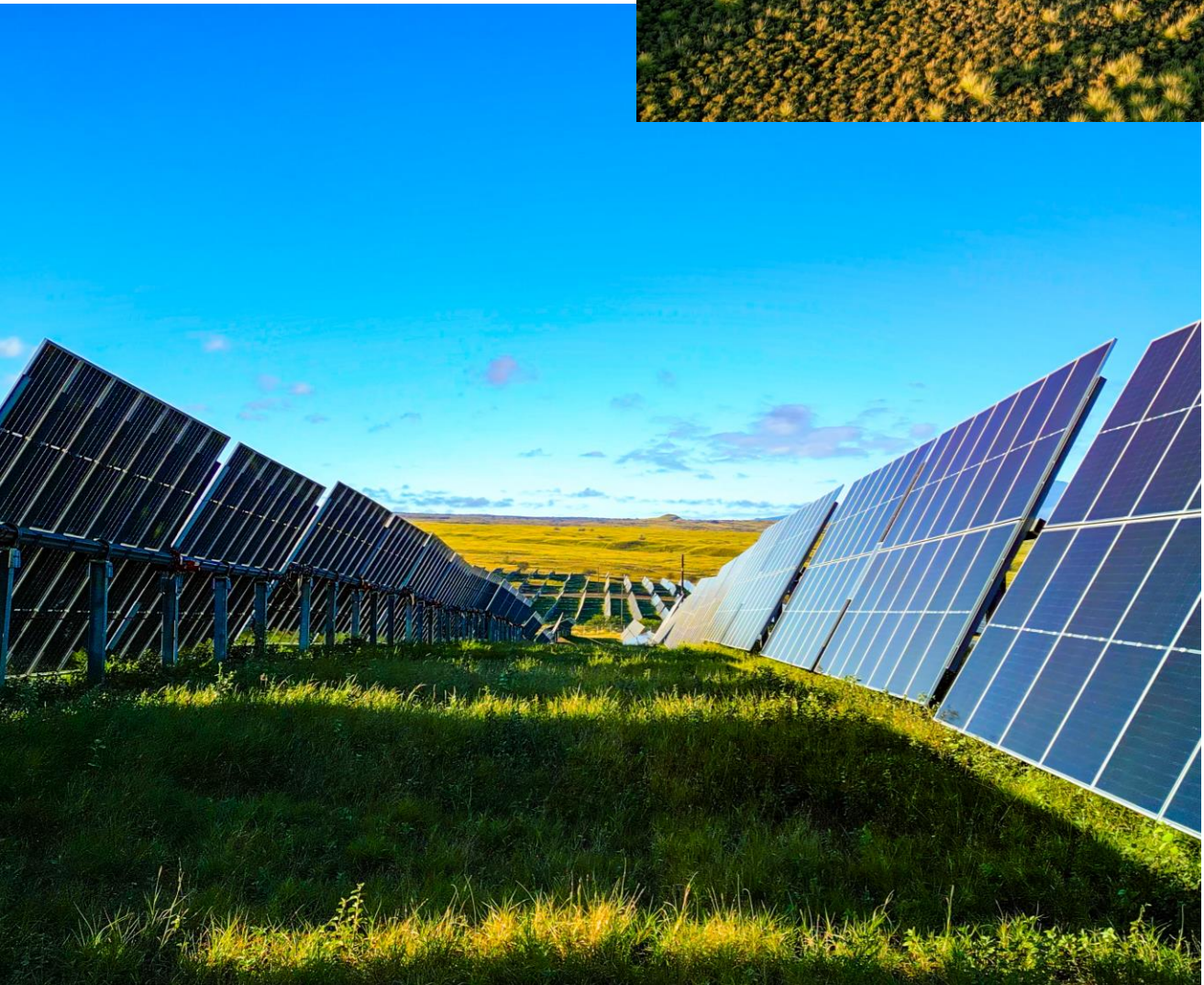


Battery
Energy
Storage
System

Representative Photos of Equipment



Waikoloa Solar + Storage





Project Benefits & Preliminary Feedback



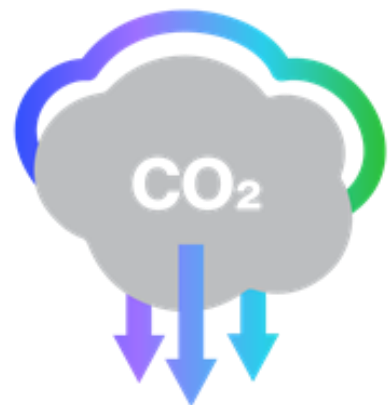
Project Benefits - Environmental



~ 20% of Hawai'i Island's energy needs*



35,336 homes powered annually*



8.4M Barrels of oil avoided*

*Subject to Change

Project Benefits – Economic



\$353 million*

- Direct, indirect, and induced economic activity



1,908 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

*Subject to Change




Pre-Award Public Sentiment Survey

→ 249 West Hawai'i residents surveyed

- Survey conducted from September to October 2022
- Margin of error +/- 6.21 percentage points, 95% confidence interval

→ **71% support**, 16% neutral, 10% oppose, 3% don't know

→ Top 3 reasons for support:

- Reduce the cost of electricity 
- Cut down on fossil fuel use 
- Good for the environment 

Anticipated Project Timeline

Q1 2024 – Q1 2026

Project design, due diligence, and engineering

Q4 2024 – Q3 2025

PUC PPA review and approval

Q1 2025 – Q4 2026

Agency consultation, approvals, and permitting

2027 – 2030

Construction and commissioning

2030 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**

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
 - Emergency Ingress/Egress
- **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
- Emergency Ingress and Egress
- County Fire Codes and State Regulations
 - Continuous engagement with the local fire departments 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



**Ke‘āmuku
Solar Project**

VISUAL SIMULATIONS

Viewpoint 1

Near Waikoloa Village
Pua Melia Street



Simulated Conditions

Highlighted



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

Photograph Information

1 - Near Waikoloa Village

Time of photograph: 1:50 p.m.
Date of photograph: 11/12/2023
Weather condition: Partly Cloudy
Viewing direction: Southeast
Latitude: 19.926288° N
Longitude: -155.787196° W



Existing Conditions



Simulated Conditions



**Ke‘āmuku
Solar Project**

VISUAL SIMULATIONS

Viewpoint 2

Waikoloa Rd



VICINITY MAP

Photograph Information

2 - Waikoloa Rd

Time of photograph: 1:40 p.m.
Date of photograph: 11/12/2023
Weather condition: Partly Cloudy
Viewing direction: Southeast
Latitude: 19.900017° N
Longitude: -155.740290° W

Existing Conditions



Simulated Conditions

Highlighted



Ke‘āmuku Solar Project

VISUAL SIMULATIONS

Viewpoint 2

Waikoloa Rd



VICINITY MAP

Photograph Information

2 - Waikoloa Rd

Time of photograph: 1:40 p.m.
Date of photograph: 11/12/2023
Weather condition: Partly Cloudy
Viewing direction: Southeast
Latitude: 19.900017° N
Longitude: -155.740290° W



Existing Conditions



Simulated Conditions



**Ke‘āmuku
Solar Project**

VISUAL SIMULATIONS

Viewpoint 3

Māmalahoa Highway
near Waikoloa Road



VICINITY MAP

Photograph Information

3 - Māmalahoa Hwy

Time of photograph: 12:30 p.m.
Date of photograph: 11/13/2023
Weather condition: Partly Cloudy
Viewing direction: Northwest
Latitude: 19.874970° N
Longitude: -155.722786° W



Existing Conditions



Simulated Conditions

Highlighted

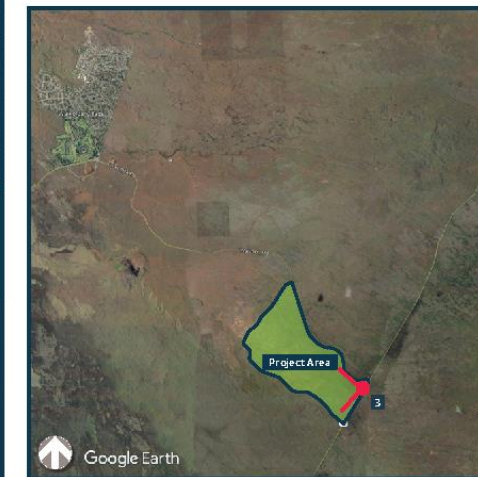


**Ke‘āmuku
Solar Project**

VISUAL SIMULATIONS

Viewpoint 3

Māmalahoa Highway



VICINITY MAP

Photograph Information

3 - Māmalahoa Hwy

Time of photograph: 12:30 p.m.
Date of photograph: 11/13/2023
Weather condition: Partly Cloudy
Viewing direction: Northwest
Latitude: 19.874970° N
Longitude: -155.722786° W



Existing Conditions



**Ke‘āmuku
Solar Project**

VISUAL SIMULATIONS

Viewpoint 4
Māmalahoa Highway



Simulated Conditions



Photograph Information

4 - Māmalahoa Hwy
Time of photograph: 12:15 p.m.
Date of photograph: 11/13/2023
Weather condition: Partly Cloudy
Viewing direction: Northwest
Latitude: 19.867566° N
Longitude: -155.727458° W



Existing Conditions



**Ke‘āmuku
Solar Project**

VISUAL SIMULATIONS

Viewpoint 4
Māmalahoa Highway



VICINITY MAP

Simulated Conditions

Highlighted



Photograph Information

4 - Māmalahoa Hwy
Time of photograph: 12:15 p.m.
Date of photograph: 11/13/2023
Weather condition: Partly Cloudy
Viewing direction: Northwest
Latitude: 19.867566° N
Longitude: -155.727458° W



Existing Conditions



Simulated Conditions



**Ke‘āmuku
Solar Project**

VISUAL SIMULATIONS

Viewpoint 5
Māmalahoa Highway



VICINITY MAP

Photograph Information

5 - Māmalahoa Hwy
Time of photograph: 12:00 p.m.
Date of photograph: 11/13/2023
Weather condition: Partly Cloudy
Viewing direction: Southwest
Latitude: 19.907719° N
Longitude: -155.705220° W



Existing Conditions



Simulated Conditions

Highlighted

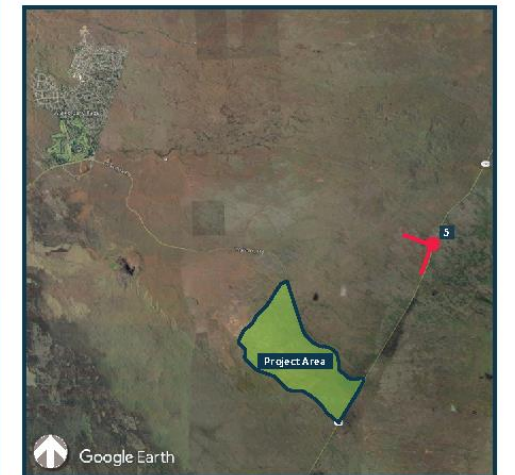


**Ke‘āmuku
Solar Project**

VISUAL SIMULATIONS

Viewpoint 5

Māmalahoa Highway



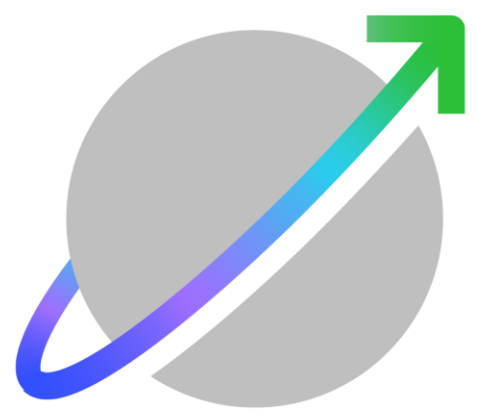
VICINITY MAP

Photograph Information

5 - Māmalahoa Hwy

Time of photograph: 12:00 p.m.
Date of photograph: 11/13/2023
Weather condition: Partly Cloudy
Viewing direction: Southwest
Latitude: 19.907719° N
Longitude: -155.705220° W





Supporting the Community



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Community Benefits Package (CBP)

- 6 Months After Operation Date
- \$258,000/year
- 25 years - PPA Duration
- Community-Identified Beneficiaries
- AES Hawai'i Foundation - No-Cost Administration
- Input Welcome

Project Summary

- 86 MW solar PV + 344 MWh Battery Storage
- 35,336 homes powered
- 20% of the island's energy needs
- ~1,908 jobs generated
- ~\$353M in economic output
- 25-year PPA term
- 2030 online
- \$258,000/year in Community Benefits
- 71% support

Feedback Welcome

- 30-day comment period through September 12
- Comments on the overall project and design
- Comments on community beneficiaries of CBP
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Mahalo!

Contact us

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