Kūihelani Solar Phase 2

Waikapū Community Association

September 9, 2024

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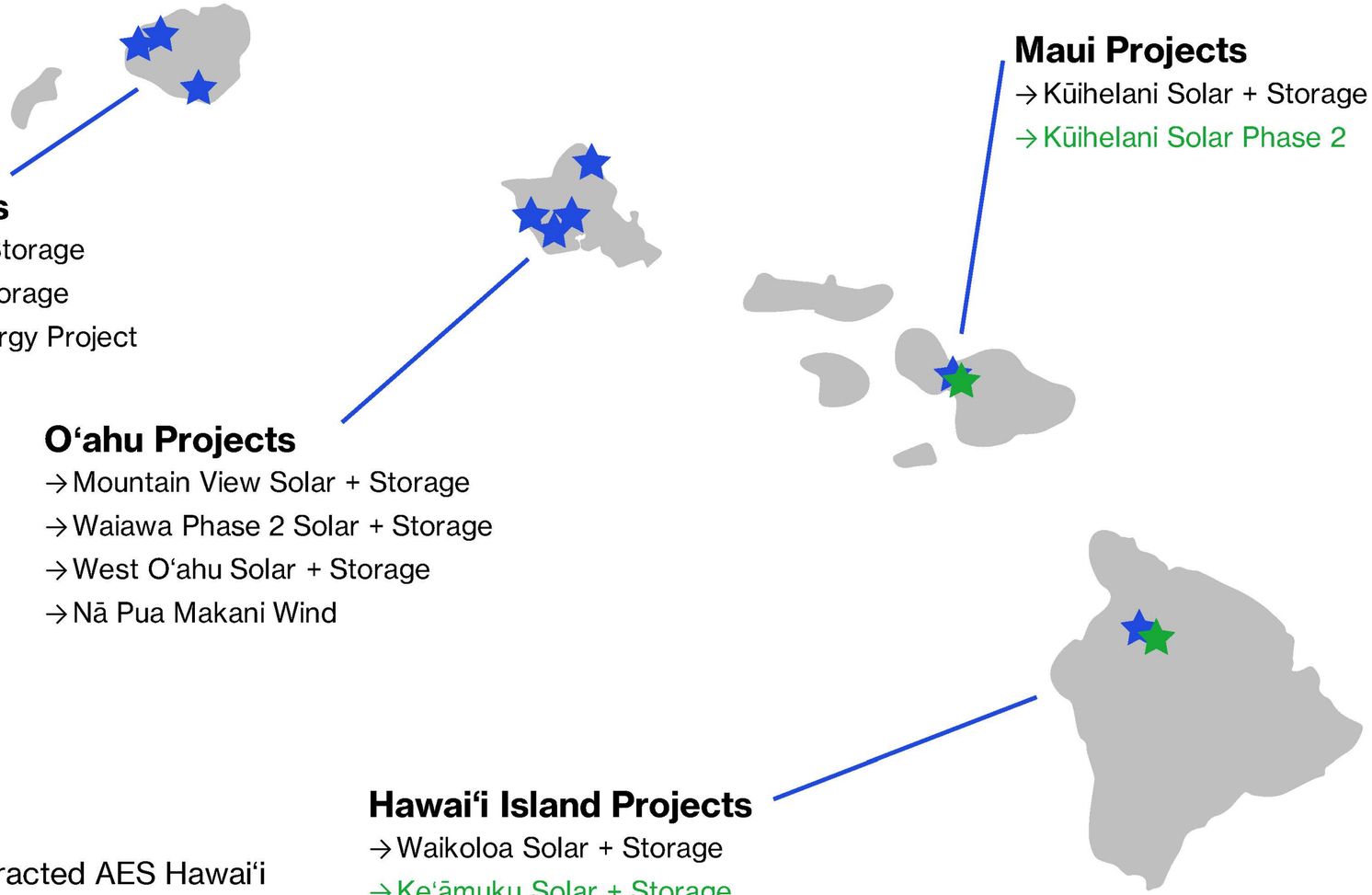
AES Hawai‘i’s Statewide Presence



Kaua‘i Projects
→ Kekaha Solar + Storage
→ Lāwa‘i Solar + Storage
→ West Kauai‘i Energy Project

O‘ahu Projects
→ Mountain View Solar + Storage
→ Waiawa Phase 2 Solar + Storage
→ West O‘ahu Solar + Storage
→ Nā Pua Makani Wind

Maui Projects
→ Kūihelani Solar + Storage
→ Kūihelani Solar Phase 2

Hawai‘i Island Projects
→ Waikoloa Solar + Storage
→ Ke‘āmuku Solar + Storage

★ Existing/Contracted AES Hawai‘i Projects
★ Stage 3 Awarded AES Hawai‘i Projects

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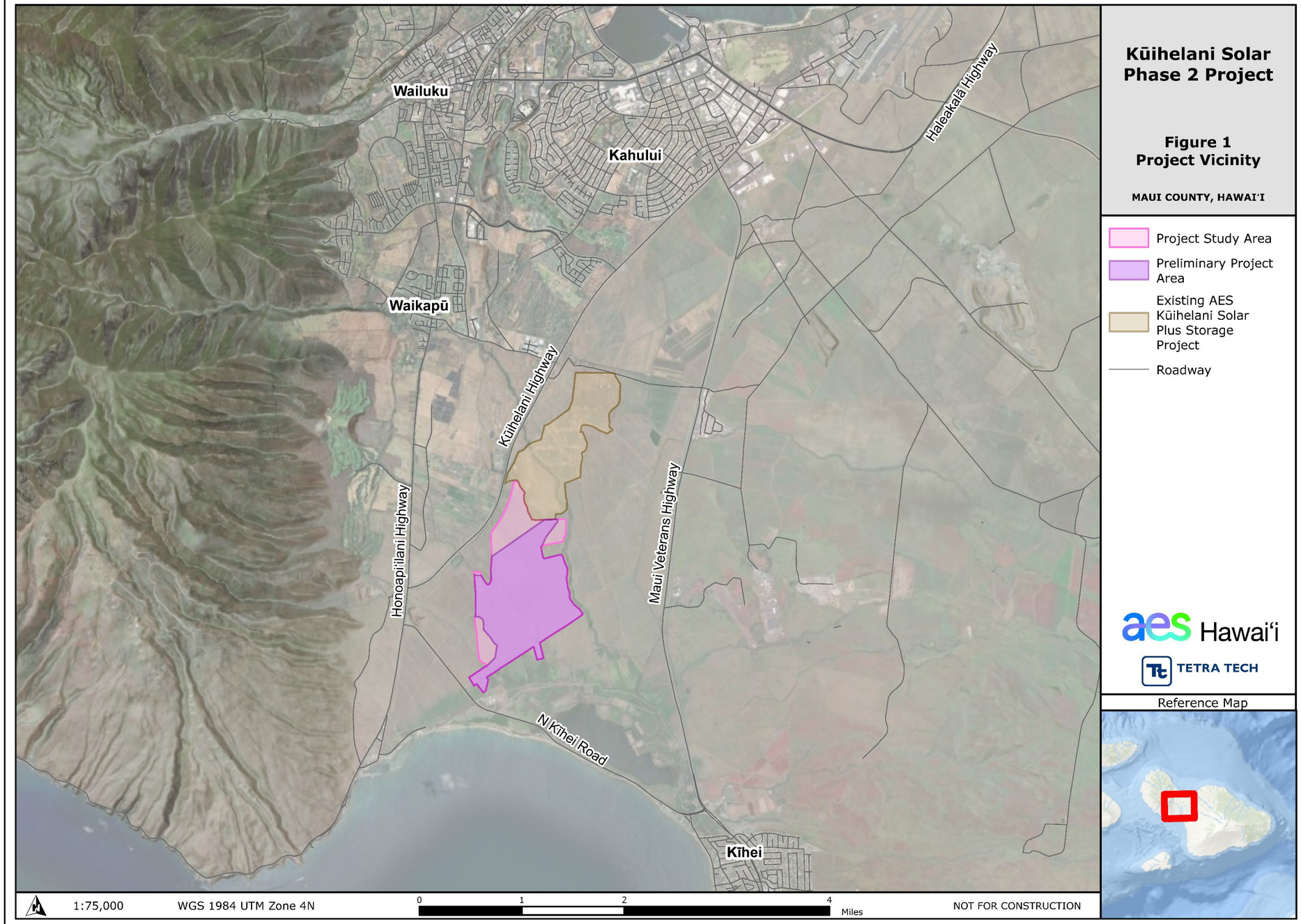
Project Specifications

- → 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



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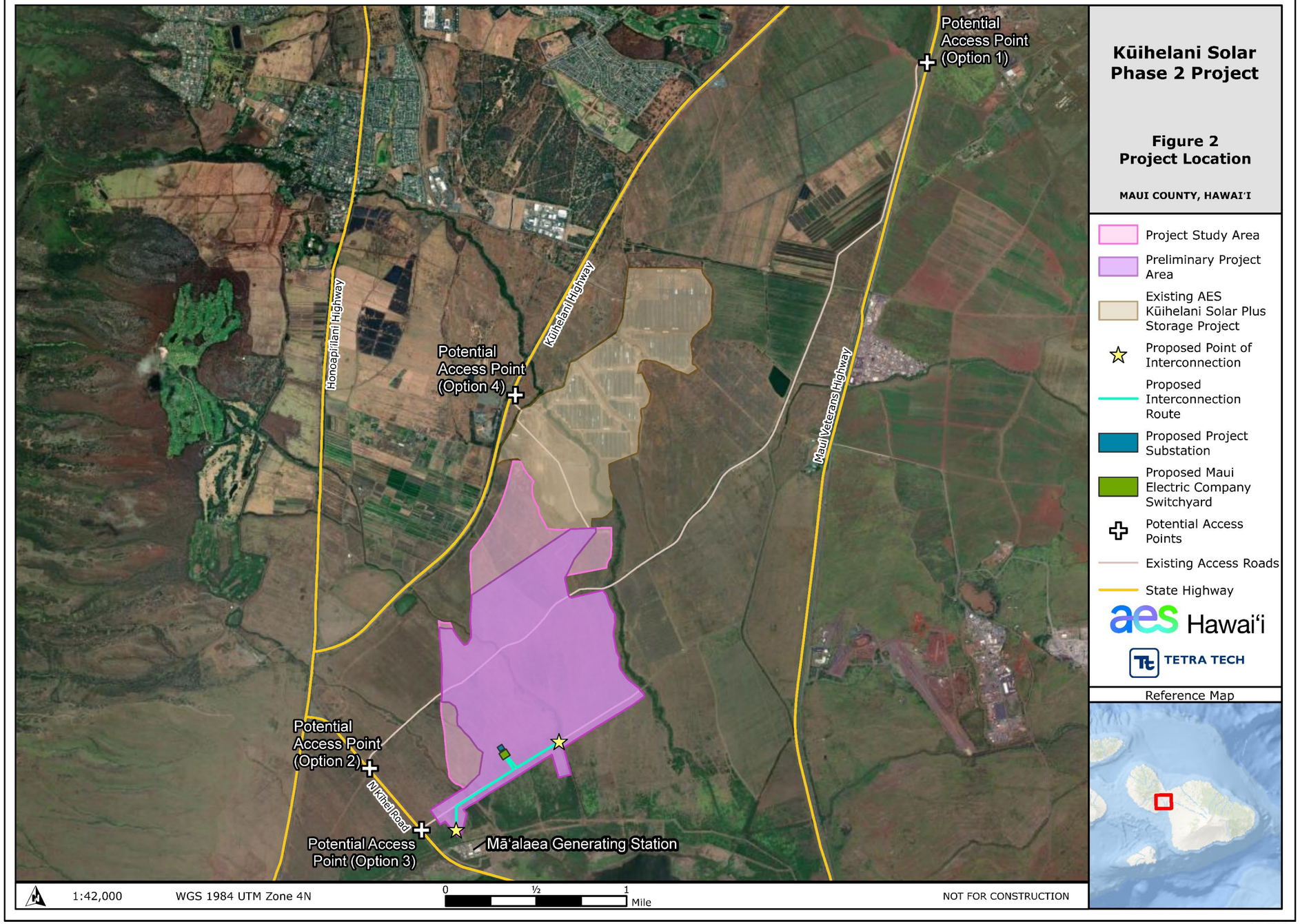
Date: 8/5/2024



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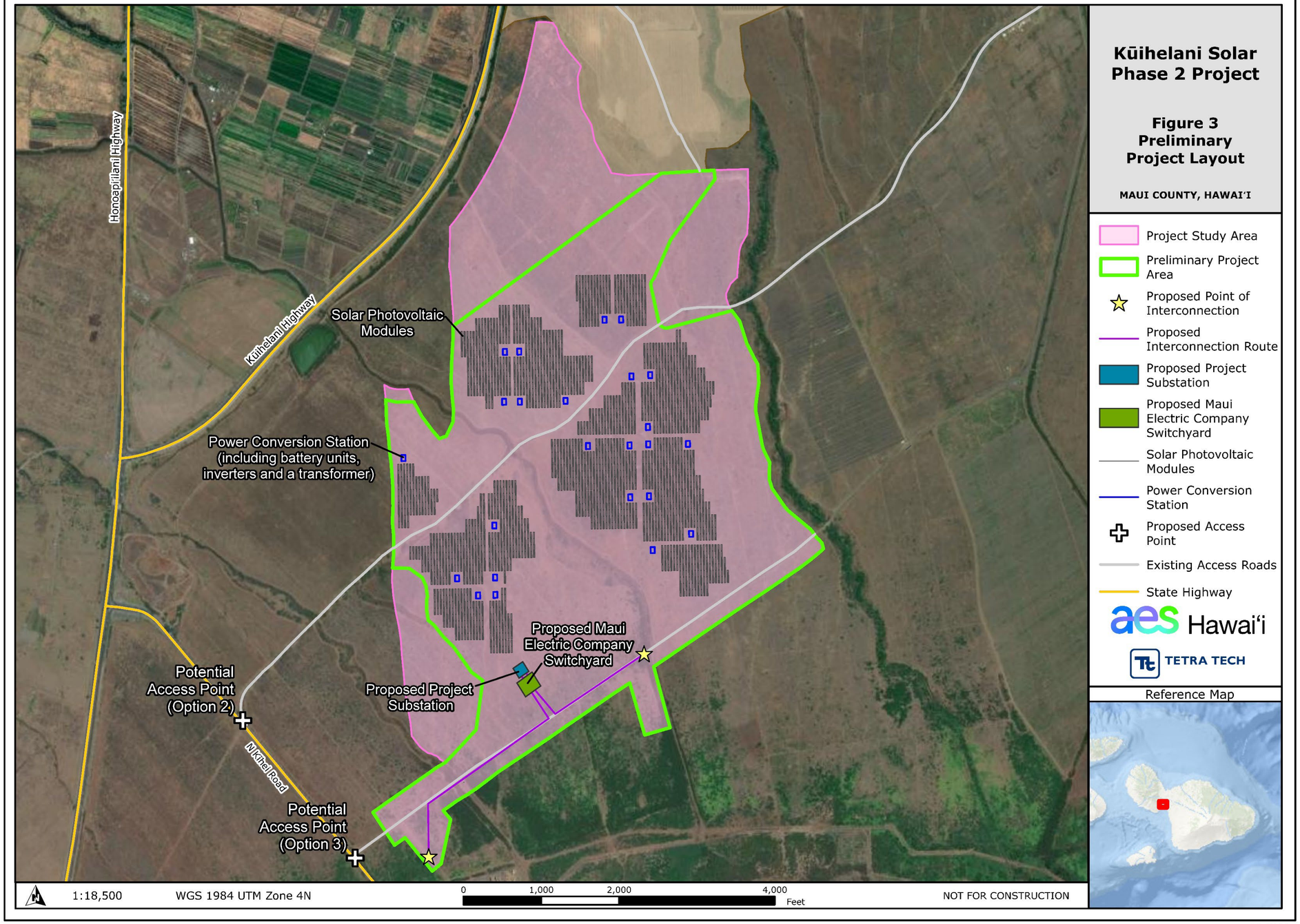
Date: 8/5/2024


Honoapiilani Highway
Kūihelani Highway
Solar Photovoltaic Modules
Power Conversion Station (including battery units, inverters and a transformer)
Proposed Maui Electric Company Switchyard
Proposed Project Substation
Potential Access Point (Option 2)
N Kihei Road
Potential Access Point (Option 3)
1:18,500
WGS 1984 UTM Zone 4N
0
1,000
2,000
4,000
Feet
NOT FOR CONSTRUCTION
Kūihelani Solar Phase 2 Project
Figure 3 Preliminary Project Layout
MAUI COUNTY, HAWAIʻI
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
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TETRA TECH
Reference Map

Date: 8/5/2024

Representative Photos of Equipment

Solar Panels

Battery Energy Storage System

Representative Photos of Equipment

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Kūihelani Solar + Storage

Waikoloa Solar + Storage

Kūihelani Solar + Storage

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Project Benefits & Preliminary Feedback

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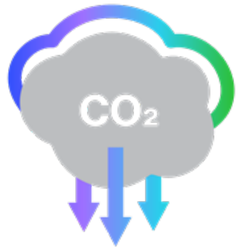
Project Benefits - Environmental

~ 10% of Maui's energy needs*

~ 18,425 homes powered annually*



4.3M barrels of oil avoided*

*Subject to Change

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Project Benefits - Economic

~$228 million to the economy*

- Direct, indirect, and induced economic activity

~1,400 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

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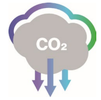
Pre-Award Public Sentiment Survey

- 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 

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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

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Cultural and Archaeological Studies

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

Compatible Agriculture


Lāwa'i Solar + Storage


West O'ahu Solar + Storage

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

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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

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Existing Conditions

Simulated Conditions

Highlighted

Kuiheilani 2 Solar Project

VISUAL SIMULATIONS
10% Rev. Design 1

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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

Highlighted

Kuiheilani 2 Solar Project

VISUAL SIMULATIONS
10% Rev. Design 1

Kuiheilani Highway

VICINITY MAP

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Latitude: 20.817343° N
Longitude:-156.504602° W

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

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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

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Existing Conditions

Simulated Conditions

Highlighted

Kuiheilani 2 Solar Project

VISUAL SIMULATIONS
10% Rev. Design 1

Kealia Boardwalk

VICINITY MAP

Photograph Information

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Date of photograph: 02/23/2024
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Viewing direction: North-northeast
Latitude: 20.796214° N
Longitude: -156.487986° W

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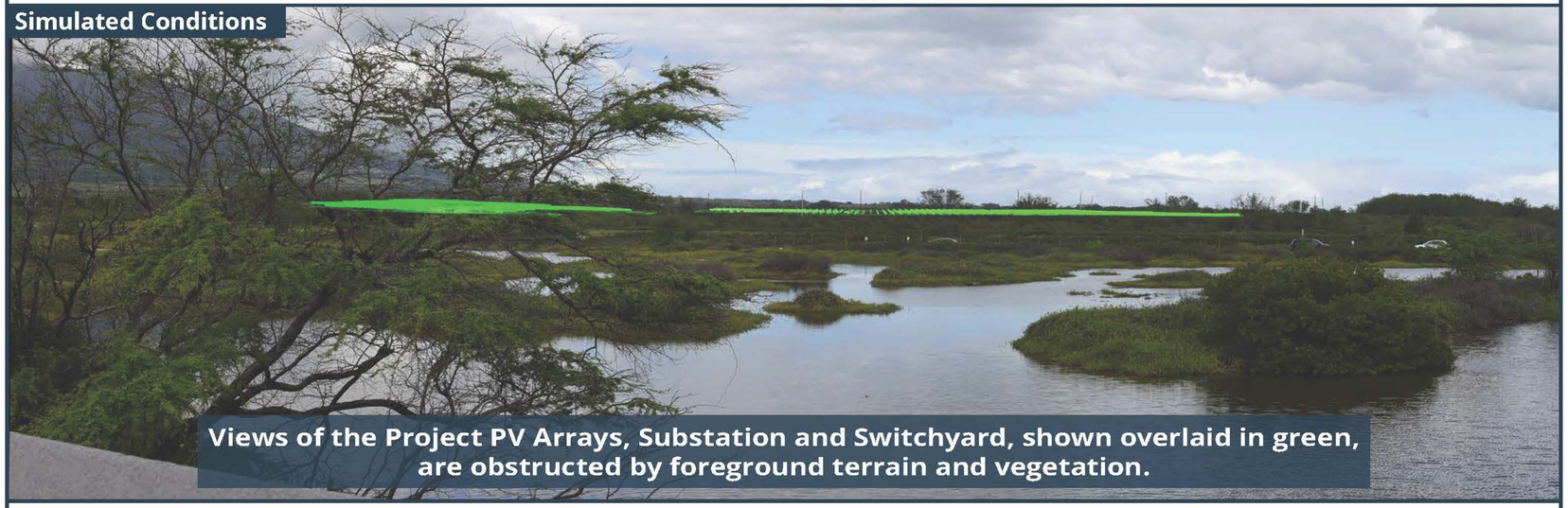
Existing Conditions

Simulated Conditions



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

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
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Viewing direction: North-northeast
Latitude: 20.796214° N
Longitude: -156.487986° W

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Existing Conditions

Simulated Conditions

Kuiheilani 2 Solar Project

VISUAL SIMULATIONS
10% Rev. Design 1

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

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Existing Conditions

Simulated Conditions

Highlighted

Kuiheilani 2 Solar Project

VISUAL SIMULATIONS
10% Rev. Design 1

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

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Existing Conditions

Simulated Conditions

Kuiheilani 2 Solar Project

VISUAL SIMULATIONS
10% Rev. Design 1

N Kihei Rd

VICINITY MAP

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

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Existing Conditions

Simulated Conditions

Highlighted

Kuiheilani 2 Solar Project

VISUAL SIMULATIONS
10% Rev. Design 1

N Kihei Rd

VICINITY MAP

Photograph Information

N Kihei Rd

Time of photograph: 1:25 p.m.
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Weather condition: Partly Cloudy
Viewing direction: Northeast
Latitude: 20.802601° N
Longitude: -156.498494° W

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Existing Conditions

Simulated Conditions

Kuiheilani 2 Solar Project

VISUAL SIMULATIONS
10% Rev. Design 1

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

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Existing Conditions

Simulated Conditions

Highlighted

Kuiheilani 2 Solar Project

VISUAL SIMULATIONS
10% Rev. Design 1

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

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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

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Existing Conditions

Simulated Conditions

Highlighted

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

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Supporting the Community

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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

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

Project Summary

- → 40MW solar PV + 160 MWh battery storage
- → 18,425 homes powered
- → ~10% of the island's energy needs
- → ~ 1,400+ jobs generated
- → ~$228M+ in economic output
- → 25-year PPA term
- → 2027 online
- → $120,000/year in Community Benefits
- → 70% support

Mahalo!

Contact us:

Email: kuihelani2solar@aes.com

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

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