

Pu'uloa Energy and Pu'uloa Solar Community Meeting

March 12, 2024 | 6:00 - 7:30 P.M.
Aliamanu Middle School Cafeteria

PROJECT DESCRIPTION

Pu'uloa Energy

- Construction and operation of a clean, renewable biofuel power generation facility
- 99 MW of always available (24x7) energy
- Located on Joint Base Pearl Harbor-Hickam
- Provides energy to surrounding area and greater O'ahu
- In a grid failure, the facility operates as a microgrid for continuous Department of Defense critical operations
- Can support restoration of the electric grid after grid failures
- Stabilizes the grid, enabling more rooftop solar

PROJECT SITE OVERVIEW, LAYOUT AND INTERCONNECTION – Pu‘uloa Energy

- Located on Joint Base Pearl Harbor-Hickam
- Approximately 10 acres of TMK (1) 9-9-001-008
- 11 engines using renewable biofuel
- Engine building
- Control room
- On-site biofuel storage for 14 days of facility usage
- High-voltage substation for interconnection to Hawaiian Electric
- Due to national security, the on-site electrical interconnection route map is not shown



PROJECT DESCRIPTION

Pu'uloa Solar

- Located on Joint Base Pearl Harbor-Hickam
- Construction and operation of a clean renewable, solar power generation facility
- 6 MW photovoltaic solar
- 30 MWh (5 hours) battery energy storage system
- Provides energy to the surrounding area and greater O'ahu
- Provides renewable energy day or night



Pu'uloa Solar

PROJECT SITE OVERVIEW, LAYOUT AND INTERCONNECTION – Pu‘uloa Solar

- Located on Joint Base Pearl Harbor-Hickam
- Approximately 20 acres of TMK (1) 1-1-10-066
- Photovoltaic solar panels mounted on a low-profile fixed tilt racking system
- Battery energy storage housed in containers monitored 24x7
- Medium voltage switchgear, transformers and inverters
- Due to national security, the on-site electrical interconnection route map is not shown.



PROJECT BENEFITS

Pu'uloa Energy and Pu'uloa Solar both support Hawai'i's clean energy future

- **Contributes to Hawai'i's decarbonization goals**
 - 100% Renewable Portfolio Standard goal by 2045
 - 2030 and 2045 carbon neutrality goals
- **Helps stabilize cost of electricity**
- **Replaces and reduces dependence on fossil fuels**
- **Advances pathway to increased energy independence**
- **Contributes to energy and national security**
- **Creates immediate short-term and long-term highly technical jobs at prevailing wages for today and future generations**
- **Community Benefits donations**

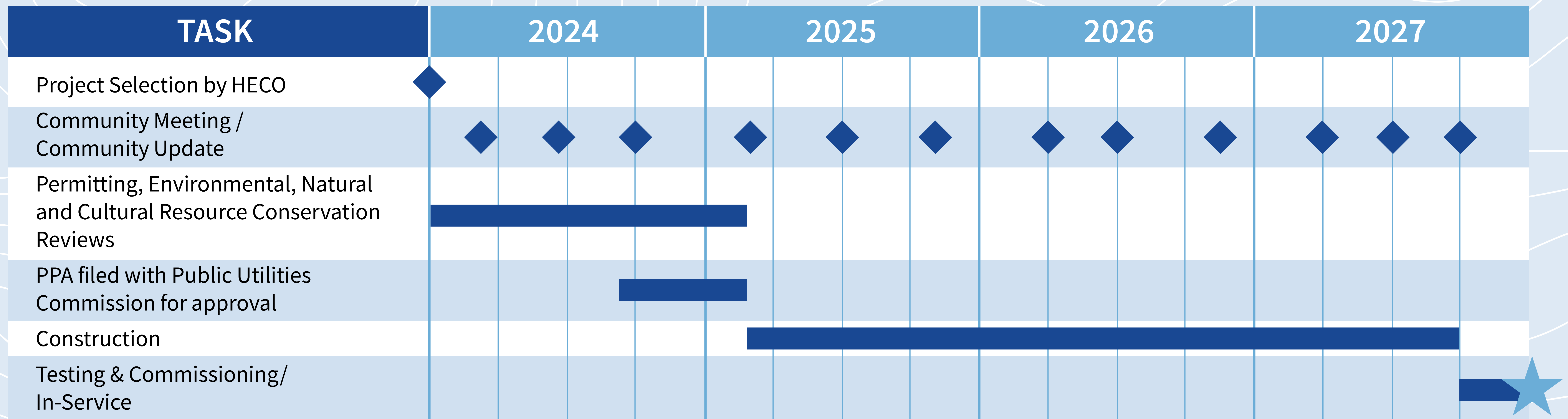
COMMUNITY BENEFITS

Pu'uloa Energy and Pu'uloa Solar both offer significant benefits

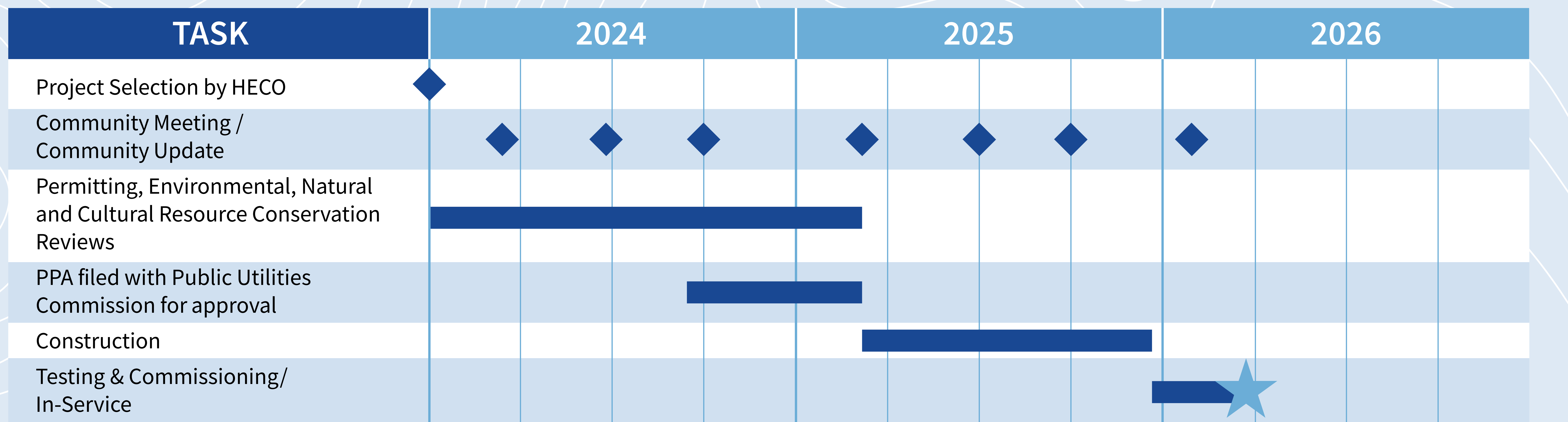
- Economic boost to surrounding area
- Local construction-related jobs at prevailing wages
- Apprenticeship opportunities with local labor
- Local long-term, highly skilled generational impacting technical jobs in plant operations, maintenance, agriculture and transportation (Pu'uloa Energy)
- Local business suppliers for materials
- Reuse and recycling of materials
- Community benefits package of almost \$300,000 per year for 30 years (Pu'uloa Energy)
- Community benefits package of \$18,000 per year for 25 years (Pu'uloa Solar)

PROJECT TIMELINE (projected)

Pu‘uloa Energy



Pu‘uloa Solar



CONSTRUCTION ACTIVITIES

Notification – Although not anticipated, construction activities that may impact the community will be posted on the project website and communicated to the Neighborhood Board prior to the start of those activities

Mitigation Plan – Mitigation for potential dust, erosion, and noise during construction will be implemented

Transportation – Construction traffic to and from the project sites will be scheduled outside of high traffic times

Parking – A parking plan will be implemented to keep construction-related parking out of neighborhoods and off streets

Noise – Both projects will be designed to meet the criteria in Hawai‘i Revised Statutes 11-46 (Community Noise Control)

PERMITTING REQUIREMENTS AND APPROVALS

Pu'uloa Energy and Pu'uloa Solar, sited on Federal Land, will be subject primarily to Federal permitting processes.

PERMIT OR CONSULTATION	AGENCY OR STAKEHOLDERS	STATUS
National Environmental Policy Act	Department of the Navy (Navy)	Navy preparing an Environmental Assessment
National Historic Preservation Act Section 106 Consultation	Navy in consultation with native Hawaiian organizations, State and Federal agencies, other organizations, and the public	Consultation ongoing
National Pollutant Discharge Elimination System (NPDES) Permit	State Department of Health, Clean Water Branch	Filed after completion of the Storm Water Pollution Prevention Plan
Coastal Zone Management Act (CZMA) <i>De minimis</i> acknowledgment	State Office of Planning and Sustainable Development, Coastal Zone Management (CZM) Program	Anticipated to be completed as part of the Environmental Assessment

Pu'uloa Energy will also require:

PERMIT OR CONSULTATION	AGENCY OR STAKEHOLDERS	STATUS
Covered Source Permit (CSP)	State Department of Health, Clean Air Branch	Application filed in March of 2023

AIR QUALITY PERMITTING PROCESS

Pu'uloa Energy will obtain a Covered Source Permit (CSP):

- Permit will be issued by Hawai'i Department of Health Clean Air Branch
- Draft permit will be reviewed by US EPA Region 9
- Public notice/comment period before permit issued

CSP Application includes:

- Air quality impact analysis to demonstrate that project emissions will be within safe levels established by the Department of Health
- Demonstration that the project will use best available control technology for all pollutants
- Demonstration of compliance with all state and federal air quality regulations

Final CSP will ensure compliance through:

- Limits on hourly and annual emissions, fuel use and associated continuous monitoring
- Annual emissions testing, recordkeeping and reporting requirements
- Required emission control technologies

ENVIRONMENTAL STUDIES AND CULTURAL IMPACTS

The Department of the Navy is responsible for preparing an Environmental Assessment under the National Environmental Protection Act and conducting consultation under the National Historic Preservation Act to analyze potential impacts of the proposed projects, and to provide information to the public.

Navy personnel are onsite today, ready to share information and answer questions.



Lease of Land for Energy Generation and Storage, Resiliency, Reliability, and Security Joint Base Pearl Harbor-Hickam, Hawaii Draft Environmental Assessment



National Environmental Policy Act (NEPA) Process

- Enacted in 1969, NEPA requires all federal agencies to evaluate potential environmental impacts of any major actions they may propose and to inform and involve the public in the decision-making process.
- Your submitted comments on the Draft Environmental Assessment (EA) will become part of the public record and will be addressed in the Final EA.
- The Final EA and decision document will be released to the public.

Ways to Participate

Share any thoughts or concerns you may have about the proposed action or analysis of potential impacts, as well as the project's potential to affect historic properties pursuant to Section 106 of the National Historic Preservation Act of 1966.

You are encouraged to participate in several ways:

- Review the Draft EA at: <https://pacific.navfac.navy.mil/About-Us/National-Environmental-Policy-Act-NEPA-Information/>
- Provide comments

How to Provide Comments

The Draft EA will be available to the public on March 27, 2024.

Submit comments beginning March 27, 2024, and ending April 25, 2024.

- **Online:**
NFPAC-Receive2@navy.mil
- **By Mail:**
Department of the Navy,
NAVFAC Atlantic
Attention: Project Manager for the
JBPHH EUL Energy EA (EV21)
6506 Hampton Boulevard
Norfolk, Virginia 23508
- **At the Public Meeting:**
Written comments



Lease of Land for Energy Generation and Storage, Resiliency, Reliability, and Security Joint Base Pearl Harbor-Hickam, Hawaii Draft Environmental Assessment



The Draft Environmental Assessment will address the following resource topics:

- Air Quality and Greenhouse Gases
- Cultural Resources
- Biological Resources
- Visual Resources
- Noise
- Transportation
- Water Resources
- Geology and Topography Resources
- Soils
- Land Use
- Airspace
- Infrastructure and Utilities
- Public Health and Safety
- Hazardous Materials and Wastes
- Socioeconomics
- Environmental Justice
- Recreation



Lease of Land for Energy Generation and Storage, Resiliency, Reliability, and Security Joint Base Pearl Harbor-Hickam, Hawaii Draft Environmental Assessment



Biological Resources

- The project area consists entirely of a built or modified landscape with no notable ecological communities on or adjacent to the project sites.
- No federally- or state-listed vegetative species are known to occur at the project sites and no special-status animal species are expected to be affected by the construction and operation of the project. Noise and glare would be managed through implementation of best management practices (BMPs).
- No permanent loss of significant or critical terrestrial habitat would occur.
- No effects on federally- or state-listed marine species or critical marine habitat would occur.
- Informal consultation with the United States Fish and Wildlife Service under Section 7 of the Endangered Species Act is underway.

Cultural Resources

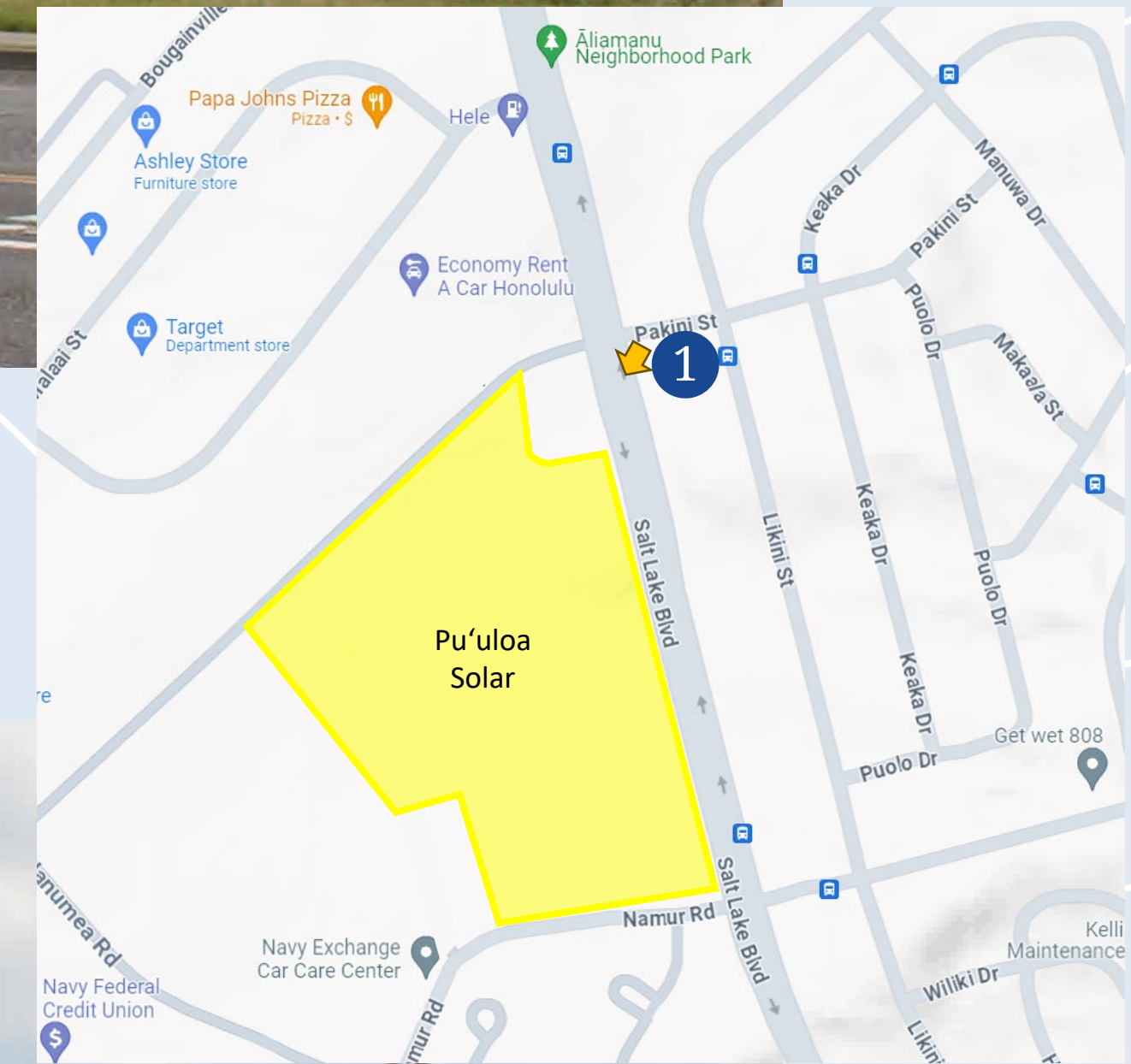
- The Proposed Action would alter the Pearl Harbor National Historic Landmark Historic District through the construction of new facilities and demolition of three historic warehouses.
- Consultations to resolve adverse effects under Section 106 of the National Historic Preservation Act are underway with the Hawaii State Historic Preservation Division, Native Hawaiian organizations, and other stakeholders.
- The Final Environmental Assessment will incorporate the results of Section 106 consultation, including measures to avoid, minimize, and mitigate adverse effects to historic properties.

Water Resources

- Water resources at the project sites consist of the East Loch shoreline, groundwater, the Halawa watershed, and general storm water runoff.
- During construction, standard operating procedures and BMPs would be implemented throughout the process to protect water resources.
- Once operational, the aboveground biofuel tanks, the Firm Renewable Generation Plant, and the Battery Energy Storage System would incorporate extensive metering, monitoring, and alarms on all critical systems to provide maximum protection of the environment, including water resources.

1 View from Salt Lake Boulevard and Marshall/Pakini Street

Viewing Makai toward Project

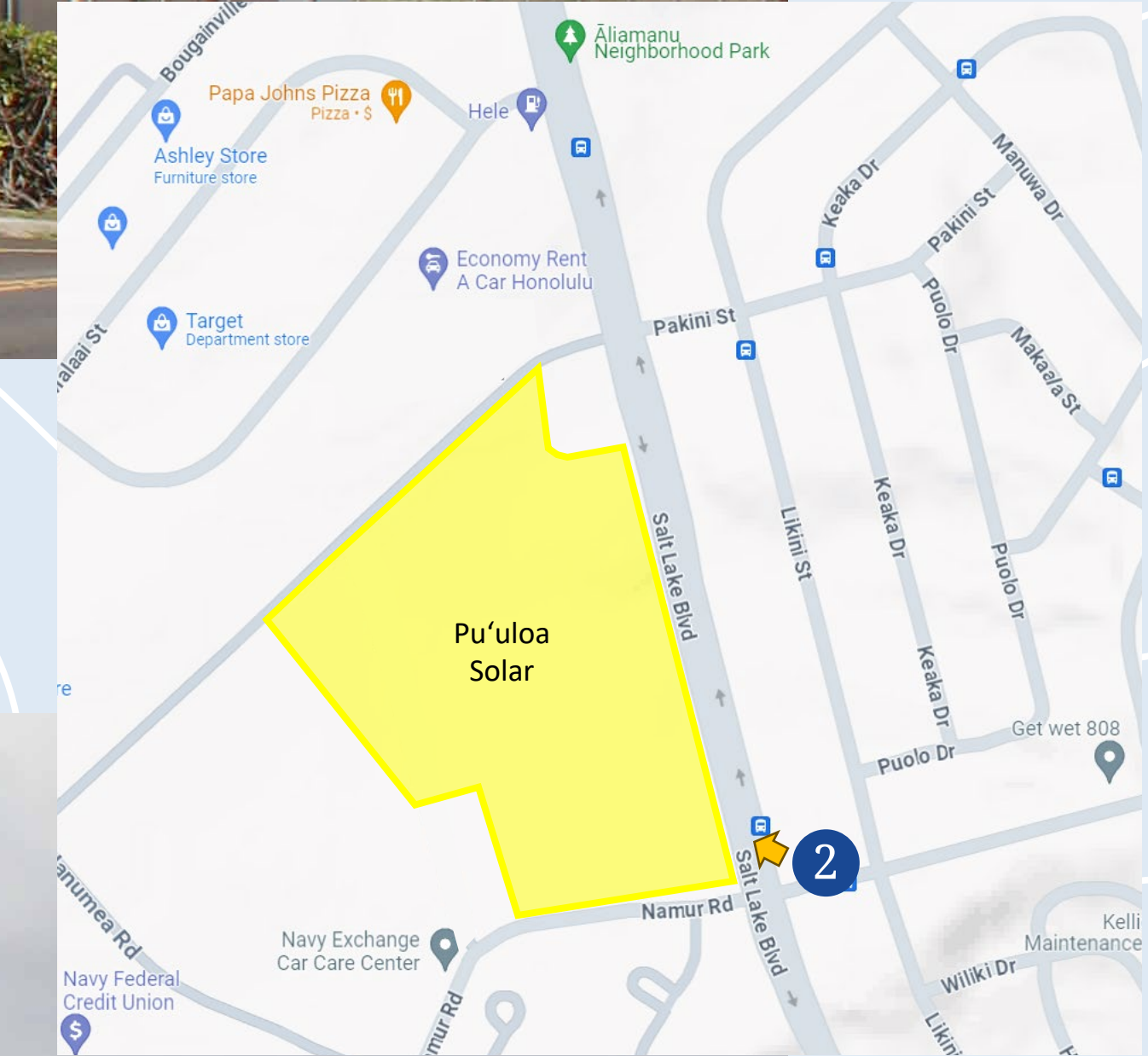


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2

View from Salt Lake Boulevard and Maluna Street

Viewing 'Ewa toward Project



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3 View from Namur Road *Viewing 'Ewa toward Project*



EXISTING VIEW



POTENTIAL VIEW



Pu'uloa Solar

View from Battleship Missouri Museum

Viewing Makai toward the Project



EXISTING VIEW



POTENTIAL VIEW

View from USS Arizona Memorial

Viewing Makai toward the Project



EXISTING VIEW



POTENTIAL VIEW

PROJECT DECOMMISSIONING

Pu'uloa Solar and Pu'uloa Energy

Following the completion of the Power Purchase Agreement (PPA), Ameresco will:

- Commit to responsibly decommission projects with a Comprehensive End-of-Life Plan
- Remove all project components
- Reuse and recycle project components, including lithium-ion batteries
- Recycle or disposal of project components outside of Hawai'i
- Provide third-party environmental monitoring of decommissioning activities
- Restore the site to its condition prior to development

WE WANT TO HEAR FROM YOU!

How to provide comments:

Please provide us with your questions and comments.

Each project has its own paper comment form available at this meeting.

Comments and Questions are welcome anytime.

Pu'uloa Energy

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