



Par Hawaii

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E Komo Mai Honolulu City Council Energy, Environment & Sustainability Committee

Energy Assurance For Hawaii

Submitted by Par Hawai'i for Informational Briefing No. 4
Committee on Energy, Environment & Sustainability | February 3, 2026

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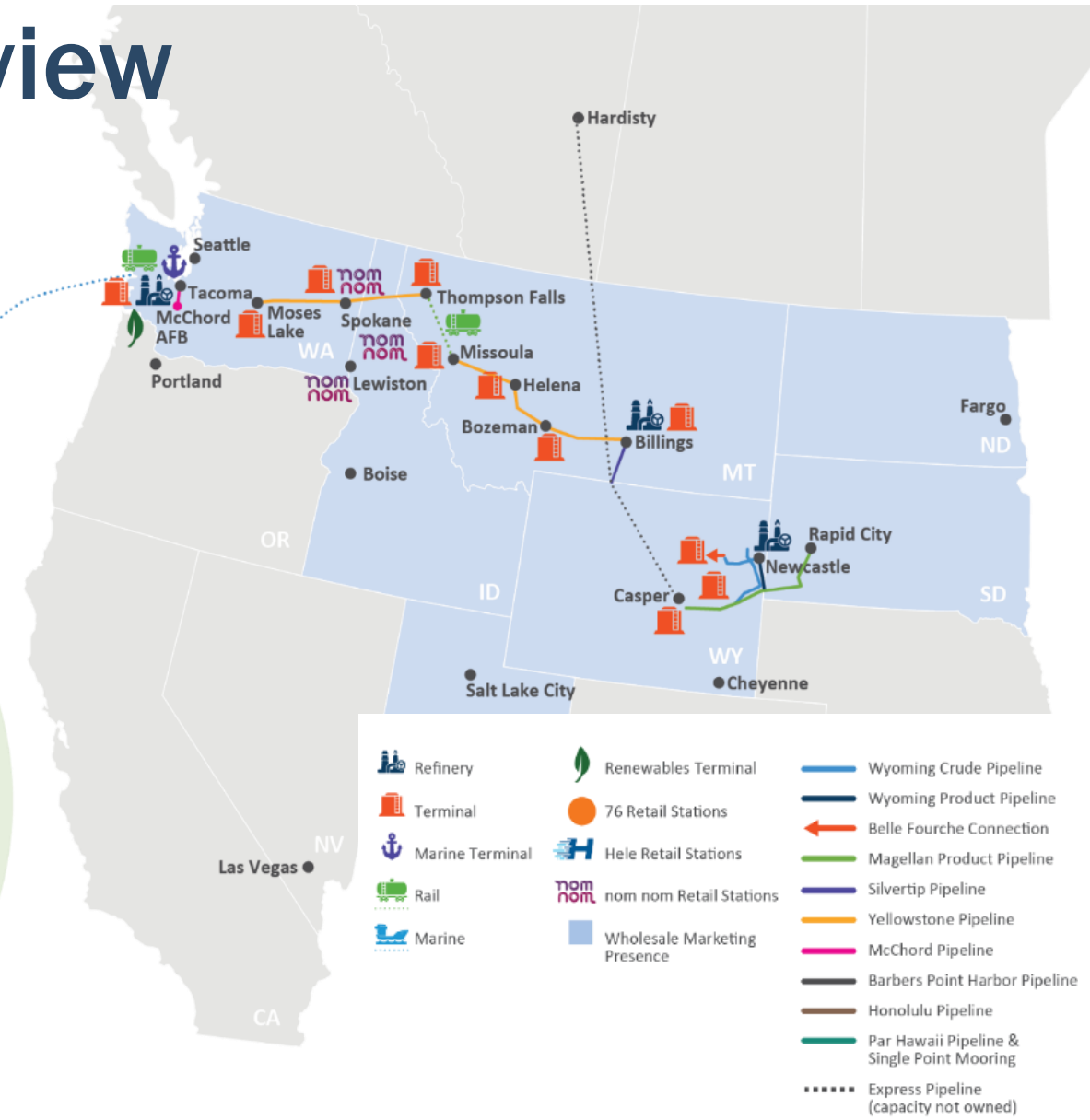
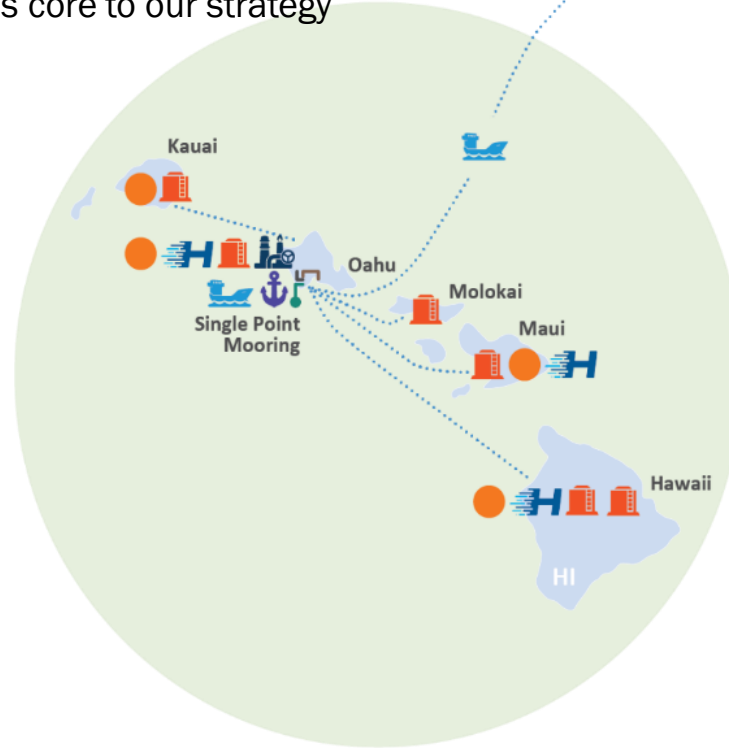
Agenda

- 10:05 – Introductions
- 10:15 – Opening Remarks
- 10:20 – Par Overview
- 10:35 – Pono Pacific
- 10:50 – Hawaii Renewable Fuel Coalition
- 11:05 – Break
- 11:20 – Board Shuttle
- 11:25 – Tour / Q&A
- 11:55 – Return

Par Pacific Holdings Overview

Par Pacific Holdings, Inc.

- New York Stock Exchange: PARR
- 4 refineries with 218,000 bpd capacity
- Distillate-oriented product yields
- Fuel products logistics system from South Dakota to West Coast to Hawaii
- Renewable fuels development is core to our strategy



Hawaii's refinery



Serving Hawaii's Fuel Needs



Kauai

- Products: Diesel, Jet Fuel and Gasoline
- Fuel storage and distribution
- 10 retail locations



Barge Nale – Operated by Sause Brothers

- Products: Diesel, Jet Fuel, Gasoline and Ethanol
- Approximately 10 day neighbor island rotation



Oahu

- Products: Fuel Oil, Diesel, Jet Fuel, Naphtha, Gasoline, Propane
- Over 5 million barrels owned storage
- 62 Hele and 76 branded retail locations

Molokai

- Products: Diesel and Gasoline
- Fuel storage and distribution



Maui

- Products: Diesel, Jet Fuel and Gasoline
- Fuel storage and distribution
- 6 retail locations

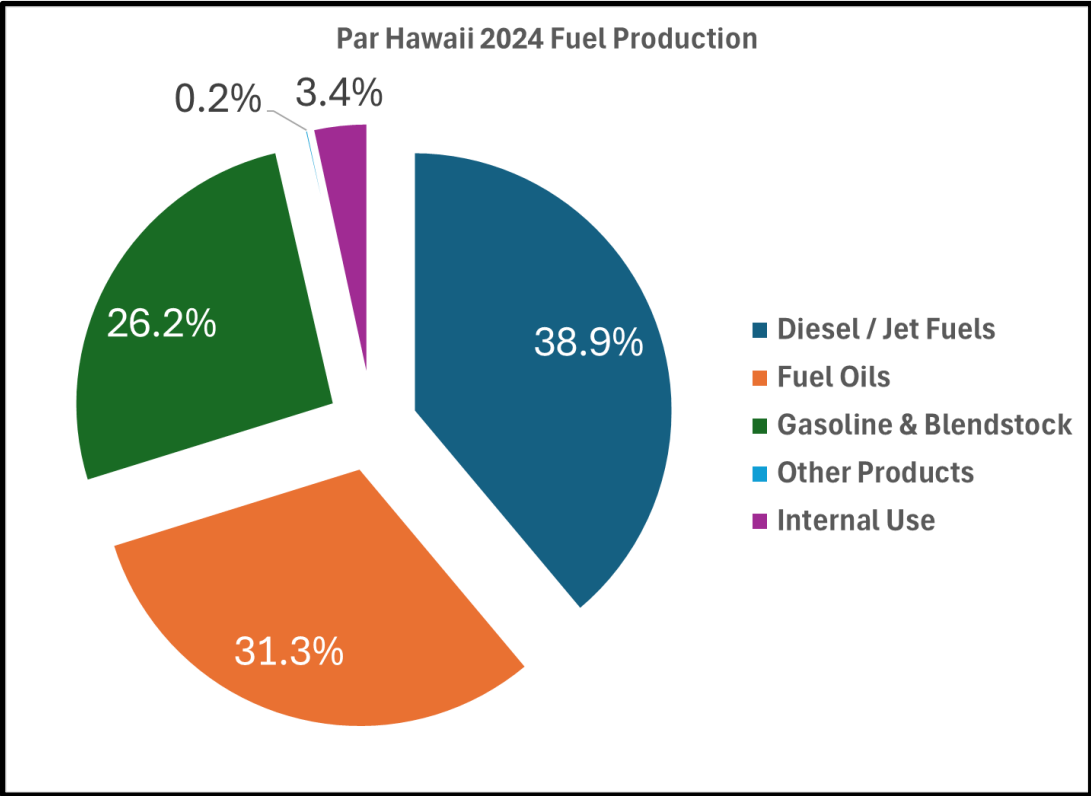
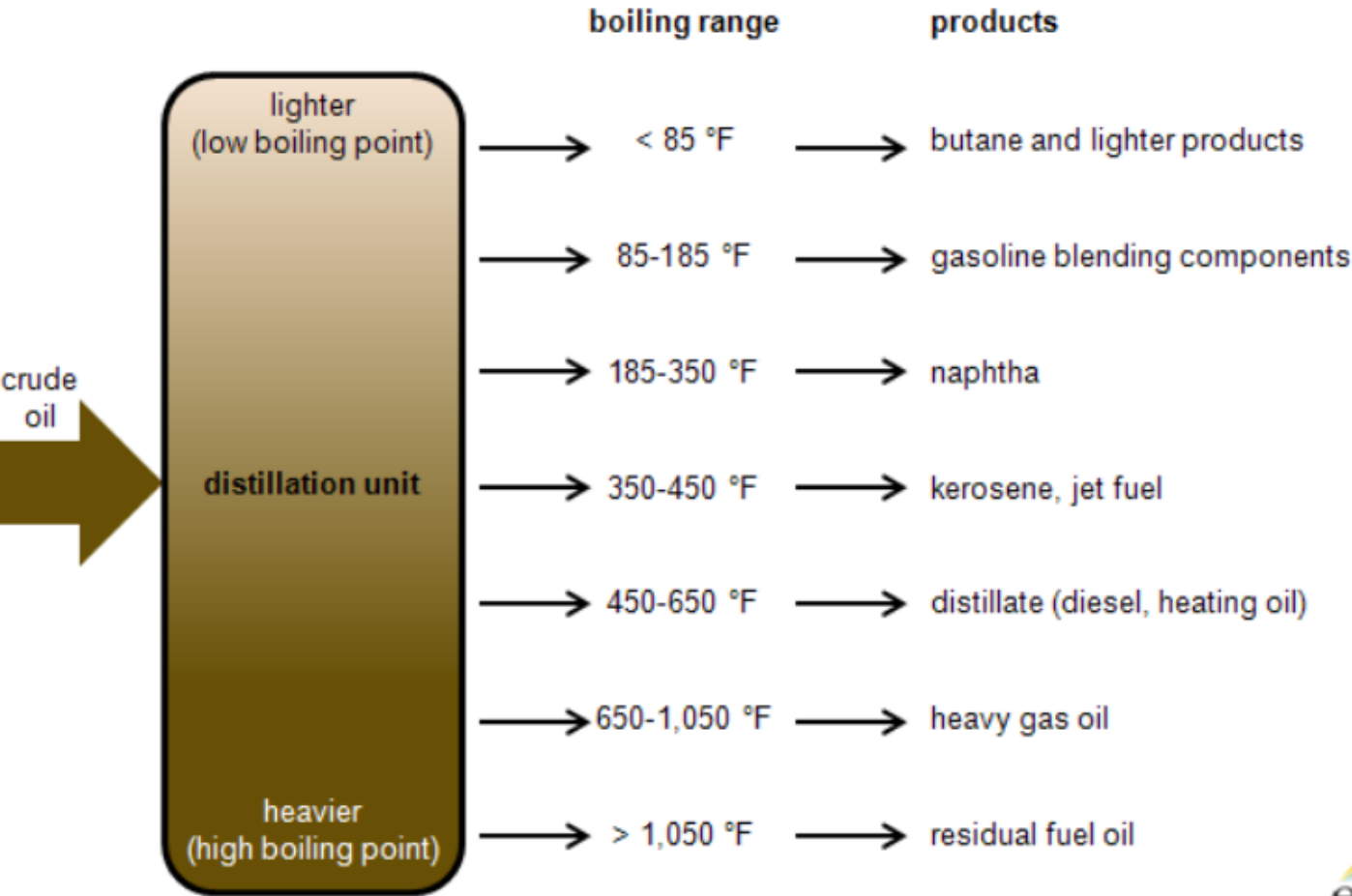


Hawaii Island

- Products: Diesel, Jet Fuel and Gasoline
- Fuel storage and distribution on both East and West sides of island
- 11 retail locations

Hawaii Fuels Production

Crude oil distillation unit and products



Source: U.S. Energy Information Administration.



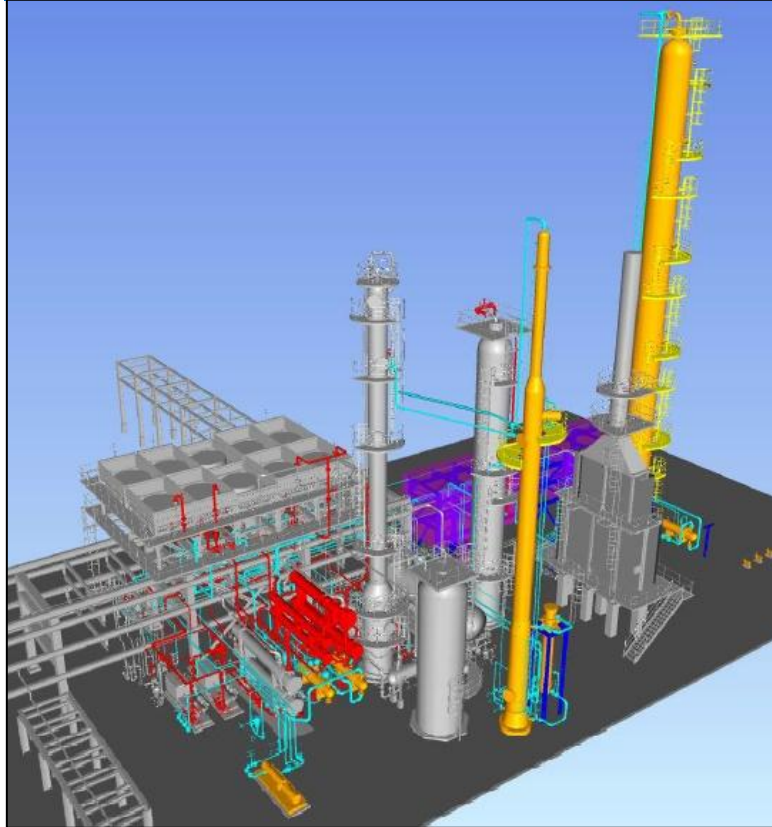
Single Point Mooring



Renewable Hydrotreater (RHT) Project

- Nearly \$100 million project to produce renewable fuels at Par Hawaii's Kapolei refinery; supplements existing production
- Feedstocks include biogenic fats, oils and greases to produce low carbon jet and utility fuels for Hawaii starting in 2026
- Builds upon \$30 million 2019 investment in Distillate Hydrotreater Unit
- Creative approach that capitalizes on the design, engineering and operating expertise of our team

3D Model of New Unit



Hydrotreater Unit for Renewable Fuels



RHT Produces Renewable Fuels for a Wide Range of Applications

Sustainable Aviation Fuel

Hawaiian Airlines
Other Commercial Airlines
US Military (future)



Renewable Diesel

Hawaiian Electric
Independent Power Producers
Transportation Fuels



Renewable Naphtha

Kauai Island Utility Cooperative
Hawaii Gas
Refinery Cogen
Renewable Gasoline



Renewable LPGs

AmeriGas / Hawaii Gas
Power Generation



Liquid Renewable Fuels Are Critical to Hawaii's Decarbonization Goals

Hawaiian Electric Oahu Preferred Plan Generation

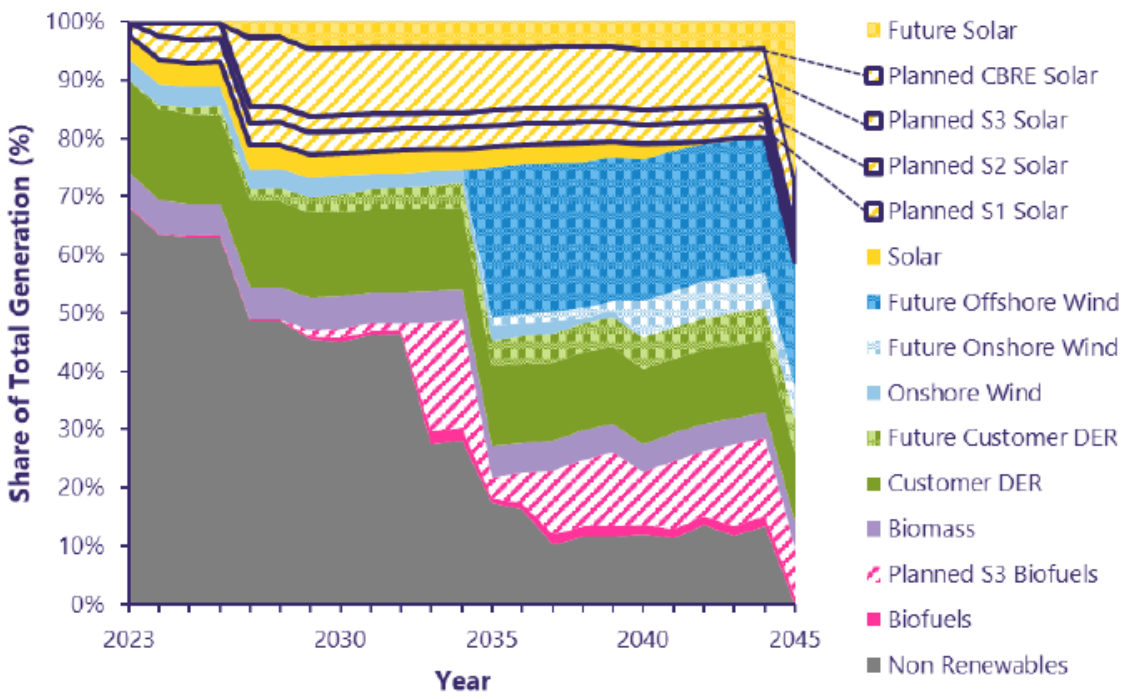
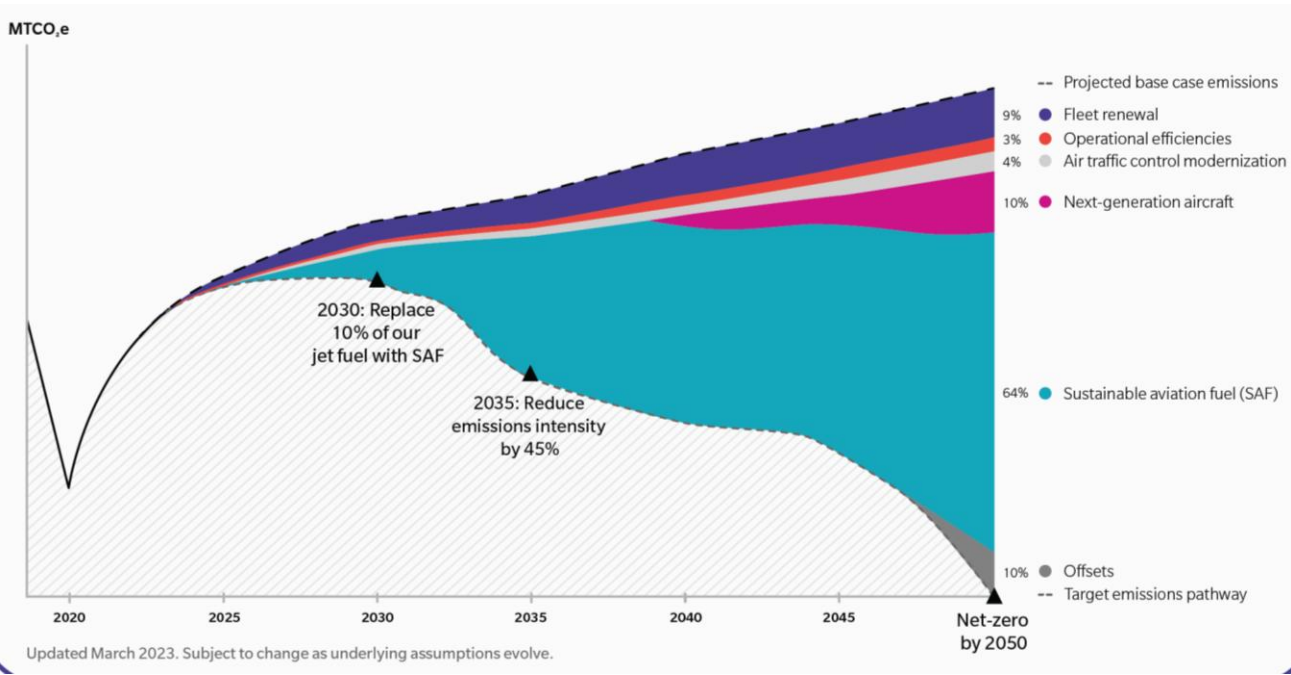


Figure 2-4. O'ahu: Preferred Plan generation mix (2023–2045)

Hawaiian Airlines Roadmap to Net Zero Emissions by 2050





Hawai'i Renewable Fuels Coalition





Hawai'i Renewable Fuels Coalition

Founding members:



Par Hawaii

Alaska



HAWAIIAN



PONO PACIFIC

20 YEARS OF CARING FOR THE LAND

Coalition objectives:

- Bring together a diverse, cross-sector group of organizations (including transportation, energy, agriculture, and more) to advocate for renewable fuels in Hawai'i.
- Provide a forum to advance dialogue around state-level policies that support the renewable fuels sector, including regulatory reforms, incentives, and public education efforts that align with Hawai'i's renewable energy goals and climate commitments.

We are inviting other organizations to
join
Hawai'i Renewable Fuels Coalition



Hawai'i Renewable Fuels Coalition



Airlines for America®
We Connect the World

Alaska



HAWAIIAN®



**Hawaiian
Electric**



ITOCHU Corporation



JAPAN AIRLINES



**KUILIMA
FARM**

NORTH SHORE • HAWAII



Par Hawaii



What is Renewable Fuel?



Biodiesel

Biodiesel is made from a single ingredient or a blend of new or waste vegetable oil, animal fats, or algae. The U.S. government considers domestically produced biodiesel to be carbon neutral because soybean plants absorb carbon dioxide from the air. Typically, biodiesel is used as a blendstock. It is blended with petroleum-based diesel at ratio of 10% biodiesel to 90% traditional diesel to be used in regular vehicle engines.



Renewable Diesel

Renewable diesel is a transportation fuel derived from biomass through hydrotreating. This makes the fuel, which is functionally identical to traditional diesel and can be used for unmodified diesel engines.



Sustainable Aviation Fuel (SAF) is jet fuel made from sustainable feedstock instead of petroleum. SAF has a 50 to 80 percent lower lifecycle carbon intensity when compared with conventional jet fuel. SAF is considered a “drop in” fuel after it is blended with conventional jet fuel up to 50 percent. After blending, SAF is essentially indistinguishable from conventional jet fuel and it can be used in existing aircraft engines and airport fuel storage infrastructure.



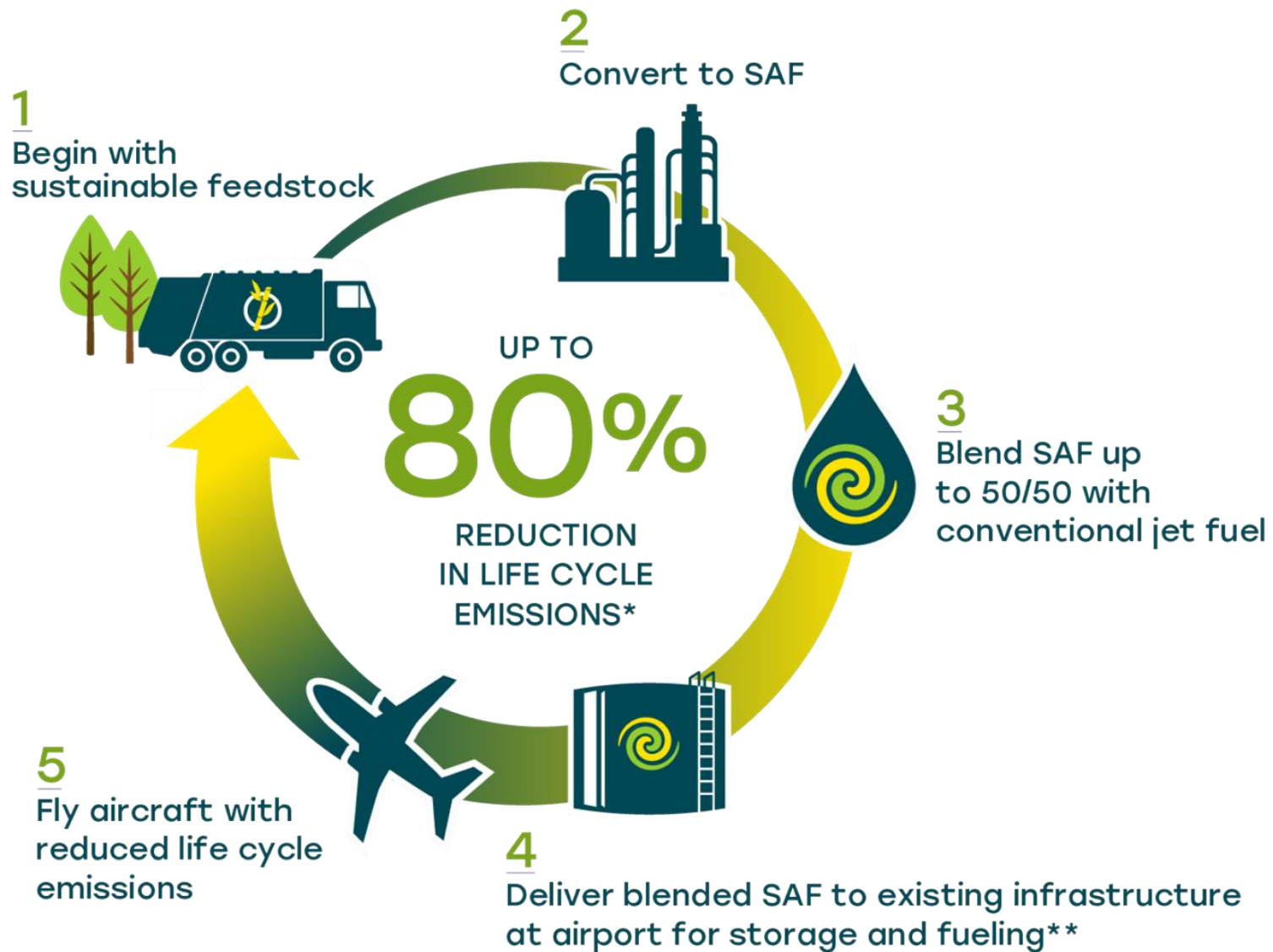
Hawai'i Renewable Fuels Coalition

Renewable Fuels: A Critical Solution for Hawaii's Transportation & Power Sectors

- **Renewable fuels** are not just about aviation, they play a vital role in **ground transportation** and even **power generation**.
- While **Sustainable Aviation Fuel (SAF)** is essential for decarbonizing air travel, **Renewable Diesel (RD)** is ready **today** to cut emissions from Hawaii's heavy-duty trucks, buses, and fleets.
- **Electric Vehicles are here** and scaling rapidly, but heavy-duty transport is not yet ready to run on electricity at scale.
- Electric planes are not commercially viable yet, SAF offers an immediate, drop-in solution to cut aviation emissions.
- Renewable diesel can seamlessly integrate into Hawaii's existing fuel infrastructure, no new engines or fueling systems needed.
- **Imagine if RD and SAF are actively used starting January 1, 2026:**

We could see hundreds of thousands of metric tons in greenhouse gas reductions over the course of the year, a significant step toward meeting Hawaii's climate goals.

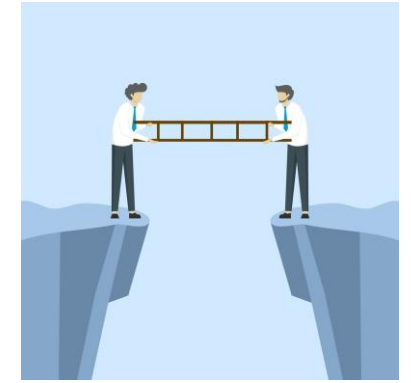




*Compared to conventional jet fuel.

**At this stage, the blended SAF is commingled with conventional jet fuel.

How do we get there? = State Policy



Liquid Renewable Fuels Are Critical to Hawai'i's 2045 Clean Energy

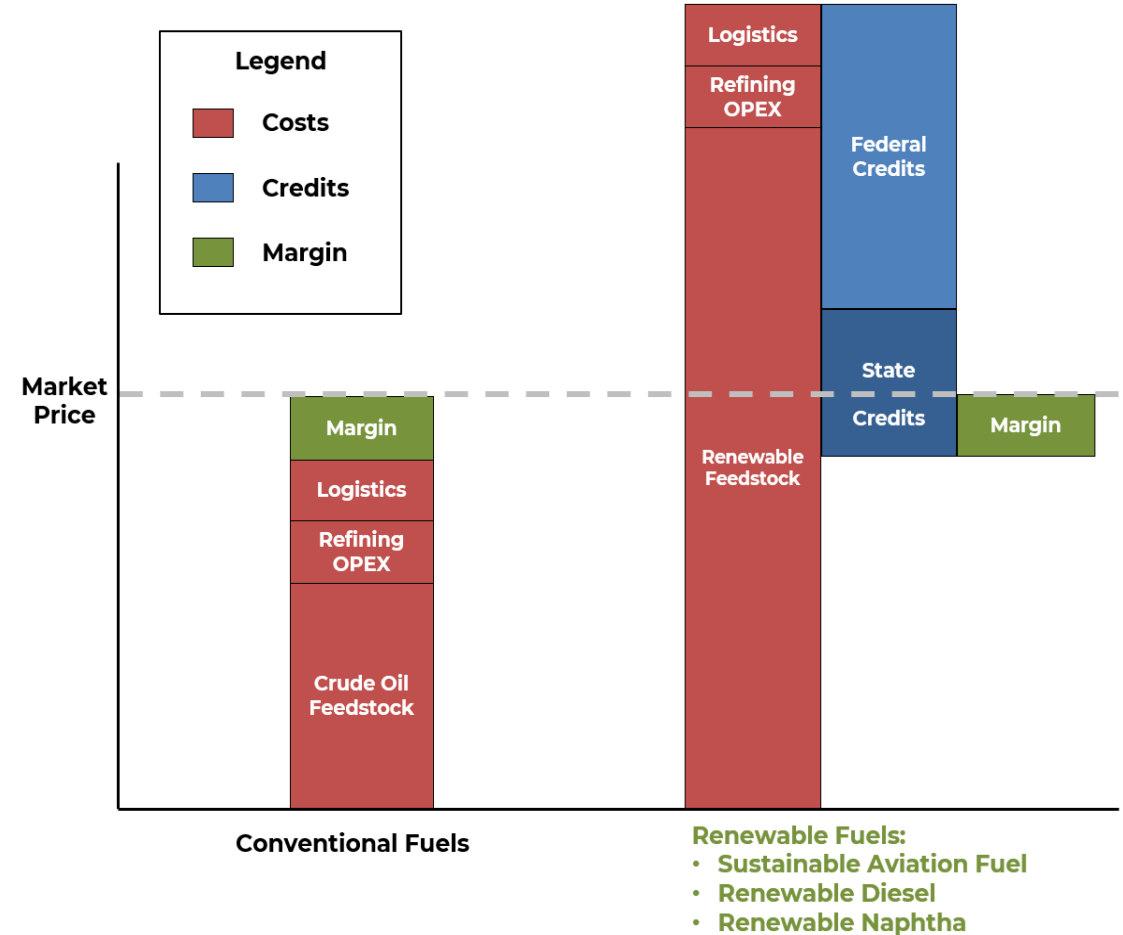
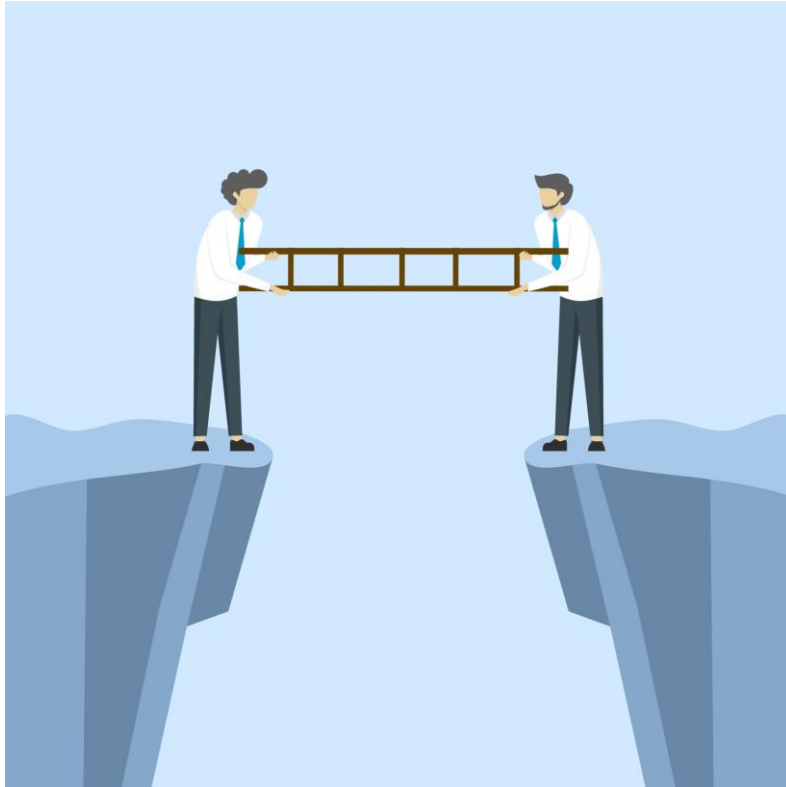
Goal

- Hawai'i has mandated clean energy goals:
 - 100% Renewable Portfolio Standard (utilities) by 2045
 - Net-zero GHG emissions by 2045
- Renewable fuel costs more to produce than petroleum-based fuels
- Policy incentives are essential to:
 - Bridge the cost gap
 - Allow the market to scale
 - Drive costs down over time

Renewable Fuel Production Tax Credit (RFPTC)

- Encourages in-state production of biodiesel, renewable diesel, and SAF
- Supports:
 - Job creation
 - Capital investment
 - Energy resilience & security
- "Local Feedstock Adder" incentivizes farmers to grow fuel crops in Hawai'i
 - Strengthens ties between agriculture and transportation sectors
- Directly benefits our transportation industry by building local supply of low-emission

State and Federal Credits Bridge Gap Between Conventional Renewable Fuels



[🏠 Incentives → Market Growth → 📉 Lower Prices → 🚚 More Adoption]

State Action Needed: to Update the RFPTC

1. Extends and Expands the Tax Credit

- Provides a longer runway for renewable fuel producers to qualify (beyond the current expiration dates).
- Expands the credit to cover renewable diesel and SAF, as well as ethanol/biodiesel.

2. Adds a “Local Feedstock Adder”

- Bonus credit for producers who source crops or waste oils grown in Hawai‘i.
- Strengthens ties between farmers and fuel producers.
- Supports new agricultural jobs and rural economic development.

3. Makes Hawai‘i Competitive with Other States

- Brings state incentives in line with California, Oregon, and Washington where low-carbon fuel policies are driving major investment.
Ensures Hawai‘i producers can stack state and federal incentives (like the IRA tax credits) to make projects financially viable.

4. Direct Benefits to Transportation

- Grows in-state production capacity of renewable diesel and biodiesel.
- Builds a more reliable local supply for trucking companies and fleets.
- Reduces Hawai‘i’s dependence on petroleum while cutting emissions.



Hawai'i Renewable Fuels Coalition

Stronger Together – Join Us to Drive Hawai‘i’s Clean Energy Future

Expand Local Crop Trials

- Partner with us to identify and develop more sites for renewable fuel feedstock.

Support Smart Policy

- Add your voice: provide written or oral testimony in support of legislation that strengthens Hawai‘i’s Renewable Fuel Production Tax Credit.

Join the Coalition

- Collaborate with peers across transportation, agriculture, and energy by joining the Hawai‘i Renewable Fuels Coalition.



Nahelani Parsons

Executive Director, Hawai‘i Renewable Fuels Coalition

 **Email (direct):** Nparsons@pgrhi.com

 **Website:** renewablefuelshawaii.com

 **General Inquiries:** info@renewablefuelshawaii.com



PONO ENERGY

Producing Feedstock for Renewable Fuels
IN HAWAII, FOR HAWAII

OUR STRATEGIC MISSION

Create a resilient/sustainable economy based on ‘āina-based industries so the communities we impact can thrive.



CONSERVATION PROJECT MANAGEMENT

- Successfully developed Kupu in 2007 to a 501(c)3 non-profit organization
- Over 100,000 acres and 25 years of Hawaii based sustainable land management across the state
- Clients include: USFW, State of Hawaii, TNC, Kamehameha Schools, and numerous other large landowners

LAND BASED ENERGY DEVELOPMENT

- Par Hawaii – Renewable Liquid Fuel



SUSTAINABLE AGRICULTURE

- 468 acres of farmland converted to sustainable, best practices to increase Hawaii's food security

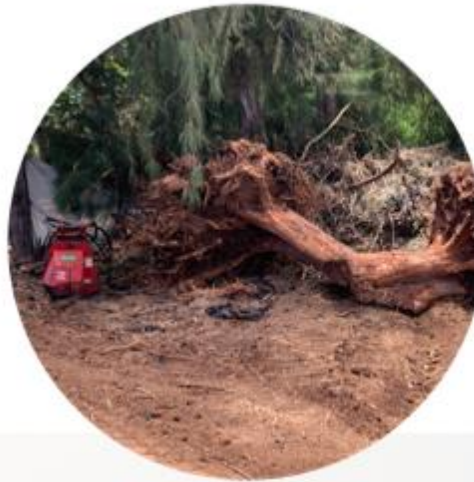


Executive Summary

- Pono Pacific Land Management is Hawai'i's first and largest private natural resource conservation company with 25 years of experience providing land management, sustainable agricultural development, renewable energy, and eco-asset development for large and small-scale projects throughout the state.
- Since 2023, Pono Pacific has partnered with Par Hawaii to develop a consistent supply of feedstocks for renewable fuels across the state, focusing on the oil seed plant *Camelina sativa*.
- Crop trials conducted across the Hawaiian Islands demonstrate the viability of growing Camelina in Hawaii.
- Camelina grown as feedstock produces two economically valuable commodities: oil to supply the refinery and animal feed for the livestock industry.
- Pono has executed a Letter of Intent for a 5-year exclusive offtake agreement with Par Hawaii for the purchase of locally produced plant-based oil and identified numerous livestock operations interested in a local source of feed. Anticipate a final agreement as we approach commercial levels of oil production.

Project Outcomes

- Increase local Renewable Liquid Fuel supply
- Increase locally grown animal feed supply
- Reduce carbon emissions
- Grow local economy
- Positively impact local agriculture
- Reduce wildfire risk
- Renewable farming practices
- Activate fallow land
- Increase food and energy security



Camelina

The new crop for renewable energy and sustainable aviation fuel (SAF)

- *Camelina sativa* (gold of pleasure, false flax) is a short-season flowering plant native to Europe and Asia
- Does not result in indirect land use change (ILUC)
- Short growing season (85-100 days, closer to 60-80 days in HI)
- Does not contribute to the food vs fuel debate as the byproduct can be used in animal feed
- Relatively low resource requirements
 - Drought and pest tolerant, can be grown on marginal lands
 - Hardy and adaptable to various environmental conditions
- Based on initial RD, camelina has an estimate Carbon Intensity (CI) score of ~24 (without meal credit) and ~7 (with meal credit)



Camelina

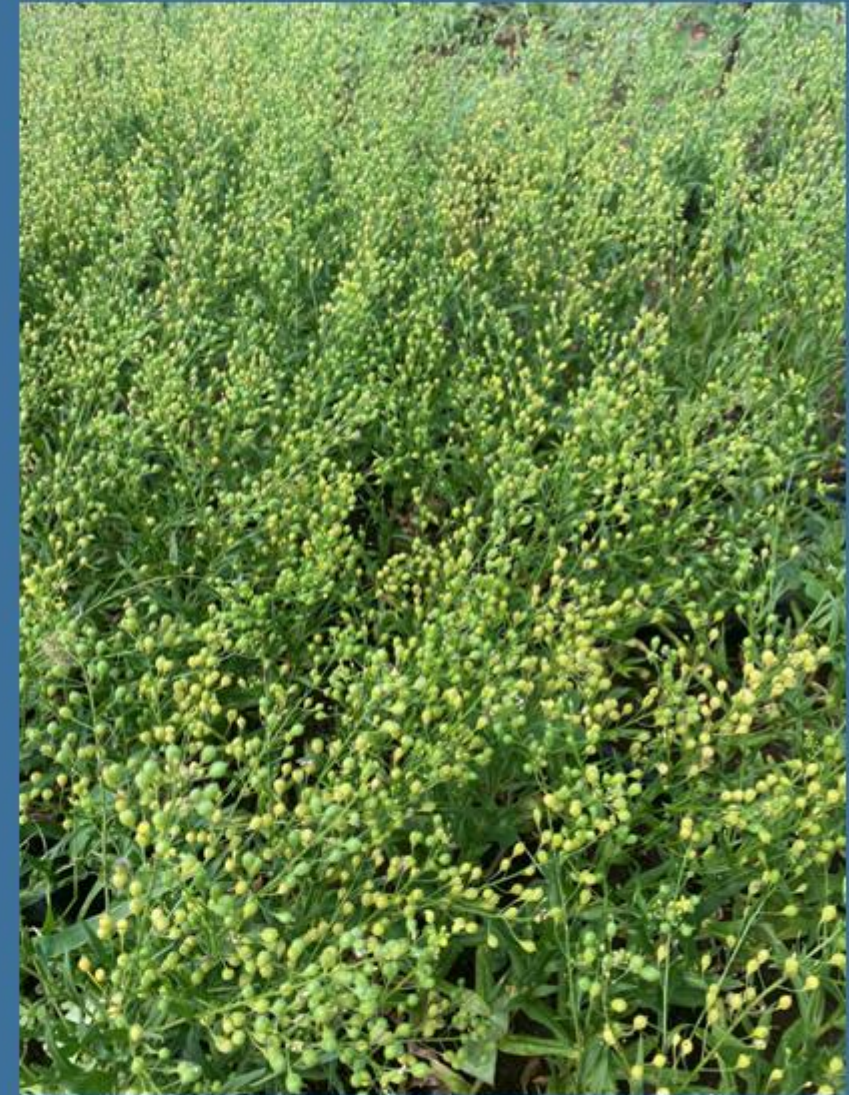
- Camelina has the potential to receive the lowest carbon intensity (CI) score of available feedstocks on the market
- Camelina Renewable Diesel (RD) qualifies for the RFS, BTC and California's Low Carbon Fuel Standard (LCFS) renewable incentive programs, as well as European programs such as REDII
- Camelina-based RD has an estimated carbon intensity (CI) Score of ~24 (without meal credit) and ~7 (with meal credit)
- | Camelina Canola | Soy | Traditional Diesel | |
|-----------------|---------|--------------------|----------|
| ~7g/MJ | ~52g/MJ | ~60g/MJ | ~100g/MJ |

Source: Global Clean Energy 2023



Accomplishments

- Worked with HNEI to identify lands across the state suitable for Camelina production and processing
- Performed outreach to large landowners and commercial farmers
- Formed partnerships with HNEI and HARC
- Developed economic model to guide commercialization
- Trial Progression
 - Completed trial rotations at Kuilima Farm, Aloun Farms and Mahi Pono
 - Collected yield and oil data on a rolling basis
 - Completed phase 1 variety trial with HARC – planning phase 2
 - Oil sample crushed by HNEI provided to Par – oil is acceptable for refinery
 - Seed analysis performed by Oregon State University Seed Laboratory
- Provided seed cake to potential offtake partners Diamond Head Seafood, Kualoa Ranch, Meadow Gold Dairies and others, and performed analysis with UH Animal Nutrition Lab
- Hawaii Renewable Fuels Coalition
 - Working with Par, Alaska/Hawaiian Air and varied coalition members on updated legislation, outreach and education, and coalition building



2025-26 Goals

- Conducting a second round of seed variety trials with HARC (Hawaii Agricultural Research Center).
- Expanding our self performed trials utilizing different land management practices and harvesting methodology.
- Finalize an Initial Offtake Agreement with Par Hawaii (complete)
- Finalize & Test animal feed trials with residual seed cake from the trials (ongoing)
- Finalize Initial Offtake Agreements with animal feed partners
- Create an investable model for Commercialization of camelina production





Par Hawaii

S E R V I N G H A W A I I S I N C E 1 9 7 2



www.parhawaii.com

91-325 Komohana Street
Kapolei, Hawaii 96707
808-547-3111