

Benefits of Honua Ola Bioenergy Facility

ELECTRICITY PRODUCED

Enough energy produced to power
14,000 homes



Delivering 14% of Hawai'i Island's power needs

REDUCED FOSSIL FUEL CONSUMPTION

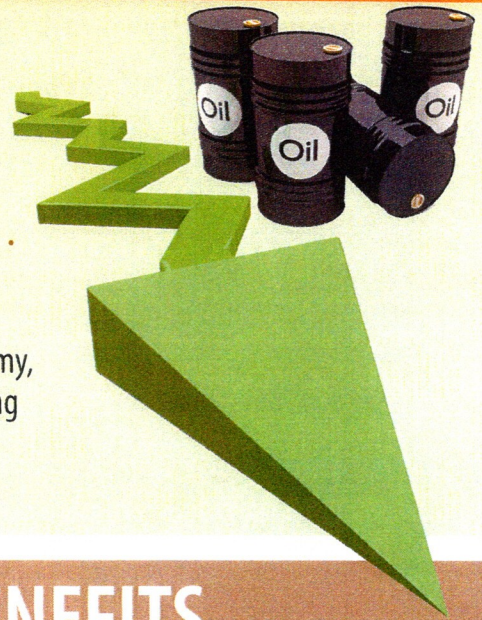
250,000

fewer barrels of fossil fuel burned annually

\$20 million

going into the local economy, each year, instead of leaving Hawai'i to buy foreign oil*

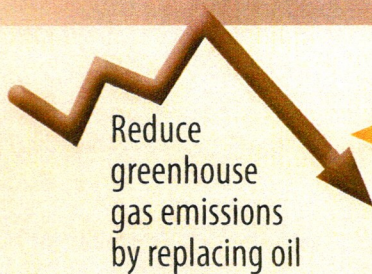
*Using approximate on-island prices today



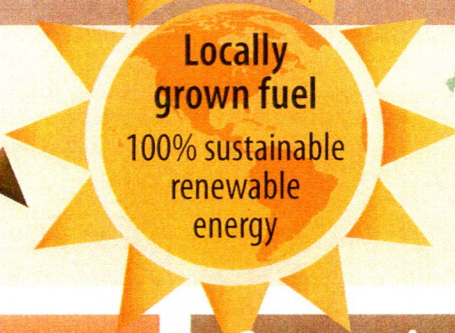
ENVIRONMENTAL BENEFITS



Carbon neutral



Reduce greenhouse gas emissions by replacing oil



Locally grown fuel

100% sustainable renewable energy



Moves the state closer to 100% renewable energy goal

ECONOMIC BENEFITS



- Lower electric costs
- Infuse millions of dollars into the local economy
- New industry creation

FUEL SUPPLY

20,000 acres

Replacement crops will provide timber in perpetuity enabling sustainable carbon-neutral energy



Community Support

75% support for the project on a public opinion survey of East Hawai'i Island residents



JOBS

380 construction-related jobs

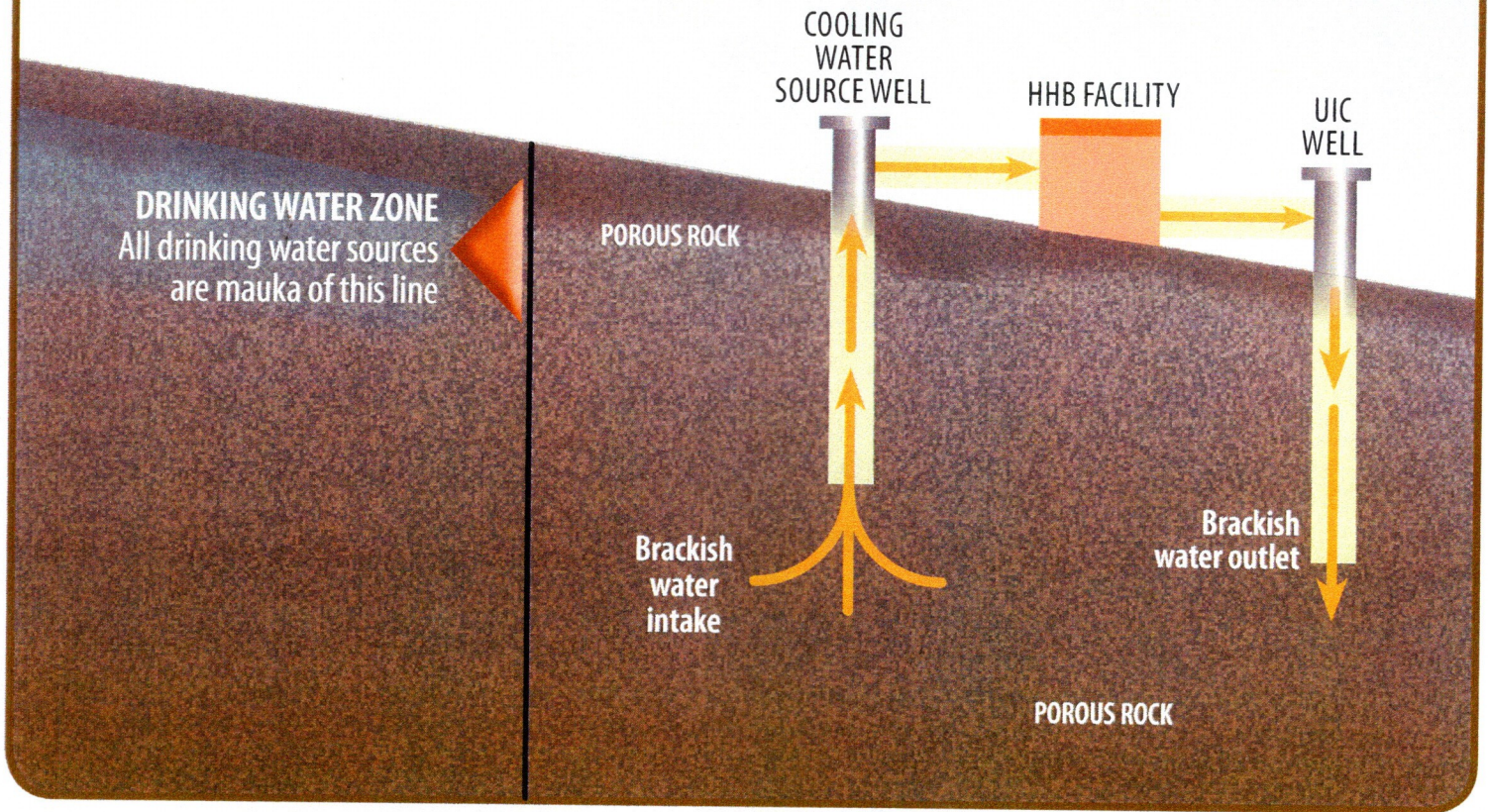
190 operations-related jobs



HONUOLA
BIOENERGY

HONUOLA WATER SYSTEM

Honua Ola will only use non-drinking water. And 99.8% of the water will come from a non-drinking brackish water source and returned to the brackish water source.



DISCHARGED WATER IS SAFE

Honua Ola will comply with all environmental rules and requirements.

Total amount of additives = $\frac{1 \text{ part}}{5 \text{ million parts water}}$

NO TRAFFIC, WEIGHT OR SAFETY ISSUES

Honua Ola log trucks are no longer than other commercial haulers and will weigh less than the limit rating for roadways. They will not add noticeably to the overall volume of traffic on the roads.

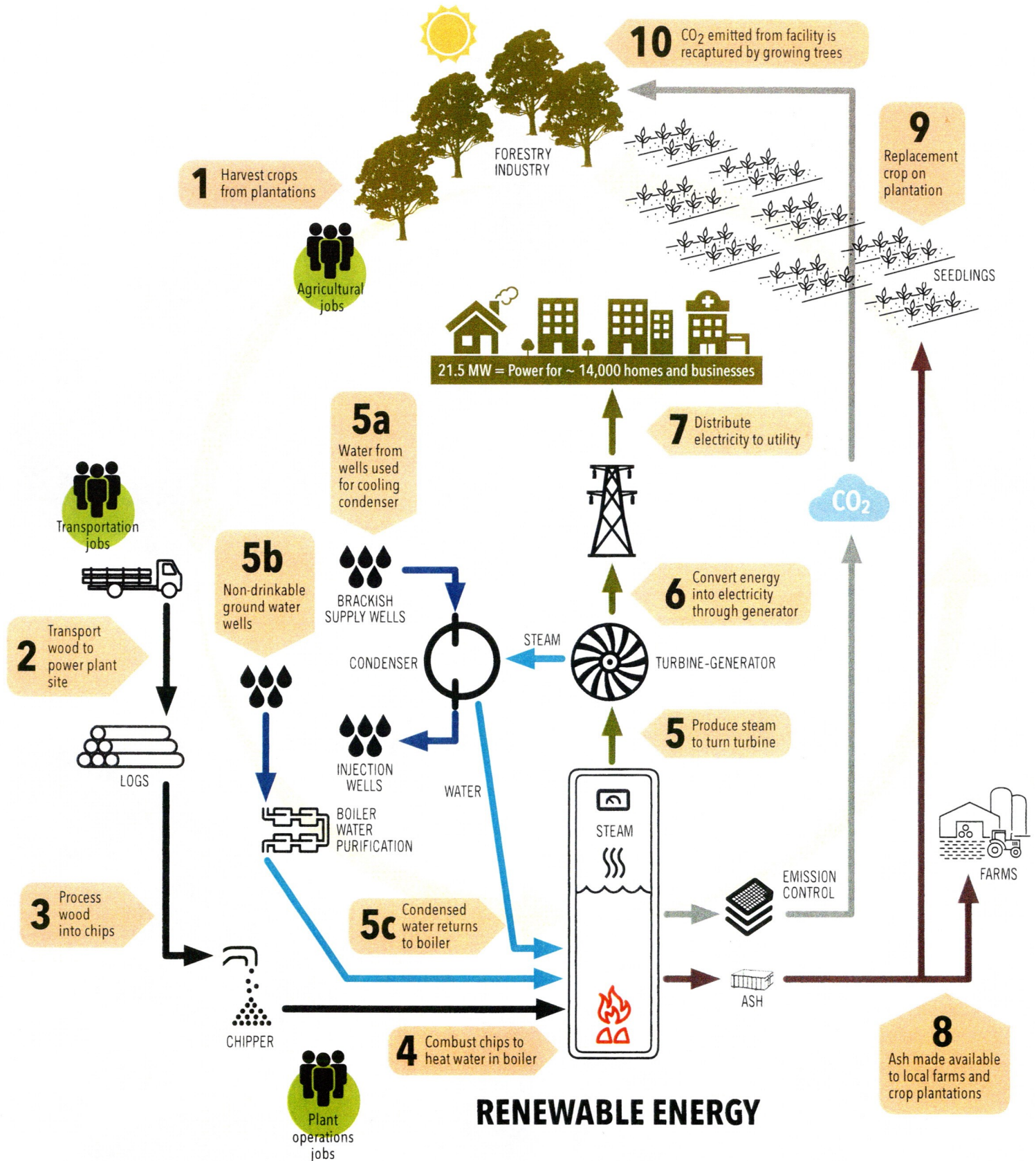
MAX WEIGHT
26 TONS

BRIDGE MAX WEIGHT
40 TONS



HONUA OLA BIOENERGY: Green, Renewable, Sustainable

CARBON-NEUTRAL AGRICULTURE



Honua Ola's Renewable Bioenergy: Environmentally Friendly and Sustainable

Will Honua Ola meet all governmental environmental rules and requirements?

Yes. Honua Ola will comply with all environmental rules and requirements, including the strict requirements of the State Department of Health, State DLNR, Federal EPA and OSHA, and the County of Hawai'i. Significant planning and engineering went into retrofitting this coal-fired plant to a modern biomass facility including the best available technology to ensure people are safe and the environment will be protected.

Will Honua Ola use 21.6 MGD of drinking water to run its facility?

No. Honua Ola will only use non-drinking water. All of the water, 100%, will come from non-drinking water. And 99.8% of the water will come from a non-drinking brackish water source. The remaining 0.2% of water will come from non-potable water sources, not suitable for drinking. The 21.6 MGD (million gallons per day) of water will be recycled (pumped from and returned to the brackish water source) in the process of cooling the steam used to generate electricity for thousands of homes and businesses.

Will water be discharged into the drinking water supply through the UIC wells?

No. The water Honua Ola will be using will only be discharged into a brackish water source through the deep underground injection control (UIC) wells and will not go into the drinking water supply. This will not affect the drinking water supply, which is located mauka of (uphill from) the facility.

Will the discharged water be harmful to the environment or people?

No. The discharged water will not affect the environment or people. More than 99.8% of the water will be sourced from an underground brackish water source and used to cool the steam before it's returned to the underground brackish source. Less than 0.2% (.002) of the water will consist of non-potable (non-drinking) water that will go into the boiler to create steam and will be treated with negligible amounts of non-harmful additives, following approved best practices, to maintain the equipment and prevent issues such as scaling. These additives do not contain any active ingredients that are on the EPA Clean Water Act list of hazardous substances. Any inactive ingredient appearing on the list that makes up less than 1% of the additive is considered safe.

Can local roads and bridges sustain Honua Ola's vehicles?

Yes. Honua Ola's vehicles, even when fully loaded, will weigh well below the 40 ton (or other) rated load of any highway, bridge or road they will traverse. Honua Ola will comply with state and county regulations. Note that Sugar Mill Road successfully carried heavier cane haul trucks for several decades.

How will the facility impact traffic in the area?

Traffic impact will be minimal. An estimated 30 truck deliveries per day will be made, which is considered insignificant and incidental to the projected average of 11,250 vehicles on Hawai'i Belt Road. The log trucks are no different than the current shipping containers being hauled on the same roadways. Updates will continue to be provided to the local community.

Do local residents support this facility?

Yes. This facility has strong support from local residents. Honua Ola's renewable energy facility will benefit 100% of Hawai'i Island residents with clean, reliable, and lower-cost power. Based on a mid-2017 poll conducted by Anthology Research, the large majority of East Hawai'i residents (more than 75%) support Honua Ola's renewable energy project.

Why is the Honua Ola energy project important in light of recent volcanic events on the Big Island?

The Honua Ola energy project will:

- Provide clean renewable energy that can offset most of the renewable energy lost from the current closure of the Puna Geothermal Plant (PGV) due to volcanic activity;
- Reduce/eliminate the need for the utility to run its oil-fired plant(s) at higher rates and with less reliability to generate power on Hawai'i Island due to the closure of PGV;
- Lower current electric costs;
- Create new jobs (380 construction related, 190 operations related);
- Infuse millions of dollars into the local economy;
- Create enhanced industries such as forestry;
- Provide for the best use of land to continue important agricultural-based activities;
- Reduce greenhouse gas emissions; and
- Be carbon neutral.

The PUC recognizes the value of accelerating renewable energy projects, such as Honua Ola, due to the closure of PGV.

About Honua Ola

Honua Ola is developing a clean renewable energy biomass facility on Hawai'i Island designed to replace other firm baseload-generating plants that burn imported fossil fuels (i.e., oil). The plant is scheduled for completion in the first quarter of 2019. The feedstock will primarily consist of locally grown, commercial eucalyptus crops, which are not only less expensive to generate electricity than current fossil fuels, but are also sustainable and, unlike petroleum, not subject to fluctuations in global pricing. For every eucalyptus crop Honua Ola uses, it will have a replacement crop (or more) to be carbon-neutral and sustainable.