



**HAWAII
GREEN**
10-ENTRY LEVEL

2024

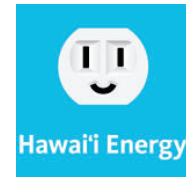
**BUSINESS
PROGRAM**



Board of Water Supply



**HAWAII
STATE
ENERGY
OFFICE**



Hawaii Energy


WAIKULU
Distillery



Background:

Waikulu Distillery is a farm to bottle maker of blue agave spirits. Located in Makawao on the windward side of the Hawaiian island of Maui, where the mild temperatures and consistent rainfall are ideal conditions for growing *Agave Tequilana*. Every portion of the process is done at the Waikulu farm, from growing, harvesting and processing the agave, to the distillation, bottling and labeling of finished spirits.

Highlights

The making of beer, wine and spirits is traditionally an energy and water intensive process. Waikulu Distillery is committed to minimizing these impacts. They have incorporated and developed many processes to reflect this commitment which are detailed here.

POWER

Electricity is 100% solar with no ties to the local power grid. The steam boiler for ovens and distillation is propane powered. The energy needed to make steam is more than solar power could provide, so they chose propane, which is not the cheapest option, but is the lowest carbon producing option.

GREEN BUILDING

Building is designed to use natural light and optimize the trade winds to eliminate the need for heating or air conditioning. With a hot still running in the middle of the room, this was quite a challenge.

WASTEWATER

The largest consumption of water in a distillery is the still's condenser. Still requires over 1,000 gallons during a single distillation run, so they developed a method where the water is cooled naturally by the trade winds and re-used. This saves 250,000 gallons per year from going to waste.

SUSTAINABLE AGRICULTURE

Since it is a farm to bottle operation, a "closed loop" agriculture system is used, so plants and nutrients from somewhere else and depleting that soil is avoided. They only extract a small portion of the agave plant, the rest is composted or goes back to the fields. The liquid leftover from distillation, still rich in nutrients, is taken back to the fields as irrigation and fertilizer.

MINIMIZED WASTE

Being a farm to bottle producer and selling only locally on Maui, they inherently produce very little waste. They also work with suppliers to reduce unnecessary packaging. The result is their facility sends less than 10 cubic feet (1 residential garbage bin) of waste to the landfill each month.

Waikulu also has a bottle return program with their restaurant partners that has resulted YTD in over 1,000 bottles being directly re-used and not going to waste.



Solar panels



Natural and LED lighting



Condenser water is recycled