Sustainable DOT-A Program Leads Efforts at Hawaii's Airports

State of Hawaii Department of Transportation
Airports Division

AIRPORTS DIVISION MISSION (DOT-A)

To provide an integrated Airports System that reflects the unique spirit of Aloha and connects Hawaii with the world while promoting sustainability.

SUSTAINABLE DOT-A MISSION

Promote sustainability in Hawaii by empowering airport projects, fostering collaboration and communicating progress through education and outreach.

GOVERNOR DAVID IGE

The State of Hawaii's Department of Transportation Airports Division (DOT-A) recognizes the importance of sustainability as an integral part of Hawaii's future. Our objective is to eliminate our dependence on fossil fuels and achieve 100 percent renewable energy usage by 2045. My administration commends the DOT-A's proactive leadership and helping us to achieve this goal.

DIRECTOR FORD FUCHIGAMI

Out here on an island, Hawaii was the most fossil fuel dependent state in the country. Now the Department of Transportation is focused on sustainable transportation more than ever before to ensure efficient mobility of people and goods while preserving environmental and economic prosperity.

DEPUTY DIRECTOR
ROSS HIGASHI

Sustainability is an important part of the airports operational strategy. The Airports Division is the third highest consumer of electricity in the state. We are working on more innovative ways to provide new energy saving projects in our buildings, vehicles and operations.

Sustainability for DOT-A is preserving our natural resources so future generations can experience our lifestyle of Hawaii today

-sustainableHNL committee

HONOLULU AIRPORT 2020 GOALS

10% Energy reduction

2009 Carbon levels

10% Water reduction

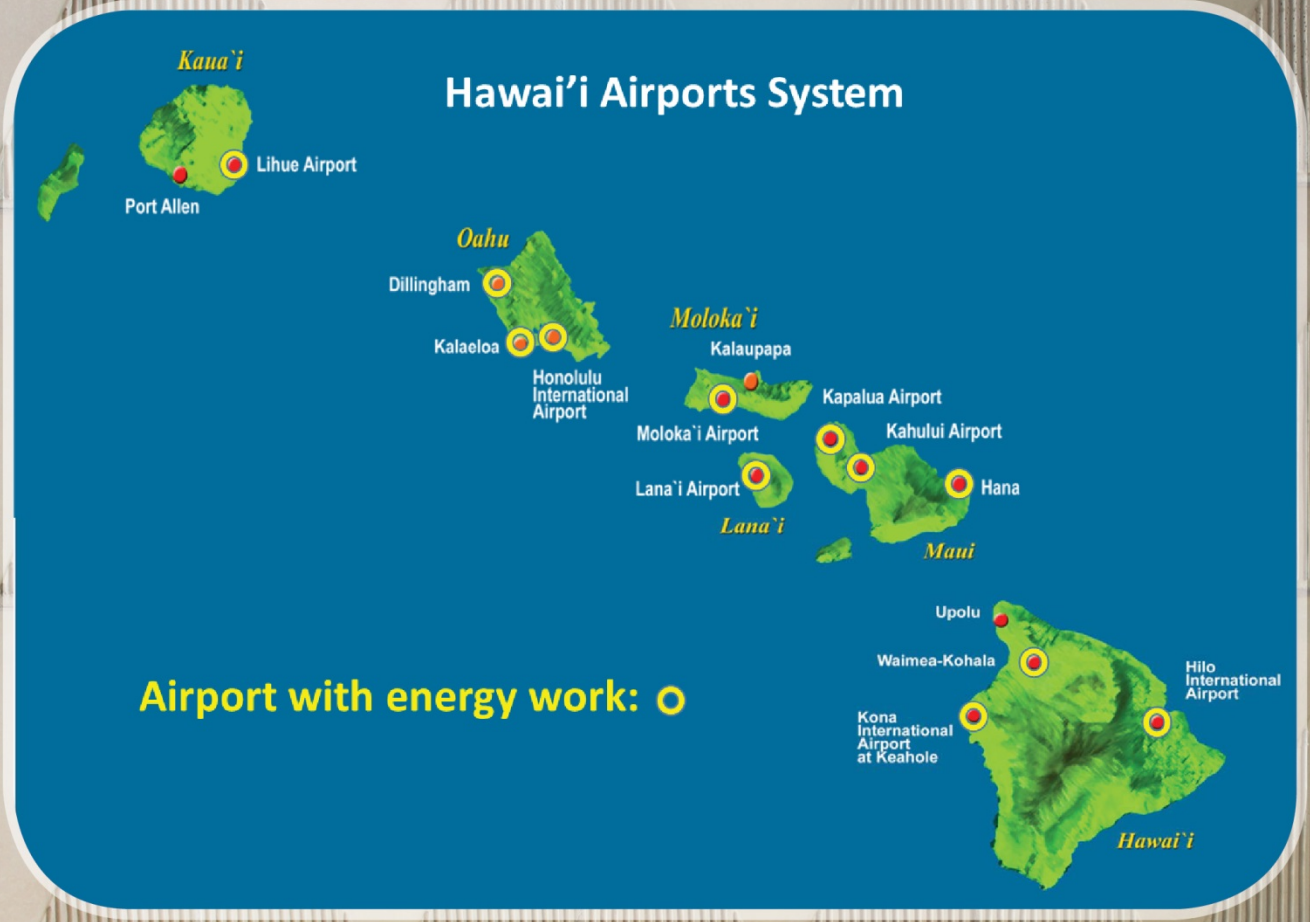
4% Waste reduction

ENERGY SAVINGS ANNUALLY STATEWIDE

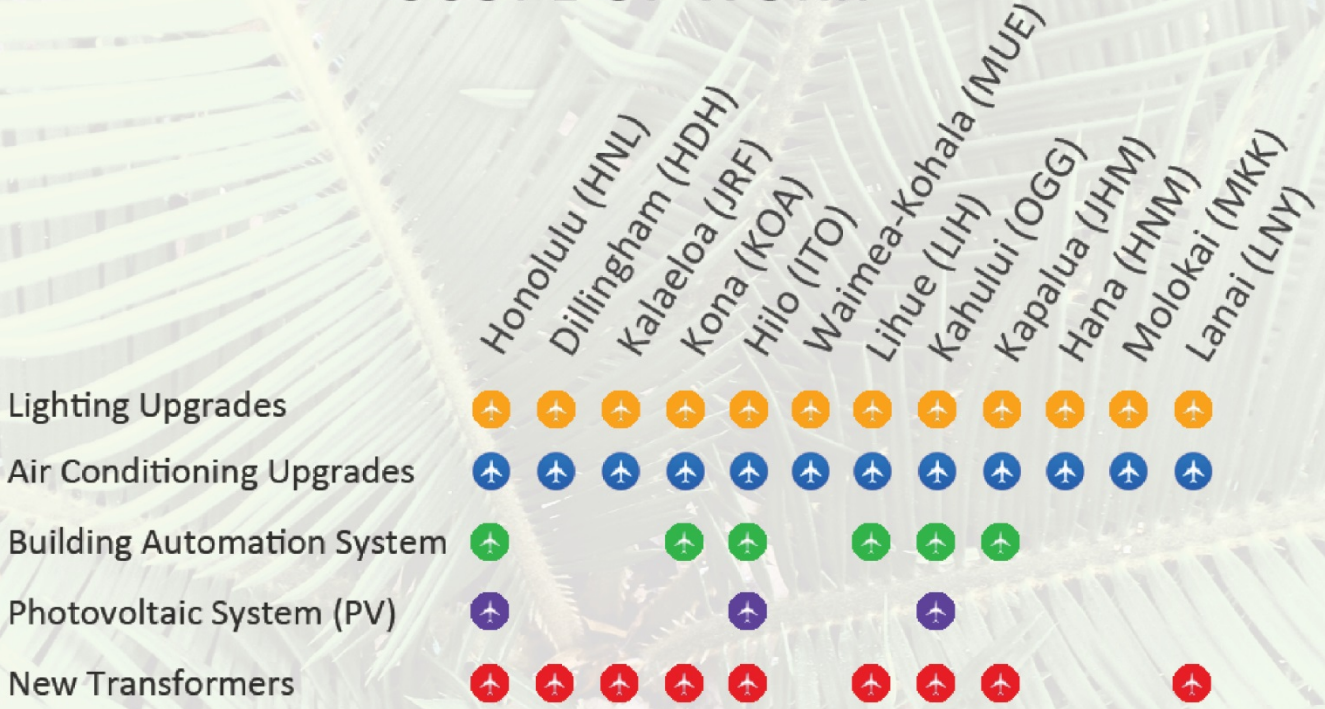
- $15.8 million

- 49.9 million kWh of energy

- 6,757 Hawaii homes annual electrical use


Hawai'i Airports System
Kaua`i
Lihue Airport
Port Allen
Oahu
Dillingham
Kalaeloa
Honolulu International Airport
Moloka`i
Kalaupapa
Kapalua Airport
Moloka`i Airport
Kahului Airport
Lana`i Airport
Hana
Lana`i
Maui
Upolu
Waimea-Kohala
Hilo International Airport
Kona International Airport at Keahole
Hawai`i
Airport with energy work:

SCOPE OF WORK



LIGHTING UPGRADES

- 74,596 lighting fixtures retrofitted
- Uses less energy & produces less heat
- Reduce maintenance & repair costs
- Improves the look and safety of airports

AIR CONDITIONING UPGRADES

- Air Conditioning keeps the terminals cool
- Major upgrades to reduce energy losses from older systems

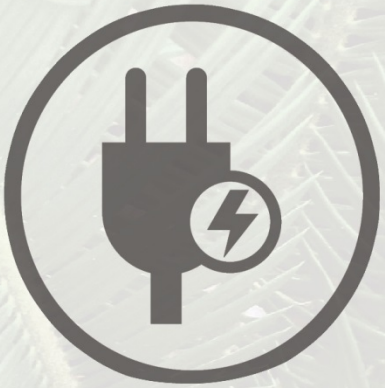
BUILDING AUTOMATION SYSTEM

- Advanced controls of HVAC, water & lighting systems
- Reduce unnecessary energy consumption
- Identifies problems & notifies managers

PHOTOVOLTAIC SYSTEM (PV)

- 9,000 panels installed
- $2.6m annual savings
- 11% of HNL energy generated onsite

NEW TRANSFORMERS



- $524k annual savings
- 900+ new units efficiently transfer incoming power

AIRPORT CARBON ACCREDITATION

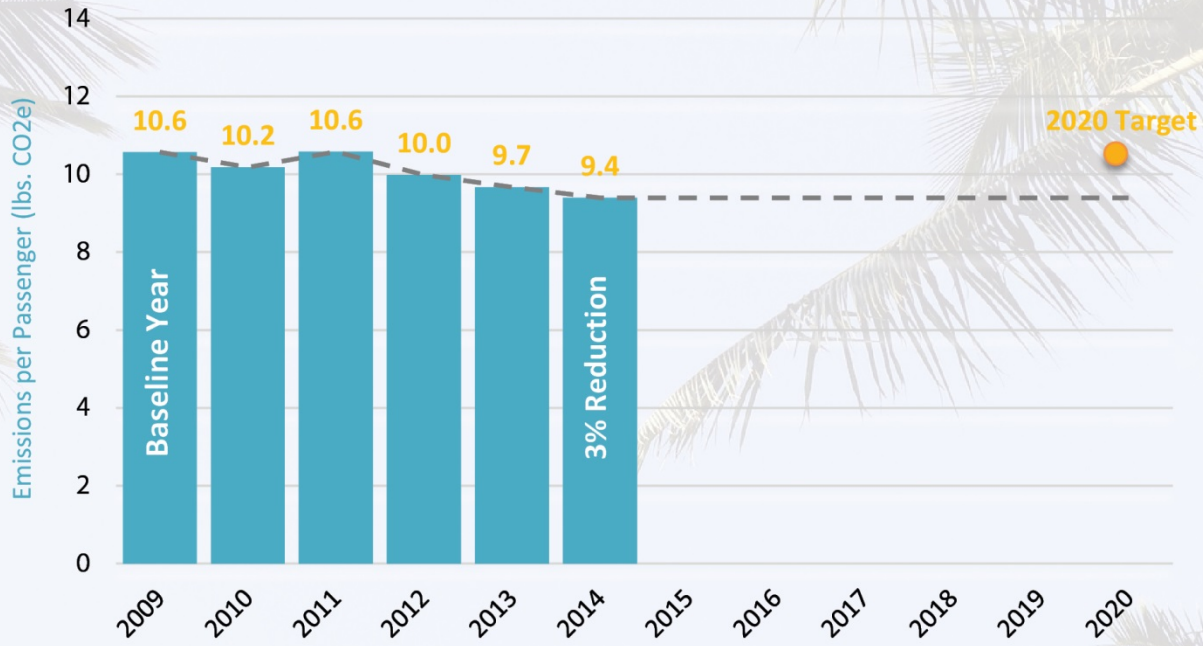
airport carbon accredited
REDUCTION

Honolulu International Airport Awarded

www.airportco2.org

GHG EMISSIONS REDUCTION

11% per passenger reduction at Honolulu Airport



WATER SAVINGS INITIATIVES

- Air conditioning upgrades reduce water consumption
- 194 million gallons saved between 2012-2014
- 1,328 homes equivilent water use
- 22% total bill savings

NON-POTABLE WATER LANDSCAPE IRRIGATION

- 1988 year first installed
- 86 million gallons used annually
- 17% of HNL water consumption offset
- 588 homes equivilent water savings annually

AIRPORTS MODERNIZATION PROGRAM

- New construction & renovation completing in 2020
- Designed to DOTA Sustainable Design Guidelines
- Eligible projects are seeking green building certification

HONOLULU MAUKA CONCOURSE

- LEED Silver design standards
- Recycled building materials
- Locally sourced products
- Natural indoor sky-lighting
- Recycling air conditioning condensate for irrigation

MAUI RENTAL CAR FACILITY

- LEED Silver design standards
- Consolidates rental car companies
- 25 shuttle buses eliminated, saving fuel & GHGs
- Greywater for waterfalls & landscape irrigation
- Native plants for landscaping

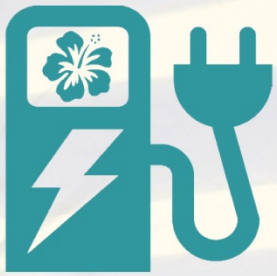
KONA & HILO AIRCRAFT RESCUE AND FIRE STATIONS

- LEED Silver design standards
- Energy efficient building systems
- Natural indoor day lighting
- Recycled building materials
- Locally sourced products

CULTURAL GARDENS

- Hawaiian, Chinese and Japanese cultural gardens
- Gardens are located around the HNL main terminal lobby
- Non-potable water used for irrigation

ELECTRIC VEHICLES



- Charging stations are available for use
- Designated EV only parking stalls
- Airport parking fees waived for EVs