

WELCOME

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

State of Hawaii Department of Transportation  
Airports Division



SUSTAINABLE AIRPORTS

sustainable **DOT-A**

## **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.



## MESSAGE FROM OUR LEADERS



### **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.



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## MESSAGE FROM OUR LEADERS



### **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.



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## MESSAGE FROM OUR LEADERS



### **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.



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## FOCUS ON SUSTAINABILITY

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



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## 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



# FOCUS ON SUSTAINABILITY



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# ENERGY SAVINGS PROGRAM

## SCOPE OF WORK

	Honolulu (HNL)	Dillingham (HDH)	Kalaheo (JRF)	Kona (KOA)	Hilo (ITO)	Waimea-Kohala (MUE)	Lihue (LIH)	Kahului (OGG)	Kapalua (JHM)	Hana (HNM)	Molokai (MKK)	Lanai (LNY)
Lighting Upgrades	+	+	+	+	+	+	+	+	+	+	+	+
Air Conditioning Upgrades	+	+	+	+	+	+	+	+	+	+	+	+
Building Automation System	+		+	+		+	+	+				
Photovoltaic System (PV)	+			+			+					
New Transformers	+	+	+	+	+		+	+	+			+



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## 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



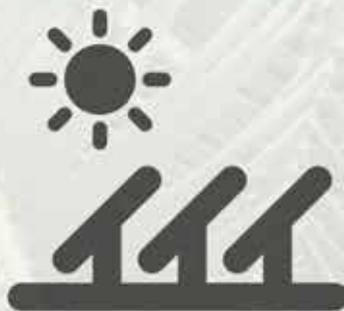
## BUILDING AUTOMATION SYSTEM



- 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



# ENERGY SAVINGS PROGRAM

## NEW TRANSFORMERS



✈️ \$524k annual savings

✈️ 900+ new units efficiently transfer incoming power



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## AIRPORT CARBON ACCREDITATION



Honolulu International Airport Awarded

[www.airportco2.org](http://www.airportco2.org)

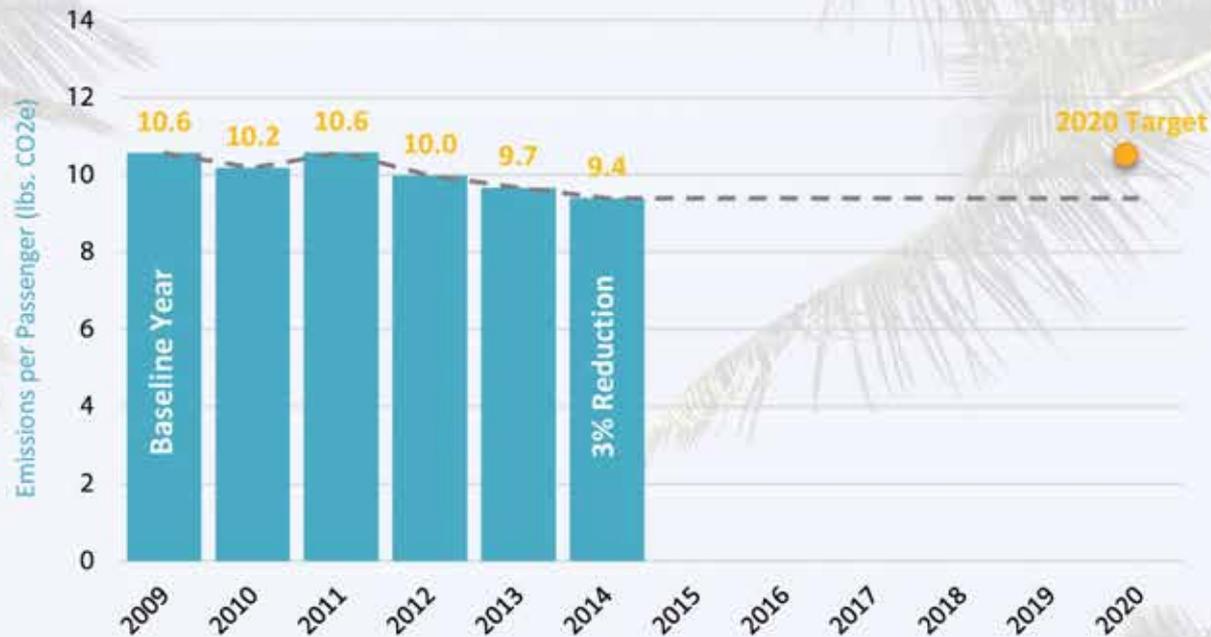


# CARBON REDUCTION

## GHG EMISSIONS REDUCTION



**11% per passenger reduction at Honolulu Airport**



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## WATER SAVINGS INITIATIVES



- ✈ Air conditioning upgrades reduce water consumption
- ✈ 194 million gallons saved between 2012-2014
- ✈ 1,328 homes equivalent 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 equivalent 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

- 65%  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

