# sustainable**HNL**

## Annual Report for CY2016

Reporting sustainability progress at

*Daniel K. Inouye International Airport*

Published September 2017

# A MESSAGE FROM THE AIRPORT MANAGER

*Aloha!*

The Daniel K. Inouye International Airport sustainability initiative, known as Sustainable HNL (sHNL) is led by the Oahu Airports District Manager and supported by the diverse and dynamic HNL Sustainability Committee. The Committee accomplished several noteworthy sustainability measures in 2016:

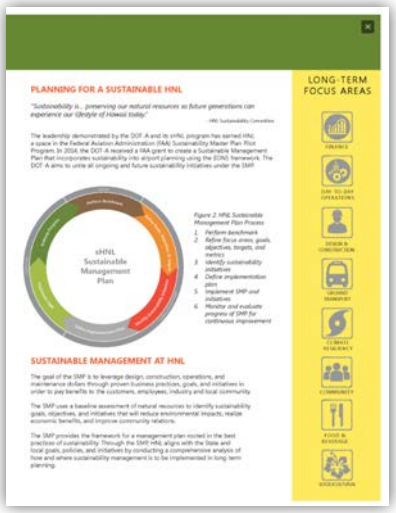
- Completed HNL's Sustainable Management Plan, benchmarked the airport's existing sustainability performance, established goals and targets, and identified initiatives to implement.
  - Currently achieving our 2020 targets in Energy and Carbon reductions.
  - Planning for implementation of Water and Waste initiatives.
- Reduced airport-wide energy consumption by 8% per passenger (measured in kWh) from 2015.
  - Savings primarily due to an energy savings performance contract with Johnson Controls Inc, using lighting upgrades, solar panels, HVAC upgrades, and building automation.
    - Phase 2 of the JCI contract will start in 2017, with more solar panels and lighting upgrades.
- Compiled a greenhouse gas emissions inventory for HNL, and received Airport Carbon Accreditation from the Airports Council International.
  - Achieved Level 2 Accreditation (Reduction) by reducing the emissions from airport controlled operations within the operational boundary of the airport.

HNL's sustainability goals and policies are now published on our website and we stand committed to meet and exceed them. As we move forward to a more responsible future, I want to thank our staff, partners and tenants for their team work and cooperation.

Sincerely,

Roy K. Sakata
Oahu Airports District Manager
State of Hawai'i Department of Transportation

# SUSTAINABILITY HIGHLIGHTS



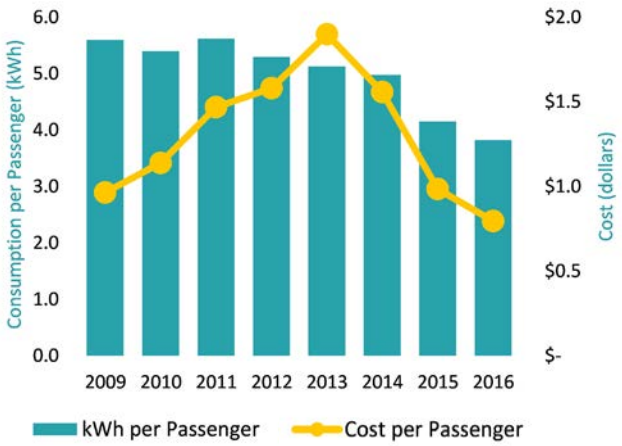

- To plan for **sustainable growth**, HNL completed the Federal Aviation Administration (**FAA**) funded Sustainable Management Plan (SMP).
  - The goal was to **incorporate sustainability** holistically into airport planning and operations using the EONS model, which stands for Economic Viability, Operational Efficiency, Natural Resource Conservation and Social Responsibility.
  - This is accomplished by identifying goals and objectives, prioritizing initiatives, and **implementing initiatives** and policies.
  - The SMP brought together DOT-A stakeholders and was published in October 2016.
  - Goals and targets identified by the Sustainable HNL Committee are committed to by the Director of the Department of Transportation.

## SUSTAINABLE MANAGEMENT PLAN TARGETS

| CATEGORY | INDICATOR | BASE LINE | 2020 TARGET | 2016 | PROGRESS |
|---|---|---|---|---|---|
| **ENERGY** | kWh / passenger | 5.0 | 4.5 | 3.8 | **Exceeding** |
| **CARBON** | lbs. $CO^2$ / passenger | 10.6 | 9.54 | 5.80 | **Exceeding** |
| **WATER** | gal. / passenger | 22.0 | 19.8 | 21.0 | In Progress |
| **WASTE** | waste diversion rate | 0.9% | 4% | 1.0% | In Progress |

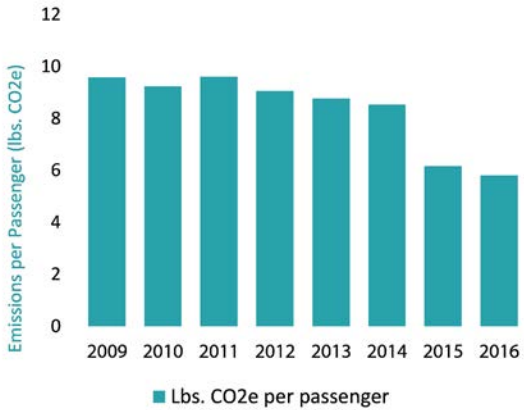
# SUSTAINABILITY HIGHLIGHTS

## ENERGY



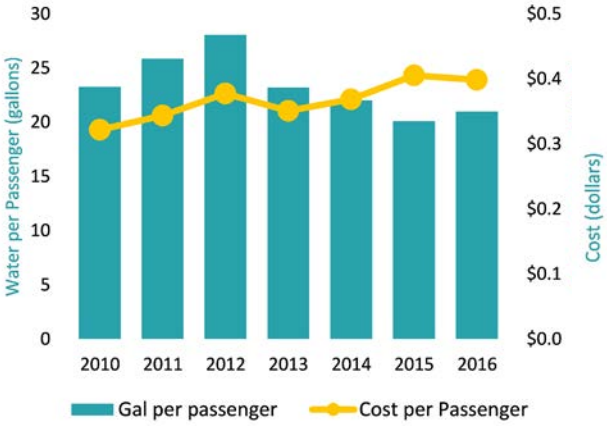

- Offsets **3%** of HNLs electricity needs with onsite renewable energy systems - up from **1%** last year.
- Decreased energy consumption by **8%** from 2015 due to various **renewable energy, conservation, and efficiency** projects.
- Reduced energy costs by **24%** from 2015 as a result of falling utility energy prices and the aforementioned energy savings measures.

## CARBON




- Reduced airport-generated carbon emissions by **8%** from 2015 due to electricity savings measures.
- Increased the amount of **biodiesel** purchased by **7,000** gallons or **580%**.
- Decreased diesel and gasoline purchased by **20%** and **8%** respectively, for DOT-A fleet and Wiki Wiki shuttle vehicles
- Received worldwide recognition via **Airport Carbon Accreditation** (ACA) achieving Level 2, for efforts to account for and reduce carbon dioxide emissions from airport operations. Launched by Airports Council International, the ACA program info can be found at airportco2.org.

## WATER




- Began work to **upgrade** the garden ponds and landscaped areas, reducing water consumption.
- Piloted **irrigation timers** for landscaped areas.
- Continues to **use non-potable water** for gardens, landscapes, turf grasses and containers.
- Utility costs continues to increase due to increased consumption and rate increases for potable water and sewer services.

# SUSTAINABILITY HIGHLIGHTS

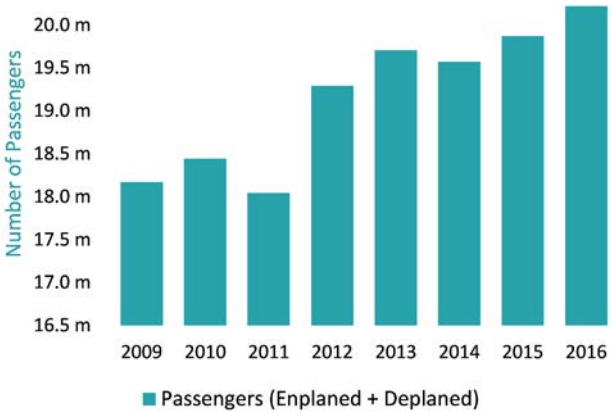
## WASTE

- Coordinated an Airport-Wide Foreign Object Debris (FOD) Walk .
- Coordinated bulky item **recycling drive** for tenants and state offices for a **70%** diversion from landfill and incinerator:
  - E-Waste **3,371** lbs
  - Scrap Metal **15,920** lbs
  - Other **8,800** lbs

## STORM WATER

- Staff, tenants, consultants and contractors participated in the annual Department of Transportation storm water training event, the **Protect Our Water Conference**.
  - Training sessions focused on construction BMPs, regulation, technologies and techniques for reducing the **downstream impacts** of storm water in the environment.

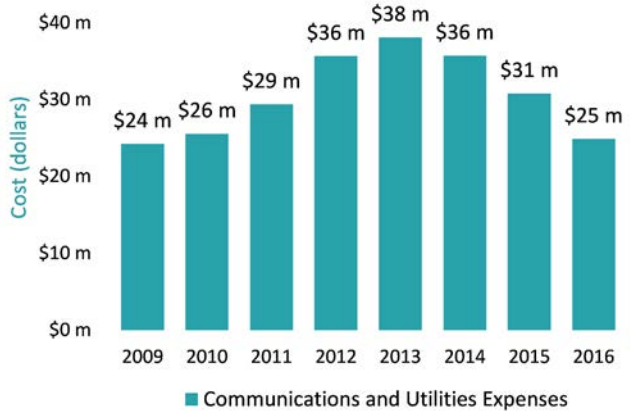
## DAY-TO-DAY OPERATIONS




- Passengers increased by **2%** from 2015 and **11%** from 2009.
- Flights decreased by **3%** due to larger planes and consolidation of airlines.
- Cargo and mail weight landed increased by **1%** from 2015.

# SUSTAINABILITY HIGHLIGHTS

## FINANCIAL SUSTAINABILITY




- Decreased utility costs by **$7 million** dollars from 2015.
- Started planning for Phase 2 of the **Energy Savings Performance Contract**.
  - Guarantees **$65.5** million dollars in savings over the remaining 15 years of the contract.
  - Phase 2 will start in 2017 and will take 2 years to complete.
  - Includes rooftop **solar** canopies on parking garages and apron **lighting** upgrades.

## DESIGN AND CONSTRUCTION

- **$2.3** Billion Dollar Airport Modernization; Sustainability highlights:
  - Bid awarded for 250,000 sq. ft. Mauka Concourse pursuing **LEED Silver** certification.
  - Started construction on Consolidated Rental Car Facility pursuing **LEED Silver** certification
  - Started **renovating restrooms** with water efficient fixtures and faucets.

## GROUND TRANSPORTATION

- Installed more **electric vehicle** charging stations on level 1 of the International Parking Structure.
  - **Generate revenue**: $7 for 24 hrs.

# SUSTAINABILITY HIGHLIGHTS

## CLIMATE RESILIENCY

- The Airport Modernization Program projects have taken the following steps to mitigate impacts of **climate change**:
  - All project components are being constructed in existing development areas of the airport.
  - Located more than **0.5** miles from the shoreline.
  - Located outside tsunami **evacuation zone.**
  - Located on ground surface elevations greater than **10 ft** above sea level.
- Installed **renewable energy** generation systems.

## COMMUNITY

- **150 volunteers** and **17 sponsors** participated in the Airport FOD Walk.
  - Sponsors of the event were: Alaska Airlines, All Nippon Airlines, American Airlines, Aloha Air Cargo, Airport Service Group International, Blind Vendors Ohana, Duty Free Store, Hawaiian Airlines, HMS Host, Japan Airlines, Outrigger Hotels and Resorts, Signature Flight Support, Swissport, and Transportation Security Administration.
- **23** Airport Tenants and **3** State Airport offices participated in the Airport **Recycling Drive**.
  - **Sims Recycling** and **1-800-GOT-JUNK** diverted tons of waste from H-Power via recycling.

## FOOD AND BEVERAGE

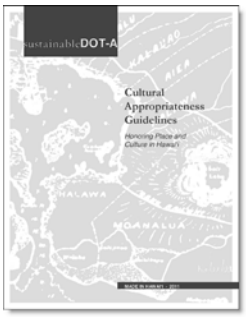
- Local ingredients, flavors and flair:
  - The Local - serving **Kona Brewing** Company beers, locally grown pineapples and locally caught **mahi mahi** fish tacos.
  - Makai Plantation – **Ahi** (locally caught yellowfin tuna), local greens for salads, hot dog with locally baked sweet bread buns, salads with **macadamia nuts**
  - Locally grown **coffee** and **pineapples.**

# RESOURCES

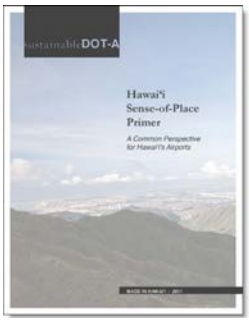
## GUIDING DOCUMENTS

Sustainable Management Plan

Sustainable DOT-A Program Profile




Cultural Appropriateness Guidelines (CAG)




Hawai'i Sense-of-Place Primer (HSPP)

Sustainable High Performance Guideline (SHPG)

## REFERENCES

| | |
|---|---|
| **Sustainable HNL:** | http://airports.hawaii.gov/hnl/airport-info/sustainablehnl/ |
| **Sustainable DOT-Airports:** | http://tinyurl.com/susDOTA |
| **Federal Aviation Administration Sustainability Plans:** | https://www.faa.gov/airports/environmental/sustainability/ |
| **The Hawaii Aloha + Challenge:** | https://dashboard.hawaii.gov/aloha-challenge |
| **Sustainable Hawaii Initiative:** | http://governor.hawaii.gov/sustainable-hawaii-initiative/ |
| **Hawaii Clean Energy Initiative:** | http://www.hawaiicleanenergyinitiative.org/ |
| **Hawaii Storm Water Airport Tenant Training Video:** | https://www.youtube.com/watch?v=YSE54E2cUIE |

sustainable**DOT-A**

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