

## CAR.Committee

---

**From:** Bass, Danielle M <danielle.m.bass@hawaii.gov>  
**Sent:** Tuesday, July 14, 2020 3:00 PM  
**To:** CAR.Committee  
**Subject:** CAR-5 presentation  
**Attachments:** Climate ^0 Sustainability Laws Presentation to Maui County Council.pptx

Please see attached.

Please contact me if you have any questions.

Mahalo,  
Danielle

Danielle M. M. Bass  
State Sustainability Coordinator  
State of Hawaii, Office of Planning  
email: [danielle.m.bass@hawaii.gov](mailto:danielle.m.bass@hawaii.gov)  
<https://planning.hawaii.gov/sustainability>

# Overview of Hawaii's Climate and Sustainability Laws

*Presentation to the Maui County Council  
Climate Action and Resilience Committee  
July 15, 2020*



**Office of Planning**  
State of Hawaii

# What is the Paris Agreement?

- United Nations landmark agreement to combat climate change
- Passed on December 2015; effective November 2016
- Aims (*Article 2*):
  1. Holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;
  2. Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production;
  3. Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.
- United States is among one of the 189 nation states that have become a party to it.
  - U.S. announced intention to withdraw from Paris Agreement in 2017
  - Earliest effective date to withdraw is November 2020.

*“To limit global temperature rise to the necessary 1.5 degrees by the end of this century, we must reduce emissions by 45% from 2010 levels by 2030, and we must achieve climate neutrality by 2050.”*

*-Antonio Guterres, U.N. Secretary General*

*December 2, 2019*

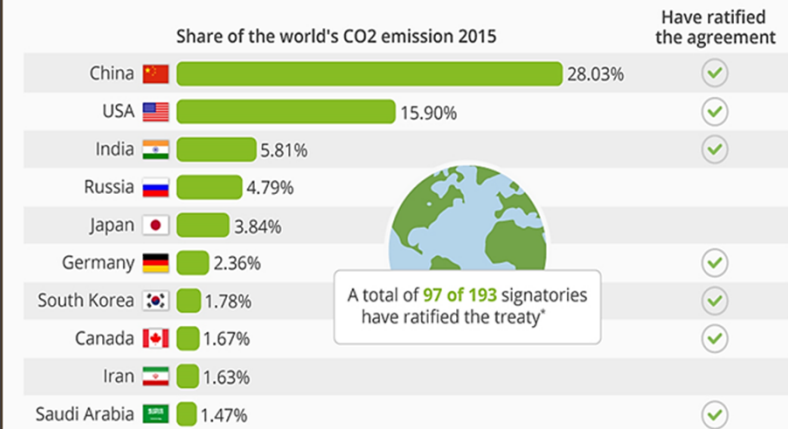
# Hawai'i Climate Change Mitigation and Adaptation Initiative

(Hawai'i Revised Statutes § 225P-3; enacted in 2017)

- Aligns the State of Hawaii's commitment to combat climate change by with the principles and goals set forth by the United Nations' Paris Agreement and Hawaii's share of the obligations within the expectations apportioned to the U.S. in the Paris Agreement.
- Established an advisory Climate Commission administratively attached to the Dept. of Land and Natural Resources, headed jointly by the Chair of the DLNR and the Director of the Office of Planning, or their designees.
- Sea Level Rise Vulnerability and Adaptation Report**
  - Report published in December 2017.
  - Report available online: [https://climateadaptation.Hawai'i.gov/wp-content/uploads/2017/12/SLR-Report\\_Dec2017.pdf](https://climateadaptation.Hawai'i.gov/wp-content/uploads/2017/12/SLR-Report_Dec2017.pdf)
  - Hawai'i Sea Level Rise Viewer available online: <http://www.pacioos.Hawai'i.edu/shoreline/slr-Hawai'i/>

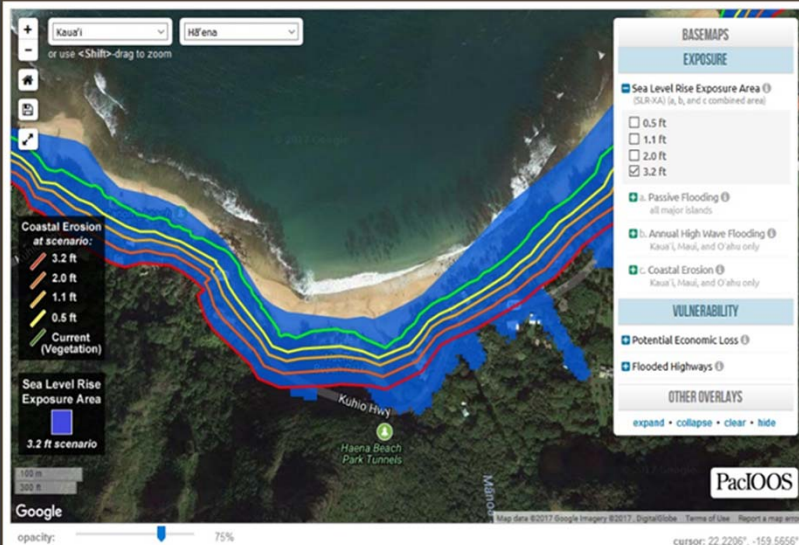
## Paris Climate Agreement Comes Into Effect

Top 10 CO2 emitters worldwide and status of the Paris Agreement



\* as of November 2016  
@StatistaCharts Source: Germanwatch/EIA, United Nations

statista



# Climate Change Adaptation Priority Guidelines

Codified within the Hawai'i State Planning Act

(Hawai'i Revised Statutes § 226-109; enacted in 2012)

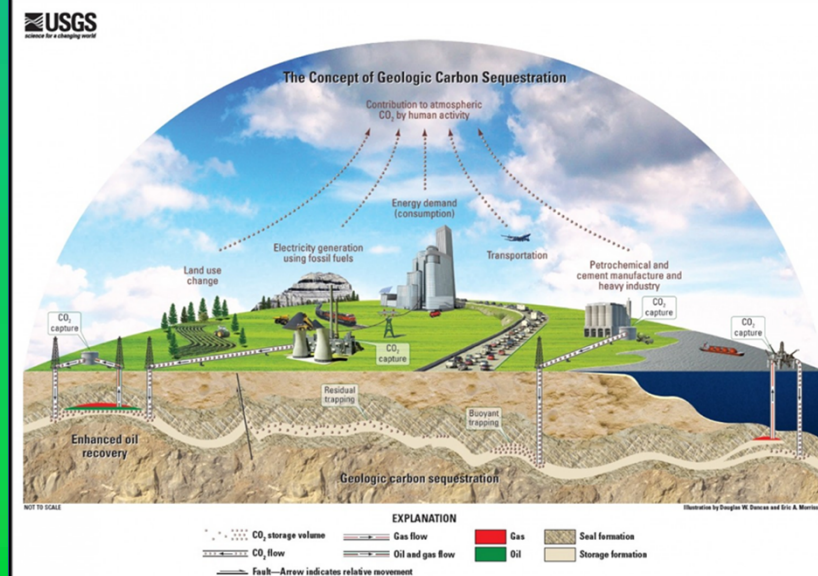
[§226-109] Climate change adaptation priority guidelines. Priority guidelines to prepare the State to address the impacts of climate change, including impacts to the areas of agriculture; conservation lands; coastal and nearshore marine areas; natural and cultural resources; education; energy; higher education; health; historic preservation; water resources; the built environment, such as housing, recreation, transportation; and the economy shall:

- (1) Ensure that Hawaii's people are educated, informed, and aware of the impacts climate change may have on their communities;
- (2) Encourage community stewardship groups and local stakeholders to participate in planning and implementation of climate change policies;
- (3) Invest in continued monitoring and research of Hawaii's climate and the impacts of climate change on the State;
- (4) Consider native Hawaiian traditional knowledge and practices in planning for the impacts of climate change;
- (5) Encourage the preservation and restoration of natural landscape features, such as coral reefs, beaches and dunes, forests, streams, floodplains, and wetlands, that have the inherent capacity to avoid, minimize, or mitigate the impacts of climate change;
- (6) Explore adaptation strategies that moderate harm or exploit beneficial opportunities in response to actual or expected climate change impacts to the natural and built environments;
- (7) Promote sector resilience in areas such as water, roads, airports, and public health, by encouraging the identification of climate change threats, assessment of potential consequences, and evaluation of adaptation options;
- (8) Foster cross-jurisdictional collaboration between county, state, and federal agencies and partnerships between government and private entities and other nongovernmental entities, including nonprofit entities;
- (9) Use management and implementation approaches that encourage the continual collection, evaluation, and integration of new information and strategies into new and existing practices, policies, and plans; and
- (10) Encourage planning and management of the natural and built environments that effectively integrate climate change policy. [L 2012, c 286, §2]

# Greenhouse Gas Sequestration Task Force

(Hawai'i Revised Statutes § 225P-4; enacted in 2018)

- Charged with establishing:
  - A baseline for GHG Emissions in Hawai'i within Hawaii's agricultural and natural environments
  - Short and long-term benchmarks for increasing GHG sequestration in Hawai'i's agricultural and natural environments.
  - Identify carbon/GHG sequestration opportunities through agricultural land management practices, aquaculture, agroforestry, and soil health.
  - Increase the generation and use of compost and urban tree canopies.
- Status Update Report due prior to 2021 Regular Session
- Preliminary Report due prior to 2023 Regular Session
- Annual Reports of findings and recommendations begin in 2025



# Carbon Offset Program Investigation

*(Hawai'i Revised Statutes § 225P-6; enacted in 2018)*

Investigate and establish a Carbon Offset Program that:

- Provides expertise in carbon offsetting to public and private entities.
- Assists in coordinating carbon offset projects of public agencies, including: generation, certification, and marketing of carbon credits
- Proceeds of revenues generated by state agencies from offset sales will be deposited into suitable funds for reinvestment to enhance the State's efforts to mitigate and adapt to climate change and are consistent with the State's sustainability goals.

***Feasibility and Implications of Establishing a Carbon Offset Program for the State of Hawai'i*** published December 2019.

Available at the Office of Planning's website:

[http://files.hawaii.gov/dbedt/op/sustainability/feasibility\\_and\\_implications\\_of\\_establishing\\_a\\_carbon\\_offset\\_program\\_for\\_the\\_state\\_of\\_hawaii\\_final\\_web.pdf](http://files.hawaii.gov/dbedt/op/sustainability/feasibility_and_implications_of_establishing_a_carbon_offset_program_for_the_state_of_hawaii_final_web.pdf)

## Feasibility and Implications of Establishing a Carbon Offset Program for the State of Hawai'i



DECEMBER 2019



# U.N. Sustainable Development Goals

- Set in 2015 to be achieved by 2030
- Declared the 2020-2030 to be the “Decade of Action”
- The goals are broad based and interdependent. The 17 sustainable development goals each has a list of targets which are measured with indicators.
- Climate change presents the single biggest threat to sustainable development everywhere and its widespread, unprecedented impacts disproportionately burden the poorest and most vulnerable.
- Urgent action to halt climate change and deal with its impacts is integral to successfully achieving all Sustainable Development Goals (SDGs).
- Pursuing climate action and sustainable development in an integrated and coherent way offers the strongest approach to enable countries to achieve their objectives efficiently and quickly under the Paris Agreement and the 2030 Agenda for Sustainable Development.



# Sustainability Defined

## Hawai'i Revised Statutes § 226-2, Definition:

“Sustainability” means achieving the following:

- 1) Respect of culture, character, beauty, and history of the State's island communities;
- 2) Striking balance between economic, social, community, and environmental priorities; and
- 3) Meeting the needs of the present without compromising the ability of future generations to meet their own needs.



# Hawaii's Sustainability Priority Guidelines

Sustainability Priority Guidelines codified within the  
Hawai'i State Planning Act (*Hawai'i Revised Statutes § 226-108*)

[§226-108] Sustainability. Priority guidelines and principles to promote sustainability shall include:

- (1) Encouraging balanced economic, social, community, and environmental priorities;
  - (2) Encouraging planning that respects and promotes living within the natural resources and limits of the State;
  - (3) Promoting a diversified and dynamic economy;
  - (4) Encouraging respect for the host culture;
  - (5) Promoting decisions based on meeting the needs of the present without compromising the needs of future generations;
  - (6) Considering the principles of the ahupuaa system; and
  - (7) Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable Hawaii.
- [L 2011, c 181, §2]

# Hawaii's 2050 Sustainability Plan

(Hawai'i Revised Statutes §226-65; enacted in 2019)

- Codified the Hawai'i 2050 Sustainability Plan in the Hawai'i State Planning Act, with a provision requiring the Office of Planning to submit decennial updates of the plan to the Legislature.
- Revised that the Hawai'i 2050 Sustainability Plan to:  
*“serve as the State’s climate and sustainability action plan guiding the coordination and implementation of Hawaii’s sustainability and climate adaptation goals, principles, and policies.”*
- Required the Office of Planning to update the Hawai'i 2050 Sustainability Plan.
- Contract executed, planning process underway.

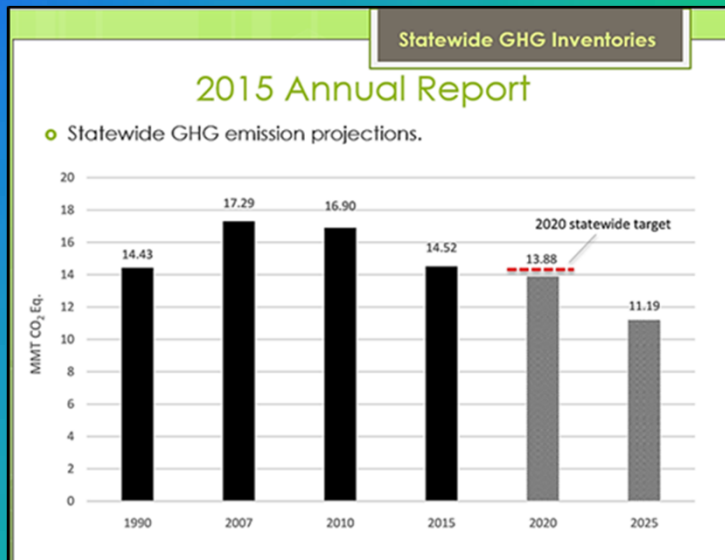


# 2020 Statutory Target: Greenhouse Gas Emissions Law

## Greenhouse Gas (GHG) Emissions Limit

*(Hawai'i Revised Statutes C. 342B-Part VI; enacted in 2007)*

- Established a GHG emissions limit to be equal to/below statewide GHG emissions in 1990 by 2020.
- Hawai'i Greenhouse Gas Emissions Report for 2015 (GHG Inventory), released January 2019
  - Excludes Aviation Fuel Emissions
  - Excludes International Bunker Fuel Emissions
  - Includes Carbon Sinks



# 2030 Statutory Target: Energy Efficiency

## Hawaii's Energy Efficient Portfolio Standard

*(Hawaii Revised Statutes §269-96; enacted in 2009)*

- Requires the Public Utilities Commission to establish energy-efficient portfolio standards, and mandates 30% (4,300 GW) energy reduction goal by **2030**.
- Mandates energy reduction goals of:
  - 1,375 GW of energy efficiency savings by 2015
  - 2,350 GW of energy efficiency savings by 2020
  - 3,325 GW of energy efficiency savings by 2025, and
  - 4,300 GW of energy efficiency savings by 2030



# 2030 Sustainability Goals:

## Aloha+ Challenge

### 2014: Senate Concurrent Resolution 69:

Hawai'i State Legislature endorses and supports an integrated approach and six ambitious targets of the Aloha+ Challenge to be achieved by 2030:

- 1) **Clean Energy:** 70% clean energy, including 40% from renewables and 30% from efficiency;
- 2) **Local Food:** At least double the local food production with a goal of 20-30% of food consumed being grown locally;
- 3) **Natural Resource Management:** Reverse the trend of natural resource loss mauka to makai by increasing watershed protection, community-based marine management, invasive species prevention and control, and restoration of native species;
- 4) **Waste Reduction:** Reduce the solid waste stream prior to disposal by 50%, through source reduction, recycling, and bioconversion;
- 5) **Smart Sustainable Communities:** Increase livability and resilience in the built environment through planning and implementation at the state and county levels; and
- 6) **Green Workforce:** Increase local green jobs and education to implement these targets.

## He Nohona 'Ae'ōia, A Culture of Sustainability



### CLEAN ENERGY

70% clean energy :  
40% from renewables & 30% from efficiency



### LOCAL FOOD

At least double local food production ;  
20-30% of food consumed is grown locally



### NATURAL RESOURCE MANAGEMENT

Reverse the trend of natural resource loss mauka to makai by increasing freshwater security, watershed protection, community-based marine management, invasive species control and restoration of native species



### WASTE REDUCTION

Reduce the solid waste stream prior to disposal by 70% through source reduction, recycling, bioconversion and landfill diversion methods



### SMART SUSTAINABLE COMMUNITIES

Increase livability and resilience in the built environment through planning and implementation at the state and county levels



### GREEN WORKFORCE & EDUCATION

Increase local green jobs and education to implement these targets



# 2020-2045 Sustainability Goals:

Governor's Sustainable Hawai'i Initiative

- 1) **Local Food:** Double local agricultural production by 2020
- 2) **Biosecurity:** Implement interagency biosecurity plan by 2027
- 3) **Watershed Protection:** Protect 30% of priority watersheds by 2030
- 4) **Marine Management:** Effectively manage 30% of nearshore ocean waters by 2030
- 5) **Renewable Energy:** Achieve 100% renewable electricity by 2045

# SUSTAINABLE HAWAI'I INITIATIVE



Strengthening our waters, land and food for Hawaii's communities



100% increase in local agricultural production by 2020



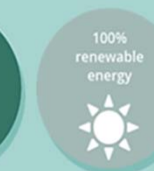
Stronger invasive species policy, infrastructure and capacity by 2027



30% of priority watersheds protected by 2030



30% of nearshore marine areas effectively managed by 2030



Complete transfer to clean, renewable energy by 2045



# 2030 Target: Double Local Food Production

## Department of Agriculture Doubling Food Production and Increase Food Exports by 2030

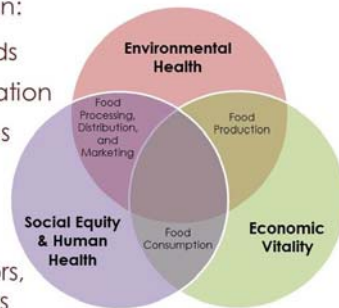
*(Act 151; enacted in 2019)*

- Requires the Department of Agriculture, in cooperation with the Office of the Governor, to establish a strategic plan to achieve the goal to double food production and increasing food exports **by 2030**.

### Sustainable Food Systems

**A Healthy, Sustainable Food System** focuses on:

- Local, seasonal foods
- Health of the population
- Building communities
- Local economic development
- Supporting local producers, processors, distributors & retailers



# 2035 Statutory Targets: Net Zero Campuses

## University of Hawai'i Net Zero Energy Goal

*(Hawai'i Revised Statutes §304A-119; enacted in 2015)*

- Requires all campuses of the University of Hawai'i including Hawai'i's community college system to be net zero in energy use by 2035.

## Department of Education Net Zero Energy Campuses

*(Hawai'i Revised Statutes §302A-1510; enacted in 2016)*

- Requires all public schools in the State of Hawai'i to be net zero in energy use by 2035.



### ✓ June 23, 2019, Maui News:

UH-Maui College “on track to officially become the 1<sup>st</sup> college campus in the United States to achieve this [net-zero campus] extraordinarily important sustainability and environmental milestone.”

*-UH Maui College Chancellor Lui Hokoana*



# 2045 Statutory Targets:

Beginning in 2015, Hawaii's State Legislature began codifying "100%" goals to direct the following sustainability targets:

## 1. 100% Renewable Portfolio Standard by 2045

*(Hawaii Revised Statutes §269-92; enacted in 2015)*

Requires all electric utilities in Hawaii to establish an RPS of:

- 10% by 12/31/2010,
- 15% by 12/31/2015,
- 30% by 12/31/2020,
- 40% by 12/31/2030,
- 70% by 12/31/2040, and
- 100% by 12/31/2045.

## 2. 100% Reclaimed Water in State & County Facilities by 2045

*(Hawaii Revised Statutes §174C-31; enacted in 2016)*

Requires the Hawaii Water Plan to direct the utilization of reclaimed water for uses other than drinking and for potable water needs in 100% of state and county facilities by 12/31/2045.

## 3. Zero Emissions Clean Economy Target by 2045

*(Hawaii Revised Statutes §225P-5; enacted in 2018)*

Establishes a statewide target to sequester more atmospheric carbon and greenhouse gases than emitted within the State as quickly as practicable, but no later than 2045.

# Sustainable Development in State Facilities

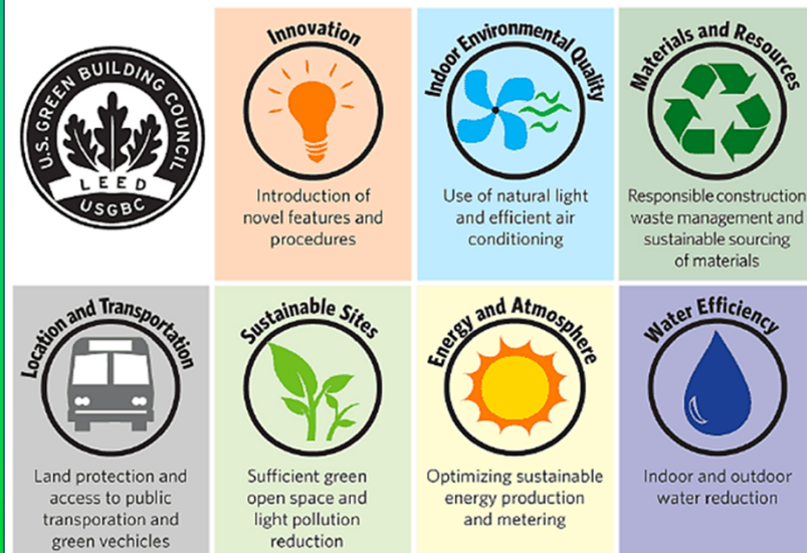
## Energy Efficiencies and Environmental Standards for State Facilities and Motor Vehicles

*(Hawai'i Revised Statutes §196-9; enacted in 2006)*

- Requires New State Buildings to be at least LEED Silver
- Requires New Public Residences to be: energy efficient, prevent heat gain, natural ventilation, and solar water heating systems
- Requires Public Procurement: to include lifecycle costs benefit analysis to purchase ENERGY STAR Equipment
- Purchase fuel-efficient government vehicles

## LEED CERTIFICATION REQUIREMENTS








In order to achieve LEED certification, projects must earn points in these categories:



# Hawaii's Statutory Environmental Preferences

- Recycled Product Preference in the Procurement Code**  
*(Hawaii Revised Statutes §103D-1005)*  
 "Contracts shall be awarded to the lowest responsible and responsive bidders, with preference being given to the products containing recycled material..."
- Goals for Recycled Product Procurement**  
*(Hawaii Revised Statutes §342G-41)*  
 "It shall be the policy of all state and county public agencies to give preference to the purchase of products made from recycled materials, that are themselves recyclable, and that are designed for durability"
- Office Paper and Other Materials Recovery Program**  
*(Hawaii Revised Statutes §342G-45)*  
 "By June 30, 1993, all state and county agencies shall establish an office paper and other materials recovery program."
- 50% Recycling Goal**  
*(Hawaii Revised Statutes §342G-3)*  
 Establishes a statewide goal to reduce the solid waste stream prior to disposal by:
  - 25% by January 1, 1995,
  - 50% by January 1, 2000 through source reduction, recycling, and bioconversion.
- Double-sided Copying Law**  
*(Hawaii Revised Statutes §342G-44)*  
 "Double-sided copying shall be standard operating practices for all state and county agencies, offices, and facilities, as available and appropriate."
- Energy Efficiency and Environmental Standards for State Facilities, Motor Vehicles, and Transportation Fuel**  
*(Hawaii Revised Statutes §196-9)*
  - Promotes new state buildings to be at least LEED Silver / 2 Green Globes
  - Promotes new public residences to be: energy efficient, prevent heat gain, natural ventilation, and solar water heating systems
  - Encourages public procurement to include lifecycle costs benefit analysis to purchase ENERGY STAR Equipment
  - Procure environmentally preferable products, including recycled and recycled-content, bio-based, and other resource-efficient products and materials.
- Zero-emission preference to light-motor vehicles**  
*(Act 143, Session Laws of Hawaii 2019)*  
 Grants procurement priority for fuel cell electric vehicles for state and county vehicle purchases.

## Green Procurement Principles

	Avoid single-use disposable items
	Give preference to products that are recyclable and/or with high recycled content, biodegradable, have reduced packaging and greater durability
	Promote efficiency in the use of resources, including water and energy
	Employ clean technology, renewable energy and/or clean fuels
	Minimize emission of irritating or toxic substances during installation or use
	Minimize emission of substances that cause damages to the environment and ecosystems
	Minimize production of toxic substances upon disposal

# Mahalo!



**Questions? Contact us!**

**Danielle Bass**  
**State Sustainability Coordinator**

Office of Planning  
State of Hawai'i  
(808) 586-2846 (main)

Danielle.m.bass@hawaii.gov  
www.planning.hawaii.gov/sustainability

The screenshot shows the top portion of a website. At the top left is the State of Hawaii Office of Planning logo. To its right is a search bar with the text 'Search' and a magnifying glass icon. Below the search bar are social media icons for Twitter, RSS, and Facebook. A dark green navigation bar contains the following menu items: Home, About OP, Programs, Regulatory, Selected Plans, Planner's Toolbox, and Reports. Below the navigation bar, the page content is split into two columns. The left column has a breadcrumb trail 'Home > Sustainability' and a section header 'SUSTAINABILITY' above a large landscape image of a valley with a river and mountains. The word 'SUSTAINABILITY' is overlaid on the image in a white box. The right column has a section header 'SUSTAINABILITY PAGE MENU' followed by two sub-sections: 'Sustainability Laws' with a bullet point for 'Hawaii 2050 Sustainability Plan', and 'Sustainability Resources' with four bullet points: 'Sustainable Education Toolkit', 'UN Sustainable Development Goals', 'Aloha+ Challenge Dashboard', and 'Hawaii Ocean Resources Management Plan Dashboard'.