



HAWAIIAN HOME LANDS

Hawai'i Build and Buy Green  
Conference & Expo 2012

# Prince Jonah Kūhiō Kalanianaʻole Piʻikoi



Author of the Hawaiian Homes Commission Act in response to the dwindling population of Native Hawaiians

# Hawaiian Homes Commission Act

- In 1921, the United States established the Hawaiian Homes Commission Act (HHCA)
- Interior Secretary Franklin Lane likened the relationship between the U.S. and native Hawaiians to the guardian-ward relationship between the U.S. and American Indians
- When Hawaii became a state in 1959, the U.S. Govnt transferred title of 200,000 acres to the State of Hawai'i

# Hawaiian Home Commission Act

- ◉ The Department of Hawaiian Home Lands (DHHL) was created in 1960 by the state Legislature to administer the Hawaiian Home Lands program
- ◉ The Department is one of the smallest agencies in the Executive Branch of the State of Hawai‘i
- ◉ The Department is governed by the Hawaiian Homes Commission, a nine-member executive board



Prince Kuhio understood that self-sufficiency would insure the survival of the native Hawaiian people on Hawaiian Home Lands.



# Ho‘omaluku Energy Policy

www.hawaiianhomelands.org

January 2009

DEPARTMENT OF HAWAIIAN HOME LANDS



## HO‘OMALUKU ENERGY POLICY

To enable native Hawaiians and the broader community working together to lead Hawai‘i’s effort to achieve energy self-sufficiency and sustainability.

### OBJECTIVE 1

**Mālama ‘āina:** Respect and protect our native home lands.

**ACTIVITIES:**

Develop a comprehensive strategic plan for the protection, restoration and preservation of DHHL’s forest lands. (An appropriate plan that incorporates the preservation of values, traditions, and culture of Native Hawaiians and that restores balance, harmony, and sustainability of the forest lands for future generations.)

Develop a comprehensive strategic plan for the protection, restoration and preservation of DHHL’s other lands—lands other than forest lands, lands for horse training and lands for general lease.

Identify properties in DHHL land inventory that have potential for carbon sequestration and discuss if carbon sequestration is a viable use of DHHL lands.

Evaluate each Regional Plan to determine if energy self-sufficiency and sustainability goals and objectives should be incorporated into the regions. (The regions contained within the Regional Plans can serve as today’s “subunits” of the past Hawaiian land-management systems of self-sufficiency for future generations.)

Develop, in plan form, and maintain plans to reduce DHHL’s carbon footprint (reduce greenhouse gas emissions).

### OBJECTIVE 2

**Ko‘o:** Facilitate the use of diverse renewable energy resources.

**ACTIVITIES:**

Identify properties in DHHL’s land inventory that have potential for renewable energy projects.

Pursue the leasing of those lands that are identified as suitable for renewable energy projects. First priority should be given to areas that would produce “green” renewable energy power such as garbage-to-energy (mass-burn if, geothermal, pump-storage hydropower, solar-thermal, and second priority to “re-sustainable” renewable energy projects such as wind, solar-photovoltaic, and wave).

Encourage existing and future general leases and licensees of DHHL’s properties to design and build their facilities so that they are energy and resource efficient.

Seek partnerships for the development of renewable energy resources. In this connection, build relationships that could assist DHHL in non-energy related issues.

Evaluate DHHL’s available authorities/powers that could be used in renewable energy projects for the state of Hawai‘i.

Seek innovative processes to provide reliable electricity, by installing electric facilities (in a world where energy is an essential but very limited resource) to reduce Hawai‘i’s dependency on fossil fuels.

### OBJECTIVE 3

**Kūkulu pono:** Design and build homes and communities that are energy efficient, self-sufficient and sustainable.

**ACTIVITIES:**

Promote, design, and build new affordable homes that are built to live by and built to improve using the “Hawaii BuiltGreen” and “DHHSO” STAR programs. (These programs encourage the designing and building of new energy and resource efficient homes in Hawai‘i.)

Strive to plan, design, and build new communities utilizing the “Akupūa‘a” concept and the “Green Communities” program. (The Green Communities program provides servicesigned to provide a cost effective approach and standard for creating healthy, affordable, and environmentally responsible homes and communities.)

Ask if beneficiaries to utilize energy efficiency rebates, financial aid, and state, tax credits and other incentives offered by utility companies and federal, state and county governments.

Promote the benefits of hybrid electric vehicles to help reduce beneficiaries of transportation (qualified costs). (10% of Hawai‘i’s imported fossil fuel is used for transportation that is not to be used efficiently or conservatively.)

Assist beneficiaries to obtain mortgages under the “Energy Efficient Mortgage” program. (The program can help beneficiaries save money and reduce their loan qualifying income annual payments.)

Seek partnerships with federal agencies like with the U.S. Department of Energy that provide access to current state-of-the-art technical advancements in energy.

Seek partnerships that provide grants and other financial assistance for the development of state-of-the-art zero energy homes.

Join with electric utilities and the Public Benefits Administration as partners to advocate, communicate and educate the public on state-of-the-art energy initiatives.

Energy efficient home programs have electricity and it also means it is necessary that would help beneficiaries qualify for a higher loan or mortgage rate when they are seeking home loans.

### OBJECTIVE 4

**Kōkua nō i nā kahu:** Provide energy efficiency, self-sufficiency, and sustainability opportunities to existing homesteaders and their communities.

**ACTIVITIES:**

Identify effective energy efficiency and conservation retrofit applications and develop a plan to assist homesteaders with the retrofitting of their homes. (Retrofit applications may include solar hot water heating systems, insulation/radiant barriers, low-flow toilet and shower heads, photovoltaic systems, CFL bulbs, DHHSO STAR appliances, energy efficient windows, double film, ventilation techniques, and roof/attic vents.)

Ask if homestead communities to achieve potential energy self-sufficiency by identifying properties near existing home lands that could be utilized for community renewable energy projects that could also generate revenue for their respective regional plan projects.

Seek partnerships to assist homesteaders with retrofit applications and energy self-sufficiency projects.

Help homesteaders lower their monthly electricity and maintenance costs (renewable) through the use of energy efficiency power cooperation services for their respective Regional Plan projects.

### OBJECTIVE 5

**Ho‘ona‘auao:** Prepare and equip beneficiaries to promote a green, energy efficient lifestyle in and around communities.

**ACTIVITIES:**

Seek partnerships that provide opportunities to learn how to live a self-sufficient and sustainable, green lifestyle.

Develop and implement resource efficiency programs for beneficiaries to reduce, reuse, and recycle resources. These resources include construction and demolition materials, household items, yard waste, and other items which might be used to benefit or land reclamation.

Ask if homestead communities to become more aware of their energy use and carbon footprint.



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To enable native Hawaiians  
and the broader community  
working together to lead  
Hawai'i's effort to achieve  
energy self-sufficiency  
and sustainability



HO'OMALUŌ ENERGY POLICY

# Why did DHHL establish a Energy Policy?

- ⦿ The HCEI is going to transform Hawaii into one of the world's first economies based primarily on clean energy resources.
- ⦿ DHHL beneficiaries will be impacted by the HCEI
- ⦿ DHHL concluded it needed to establish an energy policy to enable homesteaders to fully utilize clean energy resources on their lands.

# How did DHHL do it?

- DHHL started by meeting with community leaders, utility leaders, HHC Commissioners, cultural practitioners, the PUC and the DOE to prepare a working draft.
- This draft presented today is being used as a basis to continue to dialogue with DHHL beneficiaries to further refine the policy.

# Ho‘omaluō Energy Policy

- ◉ OBJECTIVE 1 – Mālama ‘āina: Respect and protect our native home lands.
- ◉ OBJECTIVE 2 – Ko‘o: Facilitate the use of diverse renewable energy resources.
- ◉ OBJECTIVE 3 – Kūkulu Pono: Design and build homes and communities that are energy efficient, self-sufficient and sustainable.
- ◉ OBJECTIVE 4 – Kōkua nō i nā kahu: Provide energy efficiency, self-sufficiency, and sustainability opportunities to existing homesteaders and their communities.
- ◉ OBJECTIVE 5 – Ho‘o na‘auao: Prepare and equip beneficiaries to promote a green, energy efficient lifestyle in and around communities.

# Objective #1 – Malama'aina

- ⦿ DHHL recognizes the use and management of Energy significantly affects the DHHL beneficiaries
- ⦿ We needed to respect and protect our lands and insure the values, traditions and culture of its people
- ⦿ Reducing the consumption of imported fossil fuel will have an immediate and positive benefit to the DHHL beneficiaries.

## Objective #2 – Ko'o

- ⦿ Facilitate the use and development of diverse renewable energy resources
- ⦿ Development of renewable energy resources will insure that the DHHL trust continues to be financially self-sufficient and sustainable well in to the future.



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COMMERCIAL PROJECTS

# Solar Farms on Oahu

- ⦿ 4 Total Solar Farms on Oahu currently under construction or recently approved
- ⦿ 144 Total Acres throughout Kalaeloa
- ⦿ 20 Total MW
- ⦿ All lease rent to DHHL, some provide percentage of annual rent to native Hawaiian programs, some have stipulation to hire current DHHL homesteaders.

# KALAELOA SOLAR ONE

## Kapolei, Oahu



- ⦿ 81 acre project site
- ⦿ 10 MW
- ⦿ 18,000 total PV panels
- ⦿ 9,520 Sopogy Helios Micro-CSP Collectors

# KALAELOA SOLAR ONE

## Kapolei, Oahu

- ◉ Eliminates 317,000 barrels of imported oil over 20 years
- ◉ Creation of 200+ construction jobs
- ◉ Preservation of 5 cultural sites



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# KALAELOA SOLAR ONE

## Kapolei, Oahu



- ◎ The first private-public partnership to bring renewable energy power to the island of Oahu
- ◎ Portion of net profits return to DHHL to support its mission



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# ANAHOLA SOLAR PROJECT

## Anahola, Kaua'i

- 55 acre project site
- 10 MW
- Partnership between Homestead Community Development Corporation, Anahola HH Association and the KIUC
- Potential for largest solar farm in state.



# ANAHOLA SOLAR PROJECT

Anahola, Kaua'i

- ◎ This project is being funded by:
  - Section 1603 Federal Tax Grant Program
  - State of Hawaii Energy Tax Credits
  - and a approved loan from the National Rural Utility Cooperative Finance Corporation





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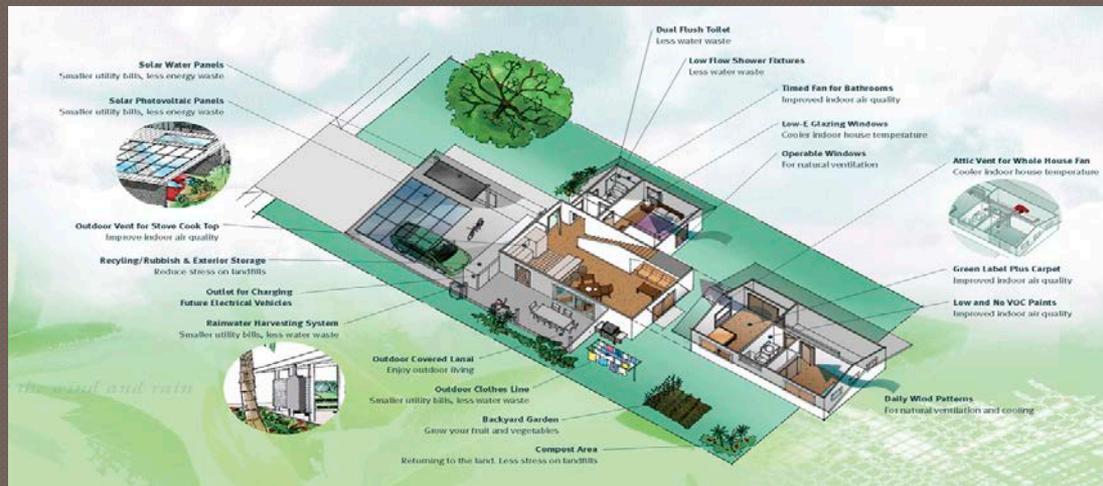
RESIDENTIAL PROJECTS

# LA'I 'ŌPUA

## Kealakehe, Hawai'i



- So far 45 homes out of 117 fully-improved lots
- LEED Gold
- Built by Armstrong Builders



# KUMUHAU

Waimānalo, O‘ahu



- ◎ 52 homes
- ◎ LEED Gold
- ◎ Built by Armstrong Builders



# KAUPUNI VILLAGE

Wai‘anae, O‘ahu



- ◎ 19 homes
- ◎ LEED Platinum
- ◎ Financing included federal stimulus and NAHASDA funding.
- ◎ Development team – Group70, Hunt Builders, Alcon & Associates
- ◎ Partners included HECO, KS, NREL, etc.

# GENESIS OF KAUPUNI

## Sustainable Community Center



## Building A Community

A place to teach, learn, share, produce, recycle, restore and recreate.

# Kaupuni, Wai'anae

## Solatube Skylights

Natural light in interior spaces

## Photo-Voltaic & Hot Water Solar Panels

Produce power and minimize electric bills

## Fiber Board Siding (Recycled Material)

## High SRI Roofing

Reflects and minimizes heat absorption through the roof

## Pervious Concrete Driveway

Minimizes run-off by allowing rainwater to percolate through hard surfaces and be absorbed by the ground

## High Performance Glazing

Reduces heat gain through windows

## Light Colored Roof

Minimizes heat gain through roof

## Insulated Roof

Minimizes heat gain through roof, and minimizes cooling costs

## High Efficiency Appliances

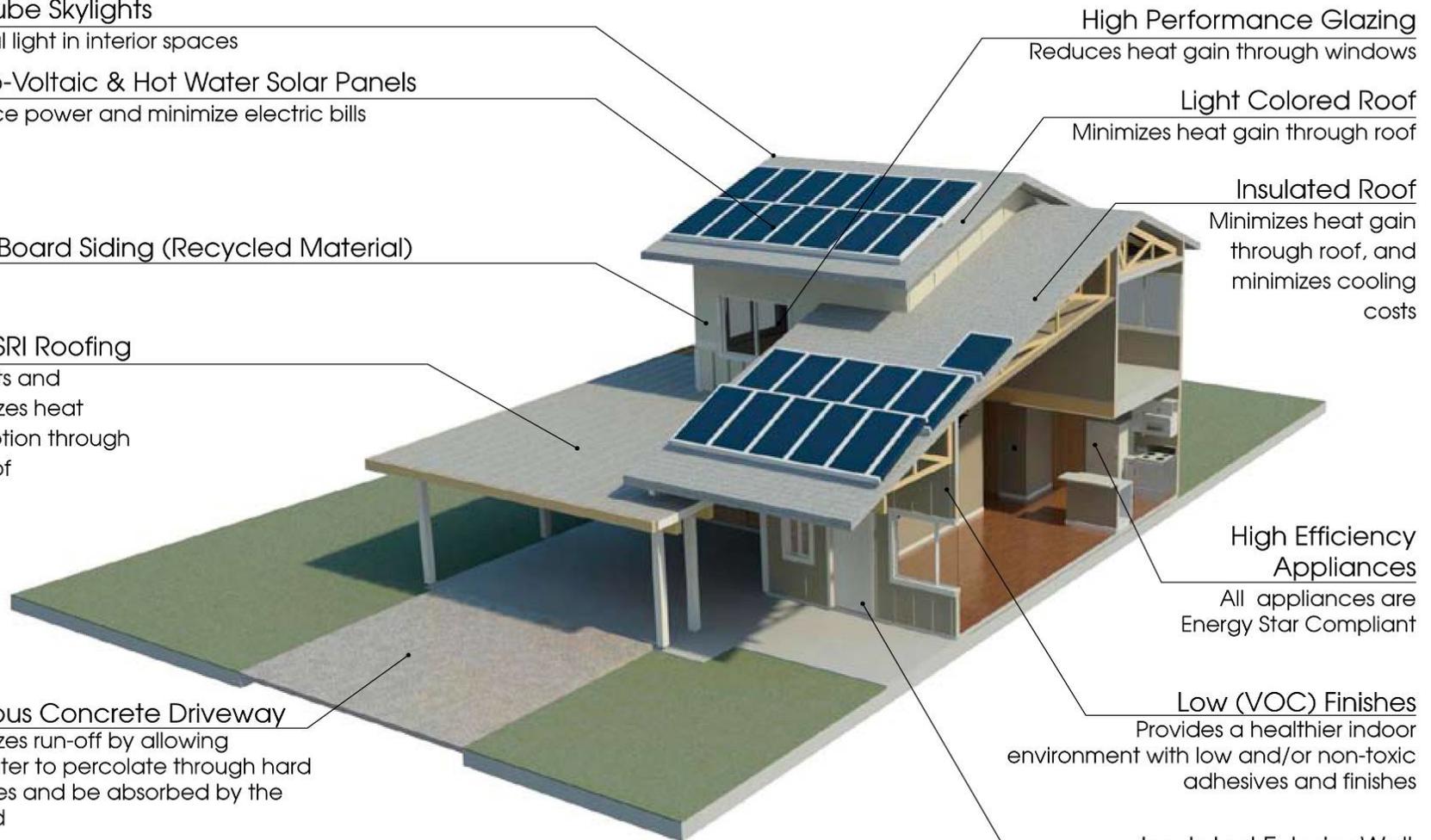
All appliances are Energy Star Compliant

## Low (VOC) Finishes

Provides a healthier indoor environment with low and/or non-toxic adhesives and finishes

## Insulated Exterior Wall

Reduces heat gain through exterior walls and minimizes cooling cost



# KAUPUNI VILLAGE

First LEED Platinum Affordable Housing Subdivision in  
the Country!



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# Other DHHL Potential RE projects

- ◉ Geothermal
- ◉ Biomass
- ◉ Wind Farms



# Mahalo!

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