• Founded in 1984 by a bipartisan Congressional caucus.
• Now an independent, bipartisan nonprofit with no Congressional funding.
• We provide fact-based information on energy and environmental policy for Congress and other policymakers.
• We focus on win-win solutions to make our energy, buildings, and transportation sectors sustainable and resilient.

Visit www.eesi.org to:
• View videos of our Congressional briefings.
• Sign up to receive our briefing notices, and fact sheets.
• Subscribe to our newsletters, including Climate Change Solutions.
Green Banks exist across the US, from Hawaii to Rhode Island, have caused $4b+ in investment.

$3.40 of Private Capital Deployed for Each Green Bank Dollar
Climate Change Mitigation & Resilience

- Climate Change Mitigation
  - Actions to limit the magnitude or rate of global warming and its related effects.

- Resilience:
  - The capacity to recover quickly from difficulties, toughness.

Climate change and social inequity are major threats to community resilience & sustainability.
HGIA: created by Hawaii’s Legislature to democratize clean energy

- Address financing market barriers to increase the installation of clean energy projects;
- Expanding access and affordability to underserved ratepayers;
- Stimulate private investments; and
- Leverage innovative tools to mitigate risks and reach new markets.

“Ohana means family. Family means nobody gets left behind.”
Hawaii’s Energy Gap

- Ambitious 100% renewable energy in the electricity sector by 2045 goal
- Unequal access to clean energy
  - 48% of Hawaii’s households ALICE (Asset Limited Income Constrained Employed) or below;
  - 43% of Hawaii’s households rent
  - Nonprofits unable to monetize tax credits
  - Small businesses
GEM$ On-Bill Program: Transitioning Underserved Ratepayers One Rooftop at a Time

- No upfront costs
- Immediate utility bill savings
- Elimination of credit barriers
- Obligation tied to the electric utility meter (not a person)
- One payment conveniently made on utility bill
The Kahauiki Village Story

<table>
<thead>
<tr>
<th>Phase 1 of Kahauiki Village:</th>
<th>When All Phases of Project Are Complete:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>11%</strong> of the 284 families living in transitional housing on Oahu</td>
<td><strong>54%</strong> of the 284 families living in transitional housing on Oahu</td>
</tr>
<tr>
<td><strong>30</strong> homes for 30 families</td>
<td><strong>153</strong> homes for 153 families</td>
</tr>
<tr>
<td><strong>123</strong> individuals</td>
<td><strong>629</strong> individuals</td>
</tr>
<tr>
<td><strong>60</strong> adults</td>
<td><strong>306</strong> adults</td>
</tr>
<tr>
<td><strong>63</strong> children</td>
<td><strong>323</strong> children</td>
</tr>
</tbody>
</table>

**Representing:**
- **10%** of all homeless individuals that comprise families living in transitional housing
- **3%** of all homeless individuals that comprise families living in transitional housing
- **53%** of all homeless individuals living as a family in transitional housing on Oahu

GEMS
Kahauiki Micro-grid
New Developments leveraging GEMS and Innovative PV + Storage Technologies
Mahalo!
(Thank You!)

Gwen Yamamoto Lau
Hawaii Green Infrastructure Authority
Hotter days

- Temps in HI have increased 2.5 degrees F between 1950-1980.
Climate Change in Hawaii: What’s happening now

Precipitation Changes

Drier overall
Climate Change in Hawaii: projections

Sea Level Rise
- > 1m likely in second half of century
- 0.38m – 3.31m by 2100
- 1.23m by 2060 in extreme scenario

Photo: Lynn Englum, Vanishing Places, Instagram
Climate Change in Hawaii: What’s happening now

High tide flooding

Since 1960s, increased from 6 days/year to 11.

Photo: Hawaii news now
Hawaii has a lot of goals

Hawaii’s Climate Change and Clean Energy Goals

- **Energy Efficiency Portfolio Standards**
  - Established energy use reduction target (2009)

- **Renewable Portfolio Standards**
  - Established renewable power targets (2001)

- **Carbon Neutrality**
  - HB2182 sets target (2018)

- **Paris Agreement**
  - Sets global climate change goals (2016)
  - Act 32
  - Hawaii affirms its commitment to Paris Agreement standards (2017)

- **Net Zero Energy Use Goal**
  - Dept. of Education and UH system will produce as much energy as they consume by 2035

- **Greenhouse Gas Program Goal**
  - Established greenhouse gas target (2007)

- **Greenhouse Gas Program Goal**
  - Achieve 1990 emissions levels (14.43 million metric tons CO$_2$e) statewide by 2020

- **Energy Efficiency Portfolio Standards Goal**
  - 4,300 GWh use reduction by 2030

- **Alternative Fuels Goal**
  - Meet 30% of highway fuel demand with alternative fuels by 2030

- **Carbon Neutral Goal**
  - Less emissions than offsets by 2045

- **Renewable Portfolio Standards Goal**
  - 100% renewable power consumption by 2045

- **70%**

- **100%**

Hawaii’s Response to Climate Change

The Paris Agreement
2016: 197 countries agree to limit global temperature rise below 2°C.

Hawaii’s Response—Act 32
§225P-3 Hawaii climate change mitigation and adaptation commission; general functions, duties, and powers. [See Note at beginning of chapter.] (a) There is established the Hawaii climate change mitigation and adaptation commission that shall be placed within the department of land and natural resources for administrative purposes only.
### HRS §225P-3(k) (Act 32, SLH 2017) Mandates, excerpted

| 1. | Provide policy direction, facilitation, coordination, and planning among state and county agencies, federal agencies, and other partners |
| 2. | Establish climate change mitigation and adaptation strategies and goals to help guide planning and implementation statewide using the latest scientific analysis and risk assessment to monitor and forecast climate change related impacts at the regional, state and local level, including any additional information deemed necessary. |
| 3. | Identify vulnerable people, communities, industries, ecosystems and potential economic ramifications for climate change related impacts |
| 4. | Identify existing climate mitigation and adaptation efforts at the federal state and local levels and make recommendations for how to meet or exceed Hawaii’s state mitigation goals and shall adopt a liberal approach in prep, so as to minimize future risk to the people and environment of Hawaii |
Who is on the Commission?

- 20 members
- 2 co-chairs--DLNR and OP
- legislators
- county planning directors
- directors and chairs of state departments and boards

High level
Multi jurisdictional
A Climate Ready Hawaii is…

…Clean, Equitable and Resilient
Mitigation: Reduce Emissions from Ground Transportation
Adaptation and Resilience: to support agencies and departments

- Maintain best available information and practices on SLR adaptation (Info Hub)
- Provide guidance to counties for planning and permitting (Planner’s Tool)
- Engage communities to help determine priorities (Community Matters strategy)
- Provide support to conduct vulnerability assessments (Decisionmaker’s Tool)
Punalu’u Beach Park

- 3+ feet likely in second half of century
- 1-10.5 feet by 2100
- 3.5 feet by 2060 in extreme scenario
Anukriti (Anu) Hittle
Hawaii Climate Change Mitigation and Adaptation Coordinator
DLNR

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Phone: 808-587-0321
Website: climate.Hawaii.gov
Instagram: @Hi_Climate
Facebook: @Hi Climate
NORTH SHORE COMMUNITY LAND TRUST

Adam Borrello
Executive Director
adam@northshoreland.org
"The mission of the North Shore Community Land Trust is to protect, steward, and enhance the natural landscapes, cultural heritage, and rural character of ahupua‘a from Kahuku Point to Ka‘ena."
“DREAM BIG . . . AND BIG THINGS HAPPEN”

The North Shore Community Land Trust (NSCLT) mission is to protect, steward, and enhance the natural landscapes, cultural heritage, and rural character of ahupua’a from Kahuku Point to Ka’ena.

Thanks to generous community support, we continue to successfully achieve this mission.

Here are some of our highlights to date:

1997: NSCLT founded by diverse group of community leaders
1998: Conducted documentation of and trash clean-ups at all North Shore beach right-of-ways
2002: Pupukua Paauilo Conservation Effort Launched
2005-06: $875K raised for public purchase of Pupukua Paauilo
2006: Supported conservation of Waimea Valley
2007: Pupukua Paauilo conserved in perpetuity
2008-10: Community develops Pupukua Paauilo Long-Range Resource Management Plan
2010: Sunset Ranche conserved in perpetuity
2010-13: North Shore Greenspirit outlines community priorities for future conservation
2012: Turtle Bay Manana Conservation Fundment funding secured
2013: Held First Annual North Shore Food Summit
2014: Held First Annual North Shore Youth Food Summit
2014-15: Launched Kahuku Kawela Forever Campaign and helped secure over $45m for land conservation and stewardship
2015 (Spring): Launched North Shore Trails Planning Project
2015 (Fall): Successfully completed Phase 1 of Kahuku Kawela Forever Campaign
2016: Initiated restoration efforts on 35 acres at Kalaokaua’a (Kahuku Point)
2016: Turtle Bay Manana Agricultural lands conserved in perpetuity
2017: Kalaokaua’a (Kahuku Point) Restoration progress includes: 5 acres of coastal sand dune restored, 5,000 volunteer hours, 7,500 natives out-planted, 85,000 pounds of invasive plants removed, and 9,000 pounds of marine debris removed
2018: Implemented first phase of sand dune restoration at Paauilo (Sunset Beach Park)

Thank you for your support!

Mahalo!
How WE Work

Voluntary Land Conservation
- Willing Landowners
- Land Transactions
- Conservation Easement

Healthy & Effective Relationships
- Built on Mutual Respect & Trust
  - Landowners
  - Government
  - NGOs
  - Community/Volunteers
  - ENVIRONMENT

Community Engagement
- An engaged community cares

Stewardship/Education
Funding Partners - Acquisition

Local

State Legacy Lands Program
Hawaii Department of Land and Natural Resources

Clean Water and Natural Lands
City & County of Honolulu

Federal

Compatible Use Buffer Zone
United States Army

Non-Profit

Trust for Public Land
Funding Partners – Restoration/Stewardship

Pacific Island Coastal Program
  Cooperative Agreement
  NFWF
  Five Star & Urban Waters

Hawaii Community Foundation
  Community Restoration Program
  Marisla Fund

Turtle Bay Resort/Foundation
  Cooke Foundation

Atherton Family Foundation
  Musser Fund

Hawaii Tourism Authority
  Omidyar Ohana Fund

Mohamed Bin Zayed
VOLUNTEER WORK DAYS
Restoration Success To Date

- Over 3,500 Volunteers
- Over 22,500 Native Plants
- Over 12,000 lbs. of Marine Debris Removed
- Over 200 tons of Invasive Plants Removed
- 9 Albatross Nests on property this year
- 7 Acres of Dune Habitat Restored
- Increased Cover Native Plant Species
MAHALO!!

Photo Contributions

Sheldon Plentovich
Raphael Bergstrom

Dooraee Shin
Paul Javier
Alice Terry
Sean Davey

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Financing Climate Mitigation and Resilience: Lessons from Hawaii

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