

2015 Sustainability Report

E kūlia i ka nu‘u ♦ *“Strive to reach the highest”*



Hawaiian Electric
Maui Electric
Hawai‘i Electric Light



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EDITOR'S NOTE:

At the Hawaiian Electric Companies, we recognize the use of diacritical marks in the modern Hawaiian language and make every effort to include such marks in Hawaiian names. Out of respect for individuals and organizations that do not use diacritical marks in the official spelling of their names, we're not including diacritical marks in those instances.



Aloha,

As a local company serving our islands for nearly 125 years, the Hawaiian Electric Companies have a deep sense of responsibility to take care of our communities and our island environment.

To share highlights of the many things we're doing to live up to this responsibility, we're pleased to present our 2015 Sustainability Report.

This was an especially notable year for clean energy in our state. Most significantly, in June, Hawai'i Gov. David Ige signed into law Act 97, which requires that 100 percent of electricity sales come from renewable energy resources by 2045. Our companies are fully committed to achieving these goals and delivering safe, reliable, and affordable service for all our customers.

Among many accomplishments detailed in this report are our industry-leading work to help our customers add record levels of rooftop solar on all islands we serve and our progressive efforts to promote electrification of transportation in the state. These and other initiatives – plus over a million dollars and nearly 14,800 volunteer hours donated to our community by our employees and company – give us reason to be proud and optimistic about our state's clean energy future.

Mahalo,

A handwritten signature in green ink, which appears to read "Alan Oshima". The signature is fluid and cursive, written in a light green color that matches the page's theme.

Alan Oshima
President & Chief Executive Officer

Where Power Comes From

This map shows the generating facilities in our service area and the maximum potential power in megawatts (MW) they can produce.

F FIRM GENERATION: energy available on demand, which can be adjusted as needed.

V VARIABLE GENERATION: energy that may not always be available or controllable.

- | | |
|--|--|
|  BIOFUELS |  WASTE TO ENERGY |
|  BIOMASS |  WIND |
|  GEO THERMAL |  COAL |
|  HYDRO |  OIL |
|  SOLAR |  OIL (DEACTIVATED) |

*Net generating capacity



RENEWABLE FACILITIES

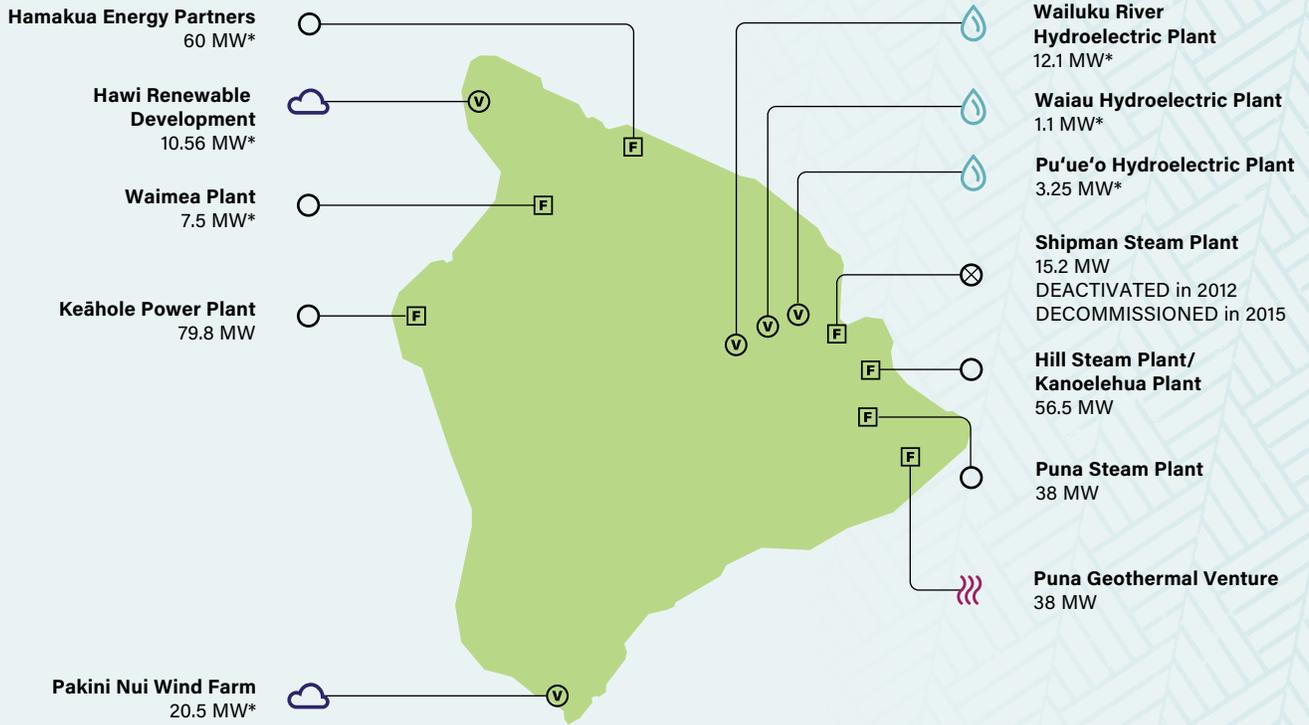
More than half of the facilities on the map incorporate renewable energy sources.

-  **BIOFUELS: 2**
-  **BIOMASS: 1**
-  **GEO THERMAL: 1**
-  **HYDRO: 5**
-  **SOLAR: 4**
-  **WASTE TO ENERGY: 2**
-  **WIND: 7**

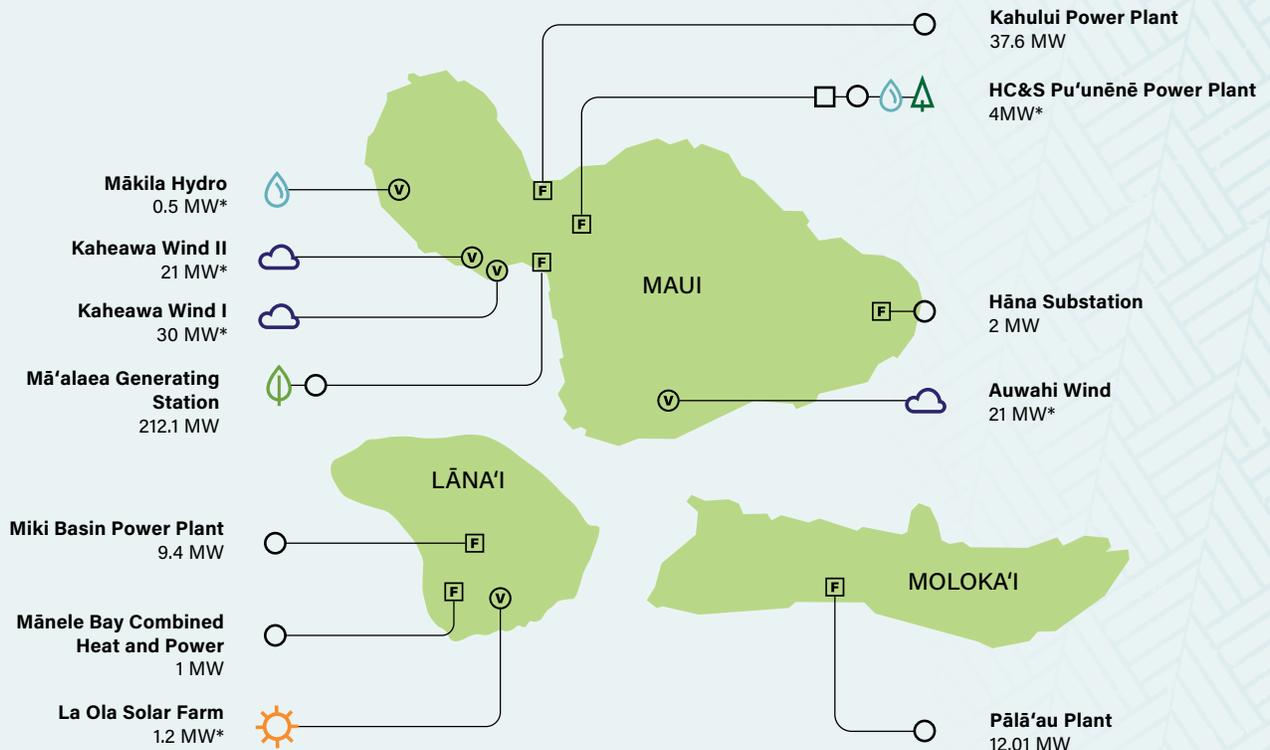
O'AHU



HAWAI'I ISLAND



MAUI COUNTY



Hawai'i's New Energy Goals

Reaching for the Highest

On June 8, 2015, Gov. David Ige signed Act 97 into law, giving Hawai'i the most ambitious clean energy goals in the country – requiring 100 percent of electricity sales to come from renewable resources by 2045. We can achieve these world-class goals with strong collaboration among all stakeholders and our collective commitment to building a better energy future for Hawai'i.

Renewable Portfolio Standard (RPS) Goals for Electricity



Renewable Portfolio Standard Status Report

Above & Beyond the Milestone

In 2015, our companies achieved 23.2 percent net electricity sales from renewable energy resources – 54 percent more than the state's goal for 2015.

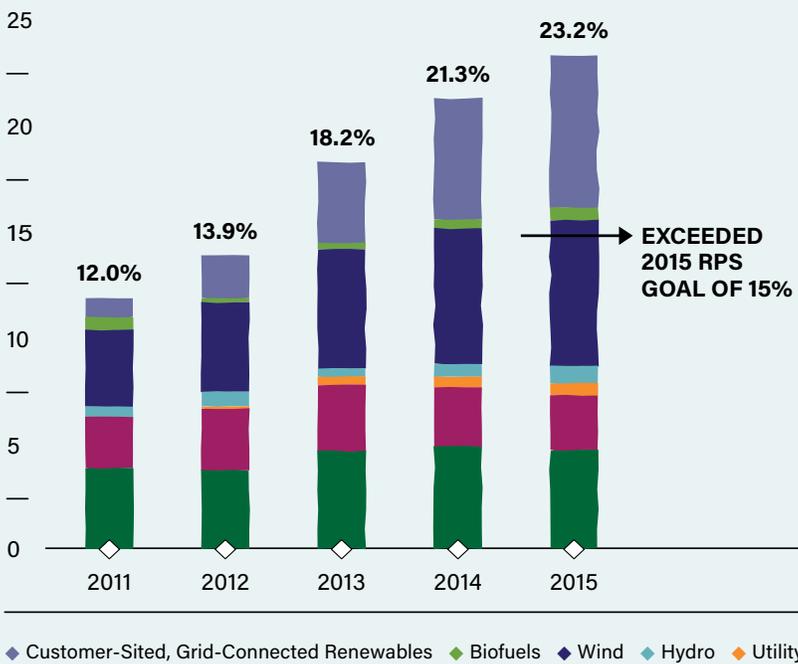
We have to reduce our state's dependency on imported oil. That remains our priority, and increasing renewable energy on our power

grids is crucial. In 2015, we saw a small, 0.3 percent increase in oil used for electricity due to scheduled maintenance for the independently owned AES Hawaii power plant, requiring us to compensate by running oil-fired generators more. We still far exceeded our 2015 RPS goal, but we continue to look for every opportunity to integrate even more renewable energy onto our power grids.

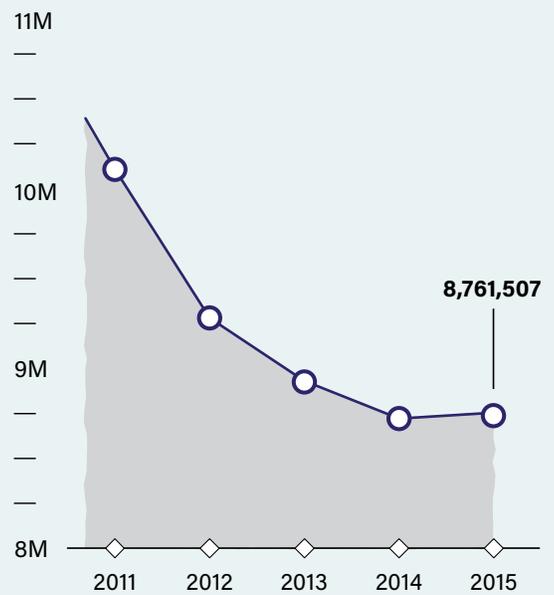
Reducing dependency on oil and achieving a 100 percent RPS will require a diverse portfolio of renewable energy resources and the effective use of technologies such as energy storage, efficient energy use, and resilient, modern power grids. While we anticipate challenges, this is exactly what our companies are working to achieve.



Renewable Portfolio Standard Progress



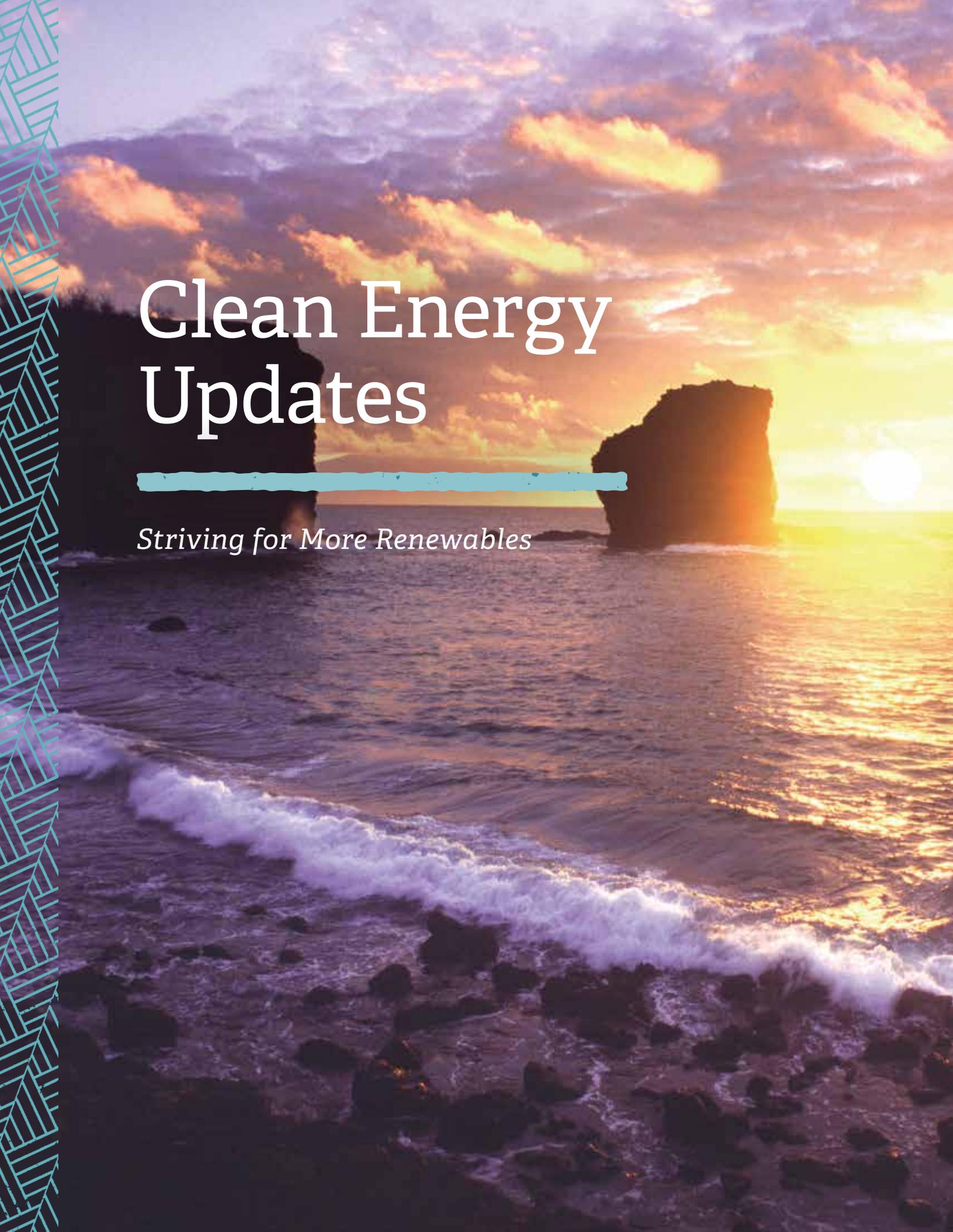
Barrels of Oil Used for Electricity



2015 Renewable Portfolio Standard Status Report for the Year Ended December 31, 2015 (In Net Megawatt Hours)

	Hawaiian Electric	Hawai'i Electric Light	Maui Electric	2015 Total	2014 Total
ELECTRIC ENERGY GENERATION USING RENEWABLE ENERGY SOURCES					
◆ Biomass	385,846	-	30,870	416,716	433,164
◆ Geothermal	-	230,495	-	230,495	255,027
◆ Photovoltaic and Solar Thermal	40,750	2,557	7,904	51,212	44,255
◆ Hydro	-	63,275	9,823	73,098	51,155
◆ Wind	216,197	132,293	264,291	612,782	577,868
◆ Biofuels	52,424	-	988	53,412	37,093
Subtotal	695,218	428,620	313,877	1,437,715	1,398,561
ELECTRICAL ENERGY SAVINGS USING RENEWABLE DISPLACEMENT TECHNOLOGIES					
◆ Customer-Sited, Grid-Connected	464,412	89,691	88,956	643,060	514,999
Subtotal	464,412	89,691	88,956	643,060	514,999
TOTAL	1,159,630	518,311	402,833	2,080,775	1,913,561
TOTAL SALES	6,754,083	1,064,785	1,137,630	8,956,498	8,976,242
RPS PERCENTAGE	17.2%	48.7%	35.4%	23.2%	21.3%

The full RPS report provided to the Hawai'i Public Utilities Commission is available online at www.hawaiianelectric.com/clean-energy-hawaii.



Clean Energy Updates

Striving for More Renewables



To reach Hawai'i's renewable energy goals and lower our customers' bills, our companies are pursuing an increasing number of renewable energy projects. We're interconnecting more rooftop and distributed solar, exploring new biofuel possibilities, and leveraging partnerships to help us add increasing amounts of renewable energy. We are proceeding responsibly, with our customers' best interests in mind, because clean energy resources can introduce more variability and less stability to our grids. That's why we're working collaboratively with numerous partners on studies, pilot projects, and new programs to find solutions that work for Hawai'i.



Solar Sky-high Renewable Energy

In 2015, we achieved a **25 percent increase** in the cumulative solar generation integrated into our power grids by adding 98 MW of customer-sited photovoltaic (PV) installations.

We continued to support our customers' desire to install PV systems with:

- ◆ Nation-leading technical standards for advanced inverters – the devices that connect renewable systems to the power grid – that let us integrate higher levels of rooftop PV.
- ◆ An improved method of calculating the amount of customer-sited rooftop PV that can be safely installed without undermining service reliability for other customers.
- ◆ The option to try time-of-use rates that save customers money by shifting energy use to times of day when PV panels are most productive and energy costs are lower.
- ◆ Streamlined, standardized PV applications that give customers clearer information on their application status.
- ◆ Two new programs, approved by the Hawai'i Public Utilities Commission (PUC), that encourage sustainable expansion of rooftop PV while sharing the cost of power grid operation and maintenance more fairly:

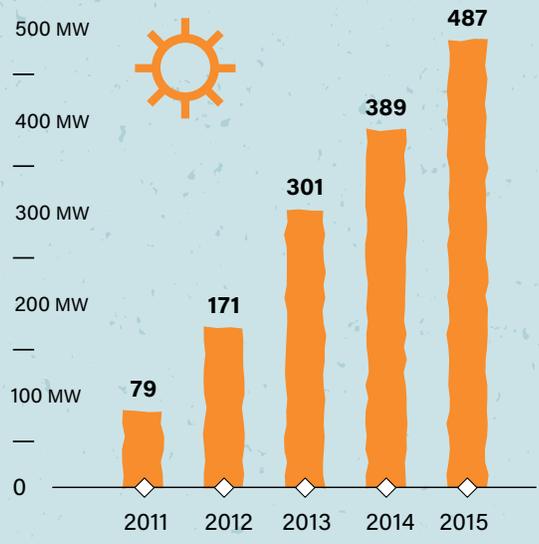
GRID SUPPLY: for customers whose rooftop PV sends excess electricity to the power grid. This program will offer a bill credit at a fixed rate.

SELF-SUPPLY: for customers whose rooftop PV does not export electricity to the power grid. This program will offer expedited application review and processing. By coupling their systems with energy storage, customers will have the option to generate solar energy for some of their electricity needs without undermining the stability of our power grid.



RISING WITH THE SUN

Cumulative PV Installations



Includes: Net Energy Metering, Feed-in Tariff, Standard Interconnection Agreements (SIA), Power Purchase Agreements, non-SIA, and utility-owned projects.



Power Partnerships

Partnerships to incorporate more renewable energy

Our companies worked with renewable energy industry partners, government agencies, private companies, environmental advocacy organizations, and communities to bring more renewable energy to our customers.

Solar Micro-inverter Innovation

Using results of inverter testing we did in partnership with the National Renewable Energy Laboratory, Solar City and the Electric Power Research Institute, we worked closely with Enphase Energy, Inc., to upgrade the smart micro-inverters in 60 percent of PV systems on O’ahu, Hawai’i Island, Maui, Moloka’i, and Lāna’i – a total of approximately 154 MW. The improvements,

completed in early 2015, will help us address safety and reliability issues related to voltage spikes and power surges from high levels of PV and meet the growing demand for rooftop solar at a low cost to customers.

“By working closely with utility partners like Hawaiian Electric, we’re able to move the industry closer to achieving the full integration of solar onto the grid.”

- PAUL NAHI, president & CEO of Enphase

Community Solar

In 2015, we proposed a Community-Based Renewable Energy (CBRE) program and tariff to the Hawai’i PUC. If approved, it will allow residential and commercial customers who lack a suitably-located or -sized roof, or who prefer not to install rooftop solar, to receive the benefits of renewable energy. Participating customers can offset part of their monthly energy bill and support clean energy for Hawai’i.

Our CBRE proposal was developed after consultation with the renewable energy industry, environmental advocacy organizations, and the Energy Office of the State of Hawai’i Department of Business, Economic Development, and Tourism.

New Feed-in Tariff Projects

In 2015, we integrated onto our power grids 23 solar Feed-in Tariff (FIT) projects with a total capacity of 5.62 MW of clean energy.

With more projects in the active queue, we’re upgrading and building new power grid facilities to support additional FIT projects.

FIT Projects Integrated in 2015



9 on O’ahu
(2.51 MW CAPACITY)



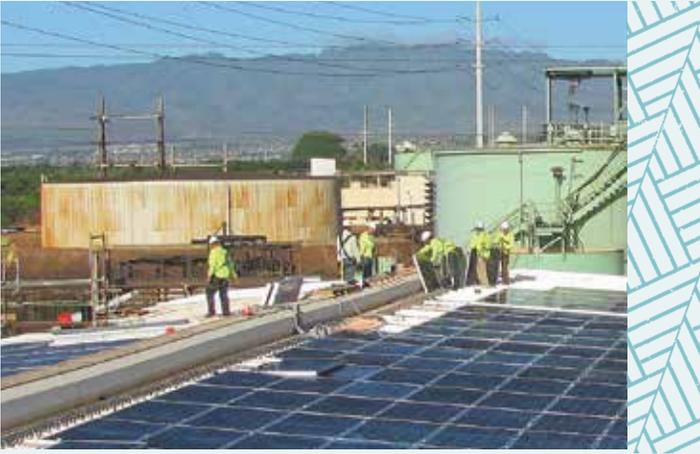
8 in Maui County
(1.80 MW CAPACITY)



6 on Hawai’i Island
(1.32 MW CAPACITY)

Utility-Scale Solar

Maui Electric received approval from the Hawai’i PUC to buy electricity from two commercial solar projects, the first of their kind on Maui. South Maui Renewable Resources will build a 2.87-MW project near the Maui Research & Technology Park in Kihei and Kuia Solar is planning a 2.87-MW project near Lahainaluna School. These projects are expected to provide solar power at the low price of 11.06 cents per kilowatt-hour (kWh) and will have technical controls to ensure interconnection to the power grid does not diminish safety and reliability.



“Being Maui residents and Maui Electric customers, we have a vested interest in being part of the solution for our island. These projects not only support the state’s renewable energy goals, but do so at rates that should benefit all customers.”

— TRICIA ROHLFING, board member of South Maui Renewable Resources & executive of Hawaii Pacific Solar

CLEANER FUELS

Firming Up Replacements for Oil

Because they are generally variable in the energy they supply, an ever greater mix of renewable resources can lead to power grid instability and unreliability. As we transition to 100 percent renewable energy, we must pair an increase in renewables with cleaner fossil and renewable fuels to replace oil and provide firm power generation at night and on days when variable resources cannot meet customers’ electricity needs.



Liquefied Natural Gas

Throughout 2015, our companies continued negotiations and planning to import liquefied natural gas (LNG) to Hawai’i. Natural gas is cleaner and less expensive than oil, even at today’s record low oil prices, and is abundant around the world, including in North America.

Fortunately, lower oil prices allowed us more time to negotiate the most favorable terms for our customers. In 2016, we asked the Hawai’i PUC for approval to import LNG in special containers to be used at some of our power plants. We consider LNG an important transition fuel to help lower customer bills and reduce our carbon footprint as we transition from 23.2 percent renewables in 2015 to 100 percent by 2045.

Pacific Biodiesel

In November 2014, Hawaiian Electric signed a two-year contract with Pacific Biodiesel Technologies, LLC, for delivery of a minimum of two million and up to three million gallons of biodiesel per year to Hawaiian Electric’s Campbell Industrial Park CT-1, the Honolulu International Airport Emergency Power Facility, or any other facility on O’ahu that may use biodiesel.

The fuel will be produced at Big Island Biodiesel, a local company that has the technology to process used cooking oil from restaurants and other waste oil into high-quality biodiesel. This new contract, approved by the Hawai’i PUC in September 2015, is projected to save our customers \$3 million dollars and stimulate the local economy by sourcing production in Hawai’i.



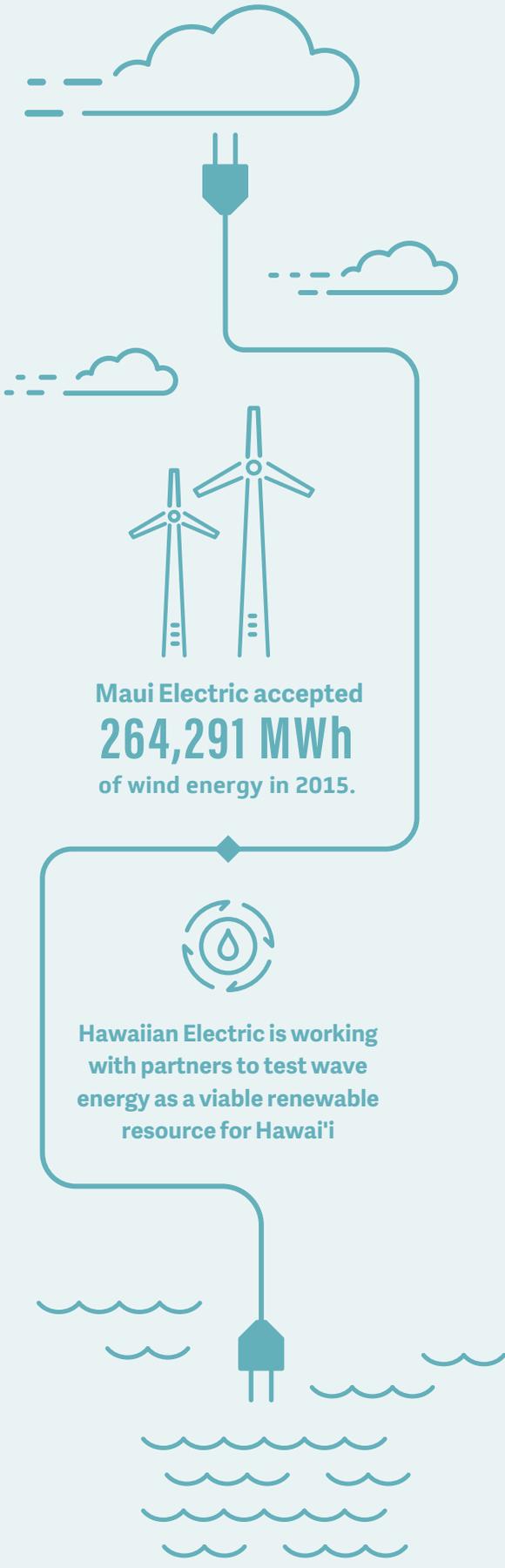
Pacific Biodiesel to yield

\$3,000,000

IN CUSTOMER SAVINGS

Schofield Generating Station Project

In September 2015, the Hawai’i PUC approved Hawaiian Electric’s request to build the 50-MW Schofield Generating Station that will generate renewable energy with a blend of biofuels. With the unique ability to start up independently, without external support during a significant outage, the facility can help restart other plants in the event of an island-wide outage. Its flexible technology will enhance our efforts to integrate more solar and wind energy on O’ahu. Located about 900 feet above sea level and far away from the potential effects of tsunamis or sea surges, the facility also enhances our energy security.



Maui Electric accepted
264,291 MWh
of wind energy in 2015.

Hawaiian Electric is working
with partners to test wave
energy as a viable renewable
resource for Hawai'i



Wind Tapping the Trades

To enhance our ability to accept more wind energy, Maui Electric continues to evaluate operational changes and improvements. In 2015, we accepted 264,291 Megawatt hours (MWh) of wind energy on Maui (90 percent of the wind energy generated), an increase of 6,384 MWh over the previous year and the highest level ever achieved.

One improvement underway is Maui Electric's modification of the Ma'alaea Power Plant to lower the minimum generation required for operation. These changes are targeted for completion in 2016.



Na Pua Makani Wind Farm

Hawaiian Electric continues to work with Champlin/GEI Wind Holdings, LLC, on an interconnection requirements study for the 24-MW Na Pua Makani Wind Farm planned for Kahuku on O'ahu's North Shore. Upon the developer's final selection of a wind turbine provider, the study will be complete and construction can commence this year. The planned wind farm will supply energy to Hawaiian Electric customers at 15 cents per kWh over the next 20 years.



Wave Riding the Wave

Hawaiian Electric is working with a consortium of partners on a trial project to connect the first wave power generator to O'ahu's power grid. In partnership with Northwest Energy Innovations, LLC, and with backing from the U.S. Navy and the University of Hawai'i, Honolulu-based Sea Engineering, Inc., deployed the Azura wave power generator in Kane'ohe Bay at the Navy's Wave Energy Test Site at Marine Corps Base Hawaii. The test will last 12 months.

A successful test would suggest that wave energy may be a viable renewable resource for Hawai'i to develop further. We would also learn if wave energy has a role in keeping our power grid stable, a crucial challenge given the high variability of the other renewable energy sources the state will increasingly rely on.



In 2015, Hawaiian Electric received a
SMART GRID AWARD
from the Electric Power Research Institute



Modernizing Our Power Grids

Striving for Maximum Integration & Service

Smart Grid

We were honored to earn a national Smart Grid technology award from the Electric Power Research Institute (EPRI), an independent, non-profit national organization that works to improve electric service to energy customers. We were recognized for exceptional documentation of research case studies in conjunction with EPRI Smart Grid Demonstration Projects.

Smart Grid technologies and devices, installed in some O'ahu neighborhoods, are already helping customers monitor and control their energy use and enabling us to detect and restore power outages faster. As smart grids continue to advance, they will expand customer service options, deliver more reliable service, and progress

our efforts to integrate renewable energy and reduce Hawai'i's dependency on imported oil. We plan to deploy Smart Grid technology across Maui County, Hawai'i Island, and O'ahu in the coming years, pending the Hawai'i PUC's approval of our Smart Grid Foundation Project.

Lāna'i Fault Indicator Installation

We modernized Lāna'i's electrical system by installing fault indicators on power lines in the Lālākoa area. During a power outage, these devices allow Maui Electric workers to locate the problem and restore power faster and more efficiently, an important part of our continuing advancements to deliver safe and reliable power to the Lāna'i community.

“The commitment and collaboration demonstrated by these individuals and teams enables the power industry to continuously improve its safety, reliability, and affordability and be more environmentally responsible for the benefit of their stakeholders and society.”

— MARK MCGRANAGHAN,
vice president of Power, Delivery
and Utilization at EPRI

Energy Storage & Demand Response Programs

Raising the Bar for Safety, Reliability & Renewable Integration



Solar power is an accessible and inexpensive form of renewable energy. However, the time of day when solar generation is optimal doesn't always coincide with customer demand. Two strategies to address the variability challenges posed by solar and other renewable resources are storing the energy and shifting use to daylight hours through smart energy use programs known as demand response.

Energy Storage

Energy storage will be essential to Hawai'i's renewable energy future. We're implementing storage systems, including batteries, so we can integrate more variable renewable energy while maintaining safe, reliable service for all customers.

Hawaiian Electric and Stem, Inc., are bringing energy storage and intelligent software to businesses on O'ahu in a \$2.1-million pilot program supported by Energy Excelsator. Watanabe Floral, a family-operated kama'āina company, has installed the first Stem 36-kilowatt energy storage system on Hawaiian Electric's power grid.

Stem's system alternates between battery power and grid power to respond to spikes in energy use, so businesses can optimize their use and reduce demand charges. The technology also provides grid balancing to support our efforts to interconnect more renewables safely and reliably.

“The Stem system helps us to monitor our solar panels and electrical demand load seamlessly to reduce our energy costs.”

- LEON DODSON, CFO of Watanabe Floral

Demand Response

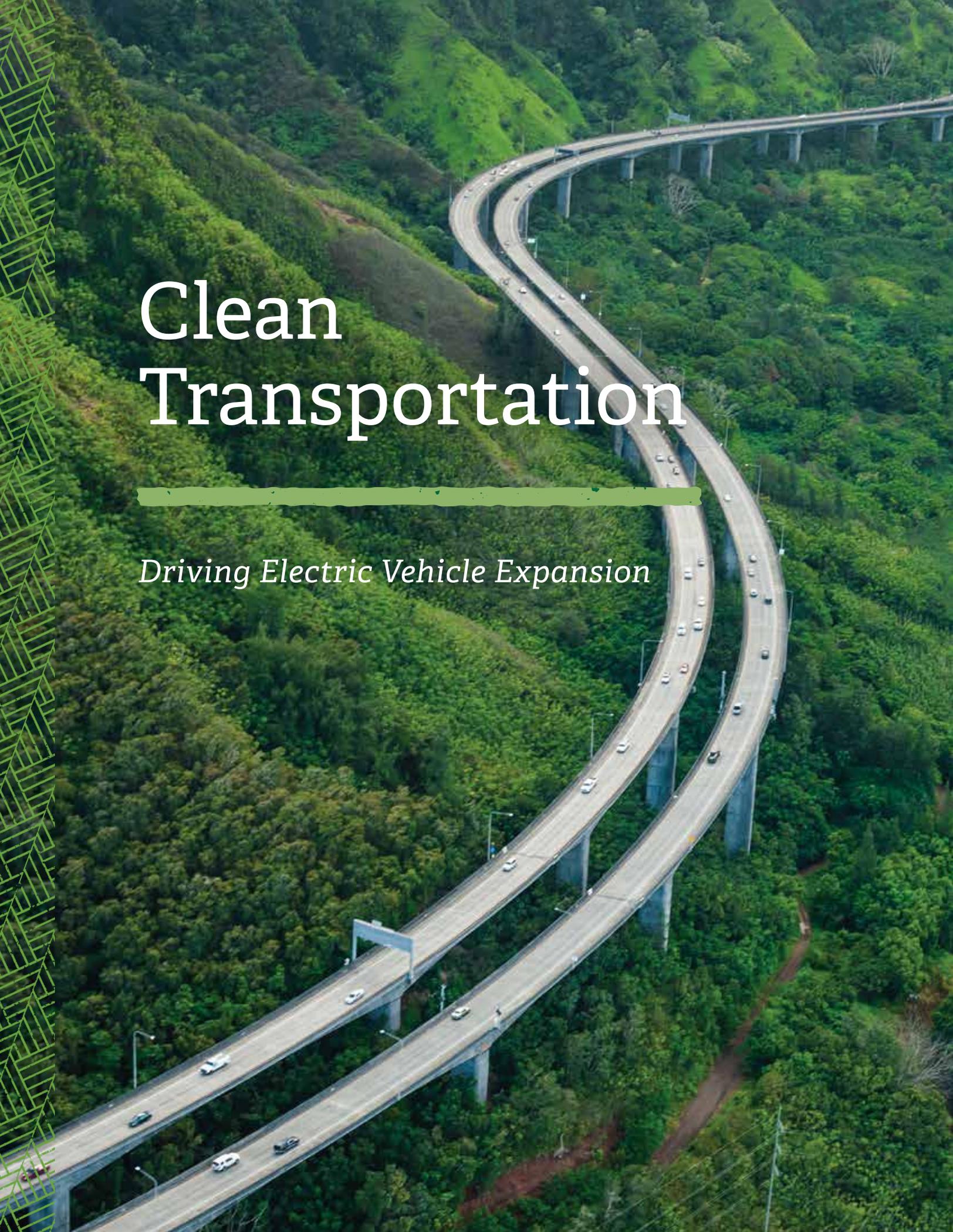
New voluntary smart energy use programs known as demand response will give customers financial incentives for helping manage demand on the power grid.

With support from Energy Excelsator and its cohort, Hawaiian Electric is installing 499 grid-interactive water heaters (GIWH) at Kapolei Lofts, a rental housing development under construction in West O'ahu. The installation will test several aspects of GIWH technology: its ability to shift power demand and to support grid reliability; the willingness of customers to participate; the most feasible and cost-effective technology for broader implementation; and the best method to execute an operational test plan.

To reduce costs for our customers and enable higher levels of renewable energy integration safely and without compromising service reliability, we filed a Demand Response Program Portfolio and Demand Response Management System (DRMS) application with the Hawai'i PUC in December 2015. DRMS has advanced capabilities for implementing and managing a portfolio of demand response programs and services that appeal to a wide variety of residential and commercial customers.



◀ At the Kapolei Lofts Energy Fun Fair, Hawaiian Electric employees Bree Komagome and Christy Imata facilitated interactive displays, games, and activities to educate residents and community members about energy conservation.



Clean Transportation

Driving Electric Vehicle Expansion



To encourage wider adoption of electric vehicles (EVs), we're increasing the number of charging stations and continuing our special rate options for EV drivers. We also submitted a request to the Hawai'i PUC for new EV rates with simpler terms and sign-up procedures.

New EV Rates

If approved by the Hawai'i PUC, our new discounted time-of-use (TOU) EV charging rates would encourage customers to charge during off-peak hours while discouraging charging during weekday peak hours from 3 to 9 p.m. Fostering off-peak charging takes advantage of the excess electricity generated by rooftop solar systems during the middle of the day.

For commercial customers, the new EV rates will waive demand charges during off-peak periods and eliminate demand charge minimums. That will make it less expensive for commercial customers to charge their own EV fleets or to offer charging to their customers.

EV Education

Go EV

Customers got the opportunity to experience EVs and learn about the benefits of clean transportation at the first-ever "Go EV" event, sponsored by Maui Electric and hosted at our Kahului offices. Held in conjunction with EV dealerships and stakeholders, the event featured an EV ride-and-drive with local car dealerships, charging station demonstrations, an information booth, and an EV scavenger hunt to increase awareness of the numerous charging stations available on the island.

EV Estimators

EV drivers and customers considering an EV purchase can now access a new tool to estimate how much they can save by using special TOU EV charging rates offered by our companies. The new EV Bill Savings Estimators and instructions are available on our company websites.

A customer with a typical battery EV can save about 25 percent (depending on fluctuations in gas and electricity prices) on fuel using the standard residential electric rate to charge at home, compared to a gas-fueled vehicle that gets 25 miles per gallon. A typical customer can save over 40 percent on fuel by charging during off-peak hours at the TOU rate.



▲ L to R: Christopher M. Lovvorn, Castle & Cooke vice president for commercial development, State Sen. Lorraine Inouye, chair of the energy committee, Kahu Kelekona Bishaw of Kamehameha Schools, Randy Iwase, chair of the Hawai'i PUC, Alan Oshima, Hawaiian Electric president & CEO, Susan Harada, Dole Plantation vp for retail operations, Mike Moon, Dole Plantation director of operations, and Jim Alberts, Hawaiian Electric senior vice president for customer service join in the blessing ceremony of the DC Fast-Charging Station at the Dole Plantation.



DRIVE ELECTRIC WEEK

Hawai'i Electric Light employees took part in Drive Electric Week, a community event for Hilo and Waikoloa residents to learn about the benefits of EV ownership. Hosted and sponsored by the Big Island EV Association, the event included a showcase of EVs, demonstrations, ride-and-drives, and information booths to encourage EV adoption in Hawai'i.

DC Fast-Charging Stations

The Hawai'i PUC authorized our five-year demonstration project to install, own, and operate up to 25 DC fast chargers across O'ahu, Maui County, and Hawai'i Island. The fast chargers can recharge a near-depleted battery to about 80 percent capacity in 30 minutes. Fast charging alleviates EV "range anxiety" for drivers traveling around the islands and serves drivers who may not be able to conveniently charge their EVs elsewhere.



FASTER, FARTHER

Fast charging stations installed as of December 2015

HOST SITE	ISLAND	PARTNERS
Dole Plantation	Wahiawā, O'ahu	Castle & Cooke Properties, Inc., and OpConnect
Ko'olau Center	Kāne'ohe, O'ahu	Bishop Street Commercial, LLC, and OpConnect
Kapolei Commons	Kapolei, O'ahu	MK Kapolei Commons, LLC, and VLI-EV Partners
7-Eleven	Hawai'i Kai, O'ahu	7-Eleven Hawaii, Inc., and OpConnect
Maui Electric Kahului Office	Kahului, Maui	Greenlots



In 2015, Hawai'i Electric Light was recognized as a
CERTIFIED GREEN FLEET

Green Fleets

To make our fleet operations greener, we committed to meeting Edison Electric Institute's Fleet Electrification goal: an investment of five percent of the annual fleet budget on plug-in vehicles and technologies. Our companies exceeded that goal in 2015, investing a consolidated 12.7 percent. We've also supported cleaner fuels by using biodiesel in all of our medium and heavy-duty vehicles since 2006.

In 2015, Hawai'i Electric Light was recognized as a Certified Clean Fleet by Blue Planet Foundation and Honolulu Clean Cities, with support from the Hawai'i Department of Transportation. The inaugural Hawai'i Clean Fleets Certification Program recognizes businesses, organizations and government agencies making progress or achieving standards for use of clean or renewable fuels, conservation and fuel efficiency measures in their vehicle fleets, and other energy applications associated with transportation operations.

Hawai'i Electric Light also received national recognition in the Heavy Duty Trucking Top 50 Green Fleets for the third consecutive year.





Enhancing Customer Service

Embracing Our Responsibility to Our Customers

We continue to enhance services and offer more options that will add value to the customer experience and improve customer satisfaction.

Time-of-Use (TOU) Rates for Savings and Cooler Schools

TOU rate options help customers gain more control over their electric bills, support increased use of renewable energy, and promote the adoption of new technologies such as energy storage and EVs. If approved by the Hawai'i PUC, our request to expand our new, voluntary TOU rates will encourage residential customers to use electricity at times when solar and wind power are most productive.

We also proposed similar TOU rates for the Department of Education to allow Hawai'i's public schools to better manage the electricity costs associated with classroom air conditioning so that students and

teachers can have a more comfortable learning environment. With lower daytime electric rates, the proposal would let schools take advantage of daylight hours when renewable energy, particularly private rooftop solar power, is adding more low-cost energy to the power grid. If approved, the participating schools would pay approximately 25 percent less than the average effective energy charge between 8 a.m. and 4 p.m.

“The department has been working on a number of ways to effectively cool schools. The time-of-use rate proposed by Hawaiian Electric would enable us to move forward on air-conditioning projects while managing energy costs as well as foster responsible energy usage.”

— KATHRYN MATAYOSHI, Department of Education Superintendent

New Online Integrated Interconnection Queues

To better support our customers throughout the interconnection process, we launched Integrated Interconnection Queues (IIQs) on our companies' websites. The IIQs inform customers and solar developers on the status of their application. They can compare their own projects to other planned renewable generation projects, including rooftop solar and mid-sized and utility-scale wind and solar projects. The IIQ goal is to provide fair and equitable treatment for all non-utility energy providers, including homeowners and developers.

Grid Security

Hawaiian Electric signed an agreement with the Hawai'i State Fusion Center to collaborate on safety and security measures to safeguard the people of Hawai'i and essential infrastructure and assets like the power grid. We're working together to enable officials in Hawai'i to understand the local implications of national intelligence on issues such as cyber-criminal activity, terrorism, and natural or human-caused disasters. These efforts will empower front-line law enforcement, public safety, fire service, emergency response, public health, critical infrastructure protection, and private sector security personnel to better protect their communities.

Storm Preparedness

The safety of our customers and employees is always a top priority, especially during hurricane season. That's why, each year, we work closely with federal, state, and county emergency response agencies to coordinate preparations. Our companies train and drill extensively to prepare for fast, safe responses to storms and other emergencies. We also prepare and strengthen our infrastructure throughout the year by constantly managing vegetation, maintaining generating units and inspecting and upgrading poles, power lines, transformers, and other equipment.



WATTPLAN

Recognizing that solar generation will grow if customers can more easily see cost information, we launched **WattPlan**®, a free online tool that estimates electric bill savings from PV based on customers' electricity use, current rates, and available rebates and tax credits. They can also compare the estimated costs of paying for their PV system with cash, a loan, or a lease agreement. WattPlan will analyze lifetime costs for a PV system and estimate when a customer will break even on their investment in solar power. The tool is available at hawaiianelectric.com/WattPlan.



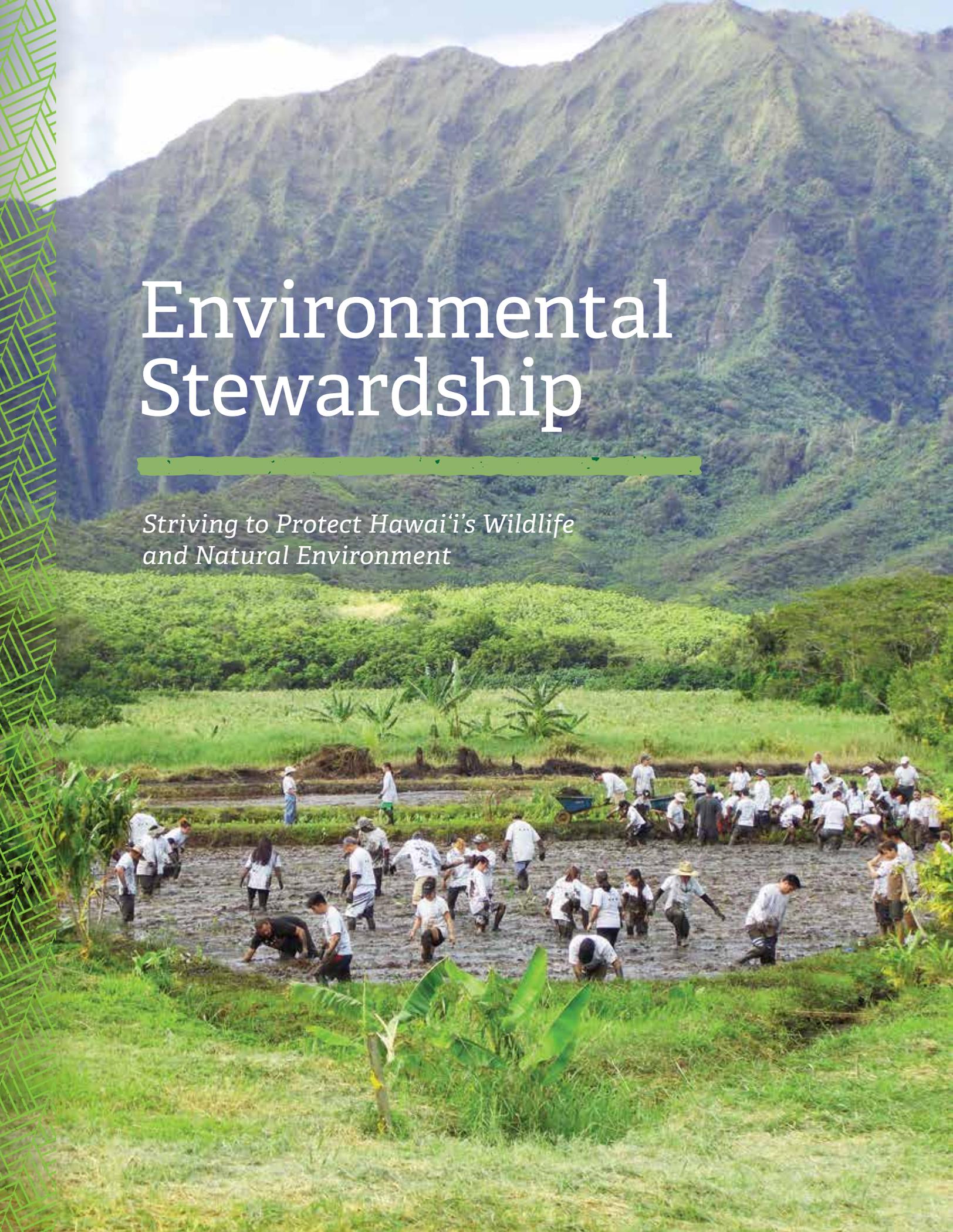
Emergency Preparedness Education

To kick off hurricane season, employees from all of our companies reach out to communities and organizations across our service territories to share emergency preparedness tips, distribute our Handbook for Emergency Preparedness, discuss what happens to our electric system when storm-related outages occur, and explain how we respond to storm incidents.



◀ Hawai'i Electric Light's Kenyan Beals delivering our Handbook for Emergency Preparedness to Hawai'i State Public Library employees Elaine Lyons and Amanda DiFrancesco. The free, useful guides are available to customers electronically and in hard copy.

Following a severe 2014 hurricane season, Maui Electric's Community Relations team expanded efforts to raise awareness about storm preparedness and the power restoration process. From June through November 2015, our team went on the road and reached more than 700 people with 24 presentations at community centers and other locations. The 30-minute sessions created an opportunity for neighborhood discussions with Maui Electric's outreach team.

A large group of people, many wearing white t-shirts, are engaged in an environmental stewardship activity in a lush, green landscape. They are working in a muddy area, possibly a wetland or a stream bed, with some using wheelbarrows. The background features a large, rugged mountain range under a clear sky. The foreground is dominated by vibrant green grass and banana plants. The overall scene conveys a sense of community and environmental care.

Environmental Stewardship

*Striving to Protect Hawai'i's Wildlife
and Natural Environment*



As part of our commitment to environmental stewardship, in 2015 our Avian Protection Program evolved into the Protected Species Program to broaden our program from protected birds to all protected species concerns related to our operations and facilities. Our efforts are led by an in-house wildlife biologist who helps identify emerging protected species issues, proactively develops protocols and procedures for minimizing our impact, and trains personnel.

Collaborating with the Conservation Community

Environmental representatives from our companies were among the 1,000 attendees at the 2015 Hawai'i Conservation Conference held in Hilo, sponsored in part by a \$10,000 grant from the HEI Charitable Foundation. Since 2008, Hawaiian Electric has provided funding to the Hawai'i Conservation Alliance Foundation for this event, as part of our efforts to encourage conservation efforts and protect Hawai'i's wildlife and natural resources.

Caring for Our Neighborhoods

We believe environmental stewardship includes keeping our neighborhoods free of trash, debris, and graffiti. Dedicated volunteers from our companies participate in Adopt-A-Highway and annual cleanups around our facilities. Highlights of our activities in 2015 include:

- ◆ Maui Electric employees picked up 99 bags of trash along Pu'unē Avenue. Maui Electric has been a caretaker of this highway stretch for more than 20 years.
- ◆ Hawai'i Electric Light employees collected 21 bags of trash along Kanoiehua Highway in Hilo, a roadway we've voluntarily cared for since 2009.
- ◆ Hawaiian Electric employees picked up 20 bags of rubbish and painted over graffiti along a well-used path behind Waiau Power Plant for the 10th annual Pearl Harbor Bike Path cleanup, a City and County of Honolulu Department of Environmental Services effort we've supported since 2006.
- ◆ Hawaiian Electric partnered with the office of Rep. Andria Tupola to create several custom designed, durable aluminum "No Dumping" signs for Pa'akea Road in Wai'anae, where illegal dumping has been a community concern. Employees also joined with 100 community members to help post the signs and participate in a road cleanup project.



PROTECTING THE HAWAIIAN HOARY BAT

Even before the endangered Hawaiian hoary bat was designated the official state land mammal in April 2015, we voluntarily developed and implemented a bat detection protocol into our tree trimming practices to protect roosting Hawaiian hoary bats and their pups. Before the pupping season, vegetation management crews and contractors were trained to use a thermal imaging device to detect bat pups before any tree trimming activities. Our wildlife biologist is also testing and collecting data to learn if an acoustic monitoring device can supplement our bat detection program.

Our Environmental Department continues to engage with wildlife agencies and experts in research and field activities to broaden our knowledge of protected species efforts across the state.

Supporting Wetland Restoration and Economic Growth

In early 2015, about 100 Hawaiian Electric volunteers partnered with Kāko'o 'Ōiwi on a community workday to restore the He'eia wetlands, a known habitat for native species. HEI Charitable Foundation also awarded a \$25,000 grant to support the long-term restoration of agricultural and ecological productivity within the He'eia wetlands and create economic opportunities for the Windward O'ahu community.

“We’re grateful for the support of Hawaiian Electric and the HEI Charitable Foundation in supporting a community-based project that restores wetlands and increases sustainability on O’ahu.”

- KANEKOA KUKEA-SHULTZ,
executive director of Kāko'o 'Ōiwi



\$25,000 DONATED
to the restoration of the He'eia wetlands

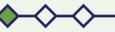


HELPING NATIVE PLANTS AND ENDEMIC SPECIES THRIVE

In partnership with the Trust for Public Land, volunteers from Hawaiian Electric received a rare opportunity to hike into a private section of the Honouliuli Forest Reserve and help remove invasive plant species that threaten the native habitat. The section, on the slope of the Wai'anae mountain range called Kalua'a, is managed by the Oahu Army Natural Resources Program and is home to 35 threatened and endangered species, including the 'elepaio forest bird and kahuli tree snail.

SUPPORTING STUDENT-LED SUSTAINABILITY INITIATIVES

We partnered with the University of Hawai'i Office of Sustainability to support the UH President's Green Initiative Awards program, launched in 2015 with a \$20,000 grant from the HEI Charitable Foundation. The awards, including a Green Student Leader Award and Green Project Implementation Award, encourage student leaders to create innovative solutions to real-world problems and support student-led sustainability projects that make an impact on our community. The winners will be selected in 2016.



Restoring an Ancient Fishpond

Paepae o He'eia, caretakers of an ancient Hawaiian fishpond in Windward O'ahu, issued a call for 1,000 volunteers to help close the gap in an 80-foot portion of the fishpond wall destroyed by a flood 50 years ago. More than 2,000 people, including volunteers from Hawaiian Electric, joined forces on Earth Day to help restore the historic treasure where aquaculture once flourished. A \$15,000 grant from the HEI Charitable Foundation funded the purchase of supplies and materials, including pōhaku (rock) and ko'a (coral), necessary to rebuild, stabilize, and fill in the gap. Each piece was meticulously hand set without cement or mortar – the same technique employed centuries ago by Hawaiian ancestors – to revitalize this living monument of sustainability.



GROWING GREEN ON WINDWARD O'AHU

Hawaiian Electric is supporting two green projects in Windward O'ahu. In 2015, a severe storm damaged the electric system serving the hydroponic line at the Women's Correctional Community Center overseen by the Lani-Kailua Outdoor Circle. Hawaiian Electric provided funds to repair the system that circulates nutrients in the garden so it can once again provide a sustainable source of fresh, organic vegetables for the prison cafeteria while saving money for the correctional center.

At Le Jardin Academy, students are using aquaponics and a greenhouse as educational tools to better understand water conservation and the importance of the watershed while planting edible crops and raising fish. Hawaiian Electric's donation in 2015 funded an expansion of the project to grow enough produce to supply the cafeteria salad bar, providing farm-to-table and healthy eating lessons for the students.

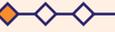


▲ Hawaiian Electric's Dawn Wong (left) with Le Jardin Academy students and their instructor. The students grow fresh vegetables and herbs using an aquaponics system that includes a 300-gallon fish tank. A grant from Hawaiian Electric was used to expand the system and greenhouse.

Community Outreach & Partnerships

Reaching out to our customers, our neighbors, and our communities.





We're making our communities better, increasing the quality of life and expanding opportunities for our neighbors, and stewarding our islands' precious natural resources for future generations. Our employees volunteer with educational outreach programs, help clean and restore public lands, serve meals to the homeless, and more. The following pages detail some of their 2015 efforts.

The Power of Outreach

- ◆ 3,800 volunteers, including employees and their friends and families, gave nearly 14,800 hours of community service throughout our island communities.
- ◆ The Hawaiian Electric Companies contributed over \$1,078,000 to 194 non-profit and community organizations.
- ◆ Our company executives served on the boards of 46 non-profit and community organizations.
- ◆ Employees donated over 1,300 pints of blood to the Blood Bank of Hawaii.

Spreading Aloha

Our employees hold year-long campaigns to raise money for Aloha United Way, Maui United Way and Hawai'i Island United Way. Collectively, employees donated more than \$589,000 to support hundreds of local non-profit agencies that rely on United Way.



With the help of over 85 coordinators across the company, our employees opened their pantries and pocket books to families in need during the 2015 holiday season, donating over 4,000 pounds of food and nearly \$15,000. The donations provided meals to those in need through the efforts of non-profit organizations including Hawaii Foodbank on O'ahu, Feed My Sheep on Maui, Auntie Jan's House of Blessings on Moloka'i, Sacred Hearts Church on Lāna'i, and Hawaii Food Basket on Hawai'i Island.

2015 COMMUNITY SUPPORT HIGHLIGHTS



3,800
VOLUNTEERS



14,800
HOURS OF SERVICE



\$1,078,000
DONATED



1,300+ PINTS
OF BLOOD DONATED

Sharing Opportunities with Our Youth

Hukilau Event for Teens on the North Shore

Hawaiian Electric volunteers helped plan the 4th annual Ho'oku 'Ono 'Ono I Na Keiki Hukilau on Memorial Day 2015, an event helping children prosper through positive cultural, career, and social opportunities. The event gives teens from shelters in Leeward O'ahu the opportunity to participate in beach games, learn to fish, and connect with mentors. This event creates positive experiences while educating teens about their limitless potential and the wonderful futures they can build.

Construction Career Days

For the second year, Hawai'i Electric Light participated in the Construction Career Day organized by the Hawai'i State Highways Department. The program moves to a different island each year, giving students hands-on experiences with the construction trades.



Career Day

In May, one of our Transmission & Distribution crews gave an exciting demonstration to preschoolers for Career Day at Kamehameha Schools Paukukalo campus on Maui. Educational outreach to our community demonstrates what we do every day to ensure safe, reliable electric service.

"I am so grateful for the Hawaiian Electric Companies support with such a generous grant. The interns benefitted greatly as the funds opened up more labs and industry site visits to see the variety of engineering opportunities available here."

- MYHRALIZA AALA, UH S.T.E.M. marketing & public affairs officer

"Thanks to donations from community-minded companies like Maui Electric, we will be able to continue encouraging Maui Nui keiki to seek careers in STEM-related fields, which require advanced skills and training."

- PHILIP KAHUE, executive director of the Alaka'ina Foundation



THE 7TH ANNUAL KEIKI TILAPIA FISHING TOURNAMENT

More than 2,000 attendees – including keiki and their 'ohana – cast their poles at the 7th Annual Keiki Tilapia Fishing Tournament 2015, an annual event hosted by Maui Electric and Kā'anapali Golf Course that raised more than \$19,000 for Maui United Way. More than 100 Maui Electric employees and their families dedicated over 300 volunteer hours to help organize this year's event to raise proceeds for our Maui County community.



Supporting STEM Programs and Initiatives

At the Hawaiian Electric Companies, we recognize the need to prepare our keiki to become the innovators, educators, researchers, and leaders who can solve the world's most pressing challenges. We support Science, Technology, Engineering and Mathematics (STEM) activities, initiatives and programs that offer quality learning opportunities while inspiring students to excel and find career success in the STEM fields right here in Hawai'i.

In 2015, our efforts included:

- ◆ The annual Hawaiian Electric Companies' Hawai'i VEX State Robotics Middle and High School Championships
- ◆ Hawai'i FIRST Lego League Championship
- ◆ Hawaii Mathcounts®
- ◆ Astronaut Lacy Veach Day of Discovery
- ◆ The Hawaii Science Teachers Association Ambassador Program
- ◆ The Honolulu Museum of Art's "Less = More" exhibit, presented by the HEI Charitable Foundation
- ◆ UH College of Engineering summer internship and Engineering Student Ambassador programs, sponsored by the HEI Charitable Foundation
- ◆ Alaka'ina Foundation's Digital Bus mobile laboratory program, supported by Maui Electric and the HEI Charitable Foundation



Whether it's reminding customers about electrical safety, sharing ways they can conserve, or just chatting with folks who are curious about our energy plans and what they may have heard in the news, such educational outreach is how our companies keep in touch with our communities and demonstrate the pride we take in meeting our customers' safety and energy needs.





Environmental Benefits

The paper was certified by Rainforest Alliance to the Forest Stewardship Council® and meets the credibility of American National Standards Institute for longevity.

By using this paper, we conserved:

Trees: 20 fully grown

Water: 9,166 gallons

Energy: 8.6 million BTUs

Solid Waste: 714 pounds

Carbon Emissions: 1,690 pounds

These savings are based on a printing of 3,000 copies. Environmental impact estimates for savings pertaining to the use of post-consumer recycled fiber are based on the Environmental Defense Fund Paper Calculator and research done by the Paper Task Force, a peer-reviewed study of the lifecycle environmental impacts of paper production and disposal.

The Paper Calculator algorithm was developed by The Paper Task Force and is now owned and operated by the Environmental Paper Network.



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