

TOGETHER

BUILDING A STRONGER HAWAII

SUSTAINABILITY
REPORT

2018
2019



Hawaiian Electric
Maui Electric
Hawai'i Electric Light



Together, building a stronger Hawai‘i

ABOVE: Hawi Renewable Development on Hawai‘i Island is among several wind energy facilities that feed power to our island grids.

COVER: Ku‘ia Solar on Maui, photo courtesy Patrick Riley

The Smart Electric Power Alliance (SEPA) named Hawaiian Electric, Maui Electric and Hawai‘i Electric Light the 2018 Investor-Owned Utilities of the Year, citing our collaboration with customers and communities on our grid-modernization plans.

In addition to the top award, Maui Electric was a finalist in the Visionary of the Year category for its continuing engagement with Moloka‘i residents to plan the transition from diesel generation to renewable energy sources, including solar and energy storage.

“The Hawaiian Electric Companies are but one example of the industry’s spirit of innovation and leadership as we continue to move toward a smart, clean and modern electric grid,” said Julia Hamm, SEPA president and CEO.

This recognition is an example of how our companies, and others, believe that working together is the best way to achieve a clean energy future. It’s also one of the reasons “Together, Building a Stronger Hawai‘i” is the theme of this, our 12th annual Sustainability Report.

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FOCUS ON RENEWABLE ENERGY

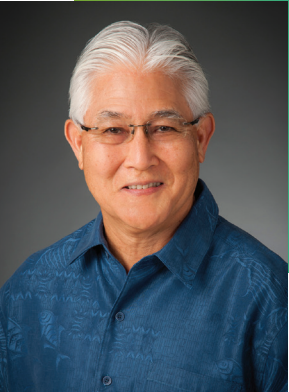
BUILDING RESILIENCE

ELECTRIFICATION OF TRANSPORTATION

HELPING OUR COMMUNITIES

FOSTERING SUSTAINABILITY

Letter from the President



Aloha,

For a few minutes on a sunny, breezy morning on Maui in April 2018, 80 percent of the island’s electricity came from the sun and the wind.

As more renewable resources come online, days like that will be common on Maui and the other islands served by the Hawaiian Electric Companies.

This accomplishment will be especially remarkable when you consider that these five islands aren’t interconnected. That makes us different from mainland utilities. While each island shares the common goal of a sustainable future with fewer carbon emissions, each is on its own to make it happen.

This gives us opportunities to help create energy solutions that respect each island’s unique needs and culture.

That’s why the theme of our annual sustainability report is “Together, Building a Stronger Hawai‘i.” Throughout this report are examples of collaborative work by our companies and our communities to reach renewable energy milestones, strengthen our economy and make our towns and neighborhoods more resilient.

A stronger Hawai‘i is a place moving steadily toward energy independence, responsibly using our natural resources to make electricity, to power vehicles and equipment, and to significantly reduce the use of imported fossil fuels.

In 2018, the Hawaiian Electric Companies achieved a consolidated renewable portfolio standard of 27 percent, up from 9 percent just a decade ago. The number would have been 29 percent if the volcanic eruption on Hawai‘i Island hadn’t disrupted the geothermal resource there.

Our companies’ annual use of fossil fuels has declined by 88 million gallons, or about 19 percent, over the past 10 years.

We’ve already made great progress in reducing the emissions that contribute to climate change. Over the next four years, we expect greenhouse gas emissions from our power plants will be significantly lower than they were a decade ago, moving our state closer to a carbon-neutral future.

Nearly 4,000 new private rooftop solar installations came online in 2018, and by 2022 there will be more than 4.4 million solar panels delivering energy to our grids.

Even as we take advantage of lower solar and battery prices to benefit all customers, we are pursuing a diverse mix of resources and technologies to provide sustainable, resilient and affordable energy.

Just as important as technology are the relationships we are strengthening with the people we serve. Our ongoing work with residents on Moloka‘i to help design their clean energy future – and to potentially achieve it faster – is an example of how productive collaboration can be.

The accomplishments described in this report are just a snapshot of what’s being done to make Hawai‘i stronger and more sustainable. Working together, we can do even more.

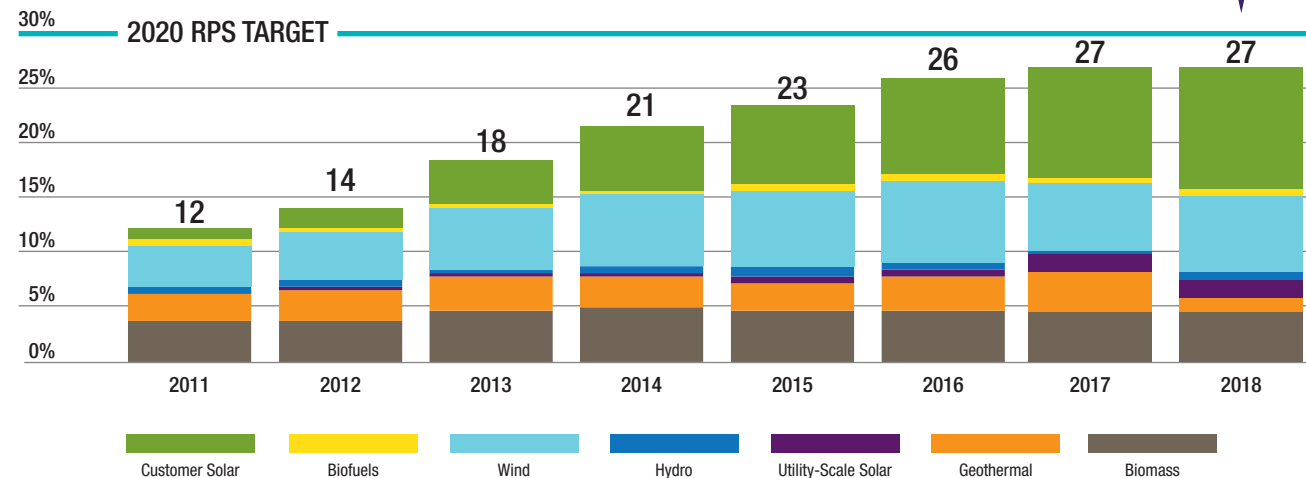
Mahalo for allowing us to serve you,

Alan Oshima
President and Chief Executive Officer
HAWAIIAN ELECTRIC COMPANY

Progress Toward a Clean Energy Future

The Hawaiian Electric Companies are committed to a 100 percent renewable energy future for Hawai'i and in 2018 laid the groundwork to meet the 2020 target of 30 percent renewables. Hawai'i leads the nation in private rooftop solar adoption, and nearly 4,000 additional systems came online in 2018.

Renewable Portfolio Standard Progress

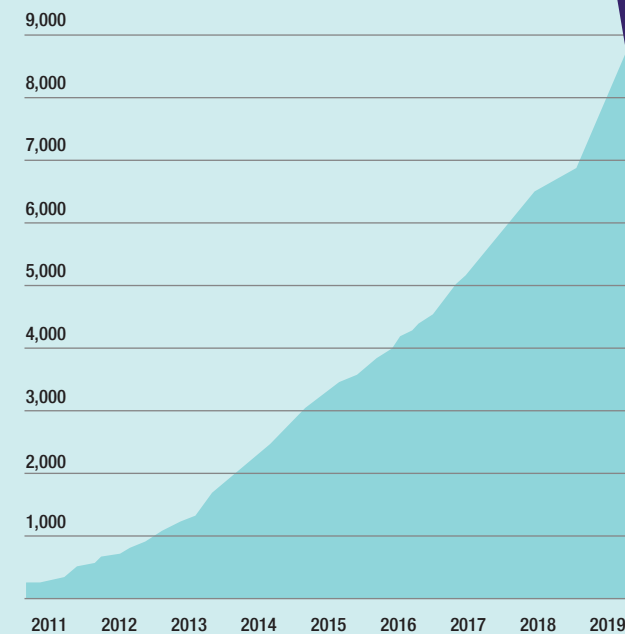


WE ARE ON TRACK TO REACH OUR 2020 GOAL

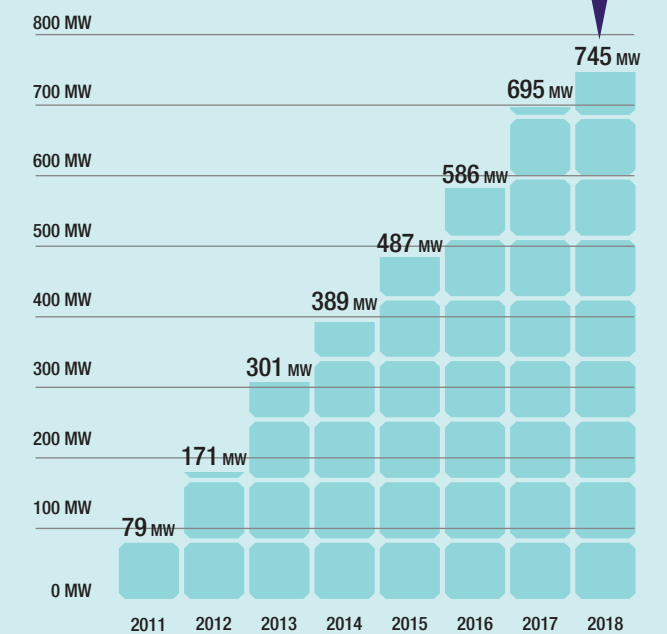
Continued Growth in Electric Vehicles, Rooftop Solar

Passenger Electric Vehicle Registrations

(As of February 2019)



Cumulative Solar Installations*

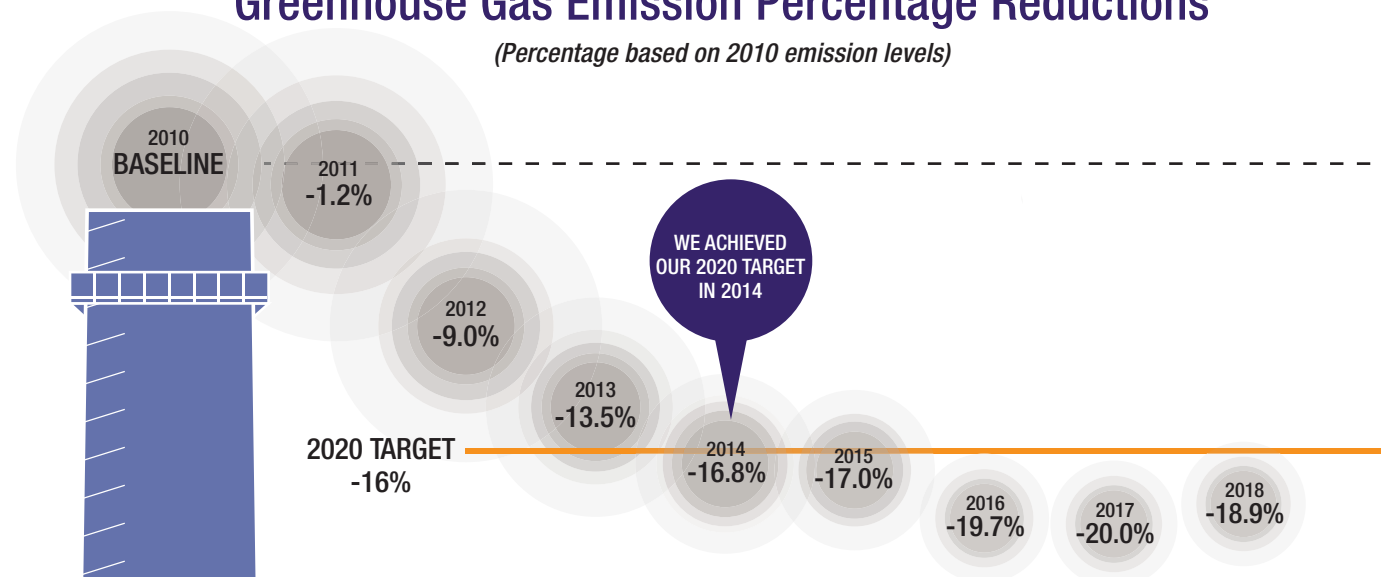


78,146 SYSTEMS

*Systems installed or approved

Greenhouse Gas Emission Percentage Reductions

(Percentage based on 2010 emission levels)



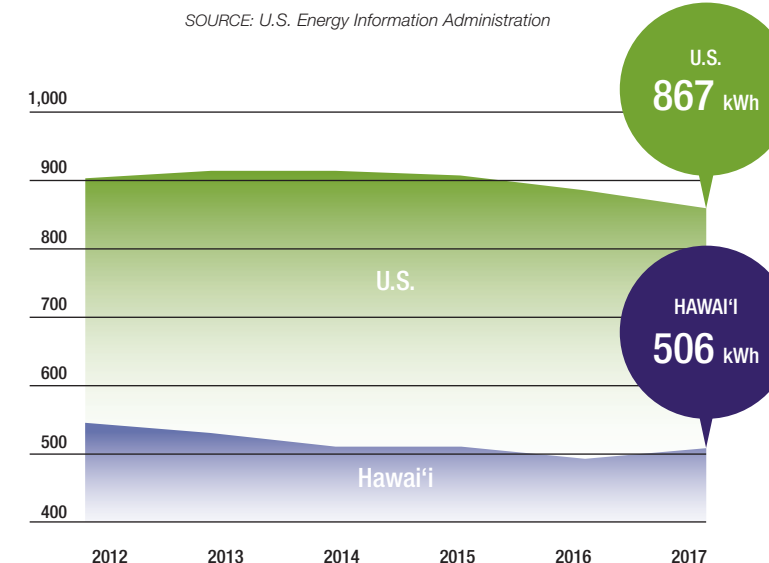
WE ACHIEVED OUR 2020 TARGET IN 2014

Since 2010, greenhouse gas emissions (GHG) from our power plants have fallen significantly as a result of replacing fossil fuels with renewables and a combination of customer conservation and energy efficiency. The shutdown of Puna Geothermal Venture by the Kilauea volcanic eruption, among other factors, contributed to a slight emissions increase in 2018, but the amount is still below the target reduction.

Average Hawai'i Home Uses 42% Less Electricity

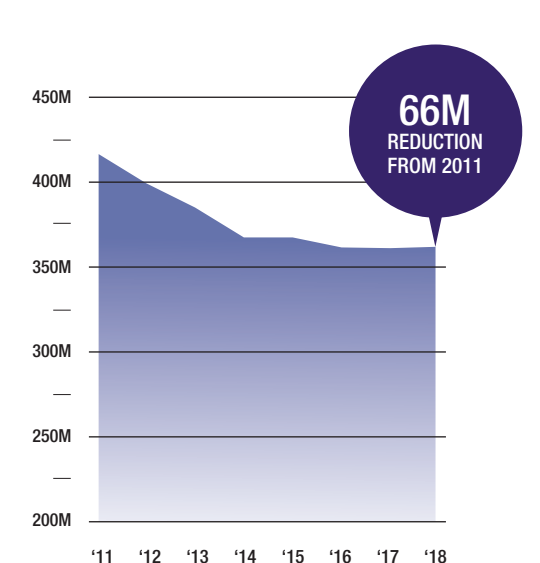
(Monthly per household in kilowatt-hours)

SOURCE: U.S. Energy Information Administration



Less Oil Used for Power Generation

(In millions of gallons)



66M REDUCTION FROM 2011

Adding Renewables for the Next Generation

More and more of our electricity is coming from renewable resources – solar, solar-plus-storage, wind, hydroelectric, biomass and biofuels – as we build momentum toward a 100 percent clean energy future.

DUE TO ROUNDING, RESOURCE MIX NUMBERS MAY NOT ADD UP PRECISELY TO THE RENEWABLE ENERGY TOTAL.

Generating Facilities

These maps show existing and planned generating facilities 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.

BESS: Battery Energy Storage System

- BIOFUELS

BIOMASS

GEOTHERMAL

HYDRO

CUSTOMER-SITED SOLAR

GRID-SCALE SOLAR
- STORAGE

WASTE TO ENERGY

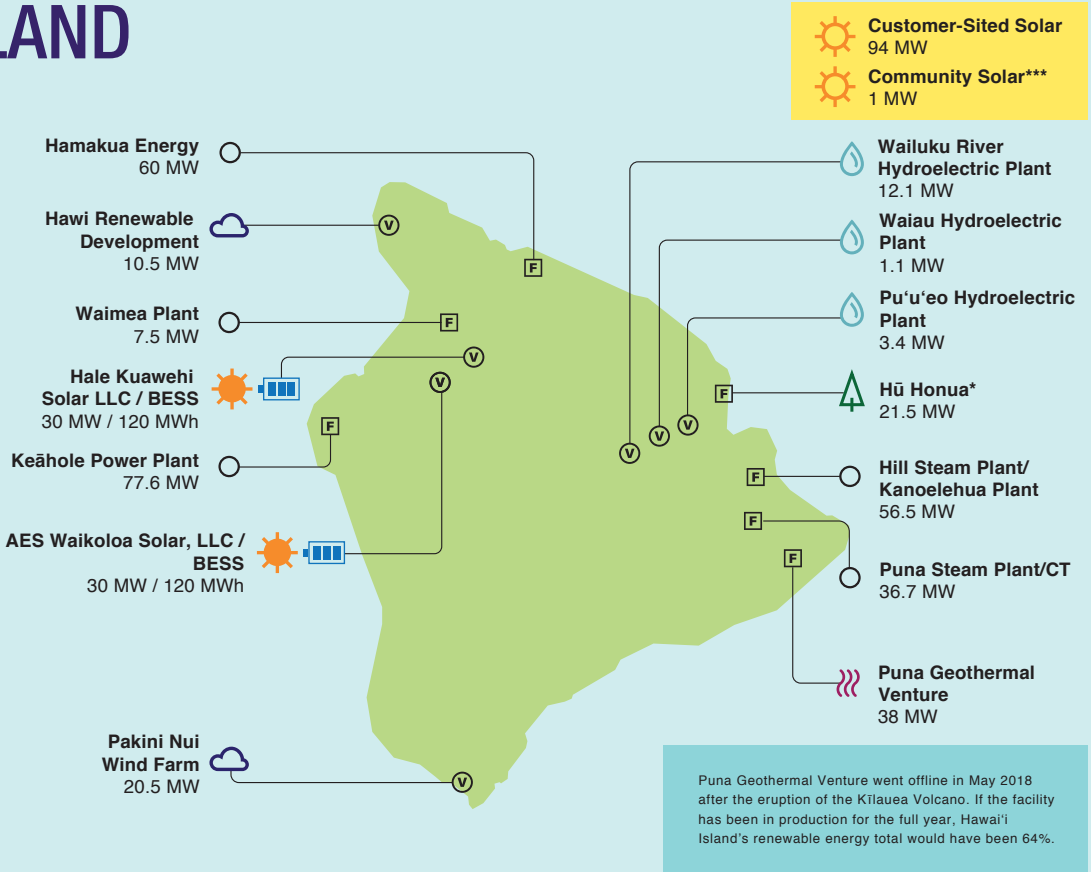
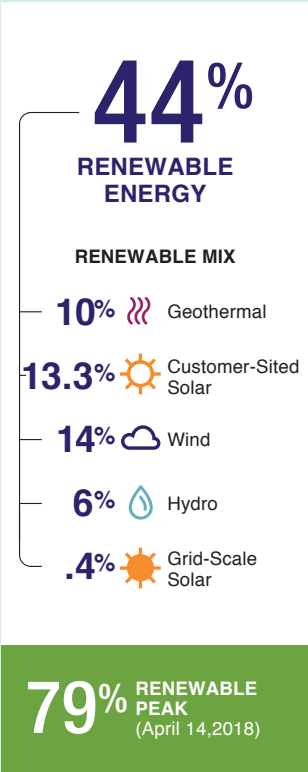
WIND

COAL

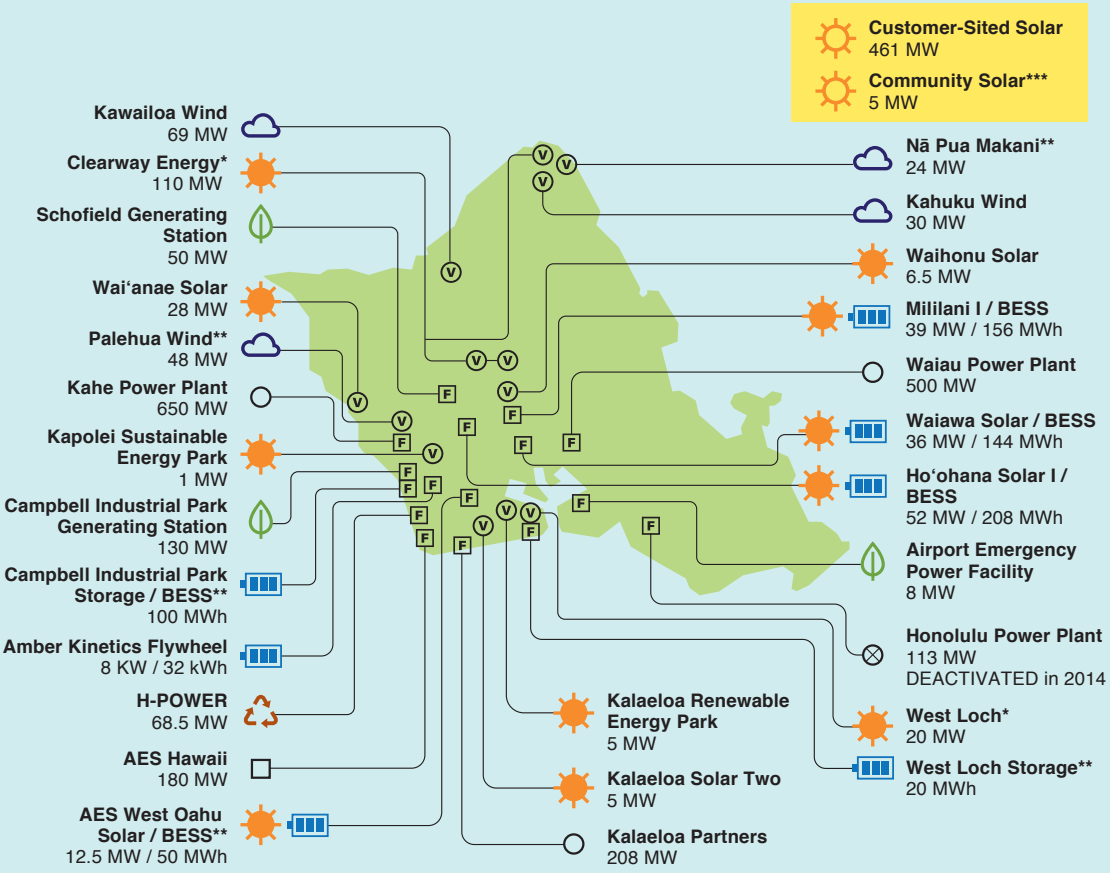
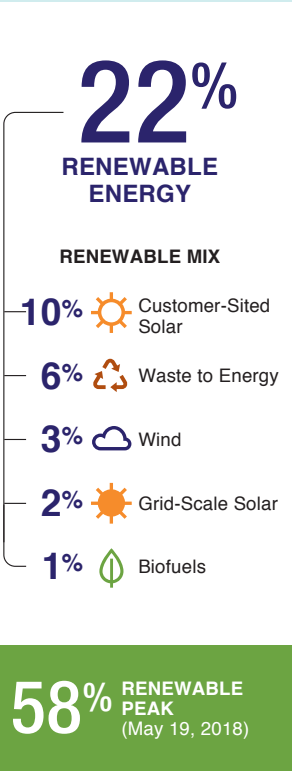
OIL

OIL (DEACTIVATED)

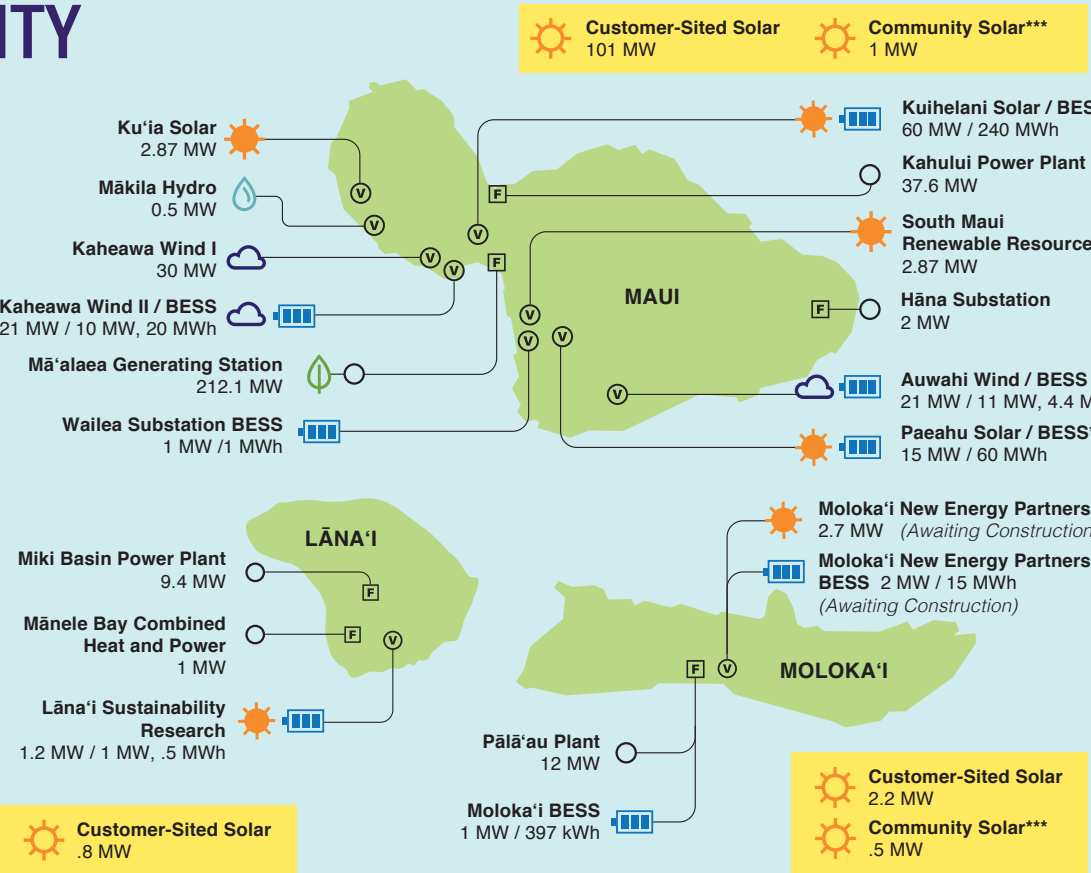
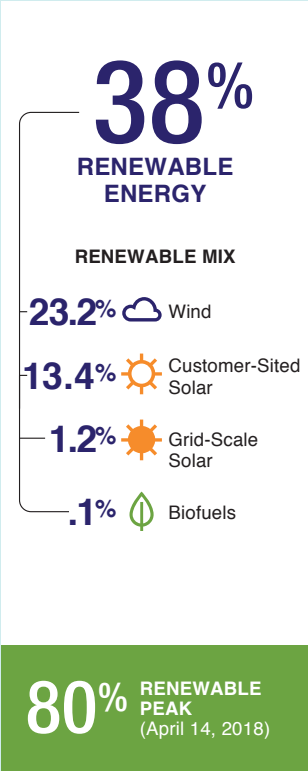
HAWAI'I ISLAND



O'AHU



MAUI COUNTY





Ten years since the creation of the Hawai'i Clean Energy Initiative, the Hawaiian Electric Companies have cut fossil fuel use by 19 percent, importing nearly 88 million fewer gallons of oil a year to generate electricity.

By 2022, fossil fuel use will have dropped by about 60 percent as more than a dozen wind, solar and battery storage projects now planned or under construction come online. Carbon dioxide emissions will be reduced by 1.2 million tons.

The companies have contracts with independent producers for more than 800 megawatts (MW) of renewable energy projects in operation, under construction or in the contracting and approval process, in addition to nearly 80,000 private rooftop solar systems. Significant additions are described in the following pages.

Community Solar*

Within days of launching Hawai'i's first-ever community solar program, applications (now being processed) for a dozen projects varying from 200 kilowatts to 3 MW filled the project capacity for O'ahu (5 MW), Maui (1 MW), Moloka'i (.5 MW) and Hawai'i Island (1 MW).

Once a community solar project is complete and sending electricity to the grid, participating subscribers will receive a credit on their electric bills, based on the output of the project and their level of participation.

**Subject to regulatory approval*



ABOVE: Waipio Solar, one of three Clearway Energy projects now under construction, is taking shape in Central O'ahu. The project is expected to be in service by the end of 2019.

LEFT: Installation of residential rooftop solar systems used by Hawaiian Electric, Maui Electric and Hawai'i Electric Light customers increased by 5.3 percent in 2018 from 2017, continuing Hawai'i's leadership as the No. 1 state for private rooftop solar. Nearly 4,000 new systems came online in 2018.

Solar-plus-Storage, Wind

In the largest ever procurement of renewable energy, the Hawaiian Electric Companies are contracting for 275 MW of solar energy from eight projects on O'ahu, Maui and Hawai'i Island. Each solar project will have a storage system to generate up to four hours of electricity that can further reduce fossil fuel use in the evening or when the sun isn't shining. Together, these projects rank as the second-largest storage procurement in the U.S., according to industry experts. These projects, in addition to the proposed 46.8 MW Palehua Wind project, will help displace an estimated 60 million gallons of oil per year. The projects include:

- ▶ On O'ahu, four solar projects totaling approximately 140 MW and 560 megawatt-hours (MWh) of storage
- ▶ On Maui, two projects totaling approximately 75 MW and 300 MWh of storage
- ▶ On Hawai'i Island, two projects totaling approximately 60 MW and 240 MWh of storage

By 2022, We are
Seeking to Add:

70
MEGAWATTS
RENEWABLE ENERGY
GENERATION FOR
HAWAII ISLAND

220
MEGAWATTS
RENEWABLE ENERGY
GENERATION FOR
O'AHU

100
MEGAWATTS
RENEWABLE ENERGY
GENERATION FOR MAUI



Maui Grid-scale Solar

Ku'ia Solar (2.87 megawatts) in West Maui and South Maui Renewable Resources (2.87 MW) on Haleakala Ranch, both owned and operated by Kenyon Energy, came online in 2018, adding to Maui County's renewable energy portfolio.

LEFT & BELOW: Ku'ia Solar



LEFT: The 20-MW West Loch Solar will produce the lowest cost renewable energy in the state at less than 8 cents per kilowatt-hour. Hawaiian Electric will own and operate the 80,760-panel solar facility at Joint Base Pearl Harbor-Hickam West Loch Annex.

Major Grid-scale Storage*

Hawaiian Electric, nationally recognized as a leader in energy storage, is planning two grid-scale energy storage projects using lithium-ion technology to increase reliability of the O'ahu electric grid, accept more renewable generation and further reduce fossil fuel use:

- ▶ A 20 megawatt-hour (MWh) system to support the 20 MW West Loch Solar on Joint Base Pearl Harbor-Hickam, West Loch Annex
- ▶ A 100 MWh system at Hawaiian Electric's Campbell Industrial Park Generating Station

Ongoing Projects

The following projects are also planned or under construction:

- O'ahu**
 110 MW Clearway Energy (formerly NRG) projects (solar)
 24 MW Nā Pua Makani (wind)
 20 MW West Loch Solar

- Hawai'i Island**
 22 MW Hū Honua (biomass)
 Waiau Hydro plant repowering**

- Moloka'i**
 2.7 MW with storage Moloka'i New Energy Partners (solar)



ABOVE: The Pu'u'eo (shown above) and Waiau hydroelectric plants are part of Hawai'i Island's diverse renewable resource mix.

*Subject to approval by the Hawai'i Public Utilities Commission **Pending state approvals



After the disruptive and destructive 2018 Central Pacific hurricane season, the Hawaiian Electric Companies continue work to help build more resilient communities and strengthen the electric grids.

In the context of weather events and growing concerns about climate change and cybersecurity, resilience refers to the ability to limit damage and hasten recovery. We work closely with the Hawai'i Emergency Management Agency and county agencies in developing disaster plans and practicing responses. Our relationships with other utilities, companies and contractors – both locally and nationally – are critical to help speed recovery.

We're also working with communities to ensure that families, businesses and neighborhoods are doing more to prepare themselves for emergencies, and that they know what to expect.

Lava Response

Hawai'i Electric Light's recovery effort continues following the devastating Kilauea eruption. Employees from all three companies were part of a coordinated eruption response effort led by Hawai'i County Civil Defense. Hawai'i Electric Light is rebuilding electrical infrastructure lost during the eruption, including a switching station and transmission lines to reconnect Puna Geothermal Venture to the grid. The eruption affected more than 900 Hawai'i Electric Light customers, destroying over 800 poles and about 230 transformers.

LEFT: Crews work to replace a pole in lava-ravaged Leilani Estates. The Kilauea volcano eruption displaced about 2,500 residents.

Hurricane, Storm Recovery

The tropical cyclones in 2018 arrived in rapid succession – hurricanes Hector, Lane, Norman, Olivia. The storms caused damage in several communities across our service territories, especially Maui County and Hawai'i Island. We activated our emergency response teams to ensure power was restored as safely and quickly as possible. As we experience stronger and more frequent storms, our efforts go on year-round to strengthen our electric grids and expand our storm recovery planning for greater resilience.

Mutual Assistance

Our crews traveled to Northern California to help Pacific Gas & Electric restore power in the aftermath of the Camp Fire, the deadliest wildfire in California history. The effort marked the first time the Hawaiian Electric Companies have responded to a mainland disaster as members of the Western Regional Mutual Assistance Group. Member utilities stand ready to assist us in the event of a disaster in Hawai'i.



ABOVE: Crews from the Hawaiian Electric Companies frame poles in Northern California following the deadly Camp Fire.

Strengthening Ko'olaupoko: A Community Resilience Initiative

In cooperation with emergency management, response agencies, and critical infrastructure owners, Hawaiian Electric convened an all-day forum to raise awareness of the risks and vulnerabilities of the Ko'olaupoko community in the event of a major hurricane.

Community and government leaders from the region, which encompasses Waimānalo, Kailua, Kāne'ohe, and the area from He'eia to Kualoa, heard from experts and identified Ko'olaupoko's societal, environmental and infrastructure-related strengths and vulnerabilities.

The forum was the first step in a series of meetings with Ko'olaupoko community leaders and key stakeholders as we work together on strengthening community resilience through solutions that will ensure a successful recovery.



Schofield Generating Station



Hawaiian Electric Companies' Vegetation Management in 2018

350,000+
TREES TRIMMED OR CUT DOWN
\$16.7 million+
SPENT

BELOW: Crews in Honolulu proactively upgraded 400 underground coupling devices that connect high voltage cables to lower voltage circuits. The work reduced the risk of prolonged outages for customers and danger for crews that work in manholes.

BELOW: Crews replace wooden poles with steel at Kamehame Ridge in East O'ahu.



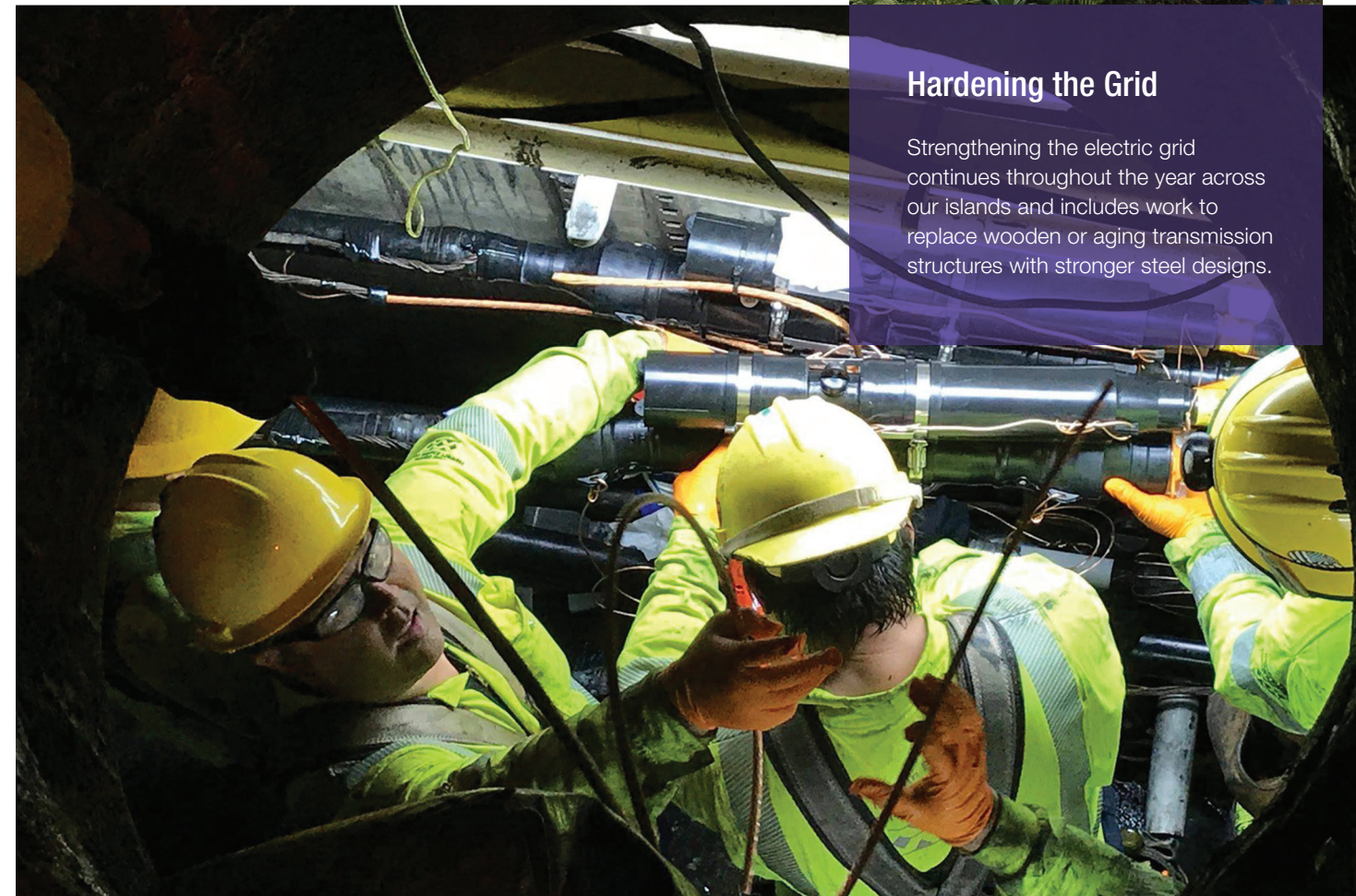
The U.S. Army and Hawaiian Electric dedicated the new, fuel-flexible, highly efficient and secure 50-megawatt plant at Schofield Barracks.

The facility is located inland, immune from storm surge, tsunami and rising sea level. The plant came online in 2018 and is designed to be a key component of recovery in an emergency that affects the O'ahu power grid, able to provide reliable power to Schofield Barracks, Wheeler Army Airfield, Kunia Field Station and parts of the surrounding Wahiawā community.



Hardening the Grid

Strengthening the electric grid continues throughout the year across our islands and includes work to replace wooden or aging transmission structures with stronger steel designs.





As the United States surpassed one million plug-in electric vehicles (EV) on the nation's highways, Hawai'i continues to lead in electrification of transportation – not just light-duty passenger vehicles, but buses and airport and harbor equipment.

With more than 8,000 EVs, Hawai'i is among the states with the highest per capita in EV adoption. It ranks second in all-important charging infrastructure nationally, according to Forbes magazine.

The Hawaiian Electric Companies' Electrification of Transportation Strategic Roadmap describes near- and long-term benefits of reducing dependence on imported fossil fuel for transportation as well as electricity. It foresees Hawai'i in 2045 with most personal, light-duty vehicles powered by electricity from solar, wind, biofuels, geothermal and other renewable resources.

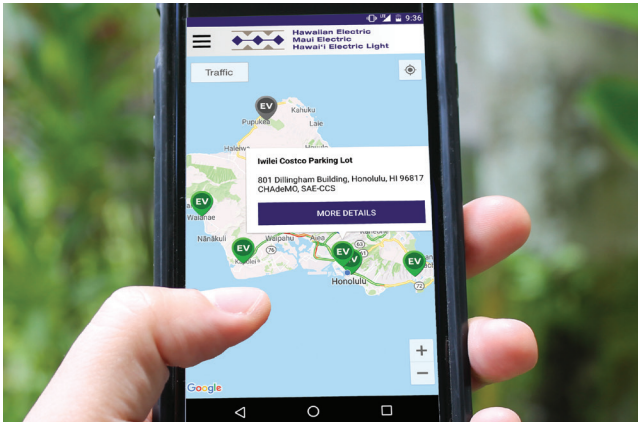
Using electricity in place of fossil fuel for transportation benefits all customers, whether they own an electric

vehicle or not. For owners, an EV means lower fuel and maintenance costs and potentially lower household energy costs, depending on when and how they charge.

Overall adoption and benefit estimates:

ESTIMATED IN 2017 DOLLARS	ESTIMATED EV ADOPTION BY 2045	TOTAL "ENERGY WALLET" (NET BENEFITS OVER 27 YEARS)
O'AHU	54%	\$291 MILLION
MAUI	59%	\$263 MILLION
HAWAII ISLAND	40%	\$161 MILLION

The Hawaiian Electric Companies' roadmap is available at www.hawaiianelectric.com/EoT.



The Hawaiian Electric mobile app for smart phones, available for free at Apple App and Google Play stores, now shows where to find the utility's EV fast charging stations across the islands we serve. An interactive map shows the type and location of nearby chargers, with driving instructions.



The Hawaiian Electric Companies have 16 fast charging stations in public locations across our service territories with plans to expand soon to Hale'iwa on O'ahu and elsewhere in Maui County and Hawai'i Island. These stations allow an EV driver to charge faster than at typical public or home charging stations.

The four counties joined Drive Electric Hawai'i (DEH), a coalition formed and led by Hawaiian Electric to promote electric transportation for a clean energy future. At an event onboard the traditional Hawaiian sailing canoe Hōkūle'a, the county mayors announced their commitment to eliminate fossil fuels from ground transportation across the state by 2045.



Nainoa Thompson, Polynesian Voyaging Society president and leading Hōkūle'a navigator (left), and mayors and representatives of Hawai'i's four counties, commit to eliminate fossil fuels from ground transportation across the state by 2045 aboard the traditional ocean-faring canoe.



Tour operator JTB Hawai'i is replacing three of its 17 diesel-powered tour buses with three electric buses manufactured by Proterra.

The move to replace fossil-fueled, combustion engine buses with cleaner, quieter, more efficient electric buses on O'ahu, Maui and Hawai'i Island got a boost from the Public Utilities Commission, which approved a 5-year pilot program offering special time-of-use rates for electric bus charging.

The commission approved new rates for a total of up to 20 bus fleet customers on three islands with lower prices that encourage charging during midday when there is abundant solar energy on the grid and overnight when electricity demand is low. It's expected at least 130 electric buses will be added to fleets during the course of the pilot, including tour buses, school buses and public transit systems.

Putting more solar to use during the day by charging vehicles – especially buses and other heavy equipment – will make more room on the grid for new private rooftop solar systems as well as numerous grid-scale renewable energy projects offering low-cost energy to every customer.

By charging at midday, bus operators will pay as much as 25 percent less than the standard rate. Higher rates during peak demand times between 5 and 10 p.m. discourage charging during those hours.

CHARGING ACROSS HAWAII

HAWAIIAN ELECTRIC COMPANIES EV CHARGING STATIONS

O'AHU	MAUI	MOLOKA'I	HAWAII ISLAND
9	1	1	5

OTHER PUBLICLY AVAILABLE EV CHARGING STATIONS (ESTIMATED)

O'AHU	MAUI	LĀNA'I	HAWAII ISLAND
350+	100+	1	50+





Our commitment to helping our communities through volunteerism, financial support and pursuing innovative initiatives plays a role in reaching our renewable energy goals.



Connecting to the 'Āina at Ka'ala Farm

Hawaiian Electric employees and their families and friends were among the 150 volunteers who joined The Trust for Public Land to open *lo'i* (taro flats) and plant *kalo* (taro) at Ka'ala Farm, the nonprofit organization focused on restoring ancient, abandoned *lo'i kalo* in an area that once served as a "poi bowl" for O'ahu.

Ranging in age from four to 74, participants included donors and volunteers from 13 local companies who took part in the communal land restoration effort.

The Trust for Public Land helped Ka'ala Farm acquire the land in 2003, ensuring permanent access and providing a land base for the farm's future growth.

Our Community Involvement in 2018

4,586
VOLUNTEERS / FRIENDS / FAMILY

3,841
POUNDS OF FOOD DONATED

943
UNITS OF BLOOD

13,395
HOURS OF SERVICE

\$1,052,650
CORPORATE DONATIONS

\$210,675
OF DONATIONS DIRECTED
TO STEM EDUCATION

Protecting Hawai'i's Native and Endangered Species

Habitat loss, invasive species and predation are real threats to Hawai'i's native and endangered species. To minimize the impact of utility operations on protected species, our Environmental Department leads a program that includes implementation of protocols, procedures and best practices, as well as employee training.

Additionally, Hawaiian Electric Companies' volunteers support nonprofit organizations dedicated to conservation efforts of threatened species.

Hawai'i Wildlife Center

In support of the Hawai'i Wildlife Center and its mission of protecting, conserving and aiding in the recovery of Hawai'i's native wildlife, employees at Hawai'i Electric Light volunteered to clear weeds and invasive plant species from the facility fence line and aviaries to help keep predators out of the bird rehabilitation areas. The 4,500-square-foot facility has recovery aviaries to condition and strengthen birds before release.



Before



After

Located in Kapa'au, the nonprofit Hawai'i Wildlife Center operates seven days a week and focuses on treating and rehabilitating native Hawaiian wildlife that are sick, oiled or injured and then releases them back into the wild.

Mālama Pūpūkea-Waimea

More than 60 Hawaiian Electric employees and their families partnered with Mālama Pūpūkea-Waimea (MPW) for their Native Hawaiian Coastal Restoration Project on O'ahu's North Shore. The effort helped reduce erosion and sedimentation at Shark's Cove, a popular snorkeling destination, while ensuring protection of the coral and marine life habitat.

In less than two hours, the volunteers placed 500 native plants into the ground and removed more than 300 pounds of invasive weeds and shrubs. They also removed 50 pounds of trash and marine debris from the shoreline.



Earth Day on the Friendly Isle

Sharing the importance of electrical safety, conservation and renewable energy, Maui Electric employees celebrated Earth Day by meeting with the Moloka'i community during several events where they engaged with more than 100 fourth graders and 500 attendees over two days.



TOP AND MIDDLE: Students at Kaunakakai Elementary and Kualapu'u Charter Schools were invited to participate in a hands-on activity to describe the ways they save energy at home.

BOTTOM: At the annual Moloka'i Earth Day at Mitchell Pau'ole Center, Maui Electric was one of many companies to take part in the family-friendly event themed, "Pae 'Āina O Hawai'i", collectively taking care of Hawai'i" in homage to the Polynesian Voyaging Society and Hōkūle'a post-worldwide voyage.



Mālama Mānoa

About 40 Hawaiian Electric employees and their families joined with the nonprofit Kumuola Foundation for a community workday to revitalize Lua 'Alaea, a living, learning cultural farm located deep in Mānoa Valley. In addition to pulling out invasive weeds from a lo'i, volunteers removed vines from gardenia and ti leaf plants, and cleared root areas of the 'awa (kava) plants to make way for new plantings and support Kumuola's efforts to expand sustainable farming.

Mālama Honokea

To restore the health of a traditional Hawaiian loko i'a (fishpond), more than a dozen employees from Hawai'i Electric Light joined with the nonprofit Hui Ho'olei Maluō on a community workday at Honokea Loko in Waiuli removing rocks that blocked water from flowing through the canal and mākāhā (sluice gate). Water circulation is essential to sustain the ecological balance of the loko i'a and a clear mākāhā creates a pathway for native fish and limu (seaweed).

Volunteers removed about three feet of rocks that had piled up on the black sand bottom during a winter storm. Honokea Loko is one of several restored fish ponds across the state that demonstrates the innovation of ancestral Hawaiians in resource management and the potential of this specific resource for sustainability and food security in modern times, if properly stewarded.



Spotlight on Waimānalo

Located on the eastern end of O'ahu in the Ko'olaupoko district, Waimānalo is a tight-knit rural community featuring small businesses, agricultural lands and a stunning three-mile stretch of white-sand beach.

At the annual **Parade of Farms**, a behind-the-scenes tour of local farms and agribusinesses, about 40 Hawaiian Electric employees and their families volunteered their day to provide assistance for the event, which highlighted the agricultural community in Waimānalo. A storm in April caused flood damage to many of the farms on the guided tours, but did not dampen spirits as participating organizations carried on with an info fair, farmer's market, keiki activities and more.



Hawaiian Electric employees and their families assisted with a variety of tasks including set-up/breakdown of tents, registering and greeting guests, directing parking, handling merchandise and collecting surveys.

The Parade of Farms, sponsored in part by the Hawaiian Electric Industries Charitable Foundation, was hosted by the **O'ahu Resource Conservation & Development Council** to cultivate community by connecting local agriculture, communities, guests and visitors.

More than two dozen Hawaiian Electric employees and their families supported the **Waimānalo Canoe Club** during its annual Regatta at Waimānalo Beach in June. The event brought in hundreds of paddlers and their families to the Waimānalo community for a festive day of canoe races, live music, entertainment, food, and arts and crafts.

“Many organizations come in and want to ‘part’-ner with the Waimānalo community, but I like that Hawaiian Electric wants to be ‘part’-of the community.”

SCOTTY REIS-MONIZ, HE WA'A HE KANAKA



Photo: Scotty Reis-Moniz

A small group of Hawaiian Electric volunteers were among a special gathering of leaders and volunteers from the Waimānalo community who took part in an effort to rebuild the walls of **Pāhonu Ponds**, an early Hawaiian rock-walled fish pond near Kaiona Beach Park. The project promoted civic stewardship while demonstrating community collaboration, pride and connection to a historic and cultural resource in Waimānalo that deserves preservation and protection.



It was beginning to feel a lot like Christmas as Hawaiian Electric's holiday float, featuring a decorated reindeer stable, took part in the annual Waimānalo Christmas Parade along Kalaniana'ole Highway to Waimānalo Beach Park. Hawaiian Electric employees and their families and friends were among the hundreds of parade participants to share the aloha spirit of the season.

Hawaiian Electric and its subsidiaries, Maui Electric and Hawai'i Electric Light, are participating in the Edison Electric Institute's (EEI) Environmental, Social, Governance/Sustainability (ESG) reporting initiative. We are among EEI member companies voluntarily disclosing ESG information through a reporting template developed by EEI, which has been modified to reflect the specific activities of Hawaiian Electric and its subsidiaries. Hawaiian Electric shares in the goals of the ESG initiative to provide customers, stakeholders and investors with relevant and easily accessible information. Unless otherwise noted, data reported here applies only to utility-owned resources and activities and does not include independent power producers or affiliates of Hawaiian Electric Industries, Inc.

METRICS	BASELINE 2010 ACTUAL	2015 ACTUAL	2016 ACTUAL	LAST YR 2017 ACTUAL	CURRENT YR 2018 PRELIMINARY
UTILITY PORTFOLIO					
Total Available Nameplate Generation Capacity at end of year (MW)					
Coal	0	0	0	0	0
Natural Gas	0	0	0	0	0
Nuclear	0	0	0	0	0
Petroleum	1,689	1,569	1,569	1,569	6/30/19¹
Biodiesel	113	113	113	123	6/30/19¹
Total Renewable Energy Resources					
Biomass/Biogas	0	0	0	0	0
Geothermal	0	0	0	0	0
Hydroelectric	4	4	4	4	6/30/19¹
Solar	0	0	0	0	0
Wind	0	0	0	0	0
Battery Storage	0	0	0	3	6/30/19¹
Net Generation for the data year (MWh)					
Coal	0	0	0	0	0
Natural Gas	0	0	0	0	0
Nuclear	0	0	0	0	0
Petroleum	5,980,877	5,051,862	4,888,318	4,824,178	4,467,985
Biodiesel	1,615	52,424	37,490	54,841	52,691
Total Renewable Energy Resources					
Biomass/Biogas	0	0	0	0	0
Geothermal	0	0	0	0	0
Hydroelectric	16,719	21,736	16,841	9,786	19,639
Solar	0	0	0	0	0
Wind	0	0	0	0	0
Battery Storage	0	0	0	0	0
Investing in the Future: Capital Expenditures					
Total Annual Capital Expenditures (nominal dollars)		\$319M	\$318M	\$401M	\$411M
Cumulative Investment in EE Programs* (nominal dollars, at end of year)		0	0	0	0
Retail Customer Count (at end of year)					
Commercial	54,374	54,878	55,089	53,732	54,075
Industrial	548	659	670	656	696
Residential	388,307	400,655	402,818	406,241	407,505

¹Data to be available

*Since 2009, energy efficiency programs have been provided by a third-party administrator hired by the Public Utilities Commission, rather than by the utility

METRICS	BASELINE 2010 ACTUAL	2015 ACTUAL	2016 ACTUAL	LAST YR 2017 ACTUAL	CURRENT YR 2018 PRELIMINARY
EMISSIONS					
GHG Emissions: Carbon Dioxide Equivalent (CO2e)					
Owned Generation					
Carbon Dioxide Equivalent (CO2e)					
Total Owned Generation CO2e Emissions (MT) (As reported to EPA under the Mandatory Greenhouse Gas Reporting Program)	4,900,288	4,064,672	3,933,791	3,918,962	3,975,006¹
Percent reduction from baseline		-17.10%	-19.70%	-20.00%	-18.9%
Non-Generation CO2e Emissions					
Fugitive CO2e Emissions of sulfur hexafluoride (MT)		5,677	1,943	3,003	3,550
Nitrogen Oxide (NOx)					
Total NOx Emissions reported in short tons (equivalent to 2,000 lbs)	17,890	15,190	13,438	13,209	13,029
Sulfur Dioxide (SO2)					
Total SO2 Emissions reported in short tons (equivalent to 2,000 lbs)	14,420	13,392	13,861	12,971	10,868
Mercury (Hg)					
Total Hg Emissions (Reported in lbs)	29	15.7	15.6	15.7	5/31/19²
RESOURCES					
Human Resources					
Total Number of Employees - Hawaiian Electric, Maui Electric, Hawai'i Electric Light (Full-Time Equivalent)		2,727	2,662	2,727	2,703
Total Women in Workforce		786	770	797	802
Total Women on Board of Directors/Trustees**		2 of 9	2 of 9	2 of 9	2 of 9
Total Minorities in Workforce		2,394	2,350	2,414	2,388
Total Minorities on Board of Directors/Trustees**		5 of 9	5 of 9	5 of 9	5 of 9
Employee Safety Metrics					
Total Case Incident Rate (TCIR)		2.19	1.67	1.84	1.45
Lost-time Severity		41.20	35.28	30.50	32.71
Days Away, Restricted, and Transfer (DART) Rate		1.36	1.15	1.21	1.05
Work-related Fatalities		0	0	0	1
Fresh Water Resources					
Water Withdrawals - Consumptive (millions of gallons/MWh)		0	0	0	0
Water Withdrawals - Non-consumptive (millions of gallons/MWh)		0.18	0.14	0.15	0.18
Waste Products					
Hazardous Waste Disposal (reported in pounds)			17,180	17,864	9,804
Non-hazardous Municipal Solid Waste Diversion*** (provided in percentages)		73.2%	65.6%	66.6%	57.4%
Recycled Oil (reported in gallons)					
			125,316	154,371	170,792

¹Shutdown of Puna Geothermal Venture, among other factors, contributed to increase

²Data to be available

**Refers to directors of Hawaiian Electric Industries, the parent company of Hawaiian Electric

***Includes solid waste delivered to H-Power facility for conversion to power

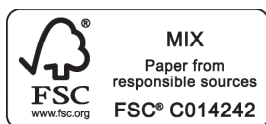
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