



2023 Sustainability Report

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About this Report

This is HEI’s fifth consolidated Sustainability Report. This report is designed to help investors, customers, employees and other stakeholders understand our performance in key sustainability-related areas.

This report was prepared in accordance with Sustainability Accounting Standards Board (SASB) and Edison Electric Institute (EEI) guidance. This report primarily includes disclosures related to our utility, Hawaiian Electric. Our bank subsidiary, American Savings Bank (ASB), publishes a separate Impact Report that can be found [here](#). ASB’s SASB-aligned Environmental, Social and Governance (ESG) Report can be found [here](#). In March 2023, HEI also published a separate report aligned with Task Force on Climate-Related Financial Disclosures (TCFD) recommendations that can be found [here](#).

This report should be read in conjunction with our Securities and Exchange Commission (SEC) filings (including our 2023 Annual Report on Form 10-K), as well as certain presentations, documents and other information that may be of interest to investors, all of which are available at www.hei.com.

Note: This report covers information we have determined to be important from a sustainability reporting perspective, which is distinct from the materiality standard used for purposes of our financial disclosures. For additional information regarding HEI, please see our filings with the SEC.

Cultivating Resilience

Aloha kākou, greetings everyone.

Hawai‘i is unique in many ways, including its culture, which has been forged through a history of hardship, isolation, collaboration and perseverance.

As people living and working on islands, we’re reminded daily about our intricate interdependence and the delicate balance we must maintain to survive, grow and provide for future generations.

Climate change affects all life on Earth, but its impact on island communities is especially severe, and requires an intense focus on resilience. While the Maui wildfires in 2023 have been among the most difficult challenges in our state’s history, we emerge from them hopeful in our community’s ability to collectively navigate the path ahead. HEI and our family of companies, together with local communities, businesses, nonprofits and county, state and federal agencies, have made important progress to help our community respond to immense human, environmental, cultural and economic loss.

As providers of critical infrastructure and services, HEI plays an essential role in addressing the risks of climate change. This means increasing resilience while decarbonizing our systems; improving economic health and affordability, which includes affordable housing and an equitable energy transition; and strengthening the abilities and sense of belonging of employees across our businesses. Our board of directors, our customers, partners and suppliers, and all of our employees are vital players in our collective work to address these challenges.

Our utility, **Hawaiian Electric**, contributes to this effort by enhancing the resilience of our energy system against the impacts of climate change while advancing the decarbonization of Hawai‘i’s electricity and ground transportation sectors, diversifying resources and supporting energy independence. In January 2024, the Public Utilities Commission approved Hawaiian Electric’s \$190 million Climate Adaptation Transmission and Distribution Resilience Program, which will help defend against the increasing threat of wildfires and will harden our five island grids against severe weather-related events. Roughly half of the funding for this program will be granted under the federal Infrastructure Investment and Jobs Act (IIJA). And our Wildfire Safety Strategy, initiated in 2019, will be updated continually to ensure that we are well-prepared to address elevated risks. A summary is included in this report.

Renewable sources accounted for a full third of the electricity generated on the five islands served by Hawaiian Electric in 2023. Several major solar and storage projects came online to support grid stability and resilience, including one of the world’s most advanced battery systems, the Kapolei Energy Storage facility on O‘ahu, which provides 185 megawatts of total power capacity and 565-megawatt hours of energy. Thanks to these investments, Hawaiian Electric’s consolidated renewable portfolio standard (RPS) is now 33.3%. Although the company now expects to achieve a 70% reduction in GHG emissions from power generation later than the 2030 target date initially set in our Climate Change Action Plan, we remain on track to exceed Hawai‘i’s statutory goal of 40% RPS by 2030. Over time, these and other projects are designed to help strengthen resilience, reliability and cost stability for customers while bringing our state closer to its ambitious climate change mitigation goals.

Our bank, **American Savings Bank**, is well positioned to support our community with a strong capital position, excellent credit quality, lending capacity and ample liquidity. ASB acted quickly in the aftermath of the Maui wildfires to help impacted customers with a range of loan accommodations and other services. ASB donated approximately \$135,000 to relief efforts and is providing strategic support to help Maui rebuild through its participation on the Maui Economic Recovery Commission. These actions align with ASB’s goals to improve economic development, affordability and environmentally sustainable operations.

Our hope for the future is underpinned by *laulima* – literally, many hands working together. Working in collaboration with others who share our view of the importance of resilience and sustainability, we can overcome even the most daunting challenges of our time – for Maui, for Hawai‘i, and for future generations throughout the world.

Me ke aloha pumehana — with warm regards,



Scott Seu

President and Chief Executive Officer



Adm. Thomas Fargo

Chair, Board of Directors

Our Common Purpose

We dedicate ourselves to a better Hawai‘i — one that is thriving economically, environmentally, culturally and socially — where all in our community enjoy an abundance of resources and opportunities that enable them to achieve their hopes and dreams.

Our collective impact is amplified by the talent, innovation and commitment of employees working together across our family of companies and with partners throughout Hawai‘i.

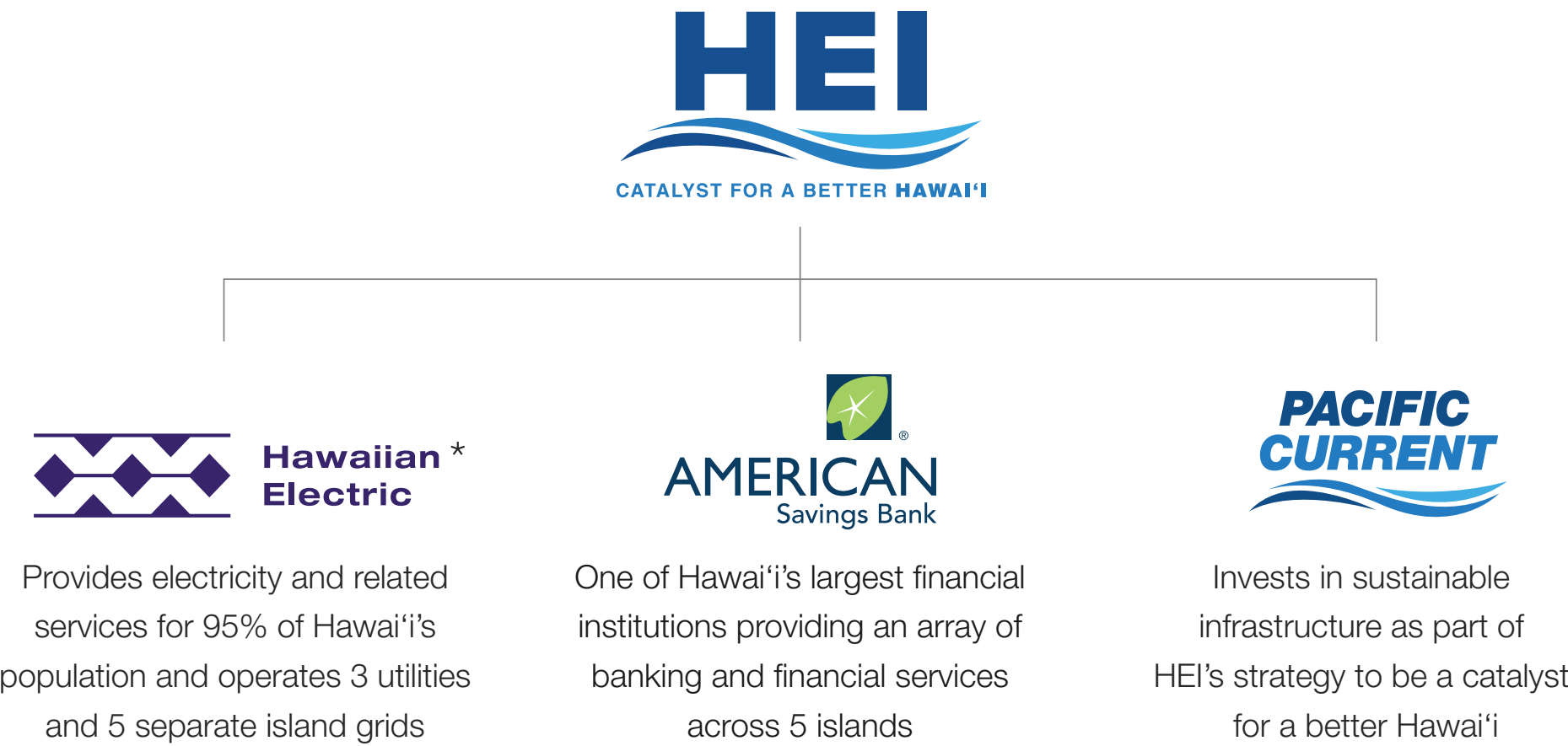
We will navigate a path toward a resilient and sustainable future, rooted in aloha for one another, respect for our lands and integrity and humility in our leadership.

Following the tragic Maui wildfires in 2023, this common purpose continues to guide our work to support Maui’s recovery, further strengthen our utility grids and our wildfire mitigation program, and ensure we have the financial strength to continue serving our customers and communities for the long term.















Our Companies

HEI is the parent company of three subsidiaries delivering essential services and advancing a more sustainable Hawai‘i.



2023 Highlights

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 - Message from Our CEO & Chair
 - Our Companies**
 - Wildfire Safety Strategy
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HEI	HAWAIIAN ELECTRIC		AMERICAN SAVINGS BANK
 \$4 Million Donated by HEI Charitable Foundation and HEI Companies in 2023	 33.3% 2023 Renewable Portfolio Standard (% of Generation)	 99.97% Reliability (Average Service Availability in 2023)	 #1 Best Place to Work for LGBTQ+ Equality and Most Family-Friendly Company (Source: Hawaii Business Magazine)
 \$650,000 Donated by HEI Employees (Enterprise Wide)	 77% Customers Upgraded to Advanced Meters by the End of 2023	 -26% Reduction in GHG Emissions from Generation (vs. 2005 Base Year) Based on Preliminary 2023 Data**	 3 Workforce Housing Loan Programs Launched in 2023
 20,000 Volunteer Hours by HEI Employees (Enterprise Wide)	 +31.5% Growth in Electric Vehicles in Hawaiian Electric’s Service Territory (from January to December 2023)	 40% Single-family Homes with Rooftop Solar	 28 Statewide Low-Income Housing Project Investments

*Hawaiian Electric Company, Inc. is a subsidiary of HEI. As a holding company, HEI does not sell products or services and therefore is not regulated by the state Public Utilities Commission. **Includes whole system generation stack emissions (including third-party independent power producers).



Hawaiian Electric’s Wildfire Safety Strategy

The safety of our customers, employees and the communities we serve is our highest priority. Hawaiian Electric first began developing its Wildfire Safety Strategy in 2019 and continues to adapt it to address the elevated risks in Hawai‘i.

Our three-phase strategy outlined below offers an effective framework in further reducing the risk of wildfires.

Key Takeaways

- Wildfires are among many extreme weather-related events that are an increasing risk nationally and in Hawai‘i.
- We are expanding our Wildfire Safety Strategy to immediately help reduce the risk of wildfires in areas experiencing extended droughts.
- \$190M grid resilience plan is first phase of program to harden against wildfires and hurricanes (50% paid by federal government, 50% by customers)
- We are working with emergency management agencies and communities to develop and implement long-term actions, including use of Public Safety Power Shutoffs as a last resort, if they can be done safely.

For more information please see **Hawaiian Electric’s Wildfire Safety** page [here](#) ➔

Phase 1

Immediate actions, including:

- Circuit breakers will open faster and shut off power more quickly if a disruption is detected
- Lines will remain deenergized and not be allowed to reclose to restore power until it is safe to energize
- Fault current indicators will be used to reduce reliability impacts
- In the event of red flag warnings issued by the National Weather Service, which indicate a combination of warm temperatures, low humidity and strong, sustained winds, we will deploy spotters to strategic locations in risk areas to watch for ignition (over time, more sensors, weather stations and infrared cameras are intended to replace the need for this resource-intensive program)

Phase 2

Ongoing work to harden the grid, including:

- Expanding inspections of poles and lines, using helicopters, drones, infrared and ground inspection
- Addressing sag and tension in lines and adding spacers to reduce the potential for sparking
- Replacing smaller single-strand copper, which can become brittle over time, with aluminum wire or covered conductor in some areas
- Reconfiguring lines to minimize potential for touching and causing sparks in high winds
- Replacing wood poles with steel poles in some areas
- Continuing vegetation management efforts adjacent to power lines
- Deploying more fault current indicators, to more quickly identify the location of faults
- Using smart reclosers
- Using sparkless fuses
- Installing cameras and weather sensors in critical areas

Phase 3

Longer-term tools, which are expected to include:

- Providing more precision in wildfire-focused weather forecasting and risk-modeling
- Undergrounding power lines in strategic at-risk areas
- Expanding use of covered power lines, fast-acting fuses and fire-resistant poles and equipment
- Seeking support for expanded hazard tree removal, wider rights-of-way, and rights of access for clearing vegetation that threatens equipment
- Continuing collaboration with fire departments and emergency management agencies to refine the overall strategy
- Seeking more federal funding for wildfire defense programs

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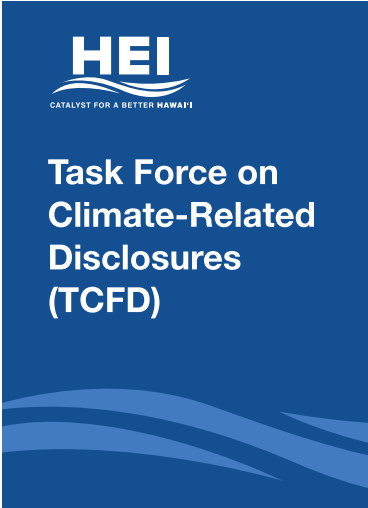
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Additional Sustainability-Related Reports

In addition to the content included in this report, HEI provides other sustainability-related disclosures including:



American Savings Bank (ASB)
HEI operating company ASB publishes its own standalone Impact Report and ESG Report, which includes disclosures aligned with the Sustainability Accounting Standards Board (SASB) standards for the Commercial Banks, Mortgage Finance, and Consumer Finance industries. ASB's 2023 Impact Report can be found [here](#), and its 2023 ESG Report can be found [here](#).



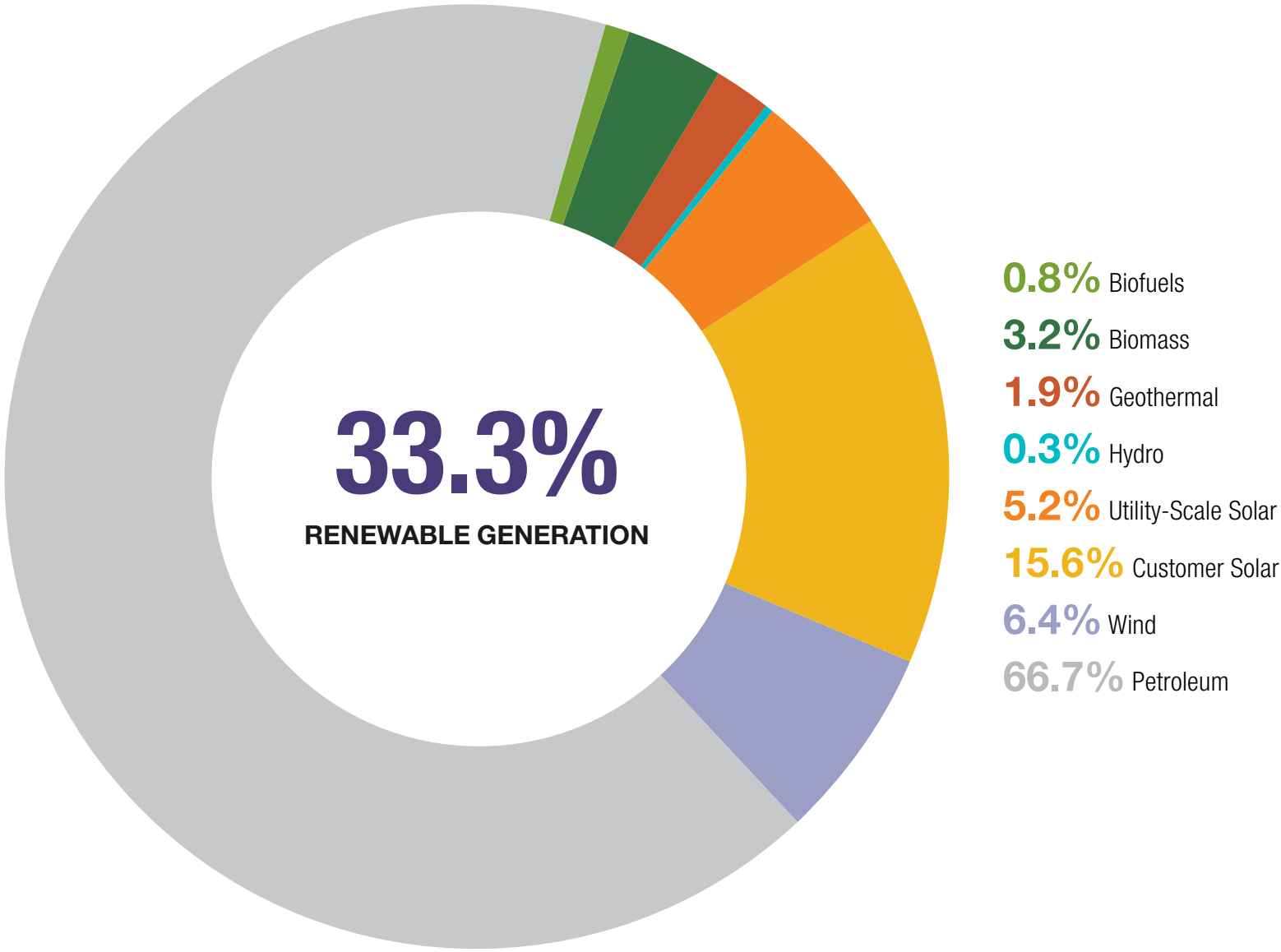
Task Force on Climate-Related Disclosures (TCFD)
HEI's most recent TCFD-aligned disclosure was published in March 2023 and can be found [here](#).

- For more information on
- **Governance processes and incentive compensation metrics:** see HEI's latest Proxy Statement available [here](#).
 - **Risk considerations and consolidated employee demographics:** see HEI's latest Form 10-K available [here](#).
 - **Priority sustainability areas and alignment with UN Sustainable Development Goals:** see March 2023 Priority Assessment available [here](#).
 - **Political engagement policy and disclosures:** see March 2023 Political Engagement Policy available [here](#).



Generation Mix

2023 Total System Generation Mix



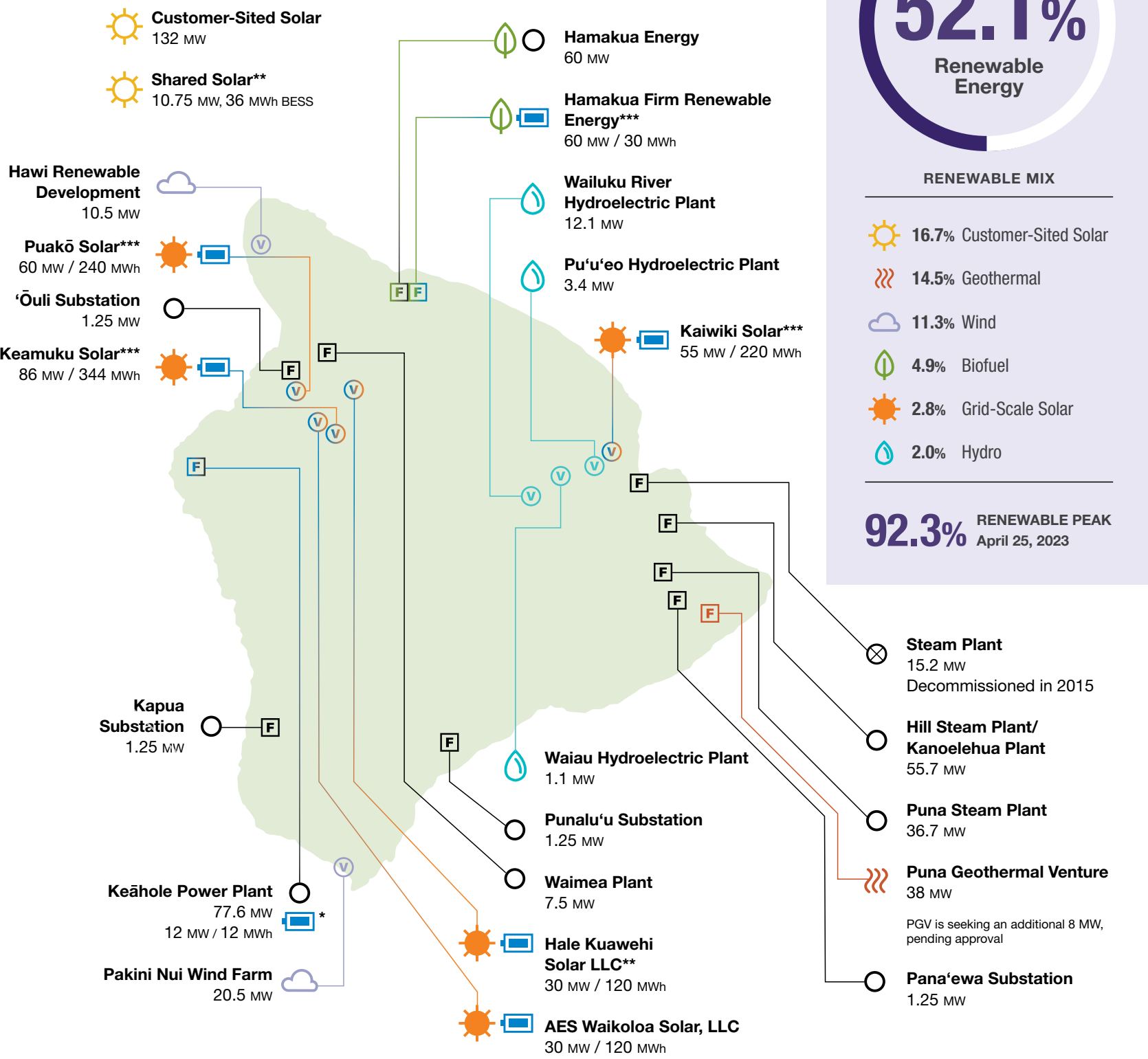
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Hawai‘i Island



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.

- BIOFUELS
- BIOMASS
- GEOTHERMAL
- HYDRO
- CUSTOMER-SITED SOLAR
- GRID-SCALE SOLAR
- BATTERY ENERGY STORAGE SYSTEM
- WASTE TO ENERGY
- WIND
- COAL
- OIL
- OIL (DEACTIVATED or DECOMMISSIONED)

*Awaiting approval **In progress ***In negotiation



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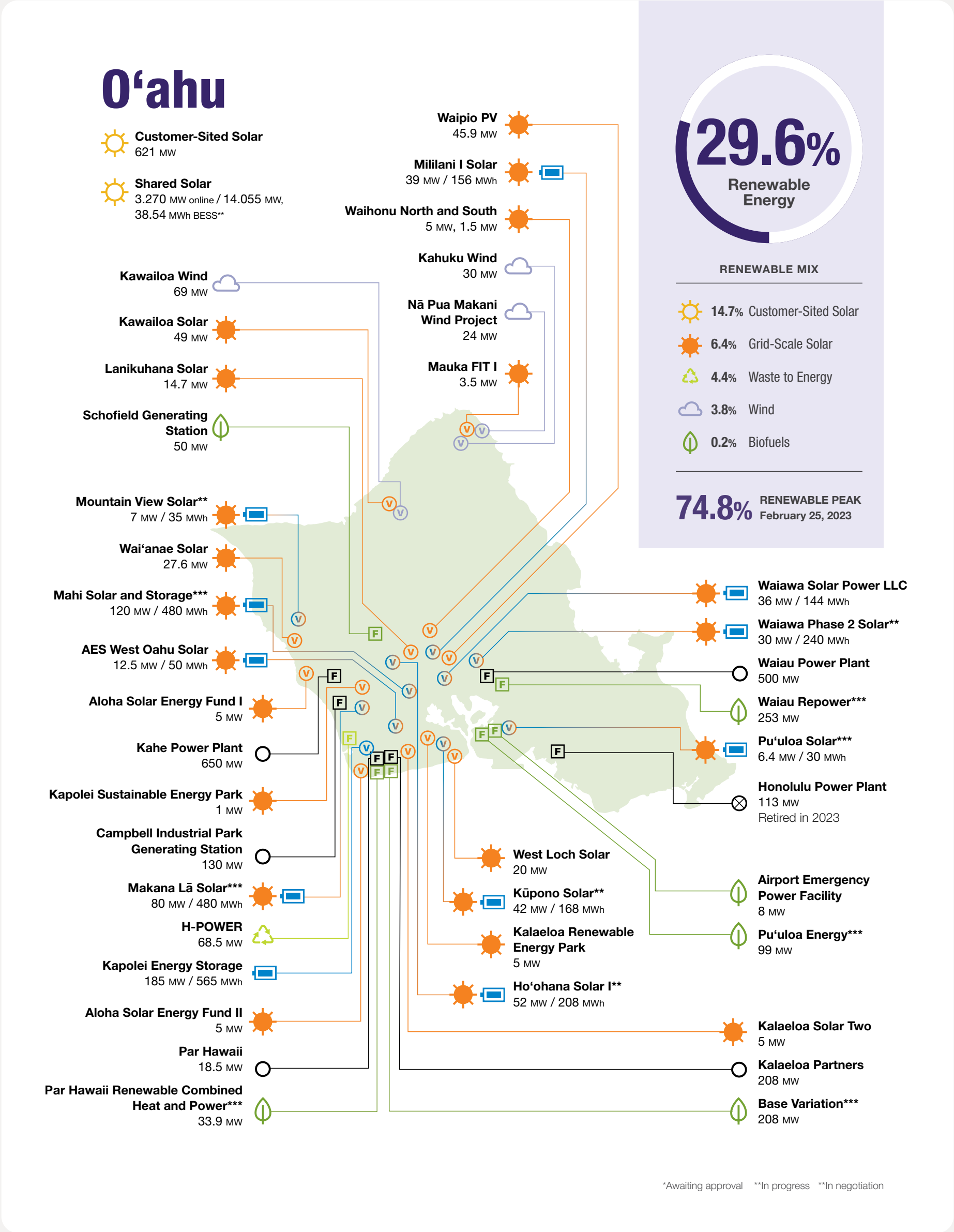
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Sustainability Data

Greenhouse Gas (GHG) emissions inventory

The following pages include a summary of our consolidated enterprise inventory and each entity's historical GHG emissions inventory and components. Please see Appendix — GHG Inventory Methodology for notes on methodologies and emissions factors used in developing the inventory.

We have chosen to display both (a) a consolidated view of our inventory to show our combined footprint and (b) GHG inventories by major subsidiary to reflect categories and sources specific to each operating business, which is where the sources can be most impacted by company actions. With respect to the consolidated inventory, please note that since all of our companies operate in Hawai'i and one of those companies is an electric utility, enterprise-wide emissions will not exactly equal a sum of the emissions from each entity. For example, for ASB and the HEI holding company, Scope 2 purchased electricity emissions largely represent electricity these entities purchase from our utility and are thus already reflected in our utility Scope 1 and 3 generation emissions.

Similarly, we have not included Pacific Current because its Scope 1 owned generation largely represents energy that it generates at its Hamakua Energy facility and sells to Hawaiian Electric for resale on Hawai'i Island; thus it is counted in the utility's Scope 3 purchased electricity for resale category. Pacific Current's employee-related Scope 3 emissions are also minimal, and were estimated as less than 70 MT CO₂e in 2022.

-26%

Decrease in GHG emissions from electric generation from 2005 to 2023

Note: All figures should be considered preliminary and subject to future verification. Detailed GHG methodology and assumptions are available on [page 19](#). Biogenic CO₂ emissions from biofuel combustion are considered carbon neutral. They are calculated and shown on [page 8](#) but not included in utility emissions totals, in line with the GHG Protocol guidance.

Climate Change Action Plan

In 2021, Hawaiian Electric set an aggressive goal to cut carbon emissions from power generation by 70% by 2030, compared with 2005 levels. The emissions covered by this goal include stack emissions from generation owned by Hawaiian Electric and independent power producers (IPPs) who sell electricity to the utility. In addition, the utility has committed to achieving net zero carbon emissions from power generation by 2045 or sooner.

Since the time the 2030 goal was established, delays and cancellations in the commercial operation of new renewable third-party generation resources and higher costs as a result of supply chain disruptions and inflationary pressures, as well as federal policies related to solar panel imports have slowed the pace of progress toward reducing GHG emissions.

The downgrade of Hawaiian Electric's credit ratings after the Maui windstorm and wildfires is anticipated to be an additional impediment to completion of new renewable energy and storage projects. As a result of these challenges, Hawaiian Electric expects the planned 70% reduction in carbon emissions to be achieved later than the original 2030 target date. However, the utility will continue to replace significant amounts of fossil fuel generation with renewable energy between now and 2030 and expect to meet or exceed the State of Hawai'i's RPS goals.

As noted above, the utility's structure (vertically integrated with no access to wholesale electricity markets) means that its Scope 2 electricity use emissions are already reflected in its Scope 1 and 3 generation emissions. The utility's generation emissions are also inclusive of transmission and distribution (T&D) losses, reflecting the electricity that is consumed/lost in a T&D system. While utilities sometimes report independent power producer (IPP) T&D losses as Scope 2 emissions, the utility has categorized these IPP T&D losses as Scope 3 to remain consistent with its other IPP-related public reporting.

As of 2023, the utility's preliminary GHG emissions from electric generation represented a 26% reduction from its Climate Change Action Plan 2005 baseline. The utility maintains a publicly available, online GHG emissions scorecard to report annual emissions from sources that supply electricity to our grids.

Hawai'i Pathways to Net Zero

In 2023, Hawaiian Electric commissioned a study of long-term economywide decarbonization scenarios for Hawai'i; for more detail, please see [Hawai'i Pathways to Net Zero](#).

Renewable Project Status Board

For an updated look at our clean energy progress, please see Hawaiian Electric's [Renewable Project Status Board](#).



HEI Enterprise-Wide GHG Emissions (MT CO₂e)

	2015 (BASE YEAR)			2021			2022			2023		
	SCOPE 1	SCOPE 2	SCOPE 3	SCOPE 1	SCOPE 2	SCOPE 3	SCOPE 1	SCOPE 2	SCOPE 3	SCOPE 1	SCOPE 2	SCOPE 3
Hawaiian Electric ¹	4,098,096	–	3,872,166	3,690,345	–	3,121,060	4,109,983	–	2,792,753	4,418,695	–	2,229,711
Stationary Combustion	4,086,070			3,680,136			4,092,365			4,407,204		
Mobile Combustion	6,007			4,619			4,556			5,098		
SF ₆ Fugitives ²	6,019			5,591			13,062			6,393		
Purchased Electricity for Resale ³			3,012,770			2,337,351			1,920,392			1,297,365
Not included in totals: Biogenic CO ₂ ⁴	68,557		434,257	17,163		495,410	12,028		453,884	13,176		419,526
Upstream Stationary Fuel			851,884			780,298			867,730			926,499
Upstream Mobile Fuel			1,462			1,064			1,386			1,621
Business Travel			1,534			347			871			1,494
Employee Commuting			4,515			2,000			2,375			2,732
American Savings Bank	49	5,053	2,158	120	4,132	1,899	120	4,046	1,747	121	3,987	1,814
Mobile Combustion	–			2			3			4		
Fugitives ⁵	49	25		118	18		117	17		117	15	
Purchased Electricity		5,028			4,114			4,029			3,972	
Business Travel			200			33			129			316
Employee Commuting			1,958			1,867			1,618			1,498
HEI Holding Company	–	501	201	–	223	38	–	221	99	–	99	125
Fugitives ⁵		2			1			2			2	
Purchased Electricity		499			222			219			97	
Business Travel			135			31			77			100
Employee Commuting			66			7			22			25
CONSOLIDATED ENTERPRISE												
Gross Enterprise-Wide Emissions	4,098,145	5,554	3,874,525	3,690,465	4,356	3,122,998	4,110,104	4,267	2,794,600	4,418,816	4,086	2,231,650
Enterprise-Wide Adjustments ⁶	–	(5,457)	–	–	(4,275)	–	–	(4,194)	–	–	(4,009)	–
Net Enterprise-Wide Emissions (by Scope)	4,098,145	98	3,874,525	3,690,465	81	3,122,998	4,110,104	74	2,794,600	4,418,816	77	2,231,650
Net Enterprise-Wide Emissions (all Scopes)	7,972,768			6,813,544			6,904,777			6,650,542		

Trends impacting 2023 emissions

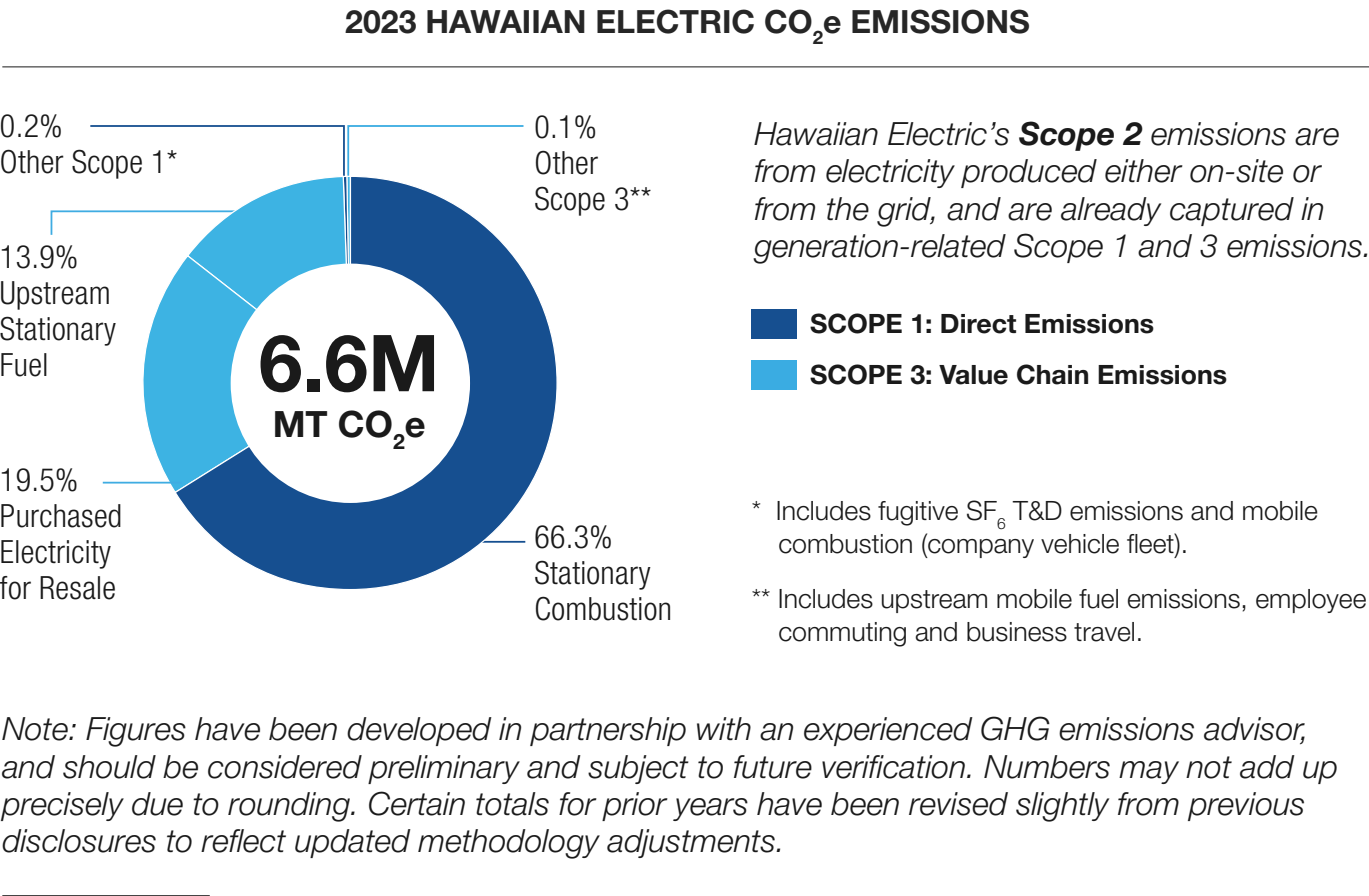
↓ Lower Scope 3 utility generation emissions from ending the use of coal at a third-party power plant

↓ Lower SF₆ emissions

↑ Higher Scope 1 utility generation emissions from increased output of company-owned fossil fuel generation

↑ Higher Scope 3 upstream fuel emissions from increased output of company-owned fossil fuel generation

GHG EMISSION SCOPES		
SCOPE 1	Direct emissions , including: Company-owned generation Company vehicle fleet Fugitive emissions from company operations	Evaluated for all entities. Utility generation represents nearly the entirety of Scope 1 enterprise emissions.
SCOPE 2	Indirect emissions , primarily: Purchased electricity for use in own operations Fugitive emissions from HVAC units in leased facilities	Evaluated for all entities. Utility electricity is generated directly from company-owned power plants or from the grid. As the utility is vertically integrated and does not access wholesale markets, its Scope 2 emissions are already fully accounted for in its Scope 1 and 3 generation emissions.
SCOPE 3	Value chain emissions , including: Purchased electricity for resale Upstream emissions from purchased fuel-related activities, such as extraction and production Business travel and employee commuting	Evaluated for the utility, as its Scope 3 emissions are significant and include generation-related categories. This year, we've built upon our initial inventory by adding coverage of selected Scope 3 categories for non-utility subsidiaries.



SASB Index

Hawaiian Electric

SASB Index: Electric Utilities and Power Generators Standard

Activity Metrics

Number of: (1) residential, (2) commercial, and (3) industrial customers served						IF-EU-000.A
NUMBER OF ACCOUNTS AT YEAR END						
Accounts	2019	2020	2021	2022	2023	
Residential	409,689	412,484	414,713	413,744	416,072	
Commercial	55,077	54,861	55,201	55,228	54,831	
Industrial	700	694	698	696	702	
Total	465,466	468,039	470,612	469,668	471,605	

Total electricity delivered to: (1) residential, (2) commercial, (3) industrial, (4) all other retail customers, and (5) wholesale customers¹						IF-EU-000.B
ANNUAL NET ENERGY PROVIDED (MWh)						
Accounts	2019	2020	2021	2022	2023	
Residential	2,439,300	2,525,400	2,491,600	2,415,200	2,342,100	
Commercial	2,833,500	2,476,800	2,595,200	2,643,100	2,611,100	
Industrial	3,467,200	3,118,000	3,174,300	3,295,700	3,273,500	
Total	8,740,000	8,120,200	8,261,100	8,354,000	8,226,700	

Length of transmission and distribution lines²				IF-EU-000.C
Service Territory	Line Classification	Total (miles)	Total (kilometers)	
O’ahu	Transmission	786	1,265	
	Distribution	2,549	4,102	
Maui County	Transmission	251	404	
	Distribution	1,131	1,820	
Hawai’i Island	Transmission	604	972	
	Distribution	1,866	3,003	
Total	Transmission	1,641	2,641	
	Distribution	5,546	8,925	

1 All customer categories are covered by (1), (2) and (3).

2 T&D line lengths are the three-phase equivalent length and have been updated as of 2023.

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GHG Emissions Inventory

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Total electricity generated, percentage by major energy source, percentage in regulated markets						IF-EU-000.D
TOTAL SYSTEM GENERATION — BY SOURCE¹, ²						
	2021		2022		2023	
	MWh	%	MWh	%	MWh	%
CONVENTIONAL						
Coal	1,105,070	10.97%	665,589	6.47%	0	0.00%
Natural Gas	0	0.00%	0	0.00%	0	0.00%
Nuclear	0	0.00%	0	0.00%	0	0.00%
Petroleum	5,793,779	57.52%	6,350,933	61.75%	6,797,126	66.71%
Total Conventional	6,898,849	68.5%	7,016,522	68.2%	6,797,126	66.7%
RENEWABLE						
Biomass / Biogas						
Biodiesel	71,780	0.71%	63,114	0.61%	82,844	0.81%
Waste-to-energy (biomass)	366,365	3.64%	370,668	3.60%	327,545	3.21%
Geothermal	183,391	1.82%	208,346	2.03%	192,587	1.89%
Hydroelectric	43,050	0.43%	27,409	0.27%	26,557	0.26%
Solar						
Utility-Scale	390,353	3.88%	450,769	4.38%	528,449	5.19%
Customer-sited	1,418,036	14.08%	1,522,444	14.80%	1,585,545	15.56%
Wind	701,124	6.96%	625,916	6.09%	648,502	6.36%
Other	0	0.00%	0	0.00%	0	0.00%
Total Renewable	3,174,100	31.5%	3,268,667	31.8%	3,392,029	33.3%
Total MWh generated	10,072,948		10,285,189		10,189,155	

All of the electricity generation listed above is in a regulated market. 2023 figures reflect the closure of Hawai’i’s last remaining coal plant (IPP-owned) in late 2022.

Total wholesale electricity purchased	IF-EU-000.E
This metric is not applicable to Hawai’i, as Hawai’i does not have a wholesale electricity market. Hawaiian Electric purchases energy directly from independent power producers (IPPs). The information regarding the amount of MWh purchased from IPPs can be found in footnote 2 to table IF-EU-000.D (see below).	

1 Minor methodology differences regarding renewable components of certain generators and timing of underlying reporting account for differences between the SASB and EEI ESG reported metrics and the Form 10-K.

2023 MWh GENERATED BY SOURCE AND OWNER				
	Utility-Owned	IPP-Owned	Total MWh	Total %
Oil	5,279,281	1,517,845	6,797,126	66.71%
Coal	0	0	0	0.00%
Biomass	0	327,545	327,545	3.21%
Geothermal	0	192,587	192,587	1.89%
PV and Solar Thermal	40,308	488,141	528,449	5.19%
Hydro	5,496	21,061	26,557	0.26%
Wind	0	648,502	648,502	6.36%
Biofuels	17,934	64,910	82,844	0.81%
Customer-Sited Grid-Connected			1,585,545	15.56%

Greenhouse Gas Emissions & Energy Resource Planning

Key:

- AES = AES Hawai‘i
- CIP = Campbell Industrial Park Generating Station
- DOH = State of Hawai‘i Department of Health
- Hamakua Energy = owned by Pacific Current
- HAR = Hawai‘i Administrative Rules
- KPLP = Kalaeloa Partners
- PGV = Puna Geothermal Venture

Gross global Scope 1 emissions	IF-EU-110a.1
Hawaiian Electric’s greenhouse gas (GHG) emissions from power generation (stationary combustion) are calculated using fuel consumption data (collected by fuel meters, fuel purchase receipts, tank gauging), carbon content in fuel (determined by laboratory analysis), default emission factors from 40 CFR Part 98 Subpart C, and Global Warming Potentials (GWPs) from the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4). Hawaiian Electric’s GHG emissions from its mobile fleet (mobile combustion) are calculated using fuel consumption data, vehicle mileage, and emission factors from the EPA Center for Corporate Climate Leadership. Three (HFCs, PFCs and NF ₃) of seven GHGs under the Kyoto Protocol are not generated by Hawaiian Electric. The GHG emissions presented below exclude biodiesel CO ₂ emissions and include biodiesel CH ₄ and N ₂ O, which is consistent with the State of Hawai‘i’s GHG Emissions regulations (HAR, Title 11, Chapter 60.1, Subchapter 11), in which biodiesel is assumed to be 100% plant-based and to not include any fossil fuels. Disclosures are aligned with regulatory reporting and exclude emissions from units and emergency generators not under covered source permits, which represent approximately 0.05% of total GHGs.	

SCOPE 1 GREENHOUSE GAS EMISSIONS (IN METRIC TONS CO ₂ E) AND INTENSITY				
Entity	2015 Base Year	2021	2022	2023 Preliminary
Total Scope 1 (metric tons CO ₂ e) ¹	4,098,096	3,690,345	4,109,983	4,418,695
Intensity (g/kWh) ²	800	820	820	827
2023 increase in Scope 1 emissions reflects increased output in company-owned fossil fuel generation to offset decreases in IPP-owned generation (see page 9). See page 8 for details of our GHG emissions inventory by emissions scope.				

Percentage of gross global Scope 1 emissions covered under emissions-limiting regulations	IF-EU-110a.1
Under the State of Hawai‘i Act 234 and HAR Title 11 Chapter 60.1, Subchapter 11 — Greenhouse gas (GHG) emission regulations, Hawaiian Electric and GHG Emission Reduction Plan (ERP) partners (AES, KPLP, and Hamakua Energy) were required to reduce GHG emissions by 16% below partnership’s cumulative 2010 emission levels by 2020, achieved a 23% reduction in 2020, and continued to meet this reduction requirement through 2023.	
Under the covered source permit for the Schofield Generating Station, emissions of CO ₂ generated from the facility are limited to 1,700 lb/MWhe, gross, on a 12-month rolling average basis. In 2023, Hawaiian Electric reported 1,334 lb/MWhe of CO ₂ emissions on a 12-month rolling average basis, or equivalent to 79% of the permit limit. The covered source permit allows use of diesel, biodiesel and natural gas as fuels. The CO ₂ limit applies to emissions from burning any of these fuels, including biogenic and non-biogenic emissions.	
Percentages in the table below represent the GHG emissions affected by emissions limitations divided by total gross global Scope 1 emissions.	

PERCENTAGE OF SCOPE 1 EMISSIONS COVERED UNDER EMISSIONS-LIMITING REGULATIONS 2015, 2021 THROUGH 2021				
	2015 Base Year	2021	2022	2023
Percentage of Scope 1 emissions covered under emissions-limiting regulations(%) ³	99.2%	99.0%	98.9%	99.1%

1 Includes CO₂e emissions from Hawaiian Electric power generation facilities and mobile fleet (mobile combustion) on O‘ahu, Maui County and Hawai‘i Island and its O‘ahu transmission and distribution (T&D) sulfur hexafluoride (SF₆) emissions from gas insulated equipment. Excludes biogenic CO₂ emissions. Maui County and Hawai‘i T&D SF₆ emissions will be included in future HEI sustainability reports.

2 Intensities in g/kWh are calculated by dividing Scope 1 emissions by total Hawaiian Electric owned generation.

3 Calculated as the total amount of gross global Scope 1 GHG emissions (CO₂e) that are covered under emissions limiting-based regulations divided by the total amount of gross global Scope 1 GHG emissions (CO₂e).

Percentage of gross global Scope 1 emissions covered under emissions-reporting regulations	IF-EU-110a.1
Under the EPA GHG Mandatory Reporting Program, an emissions-reporting based regulation that requires disclosure of GHG emissions data, Hawaiian Electric has provided its data annually since 2011, starting with reporting year 2010 data, for facilities that emit 25,000 metric tons or more of CO ₂ e, not including biogenic CO ₂ .	
The State of Hawai‘i DOH requires all covered source facilities to report GHG emissions annually for the purpose of emissions fees in accordance with HAR, Title 11, Chapter 60.1, Subchapter 6. The emissions fees are assessed following the fee schedule set forth by the DOH.	
Percentages in the table below represent the GHG emissions reported under the EPA GHG Mandatory Reporting Program and DOH divided by the total gross global Scope 1 emissions.	

PERCENTAGE OF SCOPE 1 EMISSIONS COVERED UNDER EMISSIONS-REPORTING REGULATIONS 2015, 2021 THROUGH 2022				
	2015 Base Year	2021	2022	2023
Percentage of Scope 1 emissions covered under emissions-reporting regulations (%) ¹	99.3%	99.1%	99.2%	99.2%

Greenhouse gas (GHG) emissions associated with power deliveries	IF-EU-110a.2
The GHG emissions presented below are total GHG emissions reported from Hawaiian Electric generation, transmission, distribution, and IPPs. Hawaiian Electric transmission and distribution operations do not generate HFC, PFC and NF3 emissions, three of the seven GHGs under the Kyoto Protocol. The GHG emissions presented below exclude biodiesel CO2 emissions and include biodiesel CH4 and N2O, which is consistent with the State of Hawai‘i’s GHG Emissions regulations (HAR, Title 11, Chapter 60.1, Subchapter 11), in which biodiesel is assumed to be 100% plant-based and to not include any fossil fuels. Disclosures are aligned with regulatory reporting.	

GHG EMISSIONS ASSOCIATED WITH POWER DELIVERIES IN METRIC TONS CO ₂ E ²				
Emissions Source	2015 Base Year	2021	2022	2023 Preliminary
Hawaiian Electric Generation (metric tons)	4,086,070	3,680,136	4,092,365	4,407,204
Hawaiian Electric Transmission and Distribution (metric tons)	6,019	5,591	13,062	6,393
IPP (metric tons)	3,012,770	2,337,351	1,920,392	1,297,365
Total GHG Emissions in metric tons	7,104,859	6,023,077	6,025,819	5,710,962

2023 increase in Scope 1 emissions reflects increased output in company-owned fossil fuel generation to offset decreases in IPP-owned generation (see [page 9](#)). See [page 8](#) for details of our GHG emissions inventory by emissions scope.

Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	IF-EU-110a.3
See discussion of Hawaiian Electric’s Climate Change Action Plan on page 5 of HEI’s Annual Report on Form 10-K, available here .	

(1) Number of customers served in markets subject to renewable portfolio standards (RPS) and (2) percentage fulfillment of RPS target by market	IF-EU-110a.4
Hawaiian Electric provides electricity to 95% of the population of the State of Hawai‘i. Our service territory includes the islands of O‘ahu, Maui, Moloka‘i, Lāna‘i and Hawai‘i Island. Across our service territory, we had a total of 471,605 customer accounts as of 12/31/23. As our entire service territory is in Hawai‘i, 100% of our customers are served in markets subject to our state’s renewable portfolio standard (RPS) law. (Note: Kaua‘i is served by the Kaua‘i Island Utility Cooperative.)	
The State of Hawai‘i’s RPS law is one of the most aggressive in the nation, targeting 100% RPS by 2045, with interim goals of 30% by 2020, 40% by 2030 and 70% by 2040. In 2023 we achieved a consolidated RPS of 33.3%.	

1 Calculated as the total amount of gross global Scope 1 GHG emissions (CO₂e) that are covered under emissions reporting-based regulations divided by the total amount of gross global Scope 1 GHG emissions (CO₂e).

2 Final data for 2023 for IPPs are not yet available at EPA FLIGHT. 2023 emissions data for IPPs are estimated using 2022 emissions intensity from emissions data published in EPA FLIGHT and the generation supplied to Hawaiian Electric. 2022 IPP data has been updated to reflect final data at EPA FLIGHT.



Air Quality

The Environmental Division monitors and reports emissions in accordance with applicable environmental regulations, which include certain emissions from stationary sources covered under Hawaiian Electric's Covered Source Permits. The following air quality data does not include emissions from IPPs.

Air emissions from NO _x , excluding N ₂ OIF-EU-120a.1				
TOTAL NO _x EMISSIONS FOR HAWAIIAN ELECTRIC GENERATING FACILITIES FOR 2015, 2021 THROUGH 2023				
NO _x	2015 Base Year	2021	2022	2023
Metric tons	13,780	10,712	9,833	10,614
Short tons	15,190	11,808	10,839	11,700

Air emissions from SO _x IF-EU-120a.1	
The emissions of SO _x from conventional combustion systems are predominantly in the form of sulfur dioxide (SO ₂). According to the EPA, SO ₂ is the component of greatest concern and is used as the indicator for the larger group of gaseous sulfur oxides (SO _x).	
Hawaiian Electric monitors and reports SO ₂ as required by the company's covered source permits and applicable regulations. We conservatively calculate SO ₂ emissions with the assumption that 100% of sulfur in fuel converts into SO ₂ using mass balance. Consistent with EPA's statement, SO ₂ emissions alone are sufficient to demonstrate the level of SO _x emissions from company-wide facilities.	
SO ₂ emissions are calculated based on fuel consumption and sulfur content in fuel. SO ₂ emissions generated from the company's covered source facilities are calculated and reported to the DOH to meet the annual emissions fees requirement.	

TOTAL SO ₂ EMISSIONS FROM HAWAIIAN ELECTRIC GENERATING FACILITIES FOR 2015, 2021 THROUGH 2023				
SO ₂	2015 Base Year	2021	2022	2023
Metric tons	12,149	11,368	12,586	12,576
Short tons	13,392	12,531	13,874	13,863

Air emissions from Particulate Matter (PM ₁₀)IF-EU 120a.1				
TOTAL PM ₁₀ EMISSIONS FROM HAWAIIAN ELECTRIC GENERATING FACILITIES FOR 2015, 2021 THROUGH 2023				
PM ₁₀	2015 Base Year	2021	2022	2023
Metric tons	1,005	672	757	829
Short tons	1,108	741	834	913

The PM₁₀ emissions presented above are consolidated PM₁₀ emissions for all of the company's covered source facilities. Historically, more than half of the company's PM₁₀ emissions come from Kahe and Waiau generating stations on O'ahu. Emissions from Kahe and Waiau are measured using a combination of source testing and PM Continuous Emissions Monitoring System ("CEMS"). In 2020-2023, the PM₁₀ emission rates recorded from Kahe and Waiau boilers were generally lower than 2015 due to better quality fuel, containing lower carbon residue. The boilers at the two plants are the only generating units subject to a PM limit (MATS) and the company has been demonstrating compliance with the MATS PM limit. PM₁₀ emissions generated from other facilities are calculated and reported to the DOH to comply with the annual emissions fees requirement.

Air emissions from Lead (Pb)IF-EU-120a.1				
TOTAL LEAD EMISSIONS FROM HAWAIIAN ELECTRIC GENERATING FACILITIES				
Lead	2015 Base Year	2021	2022	2023
Metric tons	0.29	0.32	0.35	0.34
Short tons	0.32	0.36	0.32	0.38
The lead emissions presented above are consolidated for all the company's covered source facilities. Lead emissions trend in proportion to fuel consumption and electric generation. Lead emissions are calculated and reported to the DOH to comply with the annual emissions fees requirement.				

Air emissions from Mercury (Hg)IF-EU-120a.1				
TOTAL MERCURY EMISSIONS FROM HAWAIIAN ELECTRIC GENERATING FACILITIES				
Measure	2015 Base Year	2021	2022	2023
TRI (lbs) ¹	15.7	13.1	15.4	N/A
DOH CAB (lbs) ²	45.04	42.27	47.07	49.92
DOH CAB (Metric tons) ³	0.0204	0.0192	0.0214	0.0226

Percentage of each pollutant (NO _x , SO _x , PM ₁₀ , Pb, Hg) in or near areas of dense populationIF-EU-120a.1	
SASB defines an "area of dense population" as "an area with a densely settled core and contiguous territory that together have a minimum population of 50,000." It considers a facility to be "near" such an area if it is within 49 km of the area of dense population. Hawaiian Electric's facilities on O'ahu, Maui, and Lāna'i meet the criteria of facilities that are within 49 km of an area with a minimum population of 50,000 persons. The assessment of population follows the list of urbanized areas based on U.S. Census results from 2010, available in Federal Register, Vol. 77, No. 59, Part IV.	
The data in the table below represents the percentage of pollutants generated from Hawaiian Electric facilities on O'ahu, Maui County and Hawai'i Island that were released in or near densely populated areas.	
Hawaiian Electric operates in compliance with the requirements of multiple federal and state environmental regulations, including numerous rules under the Clean Air Act.	

PERCENTAGE OF POLLUTANTS IN OR NEAR DENSE POPULATION				
Pollutant	2015 Base Year	2021	2022	2023
NO _x	93	91	89	91
SO ₂	83	80	83	87
PM ₁₀	91	83	87	90
Pb (Lead)	87	75	87	90
Hg (Mercury)	87	85	86	89

1 As reported to the EPA in the Toxics Release Inventory (TRI) report, and only includes facilities that exceed the TRI reporting threshold. Since 2014, only Kahe triggered the reporting threshold. 2023 data is not yet available.

2 As reported in the annual emission fees report to the DOH Clean Air Branch (CAB) for the purpose of assessing emission fees. Mercury is not used in the fees assessment, but the mercury emissions are reported to the DOH as part of the emissions fees report.

3 The mercury emissions presented above are consolidated for all of the company's covered source facilities. Mercury emissions are proportional to fuel consumption and electric generation. Mercury emissions are calculated and reported to the DOH annually as required to meet the emissions reporting requirement.

Note: 2023 increases in certain air emissions reflect increased output of company-owned fossil fuel generation to offset decreases in IPP-owned generation (see [page 9](#)).



Water Management

Total water withdrawn from all sources				IF-EU-140a.1
HAWAIIAN ELECTRIC WATER WITHDRAWAL IN THOUSAND CUBIC METERS (M³ X 10³)				
	2015 Base Year	2021	2022	2023
Fresh Water	155,252	100,044	82,126	78,177
Brackish Water	37,529	68,181	69,832	66,287
Sea Water¹	1,372,688	1,238,253	1,261,598	1,374,430
Reclaimed Water²	230	308	326	340

Total water consumed				IF-EU-140a.1
HAWAIIAN ELECTRIC WATER CONSUMPTION IN THOUSAND CUBIC METERS (M³ X 10³)				
	2015 Base Year	2021	2022	2023
Brackish Water Consumption	No Data Available	151	155	146
Fresh Water Consumption	No Data Available	54.08	70.43	70.67
Sea Water Consumption	0	0	0	0
Reclaimed Water²	230	308	326	340

Percentage of (i) water withdrawn and (ii) water consumed in regions with high or extremely high baseline water stress	IF-EU-140a.1
Degree of water stress is defined using the World Resources Institute’s Aqueduct Water Risk Atlas tool, Aqueduct.	
Hawaiian Electric does not operate facilities in high or extremely high baseline water risk regions, according to Aqueduct. Thus, based on Aqueduct, the percentage of water withdrawn and water consumed in regions with high or extremely high baseline water stress is zero.	

Number of incidents of non-compliance associated with water quantity and/or quality permits, standards and regulations	IF-EU-140a.2
In 2023, there were no water related incidents of non-compliance that resulted in a formal enforcement action by the State of Hawaii Department of Health, the U.S. EPA, or other regulatory agency.	
The company operates five facilities with Clean Water Act, National Pollutant Discharge Elimination System (NPDES) permits (Kahe, Waiau, Honolulu, Kahului and Mā‘ālaea).	
The company operates five facilities with Safe Drinking Water Act, Underground Injection Control (UIC) Permits for industrial discharges (CIP, Mā‘ālaea, Keāhole, Hill and Puna).	
The company’s Compliance Task Manager (CTM) program is utilized for management and tracking compliance with permit requirements and associated associated activities.	

Description of water management risks and discussion of strategies and practices to mitigate those risks	IF-EU-140a.3
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Hawaiian Electric uses mainly non-potable water sources for generation operations and complies with regulations to manage water withdrawals and discharges through applicable permits, such as the National Pollutant Discharge Elimination System (NPDES) and Underground Injection Controls (UIC).

In general, approximately 95% of the water used came from non-potable sources such as the ocean and brackish water wells. At Kahe Power Plant and Campbell Industrial Park Generating Station in West O’ahu, reclaimed water from sewage treatment plants was used. The use of these non-potable water sources offsets the demand for higher-quality water and reduces water supply risk.

Over 99% of the water used at our facilities (in once through cooling systems) is later returned to groundwater or surface water. The less than 1% of the water consumed during power generation is primarily used in air emissions control systems and is not from fresh water or sea water sources.

One way we continue to mitigate water management risk while also replacing fossil fuel generation is to seek renewable energy projects, (e.g., solar-plus-storage and stand-alone storage), that do not need water resources to operate.

Coal Ash Management

Amount of coal combustion residuals (CCR) generated, percentage recycled	IF-EU-150a.1
Hawaiian Electric does not operate any coal-fired power plants and therefore we do not generate any hazardous coal ash.	

Total number of coal combustion residual (CCR) impoundments, broken down by hazard potential classification and structural integrity assessment	IF-EU-150a.2
Hawaiian Electric does not operate any coal-fired power plants and therefore we do not generate any hazardous coal ash.	

1 2023 increase in sea water withdrawal reflects increased output of company-owned fossil fuel generation to offset decreases in IPP-owned generation (see page 9).

2 Reclaimed water is used for NO_x emissions control and make-up water for the CIP and Kahe generating units. Reclaimed water used for emissions control is lost through evaporation and the majority of the reclaimed water withdrawn is returned to the ocean or groundwater.



Energy Affordability

Average electric rate for residential, (i) commercial and (ii) industrial customers						IF-EU-240a.1
2023 AVERAGE RATES IN CENTS / PER KWH FOR RESIDENTIAL, COMMERCIAL AND INDUSTRIAL CUSTOMERS						
Customer	O’ahu	Hawai’i Island	Maui	Moloka’i	Lāna’i	
Residential	43.22	46.52	43.31	51.74	52.49	
Commercial						
"Small Power Use" Business	43.35	51.46	48.13	60.37	57.46	
"Medium Power Use" Business	37.39	42.43	41.59	50.83	54.22	
Industrial	35.33	38.52	39.11	42.03	50.81	

Typical monthly electric bill for residential customers for the first 500 kWh of electricity delivered / month					IF-EU-240a.2
2021, 2022, AND 2023 SCHEDULE R, 500 kWh					
Avg. 500 kWh	2021	2022	2023		
O’ahu	\$152.63	\$197.73	\$209.23		
Hawai’i Island	\$175.73	\$234.93	\$222.36		
Maui	\$169.75	\$211.37	\$210.75		
Moloka’i	\$178.23	\$255.99	\$246.86		
Lāna’i	\$197.47	\$271.11	\$255.10		

Typical monthly electric bill for residential customers for the first 1000 kWh of electricity delivered / month					IF-EU-240a.2
2021, 2022, AND 2023 SCHEDULE R, 1000 kWh					
Avg. 1000 kWh	2021	2022	2023		
O’ahu	\$296.58	\$386.81	\$409.06		
Hawai’i Island	\$348.77	\$467.20	\$441.95		
Maui	\$334.68	\$417.93	\$416.43		
Moloka’i	\$353.24	\$508.75	\$490.33		
Lāna’i	\$390.22	\$537.50	\$505.22		

Number of residential customer electric disconnections for non-payment and percentage reconnected within 30 days									IF-EU-240a.3
2023 RESIDENTIAL NON-PAY RECONNECTS									
Days To Reconnect	O’ahu	% of Total	Hawai’i Island	% of Total	Maui County	% of Total	Grand Total	% of Total by Days to Reconnect	
Less Than 30 Days	7,042	84%	2,335	85%	787	91%	10,164	85%	
More Than 30 Days	842	10%	240	9%	50	6%	1,132	9%	
Not Reconnected	480	6%	175	6%	24	3%	679	6%	
Grand Total	8,364	100%	2,750	100%	861	100%	11,975	100%	

Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory	IF-EU-240a.4
The affordability of energy is critical to Hawai’i’s sustainable, clean energy future. The cost of electricity in Hawai’i is generally higher than on the U.S. mainland because the electric systems on each island are independent. We’re committed to providing affordable electricity for all of our customers. As one of our initiatives, we created a list of financial assistance resources provided by nonprofit organizations and government agencies, which can be found on our website under Payment Arrangement Options. These programs offer funding for customers in need in an effort to reduce their energy burden. This list is a living document, which was created and continuously edited in collaboration with administrating groups. For more information, visit www.hawaiianelectric.com .	

Workforce Health & Safety

(1) Total recordable incident rate (TRIR), (2) fatality rate and (3) near miss frequency rate (NMFR)				IF-EU-320a.1
	2021	2022	2023	
Total Case Incident Rate (Excluding Covid Cases)	1.36	1.61	1.20	
Total Case Incident Rate	1.52	2.85	1.40	
Fatalities	0	0	0	
Near miss frequency rate ¹	N/A	N/A	N/A	

1 Hawaiian Electric does not currently track “near miss” data.



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End-Use Efficiency & Demand

Percentage of electric load served by smart grid technology	IF-EU-420a.2
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In 2019, we launched Phase 1 of our grid modernization effort, which included a critical implementation piece — the installation of advanced meters at homes and businesses. Through the end of 2023, Hawaiian Electric has deployed more than 363,000 advanced meters across O’ahu, Maui, and Hawai’i Island, representing 77% of all customers. Advanced meters will aid in allowing more renewables to be added to the grid and enable customers to participate in energy programs such as private rooftop solar, demand response, and time-of-use rates. Additional technical upgrades will help build a more reliable and resilient grid.

Customer electricity savings from efficiency measures, by market	IF-EU-420a.3
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By Hawai’i law, since 2009, the energy efficiency programs for the state are managed by a third-party administrator known as Hawai’i Energy and selected by the Hawai’i Public Utilities Commission. For more information about Hawai’i Energy, visit www.hawaiienergy.com.

Nuclear Safety and Emergency Management

Hawaiian Electric does not have any nuclear facilities.

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Grid Resilience

Number of incidents of non-compliance with physical and/or cybersecurity standards or regulations	IF-EU-550a.1
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To date, there have been no material incidents, violations, or fines due to non-compliance with cybersecurity and privacy standards or regulations.

System Average Interruption Duration Index (SAIDI)	IF-EU-550a.2
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SAIDI — GENERATION, TRANSMISSION, AND DISTRIBUTION INTERRUPTIONS (MINUTES)				
Operating Area	Normalized/Non-Normalized	2021 ¹	2022 ¹	2023 ¹
O’ahu	Normalized	106.79	99.65	132.38
	Unnormalized	155.35	132.75	190.55
Hawai’i Island	Normalized	161.56	193.60	209.55
	Unnormalized	478.03	299.29	245.90
Maui County	Normalized	156.71	134.85	213.44
	Unnormalized	495.94	490.26	2,344.21

System Average Interruption Frequency Index (SAIFI)	IF-EU-550a.2
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SAIFI — GENERATION, TRANSMISSION, AND DISTRIBUTION INTERRUPTIONS				
Operating Area	Normalized/Non-Normalized	2021 ¹	2022 ¹	2023 ¹
O’ahu	Normalized	1.233	0.900	1.175
	Unnormalized	1.613	1.003	1.451
Hawai’i Island	Normalized	2.299	3.197	2.412
	Unnormalized	3.171	3.580	2.614
Maui County	Normalized	1.346	1.293	1.885
	Unnormalized	1.994	2.796	2.563

Customer Average Interruption Duration Index (CAIDI)	IF-EU-550a.2
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CAIDI — GENERATION, TRANSMISSION, AND DISTRIBUTION INTERRUPTIONS (MINUTES)				
Operating Area	Normalized/Non-Normalized	2021 ¹	2022 ¹	2023 ¹
O’ahu	Normalized	86.64	110.67	112.67
	Unnormalized	96.32	132.41	131.32
Hawai’i Island	Normalized	70.28	60.55	86.86
	Unnormalized	150.74	83.59	94.08
Maui County	Normalized	116.45	104.32	113.21
	Unnormalized	248.76	175.36	914.58

¹ For the period prior to and including March 31, 2021, reliability indices were calculated using the Institute of Electrical and Electronics Engineers (IEEE) Standard 1366™-2012 methodology. For the period April 1, 2021, and forward, reliability indices are calculated using an adjusted* IEEE 1366 methodology.

For service reliability indices, current outage event data is used to calculate the indices. Outage event data for previously reported periods may change as new information becomes available.

*As approved in [Docket No. 2019-0110](#), [Decision and Order No. 37600](#), issued on February 2, 2021.

Discuss notable service interruptions such as those that affected a significant number of customers or disruptions of extended duration	IF-EU-550a.2
Below is a summary of major event days (MEDs) ¹ in 2023 and events that significantly impacted normalized 2023 SAIDI or SAIFI results for each of O’ahu, Hawai’i Island and Maui County. Contributions from MEDs are excluded from normalized results.	
The following were determined to be MEDs on O’ahu in 2023:	
<div><div>1. February 9: Various weather and vegetation-related interruptions.</div><div>2. March 8: Various wind-related interruptions.</div><div>3. April 19: Various wind-related interruptions and unknown causes.</div><div>4. August 8: Various vegetation, weather, and equipment-related interruptions.</div></div>	
Events that significantly impacted normalized 2023 SAIDI or SAIFI results for O’ahu:	
<div><div>1. February 4: Various lightning and weather-related interruptions. Sustained interruption to 6,758 customers for up to 17 hours and 48 minutes. Contributed 3.71 minutes to the annual SAIDI.</div><div>2. February 10: Various weather and equipment-related interruptions. Sustained interruption to 8,334 customers for up to 32 hours and 45 minutes. Contributed 3.29 minutes to the annual SAIDI.</div><div>3. May 18: A tree in sub-transmission conductors while sub-transmission system was abnormally configured. Sustained interruption to 14,134 customers for up to one hour and 23 minutes. Contributed 0.046 interruptions to the annual SAIFI.</div><div>4. August 31: Underfrequency load shed when a non-utility generator tripped offline. Sustained interruption to 36,633 customers for up to 30 minutes. Contributed 0.119 interruptions to the annual SAIFI.</div><div>5. December 1: Deteriorated conductors failed while sub-transmission system was abnormally configured. Sustained interruption to 8,607 customers for up to two hours and seven minutes. Contributed 0.028 interruptions to the annual SAIFI.</div><div>6. December 14: Cable fault. Sustained interruption to 2,099 customers for up to nine hours and 41 minutes. Contributed 3.78 minutes to the annual SAIDI.</div></div>	
The following were determined to be MEDs on Hawai’i Island in 2023:	
<div><div>1. March 8: Various vegetation and weather-related interruptions during Flood and High Wind Advisory/Warning.</div></div>	
Events that significantly impacted normalized 2023 SAIDI or SAIFI results for Hawai’i Island:	
<div><div>1. February 2: Underfrequency load shed when non-utility generators tripped offline. Sustained interruption to 11,076 customers for up to 13 minutes. Contributed 0.124 interruptions to the annual SAIFI.</div><div>2. March 14: A transmission equipment failure and transmission protection issue caused a non-utility generating plant to be disconnected from the system, which resulted in underfrequency load shed. Sustained interruption to 29,597 customers for up to two hours and 40 minutes. Contributed 0.332 interruptions to the annual SAIFI.</div><div>3. March 28: Underfrequency load shed when two generators tripped offline. Sustained interruption to 10,762 customers for up to 17 minutes. Contributed 0.121 interruptions to the annual SAIFI.</div><div>4. September 17: T&D equipment failure while circuits were abnormally configured. Sustained interruption to 3,857 customers for three hours and nine minutes. Contributed 8.18 minutes to the annual SAIDI.</div><div>5. November 12: An unknown cause affected a transmission line. Sustained interruption to 2,907 customers for up to eight hours and five minutes. Contributed 11.74 minutes to the annual SAIDI.</div><div>6. December 14: Various weather-related interruptions during a High Wind Advisory. Sustained interruption to 3,880 customers for up to 18 hours and 50 minutes. Contributed 11.36 minutes to the annual SAIDI.</div></div>	

The following were determined to be MEDs in Maui County in 2023:

1. February 3: Underfrequency load shed when generators tripped offline (Lāna’i).

2. March 2: A large tree that fell during heavy rain and wind (Lāna’i).

3. August 1: A large tree that fell during high winds (Maui).

4. August 7: Various vegetation-related interruptions during high winds (Maui)

5. August 8: Various weather and vegetation-related interruptions during very high winds (Maui).

6. August 11: Forced interruption as a result of fire under conductors (Maui).

7. November 28: Underfrequency load shed when a generator tripped offline (Lāna’i).

8. December 14: Various vegetation-related interruptions during high winds (Lāna’i).

Events that significantly impacted normalized 2023 SAIDI or SAIFI results for Maui County:

1. January 29: Various vegetation and weather-related interruptions during heavy rain and lightning on Maui. Sustained interruption to 6,708 customers for up to six hours and 32 minutes. Contributed 0.091 interruptions to the annual SAIFI.

2. February 9: Various vegetation and weather-related interruptions during high winds on Maui. Sustained interruption to 5,488 customers for up to 13 hours and 52 minutes. Contributed 13.38 minutes to the annual SAIDI.

3. March 1: Various unknown causes and vegetation-related interruptions during high winds on Maui. Sustained interruption to 5,423 customers for up to 76 hours and 32 minutes. Contributed 10.85 minutes to the annual SAIDI.

4. March 6: A conductor fell due to a heavily corroded bolt that failed during rain on Maui. Sustained interruption to 6,917 customers for up to seven hours and 22 minutes. Contributed 0.094 interruptions to the annual SAIFI.

5. March 8: Various vegetation and weather-related interruptions during high winds on Maui. Sustained interruption to 10,347 customers for up to nine hours and 48 minutes. Contributed 12.86 minutes to the annual SAIDI and 0.141 interruptions to the annual SAIFI.

For the Hawaiian Electric utilities, the most recent main causes of outages are:

- Vegetation: Includes downed trees and tree branches in power lines and overgrown vegetation, some of which falls outside of the Companies’ scope of clearance

• Equipment deterioration: Equipment breakdown from natural causes

• Cable faults: Failure of underground cable system equipment

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1 For the period prior to and including March 31, 2021, reliability indices were determined using the Institute of Electrical and Electronics Engineers (IEEE) Standard 1366™-2012 methodology. For the period April 1, 2021, and forward, reliability indices are determined using an adjusted* IEEE 1366 methodology. Contributions from MEDs are excluded from normalized results.

*As approved in [Docket No. 2019-0110](#), [Decision and Order No. 37600](#), issued on February 2, 2021.



EEI ESG Metrics

Hawaiian Electric

The Hawaiian Electric data in this section is reported in alignment with the Edison Electric Institute (EEI) Environmental, Social, Governance / Sustainability (ESG) reporting template. The charts in this section have been modified as appropriate to reflect the specific activities of Hawaiian Electric.

Portfolio

Total electricity generated for the data year (MWh) ¹						
TOTAL SYSTEM GENERATION — BY SOURCE						
	2010 BASE YEAR	2019	2020	2021	2022	2023
CONVENTIONAL						
Coal	1,520,166	1,316,032	1,183,187	1,105,070	665,589	0
Natural Gas	0	0	0	0	0	0
Nuclear	0	0	0	0	0	0
Petroleum ²	7,735,339	6,569,453	5,867,139	5,793,779	6,350,933	6,797,126
Total Conventional	9,255,505	7,885,485	7,050,326	6,898,849	7,016,522	6,797,126
RENEWABLE						
Biomass/Biogas						
Biodiesel	3,160	59,996	74,507	71,780	63,114	82,844
Waste-to-Energy (Biomass)	358,852	414,357	369,239	366,365	370,668	327,545
Geothermal ²	201,587	0	9,640	183,391	208,346	192,587
Hydroelectric	35,890	35,414	28,594	43,050	27,409	26,557
Solar						
Utility-Scale	1,787	218,058	398,376	390,353	450,769	528,449
Customer-Sited	48,508	1,224,579	1,325,750	1,418,036	1,522,444	1,585,545
Wind	261,206	527,887	594,569	701,124	625,916	648,502
Other	0	0	0	0	0	0
Total Renewable	910,990	2,480,291	2,800,675	3,174,100	3,268,667	3,392,029
Total MWh Generated	10,166,495	10,365,775	9,851,001	10,072,948	10,285,189	10,189,155

1 For total system generation reported by source, customer-sited generation is included as part of SASB and EEI ESG metrics in this report but was not included in HEI's Annual Report on Form 10-K for year ended 2023. Minor methodology differences regarding renewable components of certain generators and timing of underlying reporting account for additional differences between the SASB and EEI ESG reported metrics and the Form 10-K. 2023 amounts reflect the closure of Hawai'i's last remaining coal plant (IPP-owned) in late 2022.

2 2019 and 2020 generation amounts reflect the fact that the Puna Geothermal Venture (PGV) plant was out of service from May 2018 until late 2020. The loss of firm power from PGV generation was offset by firm generation from petroleum. PGV returned to service with firm capacity of 13 MW in the first quarter of 2021 and ramped up to 23.9 MW in the second quarter and continued to provide 23.9 MW for the remainder of 2021.

Investing in the future: capital expenditures, energy efficiency (EE), and smart meters					
	2019	2020	2021	2022	2023
Total Annual Capital Expenditures ¹ (nominal dollars)	\$450M	\$335M	\$302M	\$357M	\$434M
Incremental Annual Electricity Savings from EE Measures (MWh)	Hawai'i Energy, a third-party adminstrator, is responsible for the state's energy efficiency programs ²				
Incremental Annual Investment in Electric EE Programs (nominal dollars)					
Percent of Total Electric Customers with Smart Meters (at end of year)	1.1	1.5	10.3	41.0	77.4

Retail electric customer count (at end of year)					
	2019	2020	2021	2022	2023
Residential	409,689	412,484	414,713	413,744	416,072
Commercial	55,077	54,861	55,201	55,228	54,831
Industrial	700	694	698	696	702
Total	465,466	468,039	470,612	469,668	471,605

1 Capital expenditures shown on an accrual basis and are net of contributions in aid of construction.

2 Source: Hawai'i Energy 2021 Annual Report.

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Emissions

See [pages 7-8](#) for detailed information on our GHG emissions inventory.

GHG emissions: carbon dioxide (CO ₂) and carbon dioxide equivalent (CO ₂ e)				
	2015 BASE YEAR	2021	2022	2023 PRELIMINARY
Owned Generation + Purchased Power + Customer-Sited Solar + Non-Generation ¹				
Carbon Dioxide (CO ₂)				
CO ₂ Emissions (MT)	7,070,026	5,958,984	5,977,290	5,674,122
CO ₂ Emissions Intensity (MT/Net MWh)	0.702	0.592	0.581	0.557
Carbon Dioxide Equivalent (CO ₂ e)				
CO ₂ e Emissions (MT)	7,104,859	6,023,077	6,025,819	5,710,962
CO ₂ e Emissions Intensity (MT/Net MWh)	0.705	0.598	0.586	0.560
Carbon Dioxide Equivalent (CO ₂ e) Intensity by Island				
Hawai'i Island CO ₂ e Emissions Intensity (MT/Net MWh)	0.439	0.423	0.416	0.373
O'ahu CO ₂ e Emissions Intensity (MT/Net MWh)	0.781	0.650	0.630	0.605
Maui County CO ₂ e Emissions Intensity (MT/Net MWh)	0.510	0.474	0.500	0.497
Owned Generation + Purchased Power ²				
Carbon Dioxide (CO ₂)				
CO ₂ Emissions (MT)	7,070,026	5,958,984	5,977,290	5,674,122
CO ₂ Emissions Intensity (MT/Net MWh)	0.750	0.689	0.682	0.660
Carbon Dioxide Equivalent (CO ₂ e)				
CO ₂ e Emissions (MT)	7,098,840	6,017,486	6,012,757	5,704,568
CO ₂ e Emissions Intensity (MT/Net MWh)	0.753	0.695	0.686	0.663
Owned Generation ³				
Carbon Dioxide (CO ₂)				
CO ₂ Emissions (MT)	4,072,497	3,667,594	4,078,378	4,392,268
CO ₂ Emissions Intensity (MT/Net MWh)	0.795	0.815	0.814	0.822
Carbon Dioxide Equivalent (CO ₂ e)				
CO ₂ e Emissions (MT)	4,086,070	3,680,136	4,092,365	4,407,204
CO ₂ e Emissions Intensity (MT/Net MWh)	0.798	0.818	0.817	0.825
Purchased Power ⁴				
Carbon Dioxide (CO ₂)				
CO ₂ Emissions (MT)	2,997,529	2,291,390	1,898,912	1,281,854
CO ₂ Emissions Intensity (MT/Net MWh)	0.696	0.552	0.506	0.393
Carbon Dioxide Equivalent (CO ₂ e)				
CO ₂ e Emissions (MT)	3,012,770	2,337,351	1,920,392	1,297,365
CO ₂ e Emissions Intensity (MT/Net MWh)	0.699	0.563	0.512	0.398

1 Equal to Scope 1 Owned Generation + Scope 3 Purchased Power + non-generation (T&D SF₆ emissions). No CO₂ emissions from customer-sited solar. Intensities in MT/Net MWh are calculated by dividing emissions by net generation from owned generation, purchased power and customer-sited solar.

2 Equal to Scope 1 Owned Generation + Scope 3 Purchased Power. Intensities in MT/Net MWh are calculated by dividing emissions by net generation from owned generation and purchased power.

3 Equal to Scope 1 Owned Generation. Intensities in MT/Net MWh are calculated by dividing emissions by net generation from owned generation. 2023 increase in owned generation emissions reflects increased output in company-owned fossil fuel generation to offset decreases in IPP-owned generation (see [page 16](#)).

4 Equal to Scope 3 Purchased Power. Intensities in MT/Net MWh are calculated by dividing emissions by net generation from purchased power.

GHG emissions: carbon dioxide (CO ₂) and carbon dioxide equivalent (CO ₂ e)				
	2015 BASE YEAR	2021	2022	2023
Non-Generation CO ₂ e Emissions				
Fugitive CO ₂ e emissions of sulfur hexafluoride (MT)	6,019	5,591	13,062	6,393
Fugitive CO ₂ e emissions from natural gas distribution (MT)	0	0	0	0

Nitrogen oxide (NO _x), sulfur dioxide (SO ₂), mercury (Hg) ¹				
	2015 BASE YEAR	2021	2022	2023
Generation basis for calculation				
Fossil				
Nitrogen Oxide (NO _x)				
Total NO _x Emissions (MT)	13,780	10,712	9,833	10,614
Total NO _x Emissions Intensity (MT/Net MWh)	2.73E-03	2.42E-03	1.99E-03	2.01E-03
Sulfur Dioxide (SO ₂)				
Total SO ₂ Emissions (MT)	12,149	11,368	12,586	12,576
Total SO ₂ Emissions Intensity (MT/Net MWh)	2.41E-03	2.57E-03	2.54E-03	2.38E-03
Mercury (Hg)				
Total Hg Emissions (kg)	20	19	21	23
Total Hg Emissions Intensity (kg/Net MWh)	4.05E-06	4.33E-06	4.23E-06	4.29E-06

1 The air quality data does not include emissions from IPPs.

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Human resources			
	2021	2022	2023
Total Number of Employees ¹	2,504	2,605	2,654
Total Number on Board of Directors/Trustees ²	9	10	7
Total of Women on Board of Directors/Trustees ²	3	4	3
Total of Racially Diverse Members of Board of Directors/Trustees ^{2, 6}	3	4	3
Women Executives ³	40.00%	37.50%	28.57%
Women Leaders ⁴	28.30%	28.90%	29.21%
Women All Workforce ⁵	28.70%	28.80%	29.24%
Racially Diverse Executives ^{3, 6}	66.70%	56.30%	57.14%
Racially Diverse Leaders ^{4, 6}	84.50%	85.00%	83.66%
Racially Diverse All Workforce ^{5, 6}	90.30%	89.90%	89.75%
Employee Safety Metrics			
Recordable Incident Rate ⁷	1.52	2.85	1.40
Severity Rate ⁸	24.83	51.42	16.26
Days Away, Restricted, and Transfer (DART) Rate	1.32	2.65	0.97
Work-related Fatalities	0	0	0

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1 Total number of employees as of December 31.

2 Refers to board members of HEI, the parent company of Hawaiian Electric.

3 Executives includes EEO-1 category 1.1 - Executive/Sr. Level Officials.

4 Leaders includes EEO-1 category 1.2 - First/Mid-Level Officials.

5 All Workforce includes EEO-1 categories 1.1 - Executive/Sr. Level Officials, 1.2 - First/Mid-Level Officials, 2 - Professionals, 3 - Technicians, 4 - Sales Workers, 5 - Administrative Support Workers, 6 - Craft Workers, 7 - Operatives, 8 - Laborers and Helpers, 9 - Service Workers.

6 Racially diverse defined as all races/ethnicities that are not ‘White.’

7 Covid-adjusted figures are also available on [page 13](#).

8 The company discloses severity rate data in alignment with EEI definitions. In prior reports this EEI template category was labeled as lost-time case rate. The label has been corrected to refer to severity rate.

Fresh water resources ¹				
	2015 BASE YEAR	2021	2022	2023
Water Withdrawals - Consumptive (Millions of Gallons)	No Data Available	14	19	19
Water Withdrawals - Non-Consumptive (Millions of Gallons)	No Data Available	26,415	21,677	20,634
Water Withdrawals - Consumptive Rate (Millions of Gallons/Net MWh)	No Data Available	0	0	0
Water Withdrawals - Non-Consumptive (Millions of Gallons/Net MWh)	No Data Available	5.87E-03	4.33E-03	3.86E-03

Waste products				
	2015 BASE YEAR	2021	2022	2023
Amount of Hazardous Waste Manifested for Disposal (MT)	9	3	2	9
Percent of Coal Combustion Products Beneficially Used ²	0%	0%	0%	0%

Emissions Reduction Goals

Utility Emissions Reduction Goals (Climate Change Action Plan)			
	BASELINE YEAR	TARGET YEAR	REDUCTION GOAL DESCRIPTION (SHORT)
Electric generation	2005	2045	<p>Net zero GHG emissions from power generation. Emissions covered by this goal include stack emissions from generation owned by Hawaiian Electric (Scope 1) and independent power producers who sell electricity to the utility (Scope 3).</p> <p>See page 7 for more information on our GHG emissions reduction goal, including the status of our interim goal of 70% emissions reduction on the path to net zero.</p>

1 Fresh water resource uses are for company-owned thermal and hydroelectric generation.

2 Hawaiian Electric does not operate any coal-fired power plants and therefore does not generate any coal combustion products.

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GHG Inventory Methodology

Scope	Categories	
1	Stationary Combustion	For all power plant fuel combustion, associated emissions were estimated using factors including fuel carbon content, measured/default heating values, and default emissions factors.
1	Mobile Combustion	Fuel consumption and vehicle mileage data were used to estimate CO ₂ , CH ₄ and N ₂ O emissions.
1	SF ₆ Fugitives	O’ahu: As reported in accordance with 40 Code of Federal Regulations (CFR) Part 98 Mandatory Greenhouse Gas Reporting, Subpart DD Electrical Transmission and Distribution Equipment Use Report and Global Warming Potential from the UN IPCC AR4. Maui County and Hawai’i Island: Excluded from this analysis, expected to be included in future reports.
1-2	Fugitives	Associated emissions were calculated per Greenhouse Gas Protocol guidance, estimating an upper bound refrigerant leakage rate that is 10% of the total HVAC unit capacity. Office square footage was also used to estimate HVAC capacity.
2	Purchased Electricity	Associated emissions were calculated per EPA guidance using office space electricity consumption and EPA region-specific emissions factors. Location-based method.
3	Purchased Electricity for Resale	Supplier-specific approach using site-specific data and Environmental Protection Agency (EPA) Facility Level Information on GreenHouse gases Tool (FLIGHT) database. Assumes all purchased electricity was re-sold.
3	Stationary Fuel	Supplier-specific method; includes upstream, midstream & transportation emissions for all fuel types w/ exception of propane.
3	Mobile Fuel	Supplier-specific method; includes upstream & midstream emissions for biodiesel and clear diesel.
3	Business Travel	Spend-based method in which business travel spend is used to estimate emissions.
3	Employee Commuting	Data for 2021 and earlier is based on average (national) data on commuting patterns, adjusting for remote work percentages. 2022-2023 data was calculated using Hawai’i-specific commuting patterns. This Hawai’i-specific data was derived by calculating estimated commute distances of 1,000+ ASB employees, based on anonymized ZIP codes.

CO₂e figures have been calculated using global warming potentials from the UN IPCC 4th Assessment Report (AR4), consistent with environmental regulatory reporting.

Sources of emissions factors used in analysis include:

- UN IPCC AR4
 - EPA Center for Corporate Climate Leadership
 - EPA eGRID
 - EPA Inventory of US Greenhouse Gas Emissions
- EPA US Environmentally-Extended Input-Output Models
 - The Climate Registry
 - Analysis from Par Refinery, Pacific Biodiesel, and ecoinvent

Forward-Looking Statements

Certain statements contained in this report are forward-looking statements, including statements regarding our sustainability targets, goals, commitments and programs and other business plans, initiatives and objectives, and other statements that are not purely historical. These statements are typically accompanied by words such as “aim,” “anticipate,” “hope,” “believe,” “could,” “expect,” “estimate,” “plan,” “will,” “would,” or similar expressions. All such statements are intended to be protected by the safe harbor for forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended.

Forward-looking statements are based on current expectations and projections about future events and are subject to risks, uncertainties and the accuracy of assumptions concerning HEI and its subsidiaries, the performance of the industries in which they do business and economic, political and market factors, among other things. These forward-looking statements are not guarantees of future performance. Our actual future results, including the achievement of our targets, goals or commitments, could differ materially from those reflected or implied in the forward-looking statements, which involve risks, uncertainties and other important factors. Such risks, uncertainties and factors include the risk factors discussed in our most recent Annual Report on Form 10-K and subsequent quarterly reports on Form 10-Q and other reports filed with the SEC.

With respect to our sustainability targets, goals, and commitments outlined in this report or elsewhere, certain challenges, assumptions, risks, uncertainties and factors are identified in this report. We urge you to carefully consider all of the risks, uncertainties and factors discussed in such reports in evaluating the forward-looking statements in this report. We cannot assure you that the results reflected or implied by any forward-looking statement will be realized or, even if substantially realized, that those results will have the forecasted or expected consequences and effects. The forward-looking statements in this report are made as of the date of this report, unless otherwise indicated, and we undertake no obligation to update these forward-looking statements to reflect subsequent events or circumstances.



