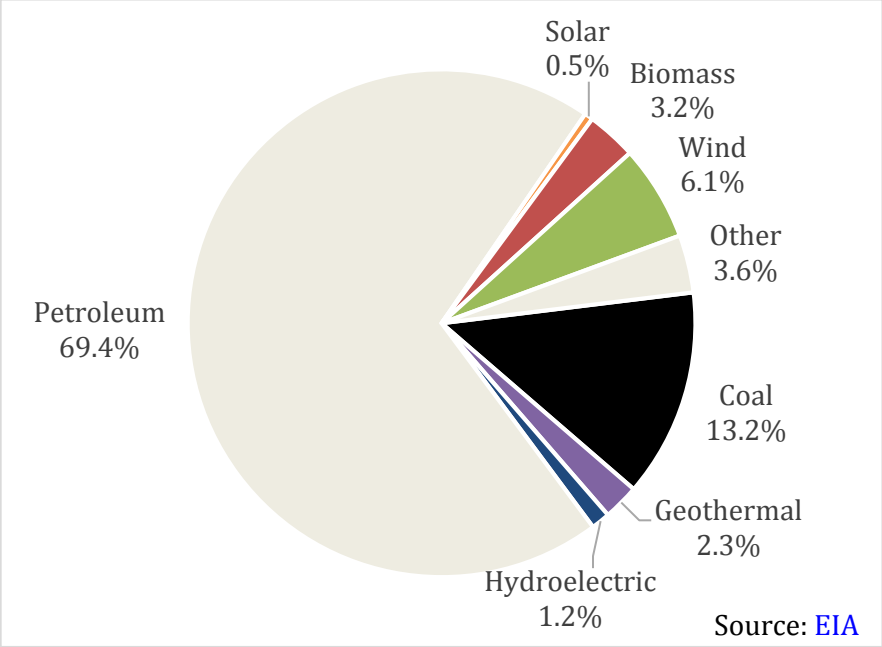
State Brief: Hawaii

Background

In 2015, Hawaii became the first state to set a 100% clean energy goal. The state is on-track to reach this goal – in 2015, 23.4% of the electricity generated in the state came from renewable sources.

Hawaii has been a national leader in renewable energy production for several years; in 2015, the state produced more solar electricity per capita from distributed facilities than any other state. In addition to solar resources, Hawaii is one of seven states in the U.S. with the potential to implement utility-scale geothermal energy production. The Hawaii Clean Energy Initiative, established in 2008, aims to unite business leaders, policy makers, and citizens to help Hawaii achieve energy independence.

Hawaii's Energy Mix



Hawaii is the most geographically isolated landmass in the world, and as a result must import nearly all of their energy resources. In 2014, 90% of the energy the state consumed was imported from out-of-state. A shift to more renewable resources will keep energy production on the islands.

Hawaii's state legislature has a Democratic majority in both chambers; in fact, there are no Republican Senators. The Governor, David Y. Ige, is also a Democrat. The three seats on the Public Utilities Commission (PUC) are also held by Democrats.

Policy Strengths and Opportunities[1]

An important framework for policymakers to consider, the notion of "policy stacking" [2] was developed at the National Renewable Energy Laboratory (NREL). The basic idea behind policy stacking is that there is an interdependency and a sequencing of state policy that, when done effectively, can yield greater market certainty, private sector investment, and likelihood of achieving stated public policy objectives.

In theory, but not always in practice, clean energy policies can be categorized into one of three tiers of the policy stack. Tier 1, Market Preparation Policies, remove technical, legal, regulatory, and infrastructure-related barriers to clean energy technology adoption. Tier 2, Market Creation Policies, create a market and/or signal state support for clean energy technologies. Tier 3, Market Expansion Policies, create incentives and other programs in order to expand an existing clean energy market by encouraging or facilitating technology uptake by additional market participants.

A simple example, before financial incentives for combined heat and power (CHP) will be successful, two key considerations for deployment are having clear interconnection standards and favorable stand-by rates for

[1] For more information on policy opportunities, please visit the SPOT for Clean Energy. For more information on specific policy actions related to these opportunities, please review the *Clean Energy Policy Guide for State Legislatures*.
[2] V.A. Krasko and E. Doris, *National Renewable Energy Laboratory*, 2012. Strategic Sequencing for State Distributed PV Policies: A Quantitative Analysis of Policy Impacts and Interactions. http://www.nrel.gov/docs/fy13osti/56428.pdf.

customers who opt to add CHP. In this example, policies to address interconnection and stand-by rates should be adopted before financial incentive programs are implemented.

Energy Storage

Energy storage offers a unique opportunity to dynamically manage supply and demand to maximize the value of grid resources. By deploying storage in strategic locations, utilities can more effectively manage their energy portfolios. First, storage can dispatch power to better integrate intermittent resources like renewable energy. Second, it provides management of intermittent demand – helping to flatten peak demand requirements for the utility. Third, the responsiveness of energy storage can allow the utility to implement voltage regulation and other ancillary services, useful for improving system efficiency. Finally, energy storage can help the commercial sector avoid costly "demand charges." As utilities around the country consider extending demand charges to the residential sector, this will become an even more important issue.

Storage provides multiple benefits to both the customer and the utility. State planning and regulatory policies can help maximize these benefits through a combination of 1) establishing a framework for easy integration of energy storage into the grid and 2) establishing a marketplace that monetizes the benefits of energy storage for cost effective investment.

In Hawaii, the costs of electricity make battery storage more cost-effective than may currently be the case in other states. Furthermore, the expansion of the electric vehicle market in Hawaii points to energy storage as a way to manage spikes in energy demand for charging. Hawaiian Electric, an investor-owned utility, offers self-supply programs for customers to store energy from rooftop photovoltaic (PV) installations and, in 2014, issued a request for proposals (RFP) for energy storage systems sized from 60 to 200 megawatts (MW).

There are opportunities for developing supportive state policies:

1. Instruct the utilities commission to evaluate the value of energy storage in multiple strategic locations across the utility system and consider a requirement to deploy storage where it will be cost effective, or identify the price point at which it will be cost effective.

2. Policymakers can require the inclusion of energy storage as a critical piece of the energy system as both a demand and supply management resource. Some states have required utilities to evaluate the cost effectiveness of "non-wires" alternatives (NWAs) to large generation investments that are more traditional utility avenues for meeting demand. Or, states may want to require utilities to develop a distribution investment plan that identifies the locations on the distribution system where energy storage or other distributed resources would offer the system the greatest value.

3. Provide incentives for customers to purchase storage to both manage load and store locally produced renewable energy. Allow utilities that provide incentives to customers to install smart meters that enable dynamic energy management from multiple distributed battery systems.

4. Adopt clear data access policies that allow third parties to provide energy management services based on signals from the utility to greatly increase the value of efforts to monetize the value stream offered by energy storage.
    a. Hawaii does not have clear state policies governing customer data access and privacy protections. Important aspects of legislation or rules addressing this include the following: clarification of who owns the energy data associated with consumer energy usage; protections for customer privacy; an outline of the process for allowing third parties direct access to data; policy to promote access to the highest resolution of data by third parties.

5. Provide an option for utility customers (targeted at commercial users) to pay an additional charge to be included in a "high reliability zone" provided through a combination of distributed generation and energy storage – forming a utility integrated "microgrid".

6. Provide financing for commercial businesses to install energy storage to reduce their demand charges.

7. For existing financial incentive programs, energy storage may be included as an incentivized energy resource. Policymakers may want to start first with a policy to incentivize those who have solar systems, along with a utility incentive that will allow the utility to maximize the benefit of solar by aligning solar resources with peak load.

Electrification of the Transportation Sector

One of the most important barriers to increased adoption of electric vehicles (EVs) is their higher up-front cost as compared to a similar conventionally-fueled vehicle. In addition, there has been a complicated relationship between increased adoption of EVs and the availability of EV charging stations. Put simply, consumers want to be sure their car will get them where they need to go. The good news is that both supportive policies for developing charging infrastructure and technological advancements have eased "range anxiety." For instance, the most recent GM Bolt has an estimated range of 240 miles.

While Hawaii offers some incentives for citizens to purchase an EV and requirements for public parking to include EV charging stations, there are policy opportunities to further encourage and prepare for increased market penetration of EVs.

1. Charging Infrastructure Plan – Locating charging infrastructure is different than locating conventional fueling stations. For the most part, EVs are cars used for commuting and local trips. Furthermore, while one fuels a conventional vehicle when they are going somewhere, stopping at a gas station for the specific purpose of filling up, a driver of an EV is generally looking to refuel when they are stopping somewhere: when going shopping, going into a restaurant, or going to work. Charging infrastructure plans should target these types of locations and attempt to pair the appropriate level of charging infrastructure with a reasonable amount of time a person may be stopped at that location.

2. EV Supply Equipment (EVSE) Financing and Financial Incentives – The provision of financial incentives and innovative financing options can increase installations of charging stations. States have adopted a number of financial incentives including income and property tax credits, sales tax credits, low-interest loans, grants, and rebates. A handful of states qualify EV charging stations under their property assessed clean energy (PACE) programs. The state could also offer tax incentives for companies to install charging at their workplace and provide grants to local governments to install charging infrastructure in accordance with a state plan – the legislature could also use this money to leverage up to 15% of the Hawaii allocation from the Volkswagen Settlement ($7.5 million) for public charging infrastructure.

3. EV Financing and Financial Incentives – Financial incentives, such as sales and income tax credits (one of the simplest methods for addressing higher up-front costs), low-interest loans, grants, and vouchers to incentive the purchase of an EV might also be considered. A study by the Congressional Budget Office suggests that tax credits are important tools for ensuring increased adoption of alternative-fueled vehicles. To increase the value of the incentive, some states offer transferrable tax credits, allowing the savings to be applied by the dealership at the time of sale.

4. Building Standards and Codes – Many states and local governments are updating building standards and codes to provide guidance and standards for the installation of charging equipment. Building codes might also be updated to require either higher voltage pre-wiring or the installation of charging infrastructure.

5. Parking Infrastructure Requirements and Restrictions – Hawaii currently mandates that for every 100 parking spaces constructed at a place of public accommodation, at least one must be exclusively for electric vehicles. The legislature could modify existing legislation by establishing Anti-ICEing rules. "ICEing" occurs when an internal combustion engine (ICE) vehicle is parked in an EV-only parking space. Some states have passed laws establishing penalties for non-EVs parked in EV-only parking spaces.

6. Rental Properties and HOAs – Legislation can also make it easier for lessees, renters, and members of a homeowners' association (HOA) to install charging equipment. Typically, lessors are directed to allow lessees, at their own cost, to install charging systems. In some cases, lessees are required to maintain additional

insurance for the system. Legislation related to HOAs typically directs Associations to avoid restrictions that would inhibit the installation of charging equipment.

7. Utility-run Programs – Some utilities offer financial incentives for the purchase of an EV charging system. In some states, enabling legislation may be required to direct or authorize a public utilities commission to allow regulated utilities to offer and recover costs for these incentives. Currently, Hawaiian Electric Company and its subsidiaries, Maui Electric Company and Hawaii Electric Light Company, offer time-of-use rates for individuals with PEVs.

Grid Modernization

In the last two decades, digital technologies have been developed that enable utilities to better manage the grid and also provide opportunities for consumers to customize their services to fit their priorities. These technologies allow a two-way flow of information between the electric grid and grid operators and between utilities and their customers. Emerging technologies improve system reliability and resiliency by enabling better tracking and management of resources.

These technologies allow grid operators to incorporate central and distributed energy resources, energy storage technologies, electric vehicles, and assist in addressing the challenges associated with planning, congestion, asset utilization, and energy and system efficiency. This can make the operational side of the utility more efficient. On the customer's side of the meter, advanced metering infrastructure, dynamic pricing, and other emerging technologies allow an exchange of information and electricity between a consumer and their electric provider. Grid modernization will be associated with greater consumer choice, allowing customers to meet their energy priorities by producing their own energy or to selecting to receive innovative energy efficient or clean energy services from different providers.

Grid modernization efforts compliment other policies such as demand response policies, customer data management, smart metering infrastructure, electric vehicles, and others. Policy approaches around grid modernization should be seen as an umbrella to put in place a structure that supports and ties together these other individual policy initiatives.

Overall, the state performs well in grid modernization, ranking 12th in Clean Edge's 3rd Annual Grid Modernization Index, and placing in the top ten for both the "State Support" and "Customer Engagement" categories. In late June 2017, Hawaii Electric filed a comprehensive plan to modernize the power grid on five islands for the purpose of meeting the state's goal of 100% clean energy by 2045. However, Hawaii can advance grid modernization efforts by considering implementing the following supportive policies.

1. Consumer Data Access - Time of use rates are available statewide and the state scores high marks on grid modernization. However, there are no clear state policies governing customer data access and privacy protections. The state could further enable customer data access to energy data through the Green Button "Connect to My Data" program statewide. The state has committed to Green Button's "Download My Data" program, but "Connect to My Data" has proven to be more effective, as data transfer occurs automatically upon customer authorization. "Download My Data," on the other hand, requires the user to manually upload data, which rapidly becomes a burden. Establishing the principles of data access, consumer protection, and consumer consent for third parties is a critical step in advancing customer data access programs, as is establishing a minimum standard of data resolution available to customers. Allowing customers to access their data and authorize third parties to use their energy data for services opens up a market for IT based energy management companies to expand and offer services directly to customers in Hawaii.

2. Require that utilities develop and submit plans to the PUC to increase the deployment of advanced metering infrastructure, and that these plans outline steps to measure and report on the results of these efforts. Consider providing incentives or cost recovery mechanisms for utilities to these goals.

3. Improve the state's energy storage policies. The adoption of incentives for or a mandate to integrate a certain amount of energy storage on the grid (see above) would enhance modernization efforts. Enhancing clean

energy financing (below) and electric vehicle policies (above), also improves the chances of successful grid modernization.

Clean Energy Financing

Distributed generation (DG) provides localized generation that serves a specific part of the grid. It may include generation serving a specific residence or business, a neighborhood, or a region served by a substation. DG has the benefit of reducing stress on large transmission infrastructure by providing distribution level power (as opposed to central generation). Because small-scale renewable energy systems require large upfront investments, overcoming the upfront cost barrier is arguably the biggest challenge to clean energy deployment at the consumer level. Financing is key; and many states provide financing and financial incentives to spur adoption of these technologies.

To promote wide-spread deployment of DG, there are a handful of policy opportunities in Hawaii.

1. Property Assessed Clean Energy (PACE) – PACE is a financing mechanism used by local governments that allows property owners to finance energy efficiency and renewable energy improvements through their property tax payment. The repayment of qualified energy improvements is done via a voluntary property tax assessment collected by local governments, just as other public infrastructure investments are financed. While PACE programs can be designed for both the residential and the commercial markets, residential PACE takes a much more committed and engaged approach on the part of the state. Currently, local governments in Hawaii can implement PACE programs, but there are no active PACE programs. The existence of a PACE program can greatly facilitate homeowners bundling energy efficiency and renewable energy investments to make comprehensive upgrades to their homes. In order to amend Hawaii's existing residential PACE authorization, legislation might follow the Department of Housing and Urban Development's (HUD) guidance for determining eligibility for Federal Housing Authority (FHA) insured mortgage financing:
    a. Collection: The PACE obligation is collected and secured by the creditor in the same manner as a special assessment against the property;
    b. Enforcement: The property may only become subject to an enforceable claim (i.e., a lien) that is superior to the mortgage for delinquent regularly scheduled PACE payments. The property shall not be subject to an enforceable claim superior to the mortgage for the full outstanding PACE obligation at any time;
    c. Property Transfer: There are no terms or conditions that limit the transfer of the property to a new homeowner. Provisions to require the consent of a third-party prior to conveyance are prohibited, unless these provisions can be terminated at the option of, and with no cost to, the homeowner;
    d. Disclosure: The existence of a PACE obligation on a property is readily apparent to all parties to an FHA-insured mortgage transaction in the public records and must show the obligation amount, the expiration date and cause of the expiration of the assessment, and in no case, can default accelerate the expiration date.

2. Combined Heat and Power and non-Solar DG Incentives – Hawaii offers loans, rebates, tax credits, and other incentives for solar DG technologies. To increase the deployment of combined heat and power and non-solar DG, the state's existing programs could be expanded to include these technologies.

2017 Energy-Related Legislation Introduced by Attendees

Bill Number	Bill Summary	Bill Status	Sponsor
SB 17-234	Authorizes the public benefits fee to be used to install and upgrade electric power infrastructure to facilitate the use of electric vehicles. Authorizes the public benefits fee administrator to establish procedures for the administration of public benefits fee programs that install or upgrade electric power infrastructure to facilitate the use of electric vehicles. Sunsets on 6/30/2021.	Introduced	Inouye
SB 17-237	Requires the department of business, economic development, and tourism to establish a two-year advanced biofuels pilot project to	Introduced	Inouye

	expand the use of biofuels in achieving the goal of 100 percent clean energy dependence by 2045. Requires a report to the legislature prior to the Regular Session of 2019. Makes an appropriation.		
SB 17-240	Requires the executive officer and chief counsel of the public utilities commission to annually file a disclosure of financial interests with the state ethics commission and requires these disclosures to be public.	Introduced	Inouye
SB 17-242	Requires at least one of the three PUC commissioners to be a resident of a county other than the city and county of Honolulu and to receive per diem compensation.	Introduced	Inouye
SB 17-361	Establishes an income tax credit for taxpayers who purchase and install eligible energy storage systems. The amount of credit depends on type of system installed, filing status, and federal AGI of taxpayer. Excess credit may carry-over to subsequent tax years or is refundable under certain conditions. Requires the Department of Business, Economic Development, and Tourism to submit a report to the Legislature regarding the usage of energy storage systems.	Introduced	Inouye
SB 17-365	Provides an investment income tax credit for energy storage property that receives, stores, and delivers energy. Requires DOTAX and DBEDT to submit annual reports to the legislature regarding the energy storage income tax credit. Requires DBEDT to complete a study on the impacts and benefits of the tax credit and its contribution to the State reaching its energy goals.	Introduced	Inouye
SB 17-366	Requires, on or before 1/1/2020, the public utilities commission to establish performance incentive and penalty mechanisms that directly tie electric utility revenues to the utility's achievement on performance metrics.	Introduced	Inouye
SB 17-376	Repeals chapter 269, part VIII, Hawaii Revised Statutes, relating to the interisland transmission system.	Enacted	Inouye
SB 17-382	Requires a management audit of the Public Utilities Commission.	Enacted	Inouye
SB 17-434	Requires the governor, DBEDT, and the Hawaii state energy office to develop a strategic plan that outlines benchmarks to achieve a one hundred per cent renewable energy portfolio standard. Requires DBEDT to submit the strategic plan to the legislature no later than twenty days prior to the convening of the regular session of 2018.	Introduced	Inouye
SB 17-649	Establishes an annual electric vehicle registration surcharge to be deposited into the state highway fund.	Introduced	Inouye
SB 17-650	Repeals the renewable energies technology income tax credit.	Introduced	Inouye
SB 17-660	Creates the energy storage market acceleration program and energy storage rebate program to be administered by the public benefits fee administrator. Establishes an energy storage system rebate for energy storage system providers and allows for rebates under the program to be paid out of the public benefits fee. Requires the public utilities commission to establish rebate amounts under the program annually. Authorizes the public utilities commission to increase the public benefits fee if necessary to fund the programs.	Introduced	Inouye
SB 17-661	Clarifies that county ordinances shall not conflict or interfere with DLNR rules related to the issuance of permits in support of geothermal resources development and geothermal resources exploration. Requires the lessee of a mining lease to comply with all water and air pollution control laws. Requires the rules of the board of land and natural resources regarding mining operations, geothermal resource development, and geothermal resource exploration to be uniform throughout the State.	Introduced	Inouye

SB 17-665	Replaces the current renewable energy technology systems tax credit with tax credits for solar or wind energy property and energy storage property. Establishes a demonstration project for building energy efficiency designs within the Department of Transportation.	Passed both Chambers	Inouye
SB 17-817	Requires, in places of public accommodation, a ratio of one electric vehicle parking stall per 100 stalls by 2018 and a ratio of two electric vehicle parking stalls per 100 stalls by the year 2023. Designates the appropriate county authority having jurisdiction over planning and permitting for enforcement. Specifies procedures for enforcement.	Introduced	Inouye
SB 17-1094	Requires that in order to qualify for the renewable energy technologies income tax credit, solar water heater systems meet the standards for solar water heater systems established by the public utilities commission. Requires the public utilities commission to establish standards for hot water heater systems that are ENERGY STAR qualified and listed or systems certified to the Solar Rating and Certification Corporation (SRCC) standard 3000.	Introduced	Inouye
SB 17-1186	Establishes the objective of eliminating all imported fossil fuels for ground transportation by 2045. Updates the State's clean energy initiative program to reflect the State's target of achieving a one hundred per cent renewable energy economy by 2045.	Introduced	Inouye
SB 17-1187	Establishes a clean transportation fee to be paid from a tax on fuel sales. Establishes the zero emissions vehicle infrastructure special fund to be funded by a percentage of the clean transportation fee for the purpose of expediting the development of electric charging and hydrogen fueling infrastructure throughout the State to enable and promote the use of zero emissions vehicles. Establishes the zero emissions vehicle rebate special fund to provide rebates for the purchase of new zero emissions vehicles within the State.	Introduced	Inouye
SB 17-1207	Appropriates moneys to the Agribusiness Development Corporation for a study to be conducted in cooperation with the United States Army Corps of Engineers on the merits of acquiring Lake Wilson dam and spillway to upgrade the dam and develop pumped-storage hydroelectricity. Requires federal matching funds.	Introduced	Inouye
SCR 17-98	Requesting state and county agencies to update administrative rules to adopt environmental protection standards that are at least as stringent as the federal standards as of January 1, 2016, or January 1, 2017, whichever is more stringent.	Introduced	Inouye
SCR 17-121	Urging the development of a Hawaii green fuels initiative to coincide with increased local food production.	Introduced	Inouye
SCR 17-122	Urging the State Energy Office, in cooperation with other state and federal agencies and interested stakeholders, to facilitate discussions and provide recommendations for initiating and supporting the development of offshore renewable wind energy projects.	Introduced	Inouye
SCR 17-123	Requesting the Department of business, economic development, and tourism to establish a target date of 2045 for the reduction and ultimate elimination of Hawaii's dependence on imported fossil fuels for electrical generation and ground transportation.	Introduced	Inouye
SCR 17-124	Urging the Department of Agriculture to develop policies to discourage the development of geothermal energy on important agricultural lands.	Introduced	Inouye
HB 17-68	Reallocates barrel tax revenues by increasing the distribution amounts to the environmental response revolving fund, energy security special fund, energy systems development special fund, and agricultural development and food security fund.	Introduced	Lee

HB 17-152	Requires the Public Utilities Commission to explore the feasibility of retail wheeling in Hawaii, report to the Legislature, and, if retail wheeling is deemed feasible and in the public and consumer interest, to submit proposed implementation plans and associated deadlines.	Passed House	Lee
HB 17-592	Extends the sunset date of the Alternative Energy Research and Development Pilot Program to June 30, 2019.	Passed both Chambers	Lee
HB 17-621	Establishes a three-year pilot project to promote photovoltaic powered desalinization on the island of Kahoʻolawe and to study certain aspects of the technology's use.	Introduced	Lee
HB 17-634	Authorizes the issuance of special purpose revenue bonds to upgrade Nuuanu reservoir #1 to meet state dam safety standards, as a component of the Nuuanu hydroelectricity project.	Passed House	Lee
HB 17-635	Authorizes the issuance of special purpose revenue bonds to upgrade Nuuanu reservoir #4 to meet state dam safety standards, as a component of the Nuuanu hydroelectricity project.	Passed House	Lee
HB 17-637	Requires the State Building Code Council to adopt codes or standards within two years of official publication, otherwise automatic adoption into Hawaii State Building Code will occur until such adoption is effectuated. Deletes requirement for Council adoption of new model building codes within 18 months of official publication date. Authorizes Council to receive private funds for code adoption.	Enacted	Lee
HB 17-792	Makes the use of customer self-supply facilities economically viable by requiring the Public Utilities Commission to develop standards and requirements to expedite the interconnection of qualifying customer self-supply facilities and allowing qualifying customers to select an applicable rate schedule.	Introduced	Lee
HB 17-793	Specifying that places of public accommodation with at least 100 parking spaces available for public use have at least one parking space designated for an electric vehicle per 100 parking spaces. Removing the provision allowing owners of multiple parking facilities to designate and electrify fewer parking spaces than required. Establishing a task force to examine and make recommendations to expand electric vehicle parking spaces in public parking lots.	Introduced	Lee
HB 17-794	Establishes the University of Hawaii (UH) Green Special Fund to support energy efficiency, renewable energy, and sustainability projects and services, and planning, design, and implementation of sustainability projects for UH's benefit. Requires UH to submit an annual report to the Legislature.	Enacted	Lee
HB 17-795	Appropriates funds for certification of a reforestation carbon project at Haleakala, Maui, operated by DLNR, under an established forest carbon standard certification system. Requires DLNR to submit an annual report on the project certification to the legislature.	Passed House	Lee
HB 17-805	Establishes an intervenor compensation program to provide compensation to intervenors who make a substantial contribution to a Public Utilities Commission proceeding that produces a positive result or savings for consumers.	Introduced	Lee
HB 17-848	Requires UH to develop a microgrid plan for one demonstration project at any property on Oahu owned, leased, or controlled by UH. Requires UH to collaborate with the local electric utility. Requires quarterly status reports to the legislature. Requires UH to submit the microgrid plan to the legislature prior to the regular session of 2019.	Passed both Chambers	Lee
HB 17-903	Amends the definition of "renewable portfolio standard" to more accurately reflect the percentage of renewable energy penetration in	Introduced	Lee

	the State. Establishes renewable portfolio standards and targets for gas utility companies that mirrors those set for electric utilities.		
HB 17-957	Authorizes the Department of Education to borrow moneys interest-free from the Hawaii Green Infrastructure Loan Program for heat abatement measures at public schools. Requires the Department of Education to make payments on the loan from revenues saved by energy efficiency measures.	Enacted	Lee
HB 17-1248	Authorizes the establishment of a NELHA microgrid demonstration project for the generation, storage, and distribution of renewable energy on property controlled by NELHA.	Passed House	Lee
HB 17-1249	Requires the Department of Business, Economic Development, and Tourism to convene a working group to develop standards for reporting energy consumption to facilitate comparisons of energy consumption and costs by consumers and homebuyers.	Passed House	Lee
HB 17-1283	Requires the PUC to establish performance incentive mechanisms that directly tie electric utility revenues to the utility's achievement on performance metrics. Allows the PUC to delay implementation until no later than January 1, 2020.	Introduced	Lee
HB 17-1294	Requires the Department of Business, Economic Development, and Tourism to establish a task force to make recommendations on building and energy code and standards for commercial buildings.	Introduced	Lee
HB 17-1543	Requires the University of Hawaii community colleges to establish energy systems and technology training courses for county employees responsible for permitting, inspecting, licensing, and approving construction projects that contain renewable energy systems and related technology. Requires the establishment of a committee of industry stakeholders to collaborate with the University of Hawaii community colleges in developing appropriate training courses. Requires the University of Hawaii community colleges to submit a report to the legislature detailing its progress prior to the convening of the regular session of 2019.	Passed House	Lee
HB 17-1566	Establishes "substantial net benefit" as the public utilities commission's standard for a merger involving an electric public utility and allows the commission to establish reasonable criteria to determine whether a "substantial net benefit" exists in a proposed merger involving an electric public utility.	Passed House	Lee
HB 17-1567	Authorizes the Public Utilities Commission to establish preferential electricity rates for communities that serve as geographic hosts for energy projects. Requires an energy project developer to work collaboratively with a host community to develop a community benefits program and to fund a majority, if not all, of the contributions and support for the community benefits program.	Passed House	Lee
HB 17-1569	Requires the Public Utilities Commission, when considering certain types of grid modernization plans, to direct an independent third party to establish an initial grid modernization plan. Requires the Commission to allow public comments and subjects the plan to further modification by the Commission.	Introduced	Lee
HB 17-1574	Requires the Public Utilities Commission to establish a tiered energy savings rate structure for customers of electric utilities. Allows the Commission to establish discounted rates for low-income customers of electric utilities. Reforms the public benefits fee. Allows the fee to be used to benefit energy efficiency advancement for low- and middle-income ratepayers and for emergency energy workforce retraining and transition programs.	Introduced	Lee

HB 17-1578	Establishes the Carbon Farming Task Force within the Office of Planning to identify agricultural and aquacultural practices to improve soil health and promote carbon sequestration in the State's agricultural and aquacultural sectors.	Enacted	Lee
HB 17-1579	Authorizes the issuance of revenue bonds and appropriates funds to the high technology development corporation for the purpose of constructing an electrolysis hydrogen production, storage, and dispensing facility to be managed by the Hawaii center for advanced transportation technologies. Establishes a demonstration project for building energy efficiency designs within the department of transportation. Requires all state buildings built or renovated after July 1, 2020, to incorporate certain energy efficient practices.	Passed House	Lee
HB 17-1580	Establishes a clean ground transportation benchmark framework to maximize consumer fuel savings, including a near term 2025 target encouraging electric vehicle infrastructure buildout supporting Hawaii's goal for the reduction and ultimate elimination of the use of imported fuels for ground transportation by 2045. Directs the department of transportation to collaborate with the state energy office to develop recommendations to achieve those benchmarks.	Passed both Chambers	Lee
HB 17-1593	Establishes the Clean Energy Savings Jump Start Program and Clean Energy Savings Jump Start Fund. Establishes the Energy Storage System Rebate Program as a three-year pilot program and requires the Green Infrastructure Authority to submit annual reports to the legislature on the program's progress and activities. Deletes the Public Utilities Commission's approval authority relative to the Green Infrastructure Loan Program.	Passed both Chambers	Lee

Other 2017 Energy-Related Legislative Activity

Only bills that have passed both chambers are set out below. For all 2017 energy-related legislation, visit aeltracker.org.

Bill Number	Bill Summary	Bill Status
SB 17-559	Requires the State to expand strategies and mechanisms to reduce greenhouse gas emissions statewide in alignment with the principles and goals adopted in the Paris Agreement. Renames the Interagency Climate Adaptation Committee as the Hawaii Climate Change Mitigation and Adaptation Commission. Clarifies the duties of the Commission.	Enacted
SB 17-902	Changes the name of the High Technology Development Corporation to the Hawaii Technology Development Corporation. Changes all references in Chapter 206M, Hawaii Revised Statutes, from "high technology" to "technology." Repeals the Hawaii Software Service Center established within the High Technology Development Corporation.	Enacted
SB 17-909	Addresses deficiencies in Hawaii's fuel shortage response and energy emergency (energy assurance) statutes; provides policy guidance on preparing for, responding to, recovering from, and mitigating against any actual or potential energy supply disruption or shortage to preserve the State's energy security and to ensure that fuel products and energy resources are made available to emergency services and the public in an orderly, efficient, and safe manner.	Passed Both Chambers
SB 17-1104	Authorizes the issuance of special purpose revenue bonds to assist Maui All Natural Alternative, LLC with the development of a project to provide municipal sludge processing and renewable energy at the Wailuku-Kahului wastewater reclamation facility on Maui.	Passed Both Chambers
HB 17-1044	Establishes a renewable fuels production tax credit with the intent to create a stronger market for renewable fuels and promote the production of locally	Enacted

	grown feedstock.	
HB 17-1333	Authorizes the issuance of special purpose revenue bonds to provide financing to assist the Honokaa Land Company, LLC, with acquiring, developing, and renovating agricultural facilities and structures.	Enacted

News

- September 1st, 2017: The Updated Future of Hawai'i's Fuel.
- August 31st, 2017: Grid Upgrade Plan Sent to PUC: Use of More Renewable Energy Focus of Strategy.
- August 31st, 2017: Hawaii Schools Go Solar for Savings.
- August 31st, 2017: Construction Ramps Up at Hu Honua Bioenergy Plant Near Pepeekeo.
- August 17th, 2017: Hawaii Electric Cooperative Proposes New Pair of Rooftop Solar Compensation Options.
- August 7th, 2017: Powin Energy Wins 2.4MWh Battery Storage Contract in Hawaii.
- August 6th, 2017: Power Grid Showing Its Age as More Renewable Energy Produced.
- August 4th, 2017: Hawaii Doesn't Have the Highest Energy Costs in the Nation (Thanks to Its Balmy Weather).
- August 2nd, 2017: Hawaii OKs Solar Farm with Battery Energy Storage.
- August 2nd, 2017: Hawaii Building 1st Public Hydrogen Vehicle Fueling Station.
- July 14th, 2017: The New Normal for Rooftop Solar in Hawaii?

Other Resources

- Distributed Energy Resources Council: http://www.dercouncil.org/
- Hawaii Clean Energy Initiative: http://www.hawaiicleanenergyinitiative.org/
- Hawaii State Energy Office: https://hawaiienergy.com/
- The American Council for an Energy-Efficient Economy State and Local Policy Database, Hawaii: http://database.aceee.org/state/hawaii
- The Database of State Incentives for Renewables & Efficiency (DSIRE), Hawaii: http://programs.dsireusa.org/system/program?fromSir=0&state=HI
- U.S. Energy Information Administration, Hawaii: https://www.eia.gov/state/?sid=HI
- SPOT for Clean Energy, Hawaii: https://spotforcleanenergy.org/state/hawaii/