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**Guide to Renewable Energy Facility Permits in the  
State of Hawai'i**

**Version 1**

**January 2013**

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## Notice

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The *Guide to Renewable Energy Facility Permits in the State of Hawaii* was designed to help people understand the permitting process for renewable energy projects in Hawai'i. It is not a legal document and should not be relied on exclusively to determine legal requirements; some permits and licenses not included in this Guide may be necessary for a particular project. This Guide is not meant to be a substitute for hiring a professional permitting consultant. The State of Hawai'i Department of Business, Economic Development and Tourism (DBEDT) strongly recommends that a renewable energy developer proposing a large or complex facility discuss it with an expert familiar with local environmental and land use permits, and other approvals to expedite permitting. The State of Hawai'i is not responsible for delays or losses should the processing of a permit or approval differ from that described in this Guide. DBEDT also recommends directly contacting the permitting agencies relevant to a specific project when project details have been established.

## Acknowledgements

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The *Guide to Renewable Energy Facility Permits in the State of Hawai'i* was produced as part of the Hawai'i Clean Energy Initiative (HCEI), a partnership launched in 2008 between the State of Hawai'i and the U.S. Department of Energy. DBEDT would like to give special thanks to the National Renewable Energy Laboratory and Sentech Hawai'i, LLC for initiating this project, and PB Americas (a.k.a. Parsons Brinkerhoff) for developing this comprehensive Guide and its online counterpart, the Permitting Wizard ([://wizard.hawaiicleanenergyinitiative.org/](http://wizard.hawaiicleanenergyinitiative.org/)). Support from a number of federal, state, and county agencies and industry professionals made this Guide possible.

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## Chapter 1—Introduction

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### Background

This Guide, the online Permitting Wizard ([://wizard.hawaiicleanenergyinitiative.org/](http://wizard.hawaiicleanenergyinitiative.org/)), the Developer & Investor Center ([://energy.hawaii.gov/developer-](http://energy.hawaii.gov/developer-)), and Renewable EnerGIS ([://energy.hawaii.gov/resources/renewable-energis-](http://energy.hawaii.gov/resources/renewable-energis-)) were created by the Hawai'i State Energy Office within the Department of Business, Economic Development, and Tourism as part of the Hawai'i Clean Energy Initiative (HCEI) to help understand the permitting process for renewable energy facilities in Hawai'i.

The Hawai'i State Energy Office aims to utilize indigenous resources to produce energy for Hawai'i ratepayers at a cost they can depend on for 20+ years, while maintaining the world-renowned environmental quality and lifestyle visitors and residents enjoy.

The fastest way to develop a renewable energy project in Hawai'i is to (1) identify the permits required, (2) engage the appropriate regulatory agencies, (3) engage the utility on interconnection and off-take contracts, and (4) engage the surrounding community in a meaningful discussion of the facility to be located in their backyard.

Hawai'i is home to over 315 endangered flora and fauna species (approximately 245 with designated critical habitat), countless cultural and historic sites from the coastline to the mountains, fragile indigenous ecosystems, and pristine marine coastlines. In addition to our valued ecologic resources, our limited land area increases competition for viable sites, with proposed land uses often subject to rigorous public and regulatory scrutiny. To ensure the protection of these resources, there is a comprehensive set of state, county, and federal environmental and land use laws. Developers must work with numerous agencies – and divisions within those agencies – to gain permissions.

Projects sited and designed with environmental stewardship, community input, and proper land use under consideration will move through the permit process most quickly. It is also important for project developers to engage all public and private stakeholders early in the process to identify and address potential siting issues and develop a project accepted by the surrounding community. Hawai'i's tight knit communities make it difficult for a developer to keep project details confidential for long or build a facility that will not impact at least one nearby community. A sense of community ownership can turn potential project opponents into project proponents. To reduce the spread of inaccurate or misleading information, developers should be the first to disseminate accurate details about their project, both positive and potentially negative. One useful document to help incorporate one's project with local values is the Aloha 'Aina Guidance Document ([://hawaiihumpbackwhale.noaa.gov/management/council\\_aloha\\_aina\\_guidance](http://hawaiihumpbackwhale.noaa.gov/management/council_aloha_aina_guidance)).

Hawai'i's relatively small electrical grids impact siting and permitting by dictating which distribution circuits and geographical areas can safely absorb energy from a third party producer. The appropriate utility – Hawaiian Electric Company (HECO), Maui Electric Company (MECO), Hawaii Electric Light Company (HELCO), or Kaua'i Island Utility Cooperative (KIUC) – must be contacted early in the planning stages to discuss project interconnection to the electrical grid. Recognizing that some projects submitted for permit approval will not be approved by the utility or the Hawai'i Public Utilities

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Commission (PUC), some permitting agencies will want assurances from the developer or utility that a given project is likely to be approved for interconnection by the utility before they will process certain permits. In addition, ancillary transmission or communications infrastructure can carry additional state and county permitting requirements or may be exempt from certain approvals in some cases.

For these reasons, it is beneficial to work with professionals familiar with both permitting and interconnection processes to fully comprehend the succession of approvals required before one can start selling power or fuel to the utility.

## How to Use this Guide

Identification of the permits that may be required for a renewable energy facility is based both on technology type and project location. The Guide contains sections that address the associated technologies and each of the State's four counties' general permitting processes.

Checklists of potential permits have also been developed. Table 2-4 (Chapter 2) presents a checklist of federal permits that may be required. Table 2-5 (Chapter 2) presents a list of State permits that may be required. Table 3-2, Table 3-4, Table 3-6, and Table 3-8 in Chapter 3 of the Guide present checklists of possible county permits (one checklist per county). The checklists reference Permit Packets that provide additional permit-specific information online.

The Permit Packets are posted and available for download on the Hawai'i State Energy Office's "[and](#)" website in the section for "Project Permitting Assistance Resource" under "[Energy Project Permitting in the State of](#)."

Each Permit Packet generally includes:

- **"Process Overview" summaries** – Summaries provide a broad understanding of the process, including specific contact information, major steps, and estimated time frame and fees.
- **Instructions** –Instructions are included where available from the agency. While we try to keep all Packets updated strongly recommend that the developer contact each permitting agency recommended prior to completing the application to ensure that the process described in this Guide has not changed.
- **References to Administrative Rules/Ordinances/Legislation** – Authorizing legislation and administrative rules are provided for most state permits. These documents define some technical terms, provide process information, and address common questions. Recent versions of county rules and ordinances are provided as a convenience. These versions should also be referenced in the Permit Packets.

**Permit processes and requirements are dynamic. Applicants should contact the relevant permitting agencies to ensure they are using the most current versions of forms and to confirm that the procedures as stated in this Guide are up-to-date and accurate.**

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## Chapter 2—Federal and State Permitting

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### Categories of Permits

Permits may be categorized into four general groups:

- Environmental permits and reviews (protected species, sensitive environments, cultural and archeological impacts)
- Land use permits (zoning compatibility)
- Construction and operation permits (engineering, design)
- Utility permits (utility interconnection)

### Environmental Permits and Reviews

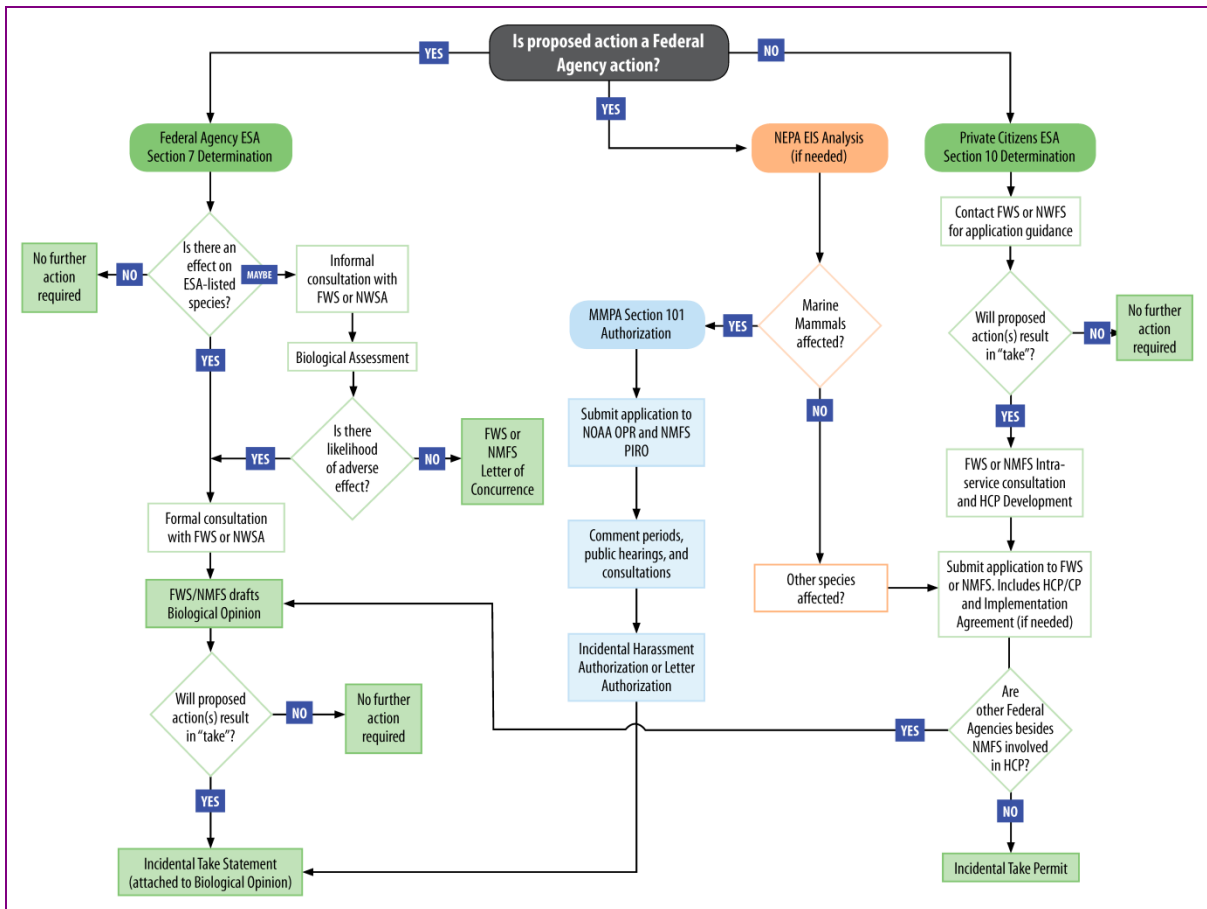
While renewable energy projects are a priority at all government levels, little leeway is afforded when it comes to environmental and human health protection. For the purposes of this Guide, an “environmental permit” is a permit or an approval required to regulate certain types of activities that impact our environmental, ecological, archeological, historic, and cultural resources. A team of consultants from various disciplines with experience working in Hawai‘i is often required to successfully navigate the maze of environmental regulations in a timely manner.

### Endangered Species Reviews and Habitat Conservation

Hawai‘i has many, many endangered and protected species in the air, water, and on land. The Division of Forestry and Wildlife (DOFAW) within the Hawai‘i Department of Land and Natural Resources (DLNR) and the U.S. Department of Interior’s Fish and Wildlife Service (USFWS) are charged with regulating impacts on protected species. Projects with potential to affect species listed under the Endangered Species Act (ESA) must consult DOFAW and USFWS at the earliest practicable time in project development. Given all these species, to prevent surprises later in the development process, project proponents should work closely with DOFAW and USFWS to voluntarily conduct a biological assessment of the project area to identify potential species and/or critical habitats. In addition, certain federal and/or state funds used for a project will prompt ESA review. If receiving government grants or other financial assistance, one should consult the funding source as to what regulatory reviews are required.

Where a state and/or federal Incidental Take License or Permit is required, a Habitat Conservation Plan (HCP) is also likely required (see Hawai‘i Revised Statutes, HRS, Chapter 195D). Part of an HCP may require the project proponent to secure and establish a mitigation area to foster the growth of the taken species whereby the mitigation efforts would result in a net benefit to the species. Such mitigation areas may often require their own permitting, site control, and review processes; another reason why early consultation with DOFAW and USFWS is critical.

**Figure 2-1. Coordination of Endangered Species Act, Marine Mammal Protection Act, and National Environmental Policy Act Processes**



### Historic, Archeological, and Cultural Reviews

Historic and cultural resources are highly valued in Hawai‘i, with many existing practitioners today. Our renewable energy resources – sun, ocean, wind, streams, geothermal – are embodiments of sacred beliefs. Profitable use of these resources should be treated with utmost respect, which requires extensive consultation with local community members and experts in Native Hawaiian culture. Evidence of Native Hawaiian communities can be found from the mountains to the sea, on almost every type of topography, meaning all projects must survey their sites for archeological, cultural, and historic properties. It is the project proponent’s responsibility to ensure they comply with HRS 6E and its associated Hawai‘i Administrative Rules (HAR).

Project proponents should voluntarily consult with the State Historic Preservation Division (SHPD) within DLNR during the early due diligence period to determine HRS 6E compliance needs. This due diligence can help prevent a surprise discovery of significant artifacts or sites, which can halt a project indefinitely until resolved.

HRS 6E compliance will typically start with a review of the historic documents relating to the project site, then a ground survey of the site, followed by a plan to mitigate and preserve identified sites;

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relocating, avoiding, or isolating them where feasible. Certain permits to regulate activities that can disturb historic sites – e.g., building, grading, grubbing permits – prompt the permitting agency to route the permit application through SHPD for review.

Projects with historic sites should work with stakeholders to preserve access, maintain cultural areas, and/or otherwise preserve identified resources. If a project site somehow blocks or disturbs frequently used access routes, notwithstanding if these access routes are illegal, project proponents should seek an amicable solution to preserve access, while mitigating landowner liabilities, to keep community members and users happy.

In Hawai‘i, there are many old military sites considered historic properties, particularly around Pearl Harbor on O‘ahu. As with historic Hawaiian sites, developers should work with local stakeholders to preserve and allow access to sensitive sites within a project area.

In addition to protecting the archeological and historic features impacted by one’s project, developers required to undergo the HRS 343 Hawai‘i environmental review process, discussed in this section, must also identify and mitigate against impacts to the cultural practices of the community. Hawai‘i Session Laws of 2000, Act 50, requires Office of Hawaiian Affairs (OHA) approval of cultural assessments included in HRS 343 environmental review documents. It is important for all cultural impacts to be addressed in the draft stage of the HRS 343 process to ensure the Draft Environmental Assessment (DEA) or Draft Environmental Impact Statement (DEIS) thoroughly discusses the cultural impacts and proposed mitigation measures. Even where HRS 343 does not apply, project proponents should consult OHA to identify potential cultural issues early in the project development phase and work with stakeholders to mitigate any potential impacts to cultural resources.

If federal funds are involved, the National Historic Preservation Act is invoked, which requires an assessment of project impacts on historic resources.

### **Hawai‘i’s Environmental Review Process**

Adopted in 1974 and somewhat patterned after the National Environmental Protection Act (NEPA), Hawai‘i’s environmental review law (HRS 343; also called “Chapter 343”) requires the preparation of Environmental Assessments (EAs) and Environmental Impact Statements (EISs) for projects that “trigger” one or more criteria set forth in HRS 343. These triggers are expressly listed in HRS 343-5 and the corresponding HAR 11-200-6. As of January 2013, the Environmental Council is in the process of evaluating and updating these Administrative Rules. A draft of these rules can be found online if one wishes to submit comments.

As with NEPA, the state law requires that government give systematic consideration to the environmental, social, and economic consequences of proposed developments prior to construction. The law also assures the public the right to participate in planning projects that may affect their community. While the government is tasked with determining compliance with HRS 343, it is the project itself that is most often at risk if the HRS 343 process is not followed. For this reason, the project proponent must work with the relevant agencies to ensure HRS 343 compliance.

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The Office of Environmental Quality Control (OEQC) is responsible for the administration of Chapter 343: [://oeqc.doh.hawaii.gov/default](http://oeqc.doh.hawaii.gov/default). One of OEQC's tasks is publication of a periodic bulletin, currently called "The Environmental Notice." It includes notices of:

- Determinations on the need for an EA or EIS
- Acceptance or non-acceptance of EAs or EISs
- Availability of documents for review and comments
- Documents, public comment processes or public hearings for habitat conservation plans, safe harbor agreements, or incidental take licenses under the ESA
- Certain permitting activities
- Other items of environmental interest

If a proposed project triggers Chapter 343, and does not qualify as an exempt class of action under HAR 11-200-8 and/or as described in the "Exemption List" maintained by the lead state or county department, environmental review typically begins with the development of a Draft EA. In 2012, Act 172 was passed into law, which allows for a project proponent to proceed directly to an EIS where significant environmental impacts from the project are anticipated (previously, an EA was supposed to be completed before an EIS).

An EA is an informational document prepared by the applicant that evaluates possible environmental effects of the project. The EA must sufficiently describe the project to evaluate its direct, indirect and cumulative impacts. The document must consider alternatives to proceeding with the proposed project, and describe all measures proposed to minimize potential environmental impacts. The public has 30 days to review and comment on the Draft EA. The Draft EA is then revised by addressing the comments received and the Final EA is prepared. The approving agency reviews the FEA and determines whether any "significant" environmental impacts would occur.

Should the agency determine that the project will not have a significant environmental impact, it issues a Finding of No Significant Impact (FONSI). This determination allows the project to proceed without further environmental review. The public may challenge an agency's determination by filing suit within 30 days of the notice of issuance of the FONSI, which appears in OEQC's *The Environmental Notice*.

Should the agency determine that the action may have a significant impact, an EIS is prepared. The EIS addresses the project's significant environmental impacts in more detail, and the measures proposed to minimize the impact. An EIS Preparation Notice (EISPN) is first issued and undergoes a 30-day comment period to help define the scope of the Draft EIS. Publication of an EISPN initiates a 60 day period during which an aggrieved party may challenge the determination in court.

An EIS assesses the proposed project through research, discussion and review. It must, at a minimum, identify environmental concerns, report relevant data and necessary studies, document and address public input, evaluate alternatives, and propose mitigation measures that will minimize adverse environmental impacts. The EIS must be structured to disclose information in a concise manner using understandable terms. The EIS is prepared in both draft and final versions. It is

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initially published as a Draft EIS for a 45 day review by the public and government agencies. After comments on the Draft EIS are addressed, the document is updated and issued as a Final EIS. The approving agency determines the acceptability of a Final EIS. Unless challenged within the allowed time period set forth in HRS 343-7, acceptance of the Final EIS ends the Chapter 343 review and the action may proceed. Publication of the acceptance of the Final EIS in *The Environmental Notice* initiates a 60-day legal challenge period.

### **Federal Environmental Review Process**

Environmental reviews are conducted at the federal, state, and county levels. At the federal level, the National Environmental Policy Act (NEPA), implemented in 1970, creates procedures and set policies that have become the framework for environmental coordination. NEPA applies to federal activities that could affect the environment. NEPA is triggered on federal projects, projects on federal lands, any project requiring a federal permit, and projects and programs receiving federal funding. This is particularly important as many federal grants available to renewable energy projects require NEPA compliance. While recipients must check with the granting agency, some incentives for renewable energy may be exempt from NEPA.

While broad, these activities are not all-encompassing, and some projects do not trigger NEPA or any federal environmental review. Every federal agency is required to implement NEPA. NEPA requires agencies to undertake an assessment of the environmental effects of their proposed actions prior to making decisions. The procedure is commonly referred to as “the NEPA process” or “the EIS process.”

The decision of type of environmental documentation sufficient to comply with NEPA is based on the significance of the project’s environmental impact. When an EA or EIS is prepared, other agencies and the public will have an opportunity to comment on the proposal and its environmental impacts.

The federal agency reviewing the action must determine whether the project is categorically excluded (CX) from detailed environmental review, or whether either an EA or an EIS must be prepared. If the project is CX’d, some agencies will want documentation demonstrating that the scope of the project falls within a CX category of action. If the federal agency determines that an EA will be sufficient, the process ends with issuance of a Finding of No Significant Impact (FONSI). If an EIS is prepared, the process ends with issuance of a Record of Decision (ROD).

Examples of federal actions most likely to be involved in renewable energy projects and potentially triggering NEPA review:

- Federal Energy Regulatory Commission (FERC) permitting of hydrokinetic projects in state waters (navigable streams and projects within 3 nautical miles of the shoreline)
- Bureau of Ocean Energy Management (BOEM) seafloor leases or right-of-ways
- Department of Energy (DOE) and National Oceanic and Atmospheric Administration (NOAA) permits/licenses for ocean thermal energy conversion (OTEC) facilities
- USFWS approval/issuance of an Incidental Take Permit
- Department of Agriculture loan programs

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- Federal Aviation Administration (FAA) airspace approvals typically do not require NEPA compliance (confirm with FAA)

Many federal agencies have established offices dedicated to NEPA policy and program oversight. These offices prepare NEPA guidance, policy, and procedures for the agency, and disseminate the information to the public and the regulated community through websites and other public involvement tools

### **Coordinating HEPA and NEPA**

A well-coordinated permitting process is required to complete permitting requirements efficiently. If a project triggers NEPA and/or Chapter 343 (Hawai'i EIS Law) process, other state and local environmental reviews and permitting must be coordinated with the federal and/or State EA/EIS process. Many agencies will not accept, or process, permit applications until the EA or EIS process is completed, and proof of completion may be required.

If a project triggers both the NEPA process and Chapter 343, the two EA/EIS processes can be coordinated with corresponding drafting and public notice periods. Requirements are similar and the same information must generally be disclosed, but there are important differences. For example, it is a requirement of the state process that the applicant send responses to everyone that commented on the Draft EIS.

### **Hawai'i Land Use Permits**

Given its limited land resources and needs, Hawai'i is home to many different land jurisdictions with distinct permitting regimes.

All lands in the State are classified into one of four land use districts established by the State of Hawai'i Land Use Commission (LUC) – Urban, Rural, Agricultural, or Conservation. The LUC is composed of nine members (one from each of the four counties and five appointed at-large) appointed by the Governor and confirmed by the State Senate.

The land use categories are described in Table 2-1. Further information is available on the LUC's website ([://luc.state.hi.us/index](http://luc.state.hi.us/index).) and the State's geographic information system (GIS) website (Figure 2-2). In addition to the State zoning classification or district, the four counties also have their own local zoning regimes.

In Hawai'i, each parcel is likely to be governed by two zones: the LUC district and the overlaying county zoning district. Therefore, it is important to identify all zoning districts that apply to your parcel in order to identify all permit requirements. There are some general exceptions to this rule, which should be confirmed on a case-by-case basis:

- State Conservation Districts are solely under jurisdiction of the State; in lieu of county zoning, there are Conservation Subzones that dictate allowable developments
- Lands under control of certain State or federal agencies (e.g., Department of Hawaiian Home Lands, Hawai'i Community Development Corporation, U.S. Department of

Defense) may have distinct zoning and may not be subject to certain local zoning requirements

Each county’s land use system is guided by its own General Plan and more specific Community Development Plans. The General Plans describe goals, policies, standards, and courses of action, and provide maps. Because each county has different procedures for permitting, more detailed descriptions of county land use regulations are provided in Chapter 3.

At the county level, environmental and land use permitting varies based on the county. Specific information on each county’s permitting is provided in Chapter 3. Projects along the shoreline are highly regulated, with every county requiring:

- A Shoreline Setback Variance for all structures and activities in the “Shoreline Area” (development in a shoreline area triggers HRS 343 compliance)
- A Special Management Area Permit for all development proposed within the Special Management Area, a buffer zone along the shoreline

**Table 2-1. State Land Use Categories**

District Land Category	Description of Land	Jurisdiction Governing the Land	Percent of Hawai‘i’s Land (approximate)
1. Urban	Lands characterized by “city-like” concentrations of people, structures and services. Also includes vacant areas for future development.	Counties	2.5
2. Rural	Lands composed primarily of small farms intermixed with low-density residential lots with a minimum size of one-half acre.	State Land Use Commission and County governments share jurisdiction over rural lands.	.5
3. Agricultural	Lands for the cultivation of crops, aquaculture, raising livestock, wind energy facilities, timber cultivation, agriculture-support activities, and land with significant potential for agricultural uses. Agricultural land is graded by its perceived productivity (A, B, C, D, E, or U).	A and B lands are governed by statute. The State Land Use Commission oversees all other lower productivity land (C, D, E, and U).	46
4. Conservation	Lands in existing forest and water reserve zones and include areas necessary for protecting watersheds and water sources; scenic and historic areas; parks; wilderness; open space; recreational areas; habitats of endemic plants, fish and wildlife; all submerged lands seaward of the shoreline; and lands subject to flooding and soil erosion. Conservation lands can be further divided into Undesignated, General, Limited, Protective, Resource, and Special subzones.	Department of Land and Natural Resources (DLNR)	51

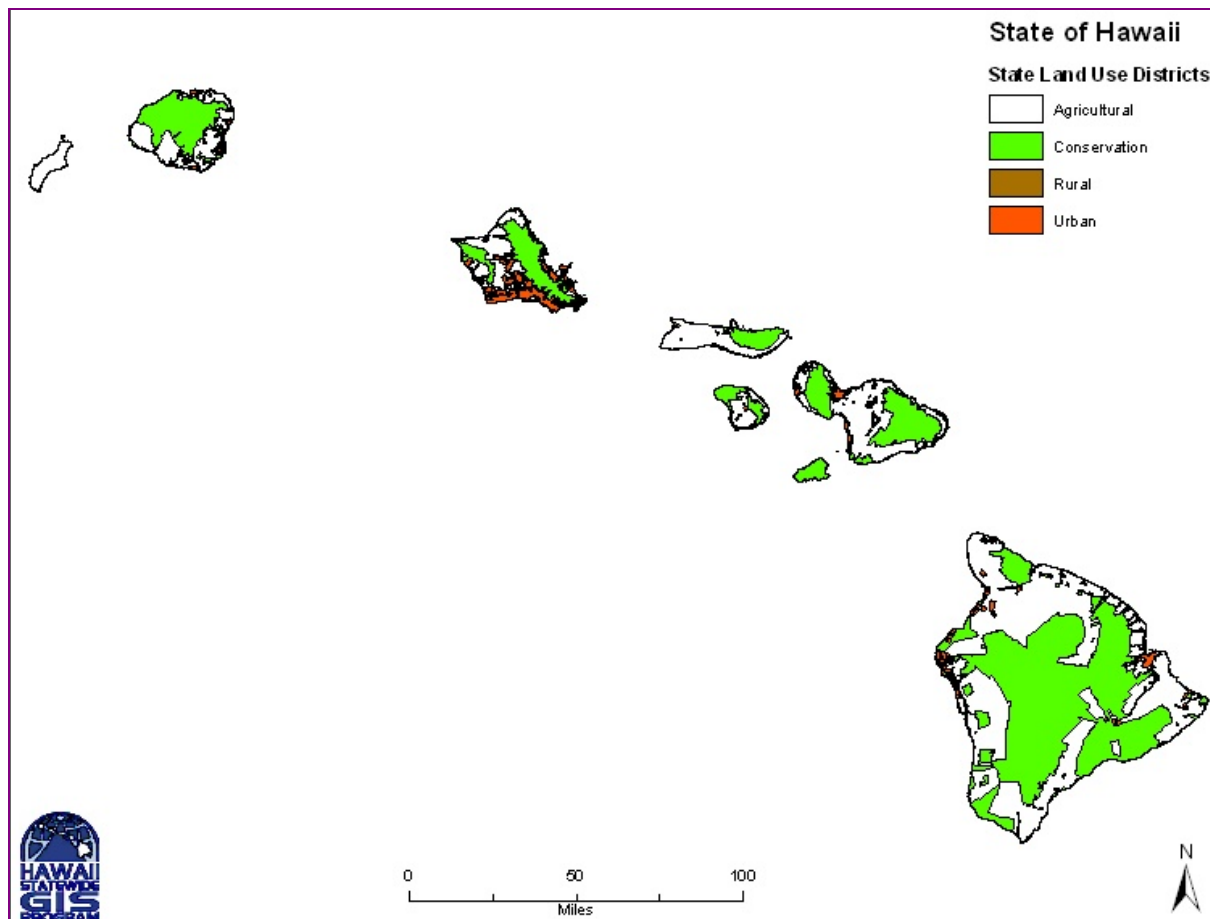
Source: State of Hawaii Land Use Commission

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Existing State GIS tools may be used to help site renewable energy projects. The recently launched *Renewable EnerGIS* tool can help identify the renewable energy and permitting attributes for specific parcels identified by the user: [://energy.hawaii.gov/resources/renewable-energis-](http://energy.hawaii.gov/resources/renewable-energis-)

The Hawai'i State Office of Planning (OP) within DBEDT is responsible for coordinating and maintaining the GIS information, and hosts the maps on their website at [.hawaii.gov/dbedt/gis/index](http://hawaii.gov/dbedt/gis/index). OP provides a wealth of GIS-related information relevant to renewable energy development in Hawai'i. Figure 2-2 shows an overview of the State's land use categories from this website. Maps that show more detail are discussed in Chapter 3.

**Figure 2-2. State Land Use Districts: State GIS Program**



Source: State of Hawai'i website ([://hawaii.gov/dbedt/gis/](http://hawaii.gov/dbedt/gis/))

### **Contaminated Properties**

Due to our history of agriculture, military presence, and industry, there are many contaminated sites in Hawai'i. These sites are often candidates for renewable energy projects for various reasons. For sites located on presently or previously contaminated properties, the Hazard Evaluation and Emergency Response Office (HEER) within the Hawai'i Department of Health (DOH) must be

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contacted. HEER provides assistance through the remediation and maintenance processes, and may also help identify contaminated properties statewide.

### **Enterprise Zones for Renewable Energy Development: Wind Only**

Siting a renewable energy facility in an Enterprise Zone (EZ) can qualify owners for certain State tax exemptions and other county benefits, provided the facility/owner satisfy and maintain the EZ Program eligibility requirements. Currently, only wind producers qualify for Enterprise Zone Program participation. Contact the Department of Business, Economic Development and Tourism (DBEDT) for information on the Hawai'i Enterprise Zone Program.

### **Construction and Operation Permits**

Permits are required before construction activities (e.g., site grading, grubbing, building and infrastructure construction, storm water control) may begin. These permits ensure project conformity to national and local laws, codes, and standards concerning construction and pollution control. Failure to obtain appropriate permits can result in fines, penalties, and even the removal of the unauthorized construction.

Starting April 1, 2011, a Site-Specific Construction Best Management Practice Plan must be submitted with an application for a National Pollutant Discharge Elimination System (NPDES) permit (Clean Water Branch Notice of Intent General Form). DOH encourages applicants to submit all required information once so that there is one review, one issuance.

### **Utility Permits and Approvals**

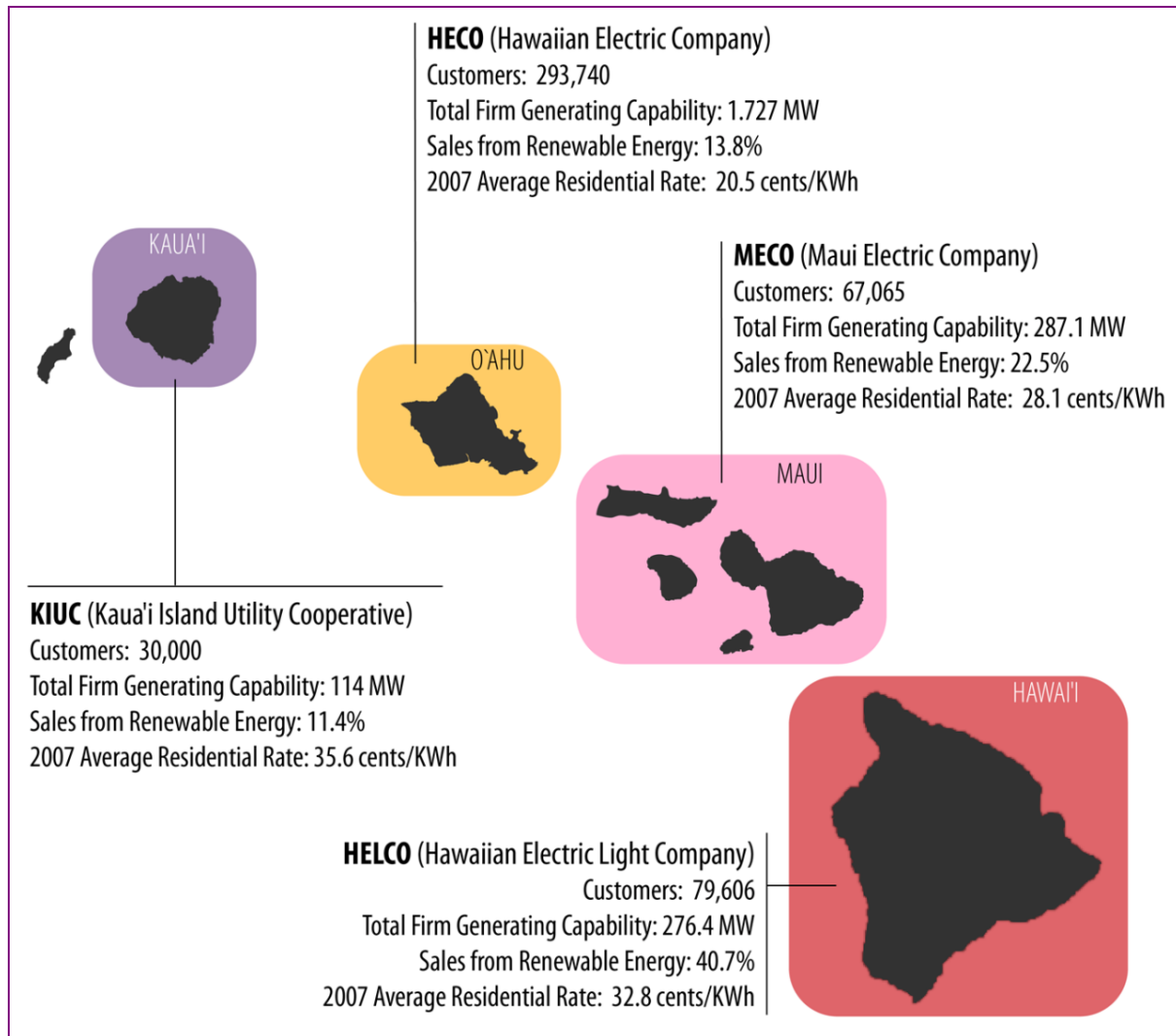
A utility permit or approval is required for all utility construction, reconstruction, and maintenance activities.

At the State level, utility permits are administered by the Hawai'i Public Utilities Commission (PUC), which also approves power and fuel purchase agreements and other interactions between an independent power producer and the utilities. One example is PUC approval to construct a transmission line, which is often made by application from the relevant utility and may require a public hearing on the island on which the transmission line is proposed.

Figure 2-3 gives an overview of the utilities that serve the major islands in Hawai'i. Although HECO, MECO, and HELCO are all owned by the same parent company, Hawaiian Electric Industries, Inc. (HEI), each island's grid is presently independent and unconnected to the others. Each has an independent rate base.

In addition, the three HEI utilities are regulated differently by the PUC than is KIUC, which is not subject to the Competitive Bidding Framework established by the PUC. As stated earlier, the local permitting agencies are becoming more and more familiar with the utility interconnection and procurement processes as more renewable energy projects are permitted. Providing the permitting agencies an update on your utility interconnection process may be appreciated.

**Figure 2-3. Map of Utilities in Hawai'i**



### Renewable Energy Facility Siting Process – HRS 201N

The State Energy Office is studying the best possible avenues of approach to implement a new renewable energy facility siting process that would offer a streamlined permitting process for renewable energy projects of a certain size and scope. This new process is under the statutory authority granted to DBEDT under HRS 201N. The design and implementation of this new process, which will incorporate a permit plan and a developer fee collected and distributed by the State Energy Office, will require significant and sustained coordination with federal, state, and county agencies.

### Permit Application Guidelines

In addition to consulting the permitting agencies directly, it is strongly recommended renewable energy applicants consult with the State Energy Office prior to submitting permit applications. The language used in certain applications can trigger other permits or approvals not otherwise required.

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Agencies expect applicants to fully disclose accurate information pertaining to a facility's environmental impacts and other requested information. This includes full information on specific technology, location, site characteristics and ownership, and other pertinent information. When relevant information arises after an agency has begun its review, the amendment of an application and subsequent exchange of information between an agency and applicant will delay permit processing.

### **Federal and State Agencies to Know**

Developers should contact all relevant permitting agencies early in the planning process. The number of agencies involved depends on a number of project-specific factors. Table 2-4 and 2-5 will assist in determining the State and federal permits required for each project.

Table 2-2 and Table 2-3 provide a quick reference to the relevant federal and State agencies, their acronyms, and contact information. County agencies are described in Chapter 3.

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**Table 2-2. Federal Agencies and Contact Information**

Agency	Contact Information
Army Corps of Engineers (USACE) Pacific Ocean Division (POD)	USACE Honolulu District Building 230 Fort Shafter, Hawai'i 96858 Phone: 808-835-4715
Council on Environmental Quality (CEQ)	N/A
Environmental Protection Agency (EPA)	U.S. EPA Region 9 Water Program 75 Hawthorne St. San Francisco, CA 94105 Phone: 415-947-8000
Federal Aviation Administration (FAA)	Honolulu Airports District Office P.O. Box 50244 Honolulu, HI 96850-0001 Phone: 808-541-1232
Federal Energy Regulatory Commission (FERC) Office of Energy Projects (OEP) Division of Hydropower Administration and Compliance (DHAC) San Francisco Regional Office (SFRO)	888 First Street, NE Washington, DC 20426  Phone: 202-502-6088 Toll Free: 1-866-208-3372  Phone: 415-369-3368
Department of the Interior (DOI) Bureau of Ocean Energy Management (BOEM)  United States Coast Guard (USCG)	Pacific OCS Region 770 Paseo Camarillo, 2nd Floor, Camarillo, CA 93010 Phone: 800-672-2627  U.S. Coast Guard Sector Honolulu 400 Sand Island Parkway Honolulu, HI 96819  Phone: 808-842-2640
National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) Office of Protected Resources (OPR)	1315 East-West Hwy, 13th Floor Silver Spring, MD 20910 Phone: 301-713-2332
National Park Service (NPS) Air Resources Division (ARD)	12795 W. Alameda Pkwy Denver, CO 80225 Phone: 303-969-2816
United States Fish and Wildlife Service (USFWS) Pacific Islands Fish and Wildlife Office	300 Ala Moana Boulevard, Room 3-122 Honolulu, HI 96850 Phone: 808-792-9400

**Table 2-3. State Agencies and Contact Information**

Agency	Contact Information
Hawai'i Department of Agriculture (HDOA) Division of Plant Industry Pesticides Branch Agribusiness Development Corp.	1428 S. King Street Honolulu, HI 96814-2512 Phone: 808-973-9401 Phone: 808-586-0186
Hawai'i Department of Health (HDOH)  Environmental Management Division (EMD) Clean Air Branch Clean Water Branch Solid and Hazardous Waste Branch Hazard Evaluation and Emergency Response Office (HEER) Office of Environmental Quality Control (OEQC)	1250 Punchbowl Street Honolulu, HI 96813 Phone: 808-586-4304 Phone: 808-586-4200 Phone: 808-586-4309 Phone: 808-586-4226 Phone: 808-586-4249 Phone: 808-586-4185
Department of Business, Economic Development and Tourism (DBEDT)  State Energy Office State Land Use Commission (HLUC) Office of Planning (OP) Hawai'i Community Development Authority (HCDA)	250 S. Hotel St. Honolulu, HI 96813  Phone: 808-587-3807 Phone: 808-587-3822 Phone: 808-587-2846 Phone: 808-594-0300
Department of Labor and Industrial Relations (DLIR)  Occupational, Safety and Health Division	830 Punchbowl Street Honolulu, HI 96813 Phone: 808-586-9100
Department of Land and Natural Resources (DLNR)  Division of Water Resource Management (CWRM) Division of Forestry and Wildlife (DOFAW) Engineering Division Land Division Office of Conservation and Coastal Lands (OCCL) State Historic Preservation Division (SHPD)	Kalanimoku Building 1151 Punchbowl Street Honolulu, HI 96813 Phone: 808-587-0400 Phone: 808-587-0214 Phone: 808-587-0166 Phone: 808-587-0230 Phone: 808-587-0433 Phone: 808-587-0377 Phone: 808-692-8015
Department of Transportation (HDOT) Highways Division  Harbors Division	Aliiimoku Building 869 Punchbowl Street Honolulu, HI 96813 Phone: 808-587-2220 Hale Awa Ku Moku Building 79 South Nimitz Highway Honolulu, HI 96813 Phone: 808-587-1927
Public Utilities Commission (PUC)	465 S. King Street, #103 Honolulu, HI 96813 Phone: 808-586-2020

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## Checklists of Federal and State Permits


Table 2-4 and 2-5 are checklists of federal and State permits that may be required for a renewable energy project. (Checklists of possible county permits are presented in Chapter 3). Reviewing the checklist will help filter the permits that may be required for a specific project. Most rooftop residential renewable energy projects are simple, with only a small number of county-level permits – plumbing, building and/or electrical – needed. The contractor usually coordinates these permitting activities with the county. Federal or State permits are generally not required for a residential-scale rooftop renewable energy project.

The Permit Packets provided at the Developer & Investor Center website ([://energy.hawaii.gov/developer-investor/project-permitting-assistance-and-](https://energy.hawaii.gov/developer-investor/project-permitting-assistance-and-) ) provide more information on each permit, contact information for the administering agency, and process flow charts and other information that the administering agency has developed.


The Tables summarize the “triggers” for each permit. If the proposed project contains elements that could trigger the permit, the relevant Permit Packet should be reviewed. If questions remain, the administering agency (provided in the Process Overview in the permit packet) should be contacted.

Table 2-4 and 2-5 include some of the major variance procedures that would be required if the proposed facility is incompatible with land use or other regulations. However, the table does not include a complete list of all possible variance procedures.


**Table 2-4. Checklist of Federal Renewable Energy Approvals**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
<b>Federal Environmental Permits and Reviews</b>				
	<p>Any of the following activities trigger this permit:</p> <p>(1) work in “waters of the US”, including placement of structures. “Waters of the US” encompass a range of surface water features, including wetlands, lakes, intermittent streams, rivers, and ocean areas;</p> <p>(2) discharge of dredged or fill material into wetlands or other types of surface waters; or</p> <p>(3) transport dredged material for ocean disposal.</p> <p>If other federal agencies are also involved because of the location or type of renewable energy project (e.g., FERC, NOAA, BOEM), the federal agencies will need to coordinate their roles and responsibilities.</p>	F-01	USACE	Department of the Army (DA) Permit (includes Clean Water Act Section 404 approval, Rivers and Harbors Act Section 10 approval, and Marine Protection, Research and Sanctuaries Act Section 103 approval) 401 APPLY HERE?
	This permit is triggered by the construction or modification of a bridge (including causeway) across “navigable waters of the United States.” Jurisdiction is typically coordinated with the USACE.	F-02	USCG	Bridge Permit, Rivers and Harbors Act Section 9 Approval
	This permit and notice are triggered by any activity in “navigable waters of the U.S.” that may impact marine transportation, harbor activities and the environment. This permit and notice process would typically start a few months before marine construction starts.	F-03	USCG	Marine and Harbor Activities Notice
	To assess the environmental effect of projects performed by federal agencies, or projects requiring a federal permit, receiving federal funds, or located on federal land. If there is federal involvement in the project through funding or other mechanism, NEPA compliance is required.	F-04	CEQ	National Environmental Policy Act (NEPA) compliance, or EIS Law
	To perform subsurface injection of waste fluids below, into and above underground sources of drinking water. “Injection” includes seeping, flowing, leaching, and pumping, with or without added pressure. This permit may be required where groundwater injection is proposed for waste discharge.	F-05	EPA	Groundwater & Drinking Water Permit
	The intent of this process is to assure that high quality air is maintained in our National Parks. To meet the federal and state regulation National Park Service Federal Land Manager (FLM) consultation requirements regarding possible sources of air pollution that may affect Class I areas (generally within 300 km of a Class I area) or are within close proximity to Class II areas.	F-06	NPS	National Park Service, Air Resources Division


**Table 2-4. Checklist of Federal Renewable Energy Approvals (continued)**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
	To conduct an activity that might “take” (harass, harm, pursue, hunt, kill, trap, capture, or collect) any marine mammal, marine or anadromous fish, or other living marine resources with federal nexus. Endangered Species Act (ESA) listed Essential Fish Habitat (EFH) consultations should also occur during this process.	F-07	NOAA	Incidental Take Statement, Endangered Species Act Section 7 (a)(2)
	To conduct an activity that might “take” (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) an Endangered Species Act (ESA) listed marine mammal, marine or anadromous fish, or other living marine resources with no federal nexus.	F-08	NOAA	Incidental Take Permit, Endangered Species Act Section 10(a)(1)(B)
	To conduct an activity that might “take” small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographic region. The LOA or IHA includes harassment of marine mammals by noise.	F-09	NOAA	Letter of Authorization (LOA) or Incidental Harassment Authorization (IHA)
	To conduct an activity that might “take” (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) an Endangered Species Act (ESA) listed terrestrial and freshwater aquatic species with federal nexus.	F-10	USFWS	Incidental Take Statement, Endangered Species Act Section 7 (a)(2)
	To conduct an activity that might “take” (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) an Endangered Species Act (ESA) listed terrestrial and freshwater aquatic species with no federal nexus.	F-11	USFWS	Incidental Take Permit, Endangered Species Act Section 10(a)(1)(B)
	To construct structures and perform activities that could impact cultural, historic, or archeological resources as defined in Section 106 of the National Historic Preservation Act.	No Packet	DLNR-SHPD	Historic and Archeological Resource Protection, Section 106 Process
	To construct structures and perform activities that would impact properties funded by the Land and Water Conservation Fund.	No Packet	NPS	Section 6(f), Land and Water Conservation Fund Act
<b>Federal Land Use Permits</b>				
	To construct or alter any structure more than 200 feet in height above the ground level at its site (additional requirements exist for structures closer than 20,000 feet to the nearest point of the nearest runway of specified airports).	F-12	FAA	Construction in Airspace
	To allow renewable energy of existing facilities on the Outer Continental Shelf (OCS).	F-13	BOEM	Outer Continental Shelf (OCS) Renewable Energy Project Leases, Rights-of-Use and Easement, and Rights-of-Way


**Table 2-4. Checklist of Federal Renewable Energy Approvals (continued)**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
<b>Federal Utility Permits</b>				
	To construct, operate, or maintain a non-federal hydroelectric project that is or would be (a) located in the navigable waters of the U.S.; (b) occupy U.S. lands; (c) utilize surplus water or water power from a U.S. government dam; or (d) be located on a stream over which Congress has Commerce Clause jurisdiction, where project construction or expansion occurred on or after August 26, 1935, and the project affects the interests of interstate or foreign commerce.	F-14	FERC	Hydroelectric License
	To obtain authorization for hydrokinetic pilot project activities on the Outer Continental Shelf (OCS).	F-15	FERC	Hydrokinetic Pilot Project License


**Table 2-5. Checklist of State Renewable Energy Approvals**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
<b>State of Hawai'i Environmental Permits and Reviews</b>				
	To perform federal actions (including activities performed by a non-federal entity requiring federal permits, licenses or other forms of federal authorization) that has a reasonably foreseeable effect on any land or water use or natural resource of the coastal zone, and/or is on the outer continental shelf.	S-01	OP	Coastal Zone Management Federal Consistency Review
	To apply for agricultural burning (i.e. the use of open outdoor fires in agricultural operations, forest management, or range improvement).	S-02	DOH	Agricultural Burning
	To construct, reconstruct, modify, or operate a stationary air pollution source.	S-03	DOH	Air Pollution Control Permit (Covered Source Permit and Noncovered Source Permit)
	To build a treatment works which complies with the basic wastewater treatment criteria set in Hawai'i Administrative Rules (HAR) §11-62-26, and treatment works from which sludge is not covered by HAR §11-62-50(d) and HAR §11-62-40(a) 2 through 4.	S-04	DOH	Biosolids Treatment Works Permit—Notice of Intent


**Table 2-5. Checklist of State Renewable Energy Approvals (continued)**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
	To propose the use of state or county lands, or lands within conservation districts, shoreline area, historic sites, or in the Waikiki Special District; to propose amendments to county general plans; or to propose a wastewater system, waste-to-energy facility, landfill, oil refinery, or power generating facility according to Hawai'i Revised Statutes (HRS) Chapter 343-5.	S-05	DOH	Environmental Impact Statement/ Environmental Assessment
	To own or operate a facility or enterprise that engages in the treatment, storage, or disposal of hazardous waste as defined by HAR §11-261-3.	S-06	DOH	Hazardous Waste TSD
	To apply to build, run, or operate an individual wastewater treatment facility.	S-07	DOH	Individual Wastewater System Permit
	To engage in any activity that might materially alter the surrounding water supply, or to operate a facility that creates a liquid discharge into state or local water supplies.	S-08	DOH	National Pollutant Discharge Elimination System Permit (Operation)
	To establish, operate, or modify any solid waste management facility.	S-09	DOH	Solid Waste Management by Rule
	To own or operate a facility in the state that stores, uses or manufactures any hazardous substance that is equal to or exceeds reporting thresholds as established by Hawai'i Chemical Inventory Form (HCIF) according to Hawai'i Administrative Rules (HAR) 128E-6, and the EPA's federal regulations for chemicals.	S-10	DOH	Superfund Amendment & Reauthorization Act (SARA) Reporting
	To apply to construct, operate, or modify an underground injection well.	S-11	DOH	Underground Injection Control
	To construct, install, or operate an underground storage tank or tank system.	S-12	DOH	Underground Storage Tank
	To discharge water pollutant in excess of applicable standards according to Hawai'i Administrative Rules 11-62.	S-13	DOH	Variance from Pollution Control
	To assimilate domestic, agricultural, and industrial waste discharges into the natural environment in a manner that achieves the highest attainable level of water quality as described in Hawai'i Administrative Rules §11-54.	S-14	DOH	Zone of Mixing Permit
	To allow the incidental take of endangered or threatened species while carrying out an otherwise lawful activity. "Take" is defined as to: harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species, including plants, animals, birds, fresh and marine water species.	S-15	DLNR	Incidental Take License and Habitat Conservation Plan
	To conduct trials involving the evaluation of pesticides to determine the scope and limitations of its usefulness and the effect of its use on humans and the environment.	S-16	DOA	Pesticides Experimental Use Permit


**Table 2-5. Checklist of State Renewable Energy Approvals (continued)**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
	To use Restricted-Use Pesticides (those that have a greater chance of impacting the environment or human health).	S-17	DOA	Pesticides Applicator Certification
	To engage in the construction, expansion, or demolition of buildings, houses, bridges, roadway (including improvements), utilities, reservoirs or any other activity causing excess noise in the community <u>within</u> the standard business hours.	S-18	DOH	Noise Permit
	To engage in the construction, expansion, or demolition of buildings, houses, bridges, roadway (including improvements), utilities, reservoirs or any other activity causing excess noise in the community <u>outside</u> the standard business hours.	No Packet	DOH	Noise Variance
	To show that construction runoff on renewable energy construction site will not violate applicable water quality standards.	S-19	DOH	Section 401 Water Quality Certification Permit
	To install, construct, reconstruct, or relate any boiler, pressure vessel or pressure system.	S-20	DLIR	Boiler / Pressure Vessel Permit
	To install or alter elevators, dumbwaiters, escalators, moving walks, manlifts, and personnel hoists.	S-21	DLIR	Elevator and Kindred Equipment Permit
	To construct, enlarge, repair, alter, or remove a (dam)s.	S-22	DLNR	Dams and Reservoirs Permit
	To develop geothermal and cable system projects.	S-23	DLNR	Geothermal and Cable System Development Permitting
	To conduct any exploration activity (including geophysical operations, drilling of shallow temperature test holes less than 500 feet in depth unless deeper drilling is allowed by the board, construction of roads and trails, and vehicle travel) on state or reserved lands for evidence of geothermal resources.	S-24	DLNR	Geothermal Exploration Permit
	To access or enter into forest reserves.	No Packet	DLNR	Right of Entry/Access Permit
	To drill wells for the irrigation of water.	S-25	DLIR	Well Construction and Pump Installation Permit
	To perform construction to cross or enter the State Energy Corridor on O’ahu. The State Energy Corridor is a pipeline extending from the refineries in Campbell Industrial Park to Honolulu Harbor.	S-26	DOT	Construction to Cross or Enter the State Energy Corridor
	To perform work upon a state highway, such as utility service connections, overhead/ underground utility crossings, soil borings, etc.	S-27	DOT	Construction Upon a State Highway

**Table 2-5. Checklist of State Renewable Energy Approvals (continued)**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
	To use vehicles or transport loads of a size or weight that exceeds the maximum dimensions established by Hawai'i Administrative Rules 19-104.	S-28	DOT	Oversize and Overweight Vehicles
	To park on a restricted section of highway under state jurisdiction for construction adjacent to and within the highway right-of-way.	S-29	DOT	Use and Occupancy Agreement (Lane Use Permit for Construction Work)
	To perform any dredging, filling, installation of buoys, or erecting of any construction within commercial harbors and entrance channels belonging to or controlled by the State.	S-30	DOT	Work in Ocean Waters of the State
	To perform activities in the development or redevelopment of the makai or mauka areas of the Kaka'ako District	S-31	HCDA	Kakaako Development Permit
	To amend a land use district boundary in order to development a renewable energy resource or technology on that land.	S-32	LUC	District Boundary Amendment
	To develop on over 15 acres of agricultural and/or rural district lands for "unusual and reasonable" uses; or to develop any number of acres on lands designated as "important agricultural lands."	S-33	LUC	Special Use Permit—over 15 acres
	To develop in special management areas as defined in the state (including Kaka'ako Industrial Area on O'ahu), as well as build structures and perform activities within shoreline setback areas of community development districts.	S-34	LUC	Special Management Area Use Permit
	To enter a closed, restricted watershed.	S-35	DLNR	Closed Watershed Entry
	To apply for a land use in the State Land Use Conservation District.	S-36	DLNR	Conservation District Use Permit
	To conduct marine activities (including ocean thermal energy conversion; mariculture; and other energy or water, research, scientific, and educational activities) in, on, or under state marine waters or submerged lands.	S-37	DLNR	Conservation District Use Permit—State Marine Waters/Ocean Waters Construction Permit (OWCP)
	To drill, modify, modify use, or abandon wells.	S-38	DLNR	Well Construction and Modification Permit
	To request for state lands for access, utility or other easements to private property; purchase of remnant; direct lease; and/or land license.	S-39	DLNR	Easement for Use of State Land
	To conduct activities otherwise prohibited in state natural area reserves, including research, collection of samples, education, management, or other generally prohibited activity.	S-40	DLNR	Forest Reserve Special Use Permit

**Table 2-5. Checklist of State Renewable Energy Approvals (continued)**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
	To conduct geothermal development and/or exploration activities.	No Packet	DLNR	Geothermal Drilling Permits
	To lease geothermal resources for commercial production.	No Packet	DLNR	Geothermal Mining Lease
	To establish new uses of ground water (as well as modifications of existing ground water use permits) in a designated ground water management area.	S-42	DLNR	Groundwater Control Area
	To construct structures and perform activities that could impact a historic property, aviation artifact, or a burial site as defined in Section 6E-8 of Hawai'i Revised Statutes (HRS). After an assessment, develop and execute plans to avoid, minimize, or mitigate adverse effects to the historic properties. (Please note that if a Native Hawaiian burial site is affected, the appropriate Island Burial Council must be consulted during this process.)	S-43	DLNR	Historic Preservation Review, HRS Chapter 6E
	To assess effects of a renewable energy project on significant historic properties, and then develop and execute plans to avoid, minimize, or mitigate adverse effects to the historic properties.	S-44	DLNR	Historic Sites Review
	To conduct research / activities within the Natural Area Reserve System (NARS).	S-45	DLNR	Natural Area Reserves Permit
	To improve and/or divert existing streams on renewable energy project property.	S-46	DLNR	Stream Channel Alteration
	To enter a prohibited area in a wildlife sanctuary, and/or collect data.	S-47	DLNR	Wildlife Sanctuary Entry
	To enter or access into restricted forest reserve(s).	S-48	DLNR	Forest Reserve Entry/Access Permit
	To commence business as a public utility in the State of Hawai'i.	S-49	PUC	Certificate of Public Convenience and Necessity
	To conduct activities that would require the utility to purchase power from an independent power producer.	S-50	PUC	Power Purchase Agreement Approval
	To interconnect a proposed renewable energy project to the existing grid, where new transmission lines are required.	S-51	PUC	Transmission Line Approval

Source: Renewable Energy Project Permitting in the State of Hawaii

Website: [://energy.hawaii.gov/developer-investor/renewable-energy-project-permitting-in-the-state-of-](http://energy.hawaii.gov/developer-investor/renewable-energy-project-permitting-in-the-state-of-)

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## Chapter 3—County Regulatory Systems

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The State of Hawai‘i’s overlaying permitting regimes typically cause any given project to comply with two land use zone districts: (1) State Land Use District, and (2) County Zoning District; except for agencies granted independent zoning authority (e.g., DHHL, HCDA). Developers may need a permit for each. This chapter describes the system in which these permit types and categories are administered at the county level—City and County of Honolulu, County of Hawai‘i, County of Maui, and County of Kaua‘i. Renewable energy project developers should view each county’s development plans to ensure their project is sited appropriately and within the purposes for which the subject area is zoned. This will improve your chances of gaining county approval.

This section provides checklists that can be used by an energy developer to understand which permits may be required for a specific project within the counties.

Applicants may begin by reading the center column, which describes a potential activity that may be required. If the project in question requires the listed activity, place a check-mark in the left-hand column. The right-hand column references the Permit Packet, which contains a wealth of information about each permit. If a renewable energy developer is unsure whether a permit is required, he/she should refer to the Permit Packet number listed, which should provide enough information to determine if the permit is required (if still unsure, contact the administrating agency listed in the Process Overview in the Permit Packet).

## and County of Honolulu

### Overview of the City and County of Honolulu’s Regulatory System

The City and County of Honolulu consists of the Island of O’ahu (Figure 3-1). The County uses the three tiered system illustrated in Figure 3-2 to guide the regulatory system and all three tiers are required to be consistent with each other. The Department of Planning and Permitting (DPP) administers all permits that relate to these tiers of planning (Honolulu 2008).

This Guide focuses primarily on those County permits required for commercial or utility scale energy projects.

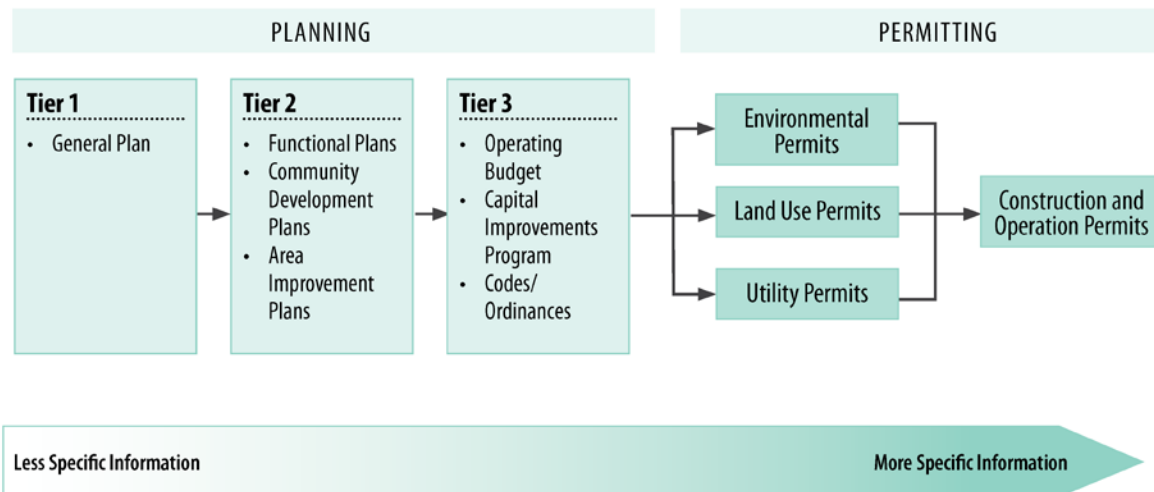
Figure 3-1. City and County of Honolulu Location Map



### City and County of Honolulu’s General Plan

The General Plan for the City and County of Honolulu was first adopted in 1977 in order to provide a number of simple, comprehensive statement that defines objectives which set long-range aspirations of O’ahu’s residents, as well as the policies that will guide how to achieve these aspirations. Since 1977 a number of amendments have been incorporated, however, the basic purpose, themes, and directions for the island remain.

Figure 3-2. The City and County of Honolulu Planning System



A number of the sections of the General Plan relate to energy, renewable energy, and general development on the Island of O’ahu. The entire plan (Amended October 3, 2002) is available at [://dev.honoluludpp.org/Planning/GeneralPlan](http://dev.honoluludpp.org/Planning/GeneralPlan). The box on the following page is an excerpt of the Energy section. Policies in the Energy section must be compatible with the policies outlined in other sections of the General Plan, including the Natural Environment; Transportation and Utilities; and Physical Development and Urban Design to name a few.

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## O'ahu's Energy Objectives and Policies

**Objective A:** To maintain an adequate, dependable, and economical supply of energy for O'ahu residents.

- Policy 1: Develop and maintain a comprehensive plan to guide and coordinate energy conservation and alternative energy development and utilization programs on O'ahu.
- Policy 2: Establish economic incentives and regulatory measures which will reduce O'ahu's dependence on petroleum as its primary source of energy.
- Policy 3: Support programs and projects which contribute to the attainment of energy self-sufficiency on O'ahu.
- Policy 4: Promote and assist efforts to establish adequate petroleum reserves within Hawaii's boundaries.
- Policy 5: Give adequate consideration to environmental, public health, and safety concerns, to resource limitations, and to relative costs when making decisions concerning alternatives for conserving energy and developing natural energy resources.
- Policy 6: Work closely with the State and Federal governments in the formulation and implementation of all City and County energy-related programs.

**Objective B:** To conserve energy through the more efficient management of its use.

- Policy 1: Ensure that the efficient use of energy is a primary factor in the preparation and administration of land use plans and regulations.
- Policy 2: Provide incentives and, where appropriate, mandatory controls to achieve energy-efficient siting and design of new developments.
- Policy 3: Carry out public, and promote private, programs to more efficiently use energy in existing buildings and outdoor facilities.
- Policy 4: Promote the development of an energy-efficient transportation system.

**Objective C:** To fully utilize proven alternative sources of energy.

- Policy 1: Encourage the use of commercially available solar energy systems in public facilities, institutions, residences, and business developments.
- Policy 2: Support the increased use of operational solid waste energy recovery and other biomass energy conversion systems.

**Objective D:** To develop and apply new, locally available energy resources.

- Policy 1: Support and participate in research, development, demonstration, and commercialization programs aimed at producing new, economical, and environmentally sound energy supplies from:
  - solar insulation;
  - biomass energy conversion;
  - wind energy conversion;
  - geothermal energy; and
  - ocean thermal energy conversion.
- Policy 2: Secure State and Federal support of City and County efforts to develop new sources of energy.

**Objective E:** To establish a continuing energy information program.

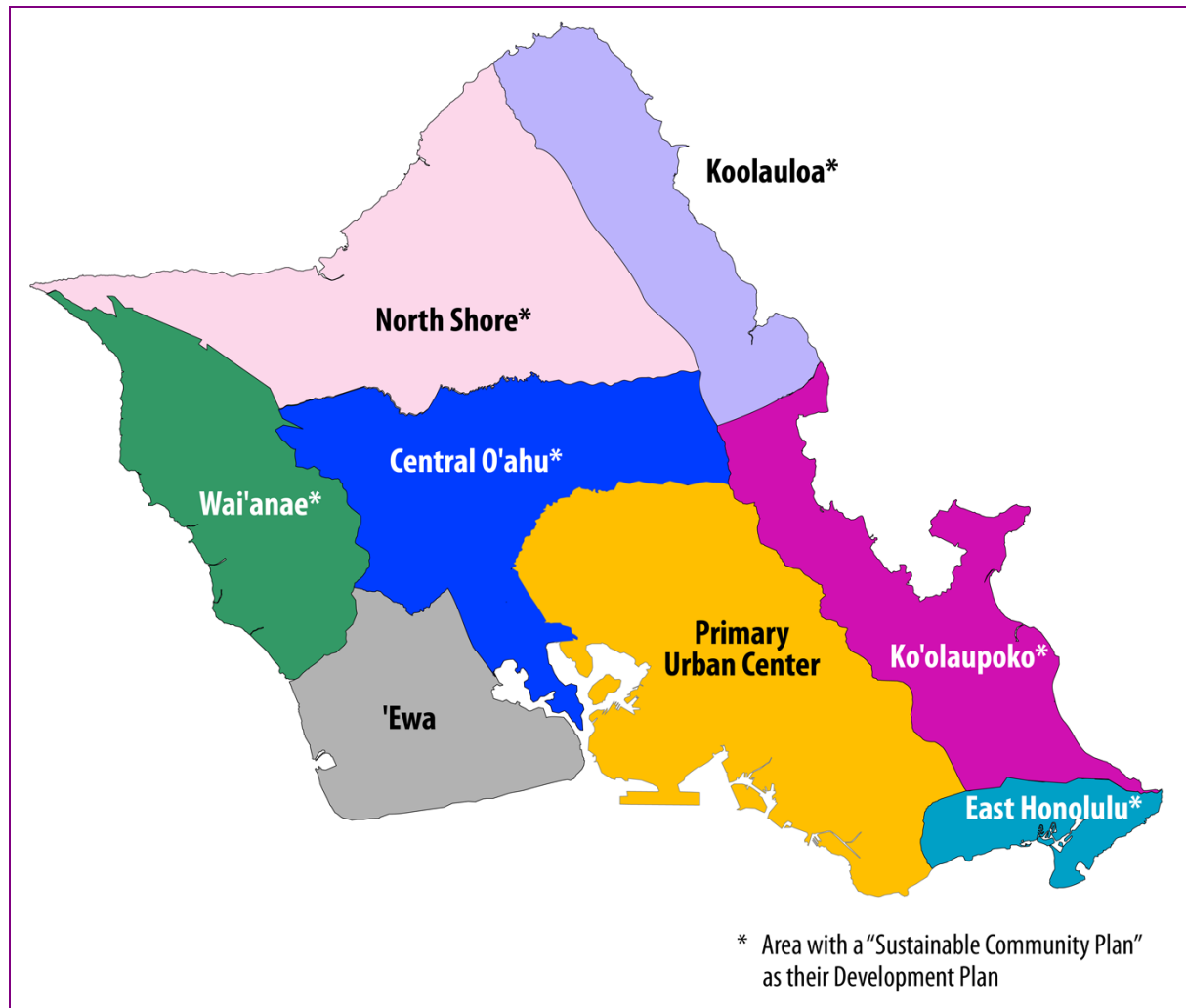
- Policy 1: Supply citizens with the information they need to fully understand the potential supply, cost, and other problems associated with O'ahu's dependence on imported petroleum.
- Policy 2: Foster the development of an energy conservation ethic among O'ahu residents.
- Policy 3: Keep consumers informed about available alternative energy sources and their costs and benefits.
- Policy 4: Provide information concerning the impact of public and private decisions on future energy use.

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## Development Plans and Sustainable Community Plans

O'ahu is divided into eight planning areas, each of which has a Development Plan required by the City Charter, adopted by City Council ordinance, and administered by DPP. Six of these eight planning areas are considered "Sustainable Community Plans," which is intended to highlight that these areas should not be heavily developed, and that existing communities and special qualities of each region should be sustained and improved. The development plan areas are illustrated in Figure 3-3 (DPP 2008).

**Figure 3-3. O'ahu's Eight Planning Areas**

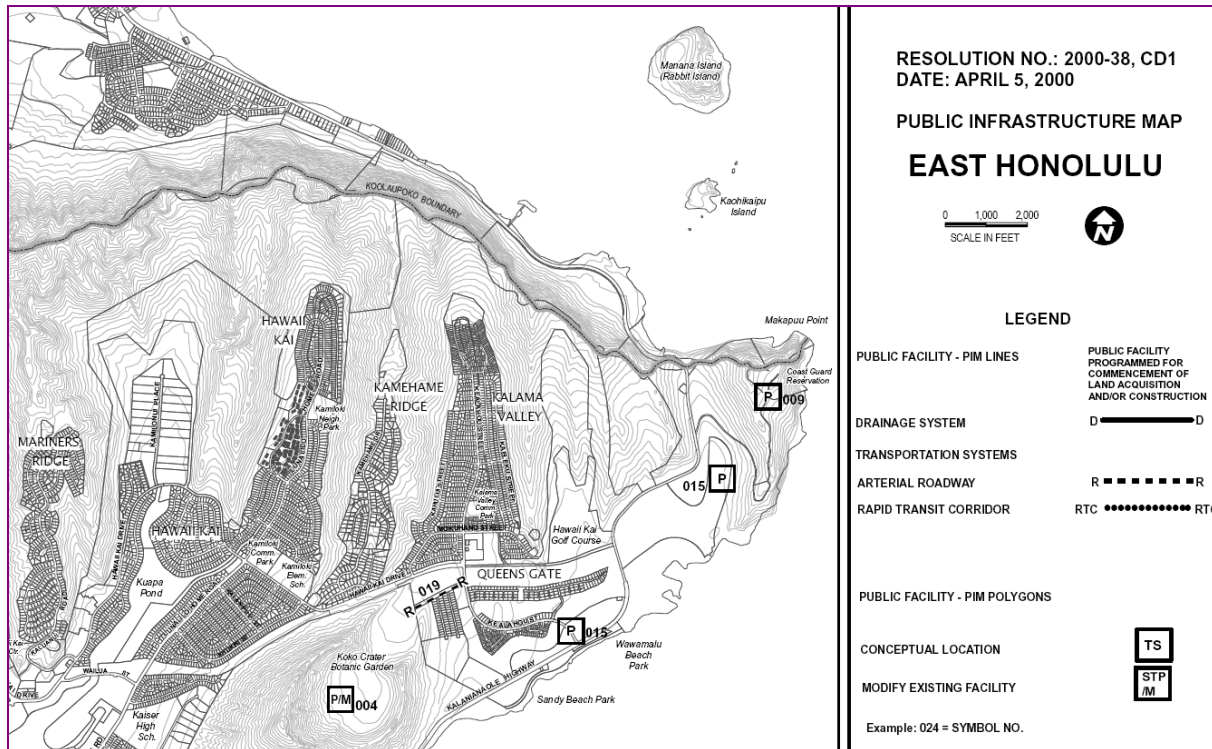


Source: Development/Sustainable Communities Plan - DPP Website at [://dev.honoluludpp.org/Planning/GeneralPlan](http://dev.honoluludpp.org/Planning/GeneralPlan).

Each of the eight Development/Sustainable Community Plans is available on the DPP website above. Plans are reviewed every five years to revalidate visions and make adjustments as needed. The Development/Sustainable Community Plans are also supplemented by functional plans and special area plans.

Detailed maps of each zone’s infrastructure (called PIMs—Public Infrastructure Maps) are also available on the DPP website. Figure 3-4 exhibits a portion of the East Honolulu public infrastructure map in order to provide an example of the level of detail of each map. The DPP website allows zooming in and out of these maps, which can provide a fine granularity of detail.

**Figure 3-4. Public Infrastructure Map Example (East Honolulu)**



Source: DPP Website

More maps are available that show renewable energy resource-specific maps. Refer to Chapters 2 and 4 of this Guide for more information on these maps.

### Ordinances and Regulations

Ordinances are mandated by the City Charter and constitute the principal means for implementing the city’s plans. The ordinances are established by law, and may result in the City/County requiring a permit to be completed in order to implement the ordinance. Ordinances may describe rules for environmental permits, land use permits, or construction and operation permits.

The City and County of Honolulu follows the Revised Ordinances of Honolulu (ROH)—which is available in database form on the City and County of Honolulu website at <http://www1.honolulu.gov/council/ocs/roh/>. The ROH Chapters that relate to possible renewable energy permits cited in this Guide are available in the online Permit Packets that accompany this Guide.

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The following three regulations are mainly what constitute the county’s zoning laws, all of which encourage orderly development:

- **The Land Use Ordinance (LUO)** is the zoning code for the City and County of Honolulu, and is outlined in Chapter 21 of the ROH. The LUO regulates land use in a manner that will encourage orderly development, while also providing more specific development and design standards.
- **Subdivision and Consolidation of Lands Rules and Regulations** are described in Chapter 22, Article 3 of the ROH. These articles note that the purpose of the subdivision/ consolidation rules are to, “secure adequate and convenient placing of open spaces for utilities and adequate light and air; to prevent congestion of population...” and a number of other basic services as relating to major utilities and facilities.
- **Capital Improvement Program** sets forth capital improvement projects by order of priority, the amount and means of financing, and the schedule of activities and expenditures.

These three sets of regulations work in conjunction with the State of Hawai‘i’s land use districts as described in Chapter 3 of this Guide.

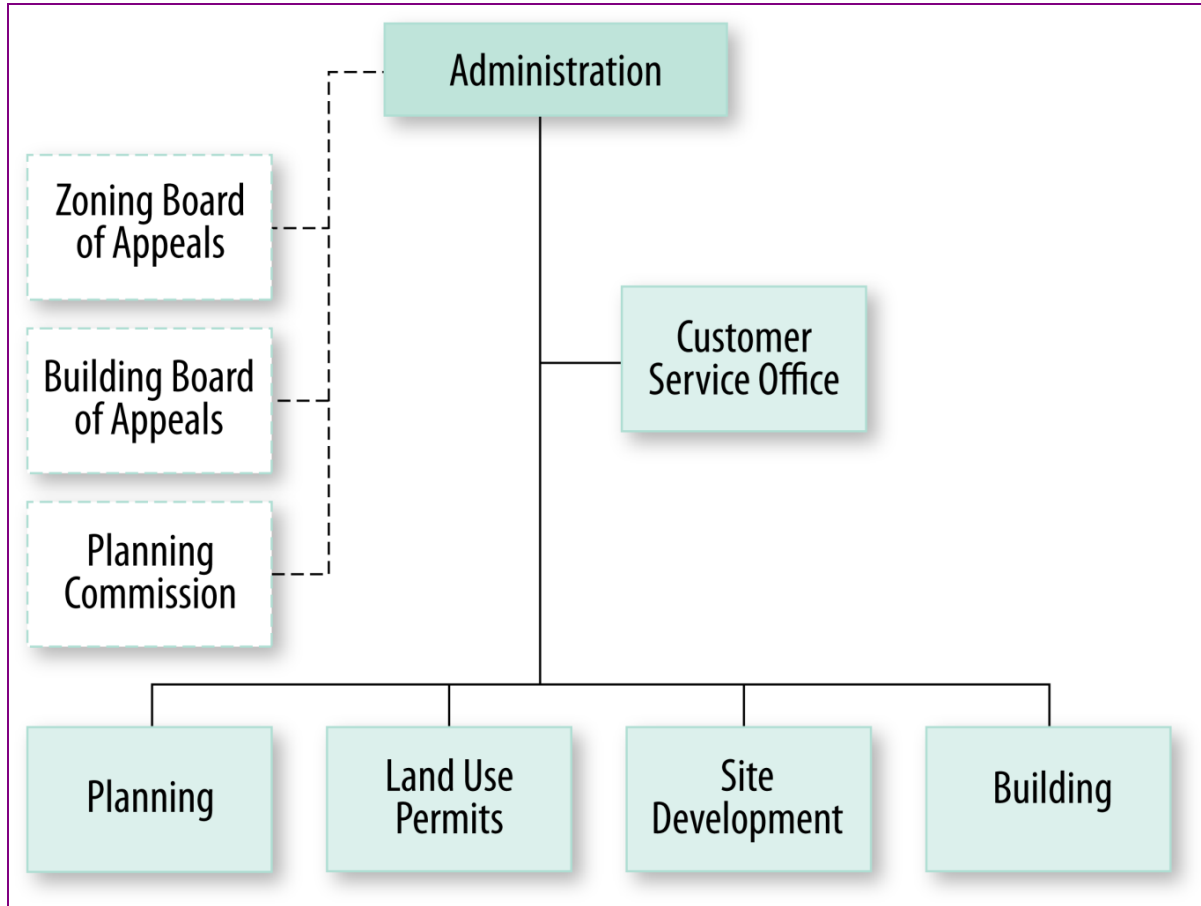
### **Agencies to Know in the City and County of Honolulu**

Permitting requires working with a number of agencies at the federal, state, and county levels. In addition to the county agencies described below, coordination is also necessary with the permitting agencies at the state and federal level as described in the federal and state resource-specific chapters. Agencies at all of these levels need to properly examine proposed projects to ensure the protection of environmental and social goods and values, while also not hinder beneficial renewable energy projects that can move Hawai‘i toward a more sustainable future.

#### ***Department of Planning and Permitting***

In the City and County of Honolulu, the [Department of Planning and Permitting](#) is the major entity that administers permits. The DPP administers over 40 different types of permits, about half of which could possibly apply to a renewable energy project (depending on the location and actions of a proposed project). Figure 3-5 is a broad organizational chart for the DPP, which depicts major branches

Figure 3-5. Department of Planning and Permitting Organizational Chart



DPP offers a wealth of online resources on their website [://www.honoluluodpp.org/](http://www.honoluluodpp.org/) including but not limited to the following:

- [Building](#) : Fill out and submit all permitting application materials regarding a residential building permit project, submit fee payments, and track the permit (this includes permits for residential solar installations!). (Note: Electrical and plumbing per mission is covered under the Building Permit for the City and County of Honolulu.)

DPP is in the process of transitioning to a new Website (as of August 2012) which will allow developers to go online to submit permits, sign applications, calculate permit fees, make an appointment and check permit status. The new website address: [://dev.honoluluodpp.org/Home](http://dev.honoluluodpp.org/Home).

Other than DPP, this Guide cites only one other City and County of Honolulu agency that administers a county-specific permit that could relate to a renewable energy project. This agency is the Honolulu Fire Department, and the permit is the “Tank Installation Permit” described in Permit Packet Honolulu-12.

Other City and County of Honolulu departments play a critical role in renewable energy development. The Department of Environmental Services handles all municipal and waste generated on O’ahu. The Board of Water Supply controls much of Oahu’s irrigation and water systems. The Department of Design and Construction, in consultations with other agencies, manages improvements to the City’s streets, roads, bridges, walkways, and transportation systems as well as drainage and flood improvements.


Table 3-1 provides a quick reference and contact information to the DPP's divisions and Honolulu Fire Department that administers permits noted in this Guide.

**Table 3-1. City and County of Honolulu Agencies and Contact Information**


Agency	Contact Information
Department of Planning and Permitting (DPP)	650 South King Street Honolulu, HI 96813 Phone: 808-768-8000
Land Use Permits Division	Phone: 808-768-8012
Planning Division	Phone: 808-768-8053
Site Development Division	Phone: 808-768-8097
Building Division	Phone: 808-768-8120
Honolulu Fire Department	636 South Street Honolulu, HI 96813-5007 Phone: 808-723-7139
Department of Environmental Services	1000 Uluohia Street, Suite 308 Kapolei, HI 96707 Phone: 808-768-3486
Board of Water Supply	630 South Beretania Street Honolulu, HI 96843-0001 Phone: 809-784-5000
Design and Construction Department	650 South King Street 11th Floor Honolulu, Hawaii 96813 Phone: 808-768-8480

Table 3-2 provides checklists that can be used by an energy developer to understand which permits may be required for a specific project within the City and County of Honolulu.

**Table 3-2. City and County of Honolulu Activity Checklist**


	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
<b>Environmental Permits</b>				
	To construct structures and activities within the "Shoreline Setback Area" as defined in Chapter 23, Revised Ordinances of Honolulu (ROH).	CCH-1	DPP	Certified Shoreline/Shoreline Setback Variance
	To construct structures and activities within the Special Management Area (SMA) as defined as a "development" in Chapter 25, Revised Ordinances of Honolulu (ROH).	CCH-2	DPP	Special Management Area Use Permit (Major and Minor)
	To request a variance to build in the flood hazard district.	CCH-3	DPP	Flood Hazard District Variance
	To evaluate and determine whether the project is located in a floodway or flood fringe area.	CCH-4	DPP	Flood Determination Approval
	To remove water from a construction area, as by pumping from an excavation or location where water covers the planned working surface or to lower the groundwater table in order to obtain a "dry" area in the vicinity of an excavation which would otherwise extend below water.	CCH-5	DPP	Dewatering Permit
<b>Construction and Operation Permits</b>				
	To erect a new building or structure within the county. This permit combines building, electrical, and plumbing into a single permit (all permits for the construction of sidewalks, curbs and driveways are included).	CCH-6	DPP	Building Permit
	To make a change to the drainage pattern with respect to abutting properties which exceeds 50 cubic yards of cut or fill, or exceeds 3 ft. in vertical height at its deepest point.	CCH-7	DPP	Grading Permit
	To dislodge or uproot any vegetation, including tree, timber, shrubbery and plant, from the surface of the ground that would alter the general drainage pattern with respect to abutting properties and/or exceed a total area of 15,000 square feet.	CCH-8	DPP	Grubbing Permit
	To temporarily open store earth materials in excess of 100 cubic yards upon any premises except the premises upon which a grading permit has been issued for the purpose of using the material as fill material at some other premises at a future time.	CCH-9	DPP	Stockpiling Permit
	To request for connection to the City and County wastewater system.	CCH-10	DPP	Sewer Connection Permit
	To trench (i.e. dig, break, disturb or undermine) any public highway, street, thoroughfare, alley or sidewalk or any other similar public place.	CCH-11	DPP	Trenching Permit

**Table 3-2. City and County of Honolulu Activity Checklist (continued)**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
	To install or operate equipment in connection with the storage, handling, use or sale of flammable or combustible liquids regulated under Article 79 of the Fire Code of the City and County of Honolulu.	CCH-12	HFD	Tank Installations
<b>Land Use Permits</b>				
	To develop on lands <u>not</u> considered appropriate in a specific zoning district, unless certain standards and conditions are met. Some uses in some zoning districts require either a MINOR or a MAJOR Conditional Use Permit (CUP), depending on potential adverse impacts to surrounding land uses.	CCH-13	DPP	Conditional Use Permit (Major and Minor)
	To erect structures on land in a permanent nature that could have a major adverse impact on surrounding land uses.	CCH-14	DPP	Plan Review Use
	To develop projects in any of the special districts which have been classified by the Land Use Ordinance as a MAJOR or MINOR project. There are seven special districts on O'ahu, including: the Hawai'i Capital District, Diamond Head District, Punchbowl District, Chinatown District, Haleiwa District, Thomas Square/Academy of Arts District, and Waikiki District.	CCH-15	DPP	Special District Permit (Major and Minor)
	To request a waiver from the strict application of the development or design standards of the Land Use Ordinance (LUO) for: 1) Public uses or structures, and utility installations; 2) to permit the creation of lots designated for landscaping and open space purposes which do not meet minimum lot area and/or dimensions; 3) to permit replacement of improvements on private property when the improvements are rendered nonconforming through the exercise of government's power of eminent domain; and 4) to permit the retrofitting of improvements when the retrofit is required to comply with federal mandates, if such improvements cannot otherwise be made without conflicting with the provisions of the LUO.	CCH-16	DPP	Waiver
	To amend the Development Plan in the area of a proposed project, and ensure that the suggested amendment(s) are consistent with the respective Development Plan.	CCH-17	DPP	Development Plan Amendment
	To amend the general plan of the City and County of Honolulu.	CCH-18	DPP	General Plan Amendment

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**Table 3-2. City and County of Honolulu Activity Checklist (continued)**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
	To develop "unusual and reasonable" land uses within agricultural and rural districts other than those for which the district is classified.	CCH-19	DPP	Special Use Permit
	To change the boundary of a state land use district involving an area of 15 acres or less in an agricultural or urban district as the districts are defined by the State Land Use Commission (HLUC).	CCH-20	DPP	State Land Use Boundary Amendment
	To change the zoning in a particular area of the City and County of Honolulu.	CCH-21	DPP	Zone Change

## of Hawai'i

### Overview of the County of Hawai'i's Regulatory System

Hawai'i County consists of the Island of Hawai'i (aka the Big Island) as shown in Figure 3-6. The County uses the three tiered system illustrated in Figure 3-7 to guide the regulatory system and all tiers are required to be consistent with each other.

### County of Hawai'i's General Plan

Hawai'i's General Plan is the foundation for all other elements of the County's planning structure, and encompasses long-term goals, policies, strategies, courses of action for the entire county (HC 2009). A number of the sections of the General Plan relate to energy, renewable energy, and general development on the Island of Hawai'i. The entire plan is available at

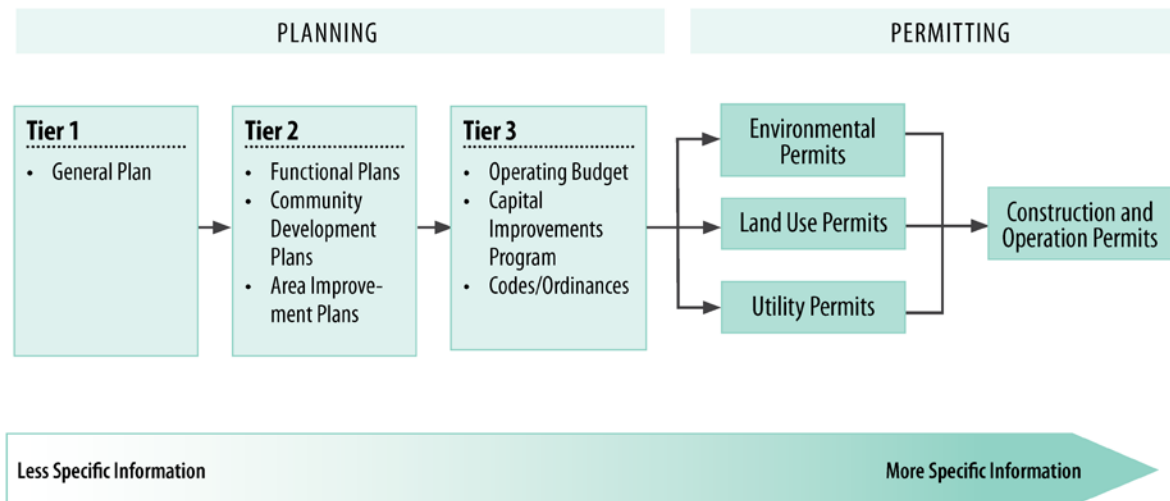
[://www.cohplanningdept.com/wp-content/uploads/2011/03/General-Plan-2005-Amended-2006-Reformat](http://www.cohplanningdept.com/wp-content/uploads/2011/03/General-Plan-2005-Amended-2006-Reformat). Text Version: [://records.co.hawaii.hi.us/weblink/DocView.aspx?dbid=1&id=](http://records.co.hawaii.hi.us/weblink/DocView.aspx?dbid=1&id=)

An excerpt outlining goals and policies for Hawai'i County's energy use is provided below.

Figure 3-6. County of Hawai'i Location Map



Figure 3-7. Hawai'i County's Planning System



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## Hawaii County's Energy Goals and Policies

*(From Sections 3.2 & 3.3. of the Hawaii County General Plan, 2005)*

### Goals

1. Strive towards energy self-sufficiency.
2. Establish the Big Island as a demonstration community for the development and use of natural energy resources.

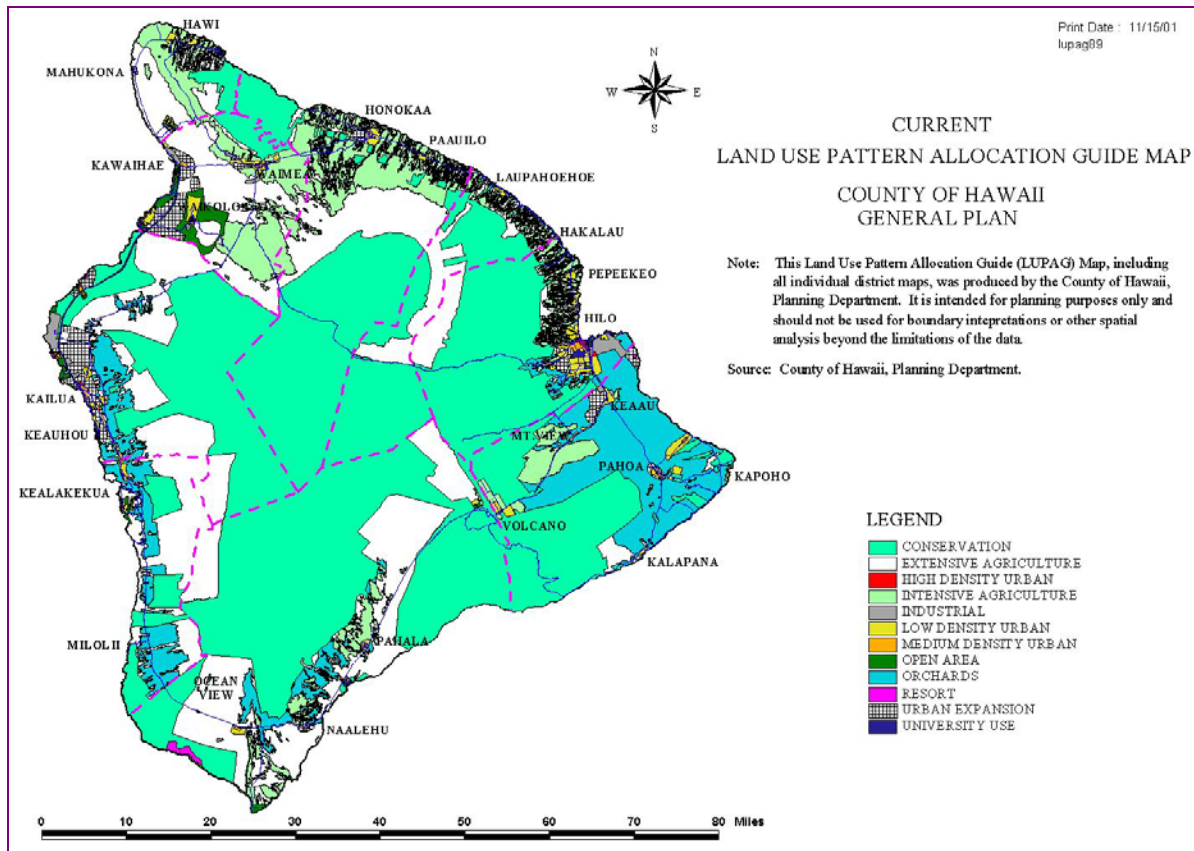
### Policies

1. Encourage the development of alternate energy resources.
2. Encourage the development and use of agricultural products and by-products as sources of alternate fuel.
3. Encourage the expansion of energy research industry.
4. Strive to educate the public on new energy technologies and foster attitudes and activities conducive to energy conservation.
5. Ensure a proper balance between the development of alternative energy resources and the preservation of environmental fitness and ecologically significant areas.
6. Strive to assure a sufficient supply of energy to support present and future demands.
7. Provide incentives that will encourage the use of new energy sources and promote energy conservation.
8. Seek funding from both government and private sources for research and development of alternative energy resources.
9. Coordinate energy research and development efforts of both the government and private sectors.
10. Encourage the continuation of studies concerning the development of power that can be distributed at lower costs to consumers.
11. Strive to diversify the energy supply and minimize the environmental impacts associated with energy usage.
12. Continue to encourage the development of geothermal resources to meet the energy needs of the County of Hawaii.
13. Encourage the use of solar water heating through the continuation of State tax credit programs, through the Building Code, and in County construction.
14. Encourage energy-saving design in the construction of buildings.
15. Support net-metering and other incentives for independent power producers.

The General Plan also includes maps such as the Land Use Pattern Allocation Guide (LUPAG) map and the Facilities Map. The maps provided in the General Plan are available electronically after Section 16.3 of the General Plan at LUPAG 1 – 25. (Page 344 of the online PDF of the General Plan.)

The LUPAG map is meant to portray the general location of different land types, and is not used for boundary interpretation (Figure 3-8). The Facilities maps show important infrastructure such as roadways, parks, and public buildings.

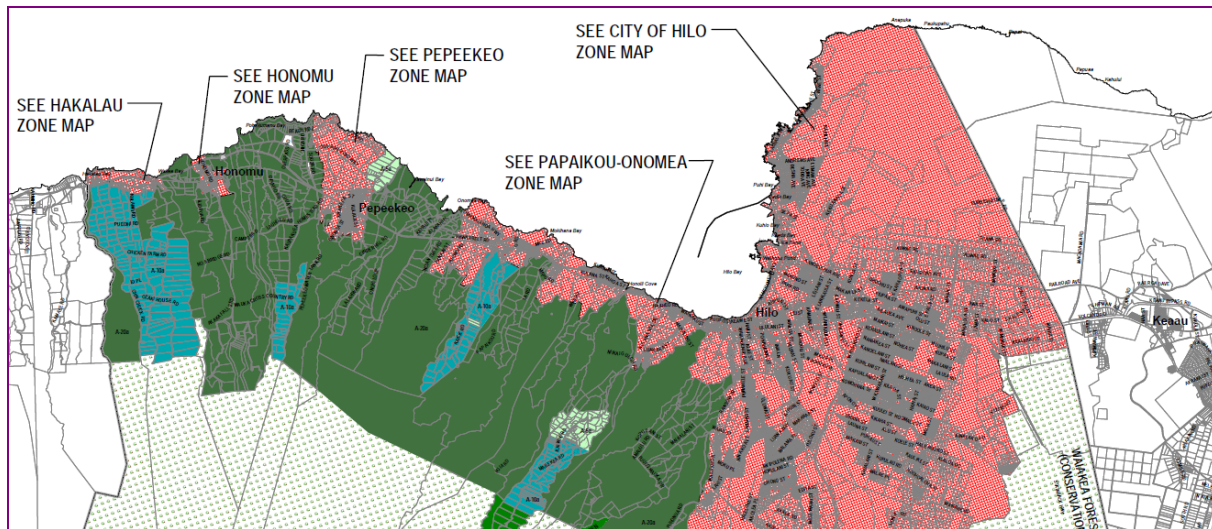
Figure 3-8. Land Use Pattern Allocation Guide Map of Hawai'i County Land Uses



Source: County of Hawai'i website ( [://www.hawaii-county.gov](http://www.hawaii-county.gov) )

More precise and detailed maps by targeted areas are provided by the Planning Department in the 2005 Amended General Plan PDF on Website from LUPAG 1-25. Figure 3-9 is an example of a more detailed map; it is the South Hilo map in Zone 2. This is only the top portion, and the website allows zooming in to attain detailed information regarding the land use and zoning. There are nine zones in Hawai'i County.

**Figure 3-9. Zone 2, South Hilo Map**



Source: County of Hawai'i website ( [://www.hawaii-county.gov](http://www.hawaii-county.gov) )

More maps are available that show renewable energy resource-specific maps. Refer to the Chapters 2 and 4 of this Guide for more information on these maps.

### **Community Development Plans**

While the General Plan applies to the entire Big Island, community development plans are intended to focus on specific towns, communities, and/or natural watersheds. The County is currently working on new community development plans for Kona and Puna.

### **Energy Sustainability Plans**

The Hawai'i County has embarked on a wide range of energy sustainability initiatives and programs that are part of a comprehensive approach to the environment that is unprecedented on the county level. The Hawai'i County Energy Sustainability Plan was completed in October 2007 and accepted by Council and then-Mayor Kim in early 2008. The Plan included a broad evaluation of the county's energy supply and demand, and serves as a roadmap for the county's future. The county energy sustainability advisory group meets periodically. For the full report, please visit [://www.kohalacenter.org/pdf/analysis\\_and\\_recommendations.pdf](http://www.kohalacenter.org/pdf/analysis_and_recommendations.pdf).

### **Ordinances and Regulations**

Ordinances are mandated by the City Charter and constitute the principal means for implementing the city's plans. The ordinances dictate permitting requirements.

The Hawai'i County Code is a compilation of nearly all ordinances that relate to the County's permitting. The Code was republished in June of 2005, which is updated and released in January and July of each year. The official print version may be purchased from the Hawai'i County Clerk's Office through the website: [://www.hawaiicounty.gov/lb-countycode/](http://www.hawaiicounty.gov/lb-countycode/)

Unofficial versions are also available via the website, and select Chapters are included in the online permit packets as the permits reference them.

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Land use regulations are guided by a number of ordinances, however the county’s zoning code is specifically Chapter 25 of the Hawai‘i County Code. Hawai‘i has had island-wide zoning since 1967. There are two planning commissions in Hawai‘i County, one for each side of the island (located in Kona and Hilo). It is important developers work with the proper planning commission and department. Zoning changes are reviewed by the relevant Planning Commission, and approved by the County Council.

### **Agencies to Know in the County of Hawai‘i**

Below is an overview of the agencies cited as administrators of permits that may be required for a renewable energy project in Hawai‘i County. The overview is followed by a contact list for each agency.

#### ***Planning Department***

The Planning Department is responsible for all county-level environmental and land use permits cited in this Guide. The Planning Department provides technical advice to the Mayor, Planning Commission and County Council on all planning and land use matters. The Department is also responsible for the administration of the Subdivision and Zoning Codes.

#### ***Department of Public Works***

The Department of Public Works (PWD) is responsible for all construction and operation permits in Hawai‘i County. This includes all matters relating to engineering; public and private building construction and inspection; construction, inspection and maintenance of public streets, highways, bridges and drainage facilities; acquisition of public and private properties for public purposes; design, operation and maintenance of traffic signals and traffic control devices excluding wastewater and solid waste; and all other public works projects. The following divisions within the PWD will need to be consulted as described:

- **Building Division:** responsible for the administration and enforcement of building, electrical, and plumbing codes. Building, plumbing, and electrical permits are required from this division for all building construction including renovations, additions, sheds, garages, patios, and antennas/structures over 6 feet in height.
- **Engineering Division:** responsible for assisting the Planning Department with engineering related requirements for development, as well as permits associated with grading, grubbing, stockpiling, subdivisions, drainage and flood zones, and waterline installations.

#### ***Department of Environmental Management—Solid Waste Division***

The Department of Environmental Management is responsible for all matters relating to sewer operation and maintenance of five sewer systems, solid waste disposal and landfill programs, vehicle disposal, and all other environmental projects, including recycling programs of the county. Department of Environmental Management is also a key support agency for Civil Defense emergencies.

The Solid Waste Division operates and maintains, either by County personnel or by contracted services, all solid waste collection and disposal facilities in Hawai‘i County. This includes two landfills, twenty-one transfer stations, and island wide hauling operations in accordance with local, state and federal guidelines and regulations. The Division also maintains operational base yards in South Hilo, Waimea, and Kealahou, Kona.

**Department of Research and Development**

The Department of Research and Development is responsible for providing pro-active leadership, enhancing the quality of life, and sustainability of the Island of Hawai'i communities through programs related to: agriculture, energy, tourism, economic development, community development, and film. The Hawai'i County Energy Coordinator is located in this office and it is recommended that all applicants contact the Coordinator early in the planning process.

**Table 3-3. Hawai'i County Agencies and Contact Information**

Agency	Contact Information
Planning Department	East HI Aupuni Center 101 Pauahi Street, Suite 3 Hilo, HI 96720 Phone: 808-961-8288  West HI  74-5044 Ane Keohokalole Highway, Bldg E, Kailua-Kona, HI 96740 Phone: 808-323-4770
Public Works Department   Building Division  Engineering Division	East HI Aupuni Center 101 Pauahi Street, Suite 7 Hilo, HI 96720 Phone: 808-961-8321  West HI West Hawaii Civic Center 74-5044 Ane Keohokalole Highway Kailua-Kona, HI 96740  East HI Phone: 808-961-8331 West HI Phone: 808-323-4720  East HI Phone: 808-961-8327 West HI Phone: 808-3234850
Environmental Management—Solid Waste Division	Physical Address: 2100 Kanoiehua Avenue, C-5 Puainako Town Center Mailing Address: 25 Aupuni Street Hilo, HI 96720 Phone: (808) 961-8270
Research and Development (HI County Energy Coordinator is in this office)	25 Aupuni Street Hilo, HI 96720 Phone: (808) 961-8366


Source: County of Hawai'i website ( [://www.hawaii-county.gov](http://www.hawaii-county.gov) )


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## **A Checklist of Approvals for Energy Development in the County of Hawai'i**

This section provides checklists that can be used by an energy developer to understand which permits may be required for a specific project within Hawai'i County.

**Table 3-4. Hawai'i County Activity Checklist**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
<b>Environmental Permits</b>				
	To construct structures and perform activities in the "Shoreline Setback Area" as defined in Hawai'i County Planning Department Rules of Practice and Procedure, Rule 11 and Hawai'i County Planning Commission Rules of Practice and Procedure, Rule 8.	H-1	PD	Certified Shoreline/Shoreline Setback Variance
	To perform any development, structure, or activity within the Special Management Area (SMA) as defined in the Hawai'i County Planning Commission Rules of Practice and Procedure, Rule 9.	H-2	PD	Special Management Area Use Permit (Assessment and Application)
<b>Construction and Operation Permits</b>				
	To erect a new building or structure.	H-3	PWD	Building Permit
	To perform any type of plumbing work.	H-4	PWD	Plumbing Application
	To perform any construction activity in or near a flood zone.	H-5	PWD	Flood Zone Designation Form
	To perform any one of the following activities that (1) exceeds 100 cubic yards of excavation or fill; (2) a vertical height of excavation or fill measured at its highest point that exceeds 5 feet; or (3) when the general and localized drainage pattern with respect to abutting property lines is altered.	H-6	PWD	Grading Permit
	To clear areas that exceed one acre (43,560 square feet).	H-7	PWD	Grubbing Permit
	To work within the County right-of-way before construction; i.e., landscaping, utility lines, driveways, sidewalk repair, and construction.	H-8	PWD	Permit to Work Within the County-Right-of-Way
	To place a private waterline within the County right-of-way.	H-9	PWD	Private Waterline Installation
	To store material exceeding 500 cubic yards.	H-10	PWD	Stockpiling Permit
	To request a variance from provisions and conditions found in Hawai'i County Code Chapter 22 concerning county streets.	H-11	PWD	Variance Application for County Streets

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
<b>Land Use Permits</b>				
	To develop within the agricultural zoning districts and establish an Agricultural Project District (APD). An APD requires no less than 5 acres of land and is defined in Hawai'i County Code, Chapter 25, Article 6. (In lieu of specific land designations, this permit provides a flexible and creative planning approach in the location of specific types of agricultural uses and variations in lot sizes.)	H-12	PD	Agricultural Project District Application
	To allow development certain districts in order to ensure conformance with the Hawai'i County General Plan, to assure that the intent and purpose of Hawai'i County Code Chapter 25 are carried out, and to ensure pertinent conditions of previous approvals related to the development have been implemented.	H-13	PD	Plan Approval
	To construct or perform activities that would require the granting of provisions in the zoning requirements, Hawai'i County Code Chapter 25; provided that a variance shall not allow the introduction of a use not otherwise permitted within the district; and provided further that a variance shall not primarily effectuate relief from applicable density limitations.	H-14	PD	Variance Zoning Application
	To establish a project district on over 50 acres of land. (This permit process provides for a flexible and creative planning approach rather than specific land use designations. It will also allow for flexibility in location of specific uses and mixes of structural alternatives).	H-15	PD	Project District Application
	To conduct agricultural tourism activities (construction, use, or activities) in the state agricultural land districts that do not conform to section 25-4-15(d) in Hawai'i County Code. (This would apply to state land use agricultural or rural districts.)	H-16	PD	Special Permit Application

## of Kaua'i

### Overview of the County of Kaua'i's Regulatory System

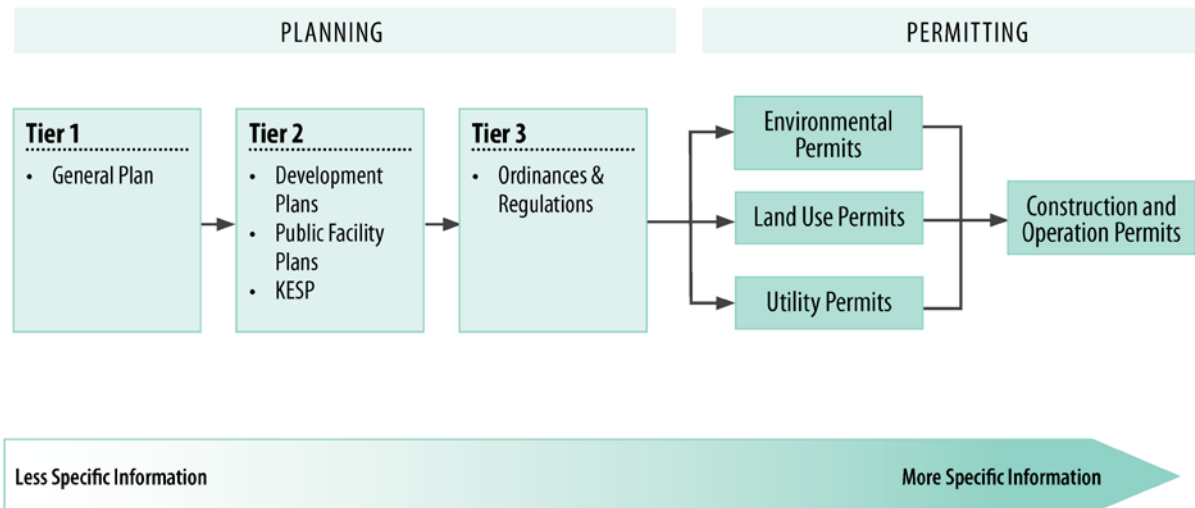
Kaua'i County consists of the Islands of Kaua'i and Ni'ihau as shown in Figure 3-10. The County uses the three tiered system illustrated in Figure 3-11 to guide the planning and regulatory system and all tiers are required to be consistent with each other. Each tier's relationship with the environmental, land use, utility, and construction and operation permits is described in further detail below.

Figure 3-10. Kauai County Location Map



### County of Kaua'i's General Plan

Figure 3-11. Kauai County Planning System



Kaua'i's General Plan provides guidance for land use regulations, the location and character of new developments and facilities, and planning for county and state facilities and services (KC 2009).

A number of the sections of the General Plan relate to energy, renewable energy, and general development on the Island of Kaua'i. The entire plan is available at [://www.kauai.gov/Government/Departments/PlanningDepartment/TheKauaiGeneralPlan/tabid/130/Default](http://www.kauai.gov/Government/Departments/PlanningDepartment/TheKauaiGeneralPlan/tabid/130/Default). An excerpt from the Plan that relates directly to the island's energy use is provided below.

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### **Kauai's Vision for Electrical Power**

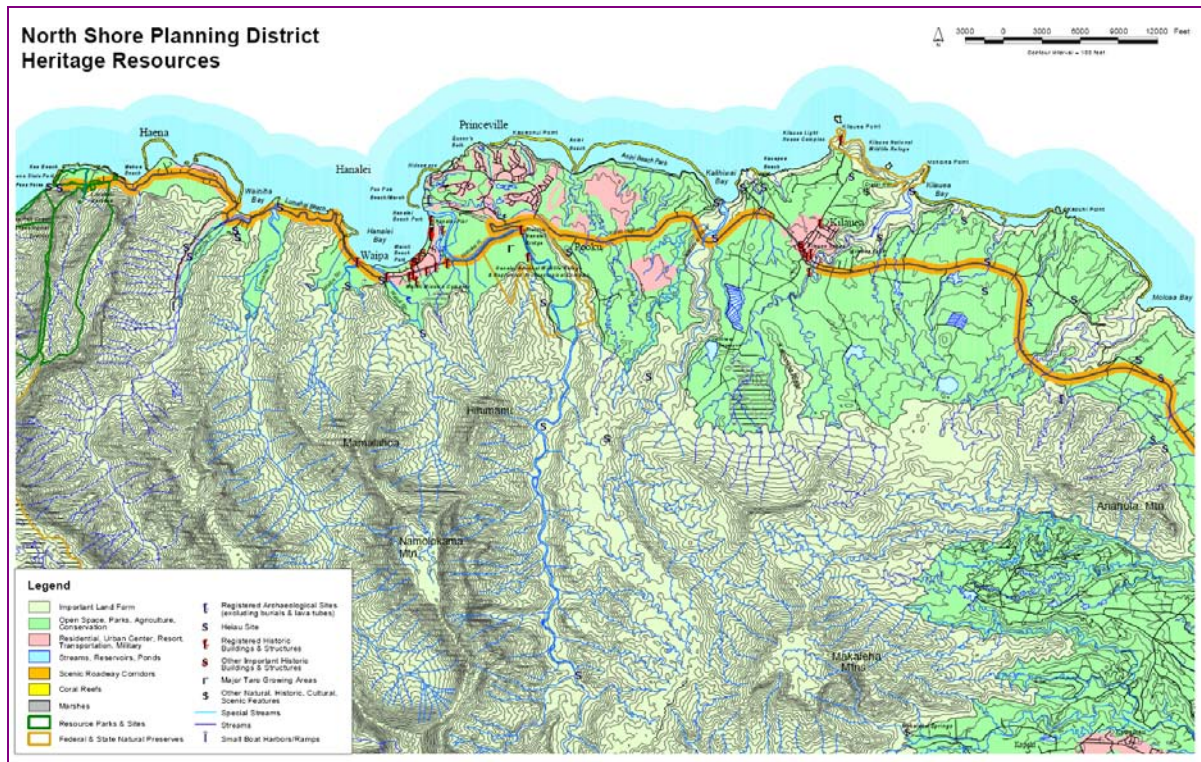
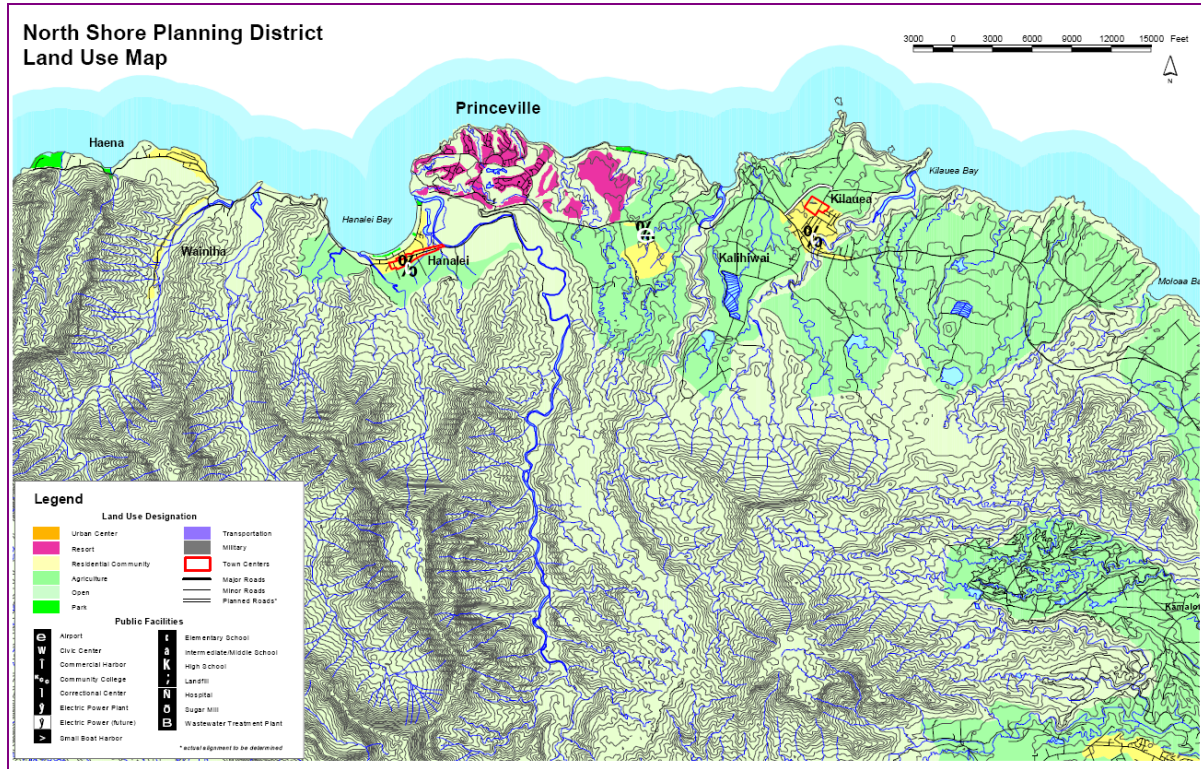
*(From the County of Kauai General Plan, 1999)*

The electrical power companies serving Kauai take advantage of new technologies to offer alternative power sources that do not depend on fossil fuels. Renewable sources of energy such as solar, hydroelectric and biomass, supply a growing portion of energy needs. Fuel cells are commonly used to provide an individual power source for homes and businesses, especially in outlying areas. The power generating companies have been able to reduce power transmission facilities and costs, with savings passed onto the consumers.

Residents of Kauai County are dedicated to the efficient use of energy and to minimizing the deleterious health, safety and aesthetic impacts of power installations. In particular, the county seeks opportunities and economic methods to render facilities (including transmission lines) inconspicuous in order to enhance a "park like" appearance throughout the island.

The Kaua'i General Plan also provides a number of Land Use Maps (which show land by land use category) and Heritage Resource Maps (which highlight more specific natural land and waterways such as coral reefs, streams, marshes, etc.). These maps break Kaua'i up into five main planning districts: Kawaihau, Koloa, Lihue, West, and North Shore. Figure 3-12 shows the Land Use Map (top) and Heritage Resource Map (bottom) for the North Shore of Kaua'i. Note that these maps may be zoomed in on in order to show more detail.

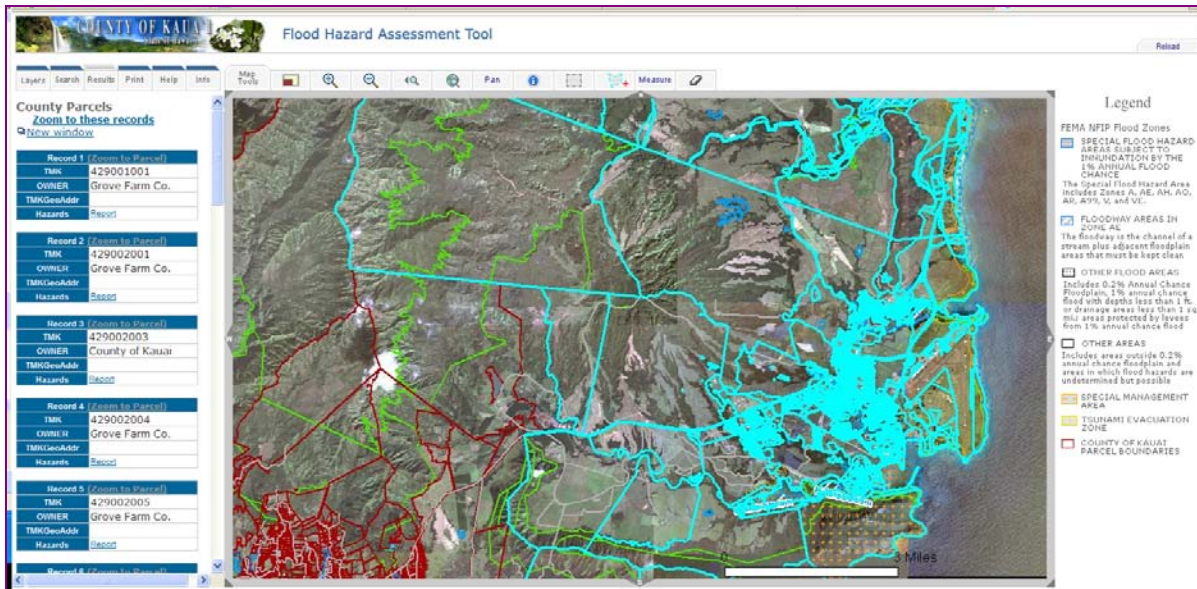
Figure 3-12. Maps Provided in the General Plan—North Shore District



Source: County of Kauai Planning Department Website - [://www.kauai.gov/Portals/0/planning/flu-nshore](http://www.kauai.gov/Portals/0/planning/flu-nshore) and [://www.kauai.gov/Portals/0/planning/fhr-nshore](http://www.kauai.gov/Portals/0/planning/fhr-nshore).

In addition to the maps provided in the General Plan, there is also the Kaua'i Online Hazard Assessment Tool (KOHA), that was created for Kaua'i County by NOAA. Figure 3-13 illustrates how using this tool enables anyone to view parcels of land, conservation districts, waterways, Special Management Areas, and other helpful information, at various levels of granularity (island-wide or parcel-specific). The KOHA tool can be accessed [://www.kauai.gov/EServices/GIS/tabid/433/Default](http://www.kauai.gov/EServices/GIS/tabid/433/Default).

**Figure 3-13. Kaua'i Online Hazard Assessment Tool Map Example**



More maps are available that show renewable energy resource-specific maps. Refer to Chapters 2 and 3 of this Guide for more information on these maps.

### Other County Plans

While the General Plan applies to the entire Island of Kaua'i, development plans are intended to focus on specific towns, communities, and/or natural watersheds. Kaua'i County is currently working on a development plan for East Kaua'i, which will be the first development plan in the county. The anticipated Public Facility Plan will provide a master plan for the development of a specific facility, which may include single or multiple capital improvement project(s). The General Plan provides some specificity regarding public facilities, but a more detailed Public Facility Plan is currently in progress.

Although Kaua'i does not yet have development plans, there has been a recent focus on energy planning in the County. In early 2009 the Kaua'i Energy Sustainability Plan (KESP) was developed for the County of Kaua'i. The KESP integrates stakeholder and public input to create an implementable energy plan intended to offer guidance for Kaua'i to utilize local, sustainable, renewable energy for the next 20 years. The Plan offers solutions for both the ground transportation and electricity generation sectors, for issues such as permitting challenges, land use and development, and lack of private sector investment in renewable energy. Several entities play key roles in the implementation of KESP, including the KIUC, the county, the state, stakeholder groups such as Kaua'i Economic Development

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Board Renewable Energy Committee, and most importantly the community. To find out more about the plan, visit [://www.kauainetwork.org/energy-sustainability/](http://www.kauainetwork.org/energy-sustainability/).

### **Ordinances and Regulations**

Ordinances are mandated by the County Charter and constitute the principal means for implementing the city's plans. The ordinances are established by law, and may result in the county requiring a permit to be completed in order to implement the ordinances.

Kaua'i County follows the Comprehensive Zoning Ordinance (CZO), which provides regulations and standards for land development and the construction of buildings and other structures on the island (<http://www.kauai.gov/Government/Departments/PlanningDepartment/CurrentCZOwithAmendments/tabid/583/Default.aspx>). The CZO aligns with the other tiers of planning, and is intended to ensure compatibility with the overall character of the island. The online Permit Packets to this Guide provide chapters of the CZO which relate to select permits that reference them. Users should confirm the accuracy of the CZO with the official hardcopy versions that are published according to law and available at the County Clerk's Office (phone: 808-241-6371).

### **Agencies to Know in the County of Kaua'i**

In addition to the county agencies described below, coordination is also necessary with the permitting agencies at the state and federal level as described in Chapter 2 of this Guide. Agencies at all of these levels need to properly examine proposed projects to ensure the protection of environmental and social goods and values, while also not hinder beneficial renewable energy projects that can move Hawai'i toward a more sustainable future.

Below is an overview of the three different agencies cited as administrators of permits that may be required for a renewable energy project in Kaua'i County. The overview is followed by a contact list for each agency.

#### ***Planning Department***

The [Department](#) administers all environmental and land use permits in Kaua'i, making them the main entity responsible for the administration and enforcement of Kaua'i's General Plan and CZO.

The Planning Department also provides technical advice to the Mayor, Planning Commission, and County Council on all planning and land use matters in the county. The Planning Commission is a board made up of seven members from the public that are appointed by the Mayor and confirmed by the County Council. The Planning Commission holds bi-monthly public hearings on zoning and land use permits and applications, and is the decision making entity on these matters.

#### ***Department of Public Works***

The [of Public Works](#) (PWD) is responsible for nearly all of the renewable energy-related construction and operation permits in Kaua'i cited in this Guide. The Department of Public Works therefore reviews and enforces various codes and regulations pertaining to public and private construction work. Other responsibilities of the department include planning, designing, and constructing all County-owned facility improvements, the collection of garbage and refuse, and the collection and treatment of sewage. The following three divisions of the Department of Public Works administer the construction and operation permits that this Guide cites:

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- Building Division—facility development, building code enforcement, building construction and maintenance, and janitorial services. The Department of Public Works website offers a “Building Permits Online” feature ( [://www.kauai.gov/](http://www.kauai.gov/) ), which allows tracking the status of already-submitted building permits. Though building permits are not submitted through this site, the tracking and inspection status checking is a helpful feature.
  - Engineering Division—administers grading, grubbing, stockpiling, plumbing, and other ordinances. There are three subdivisions within the Engineering Division, including the Construction Management & Inspection, Design & Permitting, and Survey & Mapping.
  - Wastewater Management Division—develops and operates the county’s wastewater infrastructure, including administration of permits that allow sewer lines to be connected to the public wastewater system.

***Office of Economic Development***

The Office of Economic Development (OED) is responsible to provide technical and financial support, as feasible, for both large and small business establishments, or existing and emerging new industries which offer full employment for Kaua‘i’s residents. The OED works, in partnership with the community, to create economic opportunities towards the development of a healthy, stable and balanced economy for the residents of the County of Kaua‘i. The Kaua‘i County Energy Coordinator is located in this office and it is recommended that all applicants contact the Coordinator early in the planning process.

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**Table 3-5. Kaua'i County Agencies and Contact Information**

Agency	Contact Information
Planning Department	4444 Rice Street, Suite 473 Lihue, HI 96766 Phone: 808-241-4050
Department of Public Works  Building Division  Engineering Division    Wastewater Management Division	4444 Rice Street, Suite 175 Lihue, Hawai'i 96766-1340  Phone: 808-241-4854  Phone: 808-241-4883 4444 Rice Street, Suite 500 Lihue, Hawai'i 96766  Phone: 808-241-4082
Department of Water	Physical Address: 4398 Pua Loke Street Mailing Address: P.O. Box 1706 Lihue, HI 96766 Phone: 808-245-5400
Office of Economic Development	4444 Rice St Suite 200 Lihue, HI 96766 Phone: 808-241-4946


**A Checklist of Approvals for Energy Development in the County of Kauai**

This section provides checklists that can be used by an energy developer to understand which permits may be required for a specific project within Kaua'i County.

**Table 3-6. Kaua'i County Activity Checklist**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
<b>Environmental Permits</b>				
	To construct structures or perform activities within the "Shoreline Setback Area" as defined in County Zoning Ordinance (CZO), Chapter 8, Article 13.	K-1	PD	Certified Shoreline/Shoreline Setback Variance
	To request a use, activity or operation proposed within the Special Management Area, as defined as a "development" pursuant to Special Management Area Rules and Regulations of Kaua'i County, as amended.	K-2	PD	Special Management Area Use Permit
<b>Construction and Operation Permits</b>				
	To construct a structure within the County.	K-3	PWD	Building Permit
	To construct a driveway that connects to a public road.	K-4	PWD	Driveway Approach Application
	To perform construction activities that involve (1) excavation or fill in excess of 100 cubic yards (2) grading work that unreasonably alters the existing drainage patterns of abutting properties, and/or (3) grading work that involves cuts or fills in excess of 5 feet.	K-5	PWD	Grading Permit
	To clear or grub more than one acre of land, or when such work unreasonably affects the drainage pattern of abutting properties.	K-6	PWD	Grubbing Permit
	To construct work in the County Right-of-Way and/or on roads.	K-7	PWD	Road Permit
	To stockpile quantities equal or exceed 500 cubic yards of material.	K-8	PWD	Stockpiling Permit
	To connect a sewer line into the public wastewater system.	K-9	PWD	Sewer Connection Permit
	To receive water from the public water supply system.	K-10	WD	Water Service Application
<b>Land Use Permits</b>				
	To conduct construction, use, or activities in the state agricultural land districts on Kaua'i.	K11	PD	Special Permit
	To construct structures or perform activities for which a Use Permit is required as defined by CZO Chapter 8. The Use Permit ensures proper integration of land uses which may be suitable only in specific locations in a district, or only under certain conditions, or only if the uses are designed, arranged or conducted in a particular manner.	K-12	PD	Use Permit

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	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
	To request a variance from the county land use regulations as they are set forth in CZO Chapter 18.	K-13	PD	Variance
	To construct structures or perform activities for which a zoning permit is required; or to obtain a building permit for construction, development, activity or use regulated by CZO, Chapter 8, Article 19.	K-14	PD	Zoning Permit

## of Maui

### Overview of County of Maui's Regulatory System

The County consists of four islands—Kaho'olawe, Lāna'i, Maui, and Moloka'i—as shown in Figure 3-14. The County uses the three tiered system illustrated in Figure 3-15 to guide the regulatory system and all tiers are required to be consistent with each other.

Figure 3-14. Maui County Location Map

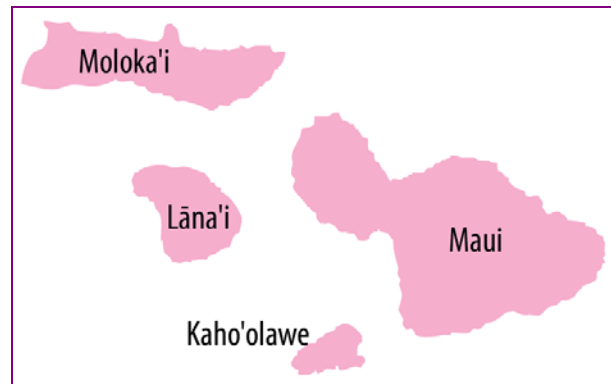
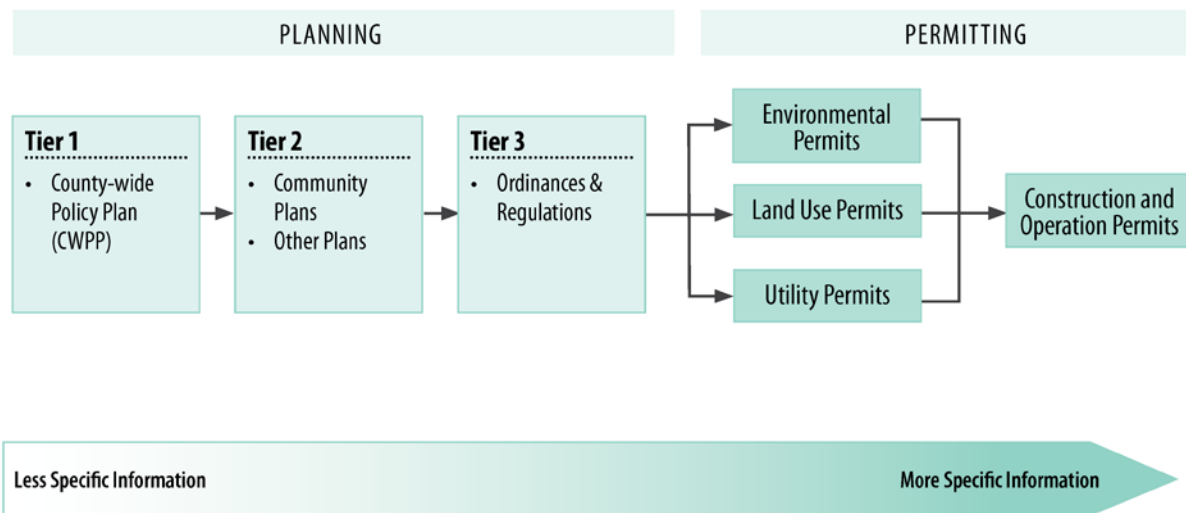


Figure 3-15. The Maui County Planning System



### County of Maui's General Plan

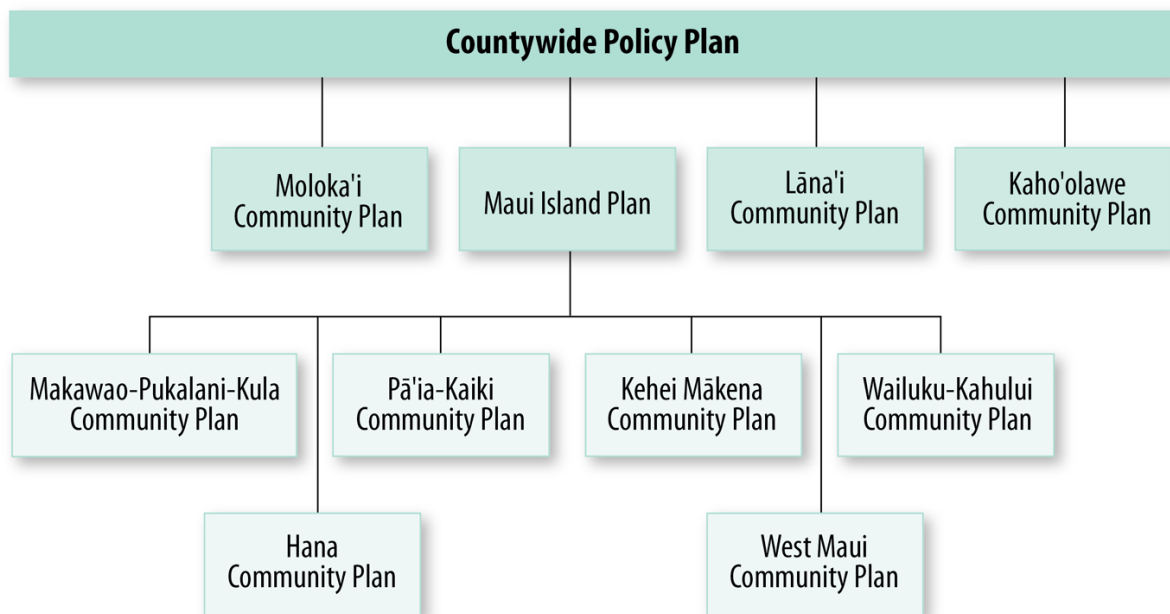
The Maui County General Plan is actually a series of planning documents that make up Tier 1 (the Countywide Policy Plan) and Tier 2 (Community Plans) of their planning system. The Maui County General Plan was first adopted in 1980, updated in 1990, and is currently undergoing another round of updates. The County of Maui's Planning Department is responsible for writing these documents, while including the input from state and county agencies, the general public, General Plan and Community Plan Advisory Committees (GPAC and CPAC), and Planning Commissions (established for each island). The Countywide Policy Plan (CWPP), the first in the series of documents comprising the General Plan, was adopted on March 24, 2010 ([.co.maui.hi.us/index.aspx?NID=](http://co.maui.hi.us/index.aspx?NID=)). These documents guide government action and decision making.

The CWPP acts as an overarching values statement, and is the umbrella document that provides direction for the more specific Island of Maui Plan and Community Plans. The CWPP includes (1) a vision statement and core values for the county; (2) an explanation of the plan making process; (3) a description and background regarding the current state of the county; (4) guiding principles for the

county; and (5) a list of countywide goals, objectives, and policies related to population, land use, the environment, the economy, housing, and other county priorities.

The islands of Kaho‘olawe, Lāna‘i, and Moloka‘i each have a Community Plan that also acts as an Island Plan. The Island of Maui is different in that it has an overall plan for the island of Maui called the “Maui Island Plan,” which acts as a guide for each of the island’s six community plans, as illustrated in Figure 3-16. All documents are internally consistent and have mutually supporting goals, objectives, and policies. The nine Community Plan documents are available online for free at [://www.mauicounty.gov/index.aspx?NID=](http://www.mauicounty.gov/index.aspx?NID=) or printed copies may be purchased from the Department of Planning.

**Figure 3-16. Maui County General Plan Documents**



Source: County of Maui Hawaii – Website for Planning Department ( [://www.mauicounty.gov/index.aspx?NID=](http://www.mauicounty.gov/index.aspx?NID=) )

These plans communicate Maui’s preferences regarding land use, open space, transportation, natural resources, and other issues pertinent to energy use and renewable energy permitting.

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## Maui's Energy Objectives and Policies

*(From the Maui General Plan, 1990)*

*(Available at: <http://www.mauicounty.gov/index.aspx?NID=1122>)*

**Objective:** To make Maui County more self-sufficient in its need for non-renewable energy and more efficient in its use of energy

- Policy 1: Encourage programs to test the feasibility of alternative sources of energy production.
- Policy 2: Maintain an ongoing assessment of the County's energy resources, as well as an assessment of alternative sources in the context of a comprehensive integrated resource plan.
- Policy 3: Publicize the need to conserve energy.
- Policy 4: Create incentive programs to encourage the use of solar heaters and other energy saving building design concepts and devices.
- Policy 5: Seek to incorporate energy-saving building design concepts and devices in government buildings.
- Policy 6: Encourage the incorporation of energy-saving building design concepts and devices in all new private and public developments by providing energy efficient urban design guidelines and amendments to the Maui County Uniform Building Code.

*(From the DRAFT CWPP, 2008)*

*(Available at: <http://www.mauicounty.gov/index.aspx?NID=1122>)*

**Objective:** Utilize renewable and green technologies to promote energy efficiency and energy self-sufficiency.

### **Policies**

- a. Encourage the use of locally renewable energy sources and reward energy efficiency.
- b. Provide tax incentives and credits for the development of sustainable and renewable energy sources.
- c. Expand education about energy conservation and self-sufficiency.
- d. Encourage small scale energy generation which utilizes wind, sun, water, biowaste, and other renewable sources of energy.
- e. Expand potential renewable energy production capabilities.
- f. Develop public-private partnerships to ensure the use of renewable energy and increase energy efficiency.
- g. Require the incorporation of locally appropriate energy-saving and green building design concepts in all new developments by providing energy efficient urban design guidelines and amendments to the Building Code.
- h. Encourage the use of sustainable energies to power vehicles.
- i. Promote the retrofitting of existing buildings and new development to incorporate energy-saving design concepts and devices.
- j. Encourage "green footprint" practices.
- k. Reduce Maui County's dependence on fossil fuels and energy imports.

## **Other Energy Plans and Land Use Maps**

The Maui County Energy Alliance (MCEA) was established in 2008 to address the formulation of policies and actions that could move the County away from fossil fuel dependence. Five working groups formed under MCEA in order to gather data, site opportunities, and make recommendations in the areas of (1) Renewable Resource Development; (2) Green Workforce Development and Education; (3) Energy and Transportation Infrastructure; (4) Energy Efficiency and Conservation in County facilities; and (5) Greenhouse Gases and Carbon Emissions. The recommendations made by these working groups will move Maui toward achieving the goal of 95 percent renewable energy and a carbon-neutral footprint by the year 2020—which was set by in 2007 and is even more ambitious than the HCEI goals. In the June 2009 Draft Maui County Energy Alliance Plan, the working groups cite the opportunity to encourage investment in renewable energy technologies by fast-tracking and reducing fees for clean energy-related permits, procedures, and zoning resolutions (MCEA 2009). Collectively,

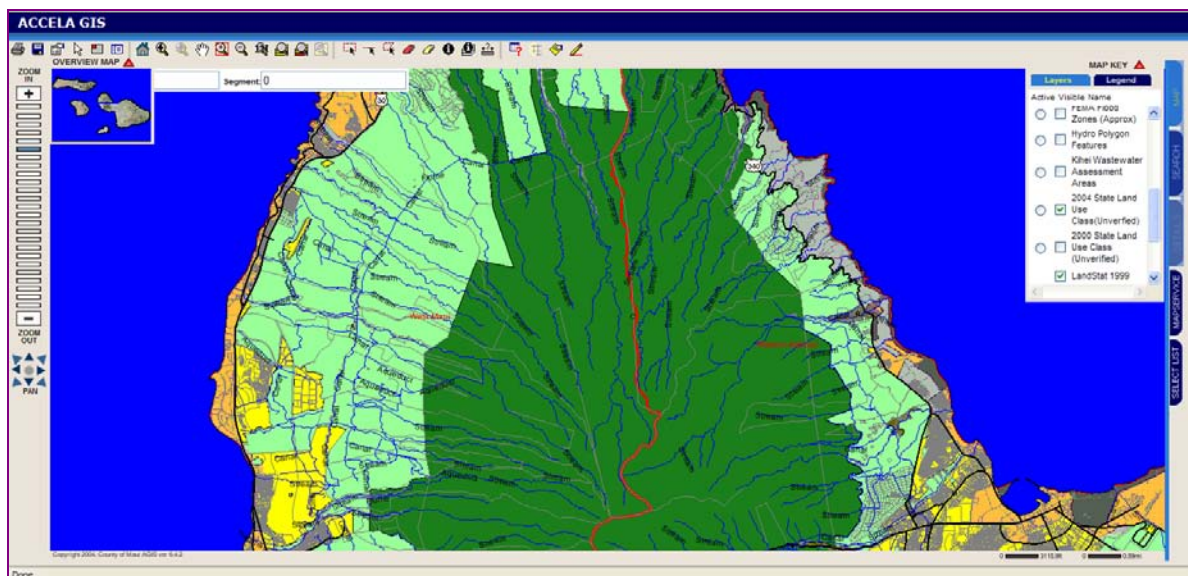
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the alliance, their recommendations, and the County's Clean Energy Program's efforts show the high priority that renewable energy has in Maui. For more information on this plan, visit [://www.co.maui.hi.us/documents/50/54/317/MCEA%20Expo%20Long%20Version%20Final%20Sep%202009](http://www.co.maui.hi.us/documents/50/54/317/MCEA%20Expo%20Long%20Version%20Final%20Sep%202009).

Maps that reveal land use zoning, major roads, special management areas, and other important features are available on the Maui County Website. Figure 3-17 is a screen shot of a section of the map function available at [://agis10g.co.maui.hi.us:8080/agis/map/viewer](http://agis10g.co.maui.hi.us:8080/agis/map/viewer). These maps may be zoomed in for varying levels of detail. The following labels are available and may be viewed individually or collectively as desired:

- Major Roads
- Streets
- Unregistered Flood and Hazard Zones
- Unregistered State of Hawai'i Special Management Areas
- Tsunami Evacuation Zone Map
- 2000 and/or 2004 Unregistered and Unverified State Land Use Districts
- Kihei Wastewater Assessment District

**Figure 3-17. GIS Maps of Maui County**



### **Ordinances and Regulations**

The Maui County Code (MCC) establishes the structure and organization of the government of Maui County, and also outlines how ordinances are passed. Ordinances are the county local laws and procedures for acquiring a county permit. The MCC is available online at

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<://library.municode.com/index.aspx?clientId=>, as well as in the online permit packets associated with this Guide.

The following is a list of the most commonly applicable sections of the MCC for renewable energy projects:

- Title 14—Public Services
- Title 16—Buildings and Construction
- Title 19—Zoning
- Title 20—Environmental Protection

### **Agencies to Know in the County of Maui**

Below is an overview of the agencies cited as administrators of permits that may be required for a renewable energy project in the Maui County. The overview is followed by a contact list for each agency.

#### ***Department of Planning***

Maui County’s [of](#) administers many environmental reviews and permits, as well as land use permits. The Planning Department offers technical advice to the Mayor, County Council and commissions; proposes zoning legislation; drafts updates to the General Plan, Maui Island Plan and Community Plans; presents reports & recommendations on development proposals; and oversees programs on cultural resources, census and geographic information, flood plain permits and other special projects and permits (MCPD 2010).

The Planning Department has three major divisions that carry out its mission: the Current Planning Division, Zoning Administration and Enforcement Division (ZAED), and the Long Range Planning Division. The Long Range Planning Division is responsible for overseeing the development of the General Plan. The Current Planning Division and ZAED administer a number of permits and approvals that a renewable energy developer may be required to acquire.

The Planning Department is supported by three planning commissions—the Maui Planning Commission, Lana’i Planning Commission, and the Moloka’i Planning Commission. Projects located on Moloka’i or Lana’i must work with the respective Planning Commission. All commissions advise the mayor, County Council, and Planning Director in matters concerning planning programs in their respective areas of Maui County. The commissions are involved in the public hearing process, and transmit their findings and recommendations to the County Council for consideration and action. The Coastal Zone Management laws, and other land use rules, ordinances, and laws also fall under the jurisdiction of these commissions.

The Planning Department and other county agencies have collectively moved 121 permits online; forms, tracking, and permit information has been organized and made available on the Maui County Website, <://www.co.maui.hi.us/index.aspx?nid=> (MCPD 2010).

#### ***Department of Public Works***

The [of Public Works](#) (PWD) administers a number of construction and operation permits that, depending on the renewable energy project, may be required. The PWD’s three major branches—the

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Development Services Administration, Engineering Division, and Highways Division—all serve to protect the public health, safety, property, and environment by developing and operating the County's infrastructure and administering its building codes. Building permits, county highway work, electrical permits, grading and grubbing permits, and others are all administered by the PWD's Development Services Administration.

### ***Department of Environmental Management***

The [of Environmental Management](#) oversees the Wastewater Reclamation and Solid Waste Management Divisions. The Wastewater Reclamation Division issues the Wastewater Discharge Permit and Wastewater Hauler Permit—both of which may be necessary for a geothermal, hydroelectricity, hydrokinetic, waste-to-energy, and/or a biofuel project.

### ***Department of Fire and Public Safety***

The [of Fire and Public Safety](#) oversees construction and operation permits related to explosives, blasting, fire protection, flammable and combustible materials and tanks, and related permits. Waste-to-energy, biofuel, and geothermal projects are the renewable energy technologies most likely to need permits from this department, though depending on the activities required, other renewable energy projects may also require permits from this agency as well.

### ***Office of Economic Development***

The [of Economic Development](#) (OED) is responsible to work in partnership with the community, business and government sectors to strengthen and diversify the economy by supporting existing businesses and assisting in the attraction, development and expansion of new businesses. The Maui County Energy Commissioner is located in this office and it is recommended that all applicants contact the Energy Commissioner early in the planning process.

**Table 3-7. Maui County Agencies and Contact Information**


Agency	Contact Information
Planning Department  Current Planning Division  Zoning Administration and Enforcement Division	250 S. High Street Kalana Pakui Bldg, Suite 200 Wailuku, HI 96793 Phone: 808-270-7735  2200 Main Street One Main Plaza Bldg, Suite 619 Wailuku, HI 96793 Phone: 808-270-8205  250 S. High Street Kalana Pakui Bldg, Suite 200 Wailuku, HI 96793 Phone: 808-270-7253
Public Works Department  Development Services Administration	200 S. High Street Kalana O Maui Bldg, Floor Wailuku, HI 96793 Phone: 808-270-7845  250 S. High Street Kalana Pakui Bldg Wailuku, HI 96793 Phone: 808-270-7379
Department of Environmental Management  Wastewater Reclamation Division	2200 Main Street One Main Plaza Bldg, Suite 100 Wailuku, HI 96793-2155 Phone: 808-270-8230  2200 Main Street One Main Plaza Bldg, Suite 610 Wailuku, HI 96793-2155 Phone: 808-270-7417
Department of Fire and Public Safety	200 Dairy Road Kahului, HI 96733 Phone: 808-270-7561
Office of Economic Development	2200 Main St. One Main Plaza Bldg, Suite 305 Wailuku, HI 96793 Phone: 808-270-7710

Source: County of Maui website ( [://www.co.maui.hi.us/index.aspx?nid=](http://www.co.maui.hi.us/index.aspx?nid=) )


**A Checklist of Approvals for Energy Development in the County of Maui**

This section provides checklists that can be used by an energy developer to understand which permits may be required for a specific project within Maui County.


**Table 3-8. Maui County Activity Checklist**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
<b>Environmental Permits and Reviews</b>				
	To construct a structure or perform activities that may have significant environmental impacts as defined by HRS Chapter 343 Environmental Impact Statements law.	M-1	PD	Environmental Assessment/Impact Determination
	To construct structures or perform activities not permitted within the Maui "Shoreline Setback Area" as defined in Shoreline Rules for the Maui Planning Commission.	M-2	PD	Certified Shoreline/Shoreline Setback Variance
	To construct structures or perform activities that would require an amendment to the boundaries of any special management area map on Maui as defined as a "development" in Special Management Area Rules, Maui Planning Commission.	M-3	PD	Amendment to Special Management Area Maps
	To construct a structure or perform an activity that has a total cost fair market value of \$125,000 or more; or has significant adverse environmental or ecological effect within the Maui Special Management Area, as defined as a "development" pursuant to Special Management Area Rules, Maui Planning Commission.	M-4	PD	Special Management Area Use Permit
	To construct structures in areas subject to flood hazards.	M-5	PD	Flood Development Permit
	To discharge wastewater that is processed at Maui County's Wastewater Treatment facilities.	M-6	DEM	Wastewater Discharge Permit
	To construct structures or perform activities not permitted within the Lana'i "Shoreline Setback Area" as defined in Shoreline Setback Rules and Regulations for the Lana'i Planning Commission.	M-7	MC Lana'i	Lana'i Certified Shoreline/Shoreline Setback Variance
	To construct a structure or perform an activity that has a total cost fair market value of \$125,000 or more; or has significant adverse environmental or ecological effect within the Lana'i Special Management Area, as defined as a "development" pursuant to Special Management Area Rules, Lana'i Planning Commission .	M-8	MC Lana'i	Lana'i Special Management Area Permit
	To construct structures or perform activities not permitted within the Moloka'i "Shoreline Setback Area" as defined in Rules of the Moloka'i Planning Commission relating to the Shoreline Area.	M-9	MC Moloka'i	Moloka'i Certified Shoreline/Shoreline Setback Variance
		No Packet		


**Table 3-8. Maui County Activity Checklist (continued)**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
<b>Construction and Operation Permits</b>				
	To discharge wastewater into Maui County's wastewater collection or treatment facilities.	M-11	DEM	Wastewater Hauler Permit
	To handle explosives and/or blasting agents.	M-12	DFPS	Explosives & Blasting Agent Permit
	To install fire sprinklers, water mains for fire protection, fire hydrants, and fire alarms.	M-13	DFPS	Fire Protection Permit
	To use or operate, repair or modify a pipeline for the transportation of flammable or combustible liquids.	M-14	DFPS	Flammable & Combustible Tank Permit
	To utilize flammable spray finishes for any facility.	M-15	DFPS	Flammable Finish Facility Application
	To handle hazardous materials.	M-16	DFPS	Hazardous Materials Permit
	To store, use, handle, or dispense LP gas, or to install or maintain LP gas tanks.	M-17	DFPS	Liquefied Petroleum Gases Permit
	To erect any temporary structure larger than 700 square feet in size.	M-18	DFPS	Temporary Structure Permit
	To construct, alter, move, demolish, repair or use any building or structure.	M-19	PWD	Building Permit
	To use, occupy or change existing occupancy classification of a building, structure or portion thereof.	M-20	PWD	Certificate of Occupancy Permit
	To construct, reconstruct, remove or repair any driveway on a County roadway.	M-21	PWD	Driveway Permit
	To perform any type of electrical work.	M-22	PWD	Electrical Permit
	To temporarily store soil, sand, gravel, rock, or any similar material; to uproot and remove from the surface of the ground any vegetation including trees, timber, shrubbery and plants. A grading permit is required for the evacuation of fill.	M-23	PWD	Grading & Grubbing Permits
	To operate vehicles on public roads whose dimensions or weights, including loads, or both exceed the limits set by Hawai'i Revised Statutes, Section 291.	M-24	PWD	Moving Permit
	To perform work on County highways when a County roadway will be dug up, undermined, broken up, or disturbed in any way.	M-25	PWD	Perform Work on County Highway Permit
	To perform any type of plumbing work.	M-26	PWD	Plumbing/Gas Permit


**Table 3-8. Maui County Activity Checklist (continued)**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
<b>Land Use Permits</b>				
	To use property in a manner not allowed under the current zoning of that particular parcel of land.	M-27	PD	Change in Zoning Permit
	To develop an "unusual and reasonable" land use within the Agricultural and Rural Districts of Wailuku, Makawao, Lāhainā, and Hana, other than permissible agricultural or rural uses within those districts.	M-28	PD	Special Use Permit—State Land Use Commission
	To revise or amend an existing Community Plan for the following areas: Hana, Kaho'olawe, Kihei-Mākena, Lana'i, Makawao-Pukalani-Kula, Moloka'i, Pā'ia-Ha'ikū, Wailuku-Kahului, and West Maui.	M-29	MC	Community Plan Amendment Application
	To propose a land use that is not specifically permitted, but is related or compatible to those uses permitted within a given use zone for a limited period of time—Maui and Lana'i.	M-30	MC Lana'i Moloka'i	Conditional Use Permit – Lana'i and Moloka'i
	To amend or reclassify State Land Use District boundaries involving lands 15 acres or less presently classified in the Agricultural, Rural or Urban Districts as defined in HRS Section 205-3.1.	M-31	PD	District Boundary Amendment — State Land Use Commission
	To receive a tentative planned development approval (PD1, or Step 1), tentative sketch plan approval, (PD2, or Step 2), and unified site and building program approval (PD3, or Step 3) for parcels of land greater than 3 acres in the state urban district or parcels of land greater than 10 acres outside the state urban districts.	M-32	PD Moloka'i	Planned Development Approval
	To develop tracts of land designated as project districts by the adopted community plans—Maui & Lana'i.	M-33	PD Lana'i Moloka'i	Project District Development Approval
	To establish general planning and development control parameters as required for a few zoning districts of Title 19, Maui County Zoning Ordinance, including regional park and golf course park districts.	M-34	PD	Project Master Plan Preview

**Table 3-8. Maui County Activity Checklist (continued)**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
	To develop a structure that would require specific, similar, or related accessory uses as provided for under Title 19, Maui County Zoning Ordinance. This would include the Hotel Districts, B-2 Community Business District, and B-R Resort Commercial District.	M-35	PD	Special Accessory Use Permit
	To establish general planning and development control to specify the uses of land, and the layout of the project's landscaping, circulation, and buildings for district or uses which also require a Project Master Plan Review.	M-36	PD	Development Plan Review
	To propose certain special uses within the various zoning districts on Maui and Lana'i.	M-37	PD Lana'i Moloka'i	County Special Use Permit
	To obtain variances from the strict application of any zoning, subdivision or building ordinances. To appeal a decision or order of, or alleged error by, any department charged with the enforcement of zoning, subdivision, and building ordinances.	M-38	PD	Board of Variance and Appeals
	To verify the County Zoning, Community Plan, State Land Use District designations, Flood Zone and other special districts for parcels of land located within Maui County.	M-39	PD	Zoning and Flood Confirmation Form
	To conduct activities that would require the subdivision or consolidation of land.	M-40	PWD	Subdivision Applications
	To develop an "unusual and reasonable" land use within the Agricultural and Rural Districts of Lana'i, other than permissible agricultural or rural uses within those districts.	M-41	MC Lana'i	Lana'i Special Use Permit—State Land Use Commission
	To propose a land use that is not specifically permitted, but is related or compatible to those uses permitted within a given use zone for a limited period of time—Moloka'i.	M-42	MC Moloka'i	Moloka'i Conditional Use Permit
	To propose certain special uses within the various zoning districts on Moloka'i.	M-43	MC Moloka'i	Moloka'i County Special Use Permit Application
	To develop tracts of land designated as project districts by the adopted community plans—Moloka'i.	M-44	MC Moloka'i	Moloka'i Project District Development Approval
	To conduct certain "unusual and reasonable" land use activities within the Agricultural and Rural Districts of Moloka'i, other than permissible agricultural or rural uses within those districts.	M-45	MC Moloka'i	Moloka'i Special Use Permit—State Land Use Commission

**Table 3-8. Maui County Activity Checklist (continued)**

	Possible Activity to be Performed	Permit Packet Number	Department	Name of Permit
	To conduct an emergency use, activity, or operation that qualifies as "development" or has significant adverse environmental or ecological effect within the Lana'i Special Management Area, when there is an imminent threat to a legally habitable structure, or when public infrastructure is at risk of failure which would substantially affect public health and safety.	M-46	MC Lana'i	Lana'i Special Management Area Emergency Permit
	To conduct any use, activity, or operation that qualifies as "development"; establish special controls on development within the area along the shoreline.	M-47	PD	Special Management Area Assessments
	To conduct an emergency use, activity, or operation that qualifies as "development" or has significant adverse environmental or ecological effect within the Maui Special Management Area, when there is an imminent threat to a legally habitable structure, or when public infrastructure is at risk of failure which would substantially affect public health and safety.	M-48	PD	Maui Special Management Area Emergency Permit
	To conduct an emergency use, activity, or operation that qualifies as "development" or has significant adverse environmental or ecological effect within the Moloka'i Special Management Area, when there is an imminent threat to a legally habitable structure, or when public infrastructure is at risk of failure which would substantially affect public health and safety.	No Packet	PD	Moloka'i Special Management Area Emergency Permit
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## Acronyms and Abbreviations

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AFS	Alternative Fuel Standard
APD	Agricultural Project District
ARD	Air Resources Division, U.S. National Park Service
AWEA	American Wind Energy Association
BD	Building Division, Public Works Department
BLNR	State Board of Land and Natural Resources
BOEM	Bureau of Ocean Energy Management, U.S. Department of the Interior
BVA	Board of Variance and Appeals
CAA	Clean Air Act
CDU	Conservation District Use
CEQ	Council on Environmental Quality, President's
CFR	Code of Federal Regulations
CIZ	Change in Zoning
CUP	Conditional Use Permit
CPAC	Community Plan Advisory Committee
CPD	Current Planning Division
CSP	Concentrated Solar Power
CUP	Conditional Use Permit
CWA	Clean Water Act
CWPP	Countywide Policy Plan
CWRM	Commission on Water Resource Management
CZO	County Zoning Ordinance [in matrices]
CZO	Comprehensive Zoning Ordinance
DA	Department of the Army
DBA	District Boundary Amendment
DBEDT	Department of Business, Economic Development and Tourism, State of Hawai'i
DEM	Department of Environmental Management, County of Maui
DFPS	Department of Fire and Public Safety, State of Hawai'i
DHAC	Division of Hydropower Administration and Compliance, Federal Energy Regulatory Commission
DLIR	Department of Labor and Industrial Relations, State of Hawai'i
DLNR	Department of Land and Natural Resources, State of Hawai'i
DOE	U.S. Department of Energy
DOFAW	Department of Land and Natural Resources, Division of Forestry and Wildlife, State of Hawai'i
DOA	Department of Agriculture, State of Hawai'i
DOH	Department of Health, State of Hawai'i

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DOT	Department of Transportation, State of Hawai'i
EA	Environmental Assessment
ED	Engineering Division, Public Works Department
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act of 2007
EISPN	Environmental Impact Statement Preparation Notice
EMD	Environmental Management Division, Department of Health, State of Hawai'i
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
EUP	Experimental Use Permit
EZ	Enterprise Zone
FAA	Federal Aviation Administration
FAFF	Flammable Finish Facility
FEBA	Fire, Explosives and Blasting Agent
FERC	Federal Energy Regulatory Commission
FHAZ	Hazardous Materials Permit
FLM	Federal Land Manager, U.S. National Park Service
FLPG	Liquefied Petroleum Gases Permit
FONSI	Findings of No Significant Impact
FTNK	Flammable and Combustible Tank Permit
GIS	Geographic Information System
GPAC	General Plan Committee
GWh	Gigawatt Hours
HAR	State of Hawai'i Administrative Rules
HBF	Hawai'i Biofuels Foundation
HCDA	Hawai'i Community Development Authority
HCEI	Hawai'i Clean Energy Initiative
HCIF	Hawai'i Chemical Inventory Form
HCP	Habitat Conservation Plan
HECO	Hawaiian Electric Company
HEER	Department of Health, Hazard Evaluation and Emergency Response Office, State of Hawai'i
HELCO	Hawai'i Electric Light Company
HFD	Honolulu Fire Department
LUC	Land Use Commission, State of Hawai'i
HNEI	Hawai'i Natural Energy Institute, University of Hawai'i
HRS	Hawai'i Revised Statutes
IHA	Incidental Harassment Authorization

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ITL	Incidental Take License
KIUC	Kaua'i Island Utility Cooperative
KOHA	Kaua'i Online Hazard Assessment Tool
kW	Kilowatts
LCA	Life-Cycle Analysis
LOA	Letter of Authorization
LUO	Land Use Ordinance
LUPAG	Land Use Pattern Allocation Guide
LUPD	Land Use Permits Division, City and County of Honolulu Department of Planning and Permitting
Makai	Compass Directions (heading toward the ocean)
Mauka	Compass Directions (heading toward the mountains or inland)
MC	Maui County
MCC	Maui County Code
MCEA	Maui County Energy Alliance
MC-L	Maui County-Lana'i
MC-M	Maui County-Moloka'i
MECO	Maui Electric Company
MMPA	Marine Mammal Protection Act
MSW	Municipal Solid Waste
MW	Megawatts
NARS	Natural Area Reserves System
NELHA	Natural Energy Laboratory of Hawai'i Authority
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service, U.S. National Oceanic and Atmospheric Administration
NOAA	U.S. National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge and Elimination System
NPS	U.S. National Park Service
NREL	National Renewable Energy Laboratory
OCCL	Office of Conservation and Coastal Lands, Department of Land and Natural Resources, State of Hawai'i
OCS	Outer Continental Shelf
OEMM	Offshore Energy and Minerals Management
OEP	Office of Energy Projects
OEQC	Office of Environmental Quality Control, Department of Health, State of Hawai'i
OP	Office of Planning, Department of Business, Economic Development and Tourism, State of Hawai'i
OPR	Office of Protected Resources, U.S. National Oceanic and Atmospheric Administration National Marine Fisheries Service

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OTEC	Ocean Thermal Energy Conversion
OTEC Act	Ocean Thermal Energy Conversion Act of 1980
OWCP	Ocean Waters Construction Permit
PD	Planning Division, City and County of Honolulu Department of Planning and Permitting
PGV	Puna Geothermal Venture
PMP	Project Master Plan
POD	Pacific Ocean Division, U.S. Army Corps of Engineers
PPM	Parts Per Million
PQ	Plant Quarantine Branch, Department of Agriculture, State of Hawai'i
PUC	Public Utility Commission
PV	Photovoltaic
PWD	Public Works Department
REFSP	Renewable Energy Facility Siting Process
REZ	Renewable Energy Zone
RFS2	National Renewable Fuel Standard Program
RIN	Renewable Identification Numbers
ROH	Revised Ordinances of Honolulu
RPS	Renewable Portfolio Standards
RSB	Roundtable on Sustainable Biofuels
SDD	Site Development Division, City and County of Honolulu Department of Planning and Permitting
SFRO	San Francisco Regional Office
SHPD	State Historic Preservation Division, Department of Land and Natural Resources, State of Hawai'i
SIC	Standard Industrial Classification
SMA	Special Management Area
SSV	Shoreline Setback Variance
SWAC	Sea Water Air Conditioning
TSD	Transmission, Storage, and Distribution
UIC	Underground Injection Control
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USDW	Underground Sources of Drinking Water
USFWS	U.S. Fish and Wildlife Service
WD	Water Department
WMD	Wastewater Management Division
WTE	Waste-to-Energy
WWD	Wastewater Discharge

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WWH	Wastewater Hauler
ZAED	Zoning Administration and Enforcement Division

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## References

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- ATSDR 1997 Agency for Toxic Substance and Disease Registry (December 1997). "Health Consultation: Puna Geothermal Venture." Retrieved on 12/14/2009 from [://www.atsdr.cdc.gov/hac/PHA/puna/pgv.html](http://www.atsdr.cdc.gov/hac/PHA/puna/pgv.html).
- AWEA 2005 American Wind Energy Association (AWEA), 2005. Wind Power Myths vs. Facts. Retrieved on 12/22/09 from [://www.awea.org/pubs/factsheets/050629\\_Myths\\_vs\\_Facts\\_Fact\\_Sheet.pdf](http://www.awea.org/pubs/factsheets/050629_Myths_vs_Facts_Fact_Sheet.pdf).
- BCH 2000 Belt Collins Hawai'i (July 2000). Hawai'i 2000 Plan for Integrated Solid Waste Management. Prepared for the State of Hawai'i Department of Health Office of Solid Waste Management.
- BFIN 2009 Bioenergy Feedstock Information Network (BFIN). Frequently Asked Questions. Retrieved on 12/15/09 from [://bioenergy.ornl.gov/faqs/index.html](http://bioenergy.ornl.gov/faqs/index.html).
- CEQ Council on Environmental Quality , "Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act" 40 CFR 1507.2, available at [.nepa.gov](http://www.nepa.gov).
- CEQ 2007 Council on Environmental Quality , "A Citizen's Guide to the NEPA," December 2007, available at [://ceq.hss.doe.gov/nepa/Citizens\\_Guide\\_Dec07.pdf](http://ceq.hss.doe.gov/nepa/Citizens_Guide_Dec07.pdf)
- DBEDT 2009a Department of Business, Economic Development & Tourism website (2009). [://www.gov/dbedt/](http://www.gov/dbedt/)
- DBEDT 2009b DBEDT Website. Retrieved on 12/23/09 from [://hawaii.gov/dbedt/info/energy/publications/solardata/](http://hawaii.gov/dbedt/info/energy/publications/solardata/).
- DBEDT 2009c missing
- DBEDT 2009d Department of Business, Economic Development and Tourism. Wind Data Maps. Retrieved on 12/28/09 from [://hawaii.gov/dbedt/info/energy/publications/winddata/](http://hawaii.gov/dbedt/info/energy/publications/winddata/)
- DBEDT 2009e Department of Business, Economic Development and Tourism. December 2009. Hawai'i Bioenergy Master Plan.
- DBEDT 2010 State of Hawai'i Department of Business, Economic Development, and Tourism website. Ocean Thermal Energy, Use of OTEC in Hawai'i. Retrieved 1/6/10 from [://hawaii.gov/dbedt/info/energy/renewable/otec](http://hawaii.gov/dbedt/info/energy/renewable/otec).
- DBEDT 2011 Permitting Wizard Industry Outreach Sessions, August 2011.
- DEWHTP 2010b U.S. Department of Energy Wind and Hydropower Technologies Program website, Retrieved 1/5/10 from [://www1.eere.energy.gov/windandhydro/hydro\\_plant\\_types.html#sizes](http://www1.eere.energy.gov/windandhydro/hydro_plant_types.html#sizes).
- Doris 2009 Doris, E., J. McLaren, V. Healey, and S. Hockett (October 2009). State of the States 2009: Renewable Energy Development and the Role of Policy. Retrieved on 11/18/09 from [://apps1.eere.energy.gov/states/state\\_of\\_the\\_states.cfm](http://apps1.eere.energy.gov/states/state_of_the_states.cfm).
- DPP 2008 City & County of Honolulu, Department of Planning and Permitting (April, 2008). A View into the Department of Planning and Permitting, Planning and Zoning Activities. Retrieved 12/17/2009 from [://www.honolulu-dpp.org/aboutdpp/view.pdf](http://www.honolulu-dpp.org/aboutdpp/view.pdf).

---

DPP 2009 City and County of Honolulu, Department of Planning and Permitting (DPP) Website. Retrieved on 12/23/09 from [://dppweb.honolulu.gov/DPPWeb/default.asp?PossePresentationId=3000](http://dppweb.honolulu.gov/DPPWeb/default.asp?PossePresentationId=3000).

DSIRE 2010 Database of State Incentives for Renewables and Efficiency (DSIRE, 2010). Retrieved on 12/28/2009 from [://www.dsireusa.org/incentives/incentive.cfm?Incentive\\_Code=HI01R&re=1&ee=1](http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=HI01R&re=1&ee=1).

EPA 2010 U.S. Environmental Protection Agency website. Region 9: Air Standards Delegations, Agency Delegations, Hawai'i State Agency. Retrieved 1/6/10 from [://yosemite.epa.gov/r9/r9nsps.nsf/ViewAgencies?ReadForm&State=HI](http://yosemite.epa.gov/r9/r9nsps.nsf/ViewAgencies?ReadForm&State=HI).

FERC 2008 Federal Energy Regulatory Commission (April 2008). Licensing Hydrokinetic Pilot Projects Frequently Asked Questions. Retrieved 1/5/10 from [://www.ferc.gov/industries/hydropower/indus-act/hydrokinetics/pdf/white\\_paper.pdf](http://www.ferc.gov/industries/hydropower/indus-act/hydrokinetics/pdf/white_paper.pdf).

Fleischmann 2007 Fleischmann, D.J. (January 2007). An Assessment of Geothermal Resource Development Needs in the Western United States. Geothermal Energy Association, Washington D.C.

GEC 2006 Global Energy Concepts, LLC (December 2006). A Catalog of Potential Sites for Renewable Energy in Hawai'i.

GEC 2006 Global Energy Concepts, LLC (December 2006). A Catalog of Potential Sites for Renewable Energy in Hawai'i.

HA 2009 Honolulu Advertiser (Sunday, December 27, 2009). Photovoltaic faces setback. Retrieved on 12/28/09 from [://the.honoluluadvertiser.com/article/2009/Dec/27/bz/hawaii912270349.html](http://the.honoluluadvertiser.com/article/2009/Dec/27/bz/hawaii912270349.html).

Hagerman 2004 G. Hagerman, R. Bedard, and M. Previsic (June, 2004). Electricity Innovation Institute EPRI Survey and Characterization of Potential Offshore Wave Energy Sites in Hawai'i. Retrieved 11/18/09 from [://oceanenergy.epri.com/attachments/wave/reports/003\\_Hawaii\\_Site\\_Report\\_Rev\\_1.pdf](http://oceanenergy.epri.com/attachments/wave/reports/003_Hawaii_Site_Report_Rev_1.pdf)

HC 2009 Hawai'i County Website. Hawai'i County 2005 General Plan. Retrieved 12/16/09 from [://www.hawaii-county.com/la/gp/toc.html](http://www.hawaii-county.com/la/gp/toc.html).

HECO Hawaiian Electric Company, Inc. website.

HECO 2002 Hawaiian Electric Company (April 8, 2002). Interconnection. Retrieved on 12/16/09 from the DBEDT website [://hawaii.gov/dbedt/ert/wwwg/wwwg-15-simmonscol.pdf](http://hawaii.gov/dbedt/ert/wwwg/wwwg-15-simmonscol.pdf).

HECO 2009 Hawaiian Electric Company. Retrieved 11/18/09 from [://www.hawaiisenergyfuture.com/articles/Wave\\_Energy.html](http://www.hawaiisenergyfuture.com/articles/Wave_Energy.html).

Hirai 1981 W.A. Hirai & Associates (February 1981). Hydroelectric Power in Hawai'i: A Reconnaissance Survey. Report prepared for the State of Hawai'i Department of Planning and Economic Development.

HLUC 2009 State of Hawai'i Land Use Commission website. Retrieved 11/12/09 from [://luc.state.hi.us/about.htm](http://luc.state.hi.us/about.htm).

HNEI 2009 Hawai'i Natural Energy Institute (2009). Bioenergy Master Plan Draft. Retrieved from [://www.hnei.hawaii.edu/bmpp/stakeholders.asp](http://www.hnei.hawaii.edu/bmpp/stakeholders.asp)

HPower 2010 HPower website. Frequently Asked Questions About HPower. Retrieved 1/5/10 from [://www.honolulupower.com/FAQ.asp#3](http://www.honolulupower.com/FAQ.asp#3).

---

- 
- INL 2003 Idaho National Laboratory (November 2003). Hawai'i Geothermal Resources. Retrieved 12/14/09 from [://geothermal.id.doe.gov/maps/index.shtml/](http://geothermal.id.doe.gov/maps/index.shtml/).
- Johnson 2006 J. Johnson, D. Leistra, J. Opton-Himmel, M. Smith (May 2006). Hawai'i County Baseline Energy Analysis.
- KC 2009 County of Kaua'i Website, The Kaua'i General Plan. Retrieved 12/16/09 from [:/www.kauai.gov/Government/Departments/PlanningDepartment/TheKauaiGeneralPlan/tabid/130/Default.aspx](http://www.kauai.gov/Government/Departments/PlanningDepartment/TheKauaiGeneralPlan/tabid/130/Default.aspx)
- Keeney 2007 Timothy Keeney, Deputy Assistant Secretary for Oceans and Atmosphere, NOAA. Written testimony before the Committee on Natural Resources, Subcommittee on Fisheries, Wildlife and Oceans, U.S. House of Representatives. April 24, 2007.  
U.S. Department of Commerce
- Khan 2009 J. Khan and G. Bhuyan (2009). Ocean Energy: Global Technology Development Status, Report  
prepared by Powertech Labs for the IEA-OES. Retrieved 1/5/10 from [.iea-oceans.org](http://.iea-oceans.org).
- Lyons 2004 Lyons, K., Washington State Extension Energy Program (2004). A Regulatory Guide to Geothermal Direct Use Development. Retrieved on 1/4/10 from [://www.energy.wsu.edu/documents/renewables/hawaii.pdf](http://www.energy.wsu.edu/documents/renewables/hawaii.pdf).
- MCEA 2009 Maui County Energy Alliance (September 2009). Sustainable Energy: Strategies for Implementation Recommendations from the Working Groups. Retrieved on 1/8/10 from [://www.co.maui.hi.us/documents/Mayor%27s%20Office/Office%20of%20Economic%20Development/2009%20Energy%20Expo/MCEA%20Expo%20Long%20Version%20Final%20Sep%202008.PDF](http://www.co.maui.hi.us/documents/Mayor%27s%20Office/Office%20of%20Economic%20Development/2009%20Energy%20Expo/MCEA%20Expo%20Long%20Version%20Final%20Sep%202008.PDF)
- MCPD 2010 Maui County Planning Department Website. Retrieved 1/5/10 from [://www.co.maui.hi.us/index.aspx?nid=121](http://www.co.maui.hi.us/index.aspx?nid=121).
- MSS 2009 Manning Safety Services, Inc. "H2S Safety Information" Retrieved 12/14/09 from [://www.h2ssafety.com/hydrogen-sulfide.asp](http://www.h2ssafety.com/hydrogen-sulfide.asp)
- NREL 2009 National Renewable Energy Laboratory (2009). In My Backyard Tool. Retrieved on 12/23/09 from [://www.nrel.gov/eis/imby/](http://www.nrel.gov/eis/imby/).
- NWCC 2002 National Wind Coordinating Committee (NWCC) (2002). Permitting of Wind Energy Facilities: A Handbook, 2nd ed. [.nationalwind.org](http://.nationalwind.org).
- NWCC 2002 National Wind Coordinating Committee (August 2002). Permitting of Wind Energy Facilities: A Handbook. (REMOVED AN EXTRA PERIOD) Washington, DC.
- OOME 1982 Office of Ocean Minerals and Energy (April 1982). Permits and Regulations Applicable to U.S. Ocean Thermal
- Ramboll 2010 Ramboll. Waste-to-Energy in Denmark. Retrieved 1/5/10 from [://viewer.zmags.com/showmag.php?mid=wsdps](http://viewer.zmags.com/showmag.php?mid=wsdps).
- SEPA 2009 Solar Electric Power Association (SEPA 2009). 2008 Top Ten Utility Solar Integration Rankings.
- Thompson 2008 Thompson, Rod (May 2008). Panel Kills Waste-to-Energy Plant. Star Bulletin Vol. 13, Issue 129, Thursday, May 8, 2008.