Federal and State Approvals for

Marine and Ocean Thermal Energy Conversion

Hawaii Renewable Energy Permits and Approvals Guidebooks

Hawai'i Powered
Hawai'i Clean Energy Initiative

Cover Image: View of the 40-kilowatt (kW) experimental wave buoy, located on Oahu and manufactured by Ocean Power Technologies, Inc. Photo Credit: Hawaiian Electric Company

NOTICE: This guide is designed to help people understand the permitting process, and is not a legal document. Further, the guidebook should not be relied on exclusively to determine legal responsibilities. Some permits and licenses that are not included in this guide may be necessary to a particular project. The Department of Business, Economic Development and Tourism (DBEDT) and the State of Hawaii are not responsible for delays or losses caused thereby should the processing of a permit or approval differ from that written in these Guidebooks. Additionally, these guidebooks are not meant to be a substitute for hiring a professional permitting consultant. DBEDT strongly recommends that each renewable energy developer procure its own consultant familiar with these permits and approvals to assist it through the permitting process. DBEDT also recommends contacting the relevant permitting agencies as a first step to beginning all permitting planning and processes.

Acknowledgements

The "Hawaii Renewable Energy Permits and Approvals Guidebooks" were produced as part of the Hawaii Clean Energy Initiative (HCEI), a partnership launched in 2008 between the State of Hawaii and the U.S. Department of Energy (DOE). SENTECH Hawaii created these guidebooks in close collaboration with DBEDT. Support from a number of federal, state, and county agencies made this suite of guidebooks possible.

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Section 1: Introduction

Background

The Federal and State Approvals for Marine and Ocean Thermal Energy Conversion (OTEC) Guidebook is one of 11 guidebooks created to provide the first comprehensive overview of the renewable energy permitting process in Hawaii. Seven of these guidebooks provide federal and state approvals that are resource-specific. The four other guidebooks are county-specific, and are intended to be used in conjunction with the appropriate resource-specific federal and state guidebook, as illustrated in Figure 1.

*For renewable energy developers already familiar with permitting in Hawaii, a checklist is available in **Section 6** that will assist in identifying which permits will be required depending on project specifics.*

This suite of guidebooks was created as part of the Hawaii Clean Energy Initiative (HCEI), which has set the goal of transforming Hawaii's energy use to 70% clean energy by 2030. Hawaii's dependence on imported oil creates vulnerability for the state's economy which is greatly affected by the price volatility of this finite energy source. Recognizing the detrimental effects this oil dependency has on Hawaii's environment and local economy, the state signed a Memorandum of Understanding[1] with the U.S. Department of Energy (DOE) in January 2008, which established HCEI as a partnership bringing together local business leaders, policymakers, and industry experts to guide the Hawaii's transition to a clean energy economy.[2]

Hawaii Energy Use in 2008[3]

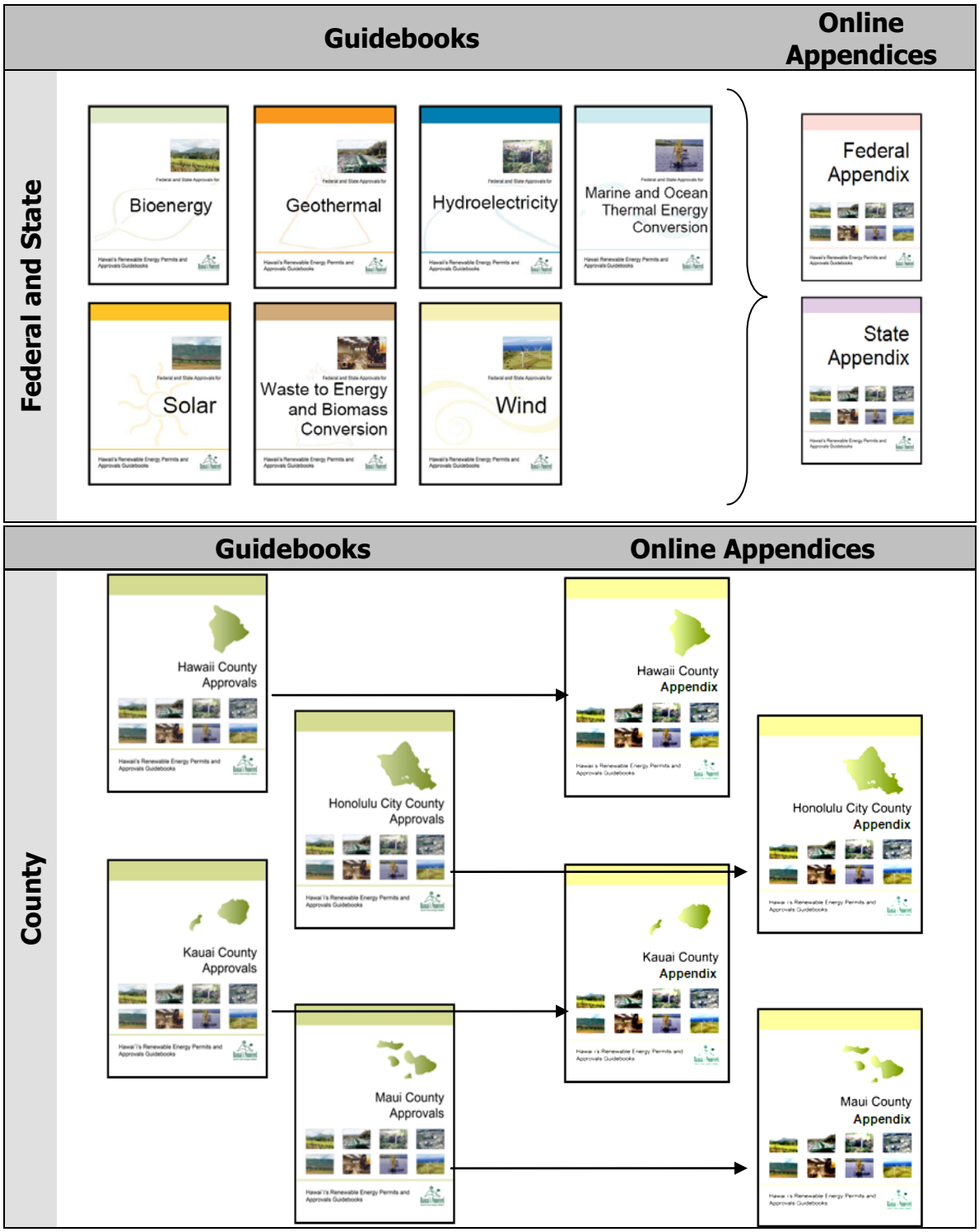
[1] Downloadable from the DBEDT website at http://hawaii.gov/dbedt/info/energy/hcei/

[2] Hawaii Clean Energy Initiative Website (2010). Retrieved on 2/10/10 from http://www.hawaiicleanenergyinitiative.org/about.html.

[3] State of Hawaii Department of Business, Economic Development and Tourism (2009). State of Hawaii Energy Resources Coordinator Annual Report 2009. Retrieved on 2/9/10 from http://hawaii.gov/dbedt/info/energy/publications/erc09.pdf.

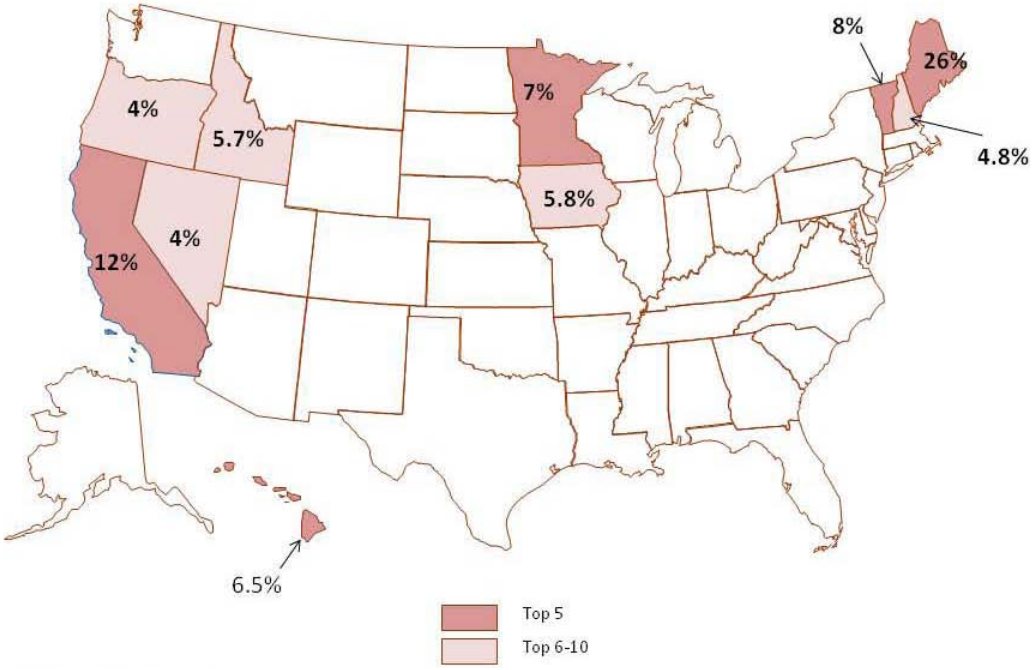
- Seventy-five percent of the net megawatt-hours of electricity generated in Hawaii were produced from oil.
- Approximately 97% of Hawaii's transportation fuels (as measured in Btu) were produced from oil.
- Hawaii imported roughly 43.1 million barrels of crude oil, costing the State more than $4.1 billion.
- Although overall energy consumption decreased in 2008, Hawaii consumers spent an estimated $8.4 billion for energy (about 37% more than in 2007), reflecting record high petroleum prices.

Figure 1: Overview of the *Hawaii Renewable Energy Permits and Approvals Guidebooks* Suite



Currently, Hawaii ranks 4th nationally in the percentage of total state non-hydroelectric renewable energy generated, as shown in Figure 2.[4] This ranking is based on 2007 data, and what was 6.5% renewable energy generation then has now increased in late 2009 to be estimated at 9% of Hawaii's electricity generation. Regardless of which year you consider, in order to reach the 70% goal set by HCEI the state has to foster rapid adoption of renewable energy and energy efficiency.

Figure 2: National Non-Hydroelectric Renewable Electricity Generation (TWh, 2007 data)



In order to reach this ambitious goal, Hawaii has identified the permitting process as an area that needs improvement to foster rapid investment and growth in clean energy technologies. Renewable energy stakeholders and developers have identified Hawaii's permitting process as an obstacle to capital investment in the sector.[5] The guidebooks were created out of a need to understand the entire permitting system within Hawaii—which permits are required and the processes for acquiring those permits.

Outside of these guidebooks, other major steps to streamline the permitting process have already begun. Significant legislation was passed in the 2009

[4] E. Doris, 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 http://apps1.eere.energy.gov/states/state_of_the_states.cfm.

[5] Hawaii Natural Energy Institute (2009). *Bioenergy Master Plan Draft*. Retrieved 10/29/09 from http://www.hnei.hawaii.edu/bmpp/stakeholders.asp

Hawaii Legislature that alters the state's permitting process. First, renewable energy facilities greater than 5 MW are now able to apply for the Renewable Energy Facility Siting (REFS) process from HB2971 HD1[6]—a permitting and regulatory framework for the construction of renewable energy facilities in the state (this was formerly only offered to renewable energy facilities greater than 200 MW). Additionally, while the decision to award or deny permits is retained by the state or county agencies, new legislation allows the Energy Resource Coordinator in DBEDT to force a decision to either grant or deny permits by no later than 18 months after the approval of a complete permit application. A third step that was taken in the 2009 Legislature was the passage of Act 155, which requires DBEDT to identify Renewable Energy Zones (REZ)—areas that are rich in renewables, cost effective, and environmentally benign—and encourage development of these REZs for transmission of renewable energy. DBEDT is in the process of determining these zones, which will foster much quicker land-use permitting processes.

Guide-to-the-Guides

The permitting guidebooks were created for and intended to be used by developers planning to develop renewable energy projects in Hawaii. Renewable energy developers can use the guidebooks to understand what permits may be required for their potential project, the general time frame that will be required for permitting, and the specific statutory processes for each permit.

This Marine and OTEC Guidebook provides information about approvals at the state and federal levels, as identified in late 2009. It is intended to be used in conjunction with the appropriate County Guidebook for your renewable energy project. For example, if your proposed marine or OTEC project is located in Hawaii County, you should consult this Marine and OTEC Guidebook, as well as the Hawaii County Guidebook. Together, these two guidebooks provide a comprehensive list of federal, state, and county permits that could be required for your marine/OTEC project.

To begin deciphering which permits will be required for a specific marine or OTEC energy project, a checklist is provided in Section 6. Based on the required activities and the specific site of the renewable energy project, this checklist will determine which permits/approvals may be needed.

Within the checklist, the right-hand column references appendices which provide a wealth of permit-specific information. The appendices are the companion to this Guidebook, and available electronically at

[6] Hawaii State Legislature (2010). Retrieved on 3/22/2010 from http://www.capitol.hawaii.gov/session2010/lists/measure_indiv.aspx?billtype=HB&billnumber=2971.

www.HawaiiCleanEnergyInitiative.org/Permitting. The appendices provide a "permit packet" with, when available, the following for each permit:

1. **"Process Overview" charts:** created specifically for these guidebooks (not created by the agencies themselves), these two-page summaries provide specific contact information, a broad overview of the major steps, an estimated time frame, and estimated fees that relate to the permit/ approval.
2. **Application(s) and instructions:** all applications included in the appendices were current as of November 2009, however application forms are subject to change. Instructions are included where available. Contact the permitting agency before completing the application to ensure you are using the correct forms and process.
3. **Administrative Rules/ Ordinances/ Legislation:** for state level permits, legislation is generally available for the majority of permits and serves to define ambiguous terms, provide detailed information regarding the process, and preempt many other questions regarding the permit. Administrative rules define and describe the state level process for executing the legislation that requires the permit. Ordinances are the county local laws and procedures for acquiring a county permit. The rules and ordinances provided herein are not the official version of the law, and could be slightly different from the official version based on state legislative or county council amendments to the law over time. The reader is advised to consult with the most current up to date legislation or ordinances.

It is important to note that the guidebooks and appendices were created at the end of 2009. Laws, legislation, and procedures for executing the permits and approvals are dynamic and ever-changing. All *Process Overviews* were created with the intent that the applicant would contact the permitting agency directly and consult all current materials as provided by the permitting agency. Many of the permitting processes are too complex to detail all steps, but these overviews provide a broad understanding of the process.

DBEDT and the State of Hawaii are not responsible for delays or losses caused should the processing of a permit or approval differ from that written in these Guidebooks. Additionally, these Guidebooks are not meant to be a substitute for hiring a professional permitting consultant. DBEDT strongly recommends that each renewable energy developer procure its own consultant familiar with these permits and approvals to assist it through the permitting process.

Section 2: Hawaii Permitting

Categories of Permits

Permits are commonly categorized into four main groups: (1) environmental permits and reviews, (2) construction and operation permits, (3) land use permits, and (4) utility permits. The appendices that correlate to the guidebooks break the permits up into these four categories. Overviews of each category and how they are administered in Hawaii are provided below.

Environmental Permits and Reviews

An "environmental permit" refers to a permit required by an environmental law in order to emit or discharge a pollutant or engage in certain regulated activities. For example, the Clean Air Act (CAA) and Clean Water Act (CWA) require facilities to obtain a permit to discharge certain pollutants to the air or water. Permits also are used by federal and state agencies to translate general requirements in environmental laws into specific provisions tailored to the operations of individual facilities or sites. For example, the Endangered Species Act (ESA) requires private citizens to draft a Habitat Conservation Plan (HCP) that must follow a number of steps to meet statutory issuance criteria under ESA. However, specific document and processing requirements will vary depending on the size, complexity, and impacts of the HCP involved, and potentially vary by the number and type of federal agencies involved in the HCP development and review. An overview of the related processes for ESA, the Marine Mammal Protection Act (MMPA), and National Environmental Policy Act (NEPA) under the U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), and potential other federal agencies is shown in Figure 5.

Federal Environmental Review Process

Environmental reviews are conducted at the federal, state, and county levels. At the federal level, NEPA is the legislation that established national environmental policies in the United States. NEPA was the first major environmental law in the United States, implemented in 1970, and is often called the "Magna Carta" of environmental laws. NEPA applies to all major federal actions; federal projects, any project requiring a federal permit, receiving federal funding, or located on federal land.

Every agency in the executive branch of the federal government has a responsibility to implement NEPA. To implement NEPA's policies, congress prescribed a procedure, commonly referred to as "the NEPA process" or "the environmental impact assessment process."[7] NEPA requires agencies to

[7] Council on Environmental Quality , "A Citizen's Guide to the NEPA", December 2007, available at http://ceq.hss.doe.gov/nepa/Citizens_Guide_Dec07.pdf

undertake an assessment of the environmental effects of their proposed actions prior to making decisions. The cognizant federal agency documents this thought process by determining whether the project is categorically excluded from detailed environmental review, or by preparing either an environmental assessment (EA) or an environmental impact statement (EIS). When an EA or EIS is prepared, other agencies and the public will usually have an opportunity to review and comment on the proposal and the environmental analysis.

Because NEPA implementation is an important responsibility of the federal government, many federal agencies have established offices dedicated to NEPA policy and program oversight. Employees in these offices prepare NEPA guidance, policy, and procedures for the agency, and often make this information available to the public through sources such as internet websites (for example, the Citizens Guide to NEPA, available online at http://ceq.hss.doe.gov/nepa/Citizens_Guide_Dec07.pdf and in Appendix F-4). Agencies are required to develop their own capacity within a NEPA program in order to develop analyses and documents (or review those prepared by others) to ensure informed decision-making.[8]

State and local permitting processes can also involve environmental reviews similar to the NEPA process. Many state and local permits may first require that an EA or EIS be successfully completed before the permit can be reviewed. These non-federal EA/EIS processes may be coordinated with the federal (NEPA) EA/EIS or may be completed separately if not required at the federal level. If state or local permits necessitate an EA or EIS, the permitting agency may require proof of completion prior to conducting their own permitting review process.

At the state level, the Hawaii Department of Health (DOH) administers the majority of environmental permits, though other agencies also have environmental permit(s) such as the Department of Land and Natural Resources (DLNR) and the Office of Planning within the Department of Business, Economic Development and Tourism (DBEDT).

At the county level, environmental permitting varies based on the county in which the permit is required. However, every county in Hawaii requires a (1) Shoreline Setback Variance for all structures and activities in the "Shoreline Area" and (2) Special Management Area Permit for all use, activity, or operation proposed within the special management area, as defined as a "development" pursuant to Chapter 205A, Hawaii Revised Statutes, as amended. Specifics for each county's permitting requirements can be found in the county-specific guidebooks (available at www.HawaiiCleanEnergyInitiative.org/Permitting).

[8] Council on Environmental Quality , "Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act" 40 C.F.R. section 1507.2, available at www.nepa.gov.

Hawaii's Environmental Review Process

Adopted in 1974 and patterned after the NEPA requirements, Hawaii's EIS law (Hawaii Revised Statutes, HRS 343) requires the preparation of EAs and EISs for many development projects. The law requires the government to give systematic consideration to the environmental, social and economic consequences of proposed development projects prior to allowing construction to begin. The law also assures the public the right to participate in planning projects that may affect their community. The Office of Environmental Quality Control implements this law in Hawaii.

The Office of Environmental Quality Control is required by HRS 343 to publish a "periodic bulletin." This bulletin has been known in the past by various names: Environmental Quality Commission (EQC) Bulletin (1974-84) and the OEQC Bulletin (1984-96). Since 1996, it has been called *The Environmental Notice*. It includes notices of determinations on the need for an EIS; acceptance or non-acceptance of EIS's; 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 federal Endangered Species Act. Current and previous issues of *The Environmental Notice* are available at http://hawaii.gov/health/environmental/oeqc/index.html.

If a proposed action is subject to the EIS law, the environmental review process begins with the development of a draft EA. An EA is an informational document prepared by the proposing agency or the private applicant and used to evaluate the possible environmental effects of a proposed action. The EA must give a detailed description of the proposed action or project and evaluate direct, indirect and cumulative impacts. The document must consider alternatives to the proposed project and describe any measures proposed to minimize potential impacts. The public has 30 days to review and comment on a draft EA After the draft EA has been finalized and public comments responded to, the agency proposing or approving the action reviews the final assessment and determines if any "significant" environmental impacts are anticipated.

If the agency determines 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 study. Within 30 days of the notice of this finding, the public may challenge an agency's determination by filing suit in circuit court of the appropriate circuit

If the agency determines that the action may have a significant impact, a more detailed EIS must be prepared. An EIS preparation notice is then issued and undergoes an additional 30-day comment period to define the scope of the draft

EIS. Publication of an EIS preparation notice 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, obtain various relevant data, conduct necessary studies, receive public input, evaluate alternatives, and propose measures for minimizing adverse 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 stages by the proposing agency or applicant. It is initially published as a draft EIS, and subjected to a 45 day review by the public and government agencies. After public comments are responded to, the draft is revised and submitted as the final EIS.

For applicant actions, the approving agency determines the acceptability of a final EIS. After a final EIS is accepted, the action may be implemented. The publication in *The Environmental Notice* of an acceptance or non-acceptance determination by either the accepting authority or the approving agency initiates a 60-day legal challenge period (see Appendix E for details). Additionally, an applicant may administratively appeal a non-acceptance determination directly to the Environmental Council.

The accepting authority must determine the acceptability of a final EIS. For renewable energy facilities that fall under HRS 201N, DBEDT is the accepting authority. For renewable energy facilities that do not fall under HRS 201N, DBEDT may still be the appropriate accepting authority (see Section 3 for a detailed description of the HRS 201N legislation). After a final EIS is accepted, the project may be constructed. The publication of either an acceptance or non-acceptance notice initiates a 60- day period during which an aggrieved party may challenge the determination by filing suit.

Construction and Operation Permits

Permits are required for small and large-scale construction and the subsequent operation of energy-related structures, buildings, water systems, road systems, etc. These permits exist in order to ensure proper design, safety, and consistency with national and local laws, codes, and standards. Failure to obtain appropriate permits can result in fines, penalties, and even the destruction of unauthorized construction.

Land Use Permits

Land use permits uphold zoning laws, which is the government's way of separating residential and business areas and ensuring that development is consistent with local and national standards and values.

In the State of Hawaii, all lands are classified into one of four categories of land use districts initially designated by the Land Use Commission (LUC). The LUC still plays a major role in regulating the land to this day. The LUC is composed of nine members (one from each of the four counties, five who are appointed at-large). Each member has as been appointed by the Governor and confirmed by the State Senate.

The four categories of land are described in Table 1 below.[9] Maps of each island's historical land designations are available on the Land Use Commission's website (http://luc.state.hi.us/luc_maps.htm), or the state's GIS system (see Figure 3).

Table 1: State Land Use Categories

District Land Category	Description of Land	Jurisdiction Governing the Land	% of Hawaii'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.	LUC and County governments share jurisdiction over rural lands.	<1%
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 LUC oversees all other lower productivity land (C,D, E, and U).	46%

[9] State of Hawaii Land Use Commission website. Retrieved 11/12/09 from http://luc.state.hi.us/about.htm.

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.	DLNR	51%

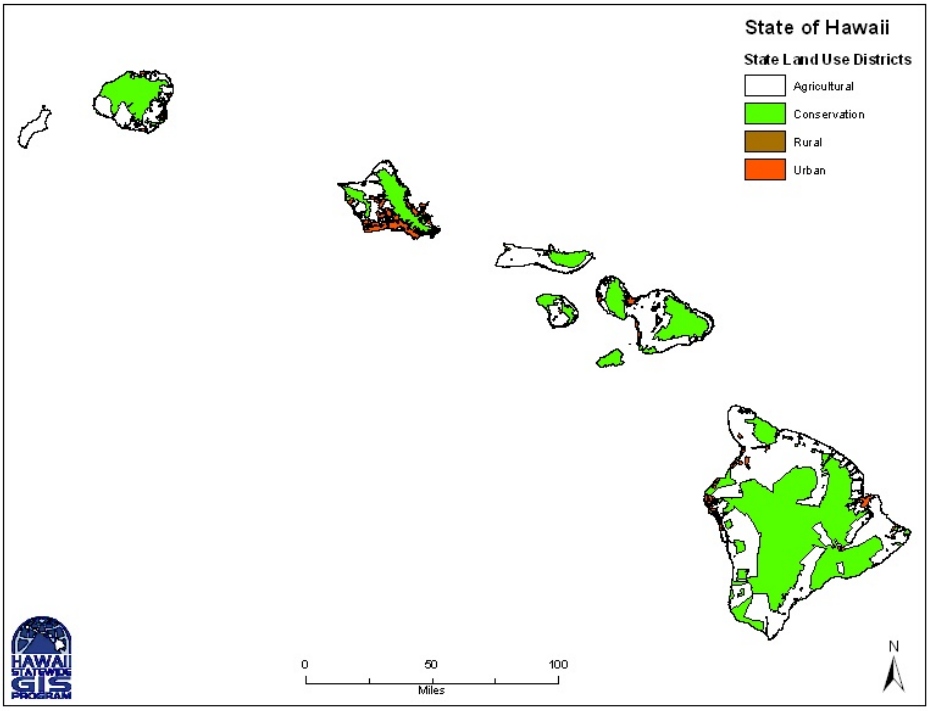
All land categories may be further classified as "shoreline", which requires additional permitting.

The county land use system is guided by a General Plan and more specific Community Development Plans. Each county in Hawaii has its own General Plan, which has a written portion (describing goals, policies, standards, and courses of action) and maps. Because each county has different procedures for permitting, more detailed descriptions of county land use regulations are provided in the County-Specific Guidebooks and Appendices.

Siting renewable energy projects in Hawaii has been made easier with the availability of the State's GIS tools that may be used by the public free of charge. This tool allows users to view the location of transmission lines, population centers, conservation lands, protected waters, and maps of renewable energy resources themselves. The Hawaii State Office of Planning within DBEDT is responsible for coordinating and maintaining the GIS information, and hosts the maps on their website at www.hawaii.gov/dbedt/gis/index.html. Figure 3 shows an overview of the State's land use categories from this website. [10] Maps that show more detail per island are discussed in the County-Specific Guidebooks.

[10] Department of Business, Economic Development & Tourism website (2009). Retrieved on 12/20/09 from www.hawaii.gov/dbedt/gis/index.html.

Figure 3: State Land Use Districts: State GIS Program



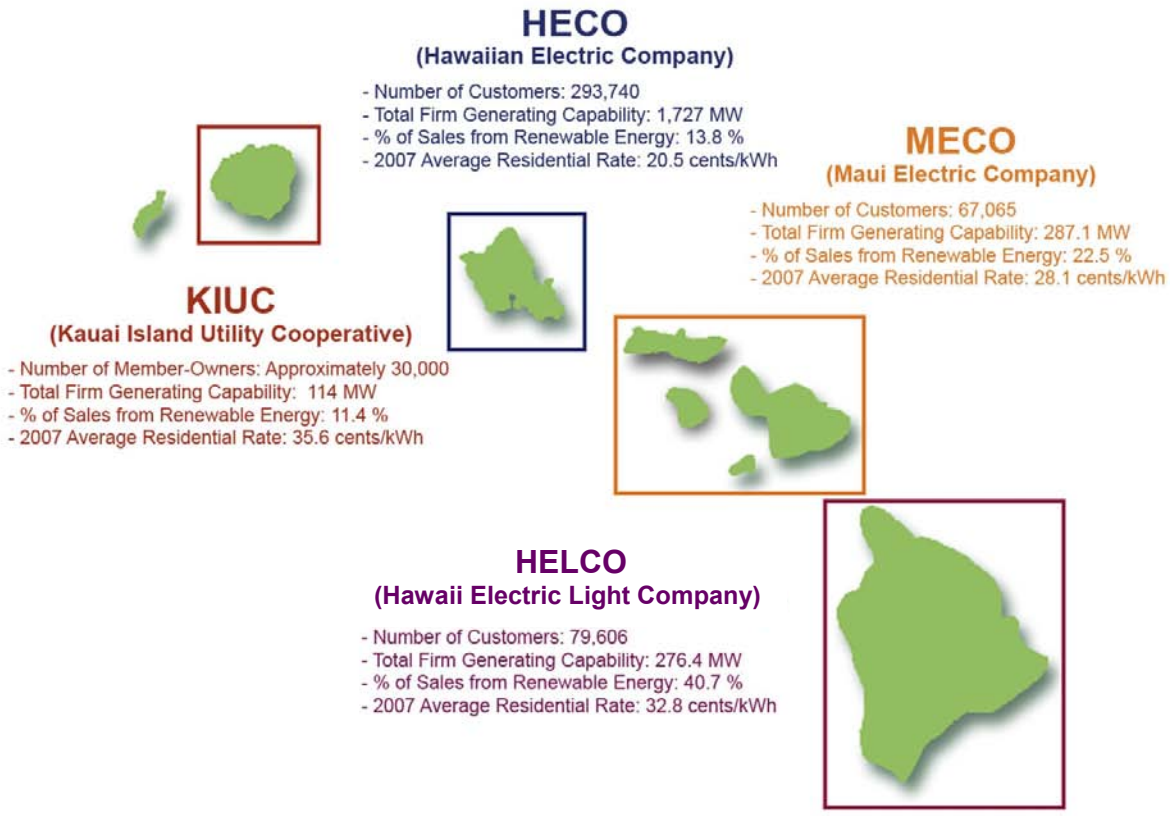
Utility Permits

A "utility permit" is required for all utility construction, reconstruction, or maintenance activities within Hawaii. Utility permits ensure that work is performed safely and appropriately. Utility permits are administered at the federal level by the Federal Energy Regulatory Commission (FERC). FERC is an independent agency that regulates interstate energy transmission, natural gas projects, and hydropower projects.

At the state level, utility permits are administered by the Public Utilities Commission (PUC), which usually requires working with the local utility. Figure 4 gives an overview of the utilities that serve the major islands in Hawaii. [11]

[11] Hawaiian Electric Company (July 2009). *Power Facts*. Retrieved on 2/9/10 from http://www.heco.com/vcmcontent/StaticFiles/pdf/PowerFacts_07-2009.pdf.; Kauai Island Utility Cooperative (October 2008). *Strategic Plan 2008- 2023*. Retrieved on 2/9/10 from http://www.kiuc.coop/pdf/SP2023%202008%20Update%20Approved-2008-10.pdf.

Figure 4: Map of Utilities in Hawaii



Although HECO owns MECO and HELCO, each island grid is currently independent and not connected to any other grid.

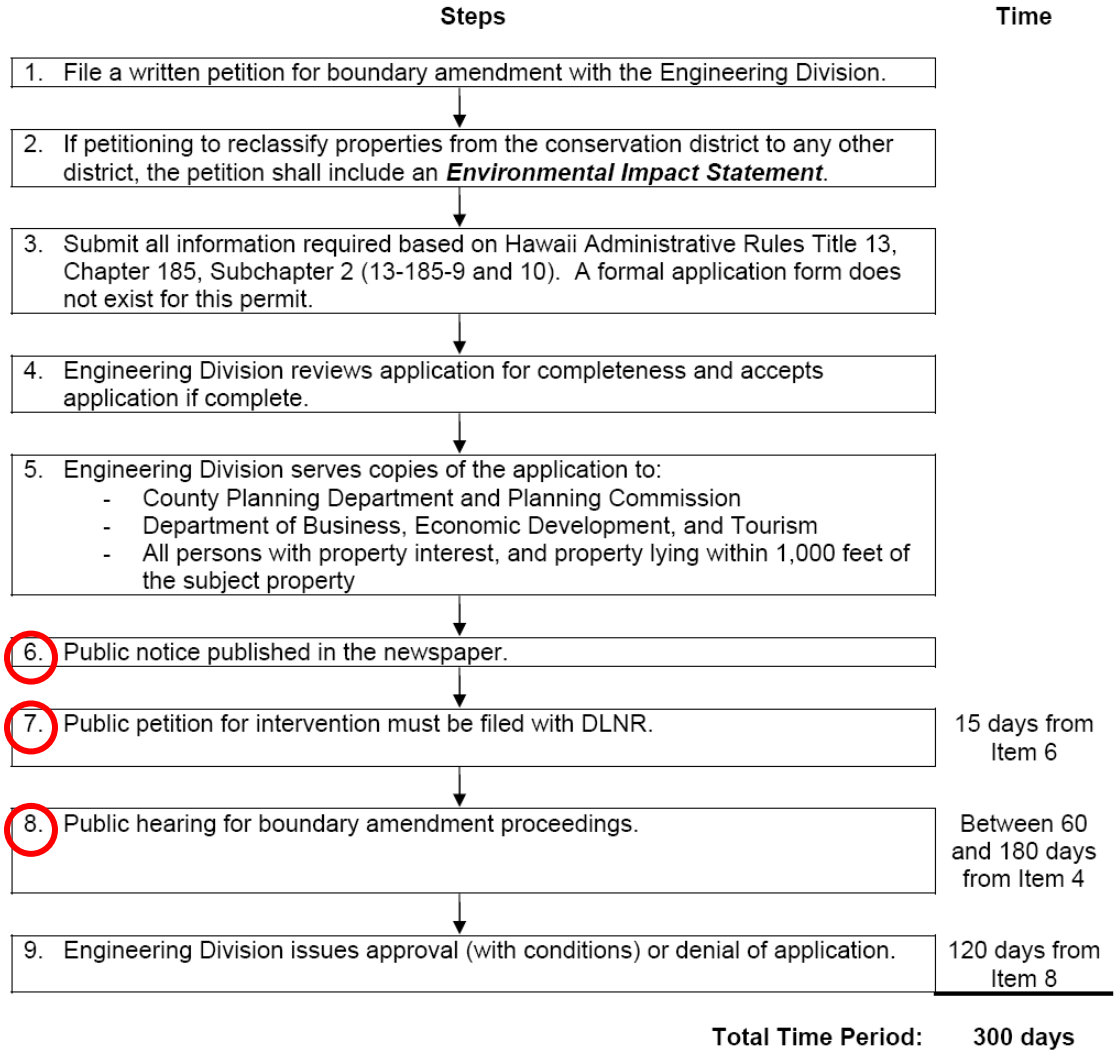
Types of Permits: Ministerial vs. Discretionary

There are two major types of permits in Hawaii: ministerial and discretionary. Ministerial permits are generally administrative, and follow a set of defined laws that determine whether or not a permit is to be issued. Ministerial permits have requirements that are quantitative, specific, and measurable. On the other hand, discretionary permits call upon a body of decision makers to use personal judgment and discretion (hence the name) to issue or deny a permit. For example, the land use approvals in Hawaii go to the County Council, Planning Commission, State Land Use Commission, or State Board of Land and Natural Resources (BLNR), and these permitting bodies have to weigh various factors in their decision-making process, so nearly all land use permits in Hawaii are considered discretionary.

What are the various factors that influence the decision-making entity in discretionary permitting? There is first the interpretation of the General Plan that influences county-level decisions. Discretionary permits may also require a public hearing process. Decisions made by a board or commission must provide a hearing process, while County Council decisions are considered legislative and do not have to follow the hearing procedures. Parties involved in the hearing include the applicant as well as any person(s) who may be affected by the application and choose to become "intervenors" to the case. Both the applicant and the intervenors have the right to appeal an adverse decision to the court. The process for the public hearing varies depending on the permit and county in which the hearing is taking place.

Figure 5 is the Geothermal and Cable System Development permit (administered by DLNR), and is provided as an example of some of the steps that may be required to complete a discretionary permit in the State of Hawaii. The steps circled in red are further described below.

Figure 5: Example of a Discretionary Permit Process: Geothermal and Cable System Development Permit (DLNR, Engineering Division)



Step #6 sites that a public notice be published within the newspaper. This notice is generally paid for by the permit applicant, and should be published (usually) within two local newspapers. Step #7 refers to intervenors who would like to be involved in the hearing because they may be affected by the application. Step #8 refers to the actual hearing, which is generally constricted to a one-day event; the length of the hearing is dependent on the parties involved, the location, and the issues surrounding the permit. The applicant may be required to pay for a public hearings officer and the meeting space; this payment is dependent on the specific permit and the county in which the permit is filed.

Section 3: Coordinating the Permitting Process

A well-coordinated permitting process is necessary to complete all permitting requirements efficiently. Starting the more time intensive and expensive permits early in the process can cut years off of the entire length of the permitting process. Consulting each permit's flow chart located in the appendices and contacting experts at the State Energy Office at DBEDT, as well as the cognizant agencies, can help to ensure all necessary permits are filed efficiently.

Coordination with the multiple federal agencies that may be involved in the federal regulatory process is particularly important. Multiple agencies can be responsible for implementing the requirements of various federal acts, such as the NEPA and the Endangered Species Act (ESA). Wherever coordination with the federal agency is particularly important, this has been included as a note or individual step within the relevant Process Overview document. An example of how the ESA Section 7 and Section 10 requirements correlate to the Marine Mammal Protection Act requirements and NEPA, along with the steps required by the cognizant federal agencies, is shown in Figure 6.

The U.S. Fish and Wildlife Service (USFWS) and the U.S. National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) are the primary federal agencies responsible for implementing ESA requirements. Background information on the ESA, including Sections 7 and 10, is provided as addendums to the USFWS and NMFS permits (Appendices F7, F8, F10, and F11).

The Renewable Energy Facility Siting Process (REFSP)

Besides doing research to understand the order of filing permits, another way of expediting the process is through the Renewable Energy Facility Siting Process (REFSP) as described in HRS 201N[12]. The REFSP exists within DBEDT to allow renewable energy developers the opportunity to streamline the permitting process at a cost. If a renewable energy project qualifies for this process, it is guaranteed that the permitting process will not last longer than 18 months from the time the permitting plan is agreed upon by all parties involved (not including the time required for an EIS or EA to be completed, if required). An overview of the REFSP process is illustrated in Figure 7.

[12] Hawaii State Legislature Website (2010). *Chapter 201N: Renewable Energy Facility Siting Process.* Retrieved on 2/9/10 from http://www.capitol.hawaii.gov/hrscurrent/vol04_Ch0201-0257/HRS0201N/HRS_0201N-.htm.

Figure 6: Coordination of ESA, MMPA, and NEPA Processes

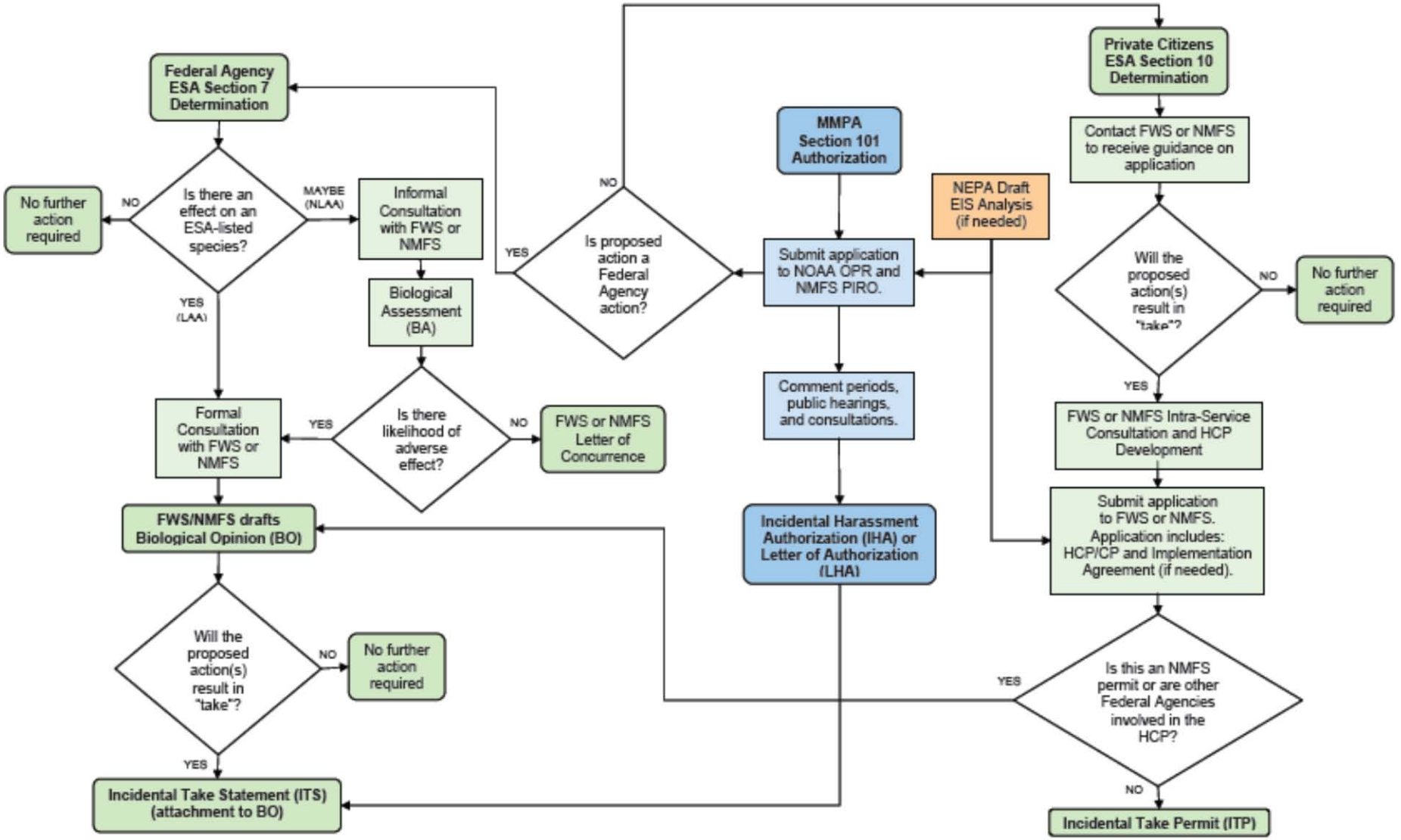
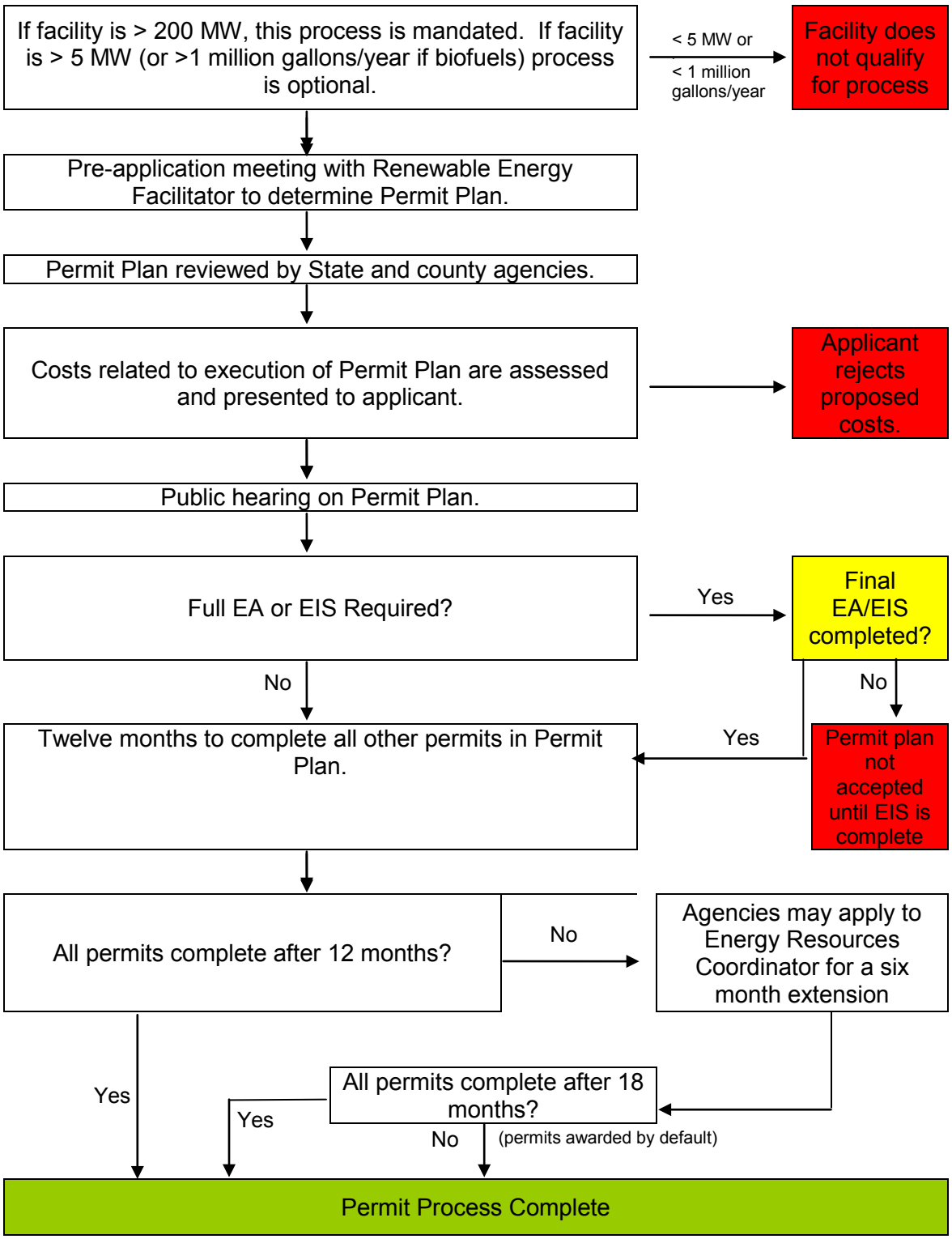


Figure 7: Renewable Energy Facility Siting Process (REFSP)



Section 4: Federal and State Agencies to Know

Marine and OTEC project permitting requires working with a number of agencies at the federal, state, and county levels. 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 recognizing the benefits that renewable energy projects can bring to Hawaii.

Developers should contact all relevant permitting agencies early in the project planning process. The number of agencies involved is dependent on a number of project-specific factors. The checklist in Section 6 will assist developers in determining the permits and agencies that will be required for each project.

It is important to note that in a number of instances regulatory and management responsibilities overlap or are shared among various agencies. For example, the federal government has transferred regulatory authority for some environmental permits (such as the Clean Water Act) to the state, while the state has transferred some responsibilities on to the counties. Therefore, one permit could be used to adhere to different legislation passed from all three tiers of government.

The following tables provide a quick reference to the applicable federal and state agencies and their divisions, their acronyms, and main office contact information. All county agencies are described in the County Guidebooks.

Federal Agencies		
Agency	**Acronym**	**Contact Information**
Army Corps of Engineers	USACE, ACOE, CE	
– Pacific Ocean Division	POD	USACE Honolulu District Building 230 Fort Shafter, Hawaii 96858 Phone: 808-438-1500
Council on Environmental Quality	CEQ	

Environmental Protection Agency	EPA	U.S. EPA Region 9 Water Program 75 Hawthorne St. San Francisco, CA 94105 Phone: 415-947-8707
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	888 First Street, NE Washington, DC 20426
○ Division of Hydropower Administration and Compliance	DHAC	Phone: 202-502-8700
– San Francisco Regional Office	SFRO	Phone: 415-369-3300
Department of Interior	DOI	
– Minerals Management Service	MMS	Pacific OCS Region 770 Paseo Camarillo, 2nd Floor, Camarillo, CA 93010 Phone: 800-672-2627
○ Offshore Energy and Minerals Management	OEMM	
– United States Coast Guard	USCG	U.S. Coast Guard Sector Honolulu General Communications 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	USFWS	
– Pacific Islands Fish and Wildlife Office		300 Ala Moana Boulevard Room 3-122 Honolulu, HI 96850 Phone: 808-792-9400

State Agencies		
Agency	**Acronym**	**Contact Information**
Hawaii Department of Agriculture - Division of Plant Industry	HDOA	1428 S. King Street Honolulu, HI 96814
• Pesticides Branch……808-973-9401		
Hawaii Department of Health - Environmental Management Division	DOH EMD	1250 Punchbowl Street Honolulu, HI 96813 Phone: 808-586-4304
• Clean Air Branch……Phone: 808-586-4200 • Clean Water Branch……Phone: 808-586-4309 • Solid and Hazardous Waste Branch……Phone: 808-586-4226		
- Hazard Evaluation and Emergency Response Office	HEER	Phone: 808-586-4249
- Office of Environmental Quality Control	OEQC	Phone: 808-586-4185

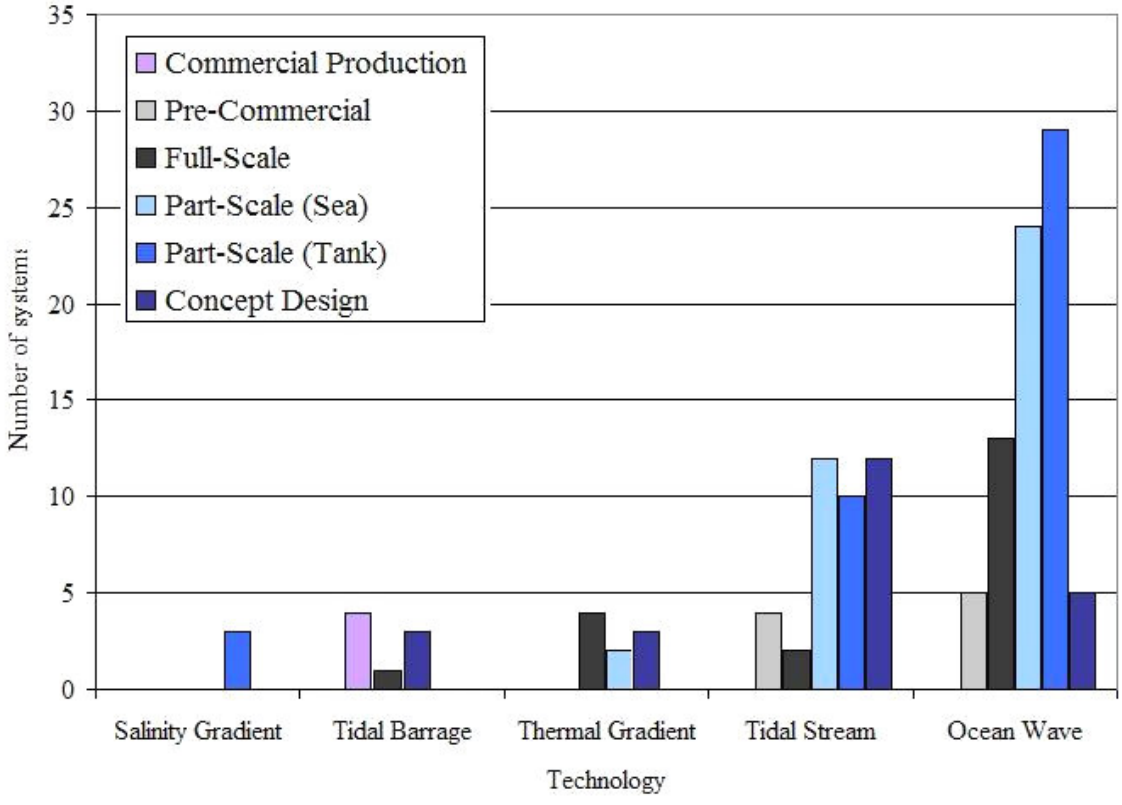
Department of Business, Economic Development and Tourism - Land Use Commission - Office of Planning - Hawaii Community Development Authority	DBEDT LUC OP HCDA	235 S. Beretania Street Honolulu, HI 96813 Phone: 808-587-2790 Phone: 808-587-3822 Phone: 808-587-2833 Phone: 808-587-2870
Department of Labor and Industrial Relations - Occupational, Safety and Health Division	DLIR	830 Punchbowl Street Honolulu, HI 96813 Phone: 808-586-9100
Department of Land and Natural Resources - Commission on Water Resource Management - Division of Forestry and Wildlife - Engineering Division - Land Division - Office of Conservation and Coastal Lands - State Historic Preservation Division	DLNR CWRM DOFAW OCCL SHPD	Kalanimoku Building 1151 Punchbowl Street Honolulu, HI 96813 Phone: 808-587-0400 Phone: 808-587-0214 Phone: 808-587-0166 Phone: 808-587-0236 Phone: 808-587-0414 Phone: 808-587-0377 Phone: 808-692-8015
Department of Transportation - Highways Division - Harbors Division	DOT	 Aliiaimoku Building 869 Punchbowl Street Room 513 Honolulu, HI 96813 Phone: 808-587-2220 Hale Awa Ku Moku Building 79 South Nimitz Highway Honolulu, HI 96813-4898 Phone: 808-857-1927
Public Utilities Commission	PUC	465 S. King Street, #103 Honolulu, HI 96813 Phone: 808-586-2020

Section 5: An Overview of Marine and OTEC Regulations in Hawaii

Marine and OTEC Potential

Marine technologies comprise ocean wave, tidal, and current resources. OTEC uses the ocean's natural thermal gradient (the temperature difference between deep and shallow waters) to drive a power-producing cycle. Most marine power generation involves relatively newly developed technologies that are still in the research or testing and demonstration phases. Figure 8 displays the technology maturity of various ocean energy devices.[13]

Figure 8: Maturity of Hydrokinetic Technologies



Hawaii's waves—among the most powerful in the world per square meter[14]—provide a great potential for locally produced renewable electricity generation.

[13] J. Khan and G. Bhuyan (2009). Ocean Energy: Global Technology Development Status, Report prepared by Powertech Labs for the IEA-OES. Retrieved on 1/5/10 from www.iea-oceans.org

[14] G. Hagerman, R. Bedard, and M. Previsic (Juney, 2004). *Electricity Innovation Institute EPRI Survey and Characterization of Potential Offshore Wave Energy Sites in Hawaii.* Retrieved

On the Island of Oahu the available wave resource is approximately equal to the electricity demand, while on all other islands the wave resources far exceed the electricity demand.[15] Hawaii is also particularly suited to ocean thermal energy conversion (OTEC) technology due to its equatorial location and deep ocean water depths relatively close to shore.

Though wave energy is still considered an emerging technology, Hawaii is well-poised to be a leader in adopting the technology. As of December 2009, Ocean Power Technologies, Inc. is testing a 40 kW PowerBuoy system located approximately 1 mile from Kaneohe Bay, Oahu (see cover image). A NEPA EA has been completed for the system by the Office of Naval Research, which resulted in a Finding of No Significant Impact, and is being tested with the objective of demonstrating the applicability of wave power for use at Navy bases worldwide.[16] In addition, Oceanlinx, an Australian-based international high-technology company, is currently undergoing the permitting process for a 2.7 MW wave-driven oscillating water column plant that is projected to be operational in 2011 in Maui waters.[17]

In 1974, the Natural Energy Laboratory of Hawaii Authority (NELHA) was founded. NELHA is a state-funded facility located on 870 acres of land at Keahole, North Kona. Since 1979, NELHA has hosted various OTEC test systems off Keahole Point on the Island of Hawaii.[18]

Sea water air conditioning (SWAC) is another type of thermal system that can displace large amounts of energy used for air conditioning loads. A SWAC system is in use at NELHA, providing about 50 tons of air conditioning and offsetting the equivalent of 200 kW of peak electrical demand.[19] Honolulu Seawater Air Conditioning, LLC, is currently developing a 25,000-ton seawater air conditioning district cooling system for downtown Honolulu. The NEPA EIS has been finalized and is available online on the Office of Environmental Quality

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11/18/09 from
http://oceanenergy.epri.com/attachments/wave/reports/003_Hawaii_Site_Report_Rev_1.pdf

[15] G. Hagerman, R. Bedard, and M. Previsic (Juney, 2004). *Electricity Innovation Institute EPRI Survey and Characterization of Potential Offshore Wave Energy Sites in Hawaii.* Retrieved 11/18/09 from
http://oceanenergy.epri.com/attachments/wave/reports/003_Hawaii_Site_Report_Rev_1.pdf

[16] U.S. Department of Energy Wind and Hydropower Technologies Program, Marine and Hydrokinetic Technologies Database. *Navy 1 MW Demonstration Program.* Retrieved 1/5/10.

[17] Hawaiian Electric Company Website. Retrieved 11/18/09 from
http://www.hawaiisenergyfuture.com/articles/Wave_Energy.html.

[18] County of Hawaii (February 2005). *County of Hawaii General Plan.*

[19] State of Hawaii Department of Business, Economic Development, and Tourism website. *Ocean Thermal Energy, Use of OTEC in Hawaii.* Retrieved 1/6/10 from
http://hawaii.gov/dbedt/info/energy/renewable/otec.

Control website. In addition, Hawaii-based Makai Ocean Engineering provides expertise in the underwater pipelines that are an essential part of SWAC.

History of OTEC Regulation

The Ocean Thermal Energy Conversion Act of 1980 (OTEC Act) gave the National Oceanic and Atmospheric Administration (NOAA) lead responsibility for licensing the construction, ownership, location and commercial operation of OTEC plants. NOAA conducted initial environmental studies and implementation of a licensing program. However, there has been a low level of activity under the OTEC Act since its passage in 1980. As of April 2007, NOAA had not received any license applications for OTEC facilities.[20] The OTEC Act is therefore no longer existent. One potential barrier that may have contributed to the lack of developer interest is the fees that were required. For OTEC projects, a final license payment of $50,000 would be due to NOAA, as well as a $100,000 initial license fee, which would be required prior to any public hearings.[21] This lack of interest has caused the legislation to become irrelevant, hence there are no permit appendices relating to the OTEC Act of 1980.

Hydrokinetic Project Permitting

FERC has recognized that a principal barrier to the development of hydrokinetic technologies is that they must be proven through demonstration, which also allows further product development to achieve pre-commercialization. Therefore, FERC staff has determined how the Integrated Licensing Process can be expeditiously applied specifically for hydrokinetic pilot projects. These procedures meet the need to test new technologies, including interconnection with the electric grid and appropriate siting locations, while minimizing the risk of adverse environmental effects. The FERC Hydrokinetic Pilot Project License procedures and information are provided in Appendix F-15. The terms of a hydrokinetic pilot project license are: short-term (five years), allow transmission of electric power into the grid, and may lead to a hydroelectric license under the Federal Power Act.[22]

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[20] 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

[21] Office of Ocean Minerals and Energy (April 1982). *Permits and Regulations Applicable to U.S. Ocean Thermal Energy Conversion Projects*. Published in Washington, DC.

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

Once a hydrokinetic project is ready to be put into commercial operation, it will be required to obtain a FERC hydroelectric license. FERC issues preliminary permits to maintain the priority of an application for license (meaning guaranteed first-to-file status) while an applicant studies the site and prepares to apply for a license. Preliminary permits can be issued for up to three years and are not required in order to apply for or receive a license. FERC issues authorizations (licenses, and 5-MW and conduit exemptions) for hydropower projects under the Federal Power Act. FERC may expedite the process for small and low-impact hydropower projects. Applicants should contact FERC staff to get advice on the best way to obtain the required authorization, as described in Appendix F-14.

Section 6: A Checklist of Approvals for Marine and OTEC Energy Development

This section provides a checklist that can be used by a marine or OTEC developer to begin to understand which permits may be required for a specific project. The checklist is designed so that the developer begins by reading the column titled "Possible activity to be performed" which describes a potential activity that may be required for a marine or OTEC project. If the project requires the listed activity, the developer can then place a check-mark in the far left-hand column, allowing the developer to get an idea of which permits should be further researched. The permit name and department that administers the permit is also listed in the table. The far right-hand column references either the federal ("F") or state ("S") appendices (available electronically at www.HawaiiCleanEnergyInitiative.org/Permitting), which contain a wealth of information about each permit as described in Section 1. If a renewable energy developer is unsure whether a permit is required, he/she may refer to the appendix number listed, which should provide enough information to make a determination. If still unsure after referring to the appendix, contact the administrating agency listed in the Process Overview in the appendix or the State Energy Office within DBEDT.

It is important to note that certain projects may not require all permits identified in the following checklist. Due to project variability, it is also possible that certain projects will require additional permits not identified in the checklist. For projects not designated for renewable energy facility siting process assistance under HRS 201N (as described in Section 3), it is the developers' responsibility to identify and obtain all necessary permits.

As the appendices are large files, we provide each appendix as a separate file on the website; we suggest printing only the individual appendix numbers that are thought to be required for your project.

Checklist

This permitting guidebook has attempted to include all possible permits for ocean wave, tidal, current, and OTEC resources. Going through the checklist of possible activities listed on the following page will help developers filter the possible permits required for a specific project.

	Permit Name; Department	Possible activity to be performed:	See Appendix Number
Federal Environmental Permits and Reviews			
	Department of the Army (DA) Permit; USACE	To conduct one of the following: (1) build structures or perform work in or affecting the course, condition, location or capacity of navigable waters, including tidal wetlands; (2) any activity that might result in a discharge of dredged or fill material into water or non-isolated wetlands or excavation in water or non-isolated wetlands; (3) transport dredged material for ocean disposal.	F-01
	Bridge Permit, Rivers and Harbors Act Section 9; USCG	To construct or modify a bridge or causeway across the navigable waters of the United States.	F-02
	Marine and Harbor Activities Notice; USCG	To conduct any activity that will take place within the navigable waters of the U.S. and may impact marine and harbor activities.	F-03
	Environmental Impact Statement/ Environmental Assessment ; CEQ	To assess the environmental effects of proposed actions by Federal agencies or for any project requiring a federal permit, receiving federal funding, or located on federal land.	F-04
	Incidental Take Statement, Endangered Species Act Section 7 (a)(2); NOAA	To conduct an otherwise lawful activity that might incidentally, but not intentionally, "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, anadromous fish, or other living marine resources.	F-07
	Incidental Take Permit, Endangered Species Act Section 10(a)(1)(B); NOAA	To conduct an otherwise lawful activity that might incidentally, but not intentionally, "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, anadromous fish, or other living marine resources.	F-08
	Letter of Authorization (LOA) or Incidental Harassment Authorization (IHA); NOAA	To conduct an otherwise lawful activity that might incidentally, but not intentionally, "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
	Incidental Take Statement, Endangered Species Act Section 7 (a)(2); USFWS	To conduct an otherwise lawful activity that might incidentally, but not intentionally, "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.	F-10

	Incidental Take Permit, Endangered Species Act Section 10(a)(1)(B); USFWS	To conduct an otherwise lawful activity that might incidentally, but not intentionally, "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.	F-11
Federal Utility Permits			
	Hydroelectric Project Authorizations (Licenses and Exemptions); FERC	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
State of Hawaii Environmental Permits and Reviews			
	Coastal Zone Management Federal Consistency Review; DBEDT, OP	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
	EIS/ EA ; DOH	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 Hawaii Revised Statutes (HRS) Chapter 343-5.	S-05
	National Pollutant Discharge Elimination System Permit; DOH	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
	Hawaii Chemical Inventory Reporting - EPCRA; DOH	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 Hawaii Chemical Inventory Form (HCIF) according to Hawaii Administrative Rules (HAR) 128E-6, and the EPA's federal regulations for chemicals.	S-10
	Zone of Mixing Permit; DOH	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 Hawaii Administrative Rules §11-54.	S-14
	Incidental Take License and Habitat Conservation Plan; DLNR	To allow the incidental take of endangered or threatened species while carrying out an otherwise lawful activity. "Take" is defined as to: harass,	S-15

		harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species, including plants, animals, birds, fresh and marine water species.	
State of Hawaii Construction and Operation Permits			
	Noise Permit; DOH	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.	S-18
	Section 401 Water Quality Certification (WQC) Permit; DOH	To show that construction runoff on renewable energy construction site will not violate applicable water quality standards.	S-19
	Dams and reservoirs; DLNR	To construct, enlarge, repair, alter, or remove a dam(s).	S-22
	Well Construction and Pump Installation Permit; DLNR	To drill wells for the irrigation of water.	S-25
	Construction to Cross or Enter the State Energy Corridor; DOT	To perform construction to cross or enter the State Energy Corridor on Oahu.	S-26
	Oversize and Overweight Vehicles; DOT	To use vehicles or transport loads of a size or weight that exceeds the maximum dimensions established by Hawaii Administrative Rules 19-104.	S-28
	Use and Occupancy Agreement (Lane Use Permit for Construction Work); DOT	To park on a restricted section of highway under State jurisdiction for construction adjacent to and within the highway right-of-way.	S-29
	Work in Ocean Waters of the State; DOT	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
State of Hawaii Land Use Permits			
	Kakaako Development Permit; DBEDT, HCDA	To perform activities in the development or redevelopment of the makai or mauka areas of the Kakaako District.	S-31
	District Boundary Amendment; DBEDT, LUC	To amend a land use district boundary in order to development a renewable energy resource or technology on that land.	S-32
	Special Use Permit - over 15 acres; DBEDT, LUC	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
	Special Management Area Use Permit; DBEDT, LUC	To develop in special management areas as defined in the State (including Kakaako Industrial Area on Oahu), as well as build structures and perform activities within shoreline setback areas of community development districts.	S-34
	Closed Watershed Entry; DLNR	To enter a closed, restricted watershed.	S-35
	Conservation District Use; DLNR	To apply for a land use in the State Land Use Conservation District.	S-36
	Easement for use of State Land; DLNR	To request for State lands for access, utility or other easements to private property; purchase of	S-39

		remnant; direct lease; and/or land license.	
	Historic Preservation Review; DLNR	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-43
	Historic Sites Review; DLNR	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
	Natural Area Reserves Permit; DLNR	To conduct research / activities within the Natural Area Reserve System (NARS).	S-45
	Stream Channel Alteration; DLNR	To allow for improvement and/or diversion of existing streams on renewable energy project property.	S-46
	Wildlife Sanctuary Entry; DLNR	To enter a prohibited area in a wildlife sanctuary, and/or collect data.	S-47
	Forest Reserve Entry/ Access Permit; DLNR	To enter or access restricted forest reserve(s).	S-48
State of Hawaii Utility Permits			
	Certificate of Public Convenience/Necessity; PUC	To provide, sell, or transmit power directly to the public as a public utility (rather than providing, selling, or transmitting that power directly to a public utility for transmission to the public).	S-49
	Power Purchase Agreement Approval; PUC	To allow the utility to purchase power from an independent power producer.	S-50
	Transmission Line Approval; PUC	To interconnect a proposed renewable energy project to the existing grid, where new transmission lines are required.	S-51
	Additional permits that may be required depending on project specifics:		

Section 7: Conclusion

The suite of renewable energy permitting guidebooks does not attempt to make any recommendations for changing the permitting processes, but rather provides a factual reference for those interested in developing renewable energy projects in the State of Hawaii. Hopefully these guidebooks will provide a means for renewable energy developers to more easily navigate the permitting process in the State of Hawaii. More importantly, these guidebooks may provide the first step toward fostering change in the permitting process by allowing permitting agencies and renewable energy developers to work together toward the shared goals that they each stand for.

Glossary of Commonly Used Acronyms

The following list includes acronyms found in this Guidebook, as well as the related appendices.

AAA	Airport Airspace Analysis (FAA)
ACOE	U.S. Army Corps of Engineers (old acronym, new acronym is USACE)
AERU	Alternative Energy-Related Use (MMS)
ALP	Alternative Licensing Process (FERC)
APC	Air Pollution Control
AQRV	Air Quality Related Value (CAA)
ARD	Air Resources Division (NPS)
BA	Biological Assessment (ESA)
BACT	Best Available Control Technology (CAA)
BO	Biological Opinion (ESA)
BVA	Board of Variance and Appeals
CAA	Clean Air Act
CDU	Conservation District Use
CE	U.S. Army Corps of Engineers
CEII	Critical Energy Infrastructure Information
CEPOH	Corps of Engineers Pacific Ocean Honolulu (USACE)
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR	Code of Federal Regulations
CIZ	Change in Zoning
COE	U.S. Army Corps of Engineers
COI	Conflict of Interest
COP	Construction and Operations Plan (MMS)
CP	Conservation Plan (ESA) (same as HCP)
CP	Conditional-Use Permit
CPD	Coastal Programs Division (OCRM)
CSP	Covered Source Permit
CTA	Conservation Technical Assistance (NRCS)
CUP	County Use Permit
CWA	Clean Water Act
CWRM	Commission on Water Resource Management
CX	Categorical Exclusion (NEPA)
CZM	Coastal Zone Management
CZMA	Coastal Zone Management Act
DA	Department of the Army
DBA	Draft Biological Assessment

DBA	District Boundary Amendment
DBEDT	Department of Business, Economic Development and Tourism
DE	District Engineer (USACE)
DEIS	Draft Environmental Impact Statement
DERP	Defense Environmental Restoration Program (USACE)
DHAC	Division of Hydropower Administration and Compliance (FERC)
DI	Direct Implementation (EPA)
DLA	Draft License Application (FERC)
DLIR	(State of Hawaii) Department of Labor and Industrial Relations
DLNR	(State of Hawaii) Department of Land and Natural Resources
DOE	U.S. Department of Energy
DOFAW	Division of Forestry and Wildlife (within DLNR)
DOH	(State of Hawaii) Department of Health
DOI	U.S. Department of the Interior
DOT	(State of Hawaii) Department of Transportation
DOTS	Dredging Operations and Technical Support (USACE)
DPP	Department of Planning and Permitting (City and County of Honolulu)
EA	Environmental Assessment (NEPA)
EC-R	Engineering Construction - Regulatory (USACE)
EFH	Essential Fish Habitat (NMFS)
EIS	Environmental Impact Statement (NEPA)
EISA	Energy Independence and Security Act
EMD	Environmental Management Division (within DOH)
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act
EPCRA	Emergency Planning and Community-Right-to-Know Act
EQC	Environmental Quality Commission
ESA	Endangered Species Act
ESL	Easement for Use of State Lands
ESP	Environmental Stewardship Program (USACE)
EUP	Experimental Use Permit
FAFF	Flammable Finish Facility
FAQ	Frequently Asked Questions
FEBA	Fire, Explosives and Blasting Agent
FHAZ	Hazardous Materials Permit
FHWA	Federal Highway Administration

FLAG	Federal Land Managers' Air Quality Related Values Work Group
FLM	Federal Land Manager (NPS)
FONSI	Findings of No Significant Impact
FPA	Federal Power Act
FUDS	Formerly Used Defense Sites (USACE)
FWCA	Fish and Wildlife Coordination Act
FWO	Fish and Wildlife Office (USFWS)
FWS	U.S. Fish and Wildlife Service
GAP	General Activities Plan (MMS)
GCAP	Groundwater Control Area Permit
GIS	Geographic Information Systems
GP	General Permit (USACE)
HAR	Hawaii Administrative Rules
HCDA	Hawaii Community Development Authority
HCP	Habitat Conservation Plan (ESA) (same as CP)
HDOA	Hawaii Department of Agriculture
HECO	Hawaiian Electric Company
HEER	Hazard Evaluation and Emergency Response Office (within DOH)
HELCO	Hawaii Electric Light Company
HPR	Historic Preservation Review
HRS	Hawaii Revised Statutes
HSR	Historic Sites Review
IHA	Incidental Harassment Authorization (MMPA)
ILP	Integrated Licensing Process (FERC)
ITA	Incidental Take Authorization
ITL	Incidental Take License
ITP	Incidental Take Permit (ESA)
ITS	Incidental Take Statement (ESA)
IWS	Individual Wastewater System
JD	Jurisdictional Determination (USACE)
KIUC	Kauai Island Utility Cooperative
LAA	Likely to Adversely Affect (ESA)
LNM	Local Notice to Mariners (USCG)
LOA	Letter of Authorization (MMPA) (same as ITA)
LOP	Letter of Permission (USACE)
LPG	Liquefied Petroleum Gases
LUC	Land Use Commission
MBSP	Migratory Birds and State Programs (USFWS)
MCL	Maximum Contaminant Levels (CWA)
MECO	Maui Electric Company

MILCON	Military Construction (USACE)
MMPA	Marine Mammal Protection Act
MMS	Minerals Management Service (DOI)
MMSZ	Marine Mammal Safety Zone (MMPA)
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MPA	Marine Protected Area (NOAA)
MPRSA	Marine Protection, Research, and Sanctuaries Act (also known as the Ocean Dumping Act)
NAAQS	National Ambient Air Quality Standards (CAA)
NARS	Natural Area Reserves System
NE	No Effect (ESA)
NEPA	National Environmental Policy Act
NESHAPS	National Emission Standards for Hazardous Pollutants (CAA)
NHPA	National Historic Preservation Act
NLAA	Not Likely to Adversely Affect (ESA)
NMFS	National Marine Fisheries Service (NOAA)
NMSA	National Marine Sanctuaries Act
NOAA	U.S. National Oceanic and Atmospheric Administration
NOI	Notification of Intent (FERC)
NOS	National Ocean Service (NOAA)
NPDES	National Pollutant Discharge and Elimination System
NPR	No Permit Required (USACE)
NPS	U.S. National Park Service
NRCS	U.S. Natural Resources Conservation Service (originally called the Soil Conservation Service)
NSP	Noncovered Source Permit
NSR	New Source Review (CAA)
NW	Nationwide (USACE)
NWP	Nationwide Permit (USACE)
NWR	National Wildlife Refuge (USFWS)
NWRS	National Wildlife Refuge System (USFWS)
OCCL	Office of Conservation and Coastal Lands (within DLNR)
OCI	Organizational Conflict of Interest
OCRM	Ocean and Coastal Resource Management (NOAA)
OCS	Outer Continental Shelf
OCSLA	Outer Continental Shelf Lands Act
ODA	Ocean Dumping Act (MPRSA)
ODD	Ocean Disposal Database (USACE)
ODMDS	Ocean Dredged Material Disposal Sites
OE	Obstruction Evaluation (FAA)

OEMM	Offshore Energy and Minerals Management (MMS)
OEQC	Office of Environmental Quality Control (within DOH)
OMA	Operations & Maintenance, Army (USACE)
OP	Office of Planning (within DBEDT)
OPR	Office of Protected Resources (NMFS)
OTEC Act	Ocean Thermal Energy Conversion Act
OWCP	Ocean Waters Construction Permit
PAD	Pre-Application Document (FERC)
PCN	Pre-Construction Notification (USACE)
PIRO	Pacific Islands Regional Office (NMFS)
PLP	Preliminary Licensing Proposal (FERC)
PM&E	Proposed Measures and Plans to Protect, Mitigate, or Enhance Environmental Resources (FERC)
PMP	Project Master Plan
POD	Pacific Ocean Division (USACE)
POH	Pacific Ocean - Honolulu (USACE)
PPA	Power Purchase Agreement
PRD	Protected Resources Division (PIRO)
PSD	Prevention of Significant Deterioration (CAA)
PUC	Public Utility Commission
RAB	Restoration Advisory Board (USACE)
RCRA	Resource Conservation and Recovery Act
REA	Ready for Environmental Analysis (FERC)
REAU	Renewable Energy and Alternative Uses
REFSP	Renewable Energy Facility Siting Process
RFI	Request for Interest
RFP	Request for Proposals
RFQ	Request for Quotes
RHA	Rivers and Harbors Act
ROD	Record of Decision (USACE)
ROW	Right-of-Way
RPA	Reasonable and Prudent Alternatives (NMFS)
RUE	Right-of-Use and Easement
SAP	Site Assessment Plan (MMS)
SCAP	Stream Channel Alteration Permit
SD	Scoping Document (FERC)
SDWA	Safe Drinking Water Act
SHPD	State Historic Preservation Division (within DLNR)
SMA	Special Management Area
SOF	Statement of Findings (USACE)
SPGP	State Programmatic General Permit (USACE)
SSV	Shoreline Setback Variance

SUP	Special Use Permit
TDML	Total Maximum Daily Loads (CWA)
TLP	Traditional Licensing Process (FERC)
TSD	Transmission, Distribution, and Storage
UIC	Underground Injection Control
USACE	U.S. Army Corps of Engineers
USC	United States Code
USCG	U.S. Coast Guard
USDW	Underground Sources of Drinking Water (CWA)
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
UST	Underground Storage Tank
WCPI	Well Construction - Pump Installation
WQC	Water Quality Certification (CWA)

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