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NREL is a national laboratory of the U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy, operated by the Alliance for Sustainable Energy, LLC.

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## List of Acronyms

DBEDT	Department of Business, Economic Development, and Tourism
DOH	Department of Health
DPP	Department of Planning and Permitting
EIS	Environmental Impact Statement
FERC	Federal Energy Regulatory Commission
HCEI	Hawai‘i Clean Energy Initiative
HRS	Hawai‘i Revised Statutes
MW	Megawatts
NPDES	National Pollutant Discharge Elimination System
NREL	National Renewable Energy Laboratory
PV	Photovoltaic
REFSP	Renewable Energy Facility Siting Process

## Executive Summary

Stakeholders involved in Hawai‘i Clean Energy Initiative (HCEI) have identified permitting as a major barrier to renewable energy development in Hawai‘i. To address this barrier, HCEI began a multi-year project to improve transparency in the permitting process for all renewable energy technologies. The Hawai‘i Department of Business, Economic Development, and Tourism (DBEDT) partnered with the National Renewable Energy Laboratory (NREL) to develop a series of guidebooks to provide project developers with a comprehensive resource on permitting renewable energy projects in Hawai‘i.<sup>1</sup> An online tool, the “Renewable Energy Permit Wizard,” was also developed, building on the guidebooks and further improving the transparency in the permitting process by assisting developers in quickly identifying which permits may be needed for their specific project.

In coordination with the development of the Wizard, the project team conducted three meetings to solicit input from permitting agencies and renewable energy developers on the permitting process in Hawai‘i and to facilitate discussion on barriers to obtaining permits efficiently. The first meeting was held with county planning directors and staff, and the second two meetings were held with local renewable energy project developers and relevant industry professionals. The meetings with the county planning staff and the project developers were held separately so that the participants would be able to freely discuss the permitting process with peers. This report presents a summary of these findings to provide stakeholders in Hawai‘i, particularly those involved in permitting, with information on current permitting barriers that renewable energy developers are experiencing.

The three meetings were held in July and August 2011 with 60 attendees in total representing the County of Kauai, County of Maui, City and County of Honolulu, DBEDT, and various renewable energy companies involved in solar, bioenergy, OTEC, seawater air conditioning, conventional generation, and land use planning.

This report summarizes insights on the permitting process and prioritized suggestions for improvement from county agencies, project developers, and industry professionals alike. The county agency representatives identified two main priorities for streamlining the permitting process:

1. Developing standardized permit checklists
2. Revising land use and zoning codes to add renewable energy facilities to lists of allowable land uses, as appropriate.<sup>2</sup>

The industry representatives identified four main streamlining priorities and agreed with the county representatives that developing standardized permitting checklists is the number one

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<sup>1</sup> The guidebooks are available at <http://energy.hawaii.gov/developer-investor/project-permitting-assistance-and-resources/renewable-energy-project-permitting-in-the-state-of-hawaii>.

<sup>2</sup> Recent actions reflect these strategies: the City and County of Honolulu recently released a self-certification form (checklist) for potential PV installers to determine which type of zoning permit is, or is not, required based on project siting parameters (2012/INT-1 (RM)). Also, the 2012 Hawai‘i Legislature and Governor passed Act 97, which removed the Geothermal Subzone Designation process and makes geothermal development an allowed use in State Agricultural Districts.

priority for improving the permitting process. The priorities identified at the industry meetings were:

1. Standardized checklists
2. Permit application templates (e.g., digital, web based)
3. Reduce level of application detail as appropriate
4. User fees for expedited permit review. It was noted that the policy of user fees should be separate from the use of third-party reviewers.

These insights can be used by permitting agencies and other organizations pursuing the difficult task of improving the permitting process for renewable energy projects in Hawai‘i. Streamlining Hawai‘i’s permitting processes will help to alleviate delays, improving the feasibility of renewable energy projects throughout the state and aiding Hawai‘i as it strives to achieve 70% clean energy by 2030.



# 1 Introduction

The Hawai‘i Clean Energy Initiative (HCEI) is a multi-year partnership, which began in 2008 between the U.S. Department of Energy and the State of Hawai‘i to encourage collaboration between state utilities, business leaders, policymakers, and citizens committed to reducing the state’s dependence on imported fossil fuels.<sup>3</sup> The State of Hawai‘i has established the goal of 70% clean energy by 2030; 40% of total electricity is to be generated with renewables<sup>4</sup> and a 30% reduction in projected 2030 energy use is to be achieved through energy efficiency measures.<sup>5</sup>

The stakeholders involved in HCEI have identified permitting as a major barrier to renewable energy development in Hawai‘i. To address this barrier, HCEI began a multi-year project to improve transparency in the permitting process for all renewable energy technologies. The Hawai‘i Department of Business, Economic Development, and Tourism (DBEDT) partnered with the National Renewable Energy Laboratory (NREL) to identify the applicable permits for each renewable energy technology. A series of guidebooks was developed based on this research to provide project developers with a comprehensive resource on permitting renewable energy projects in Hawai‘i.<sup>6</sup> An online tool, the “Renewable Energy Permit Wizard” (henceforth referred to as the “Wizard”), was also developed, building on the guidebooks and further improving the transparency in the permitting process by assisting developers in quickly identifying which permits may be needed for their specific project.

As a part of the process of developing these resources, the team solicited input from permitting agencies and renewable energy developers on the permitting process in Hawai‘i. This report presents a summary of these findings to provide stakeholders in Hawai‘i, particularly those involved in permitting, with information on current permitting barriers that renewable energy developers are experiencing.

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<sup>3</sup> The two parties signed a memorandum of understanding that can be accessed here: [http://apps1.eere.energy.gov/news/pdfs/hawaii\\_mou.pdf](http://apps1.eere.energy.gov/news/pdfs/hawaii_mou.pdf)

<sup>4</sup> Codified in the Renewable Portfolio Standards in the Hawai‘i Revised Statutes (HRS) §269-91.

<sup>5</sup> Established in the Energy Efficiency Portfolio Standards in the Hawai‘i Public Utilities Commission’s order in Docket 2010-0037, codified in HRS §269-96.

<sup>6</sup> The guidebooks are available at <http://energy.hawaii.gov/developer-investor/project-permitting-assistance-and-resources/renewable-energy-project-permitting-in-the-state-of-hawaii>.

## 2 Background on Renewable Energy Permitting Resources

### 2.1 A Guide to Renewable Energy Facility Permits in Hawai‘i

In 2009, HCEI began to identify each of the permits that might apply to a renewable energy project.<sup>7</sup> The permit list is based on the type of technology, the county where a potential project would be located, and the characteristics of the selected development site. This work culminated in the publication of the HCEI Permitting Guidebooks.<sup>8</sup> There are 11 guidebooks in total: one for each technology listed below, which covers all relevant federal and state permits, and one for applicable permits for each of the four main counties in Hawai‘i.<sup>9</sup>

#### Technology-Specific Guidebooks

- Bioenergy
- Geothermal
- Hydroelectric
- Marine and ocean thermal energy conversion
- Solar
- Wind
- Waste-to-energy and biomass conversion

These guidebooks summarize the types of permits that a renewable energy project developer may need to acquire, providing information on how to determine if a permit would be necessary based on the specifics of the project. Permit packets were also developed for each permit to provide more detailed information on the permit requirements and the process for applying for the permit. These packets are available through the Wizard and on DBEDT’s Developer and Investor Center website.<sup>10</sup>

DBEDT is currently updating these guidebooks and consolidating them into a single, online resource called *A Guide to Renewable Energy Facility Permits in the State of Hawai‘i*.<sup>11</sup> The guide provides useful information on each permit including processing procedures, estimated

<sup>7</sup> Sentech Hawai‘i, LLC was contracted to assist this effort.

<sup>8</sup> Available at: <http://energy.hawaii.gov/developer-investor/renewable-energy-project-permitting-in-the-state-of-hawaii>.

<sup>9</sup> There are four main counties in Hawai‘i: Hawai‘i County, City and County of Honolulu, Maui County, and Kauai County. There is a fifth county, Kalawao County, which includes fewer than 100 people and has a number of population restrictions. See HRS §326-34 for additional information.

<sup>10</sup> <http://energy.hawaii.gov/developer-investor/project-permitting-assistance-and-resources/renewable-energy-project-permitting-in-the-state-of-hawaii>.

<sup>11</sup> DBEDT and the Hawai‘i Department of Health (DOH) are also working on another online permitting tool to apply for and obtain all DOH environmental permits electronically; the DOH ePermitting Portal. A beta form is publicly available at: <https://eha-cloud.doh.hawaii.gov/epermit/View/default.aspx>.

time of issuance, estimated costs, associated regulations, and agency preferences. It is anticipated to be available on the Developer and Investor Center website by the end of 2012.

## **2.2 The Renewable Energy Permit Wizard**

DBEDT decided to use the information provided in the initial guidebooks to develop an online permitting tool that would help developers quickly determine the permits that would apply to a renewable energy project in Hawai‘i. The Permit Packets available through the Wizard provide details and relevant information for each individual county, state, and federal permit. This tool allows developers to understand early in the planning phase not only the expected timeframe for acquiring permits, but also how altering the design or location of the project could change the permits needed. Because permitting impacts the financing of projects, reducing the permitting time or reducing the number of permits required can significantly impact total project costs.

The Wizard was developed by Parsons Brinckerhoff under contract to DBEDT and NREL. The online tool was released in the fall of 2011.<sup>12</sup> The Wizard was designed so that it can be revised by DBEDT as permitting requirements evolve. For example, DBEDT is currently refining the Wizard to accurately reflect recent changes in permitting processes for specific renewable energy projects and counties (e.g., photovoltaic [PV] installations, geothermal, and marine).

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<sup>12</sup> Available at: <http://wizard.hawaiiicleanenergyinitiative.org/>.

### 3 Renewable Energy Permitting Stakeholder Discussions

In coordination with the development of the Wizard, the project team conducted three meetings to introduce the Wizard to stakeholders, ensure that it accurately reflected the permitting process in Hawai‘i, and to conduct a facilitated discussion on barriers to obtaining permits efficiently.

The first meeting was held with county planning directors and staff, and the second two meetings were held with local renewable energy project developers and relevant industry professionals. The meetings with the county planning staff and the project developers were held separately so that the participants would be able to freely discuss the permitting process with peers. The participants’ input on the main permitting barriers impeding investment in renewable energy in Hawai‘i is summarized below. It is meant to provide unique insight into the permitting process in Hawai‘i from the perspective of the county planning agencies and project developers, as well as their suggestions for improving the process.

#### 3.1 County Planning Agencies

The project team facilitated a discussion of permitting barriers in Hawai‘i with county planning agency representatives from across the state. There were eleven attendees in person, representing the County of Kauai, County of Maui, City and County of Honolulu, and DBEDT. Representatives from the County of Hawai‘i participated via phone.

Based on the discussion and responses to a questionnaire distributed at the meeting, several techniques were identified by participants as ways to facilitate and expedite the permitting process as shown in Table 1.

**Table 1. County Planning Agency Representatives Input to Expedite the Permitting Process**

Legislative/Agency Requirements	<ul style="list-style-type: none"><li>• Require that renewable energy projects be given top priority for permit processing at all agencies.</li><li>• Reduce the need for a county’s legislative body to make multiple permit decisions on a single project at different points in time.</li><li>• Transfer some of the permit authority from a county’s legislative body to the county’s executive branch.</li></ul>
Permitting Processes	<ul style="list-style-type: none"><li>• Develop and share checklists tailored to renewable energy projects.</li><li>• Define standard expedited procedures for residential-scale projects.</li><li>• Work with stakeholders to avoid litigation, since litigation not only causes delay, but also affects the project financing plan. One way to avoid litigation is to ensure the stakeholders know and fulfill all legal permitting requirements by addressing all potential ambiguities (i.e., Is X permit required? Was X permit</li></ul>

	<p>processed properly?).</p> <ul style="list-style-type: none"> <li>• Use various techniques to improve the quality of initial application submissions. Techniques could include agency-conducted education and outreach on the permit process.</li> <li>• Proactively address tradeoffs that arise between adverse environmental impacts and benefits of increased energy production from renewable fuels.</li> <li>• Reduce the level of required information for renewable energy projects, where appropriate.</li> <li>• Exempt certain renewable energy facilities from environmental reviews or permits that are not necessarily applicable by making exemptions clear. For example, sometimes it is unclear whether a biomass facility is considered a “waste-to-energy” facility, which carries different permitting requirements. It can also be unclear whether a project is for exploration or production, which impacts the permit requirements.</li> <li>• Conduct ongoing inter-county discussions on permitting processes (e.g., standardized checklists of permit requirements for classes of renewable energy facilities).</li> <li>• Explicitly add renewable energy facilities to the list of allowable land uses for various zoning classifications as appropriate.</li> </ul>
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The consensus of the participants was that the top two permit streamlining measures appropriate for Hawai‘i were:

1. Developing standardized permit checklists
1. Revising land use and zoning codes to add renewable energy facilities to lists of allowable land uses, as appropriate.<sup>13</sup>

Recent steps have been taken to implement measures similar to those mentioned above, including:

1. The City and County of Honolulu Department of Planning and Permitting (DPP) issued Guidelines for the permitting of solar installations on Oahu: Land Use Ordinance Interpretation No. 2012/INT-1.

<sup>13</sup> Recent actions reflect these strategies: the City and County of Honolulu recently released a self-certification form (checklist) for potential PV installers to determine which type of zoning permit is, or is not, required based on project siting parameters (2012/INT-1 (RM)). Also, the 2012 Hawai‘i Legislature and Governor passed Act 97, which removed the Geothermal Subzone Designation process and makes geothermal development an allowed use in State Agricultural Districts.

2. Act 97 (2012 Legislative Session) removed the Geothermal Subzone Designation process and allowed geothermal development to be permitted in State Agricultural Districts.<sup>14</sup>
3. State land-use laws were amended to include “biofuel processing facilities” as an allowable use in the agricultural district in Chapter 205, Hawaii Revised Statutes.<sup>15</sup>

### 3.2 Renewable Energy Project Developers and Industry Professionals

Combined, 49 people participated in the two meetings with renewable energy project developers and other industry professionals, representing a wide variety of companies involved in various renewable energy-related technologies including solar, bioenergy, OTEC, seawater air conditioning, conventional generation, and land use planning. Based on the discussion and responses to a questionnaire distributed at the meetings, several techniques were identified by the participants as ways to facilitate and expedite the permitting process as shown in Table 2.

**Table 2. Renewable Energy Project Developers and Industry Professionals’ Input to Expedite the Permitting Process: Suggested Actions to be Taken by Permitting Agencies and State and County Lawmakers**

Legislative/Agency Requirements	<ul style="list-style-type: none"> <li>• Increase transparency and consistency of the permitting process to allow project developers to better estimate the costs and timing associated with each permit. For example, agencies could be required to commit to a schedule for permit processing and post the status of all applications online.</li> <li>• Tighten the requirements to obtain a contested case hearing for applicable permits because contested case hearings and litigation cause project delays and affect the project financing plan.</li> <li>• Shorten the statute of limitations for litigating permit decisions.</li> <li>• Identify “pinch points” or points in the permitting process where permits get hung up regularly, based on each agency’s experience with processing, so applicants may adjust their submissions appropriately.</li> <li>• Clarify the permitting sequence so that developers can easily understand which permits must be acquired before others. County agencies should more clearly distinguish between planning-type discretionary approvals and ministerial approvals. This would be useful for residential projects since they rarely require discretionary planning approvals, helping to streamline the permit process for residential projects.</li> <li>• Clarify the approval standard for ministerial permits.</li> <li>• Identify conflicts between recently proposed and adopted state laws and existing county ordinances in order to begin</li> </ul>
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<sup>14</sup> County zoning permitting requirements still apply.

<sup>15</sup> Hawaii Revised Statutes §205-4.5 ([http://www.capitol.hawaii.gov/hrscurrent/Vol04\\_Ch0201-0257/HRS0205/HRS\\_0205-0004\\_0005.htm](http://www.capitol.hawaii.gov/hrscurrent/Vol04_Ch0201-0257/HRS0205/HRS_0205-0004_0005.htm)).

	<p>modifying the appropriate ordinances so they are not in conflict. For example, sometimes a project may be allowed by the state in a given zone/district, but not allowed in the respective county/zone (e.g., geothermal projects are allowed in state agricultural zones, but not in some county agricultural zones).</p> <ul style="list-style-type: none"> <li>• Implement and enforce more statutory timelines for the review of applications (if the application is not approved in a certain time, it passes automatically).</li> <li>• Expand the use of “programmatic agreements” and pre-approvals to expedite the review of recurring actions, such as programmatic EIS, NPDES, and FERC programmatic agreements.</li> <li>• Establish consensus or partnership between the developer and the State Energy Office before outreach to the community begins. This may help improve community acceptance.</li> </ul>
Permitting Processes	<ul style="list-style-type: none"> <li>• Clarify that renewable energy facilities are allowable uses in zoning districts.</li> <li>• Design the permit acquisition process to minimize the total number of public hearings, since these are risk factors.</li> <li>• Consolidate permits to eliminate overlapping coverage. For example, there is some overlap between the County Use, State Use, and Special Management Area permits.</li> <li>• Integrate applicants’ approach to land use, environmental, construction, and utility permits because project modifications developed in one arena can affect permits in other arenas. For example, mitigation measures can arise through the land use and environmental permit processes, but not be reflected in appropriate construction and utility permit application filings. As the project design evolves in response to environmental review, the project’s environmental commitments must be communicated to all members of the project team potentially affected so that all appropriate environmental measures are reflected in project documents.</li> <li>• Distinguish between pilot and commercial projects, and have fewer regulations for pilot/demonstration projects that have less of an environmental impact than large-scale, commercial projects.</li> <li>• Reduce level of application detail, as appropriate. Certain land-use forms can be very detailed and confusing (e.g., Plan Review Use, Special District). If DPP, for example, had a checklist/summary form for these permits, it could expedite the process.</li> <li>• Develop and publicize standardized checklists, perhaps in an</li> </ul>

	<p>electronic form, to determine completeness of the application prior to submission to the agency (e.g. facility corps data), leading to faster agency reviews.</p> <ul style="list-style-type: none"> <li>• Develop more electronic application submission options for more permits.</li> <li>• Conduct state-level permit risk mapping tailored to renewable energy projects (e.g., renewable energy zone map) to identify areas where it will be particularly difficult to build a project for permitting reasons (e.g., in a critical habitat area).</li> <li>• Revise the public notice and public participation procedures to allow for increased use of the Internet to meet the requirements.</li> </ul>
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The consensus at the first industry professionals meeting was that the top permit streamlining measures appropriate to Hawai'i were:

1. Standardized checklists to assist developers in determining which permits apply to a project.
2. Use of third-party reviewers, hired by the agency, to review applications and recommend issuance to the agency so that the agency does not need to conduct a full review and can provide approvals faster.
3. Agency progress reports tracking the application through the permitting process, identifying any upcoming actions (e.g., public hearings or submittal to federal agency), made available to the public.
4. Publicity of thresholds and exemptions applicable to renewable energy projects.
5. More programmatic agreements and pre-approvals, e.g., programmatic EIS, Notice of General Permit Coverage-National Pollutant Discharge Elimination System.

The consensus at the second industry professionals meeting for the top streamlining measures were:

1. Standardized checklists
2. Permit application templates (e.g., digital and web based)
3. Reduce level of application detail as appropriate
4. User fees for expedited permit review. It was noted that the policy of user fees should be separate from the use of third-party reviewers.

A summary of responses from the project developers on specific permitting barriers is included below.

### **3.2.1 Particularly Burdensome Permits**

A number of renewable energy project developers and industry professionals identified specific permits that were so difficult or time consuming to get that the developer either considered to or



did completely halt work on a project. These permits are: Conservation District Use Permits, State Land Use Boundary Amendment, Hawai‘i DOH air permits (which, for example, took one developer more than two years to get for a specific renewable energy project), and Special Management Area permits.

### **3.2.2 Permitting Costs**

The participants cited a wide range in the estimated cost of permitting. Some participants estimated permitting costs to be as little as 1% to 2% of construction costs while others experienced costs as high as 10% to 20%. While the cost is dependent on the project specifics (e.g., size, technology, etc.), this wide variability in costs makes it difficult for project developers to estimate permitting costs during the early stages of project planning. Some participants also indicated a willingness to pay to expedite the permitting process. For example, some participants indicated they would be willing to pay up to 5% of total project costs to have the environmental review completed within six months. Establishing fees for expediting the permitting process should be considered carefully, however. It was recommended that fees should probably not be based on total project costs, as project costs vary greatly, and permit review costs do not increase linearly with project costs.

### **3.2.3 Hawai‘i Revised Statutes § 201N**

Hawai‘i Revised Statutes (HRS) §201N defines the rules and requirements for the state’s Renewable Energy Facility Siting Process (REFSP). HRS §201N states that DBEDT (through the Energy Resources Coordinator and the Renewable Energy Facilitator) shall establish and implement a system to coordinate the review and approval of the federal, state, and county permits required for eligible<sup>16</sup> renewable energy facilities. DBEDT is responsible for coordinating with these agencies to develop a permit plan identifying all permits required for a specific renewable energy facility and a plan to obtain all permits within a given timeframe (six to 18 months). Under this process, DBEDT may collect fees from the developer for DBEDT services performed to facilitate the permitting of that developer’s project or to reimburse state and county agencies for the timely review of that developer’s permit(s). This includes contracting with third parties to review permit applications, conducting public meetings and research, legal analysis, travel, or other expenses incurred by the agencies in processing a developer’s permit(s).

Feedback indicated the REFSP was not favored by some project owners/developers because they are skeptical of losing control of permit process decision-making. Though timing is important, risk management was identified as an overriding factor. Further restricting the REFSP, many state and county agencies are unable to provide assurances a decision can be made on a given permit where other bodies control ultimate approval (boards, councils, and commissions, etc.).

### **3.2.4 Barriers to Renewable Energy**

Project developers and industry professionals identified the following as the greatest barriers to renewable energy in Hawai‘i:

- Utility permitting and Public Utilities Commission processes can take a long time

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<sup>16</sup> To be eligible for the REFSP, projects must have a capacity of  $\geq 5$  megawatts (MW) or 500,000 gal/year if a biofuel production facility. Projects with a capacity of 200 MW and larger are automatically eligible for the REFSP.

- Community and political opposition to renewable energy
- Environmental agency inflexibility
- Unsuccessful implementation of the mandate to expedite permit reviews for renewable energy projects
- Large number of permits required and therefore large number of agencies involved in the process
- Unclear regulations and associated interpretations
- Applicant confusion about permitting requirements resulting in the frequent submission of incomplete applications.

### **3.2.5 Permit Process Consistency**

Industry participants stated that there is no predictability or certainty about the process for renewable energy project permitting, with the exception of residential PV for which the permitting process is more clearly defined. While industry representatives recognize the value of a complete initial application, many developers find the permit applications confusing and inconsistent and, as a result, do not submit all of the necessary information in the first submission. Ensuring an application is complete upon initial submission significantly reduces the need to exchange information back and forth between agency and applicant; a process identified by both industry and government agency representatives as one of the biggest processing delays. Hiring a permitting professional at the outset of a project is extremely beneficial as the professional can help explain the permitting requirements and the esoteric aspects of various permits. Participants also identified direct, early coordination with the permitting agencies to develop a project-specific permitting plan as another potential way to reduce permitting timelines. The permit plan should identify all possible permits and their relationships as an initial step to reduce confusion about requirements, as well as reduce the time it takes to complete the permit process.

## 4 Conclusion

The permitting process continues to be a main barrier to the development of renewable energy projects in Hawai‘i. State agencies, led by DBEDT, are working together to address this barrier. While a number of resources have been developed in recent years (e.g., the guidebooks and the Wizard), permitting continues to prove difficult for many project developers.

This report summarizes insights on the permitting process and offers prioritized suggestions for improvement from county agencies, project developers, and industry professionals alike. The county agency representatives identified two main priorities for streamlining the permitting process:

1. Developing standardized permit checklists
2. Revising land use and zoning codes to add renewable energy facilities to lists of allowable land uses, as appropriate.<sup>17</sup>

The industry representatives identified four main streamlining priorities and agreed with the county representatives that developing standardized permitting checklists is the number one priority for improving the permitting process. The priorities identified at the industry meetings were:

1. Standardized checklists
2. Permit application templates (e.g., digital and web based)
3. Reduce level of application detail as appropriate
4. User fees for expedited permit review. It was noted that the policy of user fees should be separate from the use of third-party reviewers.

The information provided by the participants at the three meetings was used to clarify the questions asked in the Wizard and verify the estimated permitting timelines to ensure that the tool accurately reflects the permitting requirements in Hawaii. These insights can also be used by the permitting agencies and other organizations pursuing the difficult task of improving the permitting process for renewable energy projects in Hawai‘i.

Streamlining Hawai‘i’s permitting processes will help to alleviate delays, improving the feasibility of renewable energy projects throughout the state and aiding Hawai‘i as it strives to achieve 70% clean energy by 2030.

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<sup>17</sup> Recent actions reflect these strategies: the City and County of Honolulu recently released a self-certification form (checklist) for potential PV installers to determine which type of zoning permit is, or is not, required based on project siting parameters (2012/INT-1 (RM)). Also, the 2012 Hawai‘i Legislature and Governor passed Act 97, which removed the Geothermal Subzone Designation process and makes geothermal development an allowed use in State Agricultural Districts.

# Appendix A. Industry Questionnaire

## **DBEDT & NREL** **Online Permitting Wizard**

### **Questionnaire for Industry Professionals** **August 29 & 31, 2011**

Aloha! Thank you for taking the time to complete this questionnaire. Your input will help clarify concerns and issues about the environmental permit process for renewable energy projects in Hawaii. Your comments will assist DBEDT in identifying areas where efficiencies may be possible while still meeting environmental requirements.

A summary of results will be presented to the Administrator of the Energy Office, Director of DBEDT, Office of the Governor, the US DOE, and regulatory agencies. However, individual names and companies, optional information requested at the end of this questionnaire, will not be included.

Please complete and return this questionnaire to Cameron Black by September 15, 2011. Submissions may be made at the email address noted below or USPS mail to:

Attn: Cameron Black, Permitting Specialist  
Hawaii State Energy Office  
Dept. of Business, Economic Development & Tourism  
235 S. Beretania St. 5th Floor  
Honolulu, Hawaii 96813

Direct comments may be provided to Cameron at (808) 587-9009  
or [cameron.b.black@dbedt.hawaii.gov](mailto:cameron.b.black@dbedt.hawaii.gov).

More information on the Hawaii Clean Energy Initiative may be found  
at [www.hawaiicleanenergyinitiative.org/permitting](http://www.hawaiicleanenergyinitiative.org/permitting)

## DIRECTIONS

Please answer the following questions to the best of your knowledge.

1. Please estimate the number of permits you have attempted to obtain for the following renewable energy types in Hawaii:

Technology	Number
Wind	
Commercial Photovoltaic/Solar	
Bioenergy and Biofuels	
Waste-to-Energy and Biomass Conversion	
Wave, Hydrokinetic, and Seawater Air Conditioning	
Ocean Thermal Energy Conversion	
Hydroelectric	
Geothermal	

2. Please provide examples of situations where you thought the project was **delayed** because of the permit process. Please list any permits and the duration of the delay period.

3. Please list the permits you feel have chronically caused delays in the permit process.
4. Please provide examples of situations where you thought the project **ended** because of the permit process.
5. Are you aware of the Renewable Energy Facility Siting Process (HRS 201N)? If the renewable energy project qualifies, the REFSP provides renewable energy developers with a voluntary, streamlined permit process for a fee.
  - a. Do you have experience with the 201N process?
  - b. If you've known about it but choose not to participate, what were the reasons?
6. Do most renewable energy developers have a basic understanding of current environmental laws, the environmental permit process, and environmental terminology? If not, do you have any suggestions on how the state could help improve this?

7. Have you viewed the Hawaii Clean Energy Initiative (HCEI) web site?
  - a. If yes, did you use the project permitting link?
  - b. If so, what was useful about it and what wasn't?
  - c. If you did not use the link, can you explain why and if there is something we can do to make it a more useful and accessible resource?
  
8. Have you used any of the County websites to assist with the permit process (e.g. City and County of Honolulu on-line permit system)?
  - a. Did the website help you get the permit faster?
  - b. Can you provide any suggestions on how these websites can be made more useful?
  
9. Can you explain the role that permitting plays in financing your projects?
  
  
  
  
  
  
  
  
  
10. On average, what percent of the total construction budget is permit fees and costs?
  - a. Can you suggest ways these costs can be reduced?

11. Would you pay a fee to expedite the processing of permits? If so, how much would you be willing to pay? And, how much more expedited would it need to be to make it worth your while to pay?

12. What do you think are the biggest barriers to obtaining permits (e.g. application requirements unclear)?

13. From your experience, which renewable energy technologies have been particularly difficult to get through the permit process? Why?

14. From your experience, which methods have been the most helpful when navigating the permit process? Why? (please note that only a few are listed below, so feel free to list and discuss others)

- Coordinating with agency reviewer
- Reading environmental rules and regulations
- Visiting regulatory agency websites
- Engaging consultant
- Working with industry association

15. If you've had problems obtaining permits, did you find it useful to elevate your concerns to an agency supervisor?



16. Can you navigate the environmental permit process on your own? Do you feel you must obtain professional assistance to help with environmental permits?

17. How should environmental permit agencies balance the clean energy benefits of a project against adverse environmental impact? Please suggest how the permit process could/should be changed to strike a balance between needed energy projects and environmental protection.

18. What ways would you suggest to improve the public notice and participation process?

19. Please list major factors other than permits that delay renewable energy projects in Hawaii.

20. Please list features of the permit process that you have found to be helpful.

21. If you've worked on RE projects in other states, please share information on what worked well in the permit process in the other state(s)?

22. Based on the demonstration, would the Permit Wizard or something similar be useful to you?
- a. What appeals to you about it?
  - b. What might prevent you from using it?
  - c. How can it be improved?
  - d. Please report bugs to Cameron Black at the contact information provided on page one of this questionnaire.
23. What suggestions do you have for DBEDT to publicize the Wizard to those that may benefit from the tool?
24. The State of Hawaii supports RE development and strives to maintain a balance of increasing RE projects while protecting the environmental, cultural/historical, and land use quality in Hawaii. Please make suggestions on how the permit process can be improved to facilitate growth in RE in the state.

25. May we contact you for further information? If yes, please provide your contact information below. Please note that your information will only be shared with NREL, DBEDT, and the consultant.

<b><u>Name:</u></b>	
<b><u>Name of Company:</u></b>	
<b><u>Address:</u></b>	
<b><u>Email address:</u></b>	
<b><u>Phone Number:</u></b>	
<b><u>Date:</u></b>	

## Appendix B. County Questionnaire

### DBEDT & NREL Online Permitting Wizard

#### County Questionnaire

Aloha! Thank you for taking the time to complete the following Questionnaire. Your early input is essential to help clarify the permit processes for renewable energy projects in Hawaii. Your comments will assist DBEDT in providing current, accurate information to those with an interest in properly obtaining permits from your department. All comments will be for DBEDT internal use only. More information on the Hawaii Clean Energy Initiative may be found at [www.hawaii-clean-energy-initiative.org/permitting](http://www.hawaii-clean-energy-initiative.org/permitting)

Please complete and return this Questionnaire to Cameron Black by August 1, 2011. Submissions may be made at the email address noted below or USPS mail to:

Attn: Cameron Black, Permitting Specialist  
Hawaii State Energy Office  
Dept. of Business, Economic Development & Tourism  
235 S. Beretania St. 5th Floor  
Honolulu, Hawaii 96813

Direct comments may be provided to Cameron at (808) 587-9009  
or [cameron.b.black@dbedt.hawaii.gov](mailto:cameron.b.black@dbedt.hawaii.gov).

<b><u>Name of Agency</u></b>	
<b><u>Name:</u></b>	
<b><u>Address:</u></b>	
<b><u>Email address:</u></b>	
<b><u>Date:</u></b>	

## DIRECTIONS

Please answer the following questions to the best of your knowledge.

1. The attached table of permits (last page) is intended to represent the potentially relevant permits to develop a renewable energy project in your county. In the empty columns, please confirm:
  - Current List in Permit Tool
  - Permit Durations (average approval timelines)
  - Prerequisite Permits/Approvals Required.
2. Please estimate the number of permits issued by your department for the following renewable energy types:

Technology	Number
Wind	
Commercial Photovoltaic/Solar	
Bioenergy and Biofuels	
Waste-to-Energy and Biomass Conversion	
Wave, Hydrokinetic, and Seawater Air Conditioning	
Ocean Thermal Energy Conversion	
Hydroelectric	
Geothermal	

3. Please list any ordinances or regulations specific to renewable energy permitting in your county.

4. Under the Renewable Energy Facility Siting Process (HRS 201N), DBEDT can collect fees from applicants/developers and distribute them to state and county agencies for their work to process the required permits within 12 months. Agencies must provide a cost estimate to the applicant prior to any applications.
  - a. Will this process benefit your department?
  - b. How would you use these fees?
  - c. Do you have concerns about this process?
5. From your experience, which renewable energy technologies have been particularly difficult to get through the permit process? Why?
6. From your experience, which permit process has been the easiest to navigate? Why?
7. What are the main things applicants do to slow the permitting process?

8. What can applicants do to help themselves get permits faster?
9. What two ways would you suggest to improve the public notice and participation process?
10. We are preparing a questionnaire for members of the renewable energy industry. Would you like to see a draft of this Questionnaire before distribution? If so, contact information must be provided on Page 1.
11. Will you use the Wizard when it becomes public?
- a. What appeals to you about it?
  - b. What might prevent you from using it?
  - c. Please list any bugs you found in the system.
  - d. How can we improve the Wizard?
12. General comments: