Renewable Energy Facility
Permitting in Hawaii

Hawaii State Energy Office
Department of Business, Economic Development, & Tourism
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HCEI Electricity Working Group
May 4, 2011
Quick Overview

• Intro
• The Permitting Journey in Hawaii
• Permitting Challenges and Lessons Learned
• Navigation Tools
• Discussion
Why So Many Permits?

• Many layers of permits
  ▪ 40+ County, State, and Federal permits could be required (Hawaii average 15-20 permits)

• Hawaii’s protected natural resources
  ▪ Cultural, historic, archeological sites; acting practitioners, descendants, SHPD, OHA
  ▪ More endangered species per sq. mile than any other place on the planet
    – 384 listed (threatened and endangered) species
  ▪ Environmental protections (coastal lands, waterways/water, mountain ranges)
  ▪ Invasive species restrictions / plant quarantine

• Land use laws
  ▪ State Districts (Conservation, Agricultural, Rural, Urban)
    – Soil classifications (A, B, C, D, E)
  ▪ County Districts x 4 (Zoning)
  ▪ Special Districts (HCDA, County)
  ▪ Agricultural Lands of Importance to the State of Hawaii (ALISH)
  ▪ Enterprise Zones
  ▪ State land leasing processes
Permitting Challenges and Lessons Learned

- **Agency-Applicant exchange**
  - Incomplete applications
  - Applicant doesn’t consult w/ agency, submits incomplete application
  - Applicant meets with agency, submits incomplete information
  - Applicant feels misinformation was provided to them
  - Agency needs additional information (applicant not notified?)
    - Submit complete application (follow directions, meeting notes)
    - Identify all impacts
    - Work with relevant groups to protect/propagate or feature protected resources
    - Know the process; be proactive
    - Follow up w/ agency (judiciously)
      - Confirm application requirements
    - One Submittal, One Review
    - Start slow, finish fast
    - Retain a good consultant/project team
Permitting Challenges and Lessons Learned

• Agency-Applicant exchange con’t.
  ▪ Complete application but more information needed
    □ Finalize project design as much as possible prior to application submittal
  ▪ Project or rule changes
    □ Stay current on rule changes

• Agency-Agency exchange
  ▪ Need to get prerequisite approvals
  ▪ Applicant disagrees with permit conditions
    □ Consider options, negotiate w/ agency
    □ Establish and address main points of concern
  ▪ Need to navigate overlaying regimes
  ▪ Different agencies, departments, divisions, offices, boards, councils, branches, gov’ts.
    □ Know the process; be proactive
Permitting Challenges and Lessons Learned

• **Renewable energy technologies offer new compliance questions**
  - Project triggers unexpected reviews - HRS 343 (waste-to-energy?)
  - Unclear if use is allowed in project zone
    - Find a zone that permits your project (location, location, location)
    - Adjust your project to fit the zone
      - Consider infrastructure (roads, utilities, water, circuit loads)
  - Facility may be dependent on other facility permits
    - Understand feedstock facility permits

• **Public opposition or misinformation**
  - Inadequate public consultation
  - Public is misinformed on project impacts
    - Start early, make the first impression
    - Instill community pride/ownership (Kahuku)
    - Incorporate their comments; take recommendations under serious consideration
    - Be sensitive to existing tenants and surrounding neighbors
Permitting Challenges and Lessons Learned

• Residential photovoltaic/solar installations and inspections
  ▪ Installers and inspectors not in agreement
    - Work with property owner, agency, utility, and installer/contractor

• Permits impact project financing and development – “Ripple Effect”
  ▪ Uncertainty in permit timing, issuance, conditions makes investors wary
  ▪ Soft or unanticipated costs
  ▪ Grant reviews require federal agency review and comment (NEPA, USFWS, ACHP review)
  ▪ Project modifications can impact PPA/off-take agreement (2nd PUC approval?)
    - Allow ample permitting time prior to construction
    - Consider contingencies or other investment conditions
Permitting Costs

- Environmental Assessment: $30,000 - $100,000+
- Environmental Impact Statement: $60,000 - $1M+
- Archeology Inventory Survey: $8,000 - $25,000+
- Cultural Impact Analysis: $8,000 - $25,000+
- Clean Water Act, Section 403: $50,000 - $130,000+
- Incidental Take Permit/License (Habitat Conservation Plan): $60,000 - $200,000+
- Conditional Use Permit: $15,000 - $55,000+
- Special Management Area Permit: $20,000 - $30,000+
- Clean Air Permit (Covered Source): $12,000 - $150,000+
- Noise Assessment: $6,000 - $10,000+
- Traffic Assessment: $10,000 - $18,000+
- NPDES (construction run-off): $8,000 - $15,000+
- Industrial Stormwater Permit: $15,000 - $25,000+
- Solid Waste Management Facility: $12,000 - $18,000+ (can be $100,000s+)
- GET and expenses: 10%
- TOTAL (low end): $200,000+
Typical Project Development

Development Capital

Project Finance

Asset Finance

$ Site Resource Off-take Permits Technology Team Capital

Unknowns Risk

Courtesy of the National Renewable Energy Laboratory (NREL)
Navigating the Permit Journey – Existing Tools

- Priority processing for energy projects
- County clean energy and permitting initiatives
- HCEI Website (Project Permitting)
  - Renewable Energy Permitting Guidebooks and Appendices
- Other state agency websites
- Hawaii Bioenergy Master Plan (Permitting)
- Renewable Energy Facility Siting Process
- Other private and public resources
  - FAA solar airports guide
  - Hydropower guides (ACOE - coming soon)
  - Utility guides (HECO PV/NEM interconnection checklist)
  - Many, many more …
Existing – Priority Processing for Energy Permits

- HRS 46-19.4 – county priority permitting process for renewable energy projects
- HRS 46-19.6 – county priority processing for building, construction, or development-related permits for projects w/ energy and environmental design building standards
- HRS 171-95 – BLNR may lease state lands to renewable energy producers without public auction
- HRS 196-1.5 (Energy Resources) – Priority permitting process for renewable energy projects
- HRS 205 – Renewable energy facilities allowed on state Agricultural Districts
  - Wind, Biofuel Processing Facilities, and limited Ag-Energy Enterprises allowed on good Agricultural lands
  - Limitation for solar on good Agricultural lands (B and C)
- HRS 205-46.5 – Priority permit processing for agricultural processing facilities
- HRS 209E-2 & 12 – Production of electric power from wind energy for sale primarily to a public utility company for resale to the public (reduction of permit fees; user fees; real property taxes; Special zoning districts; permit process reform; exemptions from local ordinances)
- HRS 226-18 (Hawaii State Planning Act) – Priority handling and processing for all state and county permits required for renewable energy projects
- HRS 226-103 (Economic priority guidelines) – Priority guidelines for energy use and development
County Clean Energy and Permitting Initiatives

- **City and County of Honolulu**
  - Oahu General Plan (1992)
  - [http://www.honoluludpp.org/PermitInfo/](http://www.honoluludpp.org/PermitInfo/)
  - Permit Register

- **County of Maui**
  - Draft Countywide Policy Plan (2008), Maui County Energy Alliance Plan (2009)
  - Permit Register

- **County of Hawaii**
  - Hawaii County General Plan (2005)
  - [http://co.hawaii.hi.us/forms/planforms.html](http://co.hawaii.hi.us/forms/planforms.html)
  - Other permitting guides

- **County of Kauai**
  - County of Kauai General Plan (1999)
  - Other permitting guides
HCEI Website (Project Permitting)

- Project Permitting link
- http://www.hawaiicleanenergyinitiative.org

- Online Guidebooks
  - County (4)
  - Technology (7)

- Permit Packets/Appendices

- NREL (Sentech)-DBEDT effort
  - EPA contribution
Renewable Energy Facility Siting Process (201N)

- >5MW or 1M gal/yr biofuels to be eligible
  - Legislation to lower min. to 100,000 gal/year biofuels

- County and state permits issued within 12 mos. of HRS 343 compliance
  - Federal agency coordination
  - 18 mo. extension provided

- Energy Coordinator (DBEDT)
  - Permit Plan & Application
  - Cost Reimbursement Agreement (CRA)
  - Public notice (OEQC) and public hearing on Draft Permit Plan

- Applicant
  - CRA, commitment to participate, cooperation with permitting agencies

- Permitting Agencies
  - Agreement to participate, planning meetings, guidance

- One project now intending to use REFSP (others interested)
Navigating the Permit Journey – Coming Soon

- Department of Health ePermitting Portal
- Other efforts
  - Residential PV/solar installations
    - Combined HECO PV (NEM) interconnection checklist w/ industry checklist (HSEA) and county building division input
    - Continuity across the state
  - EV charger installation guide
  - Consistency in permit applications throughout state
    - Zoning, building codes, permit applications, policies and practices
  - GIS mapping layers (Office of Planning, NREL, HNEI)
  - Continued partnerships – Public/Public and Public/Private
    - County/State collaboration
Guide to Renewable Energy Permitting in Hawaii

- **UNDER DEVELOPMENT**
  - Expected completion: May 2011
- Helps identify all county, state, federal permits
  - When and why needed
- Development challenges in Hawaii
- Renewable technologies discussion
- Application steps, timelines, costs
- Developers, gov’t, homeowners, lenders, public
- Input from government and private sector
- Live document to be updated
- DBEDT control

Website and Online Permit Evaluation Tool

Hawaii State Energy Office

December 2, 2010
Renewable Energy Permitting Wizard

• UNDER DEVELOPMENT
  ▪ Expected completion (Version I): Mid-2011
  ▪ Will create Permit Plan online via answers to series of project/site questions
    ▪ Location
    ▪ Technology
    ▪ Surrounding environment

• Expected permits, relevant agencies, permitting sequence and prerequisites, estimated permit issuance timelines

• http://demo1.pbid.com/evaluate/

• Version II – Wizard Development
  ▪ UNDER PROCUREMENT (expected completion Fall 2011)
  ▪ Outreach – Industry Professionals and county representatives
    – Increase awareness, improve Wizard, highlight existing permitting issues
  ▪ User accounts
  ▪ NREL-DBEDT collaboration
Permitting Wizard

Hawaii Renewable Energy - Evaluate

FEDERAL PERMITS

<table>
<thead>
<tr>
<th>Permit Name</th>
<th>Start - End (Months)</th>
<th>Duration (Months)</th>
<th>Department</th>
<th>Appendix Link</th>
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<td>USDOT</td>
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<td>Department of the Interior (DIA) Permit</td>
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<td>USBASE</td>
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STATE PERMITS

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<td>Conservation District Use Permit - State Marine Waters / Ocean Waters</td>
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<td>District Boundary Amendment</td>
<td>0-13</td>
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<td>DLNR</td>
<td>Appendix S-33</td>
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<td>Special Use Permit - over 1/4 acres</td>
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<td>DLNR</td>
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COUNTY PERMITS

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<td>Planning - General Planning Division</td>
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<td>Building Permit (Hawaii)</td>
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<td>3</td>
<td>Public Works - Building Division</td>
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<td>Planning and Permitting - Building Division</td>
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Permit Schedule

Estimated permit sequence and timeline for your Wind Renewable Energy Project located in Maui.

Permitting Wizard

Hawaii Renewable Energy - Evaluate

Permit Schedule

- Federal
- State
- County

- Building Permits
- Conservation District
- Geology
- Historic
- Environmental
- Other

Please note, projects may not require all permits identified in the above results. Due to project variability, it is also possible that certain projects may require additional permits not identified in the results above. The Guidebook and Self-Evaluation/Determination tool are not meant to be a substitute for hiring a professional permitting consultant, and DEEDT strongly recommends that you procure your own consultant familiar with these permits and approvals to assist you through the permitting process.

DEEDT recommends contacting the relevant permitting agencies as a first step to beginning all permitting planning and processes. Chapter 201N provides for all permits to be issued within 18 months of acceptance of a project’s environmental document. ADDITIONAL STANDARD TEXT STILL TO BE DEVELOPED.

For additional information please contact 123.456.7890

Permits all projects will likely need: STANDARD TEXT TO BE DEVELOPED...
e-Permitting Portal Project

- **UNDER DEVELOPMENT**
  - Expected completion: Fall 2011
- All DOH Environmental Heath Administration (EHA) permits/approvals online
  - Water, Air, Soil, Waste, Drinking Water, Injection Wells, Sanitation, Noise
- Easy online permit identification and application/online payment
- User accounts to store all Applicant or Project permits
  - Will store all other reports and forms required for a permit
- Instant DOH-Applicant interaction
- DOH will be able to easily modify permit applications and requirements
- Users will be able to track their permits
  - Users automatically notified of processing progress and needs
- DOH (and DBEDT) control
- Model for other state/county agencies
Thank You
Questions and Discussion

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