

Playbook Lesson Learned Phase 1: Setting the Vision

Hawai'i Establishes Goal of Achieving 70% Clean Energy by 2030

Hawai'i's clean energy goal—70% by 2030—can be considered the most aggressive state goal in the United States, setting a bold example for other states and other islands around the world. Since 2008, when the state entered into a partnership with the U.S. Department of Energy (DOE) to launch the Hawai'i Clean Energy Initiative (HCEI), Hawai'i has been a leader in the demonstration of renewable energy technologies and integrating a large amount of renewable capacity into the grid.

Challenge

Recognizing that one of the barriers to success is lack of stakeholder engagement and community buy-in, a series of working groups were formed two months after the HCEI agreement was signed between the state of Hawai'i and DOE. Their purpose was to examine various energy scenarios and develop a roadmap for meeting the clean energy goal. The working groups were composed of a variety of stakeholders, including federal and local governments, not-for-profit organizations, private sector companies, trade associations, and academic organizations.

The working groups assumed responsibility for assessing pathways in four energy sectors: electricity (generation and delivery), end-use efficiency, transportation, and fuels. Each working group gathered information from multiple perspectives across the state. Each group then analyzed and refined that information, commonly focusing on policy and regulatory change, project development, outreach and education, and overall planning and management.

Solution

An HCEI steering committee was formed to coordinate interactions between the four working groups and to ensure that they formulated a comprehensive strategy. The information gathered by the working groups was shared with a wider audience throughout the state and feedback was incorporated into the process for use in improving decision-making and developing the HCEI Road Map.

One of the major outputs from the working group process was a scenario or “wedge” analysis—delivered in partnership with Booz Allen Hamilton—that described how 70% clean energy could be achieved by activities in sectors covered by the four working groups. The wedge analysis formed the basis of much of the additional follow-on work assessing pathways, and was the first of many studies on behalf of the working groups.

“We need every Hawai'i citizen to be personally energy aware and feel responsible for contributing in some way to solving our energy problems. Many of the best contributions are low or no cost, involving changes in behavior and attitudes.”

—Ray Starling, Program Director, Hawai'i Energy

The overall vision adopted by the state of Hawai'i in moving its energy infrastructure to a more sustainable path was based on a three-part planning process:

- Identify key sectors of the energy economy.
- Set clean energy goals in each sector.
- Create multifaceted critical strategies to attain sector goals.

HCEI Energy Sectors and Goals

Energy Sector	Strategies	2030 Goals
Electricity (Generation and Delivery)	<ul style="list-style-type: none"> Align electricity regulatory and policy framework with clean energy goals Increase certainty in the process for developing new renewable energy Deploy renewable generation and grid infrastructure Explore next generation technologies/new applications of existing technologies 	Renewable Portfolio Standard: 40% of delivered MWh renewable energy
End Use Efficiency	<ul style="list-style-type: none"> Align efficiency regulatory and policy framework with clean energy goals Retrofit residential and commercial existing buildings Strengthen new construction policies/building codes Identify non-building related energy efficiency measures 	Energy Efficiency Portfolio Standard: 4,300 MWh reduced
Transportation	<ul style="list-style-type: none"> Improve standard vehicle efficiency of fleet Reduce vehicle miles traveled Incorporate renewable fuels into transportation sector Accelerate the deployment of electric vehicles and related infrastructure 	Reduce petroleum used for ground transportation by 70%*
Fuels	<ul style="list-style-type: none"> Evaluate local agricultural industry and support its development Invest in key infrastructure at scale Evaluate and develop renewable fuel processing infrastructure Match potential fuels supply to sources of in-state demand 	Meet as much of in-state demand for renewable fuels as is feasible

*HCEI will develop an expanded understanding of the needs of the large buyers in the aviation and defense sector. In the future, marine and aviation biofuel alternatives may be substituted to help meet the goal by displacing the equivalent of 70% of ground transportation demand with non-fossil fuels.

Key Takeaways

HCEI's process is a useful example for others to follow because it engaged from the onset a wide variety of key stakeholders through focused working groups, involved the public in the planning and decision making process, and laid the foundation to make informed decisions about the path to success. With multifaceted analysis, HCEI provided the necessary information to help increase the state's economic and energy security, demonstrate innovations, and develop the workforce of the future.

Governing Frameworks Encourage Active Stakeholder Engagement in HCEI

The Hawai'i Department of Business, Economic Development, and Tourism (DBEDT), with the input of DOE, has shaped two different “governing” frameworks for HCEI. In the beginning of HCEI and early in Hawai'i's energy transition, DOE was positioned to act more as a co-lead to establish momentum behind the initiative, but critical roles for other stakeholders developed as HCEI evolved over five years.

The second HCEI structure involves four elements: (1) a management team; (2) an advisory board; (3) ad hoc issue-oriented teams, called ‘strike teams’ by HCEI; and (4) external stakeholders. The core management team involves primarily government agencies that address different aspects of energy policy, representing economic development, regulation, and consumer issues. The advisory board gives key stakeholders a very strong leadership role in HCEI, and includes, but is not limited to utilities, project developers, nonprofits, and the university. These two groups will convene external stakeholders at least twice a year, in addition to regular meetings. This consultative process will maintain momentum for HCEI, and allow the management team to address the priorities of stakeholders in a timely fashion.

In order to provide the analysis and solutions to address those priorities, ‘strike teams’ will be formed as needed and disbanded when its results are reported to the management team and advisory board. Each strike team may include a member of the DBEDT State Energy Office, or other relevant agency, to facilitate coordination and accountability back to achieving Hawai'i's clean energy goals.

By introducing a degree of formality to the process, Hawai'i can focus on action while ensuring that expectations are clear, roles and responsibilities are defined, and that all of Hawai'i can actively participate in the transition.

This lesson learned is one of many provided in the Energy Transition Initiative Islands Playbook—an action-oriented guide to help island communities successfully initiate, plan, and complete a transition to a clean energy system and eliminate dependence on imported fuels. See the full Islands Playbook at www.eere.energy.gov/islandsplaybook.

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The Energy Transition Initiative leverages the experiences of islands, states, and cities that have established a long-term vision for energy transformation and are successfully implementing energy efficiency and renewable energy projects to achieve established clean energy goals. Through the initiative, the U.S. Department of Energy and its partners provide government entities and other stakeholders with a proven framework, objective guidance, and technical tools and resources for transitioning to a clean energy system/economy that relies on local resources to substantially reduce reliance on fossil fuels.