

INTERVIEW

Carilyn Shon

Chief Energy Officer
Hawaii State Energy Office



Carilyn Shon is the Chief Energy Officer of the Hawaii State Energy Office, a post she was appointed to on July 1, 2019. As the CEO, Carilyn develops, manages, and implements statewide energy programs, policies, and initiatives that support Hawaii's clean energy transformation.

Carilyn comes with 17 years of experience as the Energy Efficiency Program Manager where she was responsible for implementing projects and programs that contribute to the Hawaii Clean Energy Initiative and the state's energy self-sufficiency and efficiency objectives.

Through her leadership Hawaii has received three National Governors Association (NGA) awards for participation in the Policy Academy on Advanced Energy Strategies for Buildings and the Center for Best Practices, as well as participation in NGA's workshop on Innovations in Energy Efficiency Policy. For eight consecutive years Hawaii has received national recognition from the Energy Services Coalition's (ESC) Race to the Top award as the leader in

per capita investments achieved in performance contracting and for "outstanding commitment to energy efficiency, environmental stewardship and economic development through Energy Savings Performance Contracting." In 2016, 2017, and 2018, ESC also recognized the State of Hawaii as an Energy Stewardship Champion for "the state's outstanding accomplishments in leveraging Guaranteed Energy Savings Performance Contracting to achieve infrastructure modernization, environmental stewardship, and economic development." ESC is a national nonprofit organization of experts working together to increase energy efficiency and building upgrades through energy performance contracting.

In 2015 Carilyn was honored with the Manager of the Year award for DBEDT. Carilyn recently spoke at the 2019 National Association of State Energy Officials (NASEO) Annual Conference.

The State of Hawaii is currently sitting at the helm of the most ambitious energy goal in the country. Since 2008 Hawaii has been looking forward with one thing in mind, operate state-wide on renewable energy. With an original goal to operate on 70% clean energy, recent leadership was confident enough to bump that goal up to 100% clean energy by 2045. We sat down with Carilyn Shon, Chief Energy Officer, from the Hawaii State Energy Office to check on the status of the initiative at the 10-year mark.

What were the key drivers behind creating the Hawaii Clean Energy Initiative in 2008?

There are several key drivers. Mainly the high cost of electricity in Hawaii, which was nearly 100% dependent on imported oil for electricity generation, and depending on the price of oil could be anywhere from 3% - 5%

of our GDP. That is money going out to foreign sources and not to jobs and the economy of Hawaii. So it was rather imperative that we try and get a grip on our energy future.

It was a shared vision by the Department of Energy (DOE) and the governor to create a clean energy future for Hawaii. Consequently, we signed a memorandum of agreement in 2008 for a clean energy future.

In 2009 there was a law passed that codified the Hawaii Clean Energy Initiative, with a 70% clean energy goal. However, under new leadership in 2015, the renewable portfolio standard was increased to 100% renewable energy regeneration by 2045.

Where are you today in reaching your goal?

We are doing pretty good so far. The goal of 2020 is 30%, and we are now at 27.6%. We anticipate that we will make that goal in spite of the Kilauea volcano eruption

knocking out a very large geothermal plant. We are also exceeding our efficiency portfolio standard. I believe we can always do better, and that is what we are trying to do.

What have been some of the biggest hurdles in creating the initiative and keeping on track with the progress?

I think the hurdles back then, are still here. Two of those hurdles include getting all stakeholders to continue to support the clean energy initiative and getting people to think laterally. We push people to think, not in silos, but laterally in an integrated logic about how energy impacts all of us in various ways.

Another challenge I think we are still dealing with is balancing competing interests. For example, we are a small geographic area compounded by the challenge of separate islands, and by the fact that these islands are very mountainous. There is not much flat open space. In the small areas of open space and flatter land, there is a competition of renewable energy installations verse land for agricultural use verse land for housing.

A concern is how to balance the slightly higher cost for renewables verse the longer-term costs for imported oil. As I said, depending on the price of imported oil it could be anywhere from 3-5% of our GDP, that's money leaving the state rather than bolstering the economy and creating jobs.

How have you been able to gain and maintain stakeholder's support?

It is a constant discussion with commitment and re-commitment to a shared vision. The stakeholders in the clean energy initiative have been very supportive and aware. The groundwork laid by the initial effort in 2008 and 2009 was pivotal; the support we see today was driven from the early efforts. Another motivator for our stakeholders has been the development of new technology and reduction in the cost of the new technologies.

What is the benefit your team sees in utilizing energy-saving performance contracting (ESPC)?

The Energy Services Coalition has recognized us for eight consecutive years for achieving the highest energy savings per capita. That is done through tremendous effort in terms of continually educating states and county agencies and supporting various agencies as they execute performance contracts. I think, once one agency has started an ESPC and they see success, other agencies

gain interest and support. Performance contracting has helped address long term deferred maintenance and bundling improvements from lighting to air conditioning requirements. A lot of government agencies have appreciated the fact that it is a turn-key project.

Capital improvement projects with government agencies can take 6-10 years. Funding is requested multiple times, once for planning and then for design work. Finally you request funding for construction, and hopefully you get the money, usually not, so then you have to go back and revise your plans and design. All of that takes a lot of years of patience and funding requests. Now include the procurement activity, purchasing, and installation

timing. That is a long time, and it is all piece-meal.

Performance contracting is excellent because it is turn-key. Depending on how you structure the performance contract, and you have in-

cluded operations and maintenance. If there is a problem, there is only one contractor, the ESCO, that you will need to work with.

Is there an example of a performance contract that helped towards achieving your goal?

Yes! The airports, which is the largest single-state contract for performance contracting. The ESPC is for 12 of our 15 airports. All of the airports in the state of Hawaii are under one agency, the department of transportation. There is a single contract for roughly 210 million dollars. It is quite a substantial project. It includes over 7 million square feet of buildings, and over 13,000 acres counting the runways and the apron on the runways. We partnered with Johnson Controls. They changed out about 74,500 lighting fixtures, completed several HVAC improvements, and installed photovoltaics on the parking lot covers.

Hawaii's strategy to achieve its very ambitious goal is one that should be mirrored. Hawaii started from the inside out, educating and involving their stakeholders. From there, they created their case for the necessity of the program and the need for change. Collaboration with the DOE allowed them to move forward with their energy policy. As Hawaii trailblazes on the path to 100% clean energy, they keep their communities well-being at the forefront and continue to find new and creative ways to reach their goal.

Continued