As I started to prepare for this presentation I struggled with its title. Originally I called it Hawaii's Clean Energy Vision. But, to many a vision may imply something happening in the future. What I really want to convey today is Hawaii's clean energy economy is not solely an end product but a transformation process not only of Hawaii's energy system but how we live, work or do business in Hawaii.

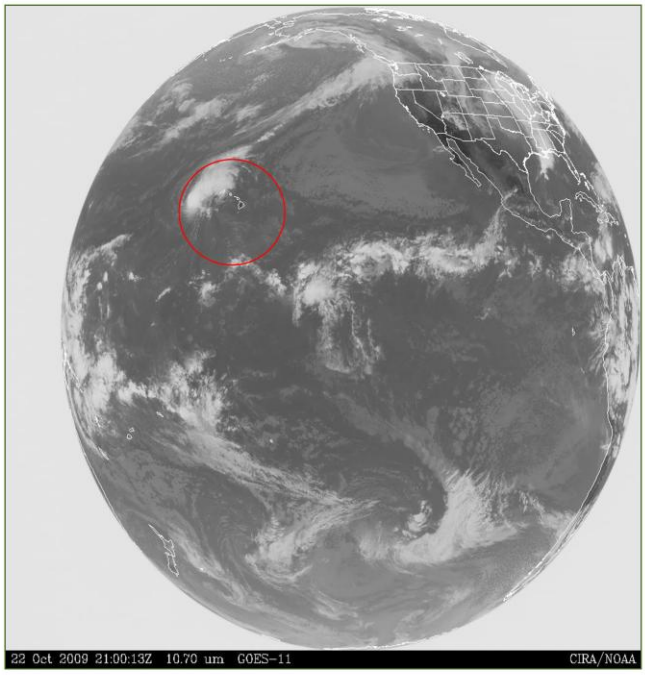
When I first became the Chair of the House Energy & Environmental Protection Committee in 1999, I was in my second term in office trying to figure out what my role as a Legislator should be. I spent that session trying to save environmental programs in a down economy, quite unsuccessfully. As I studied up on energy issues, it became obvious to me that if I wanted to fund environmental programs I really needed to work on stabilizing Hawaii's economy and a critical factor in achieving a stable, robust and diverse economy is energy pricing.

In the Legislature my sphere of influence is my role as Chair of the Energy & Environmental Protection Committee, therefore, when all you have is a hammer everything looks like nail. But, I think many will agree that energy issues are intrinsically tied to our quality of life – from a major part of our household or business budgets to providing us convenience and comfort to affecting national security issues.

Honolulu to Los Angeles
2,558 miles

2008 Population
1,288,198

Annual Visitor Arrival
2009 – 6,500,000
2008 – 6,822,911
2007 – 7,627,819
4.5% decline (2008-2009)
10.6% decline (2007-2008)



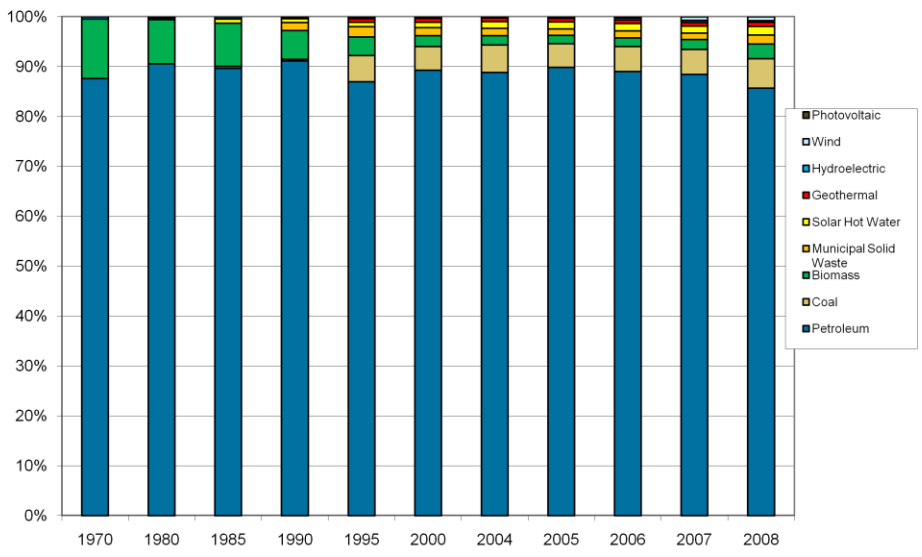
Hawai'i Powered
Hawai'i Clean Energy Initiative

3

No doubt Hawaii has unique challenges. What is obvious is our geographic isolation. Our heavy reliance on the visitor industry where the cost of jet fuel alone is a critical factor in gauging Hawaii's economic viability leaves us extremely vulnerable.

But the important point I wanted to make here is that we spend millions of dollars marketing Hawaii as a premier visitor destination to bring new money into our state. Then those hard earned dollars are exported out of the state to pay for imported fuel and food to the tune of over $8 billion a year. If we were to reduce our fuel and food imports by just10% that's over $800 million a year that could be reinvested in Hawaii.

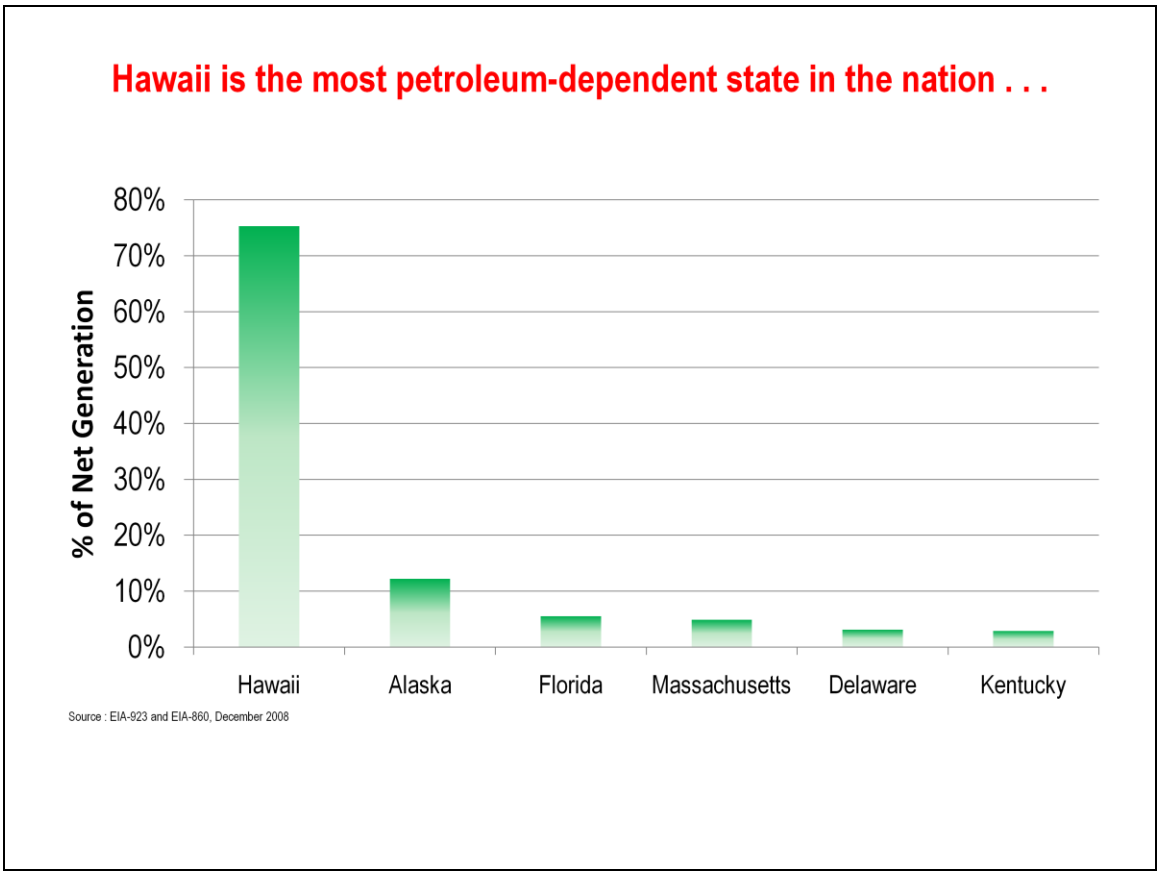
For over 35 years petroleum has accounted for more than 85% of Hawaii's energy mix for electricity.



Hawai'i Powered
Hawai'i Clean Energy Initiative

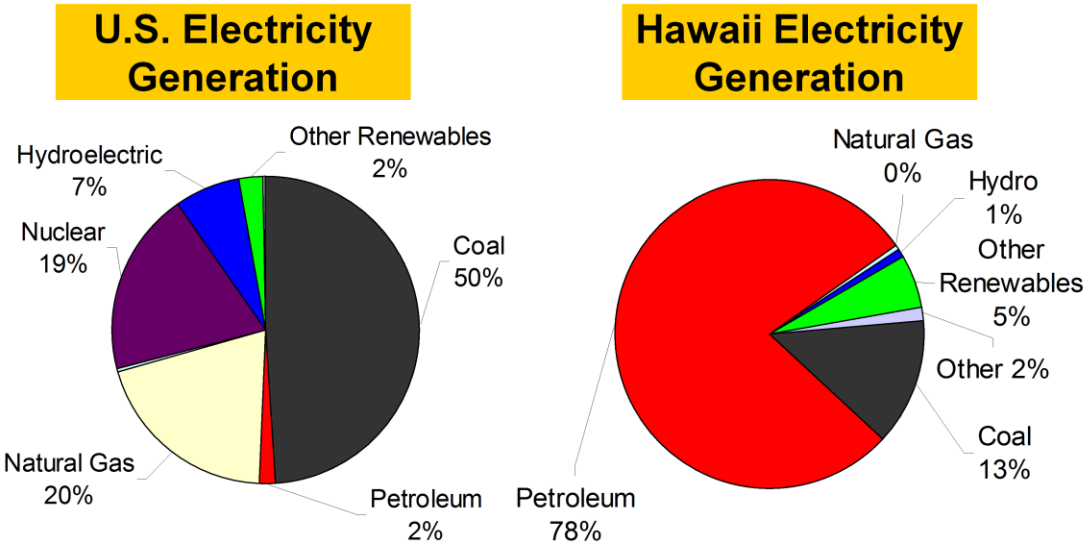
4

For over 35 years petroleum has accounted for more than 85% of Hawaii's energy mix for electricity.



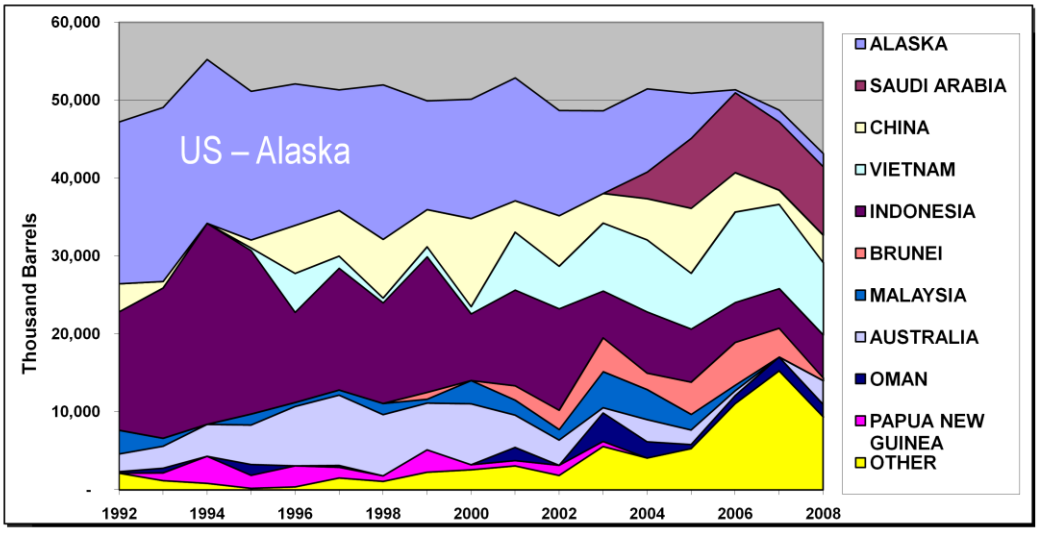
Making Hawaii the most petroleum-dependent state in the nation.

especially for electricity generation.

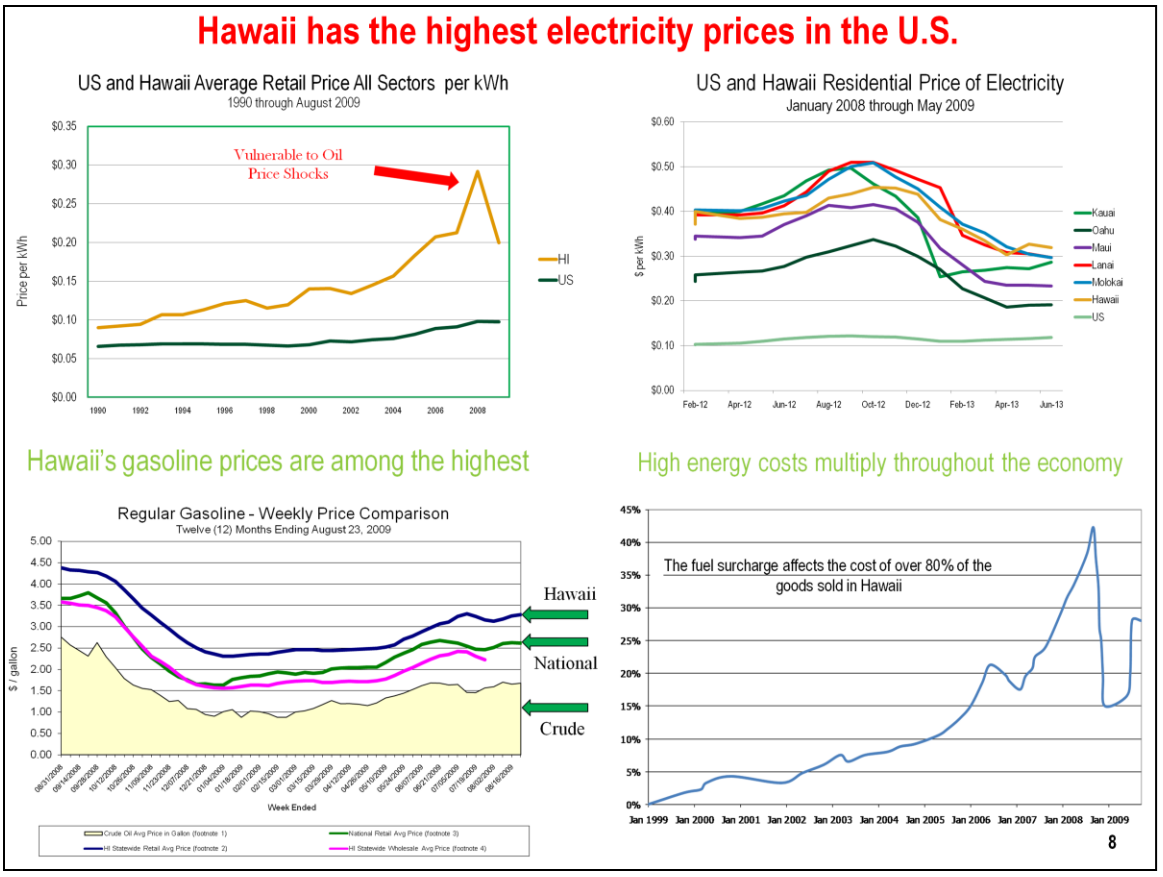


Especially for electricity generation. As you can see the nation averages 2% electricity generation from petroleum, Hawaii is well over 75%.

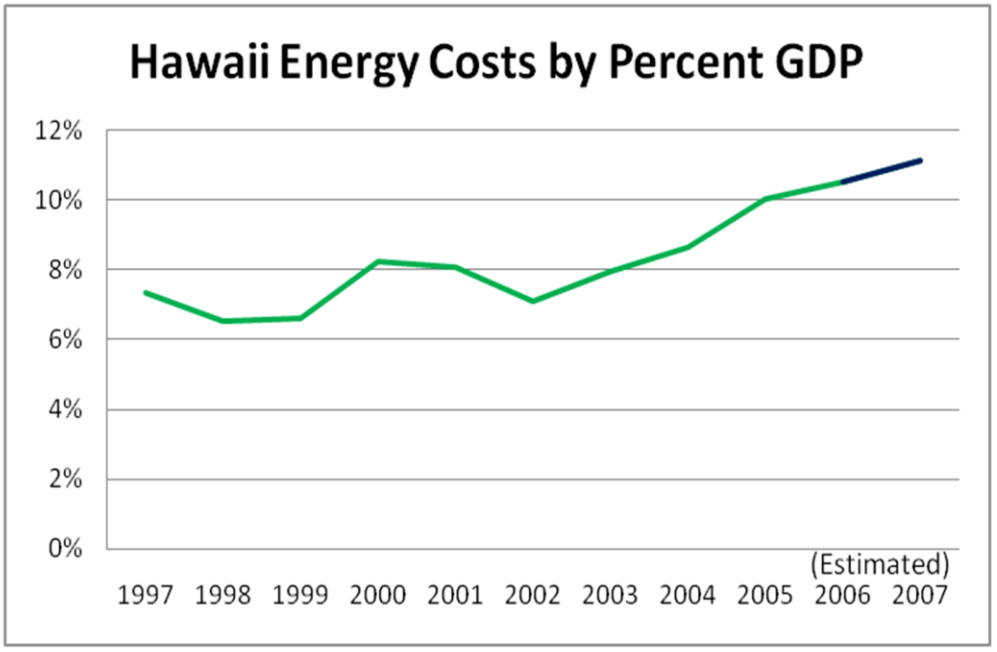
Alaska North Slope oil was the basis for the design of Hawaii's refineries. Now, more than 96% of petroleum in Hawaii and 100% of its coal is imported from foreign sources.



Alaskan North Slope oil was the basis for the design of Hawaii's refineries more than 40 years ago. Now more than 96% of petroleum and 100% of the coal imported to Hawaii are from foreign sources. Currently, not only is pricing volatility a concern but also the threat of supply disruptions. And as the global economy improves and demand, especially from developing countries like China and India increase, prices will surely rise. Therefore, the window of opportunity to make this transformation is limited to minimize cost impacts on Hawaii's residents and businesses.



The high cost of energy reverberates in every sector of Hawaii's economy.



- **Continental U.S. energy costs are ~4% of a state's gross domestic product. In Hawaii, it approaches 11%, almost 3 times as much.**

While continental U.S. energy costs are approximately 4% of a state's GDP, in Hawaii it is over 11%.

Hawaii's Energy Policy

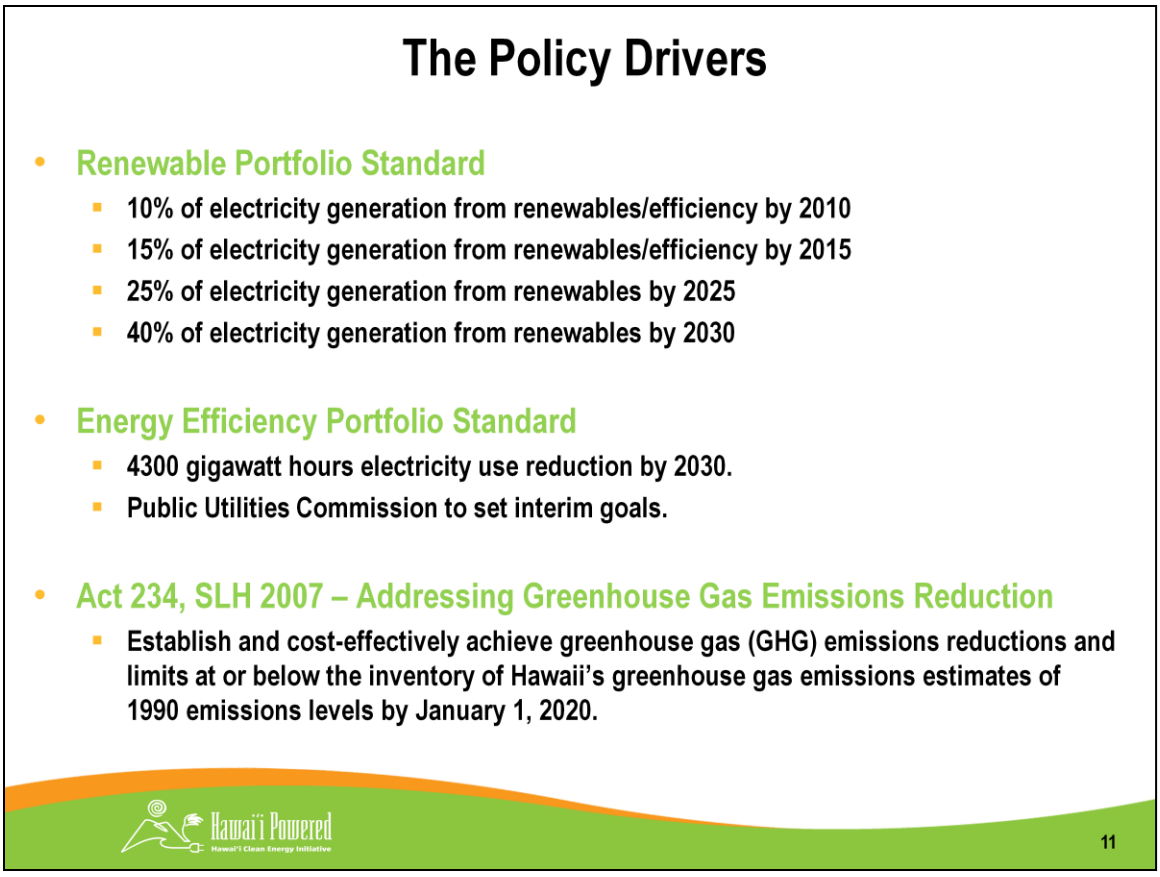
Hawaii Revised Statutes, Chapter 226-18

Planning for the State's facility systems with regard to energy shall be directed toward the achievement of the following objectives, giving due consideration to all:

- **Dependable**, **efficient**, and **economical** statewide energy systems capable of supporting the needs of the people (1978);
- **Increased energy self-sufficiency** where the ratio of **indigenous** to imported energy is increased (1978);
- Greater **energy security** in the face of threats to Hawaii's energy supplies and systems (1981); and
- **Reduction, avoidance, or sequestration** of **greenhouse gas emissions** from energy supply and use (2000).

Hawai'i Powered
Hawai'i Clean Energy Initiative

Given this set of circumstances, for over thirty years, Hawaii energy policy has been a careful balance of the use of indigenous and clean resources, energy security, system reliability and cost issues.



Hawaii has already passed key legislation to set the stage for this transformation. Hawaii's renewable portfolio standard, energy efficiency portfolio standard and greenhouse gas emissions reduction policy are primary drivers but the Legislature has also acted on numerous other policies like net metering and the solar water heater mandate for all new residential construction beginning January 1, 2010.

However, these kinds of policy alone cannot accomplish Hawaii's monumental challenges.