

Hawaii Energy Forum Meeting

HEPF General Membership Meeting

January 17, 2008

Hawaii State Capitol Rm #329

Summary Notes

In Attendance:

Members:

Al Chee, Darren Kimura, Kyle Datta, Maurice Kaya, Melissa Pavlicek, Mike Hamnett, Mitch Ewan, Peter Rosegg, Rick Reed, Sharon Miyashiro, Steve Meder, Steve Rymsha, Warren Bollmeier.

Guests:

Todd Scheibert, Terri Sasaki, Paul Bernstein, William Steiner, Charles Kinoshita, Bob Numbers, Bob Shleser, Chuck Byer, Sandy Wong, Daren Pai, David Leonard, Dennis Furukawa, Darren Kierson.

Staff:

Susan Char, Chelsea Phlegar, Kim Suman.

Upcoming DOE Briefing on 1/28/08

To be sponsored by US DOE and the State Energy Office. DBEDT and Bill Parks from US DOE have been working together for the last 2 years on developing a long-term collaboration, which will be formalized on January 28 with the signing of an MOU between the State and US DOE. US DOE Assistant Secretary Andy Karsner will be here for the signing as well as two senior officials from his office, Steve Chalk and David Rogers. The MOU will be an agreement in principle to collaborate on certain energy-related activities for the State. The likely outcome of the collaboration will be talent, resources, time, and, potentially, funding for the State of Hawaii. Karsner's budget is currently \$1.8 billion so this is viewed as a significant

January 17, 2008

Hawaii Energy Forum Meeting

opportunity. The briefing will be facilitated by Maurice Kaya and Mike Hamnett. Also participating will be Drew Bond who is responsible for commercialization of energy efficient technologies for US DOE. The briefing will be held in the HECO 8th floor training room in the ASB tower.

Next HEPF General Membership Meeting

The next meeting is tentatively scheduled for Thursday, 3/6/08. The SC meeting will meet on 2/4 (to discuss bills which the Forum will support and monitor).

Communication & Outreach Production: "Hawaii's Climate Crisis."

The documentary, co-sponsored by the Forum and HECO, was aired on Tuesday, January 15, 2008, 9pm after the premiere of American Idol. KHON had a huge, positive response from viewers, and will rebroadcast the program on Saturday 1/19 at 9pm. The rebroadcast will include a disclaimer that the Forum doesn't endorse all positions, but did want to begin a dialogue. Next steps are to make DVD copies of the program, and a second film may be in the works with higher production quality.

Biofuels Panel Discussion:

A presentation by Dr William Steiner, Dean of the College of Agriculture, Forestry & Natural Resource Management, University of Hawaii at Hilo; with Discussants, Mr. Kyle Datta, CEO of US Biodiesel Group and Dr. Charles Kinoshita, College of Tropical Agriculture and Human Resources, UH Manoa;

William Steiner (Presentation)

The question of food versus fuel security is still unanswered. Potential biofuel crops that have a higher yield are oil palm, macadamia, avocado, jatropha and kukui nut. Jatropha seeds are toxic, however, a non-toxic variety is available. According to Bill Steiner, the disadvantage of the non-toxic variety is that it may be spread by birds, etc. due to its lack of toxicity and, therefore, become a bigger problem as an

Hawaii Energy Forum Meeting

invasive species than it already is. On the other hand, Charlie Kinoshita would like to see the non-toxic variety introduced into Hawaii due to its potential as a biofuel crop.

Steiner feels the nut-based biofuel crops will have a 25-year viability, which will be followed by biofuels produced from biomass such as algae. He also emphasized the need to train new grads to develop the skills/knowledge needed to develop local biofuel supply capability.

Kyle Datta (Presentation)

Because liquid fuels dominate energy use in the state, biofuels can play a part. However, land and water issues need to be resolved. The process we use to come up with our solutions needs to be very inclusive. We should learn from our past mistakes, i.e. the implementation of geothermal production in Puna as well as the recent controversy surrounding the Hawaii Superferry. The energy issues are about energy security, real diversification of fuels, etc. There are no silver bullets, it will be a portfolio of energy solutions.

Biofuels such as that from sugarcane and oil palm are very productive and can be produced for \$40 – 50/bbl, however, they are trading at about \$90/bbl because they track oil. Can we choose energy crops whose by-products enhance our food security? The volatility in oil prices makes the investment climate for biofuels very difficult.

Barriers to the biofuels value chain include:

1. Timelines for investment in biofuels are long. Crop investment is approximately 40 years. The infrastructure investment (storage, distribution) takes 50 years to be viable. The production facility investment is approximately 20 years.

Hawaii Energy Forum Meeting

2. Geographical mismatch between materials and production. Materials are generally grown on the neighbor islands but the infrastructure/production/demand is on Oahu?
3. Permitting time and complexity
4. Logistical infrastructure bottlenecks and cost
5. Oil/biofuels spreads versus investment cost recovery versus credit/duration
6. R&D knowledge gaps
7. Stability and duration of government policies and incentives

Basically, biofuels requires long-life assets but is supported by short-term supply contracts. This is a problem.

Legislative Priorities:

1. Have done a lot as a state already
2. Have to be cognizant of trade-offs (i.e. food versus fuel) and be up-front with the debate so we can reach the best solution.
3. Investment tax credit for biofuels infrastructure (irrigation, terminals, distribution)
4. Matching funds for ag research and development
5. Sliding scale detaxation based on % in state biofuels
6. Support and enhance competition

Charles Kinoshita

Our challenges include:

1. Low yields need to be addressed (need greater funding support in this area)
2. R&D workforce issues – need adequately trained workforce
3. Loss of land and resources – need to preserve ag lands and irrigation systems (investment is needed to maintain)
4. Value of energy end products is not high enough yet
5. Poor regulatory climate

January 17, 2008

Hawaii Energy Forum Meeting

The promise may be in jatropha and oil palm as 1st generation which could carry over into future generations. The 2nd generation of energy will likely come from biomass conversion.

The groundwork is being laid in many areas and is working but may not lead us all the way. The groundwork includes:

1. Intellectual capital is developing
2. Utilities are interested and supportive of biofuels
3. DOE is coming together with the State
4. Land and water are very big issues that still need to be resolved

Some growers on the Big Island are willing to work with us on producing oil palm. In the meantime, they are growing crops that produce a lot more revenue. Other countries/regions of the world are also growing jatropha for biofuel production. They have more land and more people so we need to have the incentives in place for our growers so we can compete.

This question was asked of the discussants:

If you had one wish for this legislature, what would it be?

Two of the discussants wanted the preservation of agricultural lands. The third wanted preservation and resolution of water rights.

Adjournment

Meeting adjourned at 12 pm to prepare for the legislative briefing.