## Senator Mike Gabbard's Clean Energy Day Speech - 7.22.14

Aloha mai kakou... My trusty office manager, Rock, tells me the theme of today's program is "Getting Our Act Together" and this portion is called "View from the Leg: Next Steps". Well, here's my take on where we're going:

Friends, right now, so many of us are on pins and needles waiting for HECO to announce the findings of their 4 representative studies of the Oahu grid and their responses to the PUC decisions and orders. Based on what I'm hearing from around the state, in my view, we're in crisis mode!

And the big question that's looming? Is former U.S. DOE Secretary and Nobel Prize winner, Steven Chu's recent statement <u>true</u> that we're nowhere near the problem threshold in terms of distributed generation (DG) penetration or is HECO right in telling us that we need to slow it down in the interest of grid reliability? Or is this just a question of technical know-how?

In my humble opinion, we need to look to those whose creativity and talent allow them to imagine and build the future. In other contexts, these are people like Amazon's Jeff Bezos who didn't look at the dominance of Borders and Barnes & Noble in book sales and see strength—he saw weakness and opportunity. Or, Bill Gates looking at the computing industry—he didn't see the strength of mainframes, but saw their vulnerability, compared to desktop PCs. The list goes on and the point is clear and the outcome is inevitable to those with talent and creativity; and that is, that the regulated utility world looks like a bottomless pit of opportunity.

What do I mean? Take PUC's document "Inclinations on the Future of Hawaii's Electric Utilities", where it's clear that a lot of thought and work was put into giving the utilities some direction on what they expect for creating the utility of the future. In the document, there's talk of modernizing the grid to integrate more clean energy including both utility scale and distributed generation, lowering the cost of electricity, investing more in energy storage and demand response, development of microgrids and smart grid technologies, retirement of old fossil fuel plants, getting the utilities out of generation, and the development of a new regulatory incentive structure.

Of course, all these things make sense. But if we achieved them, which is by no means guaranteed, we'll still be left behind, as the electric power industry embraces relentless de-regulation and technological innovation that will lower costs by integrating the lowest cost sources of energy and grid services, which today comes from PV and demand responses. So, I'd like to add something to the conversation. What I'd like us to do is embrace the bottom-up revolution that is democratizing our energy system.

Bob Graves of the Governing Institute described it this way, "Monopolies, like monarchies, have inherent flaws, not the least of which is that the vast majority of people prefer to have a say about how they run their lives. Simply put, we prefer choices." And consider this: Is the model that is essentially the same one Thomas Edison created with the Pearl Street Station, which started generating electricity on Sept. 4, 1882, to power a few hundred lamps for about 90 customers in New York City, the right fit for meeting our electricity needs in 2030 and beyond? And should these entities continue to exert such enormous control over people's lives?

How about this? Why not think out of the box for a moment and consider a post-utility world? And when I say post-utility, I don't mean the utilities are going to shut down tomorrow or that there won't be a place in the energy mix for them .But folks, the fact is, that the Elon Musk's and other titans of

Silicon Valley are doing their very best to figure out a way for us to totally revolutionize our energy systems, and my bet is that they're going to be the first ones to cross the finish line.

But don't just take my word for it. David Crane, CEO of NRG, a Fortune 500 energy company says, "We're sort of where long-distance, fixed line telephony was in 1985. Right now it's about the time where you can say it's the end of the long-distance fixed-line world. Let's just call it game over, cell phones won. But it took 25 years. If we assume the pace of change accelerates, I definitely think there's going to be a significant decline in the significance of big power plants. But they're still going to be around as the backbone of the grid for another 20 years. I think what's more interesting, long term, is that ultimately does the grid just become a backup system the way the post office is effectively a backup system for Federal Express and UPS for high-value mail? Or do we actually get to the point where we are tearing down the grid because it's actually not being used at all?"

The fact is Hawai'i is being looked at as the model for creating a truly clean energy economy. But the verdict is still out on whether we're going to get there. My point is that we really need to ramp up this conversation of what the future holds for this battle that is waging between the traditional vertically integrated utility driven electricity system on the one hand and the new consumer driven distributed generation model that is evolving at a lightning pace on the other.

Next steps? I think we should take the conversation one step farther and imagine a post-utility world where the consumer is in charge, much like what's happened in the telecommunications and computer industries. My friends, as I gaze into my crystal ball, in my view, this is likely our future. Mahalo.