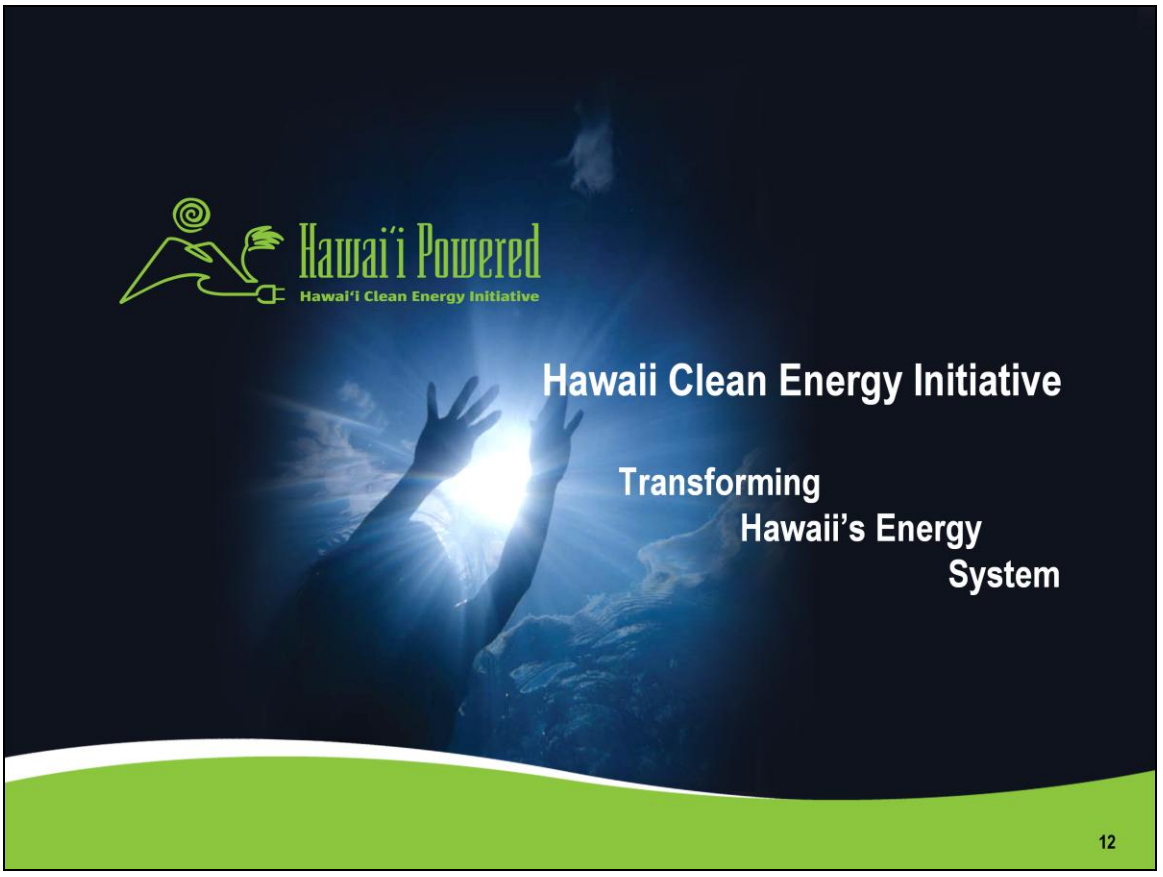
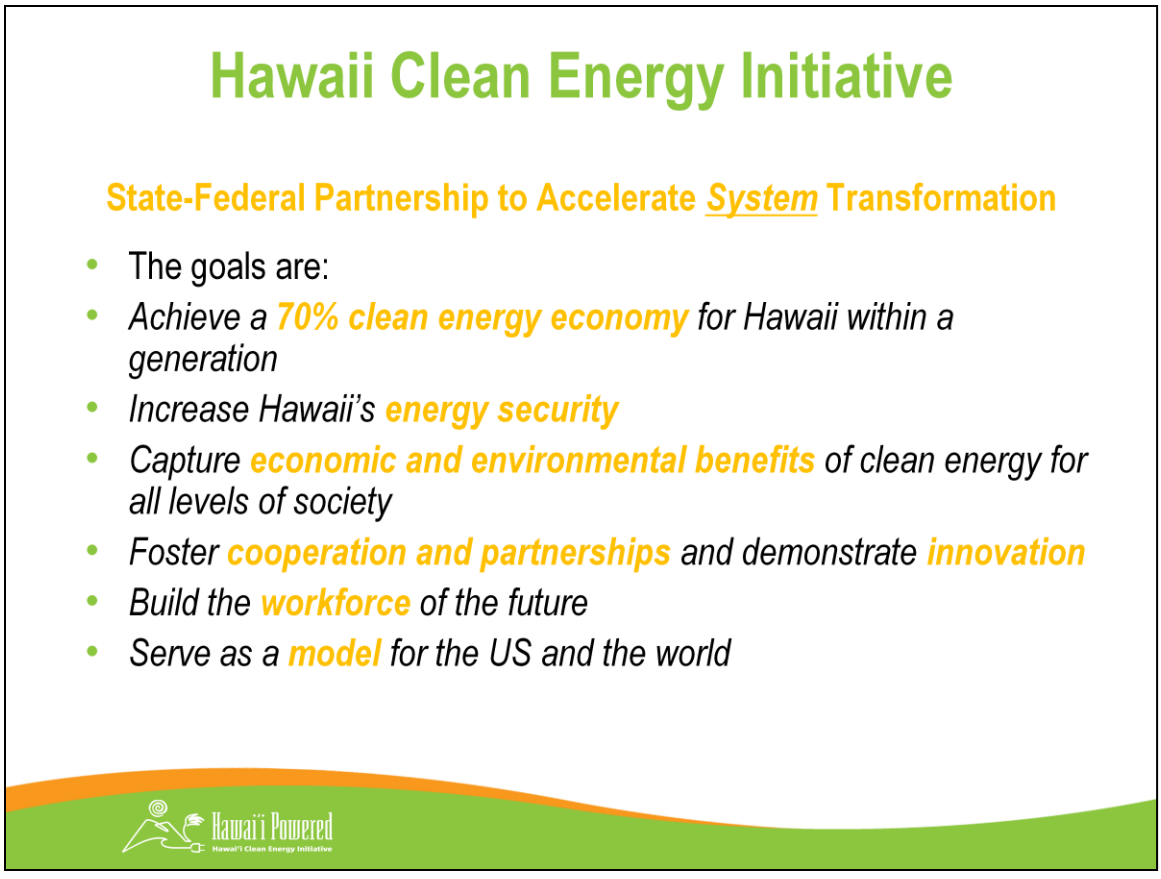
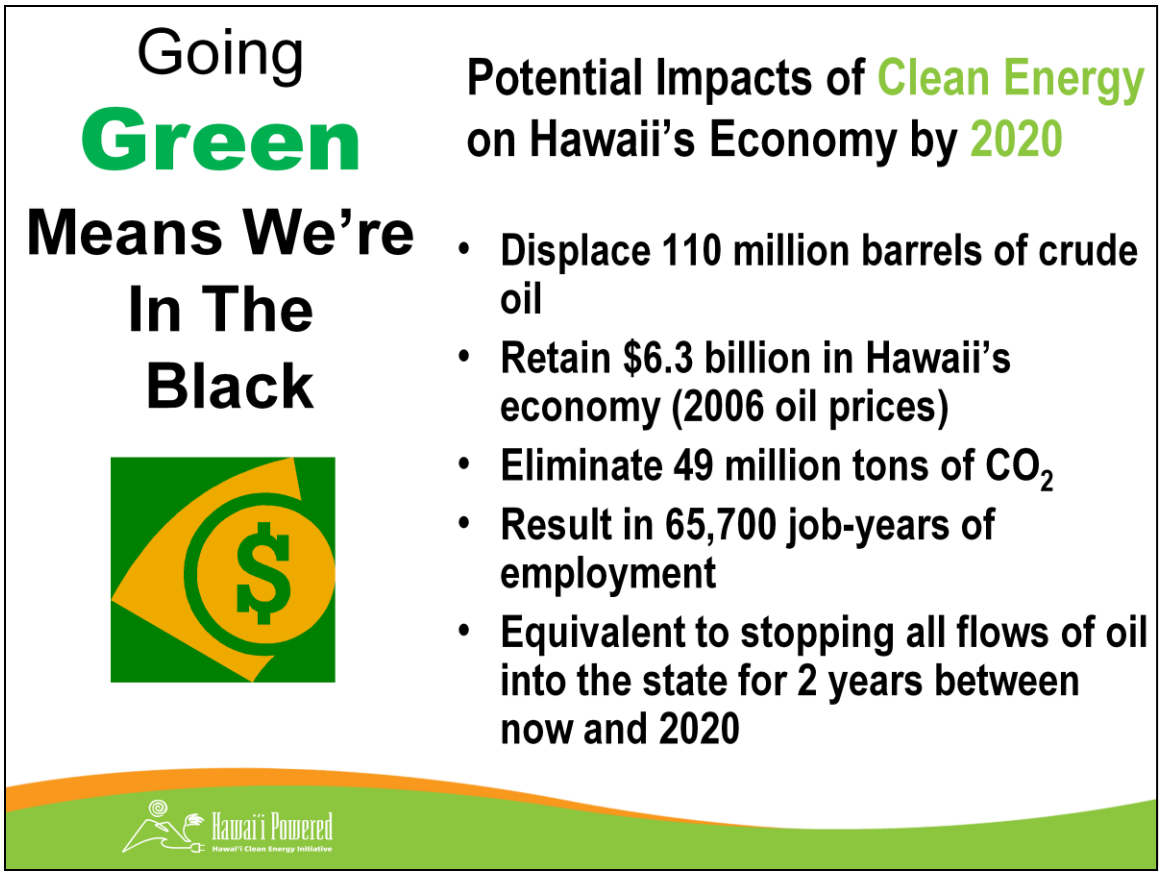


In January 2008 Hawaii launched the Hawaii Clean Energy Initiative.



The Hawaii Clean Energy Initiative is a partnership between the State of Hawaii and U.S. Department of Energy to analyze, plan and implement an integrated energy strategy to transform Hawaii's energy sector.

The goal is to accelerate the scale and rate of deployment of renewable and energy efficiency technologies market adoption in residential, building, industrial, utility and transportation end-use sectors.



And, as you can see the economic and environmental benefits are huge and these projections were based on 2006 oil pricing and based on 20% renewable energy by 2020.

GHG Emissions Changes Under Work Plans

Target: 13,660 kt CO2e **2007: 15,487 kt CO2e**

Work Plan or case	Description	Emissions in 2020 (CO2e)	Amount Below 1990 Target CO2e	% Below 1990 Target Level
Work Plan 1	HCEI & added proposed policies are met on time	8,377 kt	5,280 kt	38.7%
Work Plan 2	State Carbon Tax used w/ Work Plan 1	8,327 kt	5,330 kt	39.0%
Work Plan 3	Federal Cap & Trade system used with Work Plan 1	8,324 kt	5,340 kt	39.1%
Reference Case	Existing laws & policies met on time	13,122 kt	538 kt	4.0%

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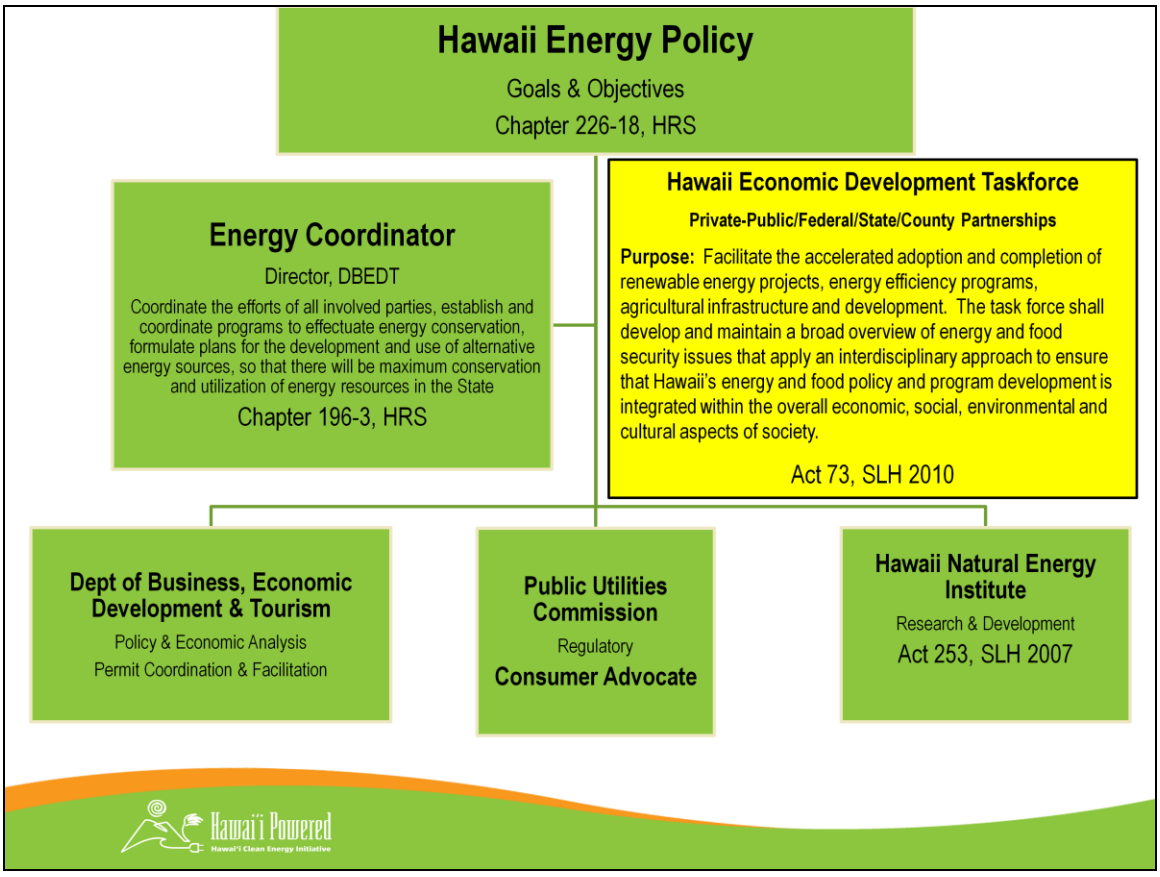
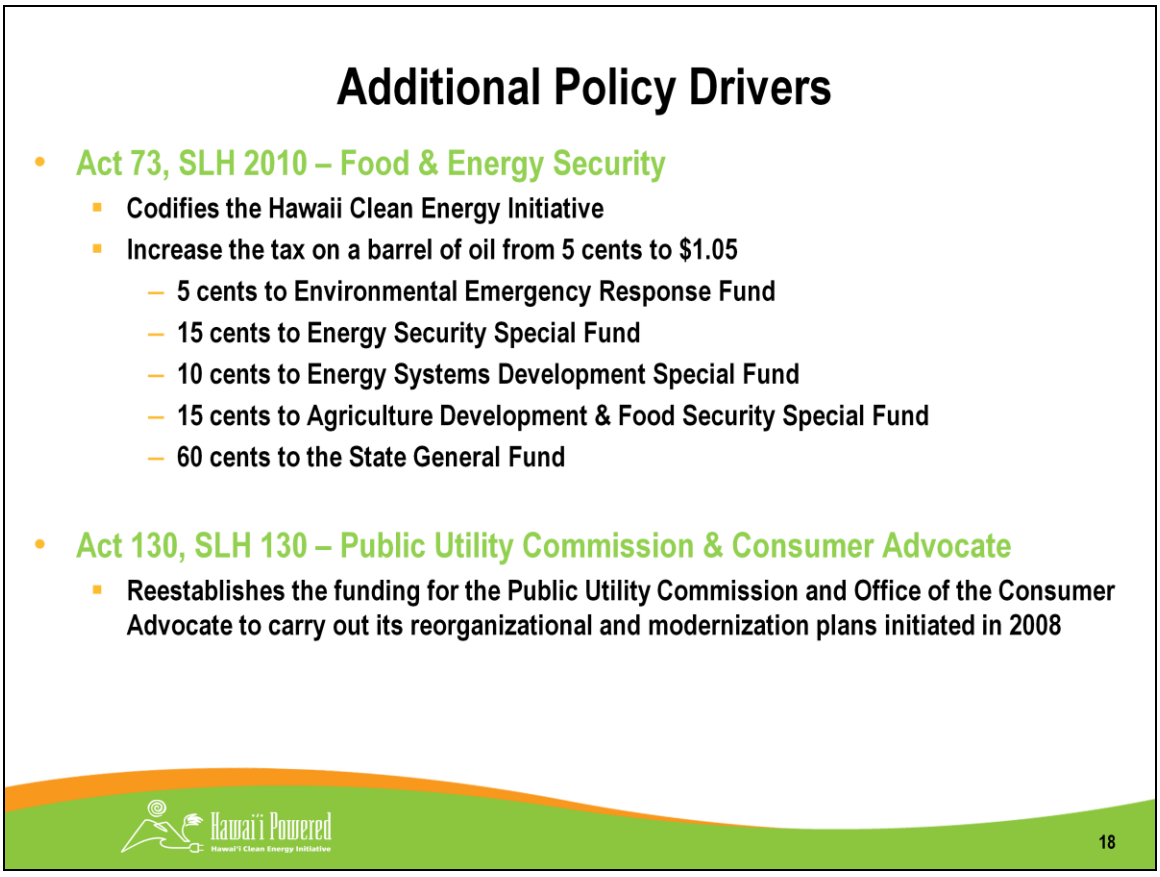
And if we stay on track with the Hawaii Clean Energy Initiative we can far exceed our greenhouse gas emission reduction goals without an extra effort.

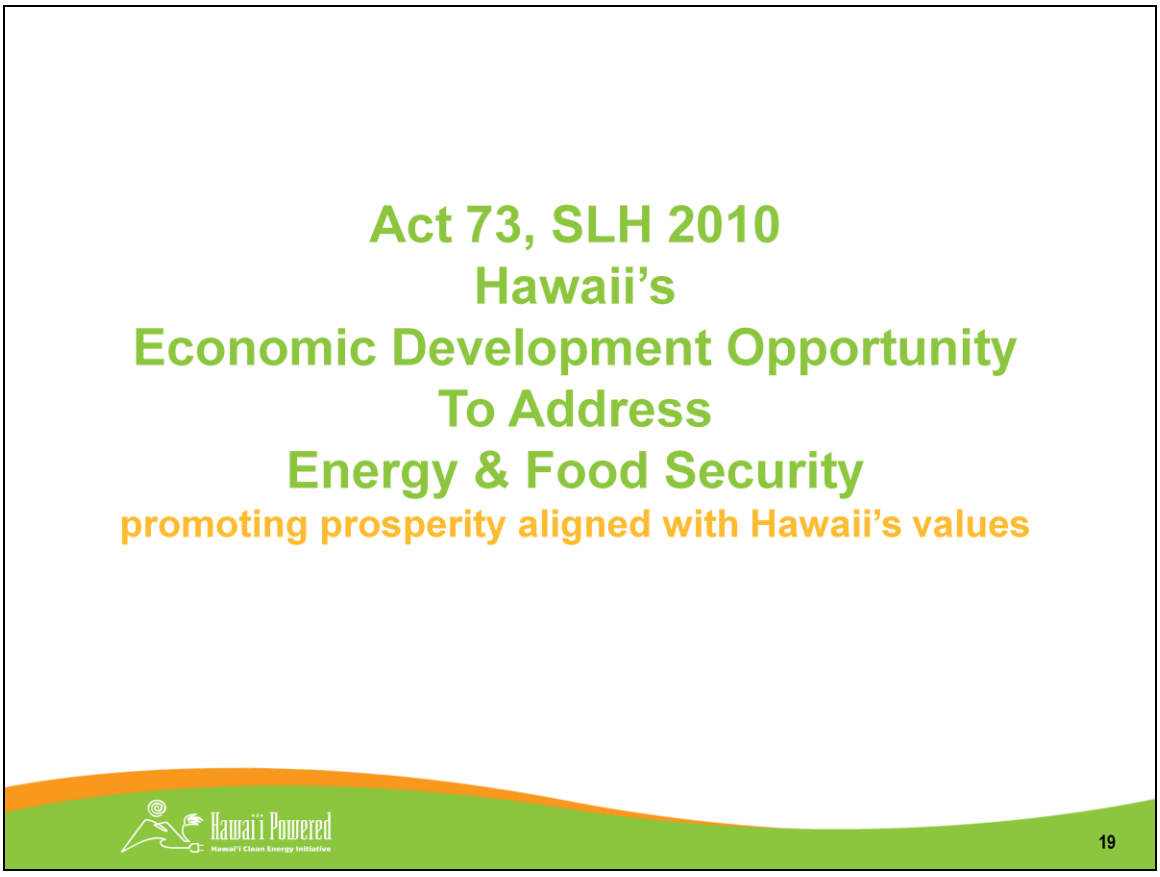
Hawaii's clean energy strategy is a long term commitment that will require leadership, sustained political will, dedicated funding and resources, and careful coordination.



It will take continued leadership in all sectors and resources in each of these important positions and agencies. Recognizing that politicians will come and go, staff will come and go – hopefully, this framework, set in Hawaii laws, will suffice to help deliver confidence, federal/state/county interagency cooperation, the public-private partnerships necessary and continuity in delivering this long-term strategy.

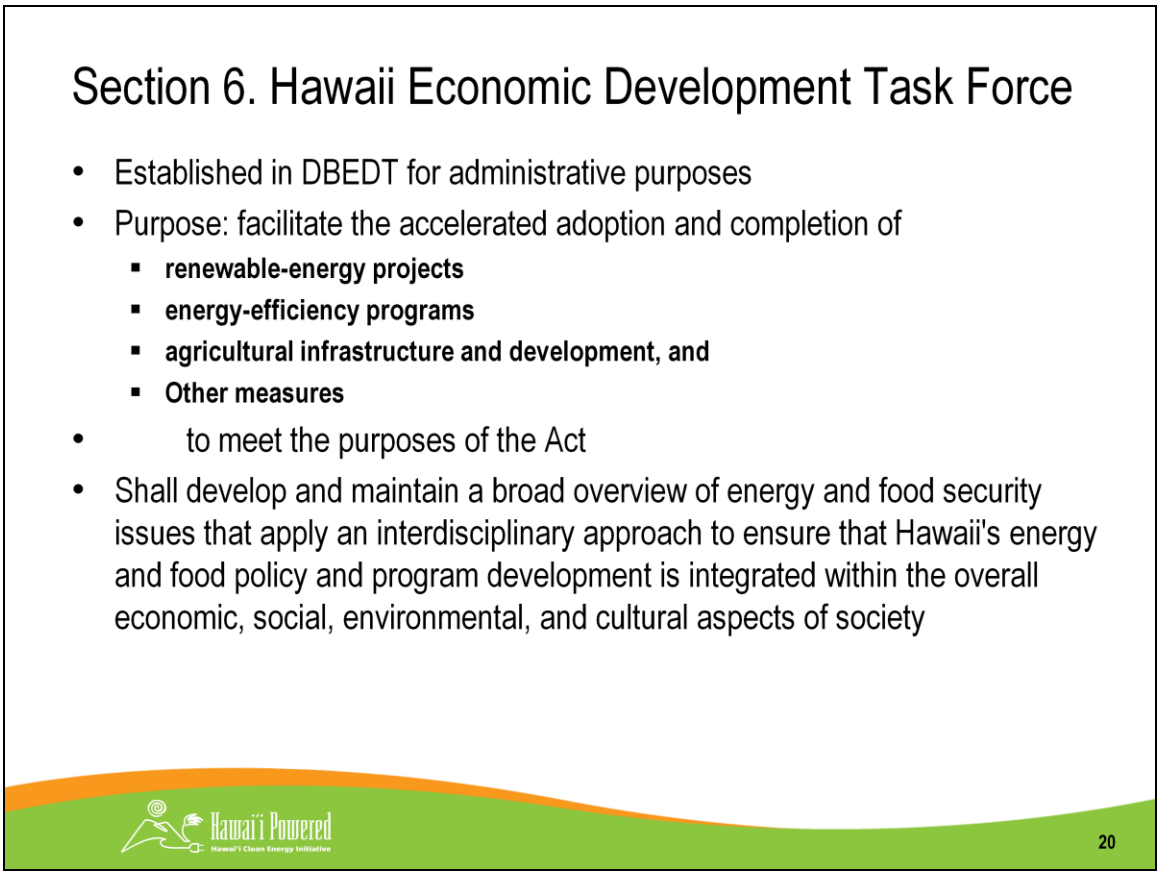


Funding has been a critical issue in keeping the momentum going. Had we not passed House Bill 2421 which eventually became Act 73, given the current state of the general fund, the depletion of the Petroleum Violation trust fund which has supported the Energy Division for more than 20 years and the end of stimulus funding, there would not have been any funding available at the end of the next fiscal year.



And, this is why I believe Act 73, introduced as House Bill 2421, which vetoed by Governor Lingle and overridden by the Legislature back in April, is one of the most significant pieces of legislation passed this session.

It is the dedicated funding source to help achieve energy and food security for Hawaii, but in doing so it seeks to promote economic development opportunities which align Hawaii's prosperity with Hawaii's values.



One of the key elements of the bill is the formation of the Hawaii Economic Development Task Force which seeks an interdisciplinary approach to ensure that Hawaii's energy and food policy and program developments are aligned and integrated within the overall economic, social, environmental and cultural aspects of society.

And, this is not going to be easy. For many, Hawaii's clean energy future will mean checking personal and corporate baggage at the door to design a robust, super-efficient renewable energy system with industry, transportation, architecture, agriculture, leisure and consumerism impacts and opportunities. It will mean fighting off vested interest who view their well-being as inextricably tied to the status quo. It will mean thinking BIG and doing BIG things in a BIG way.

It will take approximately $16 billion in new capital investment to achieve the goal of 70% clean energy by 2030. But, certainly not unrealistic considering that, currently, we export more than $8 billion annually to meet our energy and food needs.

Last year I had the opportunity to meet Michael Shellenberger, one of the co-authors of the essay, “The Death of Environmentalism”, the basis of the book, Break Through.

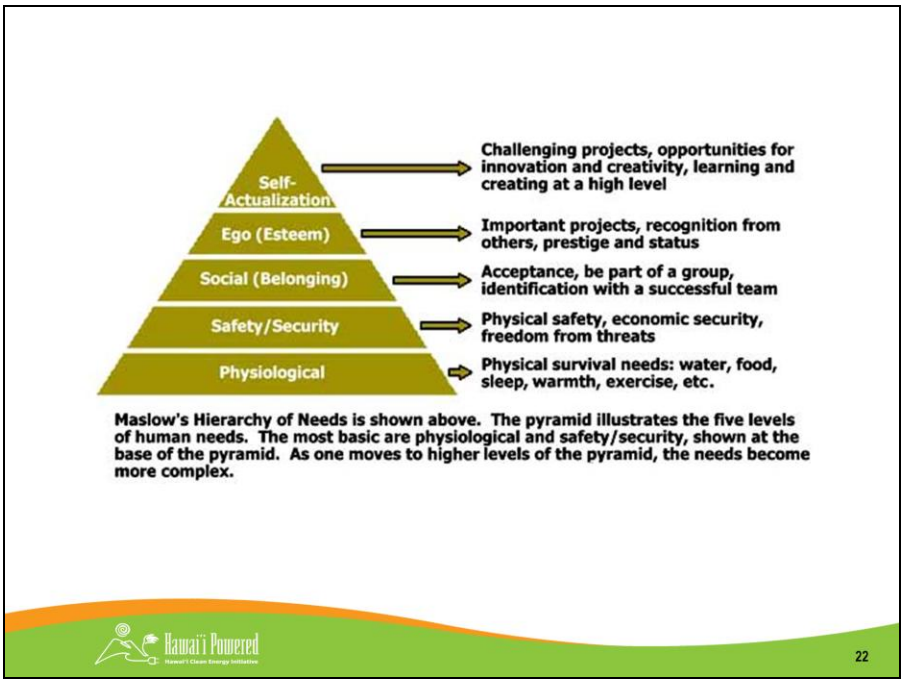
To achieve the triple bottom line disparate interest groups – business and industry leaders, labor unions, financiers and investors, citizen groups, government, academia and as well as environmentalists have to be engage in a bold and inspiring long-term vision grounded in ecologic realities and pragmatic solutions.

Shellenberger & Nordhaus argue that the mainstream environmental movement is ill equipped to face the massive global challenges of our day, in particular climate change. They argue that we can no longer afford to address problems separately. For example, climate change, fuel economy standards, and the U.S. auto industry's high health care and pension costs and underinvestment in research and development cannot be dealt with separately as if they were unrelated.

For example an old environmental message such as "walk more to cut CO2 emissions” under this paradigm shift would evolved to "walk more, get fit, meet your neighbors, save money and if you must drive, drive the most efficient car designed, engineered and manufactured in the United States utilizing a renewable fuel.

The “new” messaging hits on the need for good planning, promoting physical activity which helps to address the rising cost of healthcare where increased physical activity helps to reduce the risk of chronic disease, strengthens communities as neighbors meet neighbors, which is critical in establishing safe and secure neighborhoods. The message also advocates for American ingenuity, technological expertise and wise investments in research and development which is predicated on America to have the best educational institutions possible.

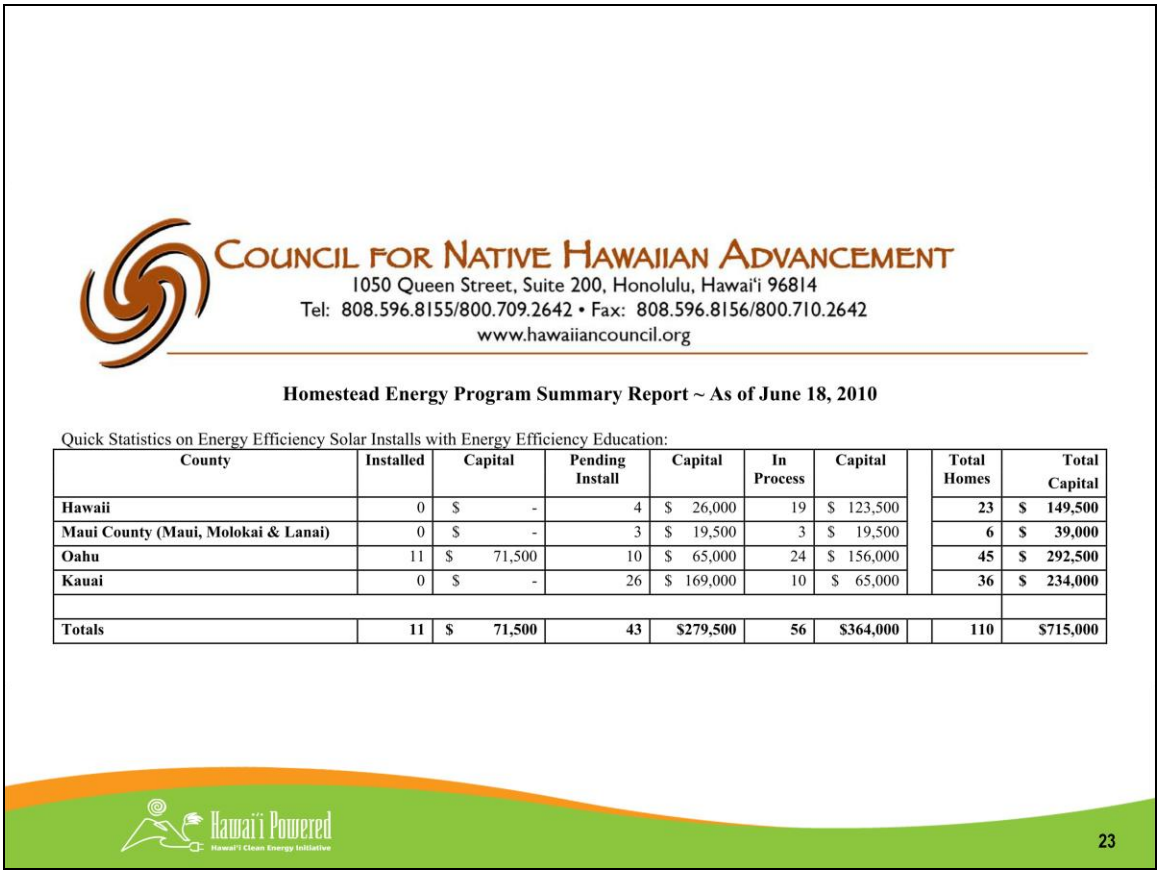
A little bit more complex but gets to the same goal of cutting greenhouse gas emissions involving more stakeholders and where a good solution has multiple benefits.



But I believe that the big take away message from this critical essay is that in order to be successful in advocating for the transformation of Hawaii's energy and food systems, we must meet basic human needs and the authors use Maslow's pyramid of Hierarchy of Needs to illustrate their point.

And on Kauai where many of our families live paycheck to paycheck we have to ensure that the transformation of Hawaii's energy system leaves no one behind. While there may be lots of chatter about big, sexy solar, wind or wave projects I believe we must pay equal attention to projects like solar hot water heaters and lightbulb and refrigerator changeouts. And, this is where green jobs are occurring right now.

Let me give you a great example affecting Anahola and Kekaha.



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Homestead Energy Program Summary Report ~ As of June 18, 2010

Quick Statistics on Energy Efficiency Solar Installs with Energy Efficiency Education:

County	Installed	Capital	Pending Install	Capital	In Process	Capital		Total Homes	Total Capital
Hawaii	0	$ -	4	$ 26,000	19	$ 123,500		23	$ 149,500
Maui County (Maui, Molokai & Lanai)	0	$ -	3	$ 19,500	3	$ 19,500		6	$ 39,000
Oahu	11	$ 71,500	10	$ 65,000	24	$ 156,000		45	$ 292,500
Kauai	0	$ -	26	$ 169,000	10	$ 65,000		36	$ 234,000
Totals	11	$ 71,500	43	$279,500	56	$364,000		110	$715,000

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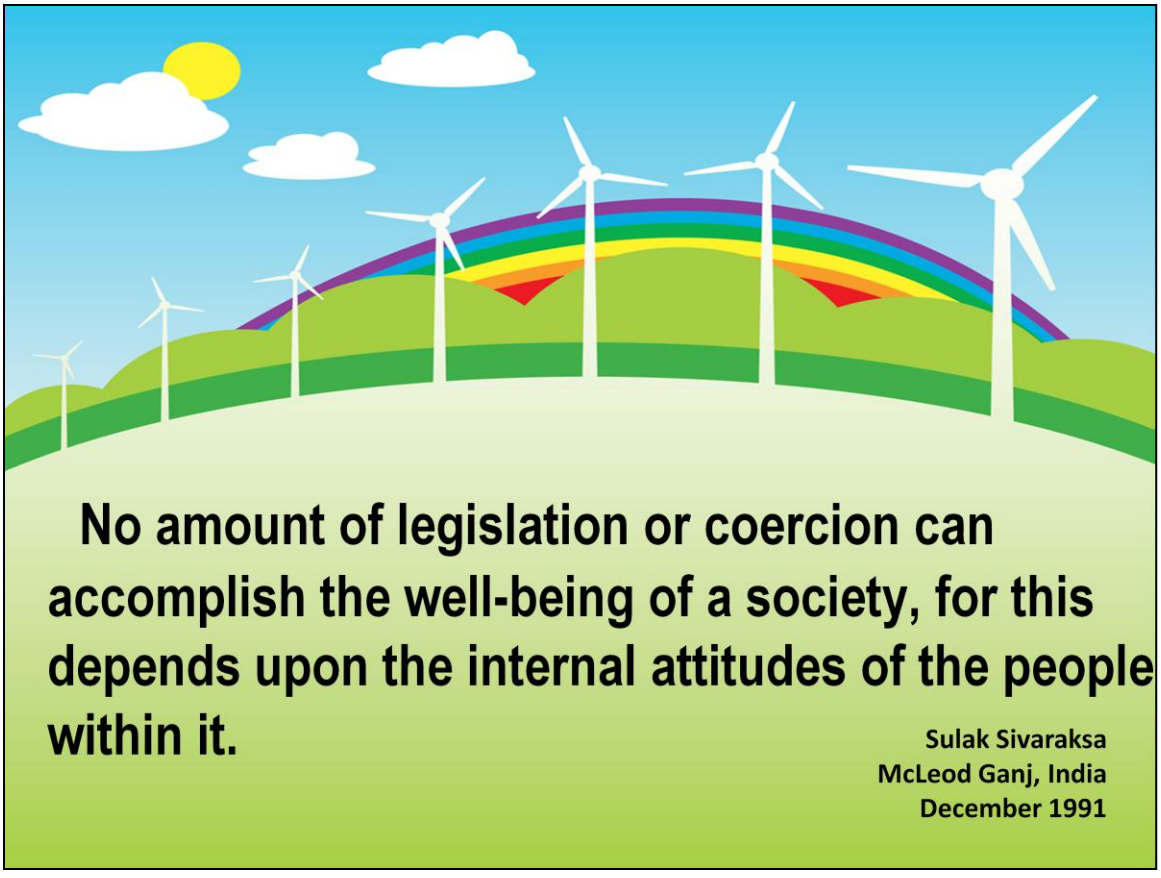
The Homestead Energy Program primary target is households on Hawaiian homesteads with income levels at or below 200% of the federal poverty guidelines, which in Hawaii means a income of $50,720 for a family of 4. Assuming the energy savings for a participating family of 4 to be approximately $100.00 per month, this allows the family to redirect $1,200.00 a year to meet other needs. In terms of job creation, for the 110 units installed statewide, approximately 1,760 job hours is created just for the installation. In the first year of installation approximately $176,000 will be reinvested in Hawaii through energy savings and wages. Over the life of the 110 units, using a life cycle of 15 years, over $2 million will be reinvested in Hawaii from the original capital investment of $715,000.

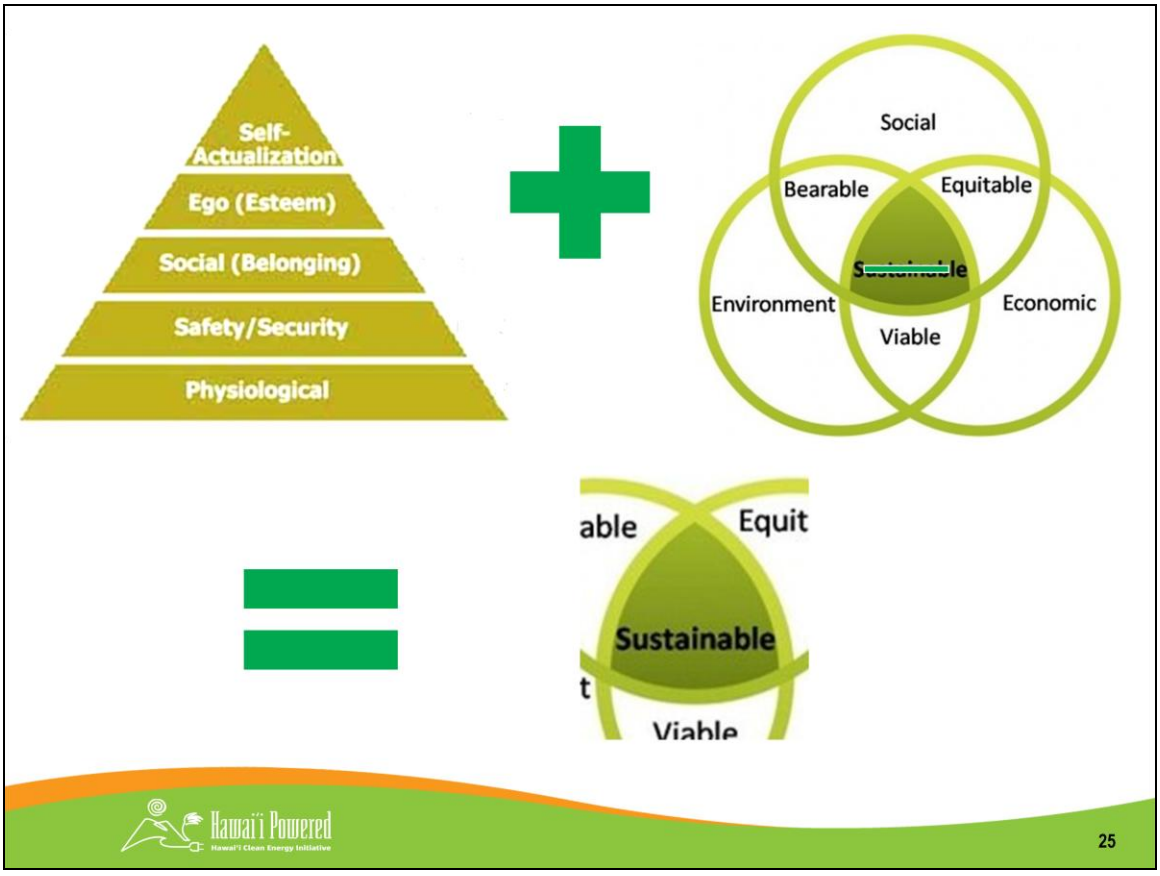
What I have not calculated is the solar water panels, where many of the systems installed in Hawaii are fabricated and assembled on Oahu, right across the street from Tamashiro Fish Market in Kalihi. So just in this little project alone the types of jobs directly involved with the installation are the application/grant evaluators, the solar panel manufacturer which employs machinists and welders and the solar installer which employs laborers, plumbers and electricians.

But what we are learning from this pilot program is how to implement this type of retro-fit , not by a house here and there, but how to make a huge systemic change at scale and deployment – neighborhood by neighborhood, starting with those who can least afford the retro-fit but stand to benefit in a big economic way and to engage these family in the energy transformation as partners.

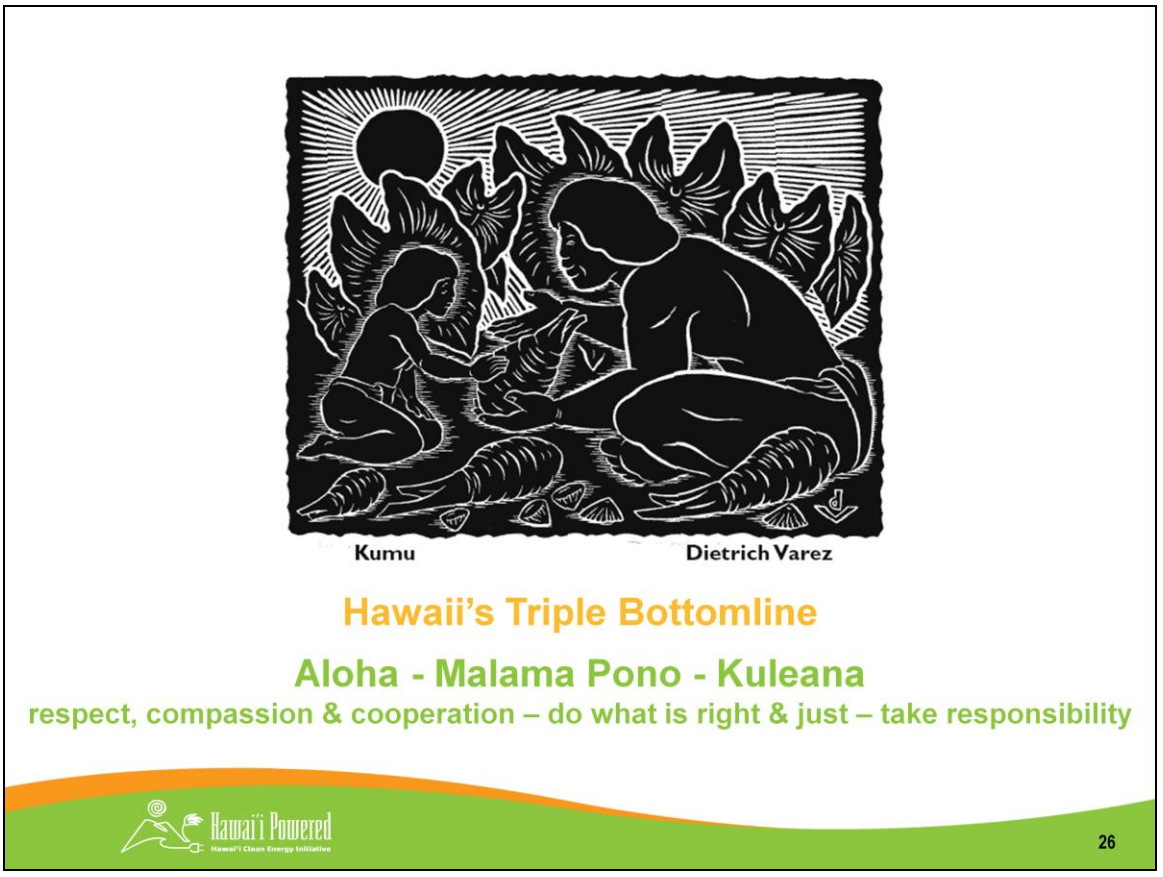


There is not one single action, one single person, or one single agency or business that can cause Hawaii's clean energy future. We each have an important and coordinated role to play as family, community, business, and government officials in creating and sustaining this very important legacy for Hawaii.

To achieve energy and food security for Hawaii we are not just politicians, civil servants, business executives, engineers, planners, farmers, and tradesmen just to name a few of the professions involved in this transformation, but we are partners in an extraordinary humanitarian effort to build a better future for Hawaii. And, now these 36 families on Kauai and plus a growing list through this innovative pilot are also excited partners.



Therefore, the transformation of Hawaii's clean energy and food security economy must factor the physiological and psychological well-being of all of sectors of our population. And, here is where Hawaii has an important advantage over the rest of the world and why we should be the premier demonstration site and model for the rest of the world in this transformation.



Hawaii has a unique understanding of the most powerful renewable resource in the world - Aloha. And, based in this foundation of Aloha is Hawaii's triple bottomline – Aloha, Malama Pono and Kuleana. If these three values are embedded in every action and decision we make in our daily lives, at home, at work or even at play – only then are we a truly sustainable and will meet the needs of all sectors of our community. But most importantly, when we apply the Hawaii Triple Bottomline to our economy, as an employer or employee, all jobs become good jobs and we will not need to pre-qualify any job as a green job.

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