

TESTIMONY OF HERMINA MORITA
CHAIR, PUBLIC UTILITIES COMMISSION
DEPARTMENT OF BUDGET AND FINANCE
STATE OF HAWAII
TO THE
HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE

FEBRUARY 25, 2013
2:30 p.m.

MEASURE: H.B. No. 1256
TITLE: Relating to Energy

Chair McKelvey and Members of the Committee:

DESCRIPTION:

H.B. No. 1256 would revise existing net energy metering (“NEM”) provisions under Chapter 269, Hawaii Revised Statutes (“HRS”), by blending elements of a feed-in tariff (“FIT”) program with current NEM program components. The proposed revisions would transition the existing pure credit-based NEM system to a FIT-style program where eligible customer-generators would be compensated for electricity they produce based on a retail rate/feed-in rate differential set out in the bill. This measure specifies that “rights and duties that matured, penalties that were incurred, and proceedings that were begun” prior to any potential date of enactment are not to be affected.

POSITION:

The Commission supports the intent of H.B. No. 1256. The following comments are offered for the Committee’s consideration.

COMMENTS:

The Commission has testified on other measures to amend the State’s existing NEM program,¹ stating that such measures were premature because of an upcoming

¹ Hearings were held by either your Committee or the House Committee on Energy & Environmental Protection for the following measures that proposed changes to Hawaii’s existing NEM program, each of which were deferred indefinitely by the Committees: H.B. No. 461, relating to net energy metering; H.B. No. 728, relating to net

evaluation of the progress of renewable energy procurement. The Commission has been awarded a grant from the National Association of Regulatory Utility Commissioners to evaluate and identify improvements for Hawaii's various renewable energy procurement methods that would include a review of both NEM and FIT ("NARUC Grant"). This fully-funded review is scheduled to be completed by September of this year. The NARUC Grant review will examine Hawaii's renewable energy procurements methods – including NEM, FIT, and the existing competitive bidding framework – to evaluate how various energy acquisition programs function independently and comprehensively in meeting Hawaii's clean energy mandates through the most efficient processes to 1) achieve the highest level of renewable energy penetration at the lowest cost, 2) ensure that all ratepayers can share in the benefits of clean energy, and 3) ensure and improve the reliability of the system.

H.B. No. 1256 proposes thoughtful amendments, not inconsistent with the existing FIT Tier 1 program, to improve customer-level energy acquisition programs in the State.

The Commission would also like to note that the current bill has drafting errors where proposed amendments appear as if they already exist in NEM statutes. Section 7 of this bill, for example, includes a reference to the "feed-in rate" [page 10, line 7] that is shown as being part of the existing HRS § 269-108. FIT is a program developed through a Commission order – not statute – and, as such, there are no statutory references to FIT.

Thank you for the opportunity to testify on this measure.

energy metering; H.B. No. 1199, relating to energy; and H.B. No. 1363, relating to community-based renewable energy.



Monday, February 25, 2013

2:30 pm Hearing for the Consumer Protection and Commerce Committee

Regarding: **SUPPORT of HB1256, "Relating to Energy"**

Aloha Chair McKelvey, Vice Chair Kawakami and Members of the Committee:

Thank you for allowing me an opportunity to testify in support of HB1256.

The existing net energy metering law allows a customer who generates electricity to both purchase and sell electricity at the same retail rate.

The retail rate for electricity supplied by the utility includes two basic components:

1. Base energy rate, the cost to produce the electricity and
2. Fixed costs; transmission/distribution assets and associated maintenance.

According to Hawaiian Electric Company's 2012 Net Energy Metering Status Report for HECO's Oahu residential customers, the average base rate was approximately 25 cents and the fixed costs were approximately 10 cents per kWh. A total average cost of 35 cents per kWh.

Net energy metering customers do not pay the fixed costs for electricity supplied by the utility that is offset by electricity sold to the utility. The utility considers this non-payment for fixed costs a lost contribution. Example: Your electric meter begins the day at zero and due to the sun's energy, your meter spins backwards during the daylight hours peaking at a minus 20 kWh. You and your family return from school and work. You turn on the TV, the AC, the lights and during the early and late evening your meter spins forward stopping at zero; you used 20 kWh of electricity but owe nothing to the utility. You are not required to pay the fixed costs associated with the transmission and distribution of the electricity that you placed onto and received from the grid.

According to Hawaiian Electric Company's 2012 Net Energy Metering Status Report, the total lost contribution for HECO, MECO and HELCO net energy metering ratepayers was \$11,955,917.

While the lost contribution dollars are somewhat insignificant compared to the billions of dollars billed by the utility, the lost contribution will eventually have to be made up by other ratepayers in future rate cases.

It must be noted that the number of net energy metering installations is growing at an exponential rate. Many state policy decisions are in play to help accelerate the number of net energy metering customers. On-bill financing is just one of these policy decisions.

If the state of Hawaii wants a sustainable net energy metering program, it must change the policy to one that allows you to purchase the energy at a retail rate and sell it at a feed-in tariff rate; a policy that would eliminate the lost contribution dollars. A policy that will allow PV generated electricity to expand with equal benefits for all ratepayers and to its greatest potential.

This new policy would also provide customer incentives to use as much of their daytime generated electricity as possible and to avoid using electricity in the evening when it is being supplied by the utility. This places a priority on efficiency.

Please note that this lost contribution policy was understood within the 2008 Energy Agreement. The Energy Agreement states that "net energy metering be replaced with an appropriate feed-in tariff."

Thank you for the opportunity to testify and I hope that you will continue to move this measure forward.

Sincerely,

A handwritten signature in black ink that reads "Denny Coffman". The signature is written in a cursive, flowing style.

Denny Coffman
State Representative



Hawaii Solar Energy Association
Serving Hawaii Since 1977

Before the House Committee on Consumer Protection & Commerce
February 25, 2013, 2:30 AM, Conference Room 325
HB 1256: RELATING TO ENERGY

Aloha Chair McKelvey, Vice-Chair Kawakami, and members of the House Committee on Consumer Protection & Commerce,

On behalf of the Hawaii Solar Energy Association (HSEA), I would like to testify **in strong opposition to HB 1256**, which changes the structure of the net energy metering program (NEM) so that customers pay retail for purchased electricity, and receive a lower FIT rate for customer generation.

Solar is key to our Green Energy Future

As we all know, Hawaii is dangerously dependent upon imported fossil fuels, and the cost and uncertainty of fossil fuels will only increase. Recent reports have indicated that oil may reach \$180/barrel or more by 2020, and scientists have found that climate change is occurring more quickly than generally believed, with the most current data showing that the Antarctic is warming three times the predicted rate. Transforming our electrical grid to a green energy infrastructure will bring both added security and stability to our state's economy, and also contribute to an overall reduction of greenhouse gasses for everyone.

NEM program very successful

NEM, as it currently stands, works. On Oahu alone, more than 7,000 solar systems on the NEM program were installed in 2012. This accounts for approximately 75 MW of aggregate electricity generated at Hawaii residences, and not only does this save the resident money instantly once the system is activated, but it also adds to Hawaii's energy security as it lessens our dependence upon fossil fuels. However, even though NEM installations have increased rapidly over the last 4 years, NEM only accounts for approximately 1.5% of the electricity generated overall.

Rather than support renewables and their implementation, HB 1256 would reduce NEM installations by making it more expensive. For instance, based on current rates of \$0.34 kWh for retail and \$0.218 kWh paid for FIT, the framework proposed in HB 1256 would reduce the NEM benefits by 36%, and this reduction would increase over time with rising retail rates and FIT rates that stay the same.

NEM is a simple and cost effective program that gives residents and business control over their electric bill. In addition, these utility customers invest considerable sums of their own which in turn benefits the entire state as it adds to our green energy security. We respectfully ask that the House Committee on Consumer Protection & Commerce hold this bill.

Thank you for the opportunity to testify.

Leslie Cole-Brooks
Executive Director
Hawaii Solar Energy Association



HOUSE COMMITTEE ON COMMERCE AND CONSUMER PROTECTION

February 25, 2013, 2:30 P.M.

Room 325

(Testimony is 5 pages long)

TESTIMONY IN OPPOSITION TO HB 1256

Chair McKelvey, Vice-Chair Kawakami, and members of the Committee:

The Blue Planet Foundation strongly **opposes** HB 1256, for the following reasons:

- HB 1256 proposes a solution to a problem that does not exist.
- HB 1256 will unfairly and detrimentally impact ratepayers – especially in neighborhoods with lower median incomes.
- Analysis of a recently released HECO annual report indicates that net energy metering (“NEM”) can have a net positive impact on Hawai’i’s ratepayers – even those ratepayers who do not currently participate in the NEM program. This result is contrary to the fundamental underlying assumptions of HB 1256.
- Recent analyses of mainland NEM programs support the conclusion that NEM benefits all ratepayers, and that “time-of-use” energy rates, not NEM “feed-in-tariff” rates, are an appropriate way to ensure that energy is paid for in an equitable manner. Time-of-use rates would also encourage energy efficiency at times when that efficiency is most valuable.
- HB 1256 is premature. The Hawai’i Public Utilities Commission (“PUC”) has indicated that it intends to review Hawai’i’s NEM program during 2013. HB thus 1256 threatens to impose legislative mandates on the NEM program before our regulator has provided necessary background information on that program.

For these reasons, we strongly oppose HB 1256 as written. A more equitable, effective, and efficient way to re-structure energy rates in Hawaii would be to require our utilities to implement time-of-use energy rates that tie the cost of energy more directly to the variable cost of generating and distributing electricity. We propose a wholesale revision of HB 1256 to accomplish such time-of-use rates.

HB 1256 IS BASED ON A FAULTY PREMISE

The fundamental assumption underlying HB 1256, as stated in section 1 of the bill, is that the current NEM program “does not incorporate recovery for costs for transmission and distribution [“T+D”] infrastructure, grid reliability, and other costs that are typically included in usage rates.” This statement is problematic, for at least five reasons.

First, the current NEM program already includes a substantial minimum monthly charge for fixed costs (approximately \$17), irrespective of how much energy is used by the customer. In comparison, California’s NEM programs utilize a much smaller \$6 minimum charge. Thus, Hawaii NEM participants are already contributing a substantial amount to utility fixed costs.

Second, to quantitatively assess the overall NEM “costs” associated with T+D and grid reliability, one must balance *both* the benefits and the costs of the program. For example, the California PUC “has approved avoided cost models with the following benefits:

- Avoided energy costs
- Avoided capacity costs for generation
- Reduced costs for ancillary services
- Lower line losses on the transmission and distribution system (T&D)
- Reduced investments in T&D facilities
- Lower costs for the utility’s purchase of other renewable generation.”¹

Evaluating such benefits in California, experts conclude that “[o]n average over the residential markets of the state’s three big [investor-owned utilities], NEM does not impose costs on non-participating ratepayers, and instead creates a small net benefit.”

Third, an evaluation of Hawai’i’s NEM program is consistent with the mainland findings, indicating that the NEM program can yield a net benefit to Hawai’i ratepayers exceeding \$690,000 per year. HECO’s January 2013 NEM Status Report includes an estimate of the energy consumed by NEM customers. From information in the same report, it is possible to calculate the energy generated by NEM participants:²

Energy Consumed by NEM Customers	Energy Generated by NEM Customers	Net Energy Generated/Consumed by NEM Customers
-135,764,955 kWh	+189,782,159 kWh	+54,017,204 kWh GENERATED

¹ See Beach & McGuire, *Evaluating the Benefits and Costs of Net Energy Metering in California* (Jan. 2013) (citing CAPUC decisions 05-04-024, 06-06-063, and 09-08-026).

² This value is obtained from HECO’s reported NEM capacity, applying an estimated 17% capacity factor. Note that in many of Hawaii’s sun zones, a capacity factor of greater than 17% is possible, such that NEM participants may be generating even more energy than estimated here.

This overgeneration is clean energy, donated to the grid, at no cost to the utility.³ Furthermore, that clean energy can be used by other ratepayers, reducing the effective load on the grid. And as a result, the utility can reduce fossil-fired generation, and save on fuel costs. Using data on fuel costs available from DBEDT, it is possible to calculate the potential fuel savings associated with the free excess NEM energy: \$12,770,099.

By comparing those fuel savings with HECO’s estimate of lost contributions to fixed costs in the NEM program, it becomes evident that the NEM program can yield a net benefit to ratepayers:

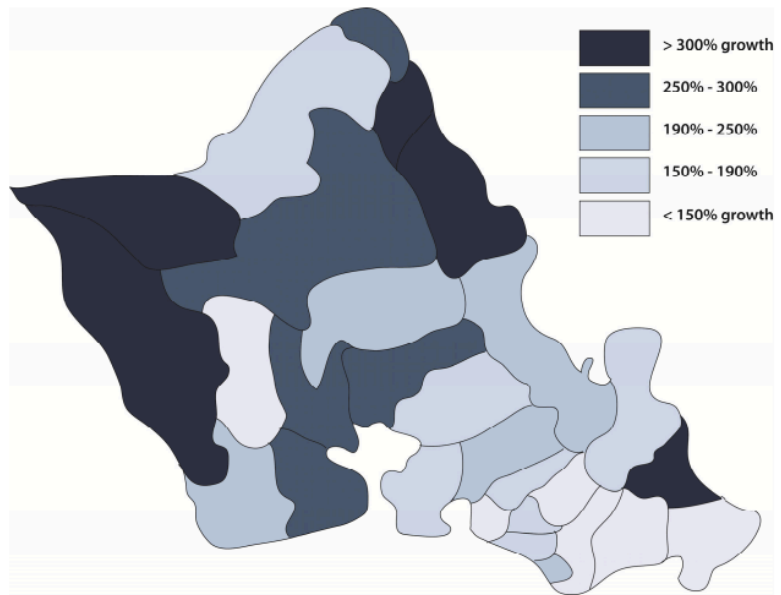
Lost NEM Base Rate Revenues	Fuel Value of Donated NEM Energy	Net Cost/Benefit
-\$12,073,501	+\$12,770,099	+\$696,598 BENEFIT

Notably, this analysis evaluates only one of the six benefits identified by the CAPUC. A full evaluation of other benefits, including reduced line losses reduced investment in T+D facilities, may reveal an even larger net benefit to non-NEM ratepayers. Moreover, none of these analyses include a full evaluation of the benefits of local energy in comparison to imported fossil fuels. For example, money that is not sent out of state to pay for imported fuels can continue to circulate in Hawaii’s economy, benefitting all residents and ratepayers.

Fourth, in earlier testimony to the House Committee on the Energy and Environment, on pending legislative bills, the Hawaii PUC indicated that in 2013 it will evaluate the NEM and feed-in-tariff programs. This was proffered as a reason not to adopt a community-based renewable energy program (HB 1363), which would have expanded the NEM program to customers who are currently unable to participate. That bill was deferred in order to allow the PUC’s evaluation to take place. Similarly, it would be premature to adopt HB 1256 as currently written.

³ See H.R.S. § 269-106(b): “Credits for excess electricity from the eligible customer-generator that remain unused after each twelve-month reconciliation period may not be carried over to the next twelve-month period.”

Fifth, the NEM program is a proven method of helping ratepayers to avoid our rising energy costs. Blue Planet has conducted an analysis of solar energy building permits on Oahu. That analysis shows that solar adoption from 2002-2011 was focused in neighborhoods such as Hawaii Kai, Kahala, and Mililani. In 2012, we saw a dramatic shift, with solar installations growing most rapidly in neighborhoods such as Waianae and Waimanalo. This shift shows that neighborhoods with lower median monthly incomes are now able to access solar energy. To re-write the NEM rate structure, just as these residents are accelerating their adoption of solar energy, would unfairly penalize those neighborhoods. And contrary to the intention of the bill, it would decrease the rate of uptake of solar energy, detrimentally limiting private investment in our clean energy infrastructure.



For all of the above reasons, it is apparent that HB 1256 is intended to solve a problem that doesn't exist, and imposes a solution that unfairly impacts ratepayers. We respectfully urge that the bill be deferred indefinitely.

TIME-OF-USE ELECTRICITY RATES WOULD BE A MUCH IMPROVED SOLUTION, FOR ALL RATEPAYERS

Rather than detrimentally attack the NEM participants as described above, HB 1256 could improve grid efficiency and reliability by requiring our utilities to implement time-of-use rates ("TOU rates") for all ratepayers.

TOU rates are widely used in other places (and are currently available for a small slice of Hawaii's ratepayers). The TOU strategy uses variable energy rates, which changes based on the time of day and other factors. In essence, TOU rate allow energy to be cheaper when more renewable energy is available, or when electricity demand is low. When less renewable energy is available, or when electricity demand is high, the price is higher. Overall, an average monthly electricity bill can remain the same. But by encouraging ratepayers to reduce their demand when the marginal cost of energy is highest, TOU rates empower ratepayers to reduce their

total energy bill by being shifting their energy use, and their efficiency, to times when it is most valuable to the grid. At the same time, TOU rates encourage solutions such as solar-thermal hot water, and can increase grid reliability.

Unlike the strategy outlined in the current version of HB 1256, TOU rates do not unfairly and prematurely attack NEM participants. Instead, TOU rates will benefit all ratepayers. Furthermore, TOU rates are an acknowledged mechanism for balancing the costs and benefits of the NEM program. For example, the CA NEM study referenced above concludes that wider adoption of TOU rates by NEM customers “will result in an increase in the net benefits to non-participating ratepayers from residential NEM.”

For all of these reasons, TOU rates are a far more effective solution for Hawaii’s energy challenges. We respectfully request that HB 1256 be amended such that the proposed changes to H.R.S. Ch. 269 are removed in their entirety, in favor of a single new section:

H.R.S. § 269-___: The public utilities commission shall instruct electric utilities to provide a plan and timetable for making time-of-use electricity rates, and other dynamic pricing options, available for all ratepayers in the state. Such plans shall be submitted to the commission no later than October 31, 2013, and shall demonstrate the ability to make time-of-use electricity rates accessible for all ratepayers by December 31, 2014. The commission shall evaluate each such plan, and approve such plan only if it is deemed to present a net benefit to ratepayers and grid reliability, and to empower ratepayers to reduce electricity costs; otherwise the subject electric utility shall be required to revise and resubmit the plan. The commission’s decision on each plan shall be made within four months of submission. If necessary, a revised plan will be submitted within three months of the commission’s decision. No electric utility may petition the commission on any rate issue unless and until its time-of-use plan is approved by the commission.

Thank you for this opportunity to testify.



Sierra Club Hawai'i Chapter

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HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE

February 25, 2013, 2:30 P.M.
(Testimony is 2 pages long)

TESTIMONY IN OPPOSITION TO HB 1256

Aloha Chair McKelvey and members of the Committee:

The Sierra Club, Hawaii Chapter, with over 10,000 dues paying members and supporters statewide, respectfully *opposes* HB 1256. The bill is would convert Hawaii's net metering to a feed-in-tariff program and, thus, disrupt one of the incentives that has allowed thousands of residents saving money on their electric bills.

Net metering is a proven program that encourages residents to "spin down their electric meter," by investing into clean, renewable energy. At least 34 states have created some variation of this widely-popular program.

States that have taken the time to analyze the cost/benefit of net metering have typically found little or no cost to other ratepayers. For example, a recent analysis of PG&E, the largest utility in California and perhaps the nation, found that net metering *does not impose a cost on other ratepayers*.¹

HB 1256 makes several incorrect assertions in its preamble. It presumes that net-metering does not encourage energy efficient behaviors. Studies have concluded otherwise; residents who have installed PV have subsequently installed more efficient lighting and appliances in a far greater level than non-PV residences. And while not conclusive, it appears the PV installation is the triggering factor -- investments in energy efficiency start or increase greatly *after* the installation of solar.

¹ Crossborder Energy. "Re-evaluating the Cost-Effectiveness of Net Energy Metering in California." January 2012. http://votesolar.org/wp-content/uploads/2012/03/Crossborder_NEM_Costs_Benefits.pdf

We shouldn't mess with success. 26% of construction of jobs in Hawaii came out of the solar industry last year. Each newly installed system reduces the need to construct massive, expensive power plants with all of their associated siting, environmental, and financial impacts. Rooftop solar also diversifies Hawaii's economy by creating thousands of green jobs and high-tech business opportunities.

Quite simply, a clean kilowatt from photovoltaic panels is worth much more for Hawaii than a dirty kilowatt from one of Hawaiian Electric's oil-fired power plants. A proven program that allows your constituents to invest in the power plants of tomorrow should be expanded, not put on the chopping block.

Mahalo for the opportunity to testify.



2/25/2013

House Committee on Finance

CPC

2:30 p.m.

HB 1256

TESTIMONY IN OPPOSITION

Dear Chair McKelvey, Vice Chair Kawakami, and Members of the Committee:

Hawaii PV Coalition **strongly opposes** HB 1256, which would substantially harm Hawaii's homeowners and small business owners who invest in solar systems in an attempt to reduce their ever-increasing energy costs. It would do this by making consumers pay more for energy that they receive from their utility than for energy that they provide to the utility under net metering contracts. And, in doing so, it would put Hawaii out of step with almost every other US state.

Worse yet, HB1256 attempts to take the state backwards in time without any empirical justification for doing so. No publicly available analysis of Hawaii's grids indicates that net metering provides any subsidy among ratepayers within the residential and commercial service classes. In other states, studies that have attempted to ascertain whether or not such a subsidy exists have typically found either that it does not, or that any subsidy is negligible, or that the benefits of net metering actually outweigh the costs. In California, which has the most PV installed of any state in the US, regulators have embarked on a regulatory examination of the costs and benefits of net metering. As part of this effort a recent study found that net metering provides an overall benefit to ratepayers in the state. Said another way, in California, costs associated with net metering are more than offset by the benefits net metering provides to all ratepayers.

In addition, the net metering program forms the bedrock of Hawaii's support for renewable energy. Hawaii residents that support renewable energy are, in fact, voicing support for small-scale net metered solar energy systems sited on homes and businesses. This claim is supported by a study conducted by the Blue Planet Foundation that found that solar energy is Hawaii residents' preferred form of renewable energy. On that survey, when asked to identify their preferred form of renewable energy "solar" actually beat "all kinds of renewable energy."

In summary, dismantling Hawaii's net metering program, as this measure attempts to do, will remove a program that marshals private capital to the cause of achieving Hawaii's statutory energy goals and erode support for renewable energy among the public.

Mark Duda
President, Hawaii PV Coalition

The Hawaii PV Coalition was formed in 2005 to support the greater use and more rapid diffusion of solar electric applications across the state. Working with business owners, homeowners and local and national stakeholders in the PV industry, the Coalition has been active during the state legislative sessions supporting pro-PV and renewable energy bills and helping inform elected representatives about the benefits of Hawaii-based solar electric applications.