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Statement of  
**Richard C. Lim,**  
Director  
Department of Business, Economic Development and Tourism  
before the  
**HOUSE COMMITTEES ON  
ENERGY AND ENVIRONMENT PROTECTION  
and  
HOUSING**

Tuesday, March 27, 2012  
11:30 a.m.  
State Capitol, Conference Room 325  
in consideration of  
**HCR 72**

**ENCOURAGING SINGLE-FAMILY RESIDENCE BUILDERS TO CONSIDER CERTAIN  
FACTORS THAT WILL FACILITATE INSTALLATION OF PHOTOVOLTAIC SYSTEMS  
WHEN CONSTRUCTING AND DEVELOPING SINGLE-FAMILY RESIDENCES.**

Chairs Coffman and Cabanilla, Vice Chairs Kawakami and Ito, and Members of the  
Committees.

The Department of Business, Economic Development and Tourism (DBEDT) **supports** House Concurrent Resolution 72, which recognizes the importance of encouraging builders of single-family residences in Hawaii to adopt, whenever practical, design features that would help facilitate the installation of photovoltaic systems on the rooftops of new homes. DBEDT supports the nine design elements listed in HCR 72. We believe, as the price of PV systems continue to fall, the installation of residential PV systems will become increasingly cost effective and will offer new home buyers a practical way of tapping into a clean energy source, thus helping our State reduce its reliance on imported oil.

Thank you for the opportunity to offer these comments in support of HCR 72.

**BIA-HAWAII**  
**BUILDING INDUSTRY ASSOCIATION**

**Testimony to House Committees on Energy & Environmental Protection and  
Housing**

Tuesday, March 27, 2012

11:30 a.m.

Capitol Room 325

**RE: House Concurrent Resolution 72, Encouraging Single-Family Residence Builders to  
Consider Certain Factors That Will Facilitate Installation of Photovoltaic Systems When  
Constructing and Developing Single-Family Residences**

Good morning Chairs Coffman and Cabanilla, Vice-Chairs Kawakami and Ito, and members of the Committees:

My name is Gladys Marrone, Government Relations Director for the Building Industry Association of Hawaii (BIA-Hawaii). Chartered in 1955, BIA-Hawaii is a professional trade organization affiliated with the National Association of Home Builders, representing the building industry and its associates. BIA-Hawaii takes a leadership role in unifying and promoting the interests of the industry to enhance the quality of life for the people of Hawaii.

While BIA-Hawaii supports the intent behind this resolution, for the reasons that follow, BIA-Hawaii respectfully cannot support HCR 72.

House Concurrent Resolution 72 is contrary to the findings of the working group that studied the feasibility of requiring all new single-family residential construction incorporate design elements to make the structure photovoltaic-ready at the time of initial construction. They found that a mandate to incorporate design elements to make structures PV-ready at the time of initial construction could ultimately result in relatively little cost savings.

The photovoltaic (PV) industry has changed in the last 2-3 years. According to a recent a discussion with a large PV contractor, as many as 50% of the systems are using "micro inverters" (on roof) and the other 50% may use "central" inverters (on ground), which changes the design criteria. Builders only have a 50% chance of getting it right, due also in part to the tax incentive structure. At this time, it does not make sense to pre-wire for a future PV system of unknown specifications. Reasons may include:

- Builders cannot effectively design PV systems to meet unknown system and occupant requirements (system size & specifications);
- Each home has a different solar orientation;
- Multiple "disconnects" or a single "disconnect" may be required, which can change the pre-wire design (unknown until final system design)
- Multiple "systems" and inverters may used
- The definition of a "system," as related to the tax code, may change
- The inverter can be on the roof or on the ground

Reps. Coffman and Cabanilla  
Chairs, Energy & Environment and Housing  
March 27, 2012  
BIA-Hawaii testimony

The needs of each home must be assessed by a PV professional who considers occupant load, PV budgets, orientation, tax incentives, and the structure. Each household need is not determinable until the homeowners move in.

A single pre-wire design that works for all conditions is difficult to establish based on known criteria and changing technology. Many or most pre-wires may go abandoned or unused. Until the industry and the tax code for rebates settles down, all of the potential system variables for a pre-wire that is usable in all cases cannot be accurately predicted, which can result in excessive costs.

BIA-Hawaii supports the Legislature's efforts to pursue renewable energy sources such as geothermal and wind to help Hawaii residents reduce their reliance on foreign oil.

BIA-Hawaii believes the idea behind HCR 72 is an admirable one, however, we believe it does not, and will not work at the present time.

Thank you for the opportunity to express our views.