

---

---

# SENATE CONCURRENT RESOLUTION

ENCOURAGING SINGLE-FAMILY RESIDENCE BUILDERS AND COUNTIES TO  
CONSIDER CERTAIN FACTORS THAT WILL FACILITATE INSTALLATION  
OF PHOTOVOLTAIC SYSTEMS DURING THE CONSTRUCTION AND  
DEVELOPMENT OF SINGLE-FAMILY RESIDENCES.

1           WHEREAS, the installation of photovoltaic systems on  
2 existing structures can be hindered by initial construction  
3 design features that limit the physical space available for  
4 installation of photovoltaic systems and related equipment; and  
5

6           WHEREAS, Act 198, Session Laws of Hawaii 2011, established  
7 a working group to study the feasibility of requiring all new  
8 single-family residential construction to incorporate design  
9 elements to make the structure photovoltaic-ready at the time of  
10 initial construction; and  
11

12           WHEREAS, the working group considered strategies for  
13 facilitating the widespread adoption of photovoltaic systems  
14 including:  
15

- 16           (1) Incorporating specific design elements in new  
17 residential structures to make the structures  
18 photovoltaic-ready;  
19
- 20           (2) Minimizing retrofitting and equipment installation for  
21 future photovoltaic accommodation;  
22
- 23           (3) Labeling blueprints with details of photovoltaic  
24 system accommodations and connections; and  
25
- 26           (4) Identifying areas in the State where the use of  
27 photovoltaic systems would be impractical or where  
28 other renewable energy resources are more readily  
29 available; and  
30



1           WHEREAS, after considering strategies, discussing relevant  
 2 issues, and investigating alternatives, the working group  
 3 determined that technology advancement could ultimately render  
 4 obsolete a policy mandating the incorporation of design elements  
 5 to make structures photovoltaic-ready at the time of initial  
 6 construction; and

7  
 8           WHEREAS, a policy mandating the incorporation of design  
 9 elements to make structures photovoltaic-ready at the time of  
 10 initial construction could ultimately result in relatively  
 11 little cost savings depending upon the choices of developers and  
 12 consumers; and

13  
 14           WHEREAS, the working group recommends against a policy  
 15 mandating incorporation of design elements and minimal equipment  
 16 installation to make structures photovoltaic-ready at the time  
 17 of initial construction; and

18  
 19           WHEREAS, despite the working group's recommendation,  
 20 certain factors should be considered during the construction of  
 21 single-family residences to facilitate the installation of  
 22 photovoltaic systems in the future; now, therefore,

23  
 24           BE IT RESOLVED by the Senate of the Twenty-sixth  
 25 Legislature of the State of Hawaii, Regular Session of 2012, the  
 26 House of Representatives concurring, that single-family  
 27 residence builders and counties are encouraged to consider  
 28 certain factors to facilitate installation of photovoltaic  
 29 systems during the construction and development of single-family  
 30 residences, including whether:

- 31
- 32           (1) A structure has a south-facing roof orientation with a
  - 33                 slope of approximately twenty-two degrees for good
  - 34                 solar exposure;
  - 35
  - 36           (2) A structure's roof area is adequate to accommodate
  - 37                 multiple solar uses, such as solar water heating and
  - 38                 photovoltaic energy systems;
  - 39
  - 40           (3) The structural integrity is adequate to accommodate
  - 41                 photovoltaic panels and counteract wind loading, also
  - 42                 known as up-lift;
  - 43



- 1 (4) A structure's blueprints are labeled with photovoltaic  
2 system components;
- 3
- 4 (5) A structure's electrical panel capacity is sufficient  
5 to accommodate the total power coming into the  
6 building from all sources, including power from the  
7 electric utility grid and photovoltaic energy;
- 8
- 9 (6) A structure's electrical panel location is convenient  
10 for photovoltaic system interconnections;
- 11
- 12 (7) A structure's electrical panel contains adequate space  
13 to house one or more photovoltaic system inverter  
14 output circuits;
- 15
- 16 (8) A structure has an electrical conduit that connects  
17 the most appropriate solar collection location to the  
18 electrical panel and other relevant electrical  
19 components; and
- 20
- 21 (9) The combination of design and orientation of the  
22 structure precludes production of power from a  
23 photovoltaic energy system that will fully satisfy the  
24 structure's electrical load requirements; and
- 25

26 BE IT FURTHER RESOLVED that certified copies of this  
27 Concurrent Resolution be transmitted to the mayors of each  
28 county and the directors of the respective county building  
29 departments.

