THE SENATE
THIRTY-THIRD LEGISLATURE, 2025
STATE OF HAWAII

S.B. NO. 1090

JAN 17 2025

A BILL FOR AN ACT

RELATING TO ENERGY.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. The legislature finds that meeting the State's goal of transitioning completely to renewable energy by 2045 for electricity and transportation is most cost-efficient when certain measures are taken during the construction of new homes rather than as retrofits after construction has already been completed.

The legislature further finds that when undertaken during home construction, preparation for the future installation of infrastructure for photovoltaic systems and electric vehicles can leverage existing work activities with minimal additional time and effort. In contrast, retrofitting a completed home to install photovoltaic infrastructure may require breaking and repairing walls, installing longer conduits, and performing expensive upgrades of already-installed electric service panels. Retrofitting a finished home to install electric vehicle infrastructure may also require trenching, demolition, and re-paving. Furthermore, the costs for permitting, inspection, and

project management are lower for new construction than for existing structures.

On February 18, 2020, the office of climate change, sustainability and resiliency of the city and county of Honolulu provided cost estimates for certain measures passed by the Honolulu city council in order to make new homes photovoltaic- and electric vehicle-ready. The cost estimate for solar conduit- and electric panel-readiness and electric vehicle-readiness ranges from $100 to $300.

The city and county of Honolulu enacted a measure to require solar conduit- and electrical panel-readiness for new construction and a measure to require electric vehicle-readiness when an electrical panel and parking area are installed. The legislature finds that these important actions should be adopted statewide.

Therefore, the purpose of this Act is to require, beginning on January 1, 2026:

(1) Solar conduit- and electrical panel-readiness for new residential construction offered for sale at fair market value; and

(2) Electric vehicle-readiness when an electrical panel and parking area are installed.

SECTION 2. Chapter 196, Hawaii Revised Statutes, is amended by adding two new sections to be appropriately designated and to read as follows:

"**§196-A Photovoltaic infrastructure; new residential construction.** (a) With respect to the construction of new residences, construction plans shall indicate:

(1) A location for inverters, metering equipment, battery equipment, energy storage equipment, and other equipment to interconnect a residence with on-site solar energy generation facilities with the electric grid in compliance with all applicable laws and utility tariffs; and

(2) A pathway for the routing of conduits from the solar panel location to the point of interconnection with electrical service.

(b) An electrical panel with the capacity to accommodate no less than a five-kilowatt alternating current photovoltaic system shall be installed for each newly constructed single-

family residence or each residential unit within a two-family, detached residence or duplex.

(c) An electrical panel that includes reserved space to accommodate a photovoltaic system shall be installed for each newly constructed multi-family residence. The electrical panel shall be sized:

(1) To serve common-area electrical loads; or

(2) To the amount of available space on the roof of the multi-family residence.

The reserved space shall be clearly labeled "solar photovoltaic-ready".

(d) All feeders and electrical distribution equipment, including switchgear, switchboards, and panelboards, that will be fed simultaneously by the electric grid and other power sources shall be sized to support the installation of future solar energy generation systems in accordance with the interconnection requirements of the applicable electrical code.

(e) Conduits of no less than one and one-half inches that provide a pathway from the electrical panel to the inverter location and from the inverter location to the underside of the

roof sufficient to allow future installation of solar equipment shall be installed for all newly constructed residences.

(f) If conduits are to be installed between buildings or other structures, the construction plans shall provide sufficient details to demonstrate that compliance with the applicable electrical code's restrictions on the number of power supplies to each building or other structure has been examined.

(g) This section shall apply only to buildings exclusively occupied by residential units offered for sale at fair market value.

(h) As used in this section:

"Residential unit" means each individual dwelling in a two-family detached residence or duplex that is designed or used exclusively for residential occupancy and has all necessary facilities for permanent residency, such as living, sleeping, cooking, eating, and sanitation.

"Single-family residence" means an individual, freestanding, unattached dwelling unit, typically built on a lot larger than the structure itself, resulting in an area surrounding the dwelling.

"Two-family detached residence" means a freestanding, unattached dwelling unit that is intended or designed to be occupied by only two families in the following manner:

(1) The individual residential units are constructed side by side and joined by a common wall; or

(2) One residential unit is located on the first floor and the other residential unit is located on the second floor.

§196-B Electric vehicle-readiness. (a) In addition to the requirements of the applicable electrical code, if an application for a building permit involves the installation of an electrical panel and parking area for:

(1) A multi-family residence of three or fewer stories; or

(2) A single-family residence, two-family detached residence, or duplex,

a dedicated receptacle for an electric vehicle shall be provided with a minimum alternating current level 2.

(b) As used in this section:

"Residential unit" has the same meaning as in section 196-A.

"Single-family residence" has the same meaning as in section 196-A.

"Two-family detached residence" has the same meaning as in section 196-A."

SECTION 3. In codifying the new sections added by section 2 of this Act, the revisor of statutes shall substitute appropriate section numbers for the letters used in designating the new sections in this Act.

SECTION 4. New statutory material is underscored.

SECTION 5. This Act shall take effect on January 1, 2026.

INTRODUCED BY: _____

S.B. NO. 1090

Report Title:
Photovoltaic Systems and Electric Vehicles; Readiness; New Residential Construction

Description:
Requires solar conduit- and electrical panel-readiness for new residential construction offered for sale at fair market value and electric vehicle-readiness when an electrical panel and parking area are installed. Effective 1/1/2026.

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