
A BILL FOR AN ACT

RELATING TO ELECTRIC VEHICLES.

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

1 SECTION 1. The legislature finds that Hawaii currently has
2 over one million gasoline-powered vehicles on its roads, which
3 emit nearly five million metric tons of climate-changing carbon
4 pollution annually. The legislature also finds that Hawaii
5 residents, businesses, and visitors spent over \$1,700,000,000 on
6 gasoline in 2019.

7 Electric vehicles play an integral role in Hawaii's clean
8 energy future. The legislature finds that electric vehicles are
9 much less expensive to power per mile than gasoline-powered
10 vehicles. By using stored electrical energy, electric vehicles
11 can take advantage of intermittent solar, wind, and other clean
12 energy resources.

13 With the continued growth of an intelligent electricity
14 grid, electric vehicles become an essential component to
15 electricity load and clean energy resource balancing. Electric
16 vehicles also provide clean mobility solutions for Hawaii
17 residents and visitors.



1 The legislature finds that just over one per cent of all
2 registered vehicles in Hawaii are electric. This number is
3 expected to rise exponentially as more electric vehicles come to
4 market, vehicle ranges increase, and the cost of electric
5 vehicles decreases. In fact, the number of registered electric
6 vehicles in Hawaii increased about twenty per cent during 2020,
7 while the number of registered gasoline-powered vehicles
8 decreased about three per cent.

9 While there is growing interest in electric vehicles among
10 Hawaii residents, the lack of adequate vehicle charging
11 infrastructure presents a key barrier to their acquisition. The
12 International Energy Agency has found that the availability of
13 chargers emerged as one of the key factors for contributing to
14 the market penetration of electric vehicles. More than eighty
15 per cent of electric vehicle drivers charge their cars at home
16 or at work; however, a large share of Hawaii's population lives
17 in high density, multi-family dwellings, and the vast majority
18 of parking facilities in these buildings currently are not being
19 built to accommodate electric vehicle chargers.

20 The legislature further finds that requiring that all new
21 parking stalls be electric vehicle ready will result in



1 significant long-term savings for residents. When electric
2 vehicle readiness is considered in the design of a building or
3 parking area, decisions about the lowest cost layout can be
4 made, thereby allowing building owners and operators to reduce
5 the financial burden of modifying or upgrading electrical
6 systems later. It also helps to avoid additional construction
7 costs and the means of trenching or boring to lay conduit for
8 electric vehicle charger installation.

9 Realizing that residents would save about ninety per cent
10 on electric vehicle charger installation costs if parking stalls
11 were built in advance to be electric vehicle charger ready,
12 rather than retrofitted post-construction, the city of
13 Vancouver, British Columbia, required that all non-visitor
14 parking stalls be electric vehicle charger ready starting
15 January 2019. To be electric vehicle charger ready, parking
16 stalls need sufficient wire, conduit, electrical panel service
17 capacity, overcurrent protection devices, and suitable
18 termination points to connect to an electric vehicle charger.
19 Vancouver's law allows for an energy management system to
20 control the overall electricity demand from the electric vehicle



1 charging, thereby reducing the upfront electrical capacity
2 investment.

3 In addition, electric vehicle charger ready buildings in
4 the public domain are essential for individuals who visit
5 government buildings for public services and who work there.
6 The legislature finds that electric vehicle charging
7 infrastructure in state buildings will help pave the way for
8 addressing current and future growing electric vehicle charging
9 needs.

10 The purpose of this Act is to prohibit the issuance of
11 building permits for certain new multi-family residential
12 building and commercial building applications and new state
13 building applications initiated on or after January 1, 2022,
14 unless the building's parking stalls are electric vehicle
15 charger ready.

16 SECTION 2. Chapter 103, Hawaii Revised Statutes, is
17 amended by adding a new section to part II to be appropriately
18 designated and to read as follows:

19 "§103- Electric vehicle charger ready; new state
20 buildings. (a) On or after January 1, 2022, no building permit
21 shall be issued for any new state building, unless the



1 building's parking stalls are electric vehicle charger ready as
2 defined in this section; provided that this section shall not
3 apply to building permits issued for applications that were
4 initiated prior to January 1, 2022.

5 (b) Buildings subject to the requirements of subsection (a)
6 may implement an electric vehicle energy management system;
7 provided that the electric vehicle energy management system is
8 capable of providing no less than forty kilowatt-hours of
9 electricity to each parking stall over a twenty-four-hour
10 period.

11 (c) As used in this section:

12 "Electric vehicle charger ready" means having sufficient
13 wire, conduit, raceway, termination point, and electrical panel
14 capacity suitable to provide Level 2 charging consistent with an
15 "alternating current Level 2 charging station" as that term is
16 defined in section 269-72.

17 "Electric vehicle energy management system" means a system
18 used to control electric vehicle charger loads through the
19 process of connecting, disconnecting, increasing, or reducing
20 electric power to the loads."



1 SECTION 3. Chapter 196, Hawaii Revised Statutes, is amended
2 by adding a new section to part I to be appropriately designated
3 and to read as follows:

4 "§196- Electric vehicle charger ready; new multi-family
5 residential buildings and new commercial buildings. (a) On or
6 after January 1, 2022, no building permit shall be issued for
7 any new:

8 (1) Multi-family residential building that has ten or more
9 parking stalls; or

10 (2) Commercial building that has twenty or more parking
11 stalls,

12 unless the building's parking stalls are electric vehicle
13 charger ready as defined in this chapter; provided that this
14 section shall not apply to building permits issued for
15 applications that were initiated prior to January 1, 2022.

16 (b) Buildings subject to the requirements of subsection (a)
17 may implement an electric vehicle energy management system;
18 provided that the electric vehicle energy management system is
19 capable of providing no less than forty kilowatt-hours of
20 electricity to each parking stall over a twenty-four-hour
21 period."



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1 SECTION 4. Section 196-2, Hawaii Revised Statutes, is
2 amended by adding two new definitions to be appropriately
3 inserted and to read as follows:

4 ""Electric vehicle charger ready" means having sufficient
5 wire, conduit, raceway, termination point, and electrical panel
6 capacity suitable to provide Level 2 charging consistent with an
7 "alternating current Level 2 charging station" as that term is
8 defined in section 269-72.

9 "Electric vehicle energy management system" means a system
10 used to control electric vehicle charger loads through the
11 process of connecting, disconnecting, increasing, or reducing
12 electric power to the loads."

13 SECTION 5. New statutory material is underscored.

14 SECTION 6. This Act shall take effect on July 1, 2021.

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INTRODUCED BY: *Nicole E. Lowen*

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H.B. NO. 1140

Report Title:

Electric Vehicles; Charger Ready Parking Stalls; New
Construction Permits

Description:

Prohibits the issuance of certain new residential multi-family and commercial building application permits and new state building application permits initiated on or after January 1, 2022, unless the building's parking stalls are electric vehicle charger ready. Allows such buildings to implement an electric vehicle energy management system.

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