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# 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 further finds that electric  
9 vehicles are much less expensive to power per mile than  
10 gasoline-powered vehicles. By using stored electrical energy,  
11 electric vehicles can take advantage of intermittent solar,  
12 wind, and other clean 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 also 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  
6 subsection (a) may implement an electric vehicle energy  
7 management system; provided that the electric vehicle energy  
8 management system is capable of providing no less than 3.4  
9 kilowatts of electricity to each parking stall.

10 (c) As used in this section:

11 "Electric vehicle charger ready" means having sufficient  
12 wire, conduit, raceway, termination point to support a minimum  
13 of 40-ampere, 208 or 240-volt branch circuit, and electrical  
14 panel capacity suitable to provide Level 2 charging consistent  
15 with an "alternating current Level 2 charging station" as that  
16 term is 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  
17 subsection (a) may implement an electric vehicle energy  
18 management system; provided that the electric vehicle energy  
19 management system is capable of providing no less than 3.4  
20 kilowatts of electricity to each parking stall."



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 to support a minimum  
6 of 40-ampere, 208 or 240-volt branch circuit, and electrical  
7 panel capacity suitable to provide Level 2 charging consistent  
8 with an "alternating current Level 2 charging station" as that  
9 term is defined in section 269-72.

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

14 SECTION 5. Section 269-72, Hawaii Revised Statutes, is  
15 amended by amending subsection (j) to read as follows:

16 "(j) As used in this section:

17 "Alternating current Level 2 charging station", commonly  
18 referred to as "Level 2 charging station", means an electric  
19 vehicle charging system that utilizes alternating current  
20 electricity providing at least three kilowatts and means a  
21 system that:



- 1 (1) Is capable of providing electricity from a non-vehicle
- 2 source to charge the batteries of one or more electric
- 3 vehicles;
- 4 (2) Meets recognized standards and protocols including,
- 5 but not limited to, Society of Automotive Engineers
- 6 (SAE) J1772™ of SAE International [~~and~~] or Tesla
- 7 protocol; and
- 8 (3) Is designed and installed in compliance with
- 9 article 625 of the National Electrical Code to
- 10 appropriate Nationally Recognized Testing
- 11 Laboratories' standards.

12 "Applicant" means an individual; non-profit or for-profit  
13 corporation; local, state, or federal government agency;  
14 homeowner association; or any other eligible entity as defined  
15 under rules adopted for the electric vehicle charging system  
16 rebate program.

17 "Direct current fast charging system", commonly referred to  
18 as "DC fast charging system", means an electric vehicle charging  
19 system that utilizes direct current electricity providing forty  
20 kilowatts or greater and:





- 1 (1) Is capable of providing electricity from a non-vehicle  
2 source to charge the batteries of one or more electric  
3 vehicles;
- 4 (2) Meets recognized standards and protocols, including,  
5 but not limited to, Society of Automotive Engineers  
6 (SAE) J1772™ of SAE International, Tesla protocol,  
7 [~~and~~] or CHAdeMO protocol; and
- 8 (3) Is designed and installed in compliance with  
9 article 625 of the National Electrical Code to  
10 appropriate Nationally Recognized Testing  
11 Laboratories' standards.

12 "Electric vehicle charging system" has the same meaning as  
13 Electric Vehicle Supply Equipment as defined in article 625.2 of  
14 the National Electrical Code, as amended."

15 SECTION 6. Statutory material to be repealed is bracketed  
16 and stricken. New statutory material is underscored.

17 SECTION 7. This Act shall take effect on July 1, 2050.



**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. Effective 7/1/2050. (HD1)

*The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.*

