THE SENATE
THIRTY-FIRST LEGISLATURE, 2021
STATE OF HAWAII

S.B. NO. 773

JAN 22 2021

A BILL FOR AN ACT

RELATING TO ELECTRIC VEHICLES.

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

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

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

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

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

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

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

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

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

charging, thereby reducing the upfront electrical capacity investment.

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

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

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

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

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

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

(c) As used in this section:

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

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

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

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

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

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

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

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

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

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

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

SECTION 5. New statutory material is underscored.

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

INTRODUCED BY: _____

S.B. NO. 773

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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