

This document has been prepared as part of the implementation project of Legal Pathways to Deep Decarbonization (Michael B. Gerrard and John C. Dernbach, eds. Environmental Law Institute [2019]) (LPDD). For background information on the project, see <https://lpdd.org>

MODEL ORDINANCE ON DESIGNATION OF PARKING SPACES FOR ELECTRIC VEHICLES AND INSTALLATION OF ELECTRIC CHARGING DEVICES

INTRODUCTORY MEMORANDUM

In the United States, the transportation sector accounts for 28% of the total energy consumed, 72% of petroleum usage and about a third of GHG emissions.^{1/} Cars and trucks use about half the total energy consumed by the transportation sector, which also includes trains, subways, planes, ships and other water craft.

To reduce the United States' greenhouse gas emissions by at least 80% from 1990 levels by 2050 will require legal pathways for increased fuel economy standards in excess of 100 miles per gallon for light duty vehicles such as cars and sport utility vehicles and deployment of approximately 300 million alternative fuel vehicles, specifically hydrogen fuel cell vehicles ("HFCV"), battery electric vehicles ("BEV"), plug-in hybrid vehicles ("PHEV") and simple hybrid electric vehicles ("HEV") that recharge predominantly through regenerative braking. We collectively refer to all four as Alternative Fuel Vehicles ("AFVs"). "The goal is to shift 80%-95% of the miles driven from gasoline to lower carbon energy sources like electricity and hydrogen."^{2/} One pathway is for federal, state and local governments to encourage more AFVs by facilitating the development of charging infrastructure and providing parking benefits, such as parking spaces for the exclusive use by electric vehicles.³

The model ordinance is designed to incentivize the purchase and use of BEVs and PHEVs by requiring the installation in public accommodations of electric vehicle charging stations at parking spaces designated for the exclusive use of such electric vehicles. It is based on Hawaii Revised Statutes, Sections 291-71 and 292-72, but departs from those sections (which were enacted ten years ago and only set targets for 2012) by: (i) requiring many more designated and appropriately equipped parking spaces beginning in 2020, and (ii) increasing the requirements at five-year intervals, such that by 2040 50% of spaces in public garages with fifty or more spaces must be designated and equipped for EV charging. The ambitious mandate of 50% by 2040 is consonant with the goal of shifting 80%-95% of the miles driven from gasoline to lower carbon energy sources such as electricity and hydrogen by 2050.

The model ordinance includes an option (Section 3(a), Option 2), by which owners of multiple parking facilities may designate and electrify fewer parking spaces than required in one or more

^{1/} U.S. Energy Information Agency: Annual Energy Review: 2011 (2012), *available at* <http://www.eia.gov/totalenergy/data/annual/>. *See also*, <http://www.eia.gov/todayinenergy/detail.php?id=29612>.

^{2/} *Legal Pathways to Deep Decarbonization in the United States* 343 (Michael Gerrard & John Dernbach eds., Environmental Law Institute, 2019). *See also*, Chris Gearhart, *Implications of Sustainability for United States Light-Duty Transportation Sector*, 3 MRS Energy & Sustainability 1, 7 n.6 (2016).

³ Gerrard and Dernbach at 360 & 368.

This document has been prepared as part of the implementation project of Legal Pathways to Deep Decarbonization (Michael B. Gerrard and John C. Dernbach, eds. Environmental Law Institute [2019]) (*LPDD*). For background information on the project, see <https://lpdd.org>

of their owned properties, provided that the scheduled requirement is met for the total number of aggregate spaces on all their owned properties.