

Senate Bill No. 59

Passed the Senate August 31, 2024

Secretary of the Senate

Passed the Assembly August 30, 2024

Chief Clerk of the Assembly

This bill was received by the Governor this _____ day
of _____, 2024, at _____ o'clock ____M.

Private Secretary of the Governor

CHAPTER _____

An act to add Chapter 8.8 (commencing with Section 44269) to Part 5 of Division 26 of the Health and Safety Code, relating to transportation electrification.

LEGISLATIVE COUNSEL'S DIGEST

SB 59, Skinner. Battery electric vehicles: bidirectional capability.

Existing law requires the State Air Resources Board to adopt and implement motor vehicle emission standards, in-use performance standards, and motor vehicle fuel specifications for the control of air contaminants and sources of air pollution that the state board has found necessary, cost effective, and technologically feasible. The California Global Warming Solutions Act of 2006 establishes the state board as the state agency responsible for monitoring and regulating sources emitting greenhouse gases and requires the state board to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emission reductions from those sources.

This bill would authorize the State Energy Resources Conservation and Development Commission (Energy Commission), in consultation with the state board and the Public Utilities Commission, to require any weight class of battery electric vehicle to be bidirectional capable, as defined, if it determines there is a sufficiently compelling beneficial bidirectional-capable use case to the battery electric vehicle operator and electrical grid. The bill would require the Energy Commission, in its analysis, to consider vehicle readiness and duty cycles required of vehicles operated by essential service providers. The bill would define various terms for this purpose and authorize the state board and Energy Commission to each periodically update the definitions of specified terms to ensure that the definitions align with current technologies in bidirectional charging and account for ongoing innovation.

The people of the State of California do enact as follows:

SECTION 1. The Legislature finds and declares all of the following:

(a) The State Energy Resources Conservation and Development Commission estimates that California will have 7,200,000 electric vehicles by 2030 and 14,100,000 by 2035.

(b) To achieve the policy of the state to use 100 percent clean electricity by 2045, the commission estimates the state will require an eightfold increase in energy storage.

(c) Electric vehicle batteries are an untapped and inexpensive source of energy storage that can provide flexible grid support.

(d) Integrating battery electric vehicles into the grid may provide benefits to ratepayers, including by increasing electrical grid asset utilization, avoiding otherwise necessary distribution infrastructure upgrades, promoting renewable energy resources, and reducing the cost of supplying electricity.

(e) Bidirectional-capable battery electric vehicles can provide individual or fleet owners with benefits, including backup energy during emergencies and relief from peak-use charges.

(f) The Electric Power Research Institute has estimated that vehicle grid integration could save California \$1 billion annually.

SEC. 2. Chapter 8.8 (commencing with Section 44269) is added to Part 5 of Division 26 of the Health and Safety Code, to read:

CHAPTER 8.8. ELECTRIC VEHICLES

44269. For purposes of this chapter, the following definitions apply, unless updated pursuant to Section 44269.1:

(a) “Battery electric vehicle” means a vehicle that operates solely by use of an electric battery or battery pack, or that is powered primarily through the use of an electric battery or battery pack but uses a flywheel or capacitor that stores energy produced by the electric motor or through regenerative braking to assist in vehicle operation.

(b) “Beneficial bidirectional-capable use case” means the usage of bidirectional-capable battery electric vehicles and bidirectional electric vehicle service equipment in a manner that results in electrical reliability and resiliency benefits and cost savings to the

battery electric vehicle operator and is compatible with battery electric vehicle operator needs.

(c) “Bidirectional-capable vehicle” means a battery electric vehicle capable of both charging and discharging electricity.

(d) “Bidirectional charging” means a charging capability that enables a battery electric vehicle to be charged by either the electrical grid or an onsite clean energy resource, and to discharge stored energy capacity through electric vehicle service equipment to either serve load or export it to the electrical grid.

(e) “Bidirectional electric vehicle service equipment” means electric vehicle service equipment capable of both charging and discharging electricity from a battery electric vehicle.

(f) “Board” means the State Air Resources Board.

(g) “Commission” means the State Energy Resources Conservation and Development Commission.

(h) “Electric vehicle service equipment” has the same meaning as defined in Section 44268.

44269.1. (a) The board may periodically update the definitions for both of the following terms provided in Section 44269 to ensure that the definitions align with current technologies in bidirectional charging and account for ongoing innovation:

- (1) Battery electric vehicle.
- (2) Bidirectional-capable vehicle.

(b) The commission may periodically update the definitions for the following terms provided in Section 44269 to ensure that the definitions align with current technologies in bidirectional charging and account for ongoing innovation:

- (1) Beneficial bidirectional-capable use case.
- (2) Bidirectional charging.
- (3) Bidirectional electric vehicle service equipment.
- (4) Electric vehicle service equipment.

44269.2. (a) (1) The commission, in consultation with the board and the Public Utilities Commission, may require any weight class of battery electric vehicle to be bidirectional-capable if it determines there is a sufficiently compelling beneficial bidirectional-capable use case to the battery electric vehicle operator and electrical grid.

(2) In its analysis, the commission shall consider vehicle readiness and duty cycles required of vehicles operated by essential service providers.

(b) This section does not prohibit the board from crediting a manufacturer of a battery electric vehicle that voluntarily includes bidirectional capability for that battery electric vehicle weight class.

Approved _____, 2024

Governor