

## OLR Bill Analysis

### sHB 5510 (as amended by House "A")\*

#### ***AN ACT CONCERNING ELECTRIC, ZERO EMISSION AND FUEL CELL ELECTRIC VEHICLES.***

#### **SUMMARY:**

This bill requires the Public Utilities Regulatory Authority (PURA) to require electric distribution companies (EDCs, i.e., Eversource and United Illuminating) to integrate electric vehicle charging load projections into their distribution planning. It also requires the Department of Motor Vehicles (DMV) to collect and make available certain information on electric vehicles in the state. The bill adds an analysis of electric vehicles to the required contents of the state's integrated resource plan.

The bill also establishes requirements for public electric vehicle charging stations, including restrictions on what types of vehicles may park in such stations, disclosure requirements for the stations' location and characteristics, subscription and payment requirements, and annual registration requirements. Under the bill, owning an electric vehicle charging station does not alone confer the status and regulatory requirements of a utility, public utility, or public service company.

Current law requires, within one year, PURA to determine whether it is appropriate for EDCs to implement electric vehicle time of day rates and certain municipal electric companies to determine whether such rates are appropriate for them. The bill instead requires PURA and the municipal electric companies to make their determinations by July 1, 2017. The bill specifies that the considered rates are for residential and commercial customers and expands the rates to include consideration of non-public charging stations and those that are not free of charge.

The bill makes two exceptions to the law concerning vehicles that use pressurized gas as a fuel. Current law requires vehicles in the state that carry pressurized gas for fuel in a tank attached to the vehicle in any concealed area to display "Pressurized Flammable Gas," or another standard abbreviation determined by the Office of the State Fire Marshal, on the vehicle's exterior. The bill exempts vehicles that comply with applicable federal codes and standards for light duty passenger use from the labelling requirement. Current law prohibits motor vehicles that use pressurized gas for fuel to enter or park in any area under grade level but exempts natural gas-fueled vehicles from this prohibition. The bill also exempts hydrogen-fueled vehicles.

\*House Amendment "A" establishes a new deadline for PURA and municipal utilities to determine whether electric vehicle time of day rates are appropriate, rather than requiring them to implement such rates. It also makes minor, technical, and conforming changes.

EFFECTIVE DATE: July 1, 2016

### **§§ 1 & 2 — DMV DATA COLLECTION**

#### ***Required Data and Frequency***

Under the bill, by January 1, 2018, the DMV must record the number of electric vehicles registered in Connecticut. The DMV must make the information public on its website and include the (1) number of electric vehicles registered in the state each year and (2) total number of electric vehicles registered in the state. The bill requires the DMV to update this information every six months.

#### ***Electric Vehicles***

Under the bill, electric vehicles include:

1. battery electric vehicles, which are (a) vehicles operated solely by a battery or battery pack or (b) powered primarily in this way and use a flywheel or capacitor that stores energy produced by an electric motor or through regenerative braking to assist in vehicle operation;
2. fuel cell electric vehicles, which are vehicles that operate solely by use of a fuel cell (i.e., a device that directly or indirectly produces electricity directly from hydrogen or hydrocarbon fuel through a noncombustive electro-chemical process);
3. range-extended battery electric vehicles, which are vehicles (a) powered mainly by a zero-emission energy storage device, (b) with a manufacturer rating of more than 75 all-electric miles, and (c) equipped with a backup auxiliary power unit that does not operate until the energy storage device is fully depleted; and
4. plug-in hybrid electric vehicles, which the bill defines as hybrid electric vehicles (see below) with the capacity to charge the battery or batteries used for vehicle propulsion from an off-vehicle electric source that cannot be connected to the vehicle while the vehicle is in motion.

Under the bill, hybrid electric vehicles are motor vehicles that allow power to be delivered to the driver wheels solely by a battery-powered electric motor that also uses a combustion engine to provide power to the battery, or any vehicle allowing a combustion engine or battery-powered motor to deliver power to the driver wheels, or both. Only plug-in hybrid electric vehicles are subject to the bill's provisions concerning electric vehicles.

## **§§ 1 & 4 — ELECTRIC VEHICLE TIME OF DAY RATES AND OTHER RATE DESIGNS**

Current law requires, within one year, PURA to determine whether it is appropriate for EDCs to implement electric vehicle time of day rates and municipal electric utilities with annual sales of over 500 million kilowatt-hours to determine whether they should implement such rates. (This requirement became law in 2013.) The bill instead requires PURA and the municipal electric companies to make their determinations by July 1, 2017. The bill specifies that the considered rates are for residential and commercial customers.

The bill expands electric vehicle time of day rates to include non-public electric vehicle charging stations and charging stations that charge a fee for use. Under current law, electric vehicle time of day rates are based on use of a public electric vehicle charging station, currently defined as an electric vehicle charging station, electric recharging point, charging point, or electric vehicle supply component, that supplies electricity for the recharging of plug-in electric vehicles and which allows any electric vehicle owner or operator to access and use the charging station free of charge.

Under the bill, electric vehicle time of day rates are based on electric vehicle charging stations. An electric vehicle charging station, under the bill, is an electric component assembly or cluster of component assemblies designed specifically to charge batteries within electric vehicles by permitting the transfer of electric energy to a battery or other storage device in an electric vehicle.

Current law requires municipal electric companies with annual sales of over 500 million kilowatt-hours to determine, within two years, whether it is appropriate to implement various rate design standards (i.e., not solely for electric vehicles, but broadly), including time of day rates, seasonal rates, and interruptible rates. (This requirement became law in 2013.) The bill appears to reset this requirement and clarifies that the municipal electric companies make this determination, not PURA.

## **§§ 1, 5 & 6 — PLANNING FOR ELECTRIC VEHICLES**

### ***EDC Distribution Planning***

Under the bill, PURA must require each EDC to integrate electric vehicle charging load projections into its distribution planning. The bill requires the companies to base projections on the number of electric vehicles registered in the state and projected increases or decreases in electric vehicle sales.

The bill requires the EDCs to annually publish on their websites starting January 1, 2017, a report explaining the incorporation of electric vehicle charging load projections in the company's distribution planning.

### ***Integrated Resource Plan***

The law requires DEEP, in consultation with the electric companies, to review the state's energy and capacity resources and develop an integrated resource plan for procuring energy resources. By law, the plan must, among other things, indicate specific options to reduce electric rates and costs and analyze in-state renewable sources of electricity in comparison to other options. Under the bill, the integrated resource plan must also (1) analyze the potential for electric vehicles to provide energy storage and other services to the electric grid and (2) identify strategies to ensure that the grid is prepared to support increased electric vehicle charging, based on projections of electric vehicle sales.

### **§§ 4, 7 & 8 — PUBLIC ELECTRIC VEHICLE CHARGING STATIONS**

The bill establishes new requirements for public electric vehicle charging stations, which, under the bill, are electric vehicle charging stations located at a publicly available parking space (i.e., a parking space designated by a property owner or lessee as available to and accessible by the public). Under the bill, a publicly available parking space may include on-street parking spaces and parking spaces in surface lots or parking garages but does not include parking spaces that are:

1. part of, or associated with, a private residence;
2. reserved for the exclusive use of an individual driver, vehicle, or a group of drivers or vehicles, such as employees, tenants, visitors, common interest development residents, or residents of an adjacent building; or
3. reserved for people who are blind or living with a disability that limits or impairs their ability to walk.

### ***New Requirements***

The bill requires owners or operators of public electric vehicle charging stations to disclose the locations and characteristics of each station, including the address, voltage, and timing restrictions, to the federal database operated by the U.S. Department of Energy Alternative Fuels Data Center.

Under the bill, station owners or operators who require station users to pay a fee must provide multiple payment options that allow public access. The bill prohibits station owners and operators who require a fee from requiring subscription fees or membership in any club, association, or organization as a condition of using the station. However, the bill allows owners and operators who require fees to have different price schedules based on such a subscription or membership.

The bill prohibits anyone from parking in a space equipped with a public electric vehicle charging station, except for those operating plug-in hybrid vehicles or battery electric vehicles. It allows station owners and operators to impose restrictions on the amount of time that an electric vehicle may be charged at the charging station.

By law, various weight and measurement devices must be registered annually with the Department of Consumer Protection commissioner, who must charge registration fees. Under the bill, public electric vehicle charging stations must be registered annually with the commissioner, who must collect a \$50 registration fee.

### **COMMITTEE ACTION**

Energy and Technology Committee

Joint Favorable Substitute

Yea 21 Nay 1 (03/22/2016)

Transportation Committee

Joint Favorable

Yea 26 Nay 5 (04/21/2016)