The Florida Senate

BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Appropriations Subcommittee on Transportation, Tourism, and Economic Development

BILL:	CS/SB 140
INTRODUCER:	Transportation Committee and Senator Brandes
SUBJECT:	Fees/Electric Vehicles
DATE:	March 22, 2021
REVISED:	

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Price	Vickers	TR	**Fav/CS**
2.	Wells	Hrdlicka	ATD	**Pre-meeting**
3.			AP	

Please see Section IX. for Additional Information:

COMMITTEE SUBSTITUTE - Technical Changes

I. Summary:

CS/SB 140 imposes flat fees by weight, in addition to existing license taxes, for electric vehicles beginning July 1, 2021, and increasing January 1, 2025. The bill likewise imposes an additional flat fee for plug-in hybrid electric vehicles, which also increases on January 1, 2025. The bill authorizes any person or entity registering an electric or plug-in hybrid electric vehicle to renew the registration biennially in accordance with current law.

These fees are contingent upon passage of a linked bill, SB 138, which in part creates the Electric Vehicle Infrastructure Grant Program within the Florida Department of Transportation (FDOT) to provide financial assistance to encourage the installation of publicly-available electric vehicle charging infrastructure on public or private property. That bill requires the additional flat fees imposed to be deposited into the State Transportation Trust Fund (STTF) to be used to fund the grant program.

The fees expire on December 31, 2030.

The bill takes effect July 1, 2021, but only if SB 138 or similar legislation is enacted.

II. Present Situation:

Electric and Hybrid Vehicles

Electric vehicles (EVs) offer a readily available and cleaner fuel source, with higher fuel efficiency and improved air quality compared to vehicles with internal combustion engines. Increasing interest in EV use is driven by higher gas prices and greenhouse gas emission concerns, but their relative high cost compared to conventional fuel-powered vehicles and their relative limited range have restricted the commercial viability of EVs.[1] However, advancements in EV-related technology are continuing, EV manufacturing is rising, and EV prices have been dropping.[2]

Types of EVs

The U.S. Department of Energy's Alternative Fuels Data Center (AFDC) uses the term "electric-drive vehicles" to collectively refer to hybrid electric vehicles (HEVs), plug-in hybrid electric vehicles (PHEVs), and all-electric vehicles (AEVs). According to the AFDC:[3]

- HEVs are primarily powered by an internal combustion engine that runs on conventional or alternative fuel and an electric motor that uses energy stored in a battery. The battery is charged through regenerative braking and by the internal combustion engine and is not plugged in to charge.
- PHEVs are powered by an internal combustion engine that can run on conventional or alternative fuel and an electric motor that uses energy stored in a battery. The vehicle can be plugged in to an electric power source to charge the battery.
- AEVs use a battery to store the electric energy that powers the motor. AEV batteries are charged by plugging the vehicle in to an electric power source. AEVs are also referred to as battery electric vehicles or BEVs.

For purposes of vehicle registration, Florida law currently defines the term "electric vehicle" to mean "a *motor vehicle* that is powered by an electric motor that draws current from rechargeable storage batteries, fuel cells, or other sources of electrical current."[4]

Florida EV Infrastructure Master Plan Status Report

The 2020 Legislature enacted s. 339.287, F.S., directing the FDOT, in consultation with the Public Service Commission and the Office of Energy within the Department of Agriculture and Consumer Services (DACS), to develop and recommend a master plan for current and future plans for the development of EV charging station infrastructure along the State Highway

[1] *See* Federal Highway Administration, *FHWA NHTS Brief, Electric Vehicle Feasibility*, July 2016, pp. 1-2, available at http://nhts.ornl.gov/briefs/EVFeasibility20160701.pdf (last visited March 16, 2021).
[2] *Id*. at p. 2.
[3] *See* AFDC, *Hybrid and Plug-In Electric Vehicles*, available at https://www.afdc.energy.gov/vehicles/electric.html (last visited March 16, 2021).
[4] Section 320.01(36), F.S.

System.[5] The recommended master plan must be developed and submitted by July 1, 2021. As also required, the FDOT submitted a preliminary status report in December of 2020.[6]

Preliminary recommendations in the status report contain 12 areas of focus, with potential strategies and action items categorized by potential action type (by executive order, legislative, and/or agency action) and potential lead and coordinating agencies identified.[7]

In accordance with the 2020 law, the status report reviews emerging technologies in the electric and alternative vehicle market and sets out the following preliminary findings:[8]

- With respect to EV technologies:
  - PHEVs have a relatively short range on a full battery (~40 miles). Once expired, the internal combustion engine automatically starts, so PHEVS are not limited in range by available electricity.
  - BEVs have a 40-300 mile range, depending on the vehicle make and model, which is a primary consideration for long-range travel and evacuations.
- With respect to EV technology trends:
  - The trend is toward increased battery power density, increased battery lifetime (recharge cycle), and higher battery voltages.
  - BEV historical battery cost has decreased from ~$1,175 per kWh[9] in 2010 to ~$375 per kWh in 2015 and is forecasted to decrease further to ~$160 in 2020 and to ~$100 in 2025.
  - BEV historical range has increased from ~75 miles in 2010 to ~160 miles in 2015 and is forecasted to increase further to 250 miles in 2020 and ~450 miles in 2025.

As required, the report also evaluates and compares EV charging stations available at present and which may become available, key findings of which are summarized in part in the below table:

EVSE[10] Type	Supply Voltage	Power Level	Charge Rate (miles/hour)	Use cases
Level 1	120V (toaster)	1 -18 kW	3 – 7	Home/overnight
Level 2	208-240V (clothes dryer)	3.3 – 19.2 7.7 kW typical	10-60 26	Home/work Destination charging
DC Fast Charger	480V (commercial HVAC unit)	50 kW 150 Kw 350Kw	175 500 1,200	Roadside/travel Emergency charging

The report indicates that Level 1 chargers are currently obsolete for commercial purposes, Level 2 chargers are currently dominant for commercial purposes, and DC fast chargers are the most applicable for long-range travel and evacuations.[11] Future EVSE technologies for fleet and

[5] Chapter 2020-21, s. 3, Laws of Florida.
[6] FDOT, *EV Infrastructure Master Plan Status Report*, December 1, 2020, available at https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/planning/fto/evmp-status.pdf?sfvrsn=ac348cf4_8 (last visited March 16, 2021).
[7] These recommendations are set out in table form for ease of review at i*d*. at p. 15.
[8] *Supra* note 8 at p. 3.
[9] Per kilowatt hour.
[10] The report refers to EV charging equipment using an industry term, electric vehicle supply equipment or EVSE.
[11] *Supra* note 8 at p. 4.

passenger operations include higher-power charging, up to 350 kW with current standards, extreme fast charging for medium and heavy duty applications, and wireless power transfer.[12]

EV Registration, Market Share, and State Transportation Trust Fund Revenue Impacts

Currently, an electric vehicle pays the same motor vehicle license tax as non-electric vehicles.[13] Generally, registration fees differ based on factors such as the type of vehicle and its weight, with fees ranging, for example, between $14.50 and $32.50 annually for light-duty vehicles and from $60.75 to $1,322 for heavy trucks and truck tractors.[14]

The EV Infrastructure Master Plan status report includes projections of the increase in the use of EVs in Florida over the next 20 years, which in part provides data[15] on existing EV market adoption in Florida.

- The report concludes that BEVs (44,068) and PHEVs (22,617) currently total just 0.41 percent of the 16,529,219 total light-duty vehicle registrations in Florida.[16]
- The report projects conservative, moderate, and aggressive growth scenarios for light-duty EV sales, projecting a respective 10, 20, and 35 percent growth in sales by 2040.[17]
- Respective of the growth scenarios, projections of negative net revenue loss to the STTF of 8.4, 16.6, and 30 percent by the same year.[18]

Among the most common potential strategies for mitigation of revenue loss from increased EV use in other states, the report notes a fee in addition to any existing registration fee, which may or may not be tied to inflation. According to the report, 26 states impose such a fee with a range in cost of $32.50 to $213.88 annually.[19]

Linked Legislation

SB 138, linked to this bill, directs the Florida Department of Transportation (FDOT) to establish the Electric Vehicle Infrastructure Grant Program to provide financial assistance to encourage the installation of publicly-available electric vehicle charging infrastructure for electric vehicles, including, but not limited to, electric semi-trucks and electric aircraft, on public or private property.

The bill authorizes state agencies, public universities, public transit agencies, ports, airports, and local governments to apply to the FDOT for grants for technical assistance for the development and adoption of local or regional plans establishing charging infrastructure and for assistance with the purchase of related equipment and costs of installation. The bill sets out required

[12] *Id*. For a map of existing publicly accessible Level 2 station locations (773), DC fast charger stations (59), and locations funded by the Florida Department of Environmental Protection from the VW Settlement (27), *see* p. 16.
[13] Section 320.08001, F.S.
[14] Section 320.08, F.S.
[15] The source is vehicle registration data as of July 28, 2020, provided to the FDOT by the Florida Department of Highway Safety and Motor Vehicles. *Supra* note 8 at p. 6.
[16] *Supra* note 8 at p. 6. HEVs are not included as part of the 0.41 percent of the total light-duty vehicle registrations. HEVs do not plug in to an electric power source to charge batteries, using regenerative braking instead.
[17] *Id*.
[18] *Supra* note 8 at p. 7.
[19] *Id*.

matching funds and sources and authorizes an applicant to partner with a private-sector entity to install charging infrastructure on private property in the jurisdiction of the applicant.

The FDOT is directed to develop and publish criteria for prioritizing applications and maintain a prioritized list of approved grant applications; continually review emerging research, policies, and standards relating to electric vehicle charging infrastructure; publish best practices relating to such infrastructure; and adopt rules to administer the new provisions.

Contingent upon passage of this bill, CS/SB 138 creates s. 339.0802, F.S., requiring the FDOT to use the funds resulting from increased revenues to the STTF from the additional fees imposed on EVs by this bill to fund the EV Infrastructure Grant Program beginning in Fiscal Year 2023-2024.

III. Effect of Proposed Changes:

Section 1 amends s. 320.08001, F.S., imposing annual flat fees in addition to existing license taxes imposed by s. 320.08, F.S., as follows:

- For "electric vehicles" weighing less than 10,000 pounds, a flat fee of $135 beginning July 1, 2021, increasing to $150 beginning January 1, 2025.
- For "electric vehicles" weighing 10,000 pounds or more, $235 beginning July 1, 2021, increasing to $250 beginning January 1, 2025.
- For "plug-in hybrid electric vehicles," a $35 flat fee beginning July 1, 2021, increasing to $50 beginning January 1, 2025.

The bill exempts from the fees a low-speed, electric, or plug-in hybrid electric vehicle that uses a battery storage system of up to 5 kilowatt hours. This appears to exclude vehicles such as golf carts.

The bill authorizes any person or entity registering an electric or plug-in hybrid electric vehicle to renew the registration biennially in accordance with current law.

The proceeds of the additional flat fees must be deposited into the STTF and would be allocated under SB 138 to fund the EV Infrastructure Grant Program.

Section 2 eliminates the fees on December 31, 2030, the same date of expiration for the allocation made in SB 138.

Section 3 provides the bill takes effect July 1, 2021, but only if SB 138 or similar legislation is enacted.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

Not applicable.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

Article VII, s. 19, of the Florida Constitution requires that a new state tax or fee, as well as an increased state tax or fee, must be approved by two-thirds of the membership of each house of the Legislature and must be contained in a separate bill that contains no other subject. Article VII, s. 19(d)(1), of the Florida Constitution defines "fee" to mean "any charge or payment required by law, including any fee for service, fee or cost for licenses, and charge for service."

The bill imposes new fees for registration of the specified electric vehicles and contains no other subject. The bill requires approval by two-thirds of the membership of each house of the Legislature.

E. Other Constitutional Issues:

None identified.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

The bill imposes the specified flat fees, in addition to current license taxes, for annual registration of the identified electric vehicles. The Revenue Estimating Conference has not yet met to estimate the impact of this bill.

In general, motor vehicle license taxes are currently first deposited into the District Capital Outlay and Debt Service Trust Fund with the remaining distributed to the STTF. The bill directs the additional flat fees for electric vehicles to be deposited into the STTF.

B. Private Sector Impact:

Owners of the identified electric vehicles, in addition to current license taxes, will be subject to the following fees:

- For "electric vehicles" weighing less than 10,000 pounds, a flat fee of $135 beginning July 1, 2021, increasing to $150 beginning January 1, 2025.
- For "electric vehicles" weighing 10,000 pounds or more, $235 beginning July 1, 2021, increasing to $250 beginning January 1, 2025.
- For "plug-in hybrid electric vehicles," a $35 flat fee beginning July 1, 2021, increasing to $50 beginning January 1, 2025.

These additional flat fees expire on December 31, 2030.

C. Government Sector Impact:

State and local governments[20] are expected to experience an indeterminate, positive fiscal impact associated with increased revenues from imposition of the additional flat fees. The extent of the impact is at least in part indeterminate, as the available data does not currently distinguish between electric vehicles by weight. Additionally, the Florida Department of Highway Safety and Motor Vehicles (DHSMV) reports that the market for electric heavy trucks is unknown.[21]

The bill presents an indeterminate positive fiscal impact to the STTF due to the increased fees collected and deposited to fund the EV Infrastructure Grant Program established in SB 138.

The DHSMV indicates the bill would present "a significant impact on the Department's operational resources and resources dedicated to the Motorist Modernization project. Programming would be required in the Florida Realtime Vehicle Information System (FRVIS) and Virtual Office (web-based renewal system) and renewal notices to incorporate the flat fee requirements. FRVIS would have to be modified to require the mandatory collection of the fuel type for all vehicles, including electric and hybrid vehicles (the best method to gather this information is currently unknown)."[22]

The DHSMV further notes that the majority of the work required will be performed on its motor vehicle system, which is to be replaced as part of the Motorist Modernization Phase II project. "Additional requirements due to changes in law will result in an increase in the complexity and implementation costs."[23]

VI. Technical Deficiencies:

Florida law currently defines the term "electric vehicle" for purposes of vehicle registration under ch. 320, F.S., to mean "a motor vehicle that is powered by an electric motor that draws current from rechargeable storage batteries, fuel cells, or other sources of electrical current." The definition does not distinguish between vehicles solely powered by electric motors or partially powered by electric motors. The definition can be amended to include either all vehicles at least partially powered by an electric motor (which would include BEVs, PHEVs, and HEVs) or only vehicles solely powered by electric motors (only BEVs). Additionally, Florida law does not currently define "plug-in hybrid electric vehicle."

VII. Related Issues:

None.

[20] For a description of the distribution of the current base tax, see DHSMV, *Senate Bill 138 Agency Bill Analysis*, January 14, 2020, at p. 3 (on file in the Senate Transportation Committee).
[21] *Id*. at p. 6.
[22] *Id*.
[23] *Id*.

VIII. Statutes Affected:

This bill substantially amends section 320.08001 of the Florida Statutes.

IX. Additional Information:

A. Committee Substitute – Statement of Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

CS by Transportation on March 10, 2021:
The committee substitute authorizes any person or entity registering an electric or plug-in hybrid electric vehicle to renew the registration biennially in accordance with current law.

B. Amendments:

None.