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 Committee on Transportation

BILL:	CS/SB 140
INTRODUCER:	Senator Brandes
SUBJECT:	Fees/Electric Vehicles
DATE:	March 11, 2021
REVISED:	

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Price	Vickers	TR	**Fav/CS**
2.			ATD	
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, CS/SB 138, which in part creates the Electric Vehicle Infrastructure (EVI) 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. This bill requires the additional flat fees it imposes 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, but the EVI Grant Program would remain in place under CS/SB 138 and could continue should future resources become available.

The bill takes effect July 1, 2021, but only if CS/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 (ICEs). 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:

- HEVs are primarily powered by an ICE 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 ICE and is not plugged in to charge.
- PHEVs are powered by an ICE 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. Some can travel more than 70 miles on electricity alone, and all can operate solely on gasoline (similar to a conventional hybrid).
- 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.[3] AEVs are also referred to as battery electric vehicles, or BEVs.

For purposes of vehicle registration, Florida law[4] 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."

Florida EV Infrastructure Master Plan Status Report

The 2020 Legislature[5] 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 plan for current and future plans for the development of EV charging station infrastructure along the State Highway System. The recommended 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]

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[1] *See* the Federal Highway Administration's *FHWA NHTSA Brief, Electric Vehicle Feasibility*, July 2016, pp. 1-2, available at: http://nhts.ornl.gov/briefs/EVFeasibility20160701.pdf (last visited March 6, 2021).
[2] *Id.* at p. 2.
[3] *See* the AFDC's website available at: https://www.afdc.energy.gov/vehicles/electric.html (last visited March 6, 2021).
[4] Section 320.01(36), F.S. Section
[5] Ch. 2020-21, L.O.F.
[6] *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 6, 2021).

Preliminary recommendations in the 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 report reviews emerging technologies in the electric and alternative vehicle market and sets out the following preliminary findings:

- With respect to EV technologies:
  - PHEVs have a relatively short range on a full battery (~40 miles). Once expired, the ICE 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.[8]
- 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 reduce 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.[10]

The EV Master Plan Status Report also identified barriers to the use of EVs and EV charging station infrastructure for both short- and long-range EV travel. With respect to barriers to adoption of EVs:

- EV prices are generally still higher than a motor vehicle powered solely by an ICE, but cost parity with ICE vehicle is expected to occur between 2025 and 2030.
- Range anxiety is a significant factor during longer trips, as drivers worry about availability of EVSE.[11]
- A lack of EV models exists on the market, with trucks and SUVs accounting for greater than 50 percent of vehicle registered in Florida.
- Dealerships lack the knowledge or willingness to suggest the purchase of an EV and have few available EVs.[12]

As for barriers to adoption of EVSE:

- The EV customer base is low, and the public lacks awareness of EVSE locations. A perception exists that gasoline is cheap, and the public is generally more familiar with ICE vehicles.
- EV charging speeds are a deterrent, in that charging speed is a function of power delivery of the EVSE and how much power the EV can accept.
- Service providers locate EVSE where EV adoption is highest, resulting in gaps in EVSE particularly in low-utilization, rural, and income qualified communities. In addition, a lack of

[7] These recommendations are set out in table form for ease of review. *Id.* at p. 15.
[8] *Supra* note 6 at p. 3.
[9] Per kilowatt hour.
[10] *Supra* note 8.
[11] The report refers to EV charging infrastructure as "electric vehicle supply equipment," or EVSE.
[12] *Supra* note 6 at p. 5.

site-specific utility infrastructure for DC fast charger stations exists, particularly in rural and emergency-critical areas, and additional costs are incurred when back-up power is provided for emergency-critical EVSE locations.
- Utility charges increase during peak demand periods.
- A lack of state-level public funding to deploy EVSE exists, especially in low-use areas.[13]

Current Florida law contains the following EV-related incentives:
- Section 163.08, F.S., authorizes a property owner to apply to a local government for funding of, or to enter into a financing agreement with the local government to finance, installation of electric vehicle charging equipment on the owner's property, subject to local government ordinance or resolution.
- Section 212.055, F.S., authorizes local governments to use proceeds from a local government infrastructure surtax to provide loans, grants, or rebates to residential or commercial property owners who make energy efficiency improvements to their property, including, but not limited to, installation of electric vehicle charging equipment, if the local government ordinance authorizing such use is approved by referendum.
- Certain hybrid vehicles and inherently low-emission vehicles may use a high-occupancy vehicle lane (HOV lane)[14] regardless of occupancy, and such vehicles may use any HOV lane re-designated as HOV toll lanes or express lanes without paying a toll as provided in s. 316.0741, F.S.

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.[15] Generally, registration fees differ based on factors such as the type of vehicle and its weight, with fees ranging between $14.50 and $32.50 annually for light-duty vehicles and from $60.75 to $1,322 for heavy trucks and truck tractors.[16] Current law in s. 320.07(2)(b), F.S., authorizes specified motor vehicles registered under s. 320.08, F.S., to renew the registration biennially during the applicable renewal period upon payment of the two-year cumulative total of all applicable license tax amounts and additional fees required by law.

The EV Master Plan Status Report includes:
- A required projection of the increase in the use of EVs in this state over the next 20 years, which in part provides data[17] 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.[18]

[13] *Id.*
[14] Generally, a high-occupancy vehicle lane is a lane designated for use by vehicles in which there is more than one occupant. Section 316.0741(1)(a), F.S.
[15] Section 320.08001, F.S.
[16] Section 320.08, F.S.
[17] The source is vehicle registration data as of July 28, 2020, provided to the FDOT by the Florida Department of Highway Safety & Motor Vehicles. *Supra* note 6 at p. 6.
[18] *Supra* note 6 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, but instead use regenerative braking.

- Conservative, moderate, and aggressive growth scenarios for light-duty vehicle sales, projecting a respective 10, 20, and 35 percent growth in sales by 2040.[19]
- Respective of the growth scenarios, projections of *negative* net revenue loss to the State Transportation Trust Fund (STTF) of 8.4, 16.6, and 30 percent by the same year.[20]

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, and concludes that 26 states impose such a fee with a range in cost of $32.50 to $213.88 annually.[21]

Linked Legislation

CS/SB 138, linked to this bill, directs the Florida Department of Transportation (FDOT) to establish the Electric Vehicle Infrastructure (EVI) 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 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 EVI Grant Program beginning in fiscal year 2023-2024.

Under the bill, these allocations expire on December 31, 2030.

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.

[19] *Id.*
[20] *Supra* note 6 at p. 7.
[21] *Id.*

- 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 appear 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 CS/SB 138 to fund the EVI Grant Program.

Section 2 eliminates the fees on the same date of expiration for the allocation made in CS/SB 138, December 31, 2020.

Section 3 provides the bill takes effect July 1, 2021, but only if CS/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.

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[22] 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.[23]

The bill presents an indeterminate positive fiscal impact to the STTF due to the increased fees collected and deposited to fund the EVI Grant Program, offset by on-going costs of administering the EVI Grant Program established in CS/SB 138.

Local governments are expected to experience indeterminate costs associated with managing and collecting the additional fees.

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

[22] For a description of the distribution of the current base tax, see the DHSMV SB 140 bill analysis at p. 3 (on file in the Senate Transportation Committee).
[23] *Id.* at p. 6.

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)."[24]

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."

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends the following sections of the Florida Statutes: 320.08001.

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 CS 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.

This Senate Bill Analysis does not reflect the intent or official position of the bill's introducer or the Florida Senate.

[24] *Id.*