Transportation Electrification

Policy Priorities for the 2023 Florida Legislative Session

The following legislative priorities have been developed for discussion purposes as the State of Florida begins preparations for the 2023 Legislative session. The lead author of this paper is Drive Electric Florida, an organization founded to advance the energy, economic, and environmental security of the state of Florida by promoting the growth of electric vehicle (EV) ownership and accompanying infrastructure. Members of Drive Electric Florida include EV charging companies, vehicle manufacturers, utilities, cities, planning organizations, EV clubs and experts, and NGOs. Drive Electric Florida worked with numerous other organizations and EV stakeholders in the development of these priorities which represent a consensus among many of the organizations with an interest in the development of EV markets. And while this paper was approved by the Drive Electric Florida Board of Directors, not all Drive Electric Florida members have the same legislative priorities. We offer these priorities and recommendations to advance discussions of what we believe are the primary legislative needs in Florida to help ensure that transportation electrification benefits all of its citizens.

Summary of Recommendations

1. The Legislature should set EV market goals for the State of Florida, based on the aggressive scenario in the FDOT Electric Vehicle Master Plan

2. Underserved populations should receive special attention as the State develops EV plans and programs

3. A Transportation Electrification Council should be established to coordinate electrification efforts throughout the State, with FDOT as the lead agency

4. Disaster planning and investment for resilience should be priorities of Florida agencies, utilities and EVSE infrastructure developers

5. The utility has an important role to play in assuring that the State can meet its EV goals and ensure beneficial results. The role should include infrastructure investment, planning, marketing education and outreach, and supportive rate design

6. Managed charging (off-peak charging encouraged with creative rate design or technology) is essential to gaining beneficial outcomes to increased electrification of the transportation sector

7. Florida should consider providing incentives for vehicle purchases, perhaps focused on underserved populations

8. Road user fees for light-duty EVs should be implemented once EVs reach 5 percent of all vehicles on the road in the State. The fee should be based on average taxes paid by gasoline-powered vehicles

Electrification of the transportation sector in Florida will provide many benefits to the State. Florida is already a leader in the sales of electric vehicles (EVs) to consumers, ranking third in cumulative sales among the states. Among the most important benefits from the growth in sales from EVs are the reductions in greenhouse gases, particulate matter and other pollutants that result from replacing fossil fuel-powered vehicles with electric vehicles. This result – the reduction of greenhouse gases and other pollutants - will occur today with Florida's current fuel mix for generating electricity and will only improve as Florida's electric utilities continue to reduce their use of greenhouse gas and other pollutant emitting fuels in electricity generation. Reduced health care costs for pollution related diseases is one result. And the costs of necessary remediation for greenhouse gas caused effects on State infrastructure will also be reduced. But environmental benefits are only one way in which Floridians will benefit from electrification. Another important effect of electrification is that when EVs are charged during periods when there is surplus electricity available (i.e., off-peak periods) the increased sales will result in revenues to the utility that exceed any increased costs. This will place downward pressure on the rates of all Florida electric consumers. And electrification will bring important economic development benefits to the State, as industries gear up to satisfy the supply chain and manufacturing needs of a new industry which is well suited to Florida. And finally, electrification of transportation will bring important benefits to rural and underserved areas where transportation options may have been limited. Electric transit buses and school buses, for example, may provide new transportation options in these communities that are lower cost and environmentally beneficial.

And while these benefits will accrue as electrification increases within Florida, it is important that public policy be aligned with needs of the marketplace. Encouraging the early development of EV markets will ensure that the benefits will come soon. In this regard, a group of private, public and non-profit organizations in Florida have come together to develop this set of priority principles that we believe should be embodied in Florida legislation at the earliest opportunity.

The principles discussed below follow on from and are consistent with the Florida Electric Vehicle Master Plan (EVMP) developed by the Florida Department of Transportation (FDOT). We believe each of these Principles should be incorporated into Legislation for consideration by the Florida Legislature in its 2023 Session and/or Executive Action as may be appropriate. Following a discussion of the issues identified as priorities, a list of other issues is presented that while we believe are of secondary priority, are also of importance and are included here for completeness.

Issue 1. Establishing EV Goals for the State of Florida

Drive Electric Florida and other supporting organizations believe that it is critical for the Legislature and/or the Executive Office of the Governor to specify a set of goals encouraging market penetration of electric vehicles (EVs) of all types. The setting of goals that are both attainable and aspirational will provide guidance and encouragement to state and local agencies, utilities, auto manufacturers and dealers, charging station developers and operators (Electric Vehicle Service Equipment providers or EVSEs), and other stakeholders on necessary preparations and actions to both encourage market development for the benefit of all Floridians and prepare for the rapidly increasing number of vehicles

that will be using Florida's roads. The recently enacted Infrastructure Investment and Jobs Act (IIJA) by Congress provides $7.5 billion in infrastructure funding and more for helping with electric school bus and transit purchasing. The IIJA will also serve as a means by which more consumers and fleet owners will be encouraged to go electric.

Rather than start anew, we believe Florida's goalsetting should start with the Electric Vehicle Master Plan developed by the Florida Department of Transportation (FDOT) and published in July 2021. In particular, the EVMP identified an "Aggressive" scenario, which is based on an environment where "Growth accelerates and continues for some time at a high rate due to reductions in cost, rapid technological improvements, and bold policy or funding incentives." This scenario was based in part on announcements already made by the major auto manufacturers and the relatively high starting point for Florida (Florida is second in the nation in new sales of EVs). The scenario is based on light-duty sales only. It suggests market penetration of 35% by 2040 (i.e., 35% of all vehicles registered in the State would be electric by 2040). This scenario has interim results of 5% of vehicles registered by 2030 and 17% by 2035 (Currently, light-duty EVs are slightly less than 2% of registered vehicles in the State). We encourage that the State adopt this aggressive scenario, as described in the EVMP, for its goals, which we believe are both achievable and aspirational. Setting such a goal will require that all state agencies and local governments, as well as OEMs, charging station developers and operators, auto dealers, utilities and many other stakeholders work together collaboratively to significantly increase the level of sales of EVs over the next several decades in a manner that improves the lives of all Florida residents.

As part of the goal setting process, we believe it is imperative that the Legislature also require FDOT to establish a State EV Registration Data Base, so that both the State and stakeholders can measure progress towards the State goals. Such a Data Base will also be essential to use in State and utility transportation electrification planning efforts.

We debated whether goals should also be set for medium- and heavy-duty electric vehicles, including electric school and transit buses, as well as fleet vehicles at this time. Due to the very nascent nature of these markets, we believe that while such goals should eventually be established, it is better to wait until realistic goals can be set based on real-world developments. When established, such goals will include consideration of items such as lead time for utilities to study and install the necessary facilities to serve new charging infrastructure and associated new loads.

Issue 2. Underserved Populations

The adoption of both light-duty and MHD EVs can have many beneficial effects in underserved, low-to-moderate income communities, and fiscally constrained counties – including many rural areas. Rural areas have special mobility needs and challenges which should be an integral part of state planning. A goal of the EVMP is to ensure no Floridian is left behind from the economic, public health, and environmental benefits EVs will deliver, a goal the state should ensure is achieved. There are multiple ongoing efforts at the State (work currently ongoing through Energy Equity Workshops at the FDACS' State Energy Office) and Federal (e.g., the Justice40 Project) levels that can help to guide Florida's efforts in this regard. Of course, equity in development of EV markets and infrastructure is only one piece of a much broader discussion that is needed on energy equity in general. And electrification should be part of the overall discussion regarding reducing emissions that disproportionately impact underserved communities.

We also believe that these populations should receive special attention in state policies. Examples could include designating a percentage of available federal and state grant funds to these areas, providing vehicle rebates for income-qualified consumers, and conducting education and outreach to promote incentives for electric school and transit buses. We believe that each Florida agency involved in the development of EV markets should have a full-time employee devoted to addressing needs in underserved areas.

In addition, the workforce needed to electrify the transportation industry can provide job creation opportunities for these populations. State policy should guide workforce training to ensure these opportunities come to fruition. Such a policy will also help to drive economic development in the state and attract EV supply chain providers to the State.

The EV charging market is complex, providing for many public, private, and regulated charging infrastructure business models, and fluid, requiring leveraging everyone's strengths to meet expanding demand. Many low-to-moderate income communities and fiscally constrained counties lack access to residential, public, and workplace charging; access which is critical for supporting EV ownership. Private sector charging infrastructure companies, investor-owned, municipal, and co-op utilities, and businesses hosting EV chargers all have a role in expanding charging infrastructure. Transportation Planning Organizations can and should also be part of this effort. The state should encourage and enable an 'all-hands-on-deck' approach to ensure equitable infrastructure access across Florida. And all forms of electric transportation should be considered as options, including electric bikes and scooters, Uber and Lyft vehicles, ride sharing options, and transit and school buses – all of which may play major roles in serving the mobility needs of these communities.

As an initial step, the Legislature should initiate a process engaging stakeholders from low-to-moderate income communities and fiscally constrained counties to make recommendations on priority steps that should be taken to ensure that underserved populations can access transportation electrification benefits. Community input to determining how best to meet the needs of underserved populations is absolutely critical to ensuring that any measures adopted help meet their needs.

Meeting the needs of underserved populations should thus be a working group established under the umbrella of the newly formed Transportation Electrification Council discussed in the next Section.

Issue 3 State Governance and Planning

There are many issues involved in preparing the State for the rapid electrification that is coming, and many agencies that have a role to play, including FDOT, the Public Service Commission, the Office of Energy within the Department of Agriculture and Consumer Services, the Department of Environmental Protection, Department of Management Services, the Division of Emergency Management and others. Local governments of course also have an important role to play. And the State Colleges and University System should be involved to coordinate needed workforce development and to serve as an R&D resource. It might be helpful for the Legislature to examine and clarify what roles each of the relevant agencies should play in the developing electrification markets, and if needed expand their authority so that they can assist in achieving state electrification goals.

To help in this endeavor, and to ensure coordination among State agencies and with stakeholders who will be responsible for implementing programs and plans, we propose the establishment of a

Transportation Electrification Council (TEC), to be administratively housed within FDOT and chaired by the FDOT Secretary. The primary role of the TEC will be to provide coordination and collaboration among state agencies and stakeholders and make recommendations to the Legislature as to needed changes in law to ensure optimal development of EV markets and infrastructure within the State. The TEC would also be responsible for ensuring increased cooperation with local governments. Concurrent with establishment of a TEC, a stakeholder advisory group should be established to help guide the TEC's efforts. The stakeholder advisory group would be volunteer-based and would be divided into workgroups according to needs of the TEC and might include Underserved Communities and Equity, Infrastructure, Education and Outreach, Disaster Planning and Resilience, Financing and Grants, Procurement, Planning, Standards, and others. Members of the TEC should Chair the Working Groups as assigned by the TEC Chair.

The TEC would be composed of representatives from FDOT, the PSC, DACS, DEP, DMS, the Legislature, and Governors Offices, as well as other agencies deemed appropriate. Local governments should also have representation, perhaps through the Florida League of Cities and Association of Counties. And Florida Colleges and Universities should also be represented, as they will provide much of the knowledge-base needed for the work of the TEC. Administrative funds would be provided within the budget of FDOT.

The TEC's activities would include (1) following up on and periodic assessment of the State's Electric Vehicle Master Plan; including evaluation, measurement and verification of activities carried out under the Plan; (2) coordinating activities designed to improve mobility options through electric alternatives in underserved communities; (3) coordinating charging infrastructure planning for the State; (4) providing recommendations to the legislature on changes needed to promote the beneficial electrification of the transportation sector; (5) establishing the roles of state, regional and local bodies and governments; (6) identifying funding and grant opportunities for state and local governments; (7) assessing needs for education and outreach; (8) coordinating emergency evacuation planning and resilience for EVs; (9) providing critical input on future use of road fees in lieu of gas taxes; (10) ensuring workforce development initiatives are coordinated, and (11) advising on the best ways to incorporate managed charging in State and utility planning and programs. Other issues may be added as the need arises.

Finally, there should be a sunset provision established so that the need for the Council can be re-evaluated in the future.

Issue 4. Disaster Planning and Resilience

The legislature should ensure that FDOT and the Division of Emergency Management have adequate authority and the resources needed to plan for and ensure that charging is sufficient along evacuation routes or that alternatives exist for EV owners and are sufficient to meet needs as they develop.

Recommendations in FDOT's EVMP regarding disaster planning and resilience should be implemented. The FDOT, perhaps in coordination with a Florida university, should also conduct necessary studies to determine what additional steps might be needed and when. We also recommended that the FDACS' Office of Energy, the FDOT, the FPSC, and the Florida Division of Emergency Management (FDEM) collaborate with industry and stakeholders to develop recommendations for location, resilience, and restoration of this critical EV charging infrastructure.

Issue 5. The Utility Role

Utilities, as the supplier of electricity that will fuel vehicles, as an infrastructure developer, as a trusted advisor to consumers and businesses, and as a regulated entity, which with supervision by the Public Service Commission will set rates for sales of electric power to charging stations and in some cases directly to consumers will have a critical role to play in ensuring that state goals for electrification are achieved and that electrification benefits all customers.

1. Infrastructure Investments

It is important to note at the outset several factors which lead to the inevitable conclusion that utility participation and investment in electrification is not only warranted but necessary. First, –the increased market penetration of EVs within Florida will depend on overcoming range anxiety that potential buyers may have. Fear of running out of power is the number one concern about purchasing an EV expressed in consumer surveys. Even though over 80% of charging is done at home, consumers want to know that charging will be available when they need it. In this regard, the rapid development of public charging stations is critical. And while increasing range of newer EVs will help and the IIJA and its National Electric Vehicle Infrastructure (NEVI) program offers a good head start by providing additional DC fast charging stations, that program will focus on Interstate Highways first and then perhaps the US Highway System within the state. But Florida will have significant EV charging needs beyond what the IIJA provides – needs which includes workplace and home charging but also importantly includes providing for underserved communities and rural areas as noted above, charging services at multi-family dwellings, and school bus and transit charging - which may not be adequately served only by the private market.

At this point in the development of transportation electrification in Florida, with much unknown about future needs and funding, we believe it is imperative to leave all options open for the development of new EV infrastructure. As needs are further identified and the role and ability of private entities to meet those needs becomes further understood, it may be appropriate for the PSC to develop guiderails that direct any utility investment to needs not otherwise being met (if any). But in this early stage of infrastructure development, we once again believe an all hands-on deck approach is warranted.

Second, utility investments that will encourage transportation electrification, including investments in infrastructure, will benefit all utility customers. Some benefits are obvious – cleaner air and reduced greenhouse gases for example. But there are economic benefits as well. Most vehicle charging will be done at night during utility off-peak periods, where utilities will not incur significant increased costs from the new load. Utilities can and will encourage such off-peak charging. As a result, revenues received for providing this off-peak electricity will exceed incremental costs, and this will in turn put downward pressure on rates for all customers. This is a win.- win - win outcome for utilities, customers, and society. Studies performed in the largest U.S. EV market – California – have demonstrated that this effect is real.[1]

Thus, the Legislature should affirm that utilities should be allowed to participate in EV infrastructure

[1] Jason Frost, Melissa Whited, and Avi Allison. “Electric Vehicles are Driving Electric Rates Down”, Synapse Energy Economics, Inc.. June 2020 Update

investments. These investments might include possible ownership and operation of charging stations, but perhaps just as importantly should include make-ready investments (i.e., investments that connect the stub of the charging station to the utility's distribution system) and line extension programs which will be the most expensive part of installing charging stations in most cases. Utilities either can provide such investment, offer discounts to or waivers of costs, or provide rebates or charger rental programs to non-utility charging station owners to help cover these costs. Utilities should also be encouraged to implement and promote programs that make customers' transition to electric vehicles simpler. The Legislature should ensure that utilities can continue making beneficial investments that will help meet the state's goals for electrification.

2. Utility Transportation Electrification Programs

Utilities, as discussed above have an important role to play in meeting the electrification goals that are established, either by the Legislature or the Governor's office. Utility investments should be done under the oversight of the PSC with careful planning and forethought. Thus, the supporting organizations recommend that the Legislature require utilities subject to the PSC's jurisdiction to file with the PSC a summary of its Transportation Electrification Programs by a date certain, with an update every three years thereafter. The summary should include the current status of existing utility programs, any new programs the utility wants to propose, and other offerings of the utility. The PSC should assess whether the plan summary meets the needs of the State and may recommend changes. The PSC should also provide for cost recovery of approved programs.

Understanding where, when and how long EVs are charged is important to effective planning. The vast majority of charging will happen at residences, with the second most common charging happening at workplaces. To assist in their planning, utilities – individually or jointly – might commission studies to look at EV charging behavior (where, when and how often) which should be kept up to date. This may involve using anonymized telematic data from charging stations or vehicles to learn more about when and where they charge. These studies should be used to determine future charging needs in the State.

3. Marketing, Education and Outreach

Utility web sites, ride and drive events, and marketing campaigns are all important elements of the education process. The Legislature should ensure that utilities can engage in these programs and seek cost recovery for prudently incurred expenses from the PSC. The PSC should determine whether such costs should be expensed or capitalized depending on the nature of the expenditure.

4. Rate Design

Rate design as it relates to EVs is a complicated subject that has many facets. It includes rates charged by utilities to EVSEs for the power provided, rates charged to consumers for charging at utility-owned stations which will remain regulated at the PSC, residential and commercial rates, rates for multi-family dwellings, MHD, fleet, and bus charging and others. The PSC is the expert agency to determine just and reasonable rates charged by utilities and we don't believe the Legislature should interfere with well-established regulatory processes for designing these rates. It is appropriate that the Legislature affirms

the Commission's authority to approve innovative rate structures that evolve with the growth of the EV industry.

Two areas in particular are important in this regard. First, residential rates for EV charging should be geared towards encouraging charging during off-peak hours and/or providing load management programs for the home. This is essential for achieving the benefits of electrification as noted above. Second, there is an issue with rates charged to commercial customers with charging stations that include demand charges. Because utilization at these stations may be low, particularly in the early years, demand charges when considered on a per unit of sales (cost per kwh) can make public charging a difficult economic proposition. The legislature should require the utility to set a reasonable commercial charging rate and permit the PSC to adjust based on a "just and reasonable" determination. It is an accepted practice in ratemaking that temporary departures from cost of service-based rates can be made when public policy needs so dictate. But as a matter of fairness and efficiency, utility rates to EVSEs should ultimately be based on cost of service.

Additionally, for clarity, the PSC would not be involved in approving rates set by non-utility third party owned charging stations for charging services to the EV driver.

Issue 6. Managed Charging

Managed charging is essential for the development of EV markets that minimizes the need for additional utility investment to meet increased demand and helps ensure benefits of electrification accrue to all utility customers. Managed charging provides ways in which off-peak charging (typically during overnight hours but may also be specified to coincide with peaks in renewable supply during the day) can be encouraged. There are essentially two ways to encourage off-peak EV charging (which are not mutually exclusive). The first is by offering lower off-peak rates as mentioned above – but even here, several options are available based on time periods, rebates for off-peak use, and penalties for on-peak use to name a few. And utilities and EV owners (and third parties supporting EV owners) can also rely on technology to charge vehicles when it is the least costly for utilities. Although we believe the PSC currently has authority to approve such managed charging programs, we believe managed charging should be encouraged by the Legislature through guidance to the PSC to help ensure that EV charging is done in a manner that minimizes impacts to utilities and reduces costs to customers.

Issue 7 Incentives for Vehicle Purchases

The supporting parties understand that establishing significant incentives for electric vehicle purchases in the current environment may be difficult. However, we do want to emphasize that it is essential that certain historically underserved or environmentally burdened communities be able to participate in the benefits of the electric vehicle revolution. Thus, we propose that the Legislature provide for rebates, payable up front – subject to the availability of funds – on new and used light-duty vehicle sales or leases to income-qualified consumers.

Variations of this kind of incentive are possible that would have multi-party benefits. For example, EVs coming out of rental fleet use are perfect vehicles for cost-constrained consumers. Providing rebates for sales of used vehicles from fleets, perhaps to income-qualified customers, provides benefits to both underserved populations and rental car fleets. It would also help to keep such vehicles in Florida. The

TEC discussed above should identify preferred alternatives and potential funding sources and make recommendations to the Legislature or appropriate state agency. And community input is essential to better define what incentives are practical and useful.

Another important role the State can play in encouraging new EV sales is through the state's fleet procurement practices. While light-duty and MHD EVs generally have a higher up-front cost than internal combustion vehicles (ICE vehicles), the O&M savings, particularly for fuel can be significant and make the lifetime total costs of EV ownership significantly less than for ICE vehicles. We believe the Legislature should require state agencies to consider the total cost of ownership (TCO) of any vehicle they are purchasing in any given year and be required to consider that TCO in their purchasing decisions. Perhaps state agencies could be required to choose from the top three vehicles with the lowest cost of ownership that otherwise meets their needs. We also recommend that the DOT in conjunction with the DMS provide guidance to agencies on how the TCO is to be calculated, and over what period – which should correspond to the expected period of ownership of the vehicle at a minimum. Potential second use of the vehicle batteries should also be taken into account.

With respect to MHD vehicles and school and transit buses in particular, while the TCO may not be positive in these early years, the calculations should still be made. But included in those calculations should be any incentives or grants available from government or private sources for that type of vehicle. There are numerous grants available that can defray the initial purchase costs and thus turn the TCO to very positive territory.[4]

Incentives might also be considered as part of the State's economic development strategy. For example, incentives may be provided for vehicles assembled in the State, or tax breaks offered to EV manufacturers and their associated supply chain businesses. Incentives could also be offered for infrastructure manufacturing in the State, including EVSEs, batteries, and EV-related software and hardware development. As Florida has the opportunity to become a leader in the development of autonomous vehicles, we would include such AVs and their manufacturers and supply chains in the eligibility for these same incentives whether electric or not. Incentives should also be considered for last-mile micro-mobility options. And electrification at marine passenger terminals, cargo ports, and airports can have major benefits to the State. Incentives ought to be considered for these use cases as well.

And of course, numerous types of incentives are possible for the development of EV charging stations, many of which could be offered by utilities without the need for additional State outlays. These include the development of "make-ready" infrastructure which is the wiring and equipment needed to get power from the utility's distribution system to the stub where the charger will be installed. Utility rate-basing of some or all of these costs would substantially reduce the costs for EVSE developers and result in increased infrastructure development. Many utilities around the country are also offering rebates for the installation of chargers, both at residential and commercial public charging locations. Some also offer on-bill financing of charging stations to reduce the financing hurdles for EVSEs. These are just some examples of possible utility incentives. Incentives for EV infrastructure are particularly important to the State's rental car industry whose companies are increasingly electrifying their fleets, and important to tourism in general. The PSC, upon application of a utility, should determine whether the benefits of such incentives outweigh the costs.

And in any event, any incentives for infrastructure should ensure that means are provided for proper

maintenance of charging stations. And any incentives should be fairly apportioned between various use cases and potential infrastructure developers.

Finally, the TEC in conjunction with FDOT ought to consider other incentives for EV ownership that don't require new outlays from the State or utilities. For example, several states allow EVs to use high-occupancy vehicle lanes without the requisite number of vehicle occupants. Or reduced tolls on State highways might be an option. This latter option has some revenue implications, but still ought to be considered given the benefits of having more EVs on the roads.

Issue 8 Road User Fees

The supporting parties believe that ultimately, EV drivers should pay their fair share for use of Florida's roads. But make no mistake about it – the fact that EV owners currently do not contribute to state highway funds because they use no gasoline is not a significant contributor to declining gas tax revenues in the state. A recent white paper by Drive Electric Florida and the Alliance for Transportation Electrification demonstrated that, of a projected cumulative shortfall in funding of $288 million between 2019 and 2030, only about $37 million of that shortfall is expected to be caused by electric vehicles.[2] The major cause, by far, is the steadily increasing fuel efficiency of vehicles in the state, resulting in lower gasoline usage and thus lower tax collections.

Longer-Term Proposals

Thus, the highway funding system is already broken: collecting fees from EVs won't cure the problem. Our preference is for the State to fix the problem in a way that all vehicles, regardless of fuel type, operate under the same system. One option would be a vehicle miles traveled system whereby light-duty vehicle owners pay an annual fee based on their vehicle's mileage during the year. Such a system comes with privacy concerns and a lot of implementation questions, but the Federal government is funding numerous research projects on the subject and some states have started pilots. Another option would be an additional vehicle registration fee paid by all vehicles, perhaps based on vehicle weight class. Some may consider this unfair as heavy road users pay the same as those who travel considerably less. There is probably no perfect system. We recommend that the Legislature require FDOT to conduct its own study and pilot on the viability of alternatives, perhaps through the TEC. Such a study could be used by the Legislature to determine the appropriate long-term solution that would cover all vehicles.

Near-Term Proposals

It will take some time to reach consensus on a preferred alternative to current methods of highway funding and implement the selected alternative. In the shorter term, recognizing that EV drivers do use the same roads and have a responsibility to fund those roads, the supporting parties recommend that light-duty EV drivers pay for road use in one of two ways. Either they should pay an annual registration fee in addition to the fee paid by all drivers, or they should have the option to pay based on a fee per vehicle-mile traveled. Making the VMT method optional should allay concerns about privacy of the vehicle owner's usage data, but to elect this option the EV owner would have to agree to have data

[2] Drive Electric Florida and the Alliance for Transportation Electrification. "Florida's Highway Funding Gap: Fuel Tax Revenue to Decline by $288 million through 2030", April 2020. https://evtransportationalliance.org/wp-content/uploads/2022/06/Florida-Highway-Funding-Gap-FINAL.pdf

collected and reported on their annual miles traveled. The mechanism by which this would occur would be determined in a rulemaking to be conducted by FDOT.

The alternative annual registration fee to be paid by light-duty EVs would be based on an equivalent amount to what the owner of an ICE vehicle pays in gas taxes on an average basis. To determine the right amount, the supporting organizations propose a study to be conducted by one or more Florida Universities which assesses the vehicle miles traveled by personal ICE vehicles in the state, average fuel efficiency, and thus annual payments in gas taxes. The same amount would then be applied to EVs selecting the registration fee option on an annual basis and based on weight class so that heavier vehicles, with a greater impact on roads, would pay more. The VMT option would be made by the average ICE vehicle (by weight class) developed using these same metrics. The amount would be calculated by dividing the annual registration fee by average VMT of all personal vehicles in the state, to derive a $ per mile amount. Thus an EV driver with average vehicle miles traveled annually compared to the state average would pay the same amount as the annual registration fee. Those driving less would pay less.

We also recommend that because the losses in state highway funds are so miniscule today, and because any additional costs may serve as a disincentive to purchases of EVs by consumers, that a delay be provided in assessing the annual registration fee or VMT tax. We suggest that the registration fee or VMT fee not be imposed until EVs on the road in Florida reach 5 percent of all vehicles, by which time cumulative sales of EVs may begin to be significant enough to cause deficits in highway funding. FDOT would be responsible for making the necessary calculation based on registration data.

Since highway funds are dedicated to adding infrastructure to the state, we also suggest that the Legislature consider electric vehicle charging stations as part of that state infrastructure and use at least a small portion of proceeds from the new EV road user fee to contribute to constructing additional EV infrastructure.

We do not make a recommendation here for road user charges to be applied to MHD vehicles. We suggest that the University study examining appropriate charges for light-duty EVs also examine what would be appropriate for other classes of vehicles.

Other Issues for Consideration for Legislative Action (in no particular order)

1. Local EV procurement policies
2. Streamlining of local zoning and permitting
3. EV Ready or Capable Building codes
4. Interoperability and payment systems requirements
5. The potential role of on-site storage
6. Standards (including networks, weights and measures)
7. Measures to increase vehicle supply in the state

8. Research and development

9. Workforce development

10. Interstate coordination

11. Other barriers to market development?