TESLA

October 8th 2018

To: Texas Commission on Environmental Quality (TCEQ)

RE: Volkswagen Mitigation Trust D – Draft Beneficiary Mitigation Plan Review

I am writing on behalf of Tesla to share our comments regarding the Texas Commission on Environmental Quality's ("TCEQ's") August 8th Draft Beneficiary Mitigation Plan for Texas' allocation of the Volkswagen (VW) Mitigation Trust. It will be critical to utilize the more than $209 million allocated to Texas under the VW settlement funds from Appendix D to maximize air quality benefits. Replacing heavy-duty (HD) diesel trucks and investing in light-duty (LD), medium duty (MD) and HD Zero-Emission Vehicle (ZEV) charging infrastructure can help achieve this objective.

Tesla commends the TCEQ for proposing funds for the replacement of high NOx-emitting vehicles Class 8 and the construction of electric vehicle (EV) charging infrastructure. The proposed initiatives will substantially improve the air quality for Texans while also boosting adoption of EVs and improving access to charging, thereby reducing range anxiety. There are some items in the draft mitigation plan that Tesla would like to highlight and provide comments and recommendations on with regard to incentive program structures, as well as requesting for clarification on certain items.

High Level Recommendations:
- Increase funding pool for Class 8 freight vehicles in order to achieve the highest NOx emissions per dollar spent.
- Not mandating proximity limitations on operating area of Class 8 vehicles (ports, railyards etc.) as it may constrain the potential use cases that truck operators can pursue. Ensuring operation within the five identified priority areas in the mitigation plan is sufficient.
- Allowing for Heavy Duty Charging Infrastructure and Class 8 vehicle funding to be approved with sufficient lead times to provide certainty for heavy-duty vehicle operators considering the purchase of heavy-duty ZEVs and charging infrastructure. Lead times of at least 12-18 months from funding approval to delivery is recommended.
- Consider modeling Level-2 charging infrastructure programs after existing utility programs.
- Develop fast-charging program concurrently with Electrify America's deployments on an independent timeline to ensure sites are developed rapidly. Coordination between TCEQ and Electrify America is recommended.

Class 8 Allocations, Operating Areas and Timelines

Allocations

Tesla would like to recommend changes to the proposed allocations for the Class 8 vehicle incentives and definitions for the categories. We recommend that funding pool for Class 8 local freight vehicles be increased to at least double the current proposal ($56m+), in order to achieve the highest NOx reductions for the lowest funds, as described in Table D3 of the mitigation plan. For charging infrastructure associated with purchase of heavy duty ZEVs, Tesla recommends that up to a 75% cost recovery be allowed for incentivization of the make-ready infrastructure[1] and also the charging equipment (EVSE)

---

[1] 'Make ready infrastructure' is defined as the electrical infrastructure required to support EV charging, and can include new or upgraded electrical panels, conduit, wiring etc. but does not include the EVSE (charger) itself

Operating Areas

Tesla asks that TCEQ verify that 'Class 8 Local Freight' vehicles are defined as any Class 8 vehicle operating the majority of its mileage (51%) within one of the designated counties outlined in Table 1 of the plan. Additionally, as it relates to operating area, Tesla recommends that TCEQ does not mandate proximity limitations (ports, railyards etc.) given that it would unnecessarily restrict the potential applications and use cases that Class 8 operators can utilize. Mandating proximity of operation in this manner may potentially lock up funds for applications outside of these areas that may have orders and deliveries ready. The benefits to air quality will still be tangible as long as they operate within the five identified priority areas, which Tesla supports.

Timelines

Tesla appreciates that TCEQ is considering a first-come, first serve application process and that the $/NOx reduction metric will be used to determine application strength. Although a competitive process is also proposed, Tesla would urge the TCEQ to considering altering this approach in order to avoid purchasing anxiety by operators when they are considering utilizing the program during their budget planning. This is especially true for operators considering newer technologies such as EVs, which may require additional charging infrastructure that can require long lead times to implement. Tesla recommends allowing a 12-18 month lead time from funding approval date to delivery of the vehicle and/or associated charging infrastructure, similar to timelines suggested by other state beneficiaries. This timeframe would allow charging infrastructure to be constructed during this period and be operational on the delivery date of the vehicle(s).

Charging Infrastructure

Tesla is very supportive of TCEQ's proposal to invest the fully allocable 15% into charging infrastructure and appreciates that the agency sees the importance of Level-2 charging as well as DC Fast Charging (DCFC). Both levels of infrastructure are crucial and necessary to improving charging access for Texans, reduce the cost of infrastructure deployment and mitigate range concerns.

Tesla has significant experience in deployment of both Level-2 and DC Fast Charging infrastructure and would like to provide input into elements of an Electric Vehicle Supply Equipment (EVSE) and/or make-ready infrastructure funding program structure that the TCEQ can consider when developing application criteria and other program parameters. The goal of the program should be to ensure that as many chargers are installed, and a mix of chargers be installed along highway corridors, workplaces, populated areas, and areas of interest to maximize customer experience, while ensuring funds are utilized as cost effectively as possible.

Level-2 EVSE program considerations

There are several Level-2 EVSE incentive programs in operation that the TCEQ can examine when developing their own program. Good program designs include those being implemented by NV Energy, Pacific Gas and Electric and Southern California Edison among others. The recent VW settlement proposal for charging infrastructure by the Pennsylvania Dept. of Environmental Protection is also noteworthy.

Specifically, funding for a Level-2 charger (EVSE) should be no more than $2,500-3,000 per parking space, which includes the make-ready infrastructure. This incentive level will ensure program funds are spent only on essential back-end infrastructure and EVSE with essential charging functionality, and not on non-essential features that reduce the impact of limited program funds. NV Energy has a good program structure that also requires a certain percentage match by the applicant. This program design ensures applicants have some skin in the game and will decrease the likelihood of stranded assets. NV Energy has an incentive that is either the

lesser of $3000 per charger or 75% of project cost, with a 25% customer match[2] and has minimum and maximum site sizes. Tesla also recommends that TCEQ refer to the recent publication of the Pennsylvania Dept. of Environmental Protections' beneficiary mitigation plan, specifically the program structure and application requirements for Level-2 incentives[3]. Tesla recommends that TCEQ allow applicants to choose any EVSE or electrician of their liking, as long as the incentives are designed as discussed above.

DCFC program considerations

Tesla commends TCEQ for proposing investment into additional sites throughout Texas. Tesla recognizes the importance of a convenient and ubiquitous fast charging network. Tesla has extensive experience in deploying fast charging sites and ensuring maximum customer experience through careful site selection and high site uptime. Site selection and high reliability should be high priorities when developing incentive and program requirements for fast charging.

Some suggested requirements could include that site uptimes are to exceed 95%, which is critical to ensuring that customer expectations are met. Sites should be located near amenities such as shopping centers, grocery stores and other businesses to allow customers to have something to do during charge sessions. Site contracts should be required to not contain exclusive site agreements with landlords, in order to allow for expansion of sites in the future. Finally, funding should only cover capital costs for development rather than operating costs. Tesla would again recommend looking at the incentive structures designed by NV Energy and also the Colorado Energy Office[4] when developing incentive levels and program requirements.

Electrify America has plans to deploy fast charging networks nationally, and although the investment into DCFC by Electrify America is eagerly awaited by states, TCEQ should not wait for Electrify America's sites to be developed prior to implementing its program. TCEQ should create its own timelines for deployment of funds and approval of fast charging sites to ensure that the DCFC network in Texas is built rapidly enough to accommodate the growing demand for fast charging. Tesla recommends that TCEQ or its chosen DCFC partners coordinate with Electrify America on potential DCFC sites, but also proposes that funding disbursement not be reliant on the proposed deployments of Electrify America's projects in Texas. Siting, permitting, construction and multiple other variables involved in a DCFC project generally take much longer than expected, therefore it is recommended that TCEQ develop its own independent timeline for funding disbursement to ensure that a comprehensive network is developed with all parties working concurrently on the goal.

Tesla appreciates the opportunity to provide feedback on the development of the BMP at this early stage of process and the level of transparency being provided by TCEQ in designing this plan. As outlined above, Tesla provides several recommendations to help guide the development of the BMP. Tesla looks forward to working with TCEQ on developing reasonable program structures and to assist in the efficient deploy funds into Class 8 ZEVs and EV Charging Infrastructure.

Sincerely,

Junaid Faruq
Sr. Charging Policy Engineer, Business Development and Policy
Tesla

---

[2] https://www.nvenergy.com/publish/content/dam/nvenergy/brochures_arch/cleanenergy/handbooks/2018-2019-electric-vehicle-charging-station-incentives-programs-handbook.pdf
[3] http://www.depgis.state.pa.us/DrivingPAForward/pdfs/Level%202%20EV%20Rebate%20Program%20Guidelines%20CY2018%20EDIT%2010-2-18.pdf
[4] http://cleanairfleets.org/programs/charge-ahead-%20colorado