



October 30, 2023

Ms. Deborah Reynolds, Co-Chair  
Ms. Tonia Buell, Co-Chair  
Electric Vehicle Council  
Washington State Department of Commerce  
1101 Plum St. SE  
Olympia, WA 98504

Dear Co-Chair Reynolds and Co-Chair Buell,

On behalf of the Washington Trucking Associations, I am writing to you to provide comments on the 2023 draft transportation electrification strategy document (“strategy document”) published on your website. While the members of my client’s association certainly appreciate the effort and time that went into the preparation of this document by the interagency electric vehicle coordinating council, unfortunately, the strategy document contains serious flaws that undermine its conclusions and render it unreliable for the purposes of developing policy.

For the purposes of these comments, I will focus on the provisions of the strategy that impact medium to heavy-duty trucking that comprise the bulk of the trucking industry in our state and would be most impacted by the proposed strategies. I will also direct my comments to the parts of the strategy described as “strong electrification policy scenario” since those are the most problematic aspects of the document under consideration by the group. The scenario draws heavily on California regulations like Advanced Clean Car II (“ACC II”), Advanced Clean Trucks (“ACT”), and Advanced Clean Fleets (“ACF”). For example, the strategy document states:

*Achieving Advanced Clean Fleets adoption rates to complement the existing Advanced Clean Trucks regulation. As a state that has adopted California’s motor vehicle emissions standards under Section 177 of the Clean Air Act, Washington may have the ability to adopt and implement the ACF rule or a policy that creates ACF-like adoption rates, in addition to the other California motor vehicle emissions standards it has implemented such as ACC I, ACC II, and ACT. The Department of Ecology is currently monitoring California’s actions to finalize ACF given its existing mandate from the Legislature. As highlighted earlier in this section, the accelerated purchase requirements for MHD vehicles in ACF have a meaningful impact on electric and FCEV truck adoption in the state given that these requirements are applicable to an estimated 40 percent of the states MHD vehicles.<sup>1</sup>*

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<sup>1</sup> 2023 Draft Transportation Electrification Strategy (Executive Summary), p. 15

The problem is that these regulations have been heavily critiqued by industry representatives in California both for legal and logistical deficiencies. Some of the same arguments will apply if these policies and regulations are adopted in our state.

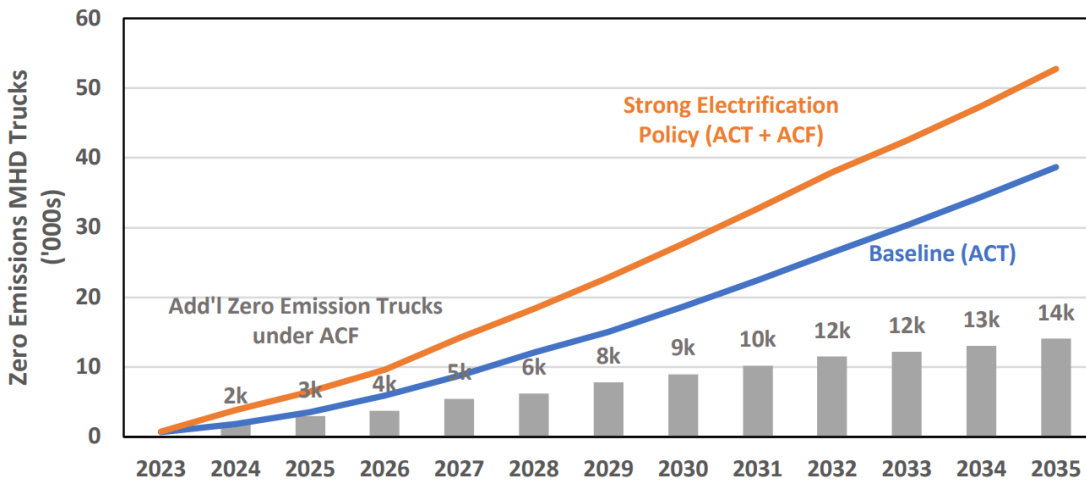
For the following practical, legal, and technical concerns I will outline in this letter, I would urge you and the other parties engaged in developing strategy on this matter to give careful consideration to them and either redraft the strategy document or go back to the proverbial drawing board and start the process over by allowing greater participation by a wider range of partners with industry knowledge to assist in this project to better inform its conclusions.

**I. Practical Concerns**

- a. *The proposed strategy requires deployment of zero emission capable vehicles at a pace which is unseen in prior market transitions.*

There is no zero-emission truck market to speak of today in Washington state. To its credit, the executive summary of the strategy document tacitly acknowledges this by noting that “negligible numbers of electric medium and heavy-duty vehicles were sold (not including buses.)” Figure 2 further reinforces this data point.

**FIGURE 2. ZERO EMISSION MHD TRUCK POPULATION UNDER ACT AND ACF<sup>15</sup>**

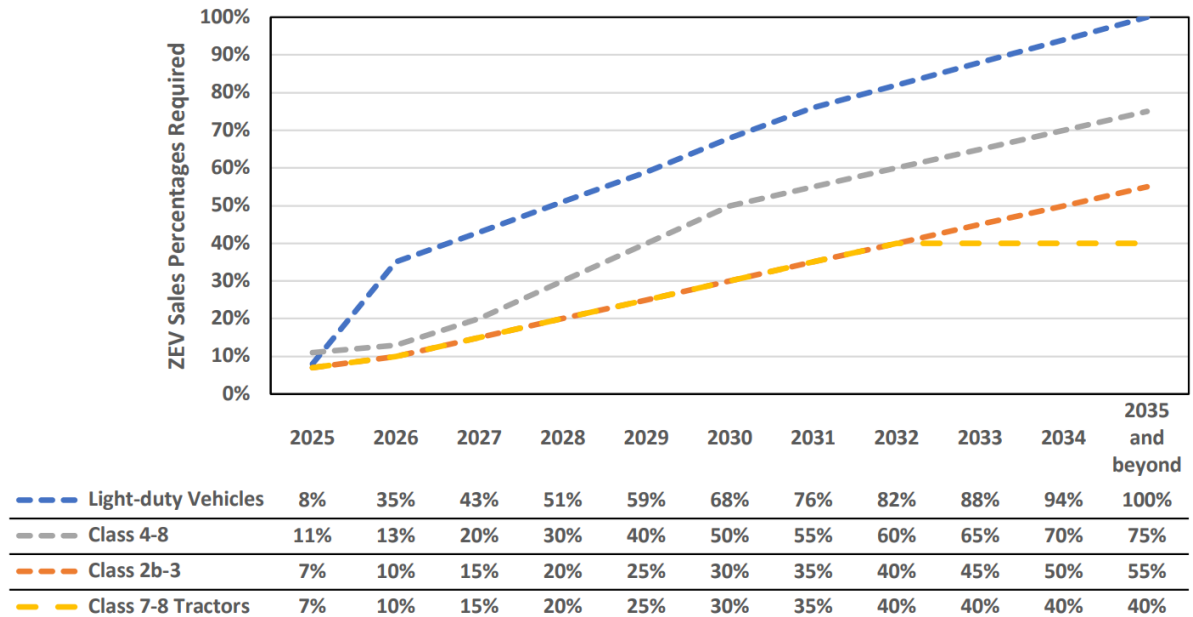


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Another chart in the strategy document indicates the low number of truck sales currently in Washington state and the stratospheric levels of sales that would be required under the implementation of policies identified in the strategy document.

<sup>2</sup> 2023 Draft Transportation Electrification Strategy (Full Report), p. 12

**FIGURE 14. ZEV SALES REQUIREMENTS BY MODEL YEAR**



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Part of the reason for the lack of market interest in our state for zero emission vehicles in the trucking industry is the severe limitations on productivity for their use. As noted in response to similar regulations in California, because an electric heavy-duty truck would take between two to four hours to charge and would only have a range of 125 miles, the operational profile of an electric vehicle and a comparable diesel day cab would demonstrate an astounding loss of productivity, including a reduction in total carrying capacity of 16%. On top of that, a minimum of 23% of a driver's theoretical maximum available hours would be lost to just charging the vehicle.<sup>4</sup> These types of productivity losses would devastate the state supply chain.

This might explain the lack of secondary market for these vehicles as well, which is also a significant drawback for the proposed policies that is not adequately addressed in the policy document. In fact, market realities give rise to one of the potential unintended consequences of adoption of ACF regulations in our state: that it will only lead to slower carbon reduction in the long run as companies hold on to older vehicles longer in an effort to mitigate the business impacts of these regulations.

Even assuming that a trucking company owner was willing to endure such a catastrophic impact to his or her business model, it is unlikely the market would bear the level of supply of medium to heavy-duty zero emissions trucks necessary to achieve the goals outlined in proposed strategy. For example, as the chart above indicates, the electric trucking market in Washington state would need to go from non-existent to an average of 50-70% of total sales of new trucks sold in Washington by 2035. There is simply no precedent for the rate of vehicle turnover to

<sup>3</sup> 2023 Draft Transportation Electrification Strategy (Full Report), p. 43

<sup>4</sup> Letter to California Resources Board from California Trucking Association, October 17, 2022, p. 5

support the deployment timelines in the ACF even in the passenger vehicle space where the technology and market ecosystem is mature.

The strategy document ignores these practical product and market limitations and simply advocates that a government mandate be used to require the purchasing of vehicles by the trucking industry. “For medium- and heavy-duty vehicles (MHDVs), the Advanced Clean Trucks (ACT) regulation requires increasing new sales shares for larger vehicles, with 40-75 percent ZEV sales required by 2035 depending on weight class. These regulations are the driving force behind the recent acceleration in electric vehicle adoption across the country and in Washington.”<sup>5</sup> The document further notes that “[b]y limiting useable lifetimes and setting purchase requirements for specific market segments, ACF ensures that high-impact, electrifiable fleets replace their vehicles. This purchase requirement creates significant demand for the vehicle supply produced under Advanced Clean Trucks (ACT).”<sup>6</sup>

Despite its good intentions, the government cannot mandate products and markets into existence on the scale proposed here. This heavy-handed approach ignores market realities and limitations and assumes that there will be sufficient zero emission trucks for companies to purchase on a scale that is currently impossible and further assumes that the trucks will meet the needs of the industry. Put bluntly, wishful thinking is not a strategy.

***b. The proposed strategy requires charging/fueling infrastructure that does not exist to be built at a pace which is unlikely to occur.***

The availability of charging stations in our state, which would be necessary for supporting the transition to an all-electric trucking vehicle fleet advocated in the report, is similarly bleak. The executive summary cites the Department of Energy's alternative fuel data center in which it is noted that Washington has 910 DC fast chargers at 240 locations, and 3493 publicly accessible level two chargers at 1605 locations.<sup>7</sup> By way of comparison, Washington state has a total state fleet of 6.5 million vehicles currently and a tiny fraction of these are serviced by the existing charging infrastructure.<sup>8</sup>

Despite this, the strategy document states: “charging for both medium- and heavy-duty trucks is anticipated to come primarily from depots, especially in the near term as the routes that can best accommodate reliance on solely depot charging are electrified. As additional trucking routes are electrified over time; an increasing share of charging is expected to come from on-road Public DCFC. In these projections, however, while the total amount of charging from Public DCFC grows, the relative share of public vs. depot charging ports decreases as utilization rates of the public charging network increase.”<sup>9</sup>

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<sup>5</sup> 2023 Draft Transportation Electrification Strategy (Full Report), p. 4

<sup>6</sup> 2023 Draft Transportation Electrification Strategy (Full Report), p. 12

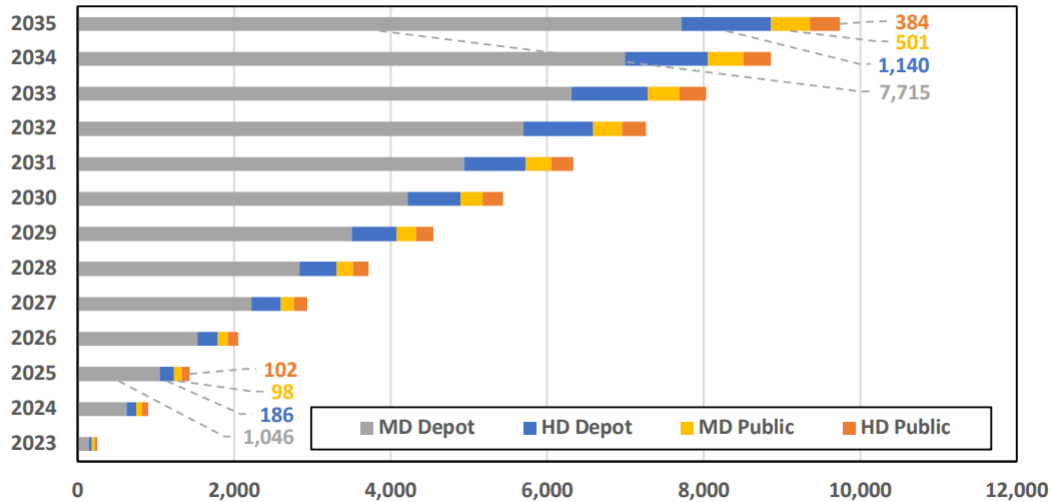
<sup>7</sup> 2023 Draft Transportation Electrification Strategy (Full Report), p. 40 citing U.S. Department of Energy - Energy Efficiency & Renewable Energy, “Electric Vehicle Charging Station Locations.”

<sup>8</sup> 2023 Draft Transportation Electrification Strategy (Full Report), p. 37

<sup>9</sup> 2023 Draft Transportation Electrification Strategy (Full Report), p. 61

Figure 28 demonstrates the challenge facing our state trucking industry in obtaining charging facilities sufficient to meet requirements advocated in the strategy document.

**FIGURE 28. CHARGING PORTS REQUIRED TO SUPPORT ELECTRIC MHD TRUCKS, STRONG ELECTRIFICATION POLICY SCENARIO (S3)**



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According to the attached chart, to achieve a turnover of the trucks subject to the ACF by 2035, roughly 100 charging stations (most of which would comprise charging depots) would need to be constructed per week starting in 2024. There is simply no precedent for this level of construction. The strategy document acknowledges this heavy burden by noting under concerns that “[c]harging infrastructure development can face delays due to challenges caused by local permitting processes, timelines, and/or regulatory procedures for grid-side utility upgrades, and supply chain constraints for electrical equipment, among other institutional barriers.”<sup>11</sup>

The strategy document also indicates that the primary costs of construction of this infrastructure would be borne by fleet operators although it refers to the potential for public funding from an unspecified source at an unspecified time. “MHD charging costs will be borne by fleet operators developing private charging stations for their vehicles at depot locations. Public funding will, however, be important for ensuring that fleet electrification progresses quickly, in line with state goals, by providing incentives to reduce the upfront costs associated with deploying EVSE. Additionally, as trucks that cannot easily rely solely on depot charging electrify over time, public funding to support high-powered public DCFC suitable for MHD vehicles will be essential for ensuring larger portions of these vehicles are able to transition to electric options.”<sup>12</sup>

<sup>10</sup> 2023 Draft Transportation Electrification Strategy (Full Report), p. 62

<sup>11</sup> 2023 Draft Transportation Electrification Strategy (Full Report), p. 73

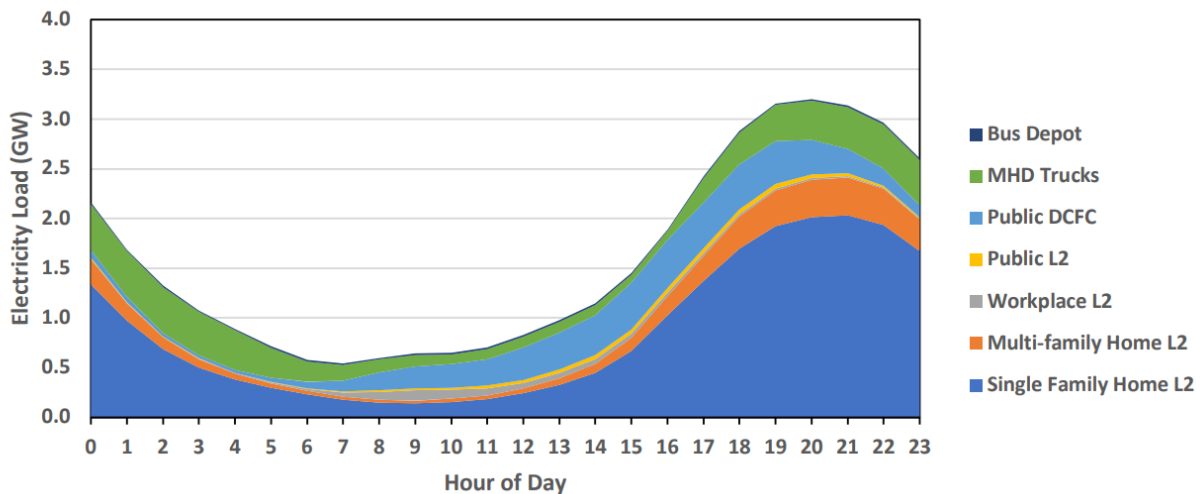
<sup>12</sup> 2023 Draft Transportation Electrification Strategy (Full Report), p. 64

The bottom line is that it simply is unrealistic to expect that infrastructure could be constructed at a pace that would allow for zero emissions medium and heavy-duty truck fleet to increase from the hundreds to the millions in a few years. Even if the trucks were available for purchase, it makes no sense to add them to the state fleet if there does not exist adequate means to charge them. As noted in comments on similar regulations in California, “a truck operator simply expected to face the possibility that they will be forced to purchase a \$300,000 to \$400,000 zero emission truck with no location to charge indeed it's questionable whether a truck purchaser would even be able to obtain financing without identifying a charging strategy.”<sup>13</sup>

*c. The proposed strategy is not supportable by electric infrastructure.*

To its credit, the strategy document is frank in its appraisal of the impact of the proposed demand on the existing electric infrastructure in our state. By 2035, the document notes that under the proposal, “light-, medium-, and heavy-duty electric vehicles are estimated to require 1.4 terawatt-hours (TWh) of electricity by 2025, increasing tenfold to 14 TWh by 2035 – representing 1.6 percent and 16 percent, respectively, of the state’s current annual electricity consumption of approximately 88 TWh”, and an even higher consumption rate for other proposed policies.<sup>14</sup>

**FIGURE 31. STATEWIDE EV LOAD, 2035 BASELINE (TOP) AND STRONG ELECTRIFICATION POLICY (BOTTOM) SCENARIOS**



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Although strategies are discussed for managing demand, the proposals create additional regulatory burdens or costs for the trucking industry that would inevitably be passed along to the consumer. In addition, there is little to no discussion of whether the existing power grid can absorb this additional demand, what upgrades might be necessary to accommodate it, or what the cost of such infrastructure would be.

<sup>13</sup> Letter to California Resources Board from California Trucking Association, October 17, 2022, p. 7

<sup>14</sup> Letter to California Resources Board from California Trucking Association, October 17, 2022, p. 64-65

<sup>15</sup> 2023 Draft Transportation Electrification Strategy (Full Report), p. 65

In fact, there has been little significant coordination to date with utilities on the expansion of the power grid in our state, which would be necessary to accomplish full electrification. According to a report by the American Transportation Research Institute, Washington state would require 31.8% of the current electrical generation to electrify our existing fleet of vehicles.<sup>16</sup> This simply is not feasible in the timeframes contemplated in the proposed strategy.

## **II. Legal Concerns**

### **a. *The proposed regulations in the strategy document run afoul of the Federal Aviation Administration Authorization Act of 1994. (FAAAA)***

The strategy document advocates for the adoption of ACF regulations that are under consideration in California. The FAAAA prohibits states from “enacting or enforcing a law regulation or other provision having the force and effect of law related to a price route or service of any motor carrier ... with respect to the transportation of property.”<sup>17</sup> Congress enacted that provision to advance the strong federal policy favoring a trucking industry shaped primarily by competitive market forces, against a background of uniform federal regulation, which it began with economic deregulation at the federal level in other legislation in 1980. In the wake of federal deregulation, it became clear that Congress could not achieve its goals so long as the burdensome and inconsistent state regulation of the trucking industry persisted, concluding that state regulation of the trucking industry “causes significant inefficiencies,” and “increases the cost and inhibits innovation and technology.” Congress enacted the FAAA’s preemption provision to ensure “national and regional motor carriers attempting to conduct a standard way of doing business would not be hindered” by the sheer diversity of state regulatory schemes.<sup>18</sup>

The adoption of ACF regulations would represent a direct regulation on the trucking industry with acute impacts on motor carrier prices, routes, and services and would massively interfere with the congressional policy favoring regulatory consistency and would thereby run afoul of the preemption by the Federal Aviation Administration authorization act of 1994. The proposed regulation would impact motor carriers in a variety of ways including pricing routes and services which is contrary to the letter and spirit of the FAAAA.

## **III. Technical concerns**

### **a. *The advisory group did not include key stakeholders prepared to discuss the potential impacts to the industry, such as the Washington Trucking Associations.***

It should be noted that the Interagency Electric Vehicle Coordinating Council, which generated the strategy document, is comprised solely of state agencies. The strategy document describes it as “an interagency effort co-led by the Department of Commerce and the Department of Transportation with representation from the State Efficiency and Environmental Performance

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<sup>16</sup> <https://truckingresearch.org/wp-content/uploads/2022/12/ATRI-Charging-Infrastructure-Challenges-for-the-U.S.-Electric-Vehicle-Fleet-12-2022.pdf>, Figure 8

<sup>17</sup> 49 U.S.C s. 14501, sub. (c)(1)

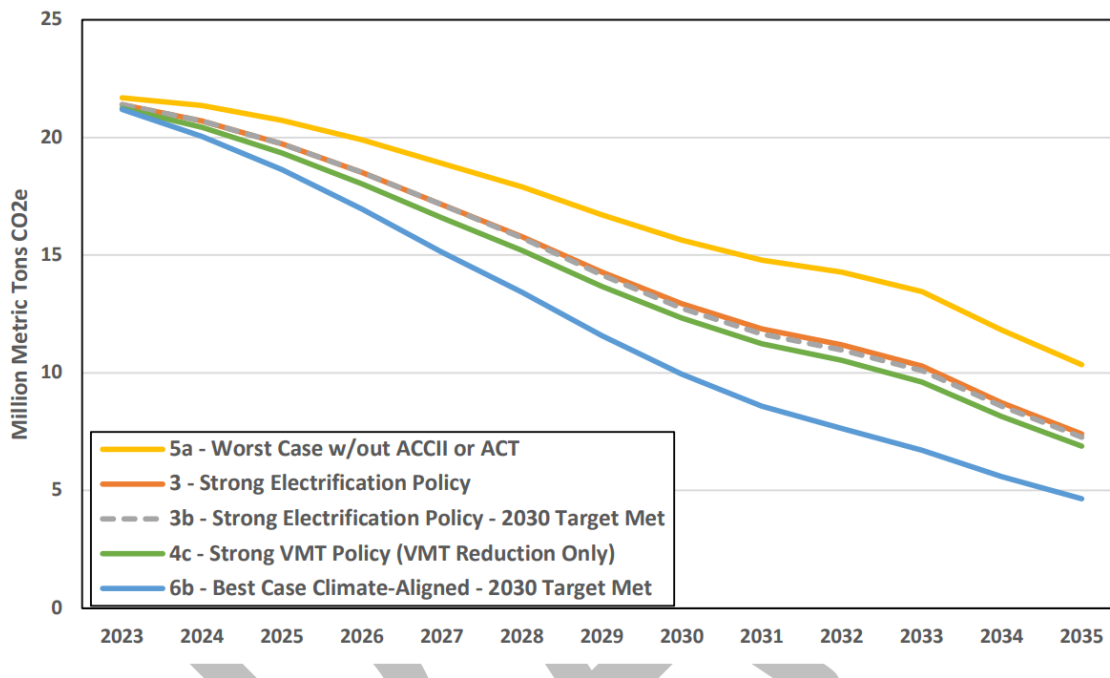
<sup>18</sup> Letter to California Air Resources Board by Wagner Jones Helsley PC, on behalf of CTA and WTA, October 17, 2022, p. 3

Office, Office of Financial Management, Office of Superintendent of Public Instruction, the Utilities and Transportation Commission, and the Departments of Agriculture, Ecology, Enterprise Services, and Health.”<sup>19</sup> Although their work was impacted by a working group that included some representatives from certain industries, the overwhelming participation was by groups and stakeholders that were supportive of the policies outlined in the strategy document. The lack of voices with experience and who could provide constructive criticism to help to inform the work of the council and outline the concerns raised in this letter is a significant flaw in the process that led to the strategies outlined in the draft document.

*b. The strategy document contains data that contradicts its conclusions.*

Finally, the strategy document provides numerous data points that undermine the conclusions that support the policy recommendations outlined in the document. For example, the strategy document indicates that current policy would result in significant reductions in carbon emissions without undertaking the significant policy changes recommended in the document.

**FIGURE 17. ON-ROAD TRANSPORTATION SECTOR GHG EMISSIONS, SELECT SCENARIOS**



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Under the “worst case scenario” on road transportation sector, GHG emissions will reduce by more than half, or twelve million metric tons, by 2035. This is without the drastic policies recommended in the strategy document. This chart begs the question of whether the

<sup>19</sup> 2023 Draft Transportation Electrification Strategy (Full Report), p. 7

<sup>20</sup> 2023 Draft Transportation Electrification Strategy (Full Report), p. 46



potential impacts to the trucking industry, as well as the state's economic health, are worth the low reductions in GHG emissions when as demonstrated here, the state will see significant decreases regardless of whether it takes such drastic steps as advocated in the proposal.

To its credit, the strategy document contains a section that acknowledges significant barriers to the expansion of zero emission vehicles in our state, some of which have been described in more detail above. Some of the more important pertinent concerns include:

- Product supply chain limitations have led to both EV production challenges and limited availability of fast charging infrastructure.
- Charging infrastructure is decentralized, can be unreliable, lacks interoperability, and can result in queues for open chargers due to slow speeds.
- Grid infrastructure is insufficient to meet anticipated long-term charging needs in many locations, and in the near-term for areas with high concentrations of medium- and heavy-duty vehicles that require higher power charging.
- Trip range can be limited by negative weather impacts on battery capacity and can be worsened by lack of EVSE infrastructure.
- The current lack of cost parity between EVs and ICE vehicles can make it difficult or impossible for some consumers to transition.
- Installation of EVSE can have high upfront capital costs, including costs to upgrade grid infrastructure, and challenging business models.
- Charging infrastructure development can face delays due to challenges caused by local permitting processes, timelines, supply-side constraints for electrical equipment, and/or regulatory procedures for grid-side utility upgrades, among other institutional barriers.
- A limited workforce means there are not sufficient technicians to service EVs, and there are not enough engineers, electricians, and technicians to install and maintain EVSE and related grid infrastructure.
- Charging infrastructure, especially for MHDV, will require significantly more real estate than diesel fueling.<sup>21</sup>

While it is admirable that the strategy document acknowledges these significant hurdles to the policies it supports, the concern is that it has neither given them enough weight nor provided adequate strategies for addressing them.

#### **IV. Conclusion**

Considering the significant issues outlined in this letter, we respectfully request that the strategy document be rewritten to address these concerns, or that the process begin anew with an opportunity for Washington Trucking Associations and other potentially impacted stakeholders to provide feedback and insights to assist the group in formulation of policy that will not suffer the significant fatal flaws identified above. Please feel free to contact me should you have questions or wish to discuss them further.

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<sup>21</sup> 2023 Draft Transportation Electrification Strategy (Full Report), p.70-74

Sincerely,

A handwritten signature in blue ink that reads "Jackson Maynard, Jr." in a cursive style.

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