



**Comments of David Gardiner and Associates and the Center for Climate and Energy Solutions
in Case PUR-2020-00051
Ex Parte: Electrification of Motor Vehicles
June 23, 2020**

These are comments filed in the case PUR-2020-00051 on behalf of David Gardiner and Associates (DGA) and the Center for Climate and Energy Solutions (C2ES). Our organizations partner on a project¹ to advance electric trucks and we do so in collaboration with Atlas Public Policy and the Retail Industry Leaders Association (RILA), the trade association for retail leaders. We undertook this project because so many retailers and their trucking companies are beginning to electrify their fleets.

These comments will first address several overall points, then answer questions regarding rate design and public charging infrastructure.

Overall Comments

The Commission should advance policies to help put more electric trucks on the Commonwealth's roads because doing so offers many benefits for Virginians, including cost savings for retail and trucking companies and environmental and public health benefits for all. Many retail and trucking companies are already demonstrating their interest in electric trucks. Companies such as UPS, FedEx, Walmart, PepsiCo, Sysco, JB Hunt, Anheuser-Busch, and Amazon have all announced orders for medium- or heavy-duty electric trucks.² They are doing so in part because electric trucks can be more cost-effective than conventional diesel trucks, as they have lower fuel and maintenance costs. Under current market conditions, in some circumstances electric models already have lower lifetime costs than conventional models.³

By the end of 2020, the U.S. and Canada will have 169 different zero emission commercial vehicles available, a 78 percent increase from 2019. The wide array of available models combined with declining vehicle costs (due to rapidly declining battery prices) present a golden opportunity for both public and

¹ David Gardiner and Associates, "Accelerating the Adoption of EV Trucks and EV Charging Infrastructure," Arlington, VA, 2020. <https://www.dgardiner.com/electric-trucks-ev-infrastructure/>

² Atlas Public Policy, "Electric Bus and Truck Overview," Atlas Public Policy, Washington D.C., 2019, Page 10. <https://atlaspolicy.com/rand/electric-trucks-and-buses-overview/>

³ Atlas Public Policy, "Assessing Financial Barriers to Adoption of Electric Trucks," Atlas Public Policy, Washington D.C., 2020, Page 2. <https://atlaspolicy.com/rand/assessing-financial-barriers-to-the-adoption-of-electric-trucks/>

private consumers to electrify their fleets.⁴ Our analysis shows that much greater cost savings for these consumers are possible if charging infrastructure is both convenient and reasonably priced.⁵

Electric trucks also provide public health benefits by reducing smog-forming pollution, particulate matter, and greenhouse gas emissions from the transportation sector.⁶ These emissions can have significant public health impacts and costs in the communities where diesel truck traffic is high. As a result, conversion to electric trucks can deliver significant public health benefits. Many retailers have been at the forefront of efforts to reduce pollution from their fleets. Thirty-eight RILA members⁷ are critical partners in the Environmental Protection Agency's SmartWay program, a voluntary effort to accelerate adoption of clean technologies in freight transportation, which has saved 6 billion gallons of fuel, lowered fuel costs by \$20.6 billion, and reduced carbon emissions by over 60 million metric tons.⁸ RILA also hosts the Coalition for Responsible Transportation, a national coalition of importers, trucking companies, ports, and ocean carriers formed to facilitate the implementation of practical and sustainable solutions to reduce truck pollution at U.S. ports.

Rate Design – Responses to Questions 3-5

The Commission has asked three questions about the design of electric rates for electric vehicles. Rate design will be a critical issue to ensure appropriate consumer savings for retailers and trucking companies and to avoid unreasonable demand charges for truck fleet owners. Fortunately, effective rate designs in other states offer models and insights on optimal rate design for Virginia. These rate designs demonstrate that charging offers a straightforward way to advance medium- and heavy-duty electrification, often at no additional cost to ratepayers. Of the 33 approved electric vehicles rates tracked on the EV Hub Utility Filings Dashboard, 28 did not include any ratepayer cost component. More information on the EV market and rate design programs in other states can be found at the EV Hub Utility Filings Dashboard.⁹

Rates can also be designed to incentivize fleet operators to charge during off-peak times, reflecting the cost of providing electricity at different times and delivering the added benefit of load balancing by spreading demand more evenly throughout the day.¹⁰

⁴ Cristiano Façanha, "Electric Commercial Vehicle Options Will Almost Double This Year," Trucks.com, June 3, 2020, <https://www.trucks.com/2020/06/03/electric-truck-models-calstart/>

⁵ Atlas Public Policy, "Assessing Financial Barriers to Adoption of Electric Trucks," Atlas Public Policy, Washington D.C., 2020, Page 5. <https://atlaspolicy.com/rand/assessing-financial-barriers-to-the-adoption-of-electric-trucks/>

⁶ Atlas Public Policy, "Public and Electric Utility Support for Electric Buses and Trucks," Atlas Public Policy, Washington D.C., 2019, Page 2. <https://atlaspolicy.com/rand/public-and-electric-utility-support-for-electric-buses-and-trucks/>

⁷ RILA SmartWay members: Ace Hardware, Albertsons, Apple, AT&T, AutoZone, Aveda, Bed Bath & Beyond, Belk, Best Buy, Big Lots, BJ's, Cabela's, CVS, Dollar General, Dollar Tree, Family Dollar, Gap, IKEA, JC Penney, L Brands, Lowe's, Meijer, Michael's, Nike, Nordstrom, Office Depot, Oshkosh, Pep Boys, Ralph Lauren, Sears, Stein Mart, Target, The Home Depot, Kroger, TJX, Disney, Tractor Supply, Walmart.

⁸ Environmental Protection Agency, *Smartway: Vision 2020, a New Era of Freight Sustainability*.

⁹ Atlas EV Hub, "Electric Utility Filings Dashboard," 2019. <https://atlaspolicy.com/rand/ev-hub/>

¹⁰ Atlas Public Policy, "Public and Electric Utility Support for Electric Buses and Trucks," Atlas Public Policy, Washington D.C., 2019, Page 4. <https://atlaspolicy.com/rand/public-and-electric-utility-support-for-electric-buses-and-trucks/>

To incentivize the use of electric vehicles in California, major utilities including Pacific Gas and Electric (PG&E), Southern California Edison (SCE), and Xcel Energy in Colorado offer commercial electric truck rates that are designed to deal with the unique charging patterns and designs of different vehicles. PG&E is offering lower cost subscription-based fees to commercial fleets to help eliminate the potential barrier of high demand charges reducing electric truck use. SCE is offering lower off-peak charging rates specifically for commercial and industrial electric vehicles to reduce fleet operator bills.¹¹ Xcel Energy is offering a “time of use rate” for commercial vehicles to encourage off-peak charging and lower demand charges.¹² In New York in 2018, the state commission approved a Consolidated Edison rate design to offer reduced rates for off-peak charging specifically targeting electric trucks and buses.¹³

Public Charging Stations – Responses to Questions 14-16

As noted above, our analysis indicates expanding charging infrastructure is the most important factor in accelerating electrification of trucking fleets and delivering consumer and environmental and public health benefits. Evidence from other states demonstrate electric utilities must play a critical role in expanding charging infrastructure access for truck operators looking to electrify fleets.¹⁴ According to Atlas Public Policy, electric utility investment in charging infrastructure exceeds all existing sources of public funding for this technology. Across all classes of trucks, electric utilities have been approved to invest more than \$220 million in truck electrification, with major investments by Southern California Edison, Pacific Gas and Electric, and San Diego Gas and Electric.¹⁵ As outlined by Atlas, these utilities have invested for \$7 million in charging infrastructure for port vehicles, \$146.8 million for medium-duty trucks and \$66.1 million for heavy-duty trucks.¹⁶

Moreover, these three utilities, Puget Sound Energy, and Portland General Electric and others are studying the potential to deploy fast charging for freight trucks along the entire length of Interstate 5.¹⁷ The Commission should position Virginia’s utilities to participate in similar examination of the potential to do the same along the Commonwealth’s Interstate highways and create comprehensive long-range plans to build out such infrastructure. The Commission should also investigate the potential grid impacts medium- and heavy-duty fast charging may have on electric power demand.

These programs and others which are under development and consideration in other states argue that the Virginia State Corporation Commission should invite and approve similar utility investment in charging infrastructure for trucks.

¹¹ Ibid, Page 4.

¹² <https://www.utilitydive.com/news/powering-evs-is-cheaper-than-diesel-gas-in-the-largest-us-cities-atlanta/578634/> and <https://electricenergyonline.com/article/energy/category/energy-storage/143/771453/xcel-energy-proposes-new-rates-for-ev-chargingproposal-would-help-foster-growth-of-electric-vehicle-industry-in-colorado.html>

¹³ Atlas Public Policy, “Public and Electric Utility Support for Electric Buses and Trucks,” Atlas Public Policy, Washington D.C., 2019, Page 11. <https://atlaspolicy.com/rand/public-and-electric-utility-support-for-electric-buses-and-trucks/>

¹⁴ Ibid, Page 2.

¹⁵ Ibid, Page 11.

¹⁶ Ibid, Page 12.

¹⁷ Ibid, Page 11.

In summary, we urge the Commission to take steps to ensure utilities are able to deploy charging infrastructure for electric trucks in Virginia and appropriately design rates to meet the unique characteristics of electric demand from truck fleet operators. Other states have already developed effective models for utility charging infrastructure investment and appropriate rate design. The Commission should take the best of what has been implemented elsewhere and put it to work immediately in Virginia. Doing so will deliver consumer cost savings to trucking fleet owners and public health and environmental benefits to all Virginians.

Submitted by,

David Gardiner

President

David Gardiner and Associates

On behalf of David Gardiner and Associates and the Center for Climate and Energy Solutions