



STATE OF SOUTH CAROLINA

BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

**IDENTIFICATION OF REGULATORY)
CHALLENGES AND OPPORTUNITIES)
ASSOCIATED WITH ELECTRIFICATION OF) DOCKET No. 2023-121-E
THE TRANSPORTATION SECTOR PURSUANT)
TO S.C. CODE ANN. SECTION 58-27-265)**

COMMENTS OF CHARGE AHEAD PARTNERSHIP

I. Introduction:

In November 2021, President Biden signed into law the Infrastructure Investment and Jobs Act (“IIJA”), which amended several provisions of the Public Utilities Regulatory Policies Act of 1978 (“PURPA”). In particular, Section 40431¹ of the IIJA directed state electric utility regulators across the country to consider measures that “promote greater electrification of the transportation sector.” Similarly, Act No. 46 signed by Governor McMaster in 2021 directs the Public Service Commission of South Carolina (“Commission”) to open a docket for the purpose of “identifying the regulatory challenges and opportunities associated with the electrification of the transportations sector.”² On April 6, 2023, the Commission opened the above captioned docket and invited interested parties to file comments to assist the Commission with addressing these statutory directives.

Act No. 46 directs the Commission to study the following issues:

- (1) grid integration and resource planning to facilitate electrified transportation;
- (2) the interaction between transportation electrification and the electric power grid;
- (3) regulatory policies to support efficient and cost-effective transition to electric transportation;
- (4) the need for data management and coordination among a number of energy system participants;
- (5) grid investments that support electric vehicle deployments as a part of planned modernization efforts to enable an efficient and cost-effective transition to electric transportation;
- (6) increased electric vehicle adoption and the development of their charging infrastructure and how those advancements align with grid modernization efforts;

¹ Key provisions of Section 40431 of the IIJA amended PURPA and are codified in 16 U.S.C. 2621 (d)(21). *See e.g.*, <https://www.congress.gov/117/plaws/publ58/PLAW-117publ58.pdf> and also <https://www.law.cornell.edu/uscode/text/16/2621>

² S.C. Code Ann. Section 58-27-265

- (7) whether rate designs and other load management strategies are appropriate to mitigate potential negative grid impacts and maximize potential grid benefits of transportation electrification;
- (8) other critical issues related to transportation electrification, such as service reliability, privacy, affordability, and security; and
- (9) and any other issues the commission determines relevant.

The standards laid out in Section 40431 direct the Commission to consider measures to promote greater electrification of the transportation sector, including the establishment of rates that:

- (A) promote affordable and equitable electric vehicle charging options for residential, commercial, and public electric vehicle charging infrastructure;
- (B) improve the customer experience associated with electric vehicle charging, including by reducing charging times for light-, medium-, and heavy-duty vehicles;
- (C) accelerate third-party investment in electric vehicle charging for light-, medium-, and heavy-duty vehicles; and
- (D) appropriately recover the marginal costs of delivering electricity to electric vehicles and electric vehicle charging infrastructure.

Charge Ahead Partnership (“CAP”) thanks the Commission for the opportunity to provide comments on this important issue. CAP is not an official party to this proceeding, but we appreciate the Commission’s consideration of our comments pursuant to Option D of Directive Order No. 2023-445 in the above captioned docket. We firmly believe that the following issues should be considered as the Commission addresses the directives laid out in the IJJA as well as Act No. 46:

- A. The Commission should require South Carolina’s electric utilities to propose rates for the sale of electricity to EV charging providers that utilize alternatives to traditional demand-based rate structures and support a level playing field for competition in South Carolina’s EV fast charging market.
- B. The Commission should develop strategies to support increased consumer choices and private capital investment in EV charging stations, particularly direct current fast charging (“DCFC”) stations. These strategies should include utility-owned make-ready programs that support customer-owned investments in EV charging stations.
- C. The Commission should require electric utilities to coordinate with the private sector and National Electric Vehicle Infrastructure (“NEVI”) formula planning to effectively catalyze a competitive EV charging market in South Carolina.
- D. The Commission should develop and implement strategies to ensure the deployment of EV charging stations does not overly burden ratepayers. These strategies should include requirements for electric utilities that choose to own EV charging stations to do so through a separate, unregulated entity that cannot be cross subsidized with their regulated business. This approach would also mitigate the inherent anti-competitive risks associated with regulated utilities participating in private markets based on fair competition.

II. About Charge Ahead Partnership

CAP’s membership is comprised of businesses, organizations and individuals that share the common goal of expanding South Carolina’s EV charging network and ensuring South Carolina is positioned to meet EV drivers’ expectations of quality service, safety and the affordable, competitive pricing to which they have grown accustomed with the established refueling network. Our corporate

members, from big box retailers, to grocery stores and restaurants, to existing fuel retailers, own the real estate that is best suited for DCFC infrastructure. Many of these businesses are located along highway corridors, and all of them offer the amenities that drivers will demand while refueling.

The biggest challenge to widespread EV adoption in South Carolina is the lack of a robust, statewide EV fast charging network that is co-located with the services and amenities, such as food vendors, restrooms, lighting and security, that consumers have come to expect when they refuel. CAP believes that a competitive, market-based approach is the most efficient and economical way to build South Carolina's EV charging network so that it promotes fair competition and encourages private investment in the EV charging business.

Included below is an overview of CAP's perspective on EV charging policies that would address the standards laid out in Section 40431 of the IIJA as well as Act No. 46. We encourage you to consider these issues as you implement regulatory policy that will shape the future of South Carolina's EV fast charging network. Doing so will position South Carolina to create a competitive and consumer-centric approach to building a robust EV fast charging network across the state.

III. Considerations for building an EV fast charging network

A. Electricity tariffs for EV charging stations and compliance with Section 40431 of the Federal Infrastructure Investment and Jobs Act of 2021.

Congress intended for the IIJA to foster a competitive, private market for direct current fast charging. In order to achieve this, systemic challenges with South Carolina's current electricity market must be addressed. Specifically, DCFC stations have unique power needs that require high power capacity for charging but consume relatively low amounts of energy per charge. This high demand over short periods of time subjects EV fast chargers to costly "demand charges," which are fees based on the highest level of electricity used during a billing period. Demand charges are a key barrier to private investment in EV charging services.

Demand charges were created to compensate electric utilities for their investment in the capacity needed to meet spikes in demand, largely caused by industrial customers. These charges pre-date EVs and are incompatible with the realities of owning and operating a DCFC station. The single use of a DCFC station can incur a demand charge that dramatically increases the electric bill of the operator. In the early stages of EV adoption, there are not enough EV drivers to offset these demand charges, making the cost to charge prohibitively expensive. Furthermore, demand charges are difficult to pass along to the EV driver at the time of charging, because they are not posted until the end of the month when a customer pays their electric bill.

In IIJA Section 40431, Congress explicitly calls for state regulators to implement rate structures that mitigate the impact of demand charges on the private sector's ability to generate a return on EV charging investments. Section 40431's primary author, Senator John Hickenlooper (D-CO), noted in explaining the need for this provision.

Public EV charging stations, particularly high-powered DC fast charging stations designed for highway corridors and for heavier duty EVs like buses and trucks, face a distinct set of hurdles imposed by the current

regulatory system and traditional, demand-based electricity rates. Most prominent among barriers to deploying commercial EV charging are demand charges, which are ... designed to capture the marginal costs imposed on the grid by high-capacity, high-utilization infrastructure such as factories. However, when demand charges are levied upon high-capacity, low-utilization infrastructure such as EV charging stations, they can place a disproportionate cost burden on the station owners. The high-powered, fast-charging stations our Nation needs to serve the EV driving public ... have different load profiles than most commercial entities, with periods of dormancy punctuated by spikes in activity. And unlike most commercial operations, their demand profile is driven by real-time customer activity. So it is difficult for these stations to optimize their load profiles.³

In order to address IJA Section 40431 as well as S.C. Code Ann. § 58-27-265 (A) (7), CAP encourages the Commission to propose rules that require regulated utilities to offer tariffs for the sale of electricity to electric vehicle charging providers that utilize alternatives to traditional demand-based rate structures. The Commission should prioritize time varying rate (TVR) structures based on the amount of electricity being provided to the EV. If properly applied, volumetric TVR's can reduce unnecessary costs for EV charging providers while also recovering the electric utility's cost to serve EV charging load.⁴ This is consistent with the principles described in a recent paper published by the National Association of Regulatory Utility Commissioners (NARUC) titled, *Best Practices for Sustainable Commercial EV Rates and PURPA 111(d) Implementation*.⁵

Any potential rules or public EV charging rates that the Commission considers should set forth the terms and conditions for the sale of electricity to DCFC station providers. To promote private investment and fair competition in South Carolina's EV charging business, it is imperative that the rates, terms and conditions for DCFC stations are applied to all DCFC providers, including electric utilities or their subsidiaries that choose to provide EV charging services. Indeed, electric utilities across the country have operated EV charging stations under different rates, terms and conditions than private providers, giving them an overwhelming competitive advantage.⁶

³ 167 Congressional Record 140 ed. (August 5, 2021) at S5927 available at <https://www.congress.gov/117/crec/2021/08/05/167/140/CREC-2021-08-05-senate.pdf>.

⁴ Trabish, Herman, "With looming EV load spikes, PG&E, Duke, other utilities adopt new rate design and cost recovery strategies", Utility Dive, (April 18, 2023), available at <https://www.utilitydive.com/news/electric-vehicle-load-spikes-pge-duke-sce-entergy-aps-dynamic-rate-design-reduced-demand-charges/646603/>

⁵ Ryan, Nancy, et al., "Best Practices for Sustainable Commercial EV Rates and PURPA 111(d) Implementation", NARUC, (December 2022), available at <https://pubs.naruc.org/pub/55C47758-1866-DAAC-99FB-FFA9E6574C2B>

⁶ Georgia Public Service Commission Docket No. 44280, *Americans for Affordable Clean Energy – Hearing Brief*, filed December 8, 2022, ("On cross-examination, Company [Georgia Power] witness, Mr. Legg, confirmed that electricity supplied by the Company to its EV chargers will not be provided pursuant to any tariff. Instead, the Company will supply electricity to its EV chargers at its cost to provide electricity to itself, and it will not impute the tariff charges (that all other EV providers must pay) to its own EV chargers. This increases the cost to deploy a privately-owned charger and keeps the private provider at a competitive disadvantage.")

B. Increased consumer choices and private capital investment

Consumers refuel at approximately 125,000 retail fueling locations across the country. The retail fuels market today is the most transparent and competitive commodity market in the United States. Consumers can easily see fuel prices and decide where to refuel based on the posted price without having to leave their vehicles. This dynamic leads to price competition and consumer choice. EV drivers should have access to the same competitive, stable and convenient prices and options that drivers of internal combustion engine vehicles have enjoyed for decades.

A major barrier to private businesses investing in DCFC stations is the threat of electric utilities investing ratepayer funds in EV charging stations without market or competitive forces at play. If electric utilities are permitted to provide DCFC services directly to the public, as they are seeking to do across the country⁷, it would undoubtedly undercut the development of a competitive EV charging market in South Carolina. Private businesses cannot compete with regulated electric utilities that have the ability to pass on the costs of their investments in DCFC stations to all of their ratepayers.⁸ Additionally, it is not prudent to utilize ratepayer funding to expand EV charging services when there are private companies eager to invest their own capital. Finally, electric utility investments in charging stations could lead to stranded assets as EV charging technology evolves quickly and could render ratepayer funded EV infrastructure obsolete before the amortization period is complete. As concluded in a recent report released by Grid Strategies and Electric Advisors Consulting:

Allowing monopoly utilities to own public EV charging stations will provide less efficient, lower-quality service and choice to EV owners, resulting in unfair cost shifting to other electricity consumers. Utility ownership of EV charging stations is generally not in the public interest.⁹

CAP acknowledges that South Carolina’s electric utilities will play a critical role in ensuring South Carolina’s grid infrastructure is prepared to support a statewide fast charging network. The most effective way to build out South Carolina’s charging network is through a coordinated partnership between South Carolina’s electric utilities and private, unregulated businesses. The Commission, through its jurisdiction over electric utilities, should implement regulatory policy to facilitate that partnership through the make-ready model. This model will allow electric utilities to utilize ratepayer funding for the make-ready infrastructure needed to prepare charging sites for DCFC stations while unregulated businesses that compete on price and quality of service invest their private capital to own and operate publicly available DCFC stations. This will encourage private investment and increase consumer choices in South Carolina’s EV charging market.

⁷ Minnesota Public Utilities Commission Docket No. 22-432, Public Utilities Commission of Nevada Docket No. 22-09006, Arkansas Public Service Commission Docket No. 22-026-TF, Indiana Utility Regulatory Commission Docket No. 45772 and Colorado Public Utilities Commission Docket 23A-0242E.

⁸ Peter G. Scholtz, Assistant Attorney General, Minnesota Office of Attorney General comment letter in Docket No. 22-432. “Xcel’s EV proposals — particularly \$193 million earmarked for an expanded fast-charging network — implicate important public policy questions about whether and under what conditions the Company should be allowed to use its ratepayer-funded monopoly to compete in a new business area,” Scholtz wrote.

⁹ Gramlich, Rob, et al., “Serving Customers Best – The Benefits of Competitive Electric Vehicle Charging Stations”, Grid Strategies & Electric Advisors Consulting, (May 2023), available at https://gridstrategiesllc.com/wp-content/uploads/2023/05/GS_EV-Paper.pdf

C. Coordination with the private sector and NEVI formula planning

The NEVI formula program, which awarded nearly \$70 million to South Carolina over five years, is an opportunity to develop a burgeoning industry. This funding, however, is only a small down payment. Removing barriers for private businesses to install EV charging stations is essential to support the development of a long-term EV charging market in South Carolina, which will continue to thrive long after the NEVI funds are completely expended.¹⁰ The Commission should ensure that electric utilities are planning to engage with the NEVI formula program in a way that sparks significant private investment in the EV charging business. This will grow South Carolina's EV charging industry for decades to come rather than simply distributing money to stranded assets such as broken, poorly maintained EV chargers that currently hinder EV adoption throughout the United States.¹¹

D. Strategies to mitigate ratepayer cost burden

EV charging services and the ownership and operation of charging stations should be left to private companies that compete on price and quality of services. This approach will ensure that the current fuel transition does not unnecessarily burden electric utility ratepayers. Private investment will be essential to create a more positive customer experience for EV drivers, which will support the growth of South Carolina's EV fast charging network. CAP firmly believes that without an emphasis on quality consumer service as well as charging availability, EV adoption rates will lag.

Electric utilities across the country and in South Carolina are increasingly seeking to underwrite their investments in owning and operating DCFC stations by recovering their costs in their customer's electric bills.¹² Electric utilities rate-basing costs associated with building, owning, and operating networks of DCFC fast chargers will adversely affect the entire rate base, regardless of how many customers actually drive an electric vehicle. This would have the largest impact on individuals in low-income and fixed-income communities who are more sensitive to price fluctuations and are less likely to own EVs. In this sense, rate-basing the costs of EV chargers operates like a regressive tax, particularly on those least able to afford it or directly benefit from it.

Ensuring that South Carolina's EV charging market is based on fair competition and transparency for all EV charging providers will mitigate financial impacts on ratepayers by encouraging private investment. However, private businesses need certainty that their investments in EV charging services will not be competed with unfairly by utility owned charging stations. To address this uncertainty, CAP believes that electric utilities that choose to own EV charging stations should do so through a separate, unregulated entity that cannot be cross subsidized with their regulated business, as such they can compete fairly with other private sector entities in the free market. In 2023, Oklahoma,

¹⁰ Watters, David, "To ensure Biden's EV evolution, states must allow private sector to participate," The Hill, (10/09/2022) available at <https://thehill.com/opinion/congress-blog/3680450-to-ensure-bidens-ev-evolution-states-must-allow-private-sector-to-participate/>

¹¹ Niraj Chokshi, "A Frustrating Hassle Holding Electric Cars Back: Broken Chargers," The New York Times, (Aug. 16, 2022) available at <https://www.nytimes.com/2022/08/16/business/energy-environment/electric-vehicles-broken-chargers.html> ("Many [chargers] sit in parking lots or in front of retail stores where there is often no one to turn to for help when something goes wrong..").

¹² South Carolina Public Service Commission, Docket 2022-158-E

Georgia and Texas passed legislation to enact this policy and there is currently similar legislation under consideration by the South Carolina General Assembly.¹³

IV. Conclusion

For the reasons previously stated, CAP urges the Commission to implement regulatory policy and rate structures that will support private investment in transportation electrification. Thank you for your consideration of CAP's comments. As the Commission studies this issue, CAP is prepared to be a resource and welcomes all future opportunities to participate in this process.

Sincerely,

/s/ Jay Smith

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¹³ South Carolina Senate Bill 684 https://www.scstatehouse.gov/sess125_2023-2024/bills/684.htm, Oklahoma Senate Bill 502 <http://www.oklegislature.gov/BillInfo.aspx?Bill=SB+502&Session=2300>, Georgia Senate Bill 406 <https://www.legis.ga.gov/legislation/64250>, Texas Senate Bill 1002 <https://capitol.texas.gov/BillLookup/History.aspx?LegSess=88R&Bill=SB1002>.