Pennsylvania Public Utility Commission, et al. v. Duquesne Light Company Public Input Hearing	Docket No.: R-2021-3024750

Pages 38 - 82

Judges Chambers
Keystone Building
400 North Street
Harrisburg, PA

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Docket No. R-2021-3024750

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Greenlots Exhibit:

June 21, 2021

Ms. Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, PA 17120

Via email: rchiavetta@pa.gov

Re: Support for Duquesne Light Company's Transportation Electrification Programs
Docket No. R-2021-3024750

Dear Ms. Chiavetta:

Greenlots is pleased to submit these comments in support of the Transportation Electrification Programs ("TE Programs") proposed by Duquesne Light Company ("DLC" or the "Company") in the above-referenced docket.

About Greenlots

Greenlots is a leading provider of electric vehicle ("EV") charging software and services committed to accelerating transportation electrification in Pennsylvania, and a wholly owned subsidiary of Shell Renewables & Energy Solutions. Shell is recognized by customers for trust, quality, and loyalty. Greenlots' software, services and expertise empower industries across the globe to deploy EV charging infrastructure at scale, connecting people in a safer, cleaner, and smarter way. The Greenlots network supports a significant percentage of the DC fast charging infrastructure in North America, and an increasing amount of the Level 2 infrastructure. Greenlots' smart charging solutions are built around an open standards-based focus on future flexibility while helping site hosts, utilities, and grid operators manage dynamic EV charging loads and improve system efficiency.

The Greenlots network is also supporting the deployment of Shell Recharge, which in the U.S. is beginning to be deployed to provide Shell's retail customers—including convenience stores, service stations, and drivers—on the go charging. Shell can work with Duquesne Light Company to build a sustainable charging station network that will help consumers who desire to transition to electric transportation. Indeed, Greenlots would encourage the Company to give strong consideration to how implementing Shell Recharge can increase adoption and build trust in transitioning to emobility.

Greenlots has a keen interest in advancing regulatory and policy outcomes that support the strong utility role and investment needed to deploy EV charging stations and infrastructure at this stage of the market. Greenlots serves on the board of the Alliance for Transportation Electrification, and additionally is an active member of Advanced Energy Economy (AEE) and

other not-for-profit organizations committed to accelerating electric transportation across Pennsylvania, the Mid-Atlantic and beyond. In Pennsylvania, Greenlots has participated in proceedings and stakeholder processes before the Public Utilities Commission (the "Commission"), the Environmental Quality Board ("EQB") and other bodies, including as a long-time participant in the Drive Electric Pennsylvania Coalition.[1]

Comments

Greenlots strongly supports the Company's TE Programs filing and respectfully urges the Commission's approval of the full program as filed.

The Company is proposing a portfolio approach with its TE Programs "to increase utilization of and equitable access to safe and reliable electric transportation fuel in the Company's service territory."[2] The TE Programs include:

- Public, Workplace and Multifamily Make-Ready Pilot in which the Company will own the make-ready infrastructure and the customer will own the charging station;
- Fleet Charging Pilot in which the Company will own the make-ready infrastructure and either the customer or the Company will own the charging station;
- Transit Charging Pilot in which the Company will own both the make-ready infrastructure and the charging station; and
- Home Charging Pilot in which the customer will own the make-ready infrastructure and the Company will own the charging station.

The Company's portfolio approach of tailoring different types of incentives to different use cases is designed to accelerate EV charging deployment and EV adoption across a variety of customer segments. Moreover, the Company's use of different deployment incentives—including both make-ready and charging station ownership—appropriately recognizes that multiple types of financial incentives are appropriate and, indeed, necessary, to expand EV access and adoption in an equitable way for DLC customers. The Company's proposed ownership of charging stations will support deployment of charging stations while creating commercial opportunity for charging companies that sell directly to utilities. The make-ready incentive, in which the Company proposes to install, own and maintain the necessary infrastructure between the meter and the charging stations, will support deployment both by companies that sell to third-party site hosts and by companies that own and operate their own networks of charging stations and sell charging services directly to drivers. Taken together, DLC's portfolio of incentives directly supports a range of business models.

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[1] *See*, e.g., Greenlots Support Letter for DLC EV Time-of-Use (TOU) Pilot Program in Commission Docket No. P-2020-3019522; and Greenlots Support Letter for Pennsylvania joining the Regional Greenhouse Gas Initiative (RGGI) in EQB Rulemaking 50 Pa.B. 6212.

[2] Direct Testimony of Sarah J. Olexsak at p. 3.

Greenlots observes that the docket in this proceeding includes a petition to intervene by an EV charging company that, in part, expresses concerns about aspects of the TE Programs such as Company ownership of charging stations and Company qualification of charging station vendors or service providers.[3] As noted earlier, Greenlots strongly supports the full TE Programs as filed, including those aspects that entail Company ownership of assets and Company qualification of vendors or service providers. As detailed more fully below, Greenlots' perspective on the value of the TE Programs is informed by our views more broadly on the state of the EV charging market, barriers to EV adoption, and the need for utility investment in EV charging—including ownership, operation, procurement and qualification of vendors and service providers—to overcome those barriers, accelerate EV adoption, and support competition and growth within the EV charging market.

Challenging economics contribute to a lack of charging stations

One of the most significant and challenging barriers to increased EV adoption is the lack of adequate charging stations, particularly in the context of public charging. It is critical to recognize the fundamental link between charging station visibility, availability, and EV adoption, as those factors can both confine and slow EV adoption when scarce, or act as a market and EV adoption accelerator when prominently and readily available.

Many consumers disqualify EVs from their purchasing/leasing considerations due to the lack of charging stations and the resulting concern commonly referred to as "range anxiety." While the market is now seeing more EVs with longer ranges, many currently deployed EVs have relatively smaller batteries that are best situated to support local driving, compounding this issue. Even as EVs with 200+ mile ranges become increasingly standard, this will put increased pressure on DCFC stations both along corridors and in urban areas. While the business models for deployment and operation of both public L2 and public DCFC stations are challenging, the latter has particularly high costs to develop and is arguably the most challenging business model.

With the lens pulled out, this lack of available charging stations, which hinders EV adoption, which in turn perpetuates the challenging economics that contribute to the lack of charging stations, is a classic market failure that warrants public investment and the involvement of regulated utilities. Unfortunately, a sustainable and competitive market in the deployment of public charging infrastructure remains aspirational at this time, and it is unlikely to arise prior to the adoption of a critical mass of electric vehicles. This is primarily due to a lack of a sustainable private market business model for the ownership and operation of public charging stations based on revenues from charging activities. Some property owners who install charging stations may do so as an amenity to attract EV-driving customers whose primary expenditure is not the charging session but rather the purchase of products or services in a convenience store, for example. However, at this point in the market, those corresponding sales receipts remain largely

[3] Petition to Intervene of ChargePoint, Inc.

inadequate to cover the costs of installation and operation of the charging infrastructure and stations.

Writ large, this dynamic has thus far resulted in a fundamentally inadequate amount of private investment in such charging infrastructure. The unfortunate result is that economics simply don't support sufficient private investment to adequately grow the infrastructure market to support current and future drivers and their adoption decisions.

Competition within the EV charging marketplace

The utility is uniquely positioned to serve as a motivated buyer that spurs market competition within the EV charging industry. While some market competition exists between an expanding field of sellers of EV charging products and services to motivated investors/site hosts, motivated buyers are relatively few and far between in the market more broadly. Those that are participating in the market are often purchasing at a small scale that lacks the value of wholesale-level procurement, and for market segments such as public charging there is not a competitive and profitable market for offering these services directly to drivers. This void persists despite significant private capital being invested in technology companies supporting transportation electrification.

Per basic economic theory, no number of suppliers results in a competitive market in the absence of a sufficiently large number of consumers or motivated buyers. So, while there may be an insufficient volume of EV drivers on the road today to meet this condition, utility investment in charging infrastructure will strengthen the demand side of the equation and directly help accelerate EV adoption and, by extension, the health and growth of the market.

The utility as a market transformer

The utility is uniquely positioned to advance the market past early-stage barriers and accelerate it across a number of key customer segments, which Greenlots firmly believes DLC's TE Programs filing is designed to do. In this way, the electric utility supports competition, improves the environment for private investment, and—notably—serves as a market transformer. In this respect, Greenlots agrees with the inclusive and flexible role the Washington Utilities and Transportation Commission ("UTC") has envisioned for utilities, as expressed in its seminal Policy Statement. This view is so salient because it is firmly rooted in a clear understanding of the state of the EV market and EVs, which even today remain an emerging technology. In its Policy Statement, the UTC wrote:

> Market transformation is the process of getting these new products to a wider audience, removing market barriers, and exploiting opportunities to make the new market mainstream. For energy efficiency technologies, this is done through programs promoting the product and voluntary efficiency standards. The ultimate

> goal of market transformation is for the product to become accepted by the general public and adopted into codes and standards.
>
> The challenge facing the expansion of EVs is similar to the challenge facing energy efficiency technologies before market transformation…there are three main barriers to additional adoption of EVs: price, range and charging availability, and low consumer awareness. *Charging availability and consumer awareness, in particular, are barriers that electric utilities are naturally positioned to address.* (emphasis added)[4]

Indeed, when considering the right role for the utility in a broader market context, it is necessary to differentiate between a mature, profitable private market and a nascent, largely pre-profit market that is still in the "emerging technology" stage described by the UTC. Regulatory guiderails that may be appropriate and warranted for a mature market may be inappropriate and even detrimental for a nascent market.

Pennsylvania's EV charging market cannot realistically be viewed as competitive, if by competitive one means profitable. Despite the enormous value that transportation electrification writ large offers to the grid and ratepayers, as a stand-alone commercial enterprise it remains generally unprofitable to deploy, own and operate EV charging infrastructure—including stations—today. This lack of a mature and competitive market is evidenced by the fact that Pennsylvania ranks in the bottom half of all states when it comes to per-capita availability of public charging ports; when the focus is solely on publicly-available fast charging, Pennsylvania's ranking falls into the bottom quintile of all states.[5]

Electric distribution companies such as DLC are uniquely positioned to address this market failure and accelerate the market towards a state of profitability and sustainability. Greenlots encourages the Commission in the future to take steps to analyze development of the market and identify deployment contexts most needful of ongoing or additional investment. Indeed, while Greenlots supports the instant portfolio of pilots, utility investment will need to significantly increase, and we look forward to the development of scaled programs.

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[4] Policy and Interpretive Statement Concerning Commission Regulation of Electric Vehicle Charging Services, *In re Rules in WAC 480-100 Rulemaking to Consider Policy Issues Related to Electric Vehicle Supply Equipment*, WUTC Docket UE-160799, at 29-30 (Issued June 14, 2017) ("UTC Policy Statement"), *available at* https://www.utc.wa.gov/docs/Pages/ElectricVehicleSupplyEquipment,DocketUT-160799.aspx.

[5] Atlas EV Hub. Charging Summary By State Or County. Retrieved November 1, 2019, from https://www.atlasevhub.com/materials/market-data/.

Competitively neutral policies require a range of utility investment approaches

There are several aspects to competitively neutral policies in the EV charging marketplace. These include support for a variety of business models, direct utility procurement, and site host choice.

When considering competitively neutral policies, it is important to note that the EV charging industry encompasses companies with a diversity of business models, products, and services. This is not a one-dimensional market. A small number of charging companies have a business model in which they own and operate their own network of charging stations and provide charging to the end-use driver. In contrast, Greenlots' business model is largely one in which Greenlots sells its products and services to a client that procures, owns, and operates charging stations and, in turn, provides charging to the end users—the drivers.

In some regulatory proceedings, Greenlots has seen stakeholders and even regulators be unsupportive of utility ownership of EV charging stations based upon a well-intended but mistaken presumption that such ownership will stifle competition and the growth of the private market. In fact, the opposite is the case. By growing the installed fleet of charging stations, utility investment and ownership will help spark EV purchasing decisions, accelerate adoption and grow the total customer base. This will advance the market closer to an inflection point where asset utilization rates of charging stations can attract greater private investment to sustain a healthy, competitive future market.

Indeed, regulatory frameworks that restrict utility ownership and operation of EV charging infrastructure at this stage of the market not only hinder EV adoption and constrain demand for charging services, they distort the market by advantaging certain business models and disadvantaging others. Disallowing utility ownership of charging stations at this stage of the market undermines the very goal of market neutrality that such disallowance is often intended to foster.

In addition, in some regulatory proceedings, Greenlots has also seen stakeholders and regulators restrict the ability of utilities to procure and select hardware and/or software for utility-provided EV charging programs. Greenlots is convinced that allowing the exercise of reasonable utility discretion in making decisions regarding procurement, selection, and management of charging hardware and software offers multiple benefits including lower costs and increased competition in the marketplace.

A utility-led wholesale-level procurement increases the likelihood of driving down costs and offering the utility—and its ratepayers—more value for every dollar spent. These benefits of utility procurement apply both to scenarios in which the utility directly owns the charging station and scenarios in which a third-party customer or site host participating in the utility program owns the charging station that the utility has procured.

Direct utility procurement also supports competition in the market for EV charging products and services. Indeed, there is a prevalent but inaccurate view of the market that competition exists only at the retail level, where naturally occurring market opportunities are limited. A focus only on the retail or third-party market for charging stations historically has led to less sophisticated purchasing and planning decisions by customers with little technical knowledge or meaningful negotiating leverage.

The wholesale-level competition that stems from utility procurement of hardware and software introduces a significant, motivated and sophisticated buyer to a market that generally otherwise lacks one and represents the purest form of competition in today's market, based on product features, price, service, etc. It also is often inclusive of a broader value range that includes software, management, ongoing operation and maintenance, and future interoperability and flexibility than the retail market on its own tends to support. This allows different types of players, regardless of size or market position, to compete on a leveled playing field.

Customer choice is indeed an important aspect of a competitively neutral policy. In the context of a utility EV charging program, Greenlots views the utility as the customer. The utility should have the appropriate flexibility to design its program and procurement strategy and select its hardware and software partners. The site host should have the choice of whether or not to participate in the utility's charging program, but not to choose for the utility how to design its EV charging program and procurement strategy or select its hardware and software partners.

In Closing

Greenlots supports the Company's proposed TE Programs filing, and considers it to be a well-designed approach to equitably expand access to EV charging across multiple customer segments and use cases, spur the growth of the still-nascent private EV charging market, be used and useful, be in the public interest, and more broadly accelerate the benefits that electric transportation has to offer all residents of the Commonwealth. Greenlots respectfully urges the Commission to approve the TE Programs as filed.

Respectfully submitted,

Josh Cohen
Director, Policy