GOBIERNO DE PUERTO RICO
JUNTA REGLAMENTADORA DE SERVICIO PÚBLICO
PRESIDENTE DEL NEGOCIADO DE ENERGIA DE PUERTO RICO

IN RE: ELECTRIC VEHICLE CHARGERS INFRASTRUCTURE DEPLOYMENT	**Case #: NEPR-MI-2021-0013** **Filed October 7, 2021**

WRITTEN COMMENTS OF TESLA, INC.

Tesla, Inc. ("Tesla") appreciates the opportunity to provide written comments to the Junta Reglamentadora Servicio Público ("JRSP") in consideration of how to improve electric cars penetration in Puerto Rico as part of Docket Number: NEPR-MI-2021-0013. Our comments address several of the questions outlined by JRSP in its September 23, 2021 presentation requesting comment on the topics of utility ownership, billing for charging services, Government supplied land for electric vehicle ("EV") infrastructure development, and zoning considerations for EV charging infrastructure.

Puerto Rico's EV master plan should include measures that ensure continued flexibility that enable a varietyof technologies and stakeholders to participate in the growth of EVs and EV charging infrastructure. The EV and EV charging industries are still at a nascent stage and rapidly evolving. Enhancing collaboration between industry stakeholders, utilities, regulators and policymakers can help reduce charging deployment timelines and costs, and ultimately accelerate EV deployments in Puerto Rico. To that end, our comments highlight current industry best practices to reduce costs and encourage additional investment.

About Tesla

Tesla's mission is to accelerate the transition to sustainable energy through the development of all-electric vehicles and clean energy products including photovoltaic solar and battery storage. Tesla is a U.S. based manufacturer whose vehicle line-up includes the Model S sedan, Model X crossover vehicle, Model 3 sedan, and Model Y crossover vehicle. The vehicles have all-electric range of up to 405 miles per charge, and industry leading performance and safety ratings. In 2020, Tesla delivered 499,550 vehicles globally. Since the company's inception, it has manufactured approximately two million all-electric vehicles. In the coming years, Tesla is planning to launch the Cybertruck pickup, the Roadster sports car, and the Class 8 Semi truck.

Tesla Charging

Creating a seamless and convenient charging experience is key to enabling mass market EV adoption because it ensures people do not need to compromise to drive electric. Simply put, drivers will not purchase an EV if they do not have convenient access to charging. In support of these vehicles and our customers, Tesla has uniquely made substantial investments in developing, owning, and operating charging equipment to support the transition to electric transportation. Tesla owns and operates the world's largest direct current fast charging ("DCFC") network, which is called the Supercharger network ("Superchargers").

The Tesla Supercharger network is extensive and designed to provide customers a seamless and convenient charging experience by being located near desirable amenities like restaurants, shops, and Wi-Fi hot spots. Each station includes multiple Supercharger stalls in order to get

customers back on the road quickly. Globally, there are more than 3,000 Supercharger stations and over 27,000 total Supercharger charging stalls. There are currently two Tesla Supercharger locations in Puerto Rico, one site in Guaynabo and another in Aguadilla.

Supercharger stations are located in a variety of locations in order to best serve drivers. There are two primary use cases for public Superchargers. The first are Superchargers located along highway corridors to enable long-distance travel. The second are Superchargers located within dense urban areas. These Superchargers serve a dual purpose of enabling long-distance travel for drivers passing through or visiting, as well as providing options around town for residents that do not have convenient access to home or workplace charging. Tesla plans to continually expand the Supercharger network to meet customerdemand and to provide greater coverage over more travel corridors and metropolitan areas.

The Supercharger network is currently comprised of several different types of equipment. Some stations are what are referred to as V2 Superchargers which are capable of operating up to 150 kW per charging stall. Some stations are made up of "Urban Superchargers" which are more compact and designed for deployment in areas with clearance constraints, such as parking garages. Urban Superchargers can operate up to 72 kW. In early 2019 we began deploying our V3 Supercharger product, which is capable of operating up to 250 kW per charging stall, which provides and up to 172 miles of range in 15 minutes for Model 3 and Model Y. Virtually all new Supercharger stations use V3 Supercharger equipment. All new vehicles currently sold by Tesla are capable of accepting charge rates up to 250 kW. Supercharger equipment utilizes power sharing capabilities to minimize the utility service requirements necessary to get drivers back on the road as quickly as possible.

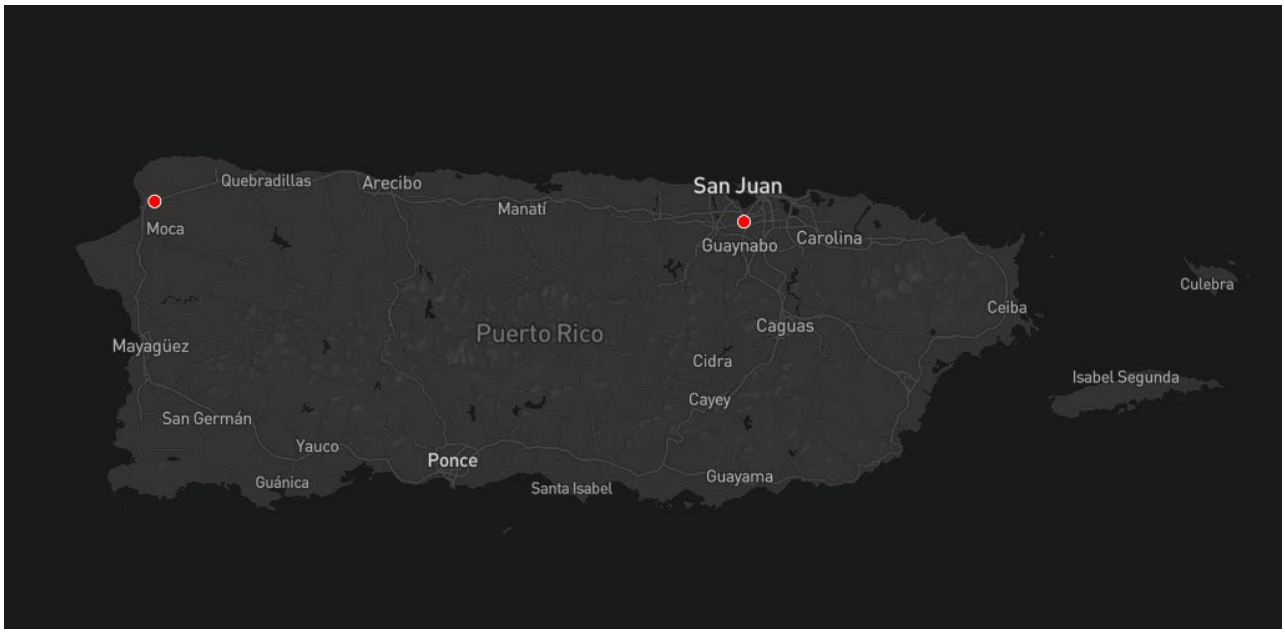

Figure 1 – Tesla Supercharger locations in Puerto Rico as of 10/7/2021. Red pins represent existing stations.

Tesla also has an extensive Level 2 "Destination Charging" network with chargers located at hotels, restaurants and shopping centers around the world. Destination Chargers operate on 208/240 volt, alternating current circuits and can provide about 25 to 50 miles of range per hour. There are more than 27,000 Destination Chargers globally. Unlike the Supercharger network, Tesla does not own Destination Chargers. Instead, Tesla works with businesses and property owners to install the charging equipment, and the site host owns the equipment and pays for electricity while Tesla markets the chargers to drivers. Destination Chargers are currently free to use. Tesla also works with businesses to deploy banks of Tesla Wall Connectors, Tesla's Level 2 charging product, at workplaces and multi-unit dwellings. The Tesla Wall Connector is available for purchase from Tesla's website.

While Tesla has invested significantly in public charging, especially the Supercharger network, we believe Level 2 charging at locations where vehicles are parked for extended periods of time is the best way to charge. Most cars sit idle for more than 20 hours a day while people are

at stores, at work, and at home. That presents an opportune time to charge a vehicle. Tesla has adopted a philosophy of "Charge Where You Park" when developing charging solutions for drivers. Having convenient access to home and workplace charging is the best customer experience, it also presents greater opportunities for managing charging loads to take advantage of hours when excess grid capacity is greatest.

Responses to JRSP Questions from September 23, 2021 EV Workshop Presentation

1. *Will the utility be able to own and operate charging stations?*

Emerging best practices around the world are a mix of increasing utility participation and support in the absence of private investment. It is important to ensure that utility participation complements private investment in charging infrastructure, rather than competes with it. The New Jersey Board of Public Utilities ("BPU") put forward the idea of a "shared responsibility" model[1] for EV infrastructure in their 2020 EV ecosystem "straw proposal" that promotes appropriate roles for both the electric utility and private investors. Under this model:

- Electric utilities would be responsible for the wiring and backbone infrastructure necessary to enable a robust number of Charger Ready locations, along with the ability to own and operate Electric Vehicle Service Equipment ("EVSE") in specified circumstances.
- Non-utility entities, which are referred to as EVSE Infrastructure Companies, would be primarily responsible for installing, owning, and/or operating, and marketing EVSE using private capital.

Tesla sees this sort of complementary approach as a best practice on the topic of utility ownership. The specific circumstances where the utility would be allowed to own charging infrastructure are what are referred to as "areas of last resort" where the private market has either not shown interest in building out infrastructure after a specified period of time or in low to

[1] New Jersey BPU Docket # QO20050357: In the Matter of Straw Proposal on Electric Vehicle Infrastructure Build Out

moderate income communities where policy priorities provide for special consideration of utility ownership from an equity perspective. An important aspect of the "shared responsibility" model is it leverages both the utility's and EVSE Infrastructure Companies strengths while providing guardrails around utility ownership so as to maintain fair competition and encourage continued private investment.

Another way the utility can support and complement EVSE Infrastructure Companies is by providing "Make-Ready" (sometimes referred to as "Charger-Ready") infrastructure investments and EV infrastructure grants. "Make-Ready" investments most often take the form of the utility providing wiring and backbone up to the customer meter but in some cases can extend beyond the customer meter all the way up to the charger stub such that a customer is only responsible for purchasing the EV charging equipment. In the most supportive environments, in addition to "Make-Ready" utility programs, there are EV infrastructure grants that help customers cover the cost of the charging equipment itself. Across the US, there are a mix of "Make-Ready" programs and EV infrastructure grants with some utilities opting for one over the other and some offering both.

An important piece of equipment in every EV infrastructure project is the transformer. Standard practice across most of the US is for the utility to provide the transformer to new customer installations and for the EV charging customer to receive "secondary" service from the utility. Transformer installation, ownership, maintenance, and monitoring is a core competency of electric utilities and is seen as best handled by the utility rather than EV infrastructure companies who are less familiar with ownership and maintenance of transformers and other upstream electrical distribution equipment. One recommendation is for the utility to invest in the upstream/backbone infrastructure necessary to bring power to EV infrastructure deployments including the transformer.

It is important to ensure that all stakeholders involved in the deployment, ownership and operation of EV charging equipment are on as equal of a playing field as possible. To the extent utilities are authorized to own charging stations, guidelines should be adopted to ensure they are subject to the same line extension policies and procedures, rate designs, and are not provided with preferential treatment relative to non-utility charging operators. Similar types of guidelines are well established in the electricity sector to prevent generation entities affiliated with the utility from having an unfair advantage over other independent electricity generators.

2. How charging stations' Owners will charge or bill to clients?

Tesla believes that the best and fairest way to charge EV drivers for charging services is on a $/kWh basis. If EV drivers are billed on a $/minute basis there can be a wide difference between how much energy customers receive and what they are billed. For example, two different EV drivers would pay the same price to charge their cars for 20 minutes, but could get two very different quantities of electricity during that period because the speed of charging depends on the model of vehicle, temperature, the battery's state of charge and other factors. An important step that allows EV infrastructure companies to sell EV charging services on a $/kWh basis in different jurisdictions is a clear delineation that selling electricity for the express purpose of charging a vehicle's battery does not constitute acting as a "public utility" and therefore does not make private EV infrastructure companies regulated entities.

In most of the states in the contiguous US where EV charging services are still being sold on a $/min basis it is only because of a regulatory lag where certain state's public utilities commissions have not yet weighed in on the matter. To date, 38 states have provided clear guidance that allows for billing on a $/kWh basis without EV charging being considered a "public utility." Since EV infrastructure companies are utility customers themselves, it does not make sense that they would

be considered public utilities given they are served by public utility companies. The way exemptions have been written varies from state to state but an example from a determination in Ohio states: [2]

> *The Commission finds that any person, firm, copartnership, voluntary association, joint-stock association, company, or corporation, wherever organized or incorporated, which is providing electric vehicle charging service in this state, is not engaged in the business of supplying electricity for light, heat, or power purposes to consumers within this state, and, therefore, does not qualify as an "electric light company" or public utility pursuant to R.C. 4905.02 and 4905.03. Consequently, the Commission's jurisdiction does not extend to an entity's provision of electric vehicle charging service.*

Another example from Virginia[3] shows that the language used is largely contingent upon whatever the current definition of "public utility" currently exists in statute:

> *The ownership or operation of a facility at which electric vehicle charging service is sold, and the selling of electric vehicle charging service from that facility, does not render such person, school board, locality, or board of visitors a public utility, public service corporation, or public service company as used in Chapters 1.*

The JRSP should make it a priority to determine that the provision of EV charging services does not make an entity a "public utility." Once this clarification is made, EV infrastructure companies will be free to bill EV drivers on a $/kWh basis which is generally preferred by drivers and seen as the fairest form of billing, since it ensures EV drivers are only paying for the electricity received rather than for the time connected to the charger which is simply a proxy for the amount of electricity received.

3. *Must the Government supply the land from its inventory for charging stations development, especially along highways? Does a special procedure need to be adopted?*

[2] Public Utilities Commission of Ohio Case No. 20-343-EL-COI
[3] VA. Code Ann. 56-1.2 and 56.1.2:1

Tesla and other charging operators have, in general, established strong and growing relationships with businesses in the retail, restaurants, and the travel industry where we site charging stations. The relationships have happened organically, but even today with rapid growth of EVs and infrastructure, there are many drivers and businesses that are not aware of EVs or charging stations. Opening opportunities to site charging stations at Government owned properties would be welcomed by the charging industry given site scouting, identification, and development can account for a large part of the deployment timeline. The only caution with opening Government sites for development would be the desire to have an open and transparent process by which EV infrastructure companies were awarded sites from the Government supply of sites.

There does not need to be any specific process and generally what happens in these scenarios is a request for proposals ("RFP") that can go out to various stakeholders with a reasonable timeframe to respond. It is important to balance conducting a transparent and fair process of awarding sites without making the RFP process overly onerous which can reduce the number of applicants. Given there are relatively few EV infrastructure companies actively expanding their networks today, it would be important to receive multiple bids so as to maintain integrity in the process. Informational conversations with specific sites in mind could go a long way towards gauging EV infrastructure interest ahead of the RFP process but generally speaking Government land can be a great opportunity for EV infrastructure deployment, especially along highway corridors.

4. *Must zoning allow for complementary uses, like food trucking?*

There is an opportunity for building partnerships between state and local governments and charging station developers to streamline charging station development. Streamlining EV charging station permitting is critically important for ensuring the infrastructure development needed to support significant EV deployment is provided in a cost-effective and timely manner tokeep pace

with driver needs. Local jurisdictions differ widely in their review timelines, mode of submittal, permit fees, and internal review procedures. Providing guidance or standardized, online permitting processes with very clear requirements can reduce project timelines considerably, allowing for more stations to be installed to serve EV-charging demand.

Territory-level guidance can be extremely helpful to support local implementation of streamlined permitting processes for EV charging stations. In California, the Governor's Office of Business and Economic Development ("GO-Biz") released an EV Charging Station Permitting Guidebook to provide jurisdictions with best practices for streamlining permitting for EV charging stations.[4] In addition to the guidebook, GO-Biz developed an online map that scores California jurisdictions based on whether they have implemented a streamlined permitting process, which serves as a useful tool for not only indicating who has a streamlined process in place but also for gathering data on the length of permitting timelines and potential areas for continued improvement.[5] A similar permitting guidebook could directly support local jurisdictions and greatly speed up EV charging station deployment timelines throughout the territory.

Another example is in New Jersey where a law was passed in July 2021 that allows EVSE parking spaces to be designated as a permitted accessory use in all zoning or use districts and establishes associated installation and parking requirements related to EVSE across New Jersey's 565 municipalities.[6] Accessory use permitting allows for EV charging deployment to be accelerated at many popular charging locations such as malls, grocery stores, or other places of business including workplaces. On the topic of food trucks, depending on the location and the surrounding amenities making special zoning considerations such that mobile amenities would not be prevented from serving more remote locations seems like a good idea although there is not a

[4] https://businessportal.ca.gov/wp-content/uploads/2019/07/GoBIZ-EVCharging-Guidebook.pdf
[5] https://business.ca.gov/industries/zero-emission-vehicles/plug-in-readiness/
[6] https://www.nj.gov/dca/dlps/home/modelEVordinance.shtml

specific precedent that comes to mind from other jurisdictions.

Additional Topics for Consideration

Building Codes

An additional opportunity to coordinate between the state and local jurisdictions, and businesses to accelerate EV adoption is by providing guidance or best practices on building codes. EV-Ready building codes in new construction for single-family, commercial, and multi-unit dwellings helps ensure greater access to charging and lower cost deployments. The minimum recommended level of municipal code adoption is to require 20% of parking spots in new residential and commercial buildings to be EV-Ready, meaning that the required electrical circuitry is installed so the building is ready to easily install charging stations when needed in the future. Importantly, retrofitting existing buildings to include EV charging is significantly more expensive than incorporating EV charging. EV charging retrofits are roughly 4-6 times more expensive than incorporating EV charging in the designs of new buildings. The Southwest Energy Efficiency Project has developed an instructive "EV Infrastructure Building Codes Adoption Toolkit" for state and localjurisdictions that provides technical details on code options and lists jurisdictions that have adoptedvarious EV-Ready building codes.[7] Miami-Dade County passed an EV-ready zoning ordinance which requires that, for most new parking lots with over 10 parking spaces, 10% of parking spots must be EV-Ready before 2022 and 20% of parking spots must be EV-Ready after 2022.[8] Territory level guidance and information on best practices for local jurisdictions to develop EV-ready building or zoning code ordinances can accelerate transportation electrification.

[7] The Southwest Energy Efficiency Project. "EV Infrastructure Codes Adoption Toolkit." https://www.swenergy.org/transportation/electric-vehicles/building-codes#what

[8] http://www.miamidade.gov/govaction/legistarfiles/Matters/Y2019/190029.pdf

Streamlining the Utility Service Connection Process

In addition to local permitting for EV charging stations, streamlining the utility service connection process for EV charging stations facilitates faster EV charger deployments and is an integral process worth exploring further. Tesla has worked closely with utilities across the US to reduce project timelines and development costs.

Through our experience, we have identified three simple best utility practices. The first is that utilities that provide dedicated account representatives for EV charging accounts is highly beneficial. Having a single point of contact at the utility that understands charging technologies and typical site designs has helped reduce development costs and timelines. The account representative helps customers navigate new service requests, and coordinates schedules and potential outages. Secondly, having a transparent process with clear timelines for new service connections is also important. While DCFC are high powered, their construction schedules are significantly shorter than other types of commercial customers requesting similar power levels (such as a hotel). Having clear communication between charging station developers and utilities about their respective plans and timelines helps improve construction coordination and identification of opportunities to reduce development timelines or unnecessary costs. Finally, collaborating early with utilities to screen locations for EV charging viability reduces unnecessary costs and delays. In particular, working together prior to submitting a formal service request to identify where power is coming into a parcel and whether sufficient capacity is available without needing an upstream upgrade can help avoid project cancellations due to high-cost estimates or site design revisions.

Utility easements can also add significant time into project deployment timelines and to the

degree possible, allowing for utility easement language to be incorporated into site leases between EV infrastructure companies and landowners can cut down greatly on paperwork and approval timelines. EV charging easements can be difficult because oftentimes the EV infrastructure company is leasing land from a long-term ground lessee who may be a different entity than the actual landowner. Since EV charging stations typically sign leases for between 5 to 10 years, landowners will sometimes refuse to sign a utility easement in perpetuity for EV charging stations that only have a 10-year lease. Allowing for easement dissolution at the end of the charging station term or equipment removal in certain cases has made landowners more willing to sign the necessary utility easements for EV infrastructure deployment.

Rate Design

A key role for utilities to advance transportation electrification is to provide rateoptions for EV charging accounts, and to send signals through rates about the best times to charge. Affordable rate options that enable charging services to be competitive with gasoline fuels are a foundational step to encouraging third-party charging investments and greater EV adoption. Sending signals about the best times to charge will also help integrate EV charging load and can lead to benefits for all ratepayers by increasing the load factor of grid infrastructure.

This is especially true in the residential class since the majority of charging occurs at home. Utility rates can send customers signals about the best times to charge their vehicle through time-of-use ("TOU") signals. Several best practices for residential TOU rates are to make the peak period short enough, such as 4 hours, so that it is actionable, and that there is enough of a price differential between peak and off-peak periods to incentivize customers to charge their vehicles during off-peak times. Additionally, since many residential customers may be hesitant to enroll their entire home on a TOU rate, making the rate available to a sub-metered EV account is also

beneficial. That is because EV charging loads are mostly predictable for customers and they know that vehicle will be idle for several hours at a time and can be charged during those periods. Sub-metering can occur via a separate utility meter, but also some states and utilities have begun experimenting with metering technology embedded within the charging equipment. Georgia Power's residential Plug-In Vehicle Rate is an example of a well-designed rate for residential customers.[9]

For commercial charging uses cases, there are a variety of standard commercial and EV charging specific utility tariff structures that have been implemented around the country to expand and integrate more EV charging load. All of the structures are aligned in seeking to mitigate the outsized effect of demand charges on EV charging stations which typically have lower load factors than other commercial customers.[10] Much like the electric grid, charging stations and networks are designed and built to serve peak customer demand, which typically occurs around travel holidays or evacuation events. Achieving high load factors at DCFC stations can be a challenge. Stations that become frequently congested with drivers waiting to charge is a poor customer experience which can impede EV sales, thus necessitating the need for additional network capacity. Station utilization is also low in the overnight hours since there are much fewer drivers on the road. As a result, EV charging stations tend to have relatively low load factors, and coincident demand charges can result in EV charging operators paying effective electricity prices far above other commercial customers. Puerto Rico's commercial customer class average price of electricity was 21.83 cents per kWh for year-end 2021.[11]

Commercial EV rates are particularly important to support public charging deployments

[9] https://www.georgiapower.com/residential/billing-and-rate-plans/pricing-and-rate-plans/plug-in-ev.html
[10] For example, to achieve a 50% load factor would mean that a station is completely congested for 12 hours a day, seven days a week, with drivers queuing.
[11] https://www.eia.gov/state/print.php?sid=RQ

and fleet electrification, whether it be public transit, light-, medium- or heavy-duty fleet, which also can have lower load factors depending on use case. EV rate designs should seek to provide an opportunity for EV charging and fleet operators to pay a similar price per kWh to other commercial customers in order to ensure the fuel savings that motivate many EV purchasing decisions, both for individuals and fleets. Similar to public EV charging stations, electricity costs are the largest lifetime cost component for commercial EV fleets. Targeting effective electricity rates for commercial EV charging accounts to be on par with average commercial customers will encourage additional investments in EV charging and vehicles and will provide customers with the opportunity to realize fuel savings relative to gasoline or diesel.

Most utilities have gone the route of opting for a TOU rate structure in order to align cost causation while simultaneously mitigating the outsize effect of demand charges on EV charging stations. In the TOU rate structure, the costs associated with demand charges are usually relocated to volumetric "On-Peak" energy rates. Tesla generally supports time of use rates for EV charging and views all-volumetric TOU rates as an appropriate design to integrate charging loads into the utility system. Below is a non-exhaustive survey of EV rates across the country which shows this to be a common approach.

Utility	TOU Design Applied	Demand Charge Credit	Adjustment to Rate for EVs
Alabama Power (BEVT)[12]	X		
Anaheim Public Utilities (D-EV-2)[13]	X		
ConEdison (BIR)[14]			X

[12] https://www.alabamapower.com/content/dam/alabamapower/Rates/BEVT.pdf
[13] https://www.anaheim.net/DocumentCenter/View/20547/Developmental-Non-Domestic-Electric-Vehicles
[14] https://www.coned.com/en/commercial-industrial/economic-development/business-incentive-rate

Connecticut Light and Power dba Eversource (EV Rate Rider)[15]			X
Hawaiian Electric (EV-F)[16]	X		
Indiana Michigan Power (GS-PEV)[17]	X		
Northern States Power Company (A90)[18]	X		
NV Energy (EVCCR)[19]	X		
Otter Tail Power (Off-Peak EV)[20]	X		
Pacific Gas and Electric (BEV)[21]	X		
Pacific Power Oregon (Schedule 45)[22]		X	
PECO (EV-FC)[23]		X	
Southern California Edison (TOU-EV-9)[24]	X		
Tacoma Power (Schedule FC)[25]		X	
Xcel Energy Colorado (S-EV)[26]	X		

[15] https://www.eversource.com/content/docs/default-source/rates-tariffs/ct-electric/ev-rate-
[16] https://www.hawaiianelectric.com/products-and-services/electric-vehicles/electric-vehicle-rates-and-enrollment
[17] https://www.indianamichiganpower.com/global/utilities/lib/docs/ratesandtariffs/Indiana/IM_IN_TB_18_06-29-2020.pdf
[18] https://www.xcelenergy.com/staticfiles/xn/Regulatory%20&%20Resource%20Planning/Minnesota/Me_Section_5.pdf
[19] https://www.nvenergy.com/publish/content/dam/nvenergy/brochures_arch/about-nvenergy/rates-regulatory/electric-schedules-south/EVCCR-TOU_South.pdf
[20] https://www.otpco.com/media/1298/mn_1412.pdf
[21] https://www.pge.com/en_US/small-medium-business/energy-alternatives/clean-vehicles/ev-charge-network/electric-vehicle-rate-plans.page
[22] https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/rates-regulation/oregon/tariffs/rates/045_Public_DC_Fast_Charger_Optional_Transitional_Rate_Delivery_Service.pdf
[23] https://www.peco.com/SiteCollectionDocuments/ThirdPartyEV.pdf
[24] https://www.sce.com/sites/default/files/inline-files/TOU-EV-7_8_9%20Rate%20Fact%20Sheet_WCAG_0.pdf
[25] https://www.mytpu.org/wp-content/uploads/FC_July_2020.pdf
[26] https://www.xcelenergy.com/staticfiles/xe-responsive/Company/Rates%20&%20Regulations/Regulatory%20Filings/CO%20Recent%20Filings/PSCo_Electric_Entire_Tariff.pdf

Details are provided below for several varieties of EV charging specific and EV friendly commercial electricity rates:

A. Example Rate: Dominion Virginia (GS-2)

Dominion Virginia's GS-2 commercial rate[27] is not specifically designed for EV charging but as a result of its innovative rate design, ends up being an attractive rate for commercial EV charging use cases. The GS-2 regular commercial rate for "Intermediate General Service (30-500 kW)" which is billed as a non-demand rate if the customer's kWh consumption in the month does not exceed 200 kWh per kW of demand, which translates to approximately a 28% load factor. If the customer is below that threshold, the distribution and transmission charges are assessed on a $/kWh basis rather than as demand charges.

If the customer's load factor is above 28%, they are billed demand charges for distribution and transmission costs. Figure 2 shows the effective price per $/kWh paid under the rates two tracks. The rate automatically switches over to being billed as a demand rate at the level of usage where a customer would prefer to be billed on the demand rate to achieve a lower price per kWh.

Since most commercial EV charging use cases including fleet, workplace and public charging stations tend to have low load factors, GS-2 is an attractive rate option. The transition between the volumetric track and demand-based track automatically occurs monthly without the customer needing to enroll in one or the other.

[27] https://cdn-dominionenergy-prd-001.azureedge.net/-/media/pdfs/virginia/business-rates/schedule-gs2.pdf?la=en&rev=65c74050107549f299d48689f738e948&hash=7CBE70107AE10C66B8EB5C5A1E248D12

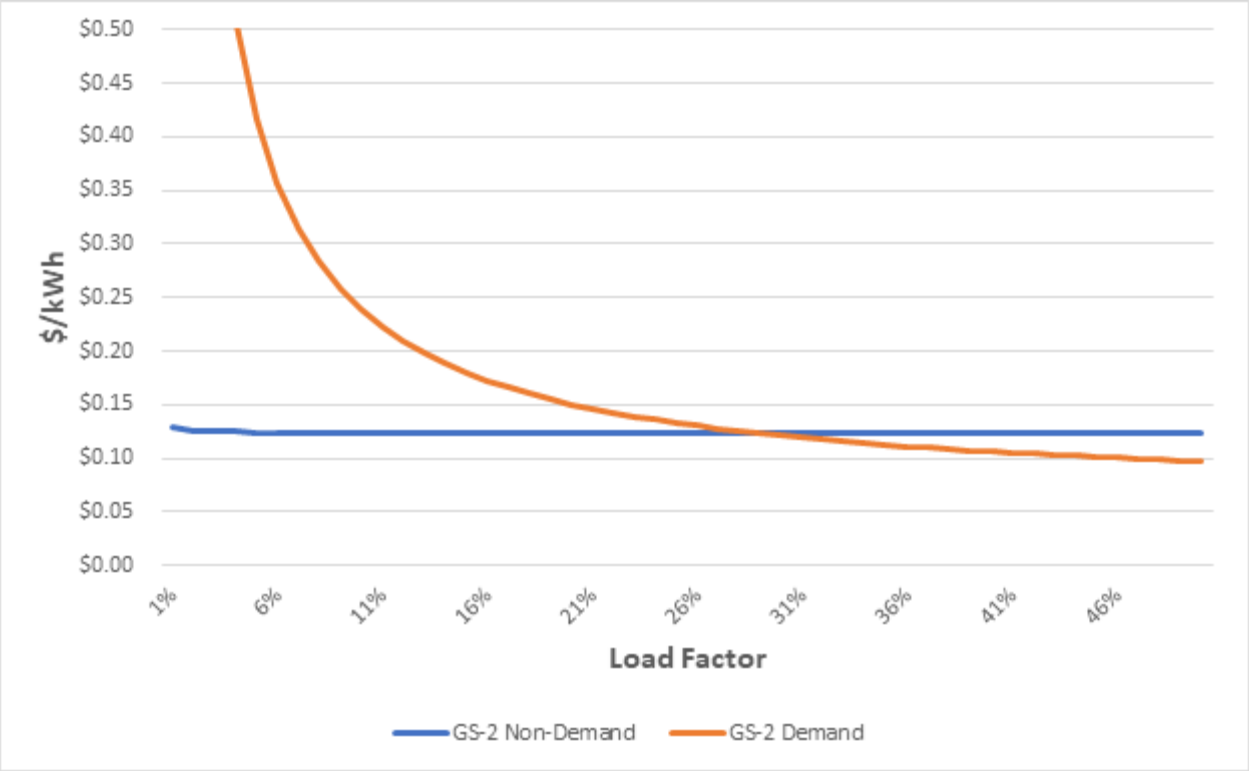

Figure 2 – The effective price per kWh that customers on Dominion's GS-2 rate would pay in the Non-Demand and Demand tracks based on their load factors. Below approximately 28% load factor, customers are billed on the Non-Demand rate. Load factors above that level are billed on the demand rate.

B. Example Rate: Georgia Power's Day Ahead Real Time Pricing - (RTP-DA-5)

Georgia Power has a real time pricing rate (RTP-DA-5)[28] that has proven beneficial for EV charging stations in their territory and sends customers signals about grid congestion and the best times to charge. The rate is only available to commercial and industrial accounts with a consistent monthly demand of at least 250 kW. The design of the rate is to effectively cover the account's actual cost of service by establishing a customer baseline load ("CBL") that is billed under a conventional commercial tariff. For example, the customer's CBL can be 100 kW and 15,000 kWh per month, and those values are billed on the standard commercial tariff. Billing the CBL in that

[28] https://www.georgiapower.com/content/dam/georgia-power/pdfs/business-pdfs/rates-schedules/RTP-DA-5.pdf

fashion is done to ensure that customer's cost of service is covered and the rate is revenue neutral when compared to other non RTP rates.

All kWh consumption incremental to the established CBL is billed at Georgia Power's real-time-day ahead prices, which reflect the marginal electricity costs. The design is innovative and attractive in that it ensures the costs to serve the account are recovered, and the customer's effective average $/kWh is lower as their consumption exceeds the CBL. Moreover, the granular prices can help integrate loads into the system by sending customers signals about peak times. Customers receive information about the hourly marginal prices a day-ahead, which allows customers to plan for load management measures if desired.

C. Example Rates: Pacific Gas & Electric's Business EV Rate

Pacific Gas and Electric ("PG&E") began offering a commercial EV rate earlier this year which does not have demand charges, and instead has TOU prices and "subscription charges"which are akin to a cell phone plan in that they come in 50 kW "blocks" of demand.[29] Customerscan choose to set their subscription block amounts on a monthly basis, and they are billed for their subscribed amount regardless of whether they use it or not. If the customer's demand exceeds the subscribed amount, they are also charged an overage fee.

The design of PG&E's rate can be attractive for several reasons. First, it is available to all commercial EV charging use cases including fleet, workplace, and public charging stations. Second, it provides a level of flexibility in terms of managing demand and utility costs by setting subscription amounts in advance. And finally, the rate includes TOU volumetric charges that send clear and actionable signals about the best times to charge. (Figure 3)

[29] https://www.pge.com/en_US/small-medium-business/energy-alternatives/clean-vehicles/ev-charge- network/electric-vehicle-rate-plans.page

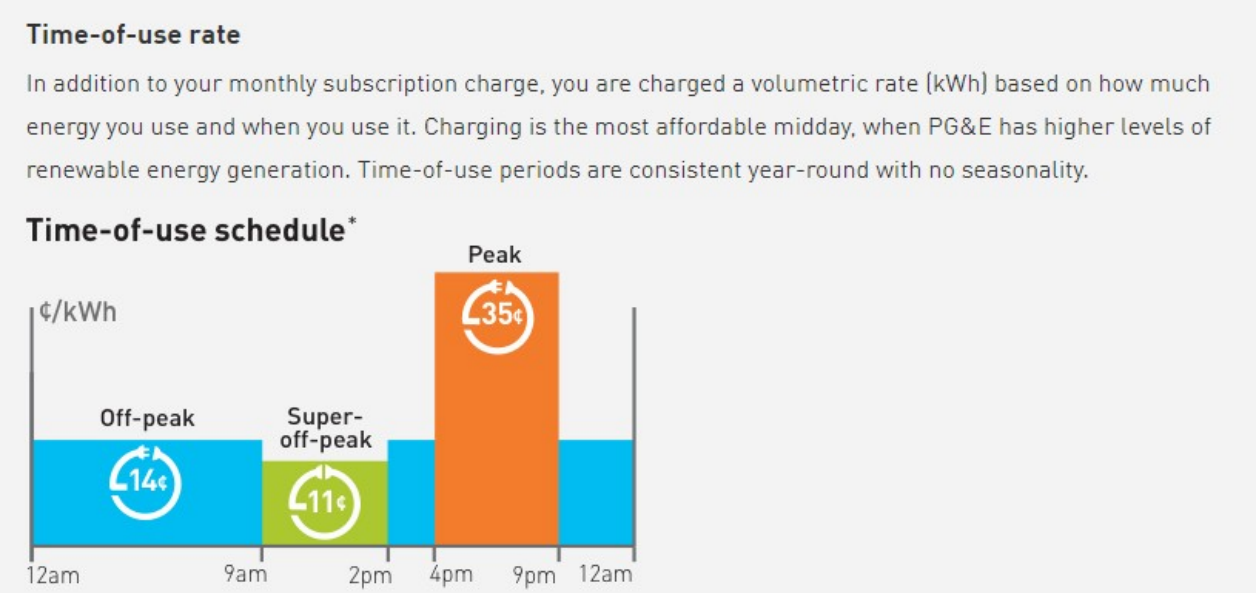

Figure 3 – Graphical representation of volumetric TOU charges in PG&E's Business EV rate.

Sales Taxes Applied to Electricity and Charging Stations

Tesla is very supportive of Puerto Rico's excise tax refund for alternative energy vehicles[30] and we respectfully highlight an additional tax related matter for consideration. The rise of EV charging has raised a sales tax question in a number of jurisdictions where we operate.

In several states, EV charging providers pay sales tax on their electricity bills, while also collecting and remitting sales tax from the end use driver during the charging transaction. There are two primary areas for consideration in this context. First is that gasoline andother transportation fuels, while they pay a road use tax, are exempt from sales tax. Secondly, that it appears to be a case of double taxation and is complicated by the fact that the item being resold is electricity.

A number of issues around the definition of a public utility, as well as whether or not electricity is considered tangible personal property are tied up in this matter, but it seems that long term, sales tax collection should only be applied to the transaction between the EV charging

[30] P.R. Laws tit. 13, § 31653. Excise tax refund for vehicles propelled by combined or alternative energy

provider and the end use EV driver to avoid double taxation. Since the item being resold is electricity, it is unclear whether a resale certificate would be the appropriate justification to only collect sales tax at the final retail transaction. EV charging providers would benefit from guidance and clarification on this matter if it holds relevance in Puerto Rico.

This issue has come up across multiple states where we operate, so we highlight it here as a broad EV charging consideration which may or may not hold applicability in the context of Puerto Rico. In July, South Carolina issued a private letter ruling that considered a similar set of circumstances of the electricity transaction being taxed twice.[31] In the South Carolina determination, the sale from the utility to the charging provider was considered a wholesale sale and not subject to sales tax while the transaction between the charging provider and the EV driver was considered a retail sale and therefore subject to South Carolina sales tax. While the example is in a different jurisdiction with different laws and statutes, it serves to highlight that the question is simultaneously arising in different territories given the unique nature of EV charging and the previously unconsidered provision of electricity for vehicle charging by non-utility companies.

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Tesla appreciates the opportunity to provide comments in the development of Puerto Rico's consideration of EV charging infrastructure. The industry is rapidly innovating, and it is important that any regulatory structure or policies that directly or indirectly impact the industry be designed with flexibility and driver experience in mind. That will allow for continued innovation and rapid investment in EV infrastructure projects. Developing competitively neutral policies is crucial to the continued growth of EV infrastructure.

Puerto Rico is a growing EV market and will continue to be in the future given the

[31] South Carolina Department of Revenue. SC Private Letter Ruling #20-5 by W. Hartley Powell on July 7, 2020.

leadership of the JRSP. Reducing barriers to EV charging investments will be imperative to sustaining growth of EVs in Puerto Rico, and to do so in a cost effective and efficient manner. We look forward to continuing to work with Puerto Rico, JRSP, and stakeholders towards further transport electrification.

Sincerely,

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Dated: October 7, 2021