



Alabama Public Service Commission
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Submitted via email at:

<https://www.pscpublicaccess.alabama.gov/pscpublicaccess/PSC/ElectronicFiling/SubmitFiling.aspx>



December 15, 2017

Re: Comments on Docket No. 32694, Generic Proceeding to Determine the Commission's Jurisdiction Over Electric Vehicle Charging Stations

Dear Alabama Public Service Commission:

Thank you for the opportunity to provide comments on Docket 32694, a generic proceeding to determine the Commission's jurisdiction over electric vehicle (PEV) charging stations. Plug In America is the nation's leading independent consumer voice for accelerating the use of plug-in electric vehicles (PEV) in the United States to consumers, policymakers, auto manufacturers and others. Formed as a non-profit in 2008, Plug In America provides practical, objective information collected from our coalition of plug-in vehicle drivers through public outreach and education, policy work and a range of technical advisory services. Our expertise represents the world's deepest pool of experience of driving and living with plug-in vehicles.¹

Southern Alliance for Clean Energy is a nonprofit organization whose mission is to promote responsible energy choices to ensure clean, safe and healthy communities throughout the Southeast. SACE and its members are interested in promoting greater reliance on clean, low-cost energy, both electricity and transportation, resources to meet the Southeast's energy needs. SACE has an interest in this proceeding both on its own behalf and on behalf of its Alabama members. SACE and many of its members are Alabama Power customers, and therefore are impacted by the utility's practices.

Our organizations believe that regulators, like the AL PSC have a critical role to play in supporting charging infrastructure, particularly in programs developed and implemented by the

¹ More information available at: www.pluginamerica.org



utility. The PSC also has a role in supporting competitive access to third-party charging infrastructure. Both Plug In America and SACE have signed on to the Transportation Electrification Accord.²

Plug-in electric vehicles can provide significant benefits to Alabama drivers, the Alabama electric grid, and to the state. Given the number of benefits, it's no surprise that many other states and utilities around the country are preparing for the accelerated growth of this market through supportive state level PEV policies and utility PEV programs. The American driver simply wants more of these vehicles today. Therefore, Plug In America and SACE strongly urge the Alabama Public Service Commission (PSC) to NOT subject electric vehicle charging infrastructure to the requirements of Title 37, Code of Alabama, 1975 as amended, as electric vehicle charging infrastructure does not meet the definition of a utility under Code §37-4-1(7)(a). Furthermore, we encourage the PSC to allow for, and encourage, utility investment in PEV charging infrastructure, as the lack of PEV charging infrastructure is the most significant barrier to further PEV deployment in Alabama, along with consumer awareness about PEVs.

We respectfully offer the following comments with the current and future electric car driver in mind. Our comments are structured in the following manner:

- I. The state of PEV technology and infrastructure**
 - a. The PEV market in Alabama and across the U.S. is quickly growing, and will continue to accelerate.
 - b. State and federal level policies promote and encourage PEV adoption across the U.S.
 - c. There is a growing number of makes and models of PEVs, that can work for all income levels.
 - d. The future of transportation is widely seen to be electric.
- II. Opportunities for and barriers to PEVs in the marketplace**
 - a. PEVs save Alabama drivers money through reduced maintenance costs and fuel savings.
 - b. Investment in PEVs and the charging infrastructure can bring significant benefits to Alabama utilities, grid operators and Alabama ratepayers by more efficiently utilizing grid assets.
 - c. The growth of the PEV market in Alabama represents more local, domestic electricity consumed. This additional load also represents increased jobs in the

² <https://www.theevaccord.com/>

electric power sector, and a reduced reliance on foreign fuels, improving national security.

- d. Greater PEV adoption in Alabama supports “Main Street USA” and local economies.
- e. PEVs produce little to zero dangerous tailpipe air pollution, improving air quality in the Birmingham/Hoover/Talladega region and reducing health care costs.
- f. The main barriers to greater PEV adoption in Alabama is the lack of workplace and public charging infrastructure, along with consumer awareness.

III. **Questions Asked by the Alabama PSC**

I. **The state of PEV technology and infrastructure**

- a. The PEV market in Alabama and across the U.S. is quickly growing, and will continue to accelerate.

The PEV market is quickly growing. From 2010 to November 2017, U.S. consumers have purchased nearly 732,000 cars,³ with sales expected to accelerate as new vehicle makes and models become more widely available, such as the Chevrolet Bolt EV and the Tesla Model 3. In California alone, the state has gone from about 10,000 total PEVs on the road in 2012 to more than 349,500 PEVs on the road in November 2017 due to supportive policies, regulations and vehicle availability.⁴ As noted by the Commission, in Alabama, there are already 1,386 PEVs registered in the state and driving on Alabama roads. This number of PEVs on the road in Alabama is a noteworthy number for a state that does not currently offer any vehicle purchase incentive, charging station incentive, or HOV lane access policy.

More and more drivers nationwide are making the switch to drive electric simply because PEVs are convenient and save consumers money. While sales are growing, PEVs currently represent less than 1% of the market in the U.S. for light-duty vehicles, highlighting the fact that the market is still yet in the early adopter phase and transitioning to the mass market phase.⁵

- b. State and federal level policies promote and encourage PEV adoption across the U.S.

³ Vehicle count based on HybridCars.com count of U.S. sales of nearly 732,000 plug-in vehicles (BEVs, PHEVs) from December 2010 through the end of November 2017.

⁴ <http://www.pevcollaborative.org/pev-sales-dashboard>

⁵ The DOE reports nearly 15 million light-duty vehicles purchased by consumers in 2013. <http://www.afdc.energy.gov/data/10314>

States in every region of the country are preparing for the mass adoption of these vehicles due to the significant benefits these vehicles offer to the consumer, electric grid and each state, as detailed in Section II below.⁶ The table on the next page shows a suite of policies that have been adopted by states to advance the PEV market:

| State | Purchase Incentive | HOV Lane Access | Utility Charging Incentive | Licensing Incentive | Parking Incentive | Other: Toll Exemption, Insurance Discount, Excise Tax Exemption | Charging Infrastructure Incentive |
|----------------|--------------------|-----------------|----------------------------|---------------------|-------------------|---|-----------------------------------|
| Arizona | × | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| California | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Colorado | ✓ | ✓ | × | × | ✓ | ✓ | ✓ |
| Connecticut | ✓ | × | × | ✓ | ✓ | ✓ | ✓ |
| Delaware | ✓ | × | ✓ | × | ✓ | ✓ | ✓ |
| Florida | × | ✓ | ✓ | × | ✓ | ✓ | ✓ |
| Georgia | × | ✓ | × | × | ✓ | ✓ | × |
| Hawaii | × | ✓ | ✓ | × | ✓ | ✓ | × |
| Illinois | × | × | × | ✓ | ✓ | ✓ | × |
| Indiana | × | × | ✓ | × | ✓ | ✓ | × |
| Louisiana | ✓ | × | × | × | ✓ | ✓ | ✓ |
| Maine | × | × | × | ✓ | ✓ | ✓ | × |
| Maryland | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Massachusetts | ✓ | × | × | ✓ | ✓ | ✓ | ✓ |
| New Jersey | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| New York | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Oregon | × | × | × | ✓ | ✓ | ✓ | ✓ |
| Pennsylvania | ✓ | × | × | × | ✓ | × | × |
| Rhode Island | ✓ | × | × | ✓ | ✓ | ✓ | × |
| South Carolina | ✓ | × | × | × | ✓ | × | × |
| Tennessee | ✓ | ✓ | × | × | ✓ | × | ✓ |
| Texas | × | × | ✓ | × | ✓ | ✓ | ✓ |
| Utah | ✓ | ✓ | × | × | ✓ | × | × |
| Vermont | ✓ | × | × | ✓ | ✓ | ✓ | ✓ |
| Washington | ✓ | × | × | ✓ | ✓ | × | ✓ |
| West Virginia | ✓ | × | × | × | ✓ | × | ✓ |

Source: Plug In America, 2017. Chart shows through December 2016.

⁶ See Plug In America Factsheet on the Benefits of PEVs: https://pluginamerica.org/wp-content/uploads/2016/11/Plug-In-America-Benefits-of-PEVs_161110v1.pdf



In addition to these state policies, there are several national goals and federal level policies that demonstrate not only the anticipation of the adoption of these vehicles by consumers, but also the encouragement of this adoption as well. For example, the U.S. has a goal of one million PEVs on the road by 2020, and the U.S. Department of Transportation also supports an alternative fuel corridor program. This program designated 48 national PEV charging corridors across the country in 2016, totally nearly 25,000 miles of PEV routes in 35 states.⁷ The first Alternative Fuel Corridor signage was recently completed on an interstate in Minnesota in June 2017.

As noted, Alabama currently has no vehicle purchase incentive, charging station incentive, or HOV lane access policy; our organizations look forward to working with Alabama policymakers to implement supportive policies in the near future. However, Alabama Power offers a charging incentive to single residences and individual family apartments as an optional Rate Rider for PEVs: if charging occurs between 9pm - 5am, the customer will receive a discount of 1.7155 cents per kWh. Using a PEV for non-residential purchases may qualify the owner for the Alabama Power Business EV Time-of-Use Rate (BEVT). For this tariff, the electricity to charge the EV battery is metered separately from all other electricity use, and is billed according to time of year and time of day.⁸

Regulatory programs, specifically the Zero Emission Vehicle (ZEV) Mandate will continue to drive the adoption of PEVs in California, Oregon, Massachusetts, Maine, New Jersey, Pennsylvania, Rhode Island, Vermont, Maryland, and New York. These states represent around 40% of the entire vehicle market in the U.S. The ZEV Mandate requires that automakers wishing to sell cars in these states must also sell a certain number of electric vehicles in each state too. This means that more electric vehicles will be available in dealerships across these states, and automakers must make a concerted effort to sell them, or buy credits for PEVs not sold.⁹

⁷ https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/

⁸ <https://www.alabamapower.com/content/dam/alabamapower/Rates/pev.pdf>

⁹ The number of electric vehicles that an automaker must sell in these states is not an actual number of vehicles, but a number of credits. Different PEVs receive different credit amounts based on a variety of criteria. The total credit amount that each automaker must achieve is based off a certain percentage of overall light-duty vehicle sales in the state. Should the automaker not receive enough credits, the automaker can buy credits from other automakers selling in the state. <http://www.cleancarscampaign.org/web-content/stateaction/stateaction.html#Anchor-Massachusetts-2821>

- c. There is a growing number of makes and models of PEVs, that can work for all income levels.

Nearly every major auto manufacturer has announced plans for the manufacture and sales release of a PEV model by 2020.¹⁰ The Plug In America vehicle tracker shows that there are nearly 40 different makes and models available to consumers today.¹¹ It is also critical to note that PEVs are not just vehicles just for wealthy Americans or early technology adopters. In the past year alone, these newer makes and models have revealed more affordable PEVs. For example, the recently released GM Chevrolet Bolt sells for \$37,000 MSRP.¹² The Tesla Model 3, currently in production, will start selling at \$35,000.¹³ The 2017 Chrysler Pacifica Hybrid Mini-van sells for \$41,995 MSRP.¹⁴ The Plug In America vehicle tracker also shows a host of new PEVs selling in the \$20-30k range: the Mitsubishi i-MiEV sells for \$22,995, Toyota Prius Prime sells for \$27,100, the Ford Focus Electric sells for \$29,170, and the Nissan LEAF sells for \$32,450.

Given that PEVs are typically leased for three years, the used PEV market is quickly growing. A used PEV can range anywhere from \$4k-\$15k, which approaches the selling price point for millions of the middle and low-income Americans.¹⁵ Many states have policies that will also provide an additional purchase incentive for low-income consumers. As the PEV market continues to grow, these cars will become more affordable for Americans of all income levels.

Simply put, the PEV market is here, and Alabama must be prepared for these vehicles.

- d. The future of transportation is widely seen to be electric.

The electrification of the transportation sector is widely seen as the future of transportation. As noted above, states are preparing for this future by adopting supportive PEV policies and programs, auto manufacturers are preparing by releasing new makes and models, and even utilities around the country are exploring electrification of the transportation sector by initiating PEV pilot programs or purchasing electric buses for the various grid benefits that PEVs can provide. Plus, major workplaces have also taken the initiative to install charging infrastructure.¹⁶ A comprehensive list of the workplaces that have participated in the U.S. Department of Energy (DOE) Workplace Charging Challenge includes major companies such as

¹⁰ <http://www.pluginamericacar.com/carmakers-commitment-electric-cars-brand-brand-review-130155.html>

¹¹ Most of the nearly 40 different makes and models of PEVs are only available to California consumers. However, with the expiration of the travel provision under the ZEV Mandate, more of these vehicles should be available to consumers across the country beginning in 2018. <https://pluginamerica.org/vehicles/>

¹² <http://www.chevrolet.com/byo-vc/client/en/US/chevrolet/bolt-ev/2017/bolt-ev/trim>

¹³ <https://www.tesla.com/model3>

¹⁴ <https://www.chrysler.com/pacifica/hybrid.html>

¹⁵ <https://www.autotrader.com/best-cars/7-great-used-plug-in-and-electric-vehicles-251956>

¹⁶ <https://energy.gov/eere/vehicles/workplace-charging>

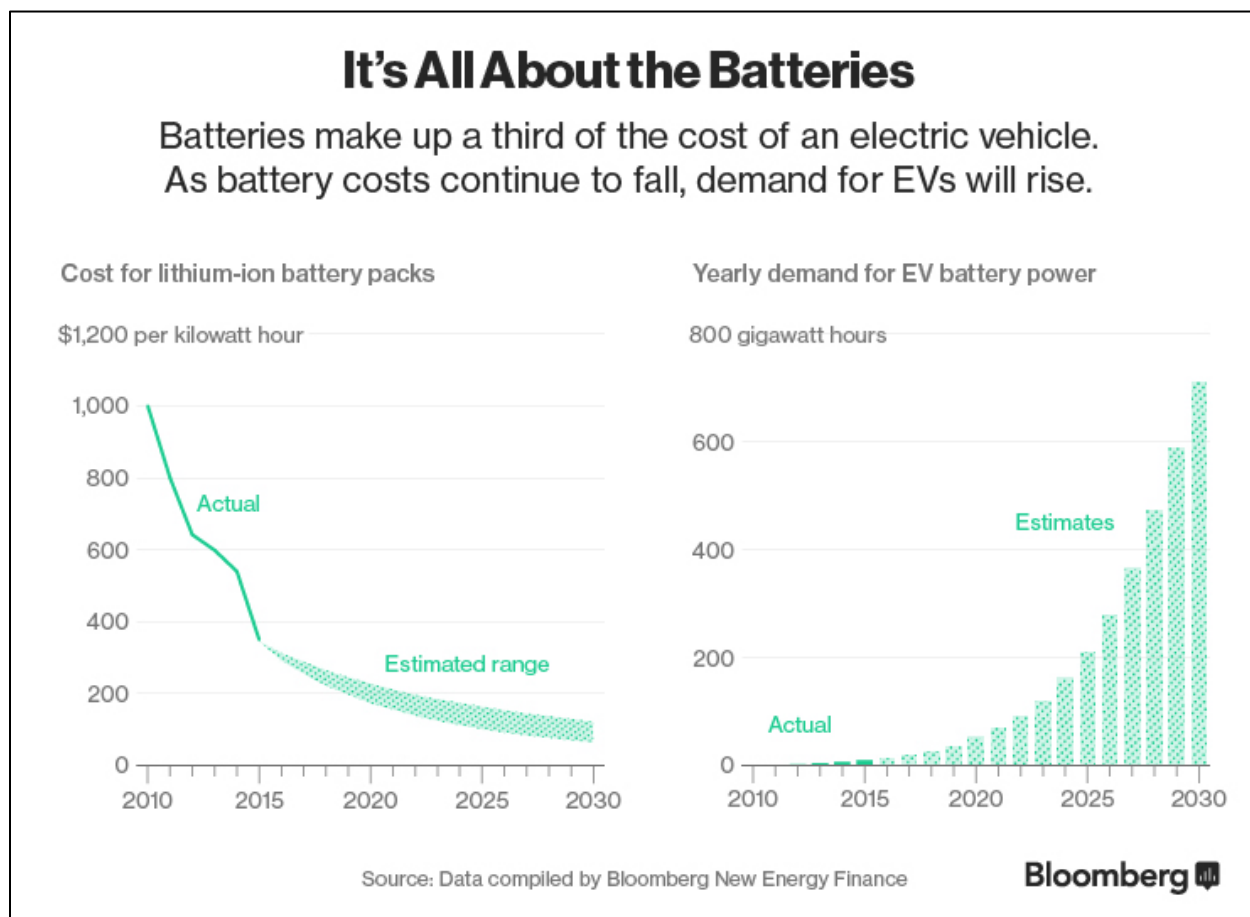


Amazon, American Electric Power and affiliates, Bayer, Coca-Cola, DirecTV, Facebook, SAP, dozens of universities, NASCAR, Zappos, Verizon, and hundreds more.¹⁷ The future is simply electric.

With the automakers, it is important to point out that this major change in the business model of automobile manufacturers is due in part by certain policies and regulations, and the increasing consumer demand for these vehicles, but also largely because battery costs are coming down thanks to research by national labs and other public-private partnerships. The U.S. DOE Vehicle Technologies Office's (VTO) Advanced Battery Development, System Analysis, and Testing activity focuses on developing battery cells and modules that result in significantly lower battery cost, longer life, and better performance to meet U.S. national goals. VTO also coordinates activities with the U.S. Advanced Battery Consortium (USABC), a group run by the industry organization the United States Council for Automotive Research (USCAR). Through this work, a number of breakthroughs in battery technology have already occurred. For example, research that VTO supported helped reduce the modeled, high-volume production costs of automotive lithium-ion batteries by more than 40% since 2012, bringing the cost down to less than \$300/kwh. Battery cell specific capacity has also increased from 150 Wh/L in 2008 to more than 350 Wh/L while achieving more than 5,000 PHEV cycles and 1,000 BEV cycles.¹⁸ The following graphs show the decline in battery price over time and corresponding demand for PEVs.

¹⁷ <https://energy.gov/eere/vehicles/workplace-charging-employer-partners>

¹⁸ <https://energy.gov/eere/vehicles/vehicle-technologies-office-advanced-battery-development-system-analysis-and-testing>



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Ongoing battery research led to a groundbreaking report by Bloomberg New Energy Finance in February 2016 that stated PEVs will be at cost parity with their internal combustion engine counterpart vehicles by 2022, and certainly no later than 2026.²⁰

II. Opportunities for and barriers to PEVs in the marketplace

a. PEVs save Alabama drivers money through reduced maintenance costs and fuel savings.

Maintenance costs for PEVs are much less than for gasoline vehicles. Plug-In Hybrid Electric Vehicles (PHEVs) require fewer oil changes, while Battery Electric Vehicles (BEVs) require none. BEVs also have ten times fewer moving parts than gasoline vehicles; there's no engine, transmission, spark plugs, valves, fuel tank, tailpipe, distributor, starter, clutch, muffler, or catalytic converter.

¹⁹ <https://www.bloomberg.com/features/2016-ev-oil-crisis/>

²⁰ <https://www.bloomberg.com/features/2016-ev-oil-crisis/>

PEVs are also much cheaper to fuel than gas-powered vehicles. On average, fueling a car with electricity is roughly the same as gas at \$1 per gallon, thanks to a PEV's performance efficiency and the lower cost of electricity.²¹ In fact, it costs about half as much to drive a PEV as a gasoline vehicle. The average driver can save more than \$3,500 over the vehicle lifetime if gas prices fall to a low of \$2.50 per gallon. If gas prices go back up to a more typical recent price of \$3.50 per gallon, the average electric vehicle will save its owner nearly \$9,000 over the vehicle's lifetime.²² Electricity prices are also far more stable than gasoline prices, allowing drivers to avoid the risk of future price spikes.

- b. Investment in PEVs and the charging infrastructure can bring significant benefits to Alabama utilities, grid operators and Alabama ratepayers by more efficiently utilizing grid assets.

About 85% of PEV charging occurs at night, during off-peak electric hours. The more off-peak energy is sold to charge PEVs, the more efficiently existing utility assets are used. This puts downward pressure on electricity rates, leading to cheaper prices for all ratepayers.²³

PEVs can also be a source of potential load control. Many PEV owners are open to load control programs, such as letting the utility or a third party turn PEV charging on and off as needed, as long as it does not prevent the charge from finishing by a specified time.²⁴ Going a step farther than load control is pulling energy from idle PEVs at peak load times via "vehicle-to-grid" (V2G).

Finally, PEVs can make the integration of renewables easier. PEV loads are generally during low demand times (and can be moved around with TOU rates and other tools), making it easier to justify the addition of renewable power sources that cannot be ramped.²⁵

²¹ <http://energy.gov/eere/everywhere/ev-everywhere-saving-fuel-and-vehicle-costs>

²² The analysis was performed by Environment California in the report, "Drive Clean and Save: Electric Vehicles are a Good Deal for California Consumers and the Environment." However, similar incentives are already in place in dozens of other states across the country, and gas prices are similar in dozens of other states as well, suggesting a similar result in savings for other states. The report is available here:

<http://www.environmentalcalifornia.org/sites/environment/files/reports/Drive%20Clean%20and%20Save%20June%202016.pdf>

²³ Available here: <https://pluginamerica.org/wp-content/uploads/2016/11/PEV-Incentive-Review-October-2016.pdf>

²⁴ Tal, Gil. 2016. Plug-In Electric Vehicle Multi-State Market and Charging Survey

<http://www.epri.com/abstracts/Pages/ProductAbstract.aspx?ProductId=000000003002007495>

²⁵ (INL) Anonymous, Idaho National Laboratory. 2013. How do PEV owners respond to time-of-use rates while charging EV project vehicles <http://avt.inel.gov/pdf/EVProj/125348-714937.pev-driver.pdf> and (INL) Anonymous, Idaho National Laboratory. 2015 (a). Residential Charging Behavior in Response to Utility Experimental Rates in San Diego

<http://avt.inel.gov/pdf/EVProj/ResChargingBehaviorInResponseToExperimentalRates.pdf>

- c. The growth of the PEV market in Alabama represents more local, domestic electricity consumed. This additional load represents increased jobs in the electric power sector, and a reduced reliance on foreign fuels, improving national security.

BEVs rely solely on electricity to charge the battery, while PHEVs rely on electricity and a battery first, then later switch to gasoline. An increase in load to the electric grid from PEVs can lead to more jobs within the electric power industry to maintain electric grid assets and to perform installation and maintenance of charging stations. The increased use of local, domestic electricity in the transportation sector promotes national security by reducing our dependence on imported oil.

- d. Greater PEV adoption in Alabama supports Main Street USA and local economies.

As noted above, PEVs are fueled from electricity from the local grid, promoting local electric jobs. In addition, the money not spent on gas or on maintenance can be invested back into the local economy.²⁶

- e. PEVs produce little to zero dangerous tailpipe air pollution, improving air quality in the Birmingham/Hoover/Talladega region and reducing health care costs.

Despite continued improvement, too many people in the U.S. live where the air is unhealthy for them to breathe.²⁷ In Alabama, the Birmingham/Hoover/Talladega region ranked 22th in a study done by the American Lung Association for the worst year-round particle pollution.²⁸ BEVs have no tailpipe and therefore no tailpipe emissions, while PHEVs produce far fewer tailpipe emissions than a standard gasoline-powered vehicle. With more PEVs on the roads, public and private health care costs can be greatly reduced.

- f. The main barriers to greater PEV adoption in Alabama is the lack of workplace and public charging infrastructure and consumer awareness.

According to the U.S. DOE, there are currently approximately 72 unique public charging stations, with 168 charging outlets at these stations located across Alabama.²⁹ While many drivers will choose to charge at home or at the workplace, as more and more consumers

²⁶ Roland-Holst, David. 2012. Plug-in Electric Vehicle Deployment in California: An Economic Assessment https://are.berkeley.edu/~dwrh/CERES_Web/Docs/ETC_PEV_RH_Final120920.pdf and Stroo, Hans. 2015. Bills to Advance Electric Vehicles Make Good Economic and Environmental Sense <http://planwashington.org/blog/archive/bills-to-advance-electric-vehicles-make-good-economic-and-environmental-sense/>

²⁷ <http://www.lung.org/our-initiatives/healthy-air/sota/key-findings/>

²⁸ <http://www.lung.org/our-initiatives/healthy-air/sota/city-rankings/most-polluted-cities.html>

²⁹ https://www.afdc.energy.gov/fuels/stations_counts.html

purchase these vehicles, there will be a severe need for more charging infrastructure in Alabama.³⁰ Studies have found that the deployment of more charging infrastructure speeds the adoption of PEVs; one study found that a 10% increase in public charging increased PEV sales by about 8%, a significant amount.³¹

III. Questions Asked by the Alabama PSC

- a. Is an EVCS a “plant, property or facility” utilized for the “generation, transmission or distribution, sale or furnishing...of electricity” pursuant to Alabama law?

In our view, no, an PEV charging station does not meet the intended definition as stated above under Alabama law. Charging stations can vary in terms of the charging speed, based on the level of power supplied. However, the stations are nothing more than a conduit for the electricity to pass through, similar to an electrical outlet. A person plugging a cell phone into an electrical outlet at the airport receives the same electricity that a person plugging a PEV into a charging station at the airport would. The Commission does not regulate the electricity passing from this electrical outlet to the person who has plugged the cell phone in, and likewise the Commission should not regulate the electricity passing beyond the point of the charging station outlet, essentially, to the PEV driver.

Furthermore, due to the way the commas are inserted into the definition and lack of “and/or” qualifiers, the intent of the definition is that the “plant, property, or facility” must meet all three of the requirements of “generation, transmission or distribution, sale or furnishing”. PEV charging stations are not generating electricity like a power plant is, nor are they transmitting along power lines and stepping down the voltage from substations to local distribution wires. The PEV charging stations are simply taking the electricity from beyond the meter, which is typically outside the jurisdiction of the Commission, and providing that electricity to the PEV driver. PEV charging stations are the end user of that electricity, and are merely providing a service.

³⁰ Charging stations for PEVs fall into three basic categories by increasing charge speed: Level 1, Level 2 and DC charging. Level 1 is AC charging at 120V, the level of power that is supplied by a normal household outlet, and can be implemented with a simple outlet on a dedicated 15A or 20A circuit. This will supply 3 to 5 miles of range per hour to a typical PEV, or up to 40 miles of range for an 8-hour connection during a typical work day. Level 2 charging is AC charging at 240V, similar to the power for an electric dryer, and can provide a complete charge in 2-4 hours, or slightly longer depending on the vehicle type. The majority of public charging stations are Level 2. DC charging, or DC fast charging (DCFC), charges at 400V/125A, which provides a 50kW charge, though this varies across vehicle type and charging station company. The charge bypasses the vehicle charger and provides electricity directly into the battery. Typical charge time lasts anywhere from 20-30 minutes. While faster charging is generally preferable, slower charging can be less expensive and serve more vehicles. The best power for a given installation depends on how much charge the target users will need, and how long each driver will want to stay at the charging location.

³¹ Li, Shanjun, et al. 2015. The Market for Electric Vehicles: Indirect Network Effects and Policy Design. Found at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2515037

Other states around the country have taken a similar approach and have determined that PEV charging stations are not subject to the regulation of the Commission in that state, based on the definition of a utility. Approximately 15 other states, including California, Colorado, Florida, Illinois, Maryland, Massachusetts, New York, Virginia and Washington, have exempted PEV charging stations or their owners and operators from regulations applicable to public utilities.³²

- b. If it is determined that Electric Vehicle Charging Stations (EVCS) are facilities utilized for the provision of electricity as discussed in question 1 above, what constitutes the provision of electricity “to or for the public” under existing law? Moreover, are there any known or envisioned scenarios where EVCS may offer electricity without such offering being classified as “to or for the public.” If so, please describe and explain such scenarios.

As stated above, we do not find that the Commission should determine that PEV charging stations fall within the realm of jurisdiction by the Commission.

- c. If it is determined that all or some EVCS operated by an existing utility are subject to the jurisdiction of the Commission, what method and/or extent of regulation should the Commission exercise pursuant to the Code of Alabama, 1975 § 37-1-80?

As stated above, we do not find that the Commission should determine that EV charging stations fall within the realm of jurisdiction by the Commission.

- d. If it is determined that all or some EVCS operated by entities that are not currently classified as utilities are subject to the jurisdiction of the Commission, what method and/or extent of regulation should the Commission exercise pursuant to the Code of Alabama, 1975 § 37-1-80?

As stated above, we do not find that the Commission should determine that PEV charging stations fall within the realm of jurisdiction by the Commission. Should the Commission decide otherwise, and determine that all or some PEV charging stations are subject to the jurisdiction of the Commission, the Commission will be creating a patchwork of regulated and non-regulated stations unprecedented in any other state in the country. The level of regulation will

³² <http://www.pepperlaw.com/publications/electric-vehicle-charging-station-regulation-why-your-local-electric-vehicle-charging-station-doesnt-and-shouldnt-look-like-your-local-gas-station-2016-06-23/>

slow market adoption of PEVs and cause unnecessary burden on the charging station owners, which in turn will hurt the PEV drivers.

- e. Are there any other situations or scenarios beyond those presented herein where the Commission has or would have regulatory jurisdiction over EVCS?

If the investor owned utilities (IOUs) in Alabama chose to invest in and own the PEV charging stations and rate-base the investment, we believe that the Commission does have jurisdiction over the proper use of those funds and the proper amount to rate base. The Commission can regulate the funds spent on the installation and number of charging stations installed. The Commission can also approve the rate for EV service from IOUs in Alabama to all customers. For example, the residential rate and the commercial rate offered to sites hosting the EV charging stations for the generation, transmission and delivery of the electricity, as per any electricity provided to a customer, should be regulated and kept low for EV drivers. Other states have suggested time-of-use rates as a way to keep rates low; the Commission should encourage more discussion and dialogue on appropriate rates. However, as the EV charging stations are providing a service to the EV driver, the final sale of the electricity to the EV driver should not be subject to regulation, as this is the competitive market part of the charging station service. However, the Commission, along with the Department of Weights and Measures, and State Energy office (ADECA), should also facilitate a discussion with public EV charging station site hosts and owners to preserve the cost advantages of electricity over other forms of transportation fuel. The Commission should also encourage the final sale price to be made very transparent on all EV charging stations.

There are additional consumer protection guidelines that the Commission should be familiar with, and we would be happy to discuss these with the Commission. For example, the Commission should work with the state Weights and Measures Division under the Alabama Department of Agriculture and Industries in adopting the EV charging station related sections of the NIST handbooks 44 and 130.³³ Handbook 44 specifies the requirements for EV charging station manufacturers on the accuracy, testing, enforcement, and digital display of the charging station, and is aimed at better informing the customer. Handbook 130 is focused on the display of the cost to charge.

³³See Section 3.40 of Handbook 44, available at: <https://www.nist.gov/pml/weights-and-measures/nist-handbook-44-2018-current-edition> See also <https://www.nist.gov/pml/weights-and-measures/publications/nist-handbooks/handbook-130> and <https://www.nema.org/news/Pages/NEMA-Publishes-NEMA-EVSE-1-2-2015-EV-Charging-Network-Interoperability-Standard-Part-2-A-Contactless-RFID-Credential-for-.aspx>

- f. If a local utility were to incorporate electric vehicle charging equipment into its curbside street lighting infrastructure, should the operation of these charging stations be subject to the Commission's jurisdiction? If so, to what extent?

No, these charging stations as part of the lighting infrastructure would still just be providing a service, and not generating the electricity like a power plant, as stated above.

- g. If a third party were to generate its own electricity and use such generation for the operation of its publicly available electric vehicle charging stations, should such operations be subject to the Commission's jurisdiction? If so, to what extent?

If the third party is not utilizing existing electric grid wires, poles, and other assets related to the transmission and distribution of the electricity, it should not be subject to the Commission's jurisdiction, because it would still be missing one of the three requirements for the definition of a utility. For example, an off-grid solar powered PEV charging station may be generating its own electricity on-site, and selling that electricity, but the "transmission and distribution" component would still be lacking to qualify for the "utility" definition.

- h. Should the deployment of publicly available electric vehicle charging stations be considered a competitive market?

Yes, the deployment of publicly available electric vehicle charging stations should be considered a competitive market. There are numerous charging station providers that have already installed stations in Alabama. Plug In America maintains a list of the currently available PEV charging stations on our website.³⁴

- i. How are owners/operators currently charging (e.g. cents per kWh or time-based fees) for the use of EVCS?

Owners and operators of PEV charging stations can charge for the service in multiple ways. The most common is the cents / kWh model, but other stations also charge based on a time

³⁴ <https://pluginamerica.org/get-equipped/charging/>



increment. Some owners/operators also require a small subscription to the charging station provider as well.

- j. Are there any companies in Alabama currently providing public charging services for electric vehicles? If so, please provide the names and addresses of such companies.

Yes, there are many companies that are providing public charging services for PEVs. The Commission can easily utilize one of the many online maps that show where the public charging stations are. For example, on the plugshare.com website, the site shows hundreds of companies/businesses offering public charging services. For example, University Nissan of Florence, Energy Alabama, Intergraph, Jay's Landing Marina, Holiday Inn Express Suites, Lynn Layton Nissan, and many, many more businesses already provide public charging services.

Should the Commission find that EV charging stations are subject to the jurisdiction of the Commission, these small businesses would likely not be able to comply with the regulatory burden of ensuring that their EV charging stations that provide a service to their customers meet Commission requirements.

- k. Are there any EVCS facilities in Alabama currently available to the public at no cost? If so, please provide the names and addresses of such facilities.

Yes. As the market for PEVs is still small in Alabama right now, and the number of PEV charging stations very small, current PEV drivers sometimes list their homes on the plugshare.com website and offer free charging to fellow PEV drivers. These stations could be a Level 1 or 2 station.

On behalf of the thousands of current PEV drivers in Alabama, and the tens of thousands more that will soon choose to drive electric, we thank you for the opportunity to provide these comments. We look forward to working with the PSC. Please send any questions to Katherine Stainken, Policy Director at Plug In America, at kstainken@pluginamerica.org or Anne Blair, Clean Fuels Director at SACE at anne@cleanenergy.org.



Respectfully submitted,

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