

**BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON**

**In the Matter of the Commission's Review  
Of the Transportation Electrification Plan (TEP)  
Of Portland General Electric**

**Docket No: UM 2033  
Per Rulemaking (AR 609)**

**COMMENTS OF THE ALLIANCE FOR TRANSPORTATION ELECTRIFICATION (ATE)**

***Background***

The Alliance for Transportation Electrification, a 501(c)(6) non-profit corporation, is led by utilities, electric vehicles (EV) infrastructure firms and service providers, automobile manufacturers, and EV charging industry stakeholders and affiliated trade associations. We started with 20 organizations at the launch just over a year ago. By taking a “big tent” approach to advance the industry, we have grown rapidly to include about 45 national members today and are actively engaged in numerous regulatory proceedings such as this across the country.

***Overall***

The Alliance wishes to offer some general and high-level comments on the Transportation Electrification Plan (TEP) submitted by PGE to the Commission in September 2019. Since the Alliance engages in similar TE workshops and utility proceedings in over 20 States and Commissions, we wish to provide some comparative context as well. Although the planning issues around EV infrastructure are implicated in all such proceedings, the Oregon PUC is the only Commission that has specifically highlighted the need for formal planning in a rulemaking (AR 609). In this sense, the PGE filing should be regarded as nearly a first-of-its-kind in the country and the utility should be commended for responding with this first Plan. This Plan has quickly become a benchmark and guidepost for other utilities to follow, and for Commissions to monitor, in its comprehensive approach, its depth of analysis, and its discussion of how the utility can help resolve market gaps and complement public policy (along with other Plans developed earlier, such as SCE and PG&E in California, the Electrification of Transportation (EoT) plan of Hawaiian Electric, among others).

The Plan does a good job in taking a long-term view of transportation electrification in its service territory centered on Portland and Multnomah County. The six sections in the Plan are well organized around both the key statutory areas included in SB 1547, as well as describing the current market conditions for the broad range of electric vehicles (EVs), both publicly announced and expected, that should enter the marketplace over the next 20 years. It includes reasonable market projections, based on reputable forecasting as well as PGE's own experience, for the range of vehicles: light-duty, medium-duty, and heavy-duty. Moreover, it goes beyond the traditional market segments of EVs to describe

some of the newly emerging services and vehicles, such as mobility hubs (with e-bikes, e-scooters and their aggregated charging needs in future), along with possibly charging as a service.

Oregon has ambitious climate and energy goals which PGE clearly recognizes in the Plan. Through modelling and analysis, it attempts to mesh these ambitious public policy goals with its planning for TE and EV infrastructure needs in the future. Oregon has an aspirational goal of 250,000 registered EVs on the road by 2030, with an increasing arc of EV adoption to 2050 where it expects 90 percent of new vehicle sales to be electric (compared to about 2 or 3 percent today). PGE today accounts for about two-thirds of the EVs in the state currently (approximately 16,000 out of the 26,000 PHEVs and BEVs registered at end of July 2019). If these trends continue, which is a likely scenario, that means that PGE in its planning needs to gear up to accommodate EV infrastructure in its service territory of about 165,000 light-duty vehicles by 2030. That statutory goal in SB 1044, although ambitious and aspirational, is the public policy of the state of Oregon. PGE recognizes these goals, the urgency of the effort, and has developed a comprehensive approach to address these gaps. We commend PGE for recognizing these ambitious goals and developing a foundational plan to address them. Yet, the Alliance urges the Commission to recognize that this Plan is just the start of an ongoing process that is going to require significant planning, investments, and new thinking about the role of the utility and the regulatory paradigm.

Furthermore, as an “early adopter utility” through the deployment of Electric Avenues and other programs, PGE has been able to build on its experience over the past decade in areas like infrastructure, rate design, consumer behavior, and permitting. It has gained valuable knowledge about the customer behavior of the “early adopter” EV owners who are PGE customers, and what rate designs and incentives are best suited to change consumer behavior. Admittedly, these are still a relatively small sample size (about 16,000 customers) and are classic early adopters of new technologies who may not be typical of the mass market. But PGE has been able to learn both about some successful ideas, as well as some failures and challenges, that run through the evolution of all early-stage technologies. It has built on those “lessons learned” in this Plan, and as stated in Chapter 4 on the role of the electric utility, discusses market gaps and failures in a straightforward manner.

### ***Getting to scale***

The auto OEMs, and increasingly the bus and truck OEMs, have made significant commitments in terms of design, engineering, vehicle development, and investments in plants to build scale in the EV industry. Tens and even hundreds of billions of dollars have been invested across the board. The scale of industry is international in scope, with China and the EU being market leaders today. The increasingly urgent goal is to get to the scale of a mass market as soon as possible, in order to reduce costs of the batteries and entire supply chain, reduce the upfront cost differential, and provide value to customers. The industry continues to evolve quickly, and new announcements are being made almost weekly, and certainly monthly. The section on “Charging and Vehicle Technology Updates” (1.6, starting on p. 59) is well done, but has already become somewhat outdated in terms of publicly announced investments over the past several months since it was written. The Alliance expects this acceleration of product and investment announcements by OEMs and technology providers to continue.

Accordingly, one of the major issues for the Commission to address in both its oversight of this plan of PGE, and in its adjudication of specific cases and filings, is to identify the key issues of getting this early transformation to more of a mass market at scale. This is the essence of the principles of market transformation that we have witnessed in other parts of the energy markets over the past few decades, but TE promises to be more transformative than many of these previous changes.

The issue of going beyond pilot programs, and transforming those “lessons learned” to larger and more scalable program will be a key issue for the Commission to address. PGE’s plan does a good job in setting forth some of the key opportunities, as well as challenges, in the different use cases and market segments and how they impact EV infrastructure.

Furthermore, as stated above, as the industry approaches greater scale, and as more EV charging infrastructure is built out and more electric energy (MWh) consumed by these vehicles, the utilities, Commission, and stakeholders will need to engage in greater thinking about the regulatory paradigm and how it can accommodate these needs, both in terms of scale and timeliness.

### ***Role of the electric company***

The Plan does a good job in describing the critical role that PGE, as a regulated electric company, should play in TE and market transformation efforts. This analysis is spread through the 170-page document, but is focused in Chapter 4, pp. 154-158). As with many other State legislation, the Oregon legislation (SB 1547) called for the utilities and the Commission to set forth an “identification of a sustainable role for the electric company in the transportation electrification market.” At the same time, as with other state legislation and Commission policies, it calls for an analysis that describes the impact of the investments in infrastructure (and possible alternative methods) on the non-utility or competitive market sector, or the EVSPs, electric vehicle service providers.

While this chapter is relatively short and concise, the Alliance is confident that this discussion will continue in a robust manner in the months and years ahead with multiple stakeholders and companies, including EVSPs, auto and bus/truck OEMs, environmental NGOs, Oregon CUB, vendors, and many others. The Alliance agrees with PGE that a strong utility role in the early development of this market is critical to its long-term success, and depending on the use case and market segment, PGE can offer a variety of programs that accomplish the common goals of accelerated EV adoption and infrastructure, while meeting State public policy goals. We believe the market can develop in a hybrid manner, with appropriate oversight from the Commission and an active stakeholder process, for the benefit of all.

This Chapter also offers a discussion in a cautionary way about “lessons learned” from earlier developments by non-utility providers in Oregon that did not end well. As with any major transformation of a major market or critical infrastructure, mistakes will be made, and lessons will be learned. In hindsight, more planning and focus on both business use cases and execution of specific EV infrastructure plans could have perhaps avoided such outcomes. Fortunately, with its legislation, Executive Orders, public policy goals, and now these planning requirements, Oregon has a great opportunity to engage in broader, holistic planning of critical components for successful EV adoption and accelerated EV infrastructure deployments in the future.

PGE does a good job in setting forth some of the key Principles in this chapter, and stakeholders will have various opinions on these. But the Alliance believes strongly in the ability of the utility to be able to take a long-term view of infrastructure development, and have more “patient capital” to put in service of all customers and classes. This is especially important for the case of public DC fast charging in certain locations in the early years of development when utilization rates may be low. Other use cases may face similar challenges. As this Plan identifies, however, the utility can play a critical role by taking a comprehensive, long-term view on these use cases and investments and programs if they are properly design and executed.

In summary, the Alliance commends PGE for taking the initiative to develop an excellent first TE Plan for the Commission and the state of Oregon. We look forward to engaging more fully with PGE, EVSP’s, environmental NGOs, and many other stakeholders in the months and years ahead. We are just beginning a long journey and transformation, which if done properly, can offer large benefits to both all consumers and the electric grid.

Sincerely,

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