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**TURN Comments on Plug-in Electric Vehicle Charging
Infrastructure Workshop**

Additional submitted attachment is included below.

**COMMENTS OF THE UTILITY REFORM NETWORK REGARDING
CALIFORNIA ENERGY COMMISSION AUGUST 4th WORKSHOP ON PLUG-IN
ELECTRIC VEHICLE CHARGING INFRASTRUCTURE**



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COMMENTS OF THE UTILITY REFORM NETWORK

I. Introduction

The Utility Reform Network (TURN) provides these comments to support the concept of a Transportation Electrification Regulatory Policy Act (TERPA) framework, presented most recently at an August 4th California Energy Commission (CEC) workshop.¹ TURN recommends two steps before moving toward a potentially statewide, centralized procurement mechanism like TERPA. First, “price discovery” should occur through greater data transparency on electric vehicle charging station costs and utilization from California Energy Commission (CEC) and regulated electric utility deployment to-date, as well as other state and local agencies where data is available. It is TURN’s understanding some of this work is currently ongoing at the CEC. Second, the CEC should conduct a pilot for one county or city to test the centralized procurement concepts envisioned in TERPA.

TURN provides more background on our work in the EV charging space, including trends in investor owned utility (IOU) deployment, as well as additional context for our recommendations in the sections below.

II. Background

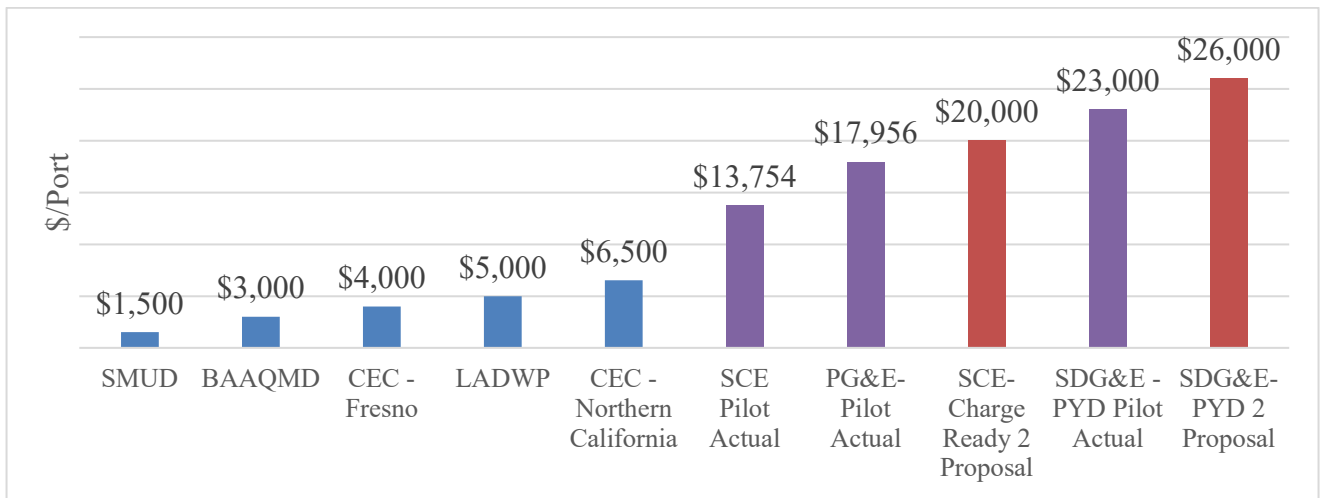
TURN is a consumer advocacy organization with a mission to ensure that all Californians have access to clean, safe, affordable, and reliable electricity. After the passage of SB 350, investor owned utilities (IOUs) have significantly expanded their role in the charging station infrastructure space by deploying significant ratepayer subsidies for light and medium-heavy duty charging infrastructure and stations; more than \$1 billion in ratepayer funding has been authorized for this effort by the CPUC for the state’s three large Investor Owned Utilities (IOUs). TURN is a strong supporter of state goals to increase adoption of electric vehicles (EVs), as this promises to benefit ratepayers through cleaner air, lower GHGs, and potentially lower electric rates (if utility program costs do not outweigh revenues from increased load). However, a

¹ CEC, <https://www.energy.ca.gov/event/workshop/2020-08/session2-charging-infrastructure-technology-and-markets-commissioner>.

lack of coordination amongst various state agencies to lower costs and maximize benefits is likely leading us in a sub-optimal direction, including an increased emphasis on ratepayer funds to deploy infrastructure. Ratepayer funds should be the last resort for public funding, as it is not only more regressive than state funding mechanisms, adding to the considerable affordability pressures and inequities that continue to mount in California even before the current economic crisis, but is also counter to state electrification goals by increasing the price of electricity and thus the economic incentive to switch over to this “fuel.”

TURN’s role at the California Public Utilities Commission (CPUC) has been to seek program structures that minimize costs and maximize benefits of utility charging infrastructure programs, which usually require significant modifications to utility proposals. Ideally, the state’s goal should be to maximize the emissions reductions for each public dollar spent. However, the state’s siloed approach to infrastructure deployment is likely leading to some sub-optimal outcomes. For instance, despite the CEC’s demonstrated ability to leverage funds from site hosts and stretch public dollars to deploy more charging stations, utility charging infrastructure programs deploy charging stations in a relatively inefficient manner. Core to this problem is the utility business model, which incentivizes utilities to increase capital spending, and for which there is no risk-sharing, absent Commission action, for infrastructure that is either not utilized or under-utilized. As demonstrated in the Figures below, utility programs have been considerably more expensive than state and non-IOU programs to deploy charging stations, and utilities have not been willing to seek program structures that are more cost-efficient than initial pilots. Further, infrastructure deployed to-date has shown very low utilization, which may be acceptable for pilot programs but should not less tolerated as utilities seek full-scale deployment with ratepayer funds. Infrastructure that is not utilized does not provide benefits to ratepayers or the environment.

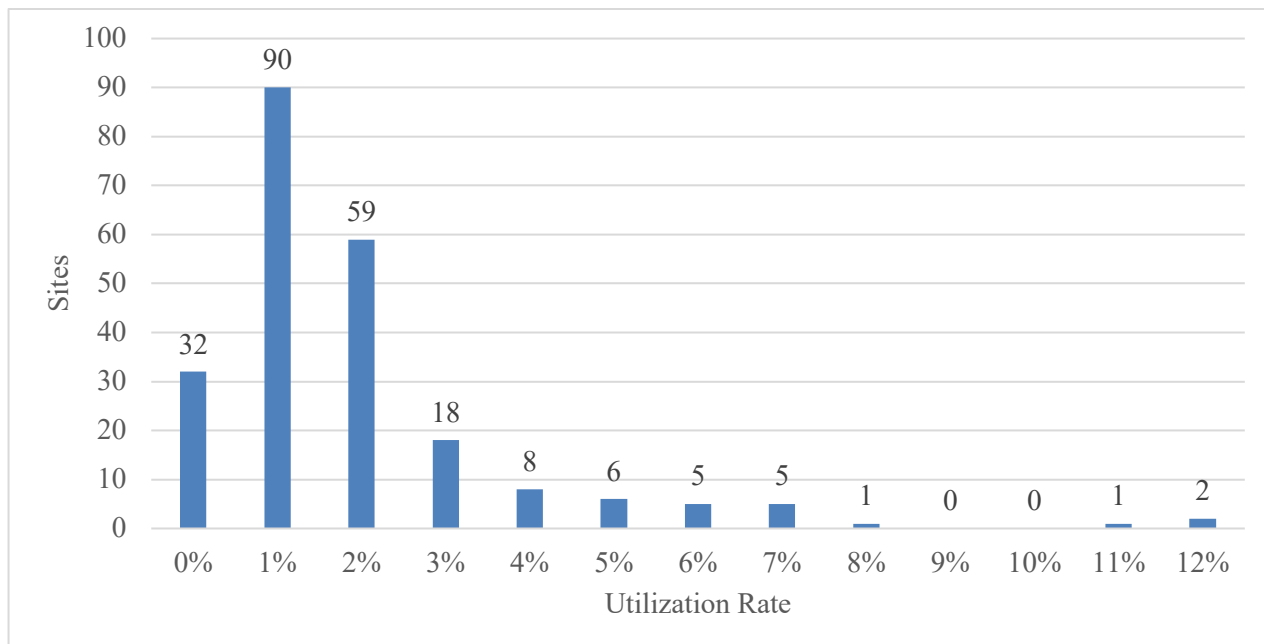
Figure 1. Utility Proposed and Pilot Costs vs. Other State and Utility Programs
\$/Port²



Utilization from SDG&E’s pilot light-duty charging infrastructure program is shown below for all sites, which consisted of workplaces and multi-unit dwellings. 32 sites had no utilization.

² TURN conservatively shows the single port subsidy for each non-IOU entity where applicable – dual port subsidies result in a significantly lower dollar per port figure. For example, for LADWP, the dollar per port subsidy for a dual port station is \$2,875 (\$5,750/2). See Staff Draft TEF, Table 9, p. 111, for utility pilot costs, TURN Charge Ready 2 Testimony (A.18-06-015, Witness Borden) for SCE proposal costs per port, SDG&E PYD 2 testimony, Chapter 3 Workpapers – does not include marketing, data collection, or ongoing O&M. Other subsidy costs from the following: SMUD, <https://www.smud.org/en/Going-Green/Electric-Vehicles/Business>, BAAQMD (Bay Area Air Quality Management District), https://www.baaqmd.gov/~media/files/strategic-incentives/tfca/charge/fye2016_charge_program_guidance-pdf.pdf?la=en, CEC-Fresno, <https://calevip.org/incentive-project/fresno>, LADWP, https://www.ladwp.com/ladwp/faces/wcnav_externalId/c-sm-rp-commevstation?_adf.ctrl-state=x2k9y02ec_78&_afLoop=301269792943401&_afWindowMode=0&_afWindowId=null#%40%3F_afWindowId%3Dnull%26_afLoop%3D301269792943401%26_afWindowMode%3D0%26_adf.ctrl-state%3Dzh6lvpvgf_17, CEC – Northern California, <https://calevip.org/incentive-project/northern-california>.

Figure 2. Utilization of SDG&E Pilot Program Charging Infrastructure - All Sites³



The concept of a Transportation Electrification Regulatory Policies Act (TERPA), presented at the August 4th workshop by Noel Cristosomo of the California Energy Commission (CEC), helps to conceptualize how the state can move towards a more optimal procurement structure with a centralized and transparent mechanism that seeks to procure charging stations at least-cost while maximizing utilization of stations, which TURN believes is the best proxy available for emissions reductions. Indeed, as TURN has pointed out on numerous occasions, infrastructure itself does not reduce emissions – EVs do. In order to move from “theory” to “practice” TURN recommends the following:

³ From TURN’s Opening Testimony (Witness Borden) on SDG&E’s Power Your Drive 2 Application, A.19-10-012. Calculated from TURN-1, question 2. Utilization calculated as a percentage of maximum kWh - Ports Installed * Hours Energized *Max kW (4.95). Percentage utilization is thus calculated by Total kWh / Max kWh. 4.95 (max kW per hour) is a conservative maximum as it assumes an equal mix of 6.6kW and 3.3kW L2 charging, but most newer vehicles charge at 6.6kW or more. Further, the numbers in the chart are rounded up – so many sites categorized as 1% utilization were actually closer to 0% (but greater than 0%).

1. “Price discovery” through CEC, CPUC, and other state agency coordination to transparently collect and compare costs and utilization of charging infrastructure deployed to-date with a publicly accessible database; and

2. A pilot procurement effort, conducted at the city or county level by the CEC, to procure charging infrastructure by incorporating the principles outlined in Mr. Cristosomo’s August 4th presentation.

These are discussed further in the ensuing section.

III. Recommendations to Adopt a “TERPA” Framework

First, TURN recommends that the CEC and CPUC share, clean, standardize, and publish data in a transparent database with anonymized site information such that the public, researchers, and intervenors like TURN are able to understand the cost and utilization of charging stations and infrastructure deployed to-date at the CEC and IOUs. Unit and total costs should be presented by site in a comparable manner, as should utilization. This should be organized by site and charger type (e.g. workplace, MuD, L2, etc.) and should include as much information as possible in spreadsheet or database format to allow an understanding of costs and utilization at a granular level. This can act as a kind of “price discovery” to understand a theoretical “avoided cost of charging”⁴ discussed in the TERPA construct, as well as help stakeholders and the public understand the impact of public dollars for charging infrastructure.

Second, the CEC should conduct a pilot to test procurement of EV charging at the city or county level to procure charging at least-cost with minimal but ambitious utilization rates, incorporating TERPA concepts. Data collection through this pilot may allow the CEC to scale the approach to larger areas, and ultimately become the statewide procurement construct if it is found to be successful. There may also be opportunities for funds from public entities like the CEC and air quality districts, as well as ratepayer funds if used as a last resort, to deploy charging infrastructure through this centralized procurement mechanism that maximizes the reduction of GHG emissions for each public dollar spent.

⁴ Presentation of Noel Crisostomo, August 4th, Slide 10, <https://www.energy.ca.gov/event/workshop/2020-08/session2-charging-infrastructure-technology-and-markets-commissioner>.