Alliance for Transportation Electrification

Electric Transportation Rate Design Principles for Regulated Utilities

Introduction

Growth in interest in electric vehicles (EVs) among policy makers in the United States is prompting utilities and state regulatory commissions to consider changes to traditional utility rate designs that more efficiently reflect the drivers of electric system costs, thereby allowing customers to better manage electric bills associated with EV charging in a manner that benefits the system. The purview of state commissions on these matters varies greatly around the country depending on who supplies the energy for EV charging or owns the local wires over which such energy travels, or both. In some states, regulated utilities have divested from generation to varying degrees and primarily provide delivery service, with customers (or utilities on their behalf) procuring energy supply from unregulated entities. In other states, regulated utilities are vertically integrated and provide both supply and delivery services to retail customers, with rates for the bundled service regulated by state public utility commissions. And then there are states where utility services are unbundled, but the same entities provide both services to some degree.

In this paper, the Alliance for Transportation Electrification ("ATE" or "the Alliance") proposes ratemaking and rate design principles applicable to transportation electrification (TE) where state commissions have authority to approve both investor-owned utility rates and rate design. Public power and rural electric cooperatives have different needs, different rate setting mechanisms, and the regulatory authority to come to their own unique conclusions about rates. Where energy suppliers are unregulated, state regulators generally do not have the authority to shape how electricity supply from unregulated entities for EV charging is priced. Thus, the principles set forth in this paper apply only to rate designs for regulated utility sales (both energy supply and delivery service as applicable) for EV owners charging at home and commercial customers hosting EV charging stations.

Utilities and state regulators should keep in mind several critical objectives when examining rate design for transportation electrification (TE). Of course, the primary objective of TE rate design should be to fairly recover costs to serve customers while optimizing the use of the electric system and providing overall benefits to customers. Utilities and state regulators should also keep in mind the impacts of rate design on TE. In particular, cost-reflective rate design should also have the ability to: (1) support beneficial electrification, such that all customers can benefit from transportation electrification from both an economic and environmental perspective; (2) support state environmental, economic, and electric and transportation system policy goals; (3) allow individuals, fleets, mass transit, school districts, and medium and heavy-duty truck operators to make economic decisions on electrification based on their needs; (4) support equitable cost recovery based on class cost of service and, (5) encourage optimal management and use of the electric grid and power supply system.

Technology and Managed Charging

It is also important that rate design be developed with technological advancement in mind and consider technology's role in meeting TE objectives. The hardware and software associated with EV charging, and the vehicles themselves, are continually changing and adapting to needs of the market. As smart charging becomes more widespread, rate designs can become increasingly sophisticated to make the most of charging capabilities. Incorporating technology can also enable more benefits to be achieved from utility rate design.

Thus, although foundational, changes to rate design may not be the only answer to meeting TE objectives. Utilities can and have developed EV programs that provide the same support (or the removal of hurdles) for TE that are more consumer friendly, targeted and easier to implement for the utility, often relying on advancing technology. An example might be utility programs that offer rebates or credits to EV owners for charging their vehicles off-peak, without the EV owner having to be on a whole-house or EV-only time-of use-rate, both of which may be currently unattractive to the EV owner for cost reasons (see below). Utilities will be able to ensure compliance either through a number of existing or emerging technologies – including an interval (time of use meter) on the home (if there is one), smart chargers, or on-vehicle telemetry.

And managed charging can be used to help ensure that EV charging occurs during beneficial time periods even without changes to rate design. Both smart chargers and many on-vehicle software systems can be set (managed) to provide off-peak charging independent of rates for on- versus off-peak charging. These capabilities can obviate the need for customers to adopt time-differentiated rate plans but still provide the same benefits to the electric grid. Managed charging can also work as a complement to rate design, for example helping to smooth charger peaks. Because this paper is focused on rate design, we will address managed charging primarily as a complement to rate design changes.

The Alliance believes in the well-understood concept of market transformation for emerging technologies, and the evolution of a nascent technology like commercial EV charging infrastructure from early adoption to accelerated mass market adoption. Utilities should be encouraged by the state and regulatory commissions to play an active and vital role as a catalyst ("kick-starting") this market with a portfolio of approaches. Rate design is one key component of such a strategy.

Finally, in this nascent stage of EV market development, there is still a lot we can learn about the effects of various utility programs and rate designs to support EV market penetration and infrastructure development. Many utilities have, are, and will be conducting pilot programs to collect data and evaluate the impacts of alternative programs and rate designs. State commissions should encourage utilities to adopt a data driven approach that allows for flexibility in designing rates and programs that reflect the experience we are gaining through EV pilots and programs, and the individual situation of each utility in each state. In this regard, partnerships with EV charging stakeholders will be key to developing solid forecasted load shapes, assumptions around growth of EV adoption, geographic patterns of usage, and more, all needed to ensure cost-effective growth of the EV market.

General Principles

The Alliance supports rate design applicable to EV charging based on Bonbright's ratemaking principles,[1] which are in turn based on cost of service (CoS) and are used by almost every public utility commission in the country. We believe these principles should be applied to both energy supply and delivery rates.

- Examining the Bonbright principles leads to the following important conclusions regarding rate design for advancing TE objectives. First, rates should be designed so that the utility can fairly recover the costs of serving EV charging customers, including costs of capital. Second, utilities should set rates not to encourage production, but to encourage customers to manage demand

[1] There is a large body of work around these ratemaking principles enunciated by James C. Bonbright in his first book "Principles of Public Utility Rates" (1961, Columbia University Press, and subsequent editions), which serve as foundational principles of cost-of-service based ratemaking that followed the previous practices of setting rates based on the "fair market value" of the assets owned by privately-owned utility companies. For the purposes of this paper, it is sufficient to cite at a high level the four primary functions of public utility ratemaking:

- The capital attraction function: meaning that rates should set by commissions at a level sufficient to attract private capital, both equity and debt, to the utility company so that it is able to produce and deliver energy to customers with sufficient reliability, and have an efficient, low-cost sources of capital which can be passed on through rates.
- The efficiency incentive function: this recognizes the fact that for a regulated utility, the normal forces of market competition don't apply, but through rate regulation, the regulatory commissions attempt to provide incentives to utilities to operate the assets and manage the operations in an efficient way that substitutes for full market competition.
- The demand-control function: sometimes called consumer rationing (or self-rationing), this function means that rates should be set at an efficient level to provide production and delivery incentives to the utility, but at the same time delivering a strong and firm price signal to customers on the costs of service (whether they be original, average, marginal or other costing methods). This is sometimes called the avoidance of "wasteful or excessive use" in that commissions, and utilities, should provide incentives for customers to use the commodities and services delivered in an efficient way that includes conservation.
- Income-distributive function: this function, although it can be the most subjective in cases, recognizes the real and important aspects of income distribution (cash transfers) between the utility as the producer and the customer or ratepayer as the consumer of services. These reflect the potential unequal distribution of costs and benefits among the various types and classes of customers served by the utility under the regulated utility model in which it is obligated to serve all customers. This function is recognized as a legitimate part of ratemaking that should be used in a wise and sparing fashion (and which is separate from the government-controlled function of collecting taxes generally and distributing benefits). The compensation standards and the ability-to-pay principles can be considered in this function, but this function should be considered in an integrated way with the other three functions cited.

for the commodity or service, thereby reducing bills and using the grid efficiently. Third, rates and utility incentive programs can reflect the social and public policy imperatives of the State often expressed by the Governor, state legislatures, or regulatory commissions.

- The Bonbright principles supporting CoS regulation generally require that customers contribute to the total revenue requirements of a utility in proportion to the costs they impose on the electric power system – both fixed and variable costs.

However, a rigid application of traditional CoS ratemaking principles may sometimes conflict with a state's public policy objectives in the short term. Thus, while CoS ratemaking may provide optimal efficiency and equity, there may be instances where transitional relief is needed to meet state policy goals during a transitional period of EV market development. State regulators must carefully examine if such transitional relief is warranted and whether it can be implemented without unduly harming other electric customers and whether the overall benefits exceed the costs. For example, states might consider temporary elimination (so-called "demand holidays") or discounts to some types of demand charges that are charged to EV charging station owners on general service tariffs, as discussed further below. State regulators also must, of course, evaluate the best ways to recover costs, whether through base rates, riders, DSM or energy efficiency programs, or adjustment clauses.

- Such transitional relief should recognize that it results in short-term subsidies, should be targeted for specific use cases, and should provide a plan for transitioning back to CoS-based rates.
- Where transitional relief to achieve public policy objectives is warranted, EV customers should pay, at a minimum, the short-run marginal costs (including energy or commodity costs) they impose by their usage and some contribution to fixed costs. However, over the long term, rates should be determined using a more proportional allocation for the total embedded costs included in a utility's rate base.

In the sections below, we discuss rate design for both residential and commercial classes to support the efficient adoption of EVs.

<u>Residential Rate Design</u>

Since over 80 percent of light duty EV charging is currently done at the home, residential rates applicable to EV charging are particularly important.

In many states, regulatory commissions do not have authority over energy supply prices for competitive suppliers and thus their ability to require EV charging rates that encourage off-peak use is limited. The comments below apply to rates charged by electric utilities regulated by state utility commissions for energy supply (whether bundled or unbundled).

- The goal of residential rate design should be to fairly recover costs based on the customers' contribution to delivery and supply costs. Providing proper price signals reflecting system costs will reduce customer costs and help maximize the benefits of TE. Under such efficient rates customers will be encouraged to charge their vehicles off-peak when marginal costs of energy supply are low and there is excess capacity within the electric system.

    - When utilities see increased sales in off-peak periods which do not have a commensurate impact on costs to the system, that should put downward pressure on rates for all customers. Encouraging charging during off peak hours may also help reduce the need for upgrades to the electric system. Thus, the development of rates (and/or managed charging programs) to change consumer usage behavior to charge off-peak benefits EV drivers, utility customers, utilities and society at large.

- To encourage off-peak charging, the Alliance supports the development and use of time differentiated energy supply rates. Utility energy supply costs vary by time within a day and by month or season, so to properly reflect CoS, rates should be differentiated by time-period within the day and by season and/or month. TOU rates can be real-time (potentially based on organized market price signals), hourly, based on distinct time periods (usually two to four time periods over the day), or by offering discounts or rebates for use during off peak periods (overnight usually).
    - Whatever form of time differentiated rate is used, it should be reflective of utility supply costs and resource availability during the relevant time-period. In some cases, TOU rates can also facilitate the use of what would otherwise be surplus energy from low or zero-carbon non-dispatchable resources by encouraging EV charging usage to occur during periods outside of peak times, that is, during periods of otherwise comparatively lower loads.
    - Most EVs and all smart chargers have the means to automatically set times to charge based on user (and sometimes third party) input, making it easy to correlate charging with off-peak and super off-peak rates.
- There are questions that relate to whether time differentiated rates that apply to the whole household are sufficient or whether such rates should be developed that apply to EV charging only. While we do not take a position on EV-only vs. whole-house time-differentiated rates, there are some pros and cons.
    - Whole House Rates
        - Pros: Where automated meters have been deployed, whole-house time differentiated rates have the advantage of being fairly easy to implement. Many utilities across the country already offer voluntary whole-house TOU rates and have already installed such interval meters capable of measuring hourly or time period consumption at a residence.
        - Cons: If rates are whole house only, EV owners could be discouraged from selecting time differentiated rates if their overall non-EV use occurs during peak periods, or if they are just nervous about the impacts on their overall bills.
    - EV Only Rates
        - Pros: Participation may be higher, as homeowners could be more flexible with EV charging than with other household uses of electricity. The key here is technology, which is evolving quickly to allow measurement of EV use without separate meters. For example, where utilities have interval meters (AMI infrastructure), customers have smart chargers, or where in-vehicle telemetry is available to the utility, utilities can possibly use data gathered from those

sources, if deemed sufficient, to have a separate EV rate without the necessity for a separate meter, although more research and pilots are likely warranted to test such data gathering and use.

    - Cons: If an EV-only rate relies on an additional meter at the EV charger, this program model can increase customer costs and lead to lower customer participation. Utilities, EVSPs, and regulatory commissions are exploring multiple methods for lowering overall costs and administrative complexity of offering EV-only rates, although multiple technical issues involving communications protocols, telemetry, and data quality need to be resolved in many jurisdictions.

- As discussed above, there may be other methods of rewarding customers for off-peak EV charging that may not require changes to rate design. For example, managed charging programs can be implemented alongside current rate designs with rebates or other incentives for off peak use.
- Several utilities are beginning to offer subscription rates to residential customers, which while still based on CoS principles at their core, allows for cost recovery by the utility while providing convenience and increased cost certainty to customers.

<u>Commercial and General Service Rates</u>

A. Utility Rates for Sales to Charging Stations and EV Service Providers (EVSPs)

Almost all non-residential EV charging stations, including those at multi-family dwellings, workplaces, commercial establishments and businesses, and on highways will be subject to commercial or general service tariffs of their local utility, either for energy supply service when provided by the local utility or for delivery service. This is true whether the charging station customer is an EVSP making sales to the public or whether it is a privately-owned station, e.g., fleet owner facilities.

Where retail electric service is competitive, energy supply sales from retail service providers to charging stations will be deregulated and are not discussed here. In those cases, the local utility will provide delivery service only which will be regulated by state utility commissions. EVSPs should be able to remain on the standard unbundled delivery service rates, but delivery service rates targeted to specific EVSP programs, perhaps offering transitional rate relief (as described below) to support state EV goals and objectives, could be offered by the distribution utility.

Regulated utility commercial (particularly larger commercial) and general service rates often have four main components – a fixed customer charge, an energy or commodity charge (usually charged volumetrically), a demand charge, and possibly a separate delivery charge. These are based on CoS studies done by utilities, submitted to the regulatory commission for review and approval, and used in general rate cases with cost allocation methodologies to set base rates. There are of course many other charges, including trackers, riders, taxes and other fees that are added to customer base rates which increase the total monthly billing to customers. Following are principles for commercial and general service customer rate design that apply to utility sales to EVSPs.

Demand charges are often the most controversial aspect of commercial electric rates that are applied to utility retail customers with EV charging. Depending on the terms of the applicable tariff, demand charges billed to utility customers that have charging stations with low utilization rates can equate to very high per kWh charges for vehicle charging.

Not all commercial or general service rates applicable to EV charging include demand charges. Some utilities have rates that have a maximum demand threshold before demand charges are triggered. Utilities also may have what are known as Demand Charge Rate Limiters. An example of a Demand Charge Rate Limiter is a maximum cost per kWh that will be charged based on energy and demand charges paid by the customer over a year. Other similar forms of Demand Charge Rate Limiters are in use at various utilities. The examples cited below include various rates being used that either forego demand charges or mitigate them temporarily in some way.

Notwithstanding these alternatives, which may not be applicable in all circumstances, demand charges are generally used in commercial and general service rates as a means for allocating the fixed costs of utility service in a manner that correlates the utility's cost of serving customers with the rates paid by those customers in line with traditional CoS principles. Demand charges are based on the customer's contribution to the utility's peak load, either the coincident peak which is the highest load faced by the utility in a specified time-period, or non-coincident peak which is when the customer places its maximum demand on the system in a specified time-period. Demand charges are thus a way for utilities to fairly allocate the fixed costs of the utility system, while at the same time providing a price signal to customers to reduce their demand during system or individual customer peak periods similar to the effect of time-differentiated pricing for energy or commodity costs.

- As a general matter, rates for EV charging, commercial or general service rates should be based on cost of service to ensure efficient and equitable results.
- As is the case for residential customers, the Alliance supports the energy or commodity charge component of the energy supply bill for EV charging applications being time differentiated, in real time, by hour, or specified time of day period and by month or season to reflect the changing costs incurred by the utility and the fact that usage during on-peak periods is what primarily drives additional costs for the utility.
- Demand charges are a way for utilities to fairly allocate the fixed costs of the utility system, while at the same time providing a price signal to customers to reduce their demand during system or individual customer peak periods similar to the effect of time of use pricing for energy or commodity costs. Failure to collect demand charges means that other customers will need to pick up fixed costs of the utility system and a key price signal will be lost.
- However, during this nascent stage of market development some types of demand charges can be an impediment to the development and use of commercial EV chargers because of low utilization rates of the chargers. The usage of public EV chargers can also be unpredictable, and "spiky." Such charging loads can create unusually high loads (in terms of demand based on kW) for brief periods of time which are hard to predict. This problem is particularly acute for DC fast chargers.

- Under the current situation, utilization of chargers may be low, yet the charging stations may face demand charges that result in average costs per kwh at these stations which are very high and may exceed the equivalent cost of fueling internal combustion engine (ICE) vehicles – a potential disincentive to EV market development.
- Some types of demand charges likely represent a temporary impediment to public chargers because as utilization of these charging stations increases, the average costs that the stations will need to charge the customer to be profitable will decrease and become competitive relative to the equivalent cost of gasoline.
- Adequate consideration of such demand charges in the short term may be important as the visibility and availability of charging within and between communities is vital to helping consumers overcome range anxiety and make the decision to go electric – a decision which has clear benefits to the consumer and society.
- For the medium- and heavy-duty vehicle sector, the development and rapid deployment of commercial EV charging infrastructure on major state and interstate corridors, at fleet depots, and targeted metropolitan locations, is also essential. Such operators need to have stable and predictable prices for electric fuel, and availability, over the long-term which is dependable and consistent with a lower total cost of operation (TCO).

- To encourage comprehensive electrification of the transportation sector demand charges should be proactively addressed in a thoughtful and holistic way that incorporates transparent, transitional relief (which could include either discounts or temporary elimination – so-called "demand charge holidays") but also recognizes the importance of demand charges for promoting efficiency and equity in the long term.
  - To the extent demand charge elimination, reductions or discounts are provided, they should be temporary, transparent, and available only to separately metered EV charging facilities. Demand charges should still apply to the remainder of the commercial customer's load.
- In all cases ATE recommends that utilities still collect, at a minimum, the short-run marginal costs of providing service to the EV charging station, and some contribution to fixed costs. This will help reduce cost shifts to other customers. The EVSP will pay a smaller share towards the fixed costs of the utility for the period that the demand charge elimination or reduction is in place.
- While we believe transitional demand charge relief should be temporary in nature, we do recognize that there is a trade-off between utilization of stations and the customer experience. If stations become too heavily utilized, customers will be forced to wait to charge, and such prolonged waits could lead to disincentives to use EVs. In other cases, utilization may remain low for longer periods of time. To address this problem, we recommend that utilities and state regulators do periodic assessments of station usage needed to support the collection of demand charges and whether customers are negatively impacted. Or rates could be designed that automatically adjust based on load factors.
- And as is the case with residential EV charging, utility programs that maintain existing rate structures but provide rebates, incentives, or credits on a temporary basis could effectively provide transitional demand charge relief to commercial EV charging customers.
- We also acknowledge that there are other possible rate designs or tariffs that could be designed as a more permanent replacement of demand charges for EVSPs. These rates would still be

based on cost of service, but might, for example, have a subscription charge in place of a demand charge. And some utilities, as noted above, currently have non-demand charge rates available for customers below a certain demand level or rates with a demand-charge limiter.

- It is essential to emphasize that where demand charges are mitigated, utility costs must still be recovered. Utilities under the supervision of commissions should address how best to ensure such recovery.

There are multiple ways to avoid or eliminate demand charges or mitigate their impact on a transitional basis that have been developed by utilities and adopted in state regulatory proceedings thus far. There is not a single "one-size-fits-all" approach that should be federalized or generalized to all states and jurisdictions, since the rate case precedents and principles, cost-of-service studies, and such vary by utility and state. Some examples of different approaches include:

  - Demand charge holiday with phaseout (Southern California Edison,[2] National Grid, RI)
  - TOU Rate for Commercial Less than a Threshold kW (Portland General[3])
  - Replacement of demand charges with subscription fees and TOU rates (Pacific Gas & Electric[4] and San Diego Gas & Electric[5])
  - Waiver of demand charges for low usage customers (Dominion Energy[6])
  - DCFC targeted rate with temporary waiving of demand restriction (DTE Energy[7])
  - Demand limiter for low usage customers (Florida Power & Light[8] and Xcel-MN[9])
  - Distribution demand charge and a seasonal energy charge for low load factor customers (Xcel - CO[10])
  - Demand charge credits (Philadelphia Electric Company[11] and Baltimore Gas & Electric[12])
  - Per plug incentives with per station delivery cost cap in lieu of demand charge reduction (New York PSC jurisdictional utilities[13])

  This list is not meant to be all inclusive but rather provides some examples of the range of options being utilized. Where mitigation of or transitional relief from demand

[2] https://library.sce.com/content/dam/sce-doclib/public/regulatory/tariff/electric/schedules/general-service-&-industrial-rates/ELECTRIC_SCHEDULES_TOU-EV-7.pdf
[3] https://assets.ctfassets.net/416ywc1laqmd/1vyIdMnhNoz3ctE4FNKGRM/48d706215607c4b79e69f87fb4cf3bed/Sched_038.pdf
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[10] https://www.xcelenergy.com/staticfiles/xe-responsive/Company/Rates%20&%20Regulations/Regulatory%20Filings/CO%20Recent%20Filings/PSCo_Electric_Entire_Tariff.pdf, at Sheet 44
[11] https://www.peco.com/SiteCollectionDocuments/ThirdPartyEV.pdf
[12] https://www.bge.com/MyAccount/MyBillUsage/Documents/Electric/Rdrs_4_5.pdf
[13] https://www.coned.com/-/media/files/coned/documents/our-energy-future/technology-and-innovation/electric-vehicles/order-establishing-direct-current-fast-charging-program.pdf

charges is to be provided, there is no magic formula. The Alliance does not support any particular methodology.

B. Rates for Sales from EVSPs to EV Owners

- For non-utility EVSPs, we believe that states should not consider sales by the EVSP to EVs exclusively for vehicle battery charging as utility retail services or sales. Either by statute or by regulation, the EVSP should not be interpreted as a legal matter to be a "public utility" subject to full regulation of prices and conditions of service by the State solely as a result of such sales. Thus, prices for sales by the non-utility EVSP to EV owners should be deregulated, but the EVSP should be subject to all consumer protection, weights and measures, and safety requirements of the jurisdiction within which they are located as well as interconnection requirements of the local utility.
- Non-utility EVSPs should still receive price signals that reflect utility costs, but whether they choose to pass those price signals on to their EV customers is a matter for them to decide.
- For charging stations owned by utilities, concerns are sometimes raised that utilities will set rates below their CoS or undercut rates of third-party charging companies based on cross-subsidies from utility customers, resulting in claims of "unfair competition". We note, however, that rates will be based on tariffs filed and approved by state regulatory commissions.
- One common practice to assure that rates for sales by utilities to EVs are not anti-competitive, in the absence of sufficient cost of service data, is to conduct a quarterly survey of the rates charged by the non-utility EVSPs in the region, and set prices based on an average of such rates (which could be called a "market average"). This practice should likely serve only as a temporary departure from CoS principles until sufficient CoS data is developed. Such rates should be filed either separately or in the context of a general rate case to determine base rates, and reviewed by parties and intervenors, and approved by commissions.
- Some utilities have established, on a pilot basis, optional monthly subscription fees for EV owners using utility-owned charging stations as a means of recovering costs and encouraging EV adoption.[14] Such rates may provide convenience and certainty to customers and should continue to be explored.

C. Other Issues Related to Rate Design and Cost Recovery

While not specifically rate design issues, Line Extension Policies and Utility Rebate Programs often come up in the context of rate cases and are addressed in this Section.

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[14] See, for example, Portland General Electric (https://assets.ctfassets.net/416ywc1laqmd/2hNjMQ203TEcCmZttyKCTt/45e05902b3949d9f243aa5adf50b618a/Sched_050.pdf) and Xcel (Northern States Power Minnesota) (https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId={6089A76D-0000-C51D-B540-BE9C65522001}&documentTitle=201910-156381-01).

Line Extension Policies

- Many utilities have line extension policies that require customer payment or contributions in aid of construction (CIAC) to the costs of extending power lines to provide new (or augment existing) service. Such line extension policies may be a significant barrier to the development of EV charging stations, particularly during this early stage of EV market development.
- Because line extension policies vary so widely and have different applicability for different EV use cases, we simply suggest that utilities review their line extension policies for their potential effects on EV markets and propose changes to state regulators, where warranted to avoid disincentives to increasing investment in EV charging infrastructure. Utilities and regulatory commissions may wish to consider modifying or waiving CIAC rules as a means of encouraging new EVSP investments.

Utility Rebate Programs for EVs or Charging Infrastructure

- The Alliance supports the development and use of rebate programs for either to support installation of charging stations (residential and/or commercial) or for vehicle purchases. Some utilities also offer dealer incentives to sell EVs. We think such incentives are important and valuable to encourage the purchase of EVs by consumers and reasonable and prudent programs should be approved by state regulatory commissions.
- Where utilities provide such rebates, the funding of such an incentive is socialized among all customers of the utility, due to the benefits received by all customers.
- As such, the utility should be permitted to accrue a regulatory asset for such rebates, allowing the utility to earn a return on such an asset and recover the costs of these rebates over time, in order to minimize bill impacts on customers. Such costs – the amounts accumulated in such regulatory asset (deferred accounting) - can be examined for prudency in a general rate case and included in rate base. The return on the regulatory asset and a return of the regulatory asset via amortization expense would be included in the revenue requirement underlying base rates.

This paper is a product of the ATE Task Force on Rate Design. The Task Force was established in the spring of 2020 to assess the broad range of rate design issues for residential and commercial customers that arise when state public utility commissions review TE rate proposals developed and filed by regulated utilities. Its primary goal was to share information on best practices in rate design across the multiple sectors within ATE, namely regulated utilities, auto OEMs, EVSPs, and other TE stakeholders. Another goal was to develop a more proactive position among ATE members on rate design as the entire EV ecosystem accelerates adoption of EVs and deployment of charging infrastructure across the country. The task force resides within the larger Policy-Regulatory Committee of ATE and reports up to the Board of Directors. The facilitators and principal authors of this consensus-based document were Philip B. Jones, Executive Director, and Bruce Edelston, Senior Advisor of ATE. They can be reached at phil@evtransportationalliance.org.

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