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**BEFORE THE ARIZONA CORPORATION COMMISSION**

COMMISSIONERS

LEA MÁRQUEZ PETERSON, Chairwoman
SANDRA D. KENNEDY
JUSTIN OLSON
ANNA TOVAR
JIM O'CONNOR

| | |
|---|---|
| IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR A RULING RELATING TO ITS 2023 TRANSPORTATION ELECTRIFICATION IMPLEMENTATION PLAN. | DOCKET NO. E-01345A-22-0067<br><br>**AMENDED APPLICATION FOR APPROVAL OF 2023 TRANSPORTATION ELECTRIFICATION IMPLEMENTATION PLAN AND BUDGET** |

Arizona Public Service Company (APS or Company) submits this amended application requesting the Arizona Corporation Commission's (Commission) approval of the Company's 2023 Transportation Electrification (TE) Implementation Plan (2023 TEIP or Plan) and budget pursuant to Decision No. 78383 (December 28, 2021), Decision No. 78572 (May 27, 2022), and Decision No. 78778 (November 21, 2022).[1] The 2023 TEIP and budget is designed to support the Statewide TE Plan approved by the Commission in Decision No. 78383.

[1] In Decision No. 78778, the Commission ordered APS to supplement its initial 2023 TEIP application by filing a proposed budget no later than November 30, 2022.

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## I. PLAN HIGHLIGHTS

APS's 2023 TEIP includes the following program highlights to accommodate growing EV adoption in Arizona:

**Take Charge AZ (TCAZ)** – APS initiated the TCAZ pilot program in November 2018 to encourage electric vehicle (EV) adoption by providing Level 2 (L2) EV charging stations to qualifying commercial customers in the Company's service territory. Under the program, APS installs and maintains up to four L2 EV charging plugs that can be used by commercial customers for purposes of providing charging for public use, residents in multi-unit dwellings, transportation fleets, and workplaces.

In 2023, APS will preserve the existing program covering 100% of the construction and installation costs for up to four level 2 plugs for new, non-waitlisted applicants within the following customer types: 501(c)(3) non-profits, schools, municipalities, and multifamily properties, and will modify the program by instituting a 50% cost share component for all other customers.

APS intends to utilize its total TCAZ budget to prioritize customers currently on the L2 program waitlist and will pause further Direct Current Fast Charging (DCFC) deployments in 2023. APS will consider additional DCFC deployments in the future based on performance of the sites energized in 2022, customer demand, and alternative funding availability.

**Related Demand Side Management (DSM) Programs** – APS's 2023 TEIP also discusses several programs in APS's 2023 DSM Implementation Plan that will help manage the growing TE load in Arizona, including the following EV Charging Demand Management pilot programs: the APS SmartCharge Program, the APS Smart Charger Rebate, the Residential EV Managed Charging Program, the Fleet Advisory Services, and the Commercial Make-Ready Program. These DSM programs are intended to proactively address the growing electric demand from EV charging as EVs become more widely adopted. Managed charging is a critical component to the successful integration of EVs on the distribution system and these programs will allow APS to study EV charging,

promote EV charging technologies that enable forward-looking demand response, and deploy customer EV programs through the lens of successful load management strategies.

**Customer Education and Outreach** – In 2021, APS launched DSM programs to support customer EV adoption within Arizona by sharing information with EV dealerships and buyers about how EVs work and are charged. APS partnered with Chargeway, a company focused on EV charging education and outreach, to provide touch-screen EV kiosks to EV dealerships in APS's service territory. APS deployed six Chargeway kiosks to share information about EVs, available incentives, route planning, chargers, fuel savings, and utility rates, and will evaluate adding more in the future. APS will also expand its online tools and resources available on aps.com to assist residential and commercial customers compare EV models, explore incentives or programs, and estimate fuel savings.

**APS Transportation Fleet** – The APS fleet electrification goal is to transition 30% of all light-duty vehicles and equipment (such as forklifts and UTVs/ATVs/Carts) to electric by 2025 with a stretch goal to make its fleet 100% carbon-free by 2050. The Company is also committed to transitioning its medium- and heavy-duty vehicles/equipment to electrification once this segment is commercially available upon retirement of current assets.

## II. TEIP Budget, Accounting Order, and Filing Date Modification

APS's proposed 2023 TEIP budget of $5 million, coupled with the $4.2 million DSM budget request for the Managed EV Charging Pilot, is designed to accommodate growing EV adoption in Arizona consistent with the Statewide TE Plan approved by the Commission in Decision No. 78383. APS requests approval of the 2023 TEIP budget to fund infrastructure programs including TCAZ, Commission-approved initiatives[2] such as APS's Transportation Fleet Electrification, and to provide ongoing support to residential

[2] In Decision No. 78383, the Commission ordered APS to "include in [its] semi-annual progress reports the status, budget, and expenses associated with the implementation [of its] green fleet initiatives." Decision No. 78383 at 10.

and commercial customers with EVs and TE throughout Arizona. Table 1 below reflects the program funding allocation for the 2023 TEIP.

Table 1: 2023 TEIP Program Funding Allocation

| Funding Source | Program | 2023 Budget |
|---|---|---|
| **APS TEIP** | | **$5,000,000** |
| | Take Charge AZ | $5,000,000 |
| | **Total** | **$5,000,000** |

Table 2 below reflects the funding requested in the Company's 2023 DSM Implementation Plan, filed concurrently with this 2023 TEIP, for programs associated with managing peak demand from transportation electrification.

Table 2: 2023 DSM Program Funding Allocation

| Funding Source | Program | 2023 Budget |
|---|---|---|
| **APS DSM Plan** | | **$4,204,100** |
| | APS SmartCharge Program | $606,400 |
| | APS Smart Charger Rebate | $385,500 |
| | EV Managed Charging Program | $296,200 |
| | Fleet Advisory Services | $500,000 |
| | Education & Outreach | $416,000 |
| | Commercial Make-Ready Program | $2,000,000 |
| | **Total** | **$4,204,100** |

APS further requests that the Commission approve an accounting order authorizing the deferral of costs related to funding the Company's TCAZ program until such prudently incurred costs can be considered in a future general rate case or through alternative methods.[3] Accordingly, APS requests that the Commission include the following paragraphs in its order approving its 2023 TEIP:

> IT IS FURTHER ORDERED that Arizona Public Service Company is authorized to defer for possible later recovery through rates, costs related to its Commission-approved Take-Charge AZ program, including all O&M expense, property tax expense, and depreciation

[3] The Electric Vehicle Policy Implementation Plan approved in Decision No. 77289 provides that utilities may request an accounting order to track EV pilot program costs to be addressed in the next rate case or through alternative methods. Decision No. 77289 at 5.

expense, including a return at the embedded cost of debt from APS's most recent rate case.

IT IS FURTHER ORDERED that Arizona Public Service Company shall prepare and retain accounting records sufficient to permit detailed review all deferred costs as authorized herein.

Finally, APS requests that the Commission modify the filing date for all future TE Implementation Plans from June 1, to November 30, to be consistent with the Company's capital budgeting process. In addition, APS is filing concurrently with this application an application to approve its 2023 DSM Implementation Plan. APS notes that numerous DSM programs support TE and will critically inform the development of future TE Implementation Plans and budget. Since there is considerable interdependence between DSM Implementation Plans and TE Implementation Plans, APS believes it is necessary and appropriate to allow the Company to file both plans concurrently going forward.

## III. EV Rates

Rate plans designed to effectively manage EV charging are a critical aspect of APS's TE portfolio. APS has developed three rates exclusively available to meet the needs of customers with EVs or EV infrastructure:

### DCFC Rate Rider

In 2021, APS implemented the DCFC Rate Rider to address the growth of public fast charging stations in the Company's service territory by offering charging service providers (CSPs) a rate that reduces demand charges. The intent of the DCFC Rate Rider is to support growing customer EV adoption as more and more DCFC stations are developed within APS's service territory. The DCFC Rate Rider is limited to the first 500 stations to take service on this rate, with the demand charge reduction phased out over time, and phased out completely in 2030. APS currently has 28 customer accounts taking service under the DCFC Rate Rider.

**General Services EV (GS-EV) Rate Rider**

On November 21, 2022, the Commission approved the GS-EV Rate Rider. Once implemented, the GS-EV Rate Rider will be available to commercial customers to encourage the charging of EVs at a customer's site during the off-peak hours of 9 a.m. through 3 p.m., all days of the week. The GS-EV Rate Rider discourages EV charging during the Company's system peak hours Monday through Friday through a premium kWh charge that would increase the customer's on-peak rate.

**Residential EV (R-EV) Rate Schedule**

On August 1, 2022, APS implemented the R-EV Rate to encourage residential customers to charge EVs during a super off-peak period between 11 p.m. through 5 a.m. of each day of the year. Due to stakeholder concerns that the on-peak energy charge was too high, APS is proposing to revise the R-EV Rate to add a 10 a.m. to 3 p.m. winter super off-peak period; reduce the on-peak rate; and updating the overnight charging window to be available on on-holiday weekdays consistent with current metering configurations and accommodate rate comparisons through APS's rate comparison tool. The revised R-EV Rate is designed to encourage customers to charge their EV during times of the day when the grid is less constrained, which will help reduce potential challenges with the load growth associated with EVs. With this plan, APS seeks approval of the revised R-EV rate.

## IV. CONCLUSION

The 2023 TEIP and budget is designed to accommodate growing TE demand in Arizona consistent with Decision No. 78383. APS respectfully requests that the Commission approve this amended application, and specifically grant the following:

1. Approval of APS's 2023 TEIP and budget in its entirety as discussed herein and as set forth in **Exhibit A**;

2. Approval of an accounting order authorizing the deferral of costs related to the Company's TCAZ program until such prudently incurred costs can be considered in a future general rate case or through alternative methods;

3. Approval of the revised R-EV rate for residential customers as discussed herein and as set forth in **Exhibit B**; and

4. Approval of APS's request to modify the filing date for all future TE Implementation Plans from June 1 to November 30.

RESPECTFULLY SUBMITTED this 30th day of November 2022.

By: /s/ Jeffrey S. Allmon
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# Exhibit A

# ARIZONA PUBLIC SERVICE COMPANY

# 2023 Supplemental Transportation Electrification Implementation Plan & Budget

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# I. Introduction

Arizona Public Service Company (APS or Company) is filing this 2023 Supplemental Transportation Electrification Implementation Plan and Budget (TEIP and Budget) in accordance with Arizona Corporation Commission (ACC or Commission) Decision No. 78383 (December 28, 2021) and Decision No. 78778 (November 21, 2022).

The transition of the transportation sector to electric presents many opportunities to the region and for APS customers. These opportunities were explored in the Statewide TE Plan approved by the Commission in December 2021 (Decision No. 78383).[1] As more customers and automakers adopt electric vehicles (EVs), the region will experience economic development, reduced and more consistent fuel costs, lower greenhouse gas emissions, and improved air quality, which can benefit some counties in Arizona being classified as non-attainment zones. Analysis in the Statewide TE Plan showed that under a medium adoption scenario for the state (just over one million EVs on the roads by 2030), "transportation electrification could provide total lifetime net benefits of $9 billion to EV purchasers in Arizona through lower total cost of ownership, and $12 billion to electric utility customers through downward pressure on electricity rates. Reductions in greenhouse gas emissions, local air pollutants, and gasoline consumption could also lead to $28 billion in benefits for Arizona as a whole."

The Statewide TE Plan established an EV adoption goal for APS's service territory of 450,000 light-duty EVs by 2030. According to the Electric Power Research Institute (EPRI), as of June 2022, it was estimated there were more than 31,000 EVs in APS's service territory and nearly 70,000 in the State of Arizona.[2] The potential future of EV adoption in Arizona depends on a variety of factors, including federal, state, and local policy; utility support; automaker developments; the state of the economy; vehicle pricing; consumer education and awareness; and technological advancements. Utilities, and other industry stakeholders, must engage in effective planning and coordination to achieve the greatest benefits and to reliably and affordably accommodate the scale of changes brought forth by the electrification of the transportation sector.

Additionally, there are markers indicating an accelerated path towards a transportation future that is electric. For example, the Federal Bipartisan Infrastructure Law will infuse new infrastructure investments across the U.S. with a heavy focus on clean transportation. The State of Arizona has already engaged in the development of its Electric Vehicle Infrastructure Deployment plan, detailing the State's plan to leverage $76 million in federal funding to expand fast charging along Arizona's highways. The infrastructure law also provided millions of dollars in competitive grants to deploy additional EV charging infrastructure in communities and to electrify school buses. In addition the Federal Inflation Reduction Act, passed in August 2022, will further accelerate transportation electrification through a variety of tax credits. APS is actively involved with Arizona stakeholders to leverage the synergies between ongoing utility TE planning and the new federal funding opportunities.

[1] https://docket.images.azcc.gov/E000012626.pdf?i=1642097136773
[2] EPRI, 2022. *Cumulative New EV Registrations in APS Territory*. Retrieved from EPRI.com

The forecasted increase of EVs in APS's service territory will lead to a substantial increase in additional load on the grid. On average, each light-duty EV consumes between 3,000 – 4,000 kilowatt-hours (kWh) per year. For comparison, the average residential customer account in APS's service territory consumes 12,118 kWh per year. This represents a significant, new operational challenge to serve this load. Therefore, it is imperative that APS educate customers and develop a portfolio of programs that assist customers in charging their EVs at off-peak times and reduce their overall peak demand, which will aide in the successful integration of EVs on the grid and optimize the benefits that TE can bring the state.

Utilities can help with the successful integration of EVs on the grid, customer desire to adopt the technology, and the experience of EV drivers as electricity becomes a significant transportation fuel in the future. APS is committed to supporting customers that wish to transition to electric fuel by deploying EV programs that aim to reduce the barriers to electrification faced by customers, as well as meet the adoption targets set forth in the Statewide TE Plan, all while utilizing this opportunity to safeguard reliability and reduce costs for all customers.

Provided in this Supplemental 2023 TEIP and Budget are APS's TE initiatives, including TE infrastructure and DSM programs, aimed at meeting the goal established in the Statewide TE Plan and preparing for the achievement of the High Adoption Scenario in that plan. Additional plan elements herein are APS's fleet electrification goal and customer EV rates. Although APS's customer programs are bifurcated by TE infrastructure (non-DSM) and DSM programs, this plan and budget represents a wholistic view of the Company's proposed TE program portfolio.

# II. TE Infrastructure Programs

## A. Take Charge AZ

In November 2018 APS launched the Take Charge AZ (TCAZ) pilot program, which includes Level 2 (L2) and Direct Current Fast Charging (DCFC) components, to gather data and provide EV charging solutions to a broad array of customer types and use cases. TCAZ helps alleviate concerns over the availability of electric vehicle supply equipment (EVSE), or EV chargers, for APS commercial and residential customers. The TCAZ pilot program began prior to the Commission's decision on the Statewide TE Plan in December 2021 (Decision No. 78383).

### 1. TCAZ L2

APS initiated the TCAZ pilot program in November 2018 to collect data on EV charging by providing L2 EV charging stations to qualifying commercial customers in the Company's service territory. Through the program, APS installs and maintains up to four L2 EV charging ports that can be used by commercial customers for purposes of providing charging for public use, residents in multi-unit dwellings, transportation fleets, and workplaces. APS maintains ownership of the charging stations for five years before transferring ownership to the customer.

In 2023, APS intends to utilize its total TCAZ budget to address customers currently on the TCAZ L2 program waitlist. For new applications received after January 1, 2023, APS will

continue the existing program structure covering 100% of the construction and installation costs for up to four level 2 plugs for new applicants within the following customer types: 501(c)(3) non-profits, schools, municipalities, and multifamily properties, and will modify the program by instituting a 50% cost share component for all other customers. These changes will ensure that customers on the waitlist are not impacted, that the program is still available for qualifying non-residential customers, and that APS continues the deployment of EV chargers equitably for the customers that need it most.

## 2. TCAZ DCFC

In order to administer the DCFC portion of the TCAZ program, APS worked to establish a partnership with an existing DCFC provider. In early 2021, APS announced its partnership with Electrify America to deploy DCFC stations across the Company's service territory to fill gaps in private sector EVSE deployment and alleviate customer range anxiety outside of the Phoenix Metropolitan Area. With more EV models coming to market, these DCFC stations will support EV adoption and enable high-powered charging for long-distance travel in Arizona.

This partnership enables APS to leverage Electrify America's turnkey solution to deploy more public DCFC stations, which are part of Electrify America's already expansive network of publicly available fast chargers. Their state-of-the-art technology can charge capable EVs up to 20 miles of range per minute. EV drivers can access these DCFC stations by credit card, debit card, or mobile app. To date, one site has been energized in Show Low (see Figure 1), with four more sites expected to be energized in Globe, Payson, Prescott, and Sedona by the end of 2022.

In 2023, APS intends to utilize its total TCAZ budget to prioritize customers currently on the L2 program waitlist under the existing program eligibility and will pause further DCFC deployments in 2023. APS will consider additional potential APS-owned DCFC stations in the future in underserved areas based on performance of the sites energized in 2022, customer demand, and alternative funding availability.

***Figure 1*** *– TCAZ DCFC, Show Low, AZ*

# III. DSM Programs[3]

## A. EV Charging Demand Management Pilot

The EV Charging Demand Management Pilot is a suite of DSM programs intended to proactively address the growing electric demand from EV charging as EVs become more widely adopted. The benefits of TE are maximized when some form of managed charging is implemented. Managed charging involves load control mechanisms via consumer behavior, the EV charger, or vehicle telematics. Managed charging is a critical component to the successful integration of EVs on the distribution system, and helps utilities minimize potentially costly upgrades due to increased demand on the distribution system. These programs can potentially lead to reduced costs for all APS customers by shifting EV load to periods of low demand (like the middle of the night) or high solar penetration (like the middle of the day). These demand management programs include the need for utilities to continue to study EV charging, promote EV charging technologies that enable forward-looking demand response, and deploy customer EV programs through the lens of successful load management strategies. As APS identifies peak demand savings associated with these efforts, APS will include them in the Company's subsequent annual DSM progress reports.

A summary of the programs that will be included in the Company's 2023 DSM Plan are included below. All the subsequent programs, except for the proposed Make-Ready Initiative, were approved in the 2022 DSM Implementation Plan in Decision No. 78781 (November 21, 2022).[4]

### 1. APS SmartCharge Program

The APS SmartCharge program, which was first approved in APS's 2021 DSM Plan and launched on November 1, 2021, encourages EV owners to share their EV charging data by either installing a data-sharing module in the diagnostic port of their vehicles or granting permission to share their vehicles' account data using an application programming interface (API) with the implementer. APS will use this EV data to better understand customer charging behavior, EV load profiles, and assess future managed charging programs to better prepare the grid for these new loads.

In 2023, APS proposes expanding the program to additional customers, as well as provide monthly rewards to encourage customers to shift their EV charging off-peak. By expanding this program, APS can accommodate additional customers with newer models of EVs expected to be available in 2023, many of which charge at higher power rates, as well as gain a better understanding of customer charging behaviors beyond just early adopters. Based on early data collected from the program in 2022, approximately 15% of the EV charging demand occurs between the hours of 10:00 a.m. and 3:00 p.m. In 2023, APS would like to explore the deployment of charging rewards to participants to test whether APS can successfully increase EV charging occurring during daytime peak solar generation hours when there is abundant low-cost, clean energy on APS's grid.

[3] TE programs included in the 2023 DSM Plan as part of the *EV Charging Demand Management Pilot*. APS's 2023 DSM Plan was filed concurrently with this Supplemental TEIP and Budget on November 30, 2022 in Docket No. E-01345A-22-0066.

[4] https://images.edocket.azcc.gov/docketpdf/0000208034.pdf

### 2. APS Smart Charger Rebate

APS currently offers a $250 rebate to residential customers that purchase and install an ENERGY STAR certified, Wi-Fi-enabled Level 2 (L2) charging station (commonly referred to as a smart charger) that must be able to connect and communicate with applicable APS online tools. Qualifying L2 smart chargers can connect to the internet and provide data on home charging behavior, as well as participate in utility managed charging programs. Rebates for qualifying smart chargers can be claimed on the APS Marketplace using an online rebate process. In the 2023 DSM Plan, APS proposes the continuation of this program, targeting 1,500 Smart Charger rebates. Additionally, APS proposes a higher incentive for low- to moderate-income (LMI) customers up to $500, not to exceed 100% of the total cost of a L2 charging station.

### 3. Residential EV Managed Charging Program

The average EV uses approximately 3,000 – 4,000 kilowatt-hours (kWh) per year. Today there are over 31,000 light-duty EVs operating in APS's service territory, which is expected to rise rapidly over the next few years. As EVs move toward mass adoption, it is necessary for utilities to deploy residential EV managed charging programs at scale to encourage off-peak EV charging and reduce peak demand from the added EV load, thereby increasing system reliability and reducing costs to all customers.

In 2023, APS intends to launch a new residential EV managed charging program aimed at aggregating and managing residential EV charging load through mechanisms such as the residential customer's home charging station or access to their vehicle's telematics data to shift load to the most beneficial times for the grid. Through this type of program, customers would notify APS when they need their vehicle charged by, allowing APS to determine the best time to initiate the customers' EV charging based on grid conditions. This would allow APS to smooth load curves for EV charging. For a successful program implementation, APS will prioritize customer experience and value, inclusivity of customer vehicle and charging technology, and scalability, to maximize total EV load shifting and demand reduction capability.

### 4. Fleet Advisory Services

Electrifying commercial fleet vehicles presents a range of new challenges for commercial customers and the utility, especially medium- and heavy-duty vehicles. On the customer side, there are a lack of tools and resources to help customers assess the viability of EVs and to evaluate the right charging solutions for their fleets. On the utility side, electric fleets can add significant load at unknown times during the day. While this load can be managed, the charging solutions required by the customer can be complex depending on the use cases of their vehicles.

Through a Fleet Advisory Service, APS intends to support commercial fleet owners by assisting with cost-benefit analyses from converting fleets to electric, recommending charging infrastructure, and exploring solutions to manage charging to minimize impact to peak demand. The rise of large-scale charging solutions to meet the needs of fleets will require proactive engagement by utilities to advise customers on how to optimize charging solutions and realize the benefits that fleet electrification can bring to customer operations and the

region. Engaging with fleets is an effective way to help manage charging and mitigate the need for costly upgrades to the system. In 2023, APS will prioritize Fleet Advisory Services for customers operating municipal fleets, school buses, public transit, or other fleets operating in disadvantaged communities.

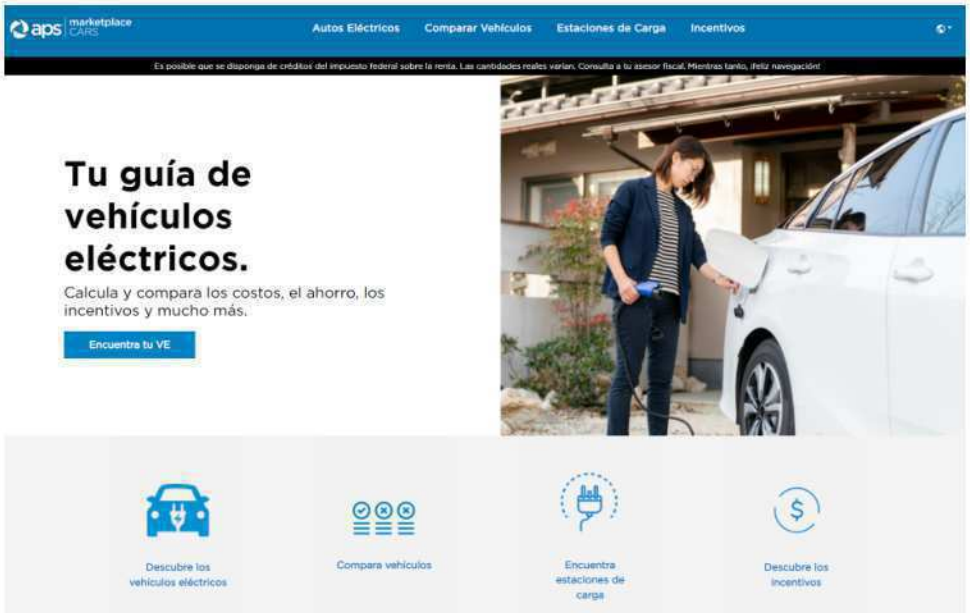
## 5. Education & Outreach

Broad based education and outreach remain a cornerstone of APS's TE strategy, particularly as it relates to consumer education about EV charging best practices. This includes providing an array of educational resources for customers to engage with online and in-person. In 2022, APS hosted EV Ride & Drive events in the cities of Avondale and Flagstaff. APS will continue to offer this engagement opportunity for customers in 2023 with a focus on reaching a diverse customer base. In addition to learning about the various EV options on the market, customers will have the ability to learn from APS and other partners about APS EV rates, rebates, and other energy efficiency programs.

APS launched a partnership in 2021 with Chargeway, a company focused on EV charging education and outreach. Chargeway's unique platform is available for EV drivers via a mobile application and for dealerships via Chargeway Beacons. Chargeway Beacons are large touch-screen kiosks deployed at partner dealerships in APS service territory and serve as a tool for educating prospective EV buyers about EVs, available incentives, route planning, chargers, fuel savings, and utility rates. Education on utility rates at the point of purchase informs customers about how EV charging impacts their home energy bill, indicating the best way to save money and reduce their EV charging demand. To date, APS has partnered with six dealerships across the Company's geographically diverse service territory to deploy Chargeway Beacons and the eLearning platform. APS has partnered with SRP to double the reach of each company's program, at no additional cost, by incorporating both utility's program information across all 12 dealerships in the APS and SRP service territories.

In late 2022, APS launched a revamped *Cars Marketplace* on the aps.com website in partnership with ZappyRide. The new online tool provides residential customers a variety of educational resources related to EVs, including model availability, incentives, rebates, and charging station locations. Additionally, the entire suite of features available on Cars Marketplace are available in Spanish (See Figure 2). In 2023, APS intends to promote the online tool with residential customers and launch a new Local Dealer Inventory Feature, which enables customers to browse EV inventory available through partner dealers. In early 2023, APS plans to launch a new *Fleet Marketplace* targeted at engaging commercial customers in early education around fleet electrification, which will also be offered in a Spanish translated version. These online tools will assist residential and commercial customers early in their EV adoption journey by providing important information about charging cost, model availability, and EV model comparisons to other vehicle types.

***Figure 2*** *– APS Cars Marketplace Spanish Site*




## 6. Commercial Make-Ready Initiative

The required electrical infrastructure to install and operate Level 2 or DCFC charging stations is often a barrier for a variety of customers. Additionally, the charging stations selected by customers can have an impact on their operations, including cost, communications capabilities, and energy consumption. Utilities often deploy programs referred to as make-ready, to support customer electrification by reducing some of these barriers while also ensuring that the charging stations installed, and subsequent EV charging, can be successfully managed by the customer in partnership with the utility.

APS proposes an EV Make-Ready Initiative to support the installation of connected EV charging infrastructure by helping to offset higher upfront costs that make it difficult for non-residential customers with limited annual budgets to invest in the equipment and upgrades necessary to begin electrifying their fleets or provide charging stations for employees, tenants, or the public. The initiative would fund up to 100% of the upfront costs, including installing EV charging stations, trenching, and other associated infrastructure, with a cap of $75,000 per customer site. This Make-Ready Initiative would have an initial 2023 budget of $2 million.

The EV Make-Ready Initiative would target three different types of customers: 1) workplace charging, including charging of commercial fleet vehicles, 2) multifamily residences, and 3) public charging. Participating customers would work with APS to select new Level 2 or DCFC charging stations and develop a site plan to install the necessary infrastructure to extend electric service from the customers' meters to the locations of the charging stations. All associated equipment would be owned and operated by the customer.

The EV Make-Ready Initiative will be deployed equitably by prioritizing certain customers and maximizing the incentive for schools, public transit, municipalities, multifamily properties serving LMI communities, and public DCFC located in underserved communities.

Recipients of the Make-Ready incentive must have their EVSE separately metered and enrolled in a TOU rate. Additionally, the EVSE must be network capable. By deploying these load management strategies with the Make-Ready Initiative, APS is laying the groundwork for encouraging off-peak charging and peak demand reduction. Non-networked EVSE may be considered on a case-by-case basis, particularly for cases associated with LMI communities. APS reserves the right to determine incentive-level eligibility based on the Company's best interpretation of the proposed customer projects and available information at the time of review.

## IV. APS's Transportation Fleet Electrification

APS's fleet electrification goal is to transition 30% of all light-duty vehicles and equipment (including forklifts, UTVs/ATVs/Carts) to electric by 2025 with a stretch goal to be 100% carbon-free by 2050. The Company is also committed to transitioning medium- and heavy-duty vehicles and equipment once there is more commercial availability and upon retirement of current assets.

Figures 3-5 below depict the current and projected status of APS's fleet conversion, including estimated expenses for replacements projected to occur in 2023. All figures exclude Palo Verde.

***Figure 3*** *- Current Status of Plug-in Hybrid, All-Electric Vehicles, and Equipment by Type*

| Equipment or Vehicle Type | Total Plug-in Hybrid/Electric | Percent Plug-in Hybrid/Electric |
|---|---|---|
| General Equipment[5] | 85 | 25% |
| Light-Duty Vehicles | 23 | 6% |
| Medium- and Heavy-Duty Vehicles[6] | 0 | 0 |

***Figure 4*** *- Current Plug-in hybrid and All-Electric Replacements Projected through 2023*

| Equipment or Vehicle Type | Total Projected Plug-in Hybrid Replacements | Total Projected Electric Replacements |
|---|---|---|
| General Equipment | 0 | 13 |
| Light-Duty Vehicles | 0 | 23 |
| Medium- and Heavy-Duty Vehicles | 0 | 0 |

[5] Includes forklifts, ATVs/UTVs/Carts.

[6] Medium- and heavy-duty options not yet commercially available or currently price prohibitive. In lieu of viable hybrid/electric options, the company is leveraging jobsite idle-mitigation technology as a standard package for trouble trucks and has two Odyne bucket trucks with battery-assisted drivetrain and electric power takeoff (ePTO) systems.

***Figure 5*** *- Estimated Expenses for Plug-in Hybrid and All-Electric Replacements Projected in 2023*

| Equipment or Vehicle Type (Quantity)[7] | Total Estimated Purchase Price | Total Estimated Annual Expenses[8] | Expense Category |
|---|---|---|---|
| General Equipment (13 Forklifts) | $1,237,438 | $65,000 | 92% Capital / 8% O&M |
| Light-Duty Vehicles (1 Sedan, 22 Trucks) | $1,238,000 | $40,090 | 29% Capital / 71% O&M |

# V. Plan Budget

## A. Summary

The tables below provide an overview of the programs included in this 2023 Supplemental TEIP, including the program funding source, budget, and expense category.

APS requests approval of the Company's TE budget included in this plan of $5 million.

***Figure 6*** *-2023 TE Budget*

| Funding Source | Program | 2023 Budget |
|---|---|---|
| **APS TEIP** | | **$5,000,000** |
| | Take Charge AZ | $5,000,000 |
| | **Total** | **$5,000,000** |

APS also notes that it is requesting approval of an additional $4,204,100 through the Company's 2023 DSM Implementation Plan, filed concurrently with this 2023 TEIP, for programs associated with managing peak demand from transportation electrification.

[7] These figures represent current projections. Actual delivery dates are subject to change because of continued manufacturer or supply chain delays.

[8] Estimated annual expenses include the cost of maintenance and electricity. Assumptions have been made based on industry research and historical results for APS vehicles and equipment. Actual EV results may vary based on usage and variables not yet known. APS will continue to refine these assumptions as the Company progresses in its fleet electrification strategy.

***Figure 7** -2023 DSM Budget*

| Funding Source | Program | 2023 Budget |
|---|---|---|
| **APS DSM Plan** | | **$4,204,100** |
| | APS SmartCharge Program | $606,400 |
| | APS Smart Charger Rebate | $385,500 |
| | EV Managed Charging Program | $296,200 |
| | Fleet Advisory Services | $500,000 |
| | Education & Outreach | $416,000 |
| | Commercial Make-Ready Program | $2,000,000 |
| | **Total** | **$4,204,100** |

## B. Accounting Order

APS has not previously filed with the Commission a TEIP including a budget pertaining to the Company's TE infrastructure programs. The Commission's Decision No. 77289[9] (July 19, 2019), Electric Vehicle Policy Implementation Plan, states that "cost recovery for approved EV pilot programs may be addressed in the PSCs rate case (pursuant to R-14-2-103 or R-14-2-107) where the prudency of incurred costs shall be evaluated. PSCs may request an accounting order to track pilot program costs. Alternative methods of cost recovery may also be requested, and such requests will be addressed on a case-by-case basis." APS requests an accounting order authorizing the deferral of costs related to the TE infrastructure program, Take Charge AZ, contained in the Company's 2023 TEIP and Budget until such costs can be considered in a future general rate case proceeding or through alternative methods.

# VI. EV Rates

Utility rates for EV charging are a critical aspect of APS's TE portfolio. Time of use (TOU) rates are effective at shifting EV charging load to times that are more beneficial to the grid and reduce peak demand. Additionally, EV rates can support the deployment of DCFC from third-party charging service providers (CSPs) and encourage charging during mid-day solar energy production. APS is constantly evaluating its suite of EV rates to determine if they meet customer needs. Currently, APS has developed three rates exclusively available to meet the needs of customers with EVs or EV infrastructure.

## A. DCFC Rate Rider

In 2021, APS implemented a DCFC Rate Rider. This rate rider is intended to support the growth of public fast charging in Company's service territory by offering CSPs a rate that reduces demand charges. With the adoption of EVs still relatively low and the high-upfront costs of building and operating public DCFC stations, third-party CSPs faced a significant

[9] https://docket.images.azcc.gov/0000199128.pdf

financial barrier to deploying charging stations. The availability of the DCFC rate rider enables customers to invest in more public DCFC near-term to expand the charging network to prepare for new EVs coming onto the market. The DCFC Rate Rider is limited to the first 500 stations to take service on the rate, and the demand charge reduction phases out over time, with it phasing out completely in 2030. As of November 30, 2022, 28 service accounts have selected the rider.

## B. General Services (GS) EV Rate Rider

On April 1, 2022, APS filed its application for approval of its GS-EV Rate Rider in response to Commission Decision No. 78317 (Docket No. E-01345A-19-0236). This rate rider was approved by the Commission in November 2022 (Decision No. 78779) and will be available as a voluntary offering for commercial customers taking service under the Company's E-32 family of general service time-of-use (TOU) rate plans, including E-32 TOU Extra Small, E-32 TOU Small, E-32 TOU Medium, and E-32 TOU Large.

The GS-EV Rate Rider encourages EV charging at a customer's site during the hours of 9 a.m. through 3 p.m. all days of the week, Monday through Sunday. These hours align with typical business hours and the maximum hours of solar energy production on the APS system. The rider also discourages EV charging during the Company's system peak hours Monday through Friday through a premium kWh charge that would add to the customer's already effective on-peak rate.

To be eligible for this rate rider, customers served under one of the Company's E-32 TOU rate plans and must install Level 1 (L1) or Level 2 (L2) EV charging stations on the customer's premise, including behind-the-meter ancillary electrical equipment that will allow APS to install metering to separately measure the EV charging load. Customers will be put on the rider upon request after verification that the customer meets the requirements of the rider, and after the Company installs the required metering equipment and completes any necessary changes to the Company's customer information system to allow APS to bill the customer using the on- and off-peak hours specified in the rider.

## C. Residential EV Rate

On January 7, 2022, APS filed its application for approval of its Residential EV Rate in compliance with Decision No. 78317, and the rate was approved in Decision No. 78640 (July 27, 2022). This rate included a super off-peak energy charge for the period from 11 p.m. to 5 a.m. each day of the year, which is set at the same level as the super off-peak energy charge included in Rate Schedule TOU-E in accordance with the Decision.

Through APS's stakeholder outreach, the Company received feedback and concerns that the on-peak energy charge was too high and that the rate should include the winter super off-peak time period currently included in APS's other residential rates. Redesigning the rate also provided an opportunity to align the rate TOU periods of R-EV with existing metering configurations, which will allow R-EV customers to use the Rate Comparison Tool. APS also

evaluated how other top-performing utilities across the country created rate attributes that were more favorable to customers.

To be responsive to this feedback and address stakeholder concerns, APS is proposing to revise the existing Residential EV rate by:

- Adding a 10 a.m. to 3 p.m. winter super off-peak period to further incentivize charging during periods when excess solar energy is available,
- Rebalancing the on- and off-peak energy prices to reduce the on-peak rate, and
- Updating the overnight charging window to be available on non-holiday weekdays, consistent with current metering configurations and accommodate rate comparisons through APS's rate comparison tool.

Many EVs and EV charging stations can be programmed to charge when it is convenient or most economical, making it easier for customers to take advantage of the super off-peak rates. The revised residential EV rate will encourage customers to charge when the grid is less constrained, helping reduce potential challenges associated with this new load growth.

APS has tested the performance of this revised Residential EV rate against the TOU-E rate, which demonstrated that most EV customers would experience savings on the revised rate schedule. Some EV owners are currently enrolled in a residential demand rate and would continue to experience optimal savings when compared to the R-EV proposal; however, allowing customers to use the Rate Comparison Tool will provide them the information needed to choose the rate that works best for their own situation. APS believes there may be an opportunity to introduce a Residential EV with Demand rate at greater levels of adoption in support of the Company's peak demand management efforts, but that APS is not yet proposing such an offering while continuing to learn more about how customers are engaging with their EVs and Rate Plan offerings. In addition to the revised Residential EV rate, APS's existing residential Time-of-Use 4pm-7pm Weekdays with Demand rate has low cost overnight energy rates for charging and can provide savings to customers who are willing to avoid charging on peak. APS will continue to monitor customer behaviors and assess future opportunities to add a demand rate as needed.

## VII. TEIP Filing Date

APS requests that the Commission modify the filing date for all future TEIP's from June 1 to November 30, to be consistent with the Company's capital budgeting process and to align with the Company's DSM Implementation Plans. APS notes that its DSM program includes transportation electrification measures due to their impacts on load management and will critically inform the development of future TEIPs. Due to this interdependence, APS believes it is necessary to allow the Company to file both plans concurrently.

# VIII. Conclusion

This 2023 Supplemental TEIP and Budget represents an overview of the strategic priorities and programs that make up APS's TE portfolio. APS looks forward to the review and approval of its plan, including the EV programs contained in the Company's 2023 DSM Implementation Plan filed concurrently with this 2023 TEIP. APS intends to implement its plans in conjunction with key stakeholders to advance TE in Arizona for the benefit of all customers.

# Exhibit B

AVAILABILITY

This rate schedule is available to Standard Offer electric service required for residential purposes in individual private dwellings and in individually metered apartments.

This rate is available to residential customers subject to ready access to an AMI network, the installation of required metering equipment and implementation of meter changes, and the completion of necessary enhancements to the Company's billing system.

This rate schedule is only applicable to customers who own a qualified electric vehicle as determined by the Company. Service under this schedule is also subject to an annual certification for proof of EV ownership. Neighborhood Electric Vehicles as described in A.R.S. §28-101(53) do not qualify for this rate schedule.

DESCRIPTION

This rate has two parts: a basic service charge and an energy charge for the total energy (kWh) used for the entire month. The energy charge will vary by season (summer or winter) and by the time of day that the energy is used (On-Peak, Off-Peak, Overnight, or Super Off-Peak). This rate does not include a demand charge.

TIME PERIODS

The On-Peak time period for this residential rate schedule is 4 p.m. to 7 p.m. Monday through Friday year-round. -The Super Off-Peak time period is ~~11~~10 ~~p.m.~~a.m. to ~~5~~3 ~~a~~p.m. Monday through Friday during the winter season, which is the billing cycles of November through April. The Overnight period is 11 p.m. to 5 a.m. -Monday through Friday year-round. ~~every day, including holidays.~~ All other hours are Off-Peak hours.

The following holidays are also included in the Off-Peak hours:

- New Year's Day - January 1*
- Martin Luther King Day - Third Monday in January
- Presidents Day - Third Monday in February
- Cesar Chavez Day - March 31*
- Memorial Day - Last Monday in May
- Independence Day - July 4*
- Labor Day - First Monday in September
- Veterans Day - November 11*
- Thanksgiving - Fourth Thursday in November
- Christmas Eve - December 24**
- Christmas Day - December 25*

- New Year's Eve - December 31**

*If these holidays fall on a Saturday, the preceding Friday will be Off-Peak. If they fall on a Sunday, the following Monday will be Off-Peak.

**The day on which these holidays fall will be Off-Peak days.

The rate also varies by summer and winter seasons. The summer season is the May through October billing cycles and the winter season is the November through April billing cycles.

CHARGES

This monthly bill will consist of the following charges, plus adjustments:

Bundled Charges

| | | | |
|---|---|---|---|
| Basic Service Charge | | $ 0.400 | per day |
| | Summer | Winter | |
| On-Peak Energy Charge | $ ~~0.40685~~0.32247 | $ ~~0.38477~~0.30497 | per kWh |
| Off-Peak Energy Charge | $ ~~0.10789~~0.10789 | $ ~~0.10790~~0.10790 | per kWh |
| Overnight Energy Charge | $ 0.07491 | $ 0.07491 | per kWh |
| Super Off-Peak Energy Charge | ~~$ 0.03166~~ | $ ~~0.03166~~0.03166 | per kWh |

Unbundled Components of the Bundled Charges

Bundled Charges consist of the components shown below. These are not additional charges.

Basic Service Charge Components

| | | |
|---|---|---|
| Customer Accounts Charge | $ 0.068 | per day |
| Metering Charge | $ 0.188 | per day |
| Meter Reading Charge | $ 0.068 | per day |
| Billing Charge | $ 0.076 | per day |

Energy Charge Components

| | | |
|---|---|---|
| System Benefits Charge | $ 0.00315 | per kWh |
| Transmission Charge | $ 0.01097 | per kWh |

| | Summer | Winter | |
|---|---|---|---|
| Delivery On-Peak kWh Charge | $ ~~0.04137~~0.02988 | $ 0.02988 | per kWh |
| Delivery Off-Peak kWh Charge | $ 0.02988 | $ 0.02988 | per kWh |
| Delivery Overnight kWh Charge | $ 0.02988 | $ 0.02988 | per kWh |
| Delivery Super Off-Peak kWh Charge | ~~$ 0.01061~~ | $ 0.01061 | per kWh |
| Generation On-Peak kWh Charge | $ 0.27847 | $ 0.26097 | per kWh |
| Generation Off-Peak kWh Charge | $ 0.06389 | $ 0.06390 | per kWh |
| Generation Overnight kWh Charge | $ 0.03406 | $ 0.03406 | per kWh |
| Generation Super Off-Peak kWh Charge | | $ 0.00693 | per kWh |

| | ~~Summer~~ | ~~Winter~~ | |
|---|---|---|---|
| ~~Generation On-Peak kWh Charge~~ | ~~$ 0.35136~~ | ~~$ 0.32928~~ | ~~per kWh~~ |
| ~~Generation Off-Peak kWh Charge~~ | ~~$ 0.06389~~ | ~~$ 0.06390~~ | ~~per kWh~~ |
| ~~Generation Super Off-Peak kWh Charge~~ | ~~$ 0.00693~~ | ~~$ 0.00693~~ | ~~per kWh~~ |

ADJUSTMENTS

The bill will include the following adjustments:

1. The Renewable Energy Adjustment Charge, Adjustment Schedule REAC-1.
2. The Power Supply Adjustment charge, Adjustment Schedule PSA-1.
3. The Transmission Cost Adjustment charge, Adjustment Schedule TCA-1.
4. The Environmental Improvement Surcharge, Adjustment Schedule EIS.
5. The Demand Side Management Adjustment Charge, Adjustment Schedule DSMAC-1.
6. The Lost Fixed Cost Recovery adjustment charge, Adjustment Schedule LFCR.

7. The Tax Expense Adjustor Mechanism charge, Adjustment Schedule TEAM.

8. Any applicable taxes and governmental fees that are assessed on APS's revenues, prices, sales volume, or generation volume.

RATE RIDERS

Eligible rate riders for this rate schedule are:

| | |
|---|---|
| RCP | Resource Comparison Proxy |
| EPR-2 | Partial Requirements |
| EPR-6 | Partial Requirements – Net Metering (Residential Non-Solar) |
| E-3 | Limited income discount |
| E-4 | Limited income medical discount |
| GPS-1, GPS-2, GPS-3 | Green Power |

SERVICE DETAILS

1. This rate schedule requires the Customer to have a standard AMI meter in place.

2. Customers that self-provide some of their electrical requirements from on-site generation will be billed according to one of the Partial Requirements Service rate riders.

3. APS provides electric service under the Company's Service Schedules. These schedules provide details about how the Company serves its Customers, and they have provisions and charges that may affect the Customer's bill (for example, service connection charges).

4. Electric service provided will be single-phase, 60 Hertz at the Company's standard voltages available at the Customer site. Three-phase service is required for motors of an individual rated capacity of 7½ HP or more.

5. Electric service is supplied at a single point of delivery and measured through a single meter.

6. This schedule is not applicable to breakdown, standby, supplemental or resale service.

7. Direct Access Customers are not eligible for this rate schedule.

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## ELECTRIC VEHICLE TIME-OF-USE ENERGY CHARGES

| | Summer | Winter | |
|---|---|---|---|
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