TRANSPORTATION ELECTRIFICATION IMPLEMENTATION PLAN

UNS – Electric (UNSE)

Plan filing pursuant to Decision No. 78383

Transportation Electrification Implementation Plan - UNSE

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Introduction

UNS Electric Inc. ("UNSE") pursuant to Arizona Corporation Commission ("ACC" or "the Commission") Decision No. 78383, hereby submits its Transportation Electrification Implementation Plan ("TE IP") for approval. As acknowledged in the approved Statewide Transportation Electrification Plan ("STEP"), achieving the benefits of transportation electrification will require engagement and supporting initiatives from not only the electric utilities, but also from a wide variety of other stakeholders across the state. The Company's TE IP proposes a comprehensive approach to increase the awareness and adoption of transportation electrification through intentional education and outreach and through incentives to residential and non-residential customers for the installation of make-ready and associated charging infrastructure in alignment with the recommendations of the STEP working groups. The charging incentives, programs, and partnerships will promote the availability of electric vehicle ("EV") charging to a wide variety of customers.

The Company does not currently have any approved transportation electrification programs or rates as such, the TE IP will be setting the foundation for delivering the benefits of transportation electrification to the service territory and to help meet the Company's proportionate share of the approved Statewide Transportation Electrification Plan ("STEP") EV adoption goal of 6,600 UNSE light-duty vehicles by 2030 (Figure 1) and will provide the framing to scale programs and offerings to meet the EV charging needs of the high adoption scenario. In the first year, the TE IP will focus of increasing exposure to information about transportation electrification, its benefits and operations. In years two and three, the TE IP will focus on reducing the barriers to adoption and increasing access to the benefits of electrification. As outlined in the STEP, the transportation electrification programs and offerings will benefit:

- All of Arizona through the reduction of greenhouse gas emissions;
- EV Drivers through lower maintenance and operating costs;
- Rate payers as the cost to serve the new EV load is lower than the additional revenue from the sale of electricity;
- The grid through customer utilization of approved EV rates and through proposed managed charging program to ensure charging occurs during off-peak periods.

Figure 1	UNSE Pro	portionate	Share	Based or	h Approved	STEP EV Goals
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EV Types	2030 EV Goal (Vehicles on Road)	
	UNSE	State
Electric Light Duty Vehicles	6,600	1,076,000
Electric Medium Duty Parcel Delivery Trucks	38	3,380
Electric Transit Buses	5	785
Electric School Buses	14	1,425

In alignment with Decision 77289, the Company proposes an accounting order for expenses related to the TE IP. UNSE has included information about the accounting order and proposed ordering language in the Cost Recovery section on page 10 of this TE IP.

Background

The Company's TE IP is a result of forward-thinking decisions by the Commission. The milestones in the process are outlined below:

- Decision No. 77289 approved an Electric Vehicle Policy Implementation Plan. That plan required Public Service Corporations ("PSCs") to coordinate and jointly develop, with stakeholder input, a joint, long-term, comprehensive transportation electrification plan for Arizona, to be filed by December 31, 2019, for Commission review and approval;
- On December 27, 2019, the TEP and APS filed Phase I of the joint Statewide Transportation Electrification Plan ("STEP") to comply with Decision No. 77289 and indicated that Phase II would be filed by April 1, 2021;
- On April 1, 2021, TEP and APS filed Phase II of the STEP;
- On April 30, 2021, the Commission opened Docket No. E-00000A-21-0104 to separately, and more narrowly, consider statewide transportation electrification apart from the larger energy rules docket;
- Decision No. 78383 approved the STEP (medium adoption scenario) and requires that beginning on June 1, 2022, and at a minimum every three years thereafter, Tucson Electric Power Company, UNS Electric, Inc., and Arizona Public Service Company shall each file a new TE IP for review and approval by the Commission within 180 days. Plans shall be developed with the input of a stakeholder collaborative that meets at least quarterly and, at a minimum, shall include programs and associated budgets to address key barriers to electric vehicle adoption and that provide offerings to serve low-income customers, single-family dwellings, multi-family dwellings, commercial customers, industrial customers, public highway corridors, and public fleets;
- To create opportunities for stakeholder engagement in the development of the TE IP, the Company hosted two TE Collaborative Meetings. The TE Collaborative group represents a wide variety of stakeholders that were involved in the stakeholder process of the STEP. The meetings were held on February 2, 2022, and on May 5, 2022, with 28 and 35 participants, respectively.

Transportation Electrification Implementation Plan Objectives

Transportation electrification presents unique opportunities for the Company to (1) facilitate improvements in air quality in alignment with our corporate strategy and resource transition to clean energy resources, and (2) deliver, enhanced value for our customers to our customers by providing trusted information, targeted offerings, grid planning, and lower fueling costs.

The Company's objectives for this plan include:

- Dissemination of information on EV benefits, functionality, use and operations through a variety of channels and means to reach a diverse customer base;
- Reduction of financial and technical barriers to EV adoption;
- Completion of grid planning studies to properly assess EV loads and minimize grid impacts;
- Development of unique partnerships to deliver the benefits of transportation electrification to all our UNSE customers;
- Development of intentional EV solutions for low to moderate income customers;

• Activation of over 150 EV charging ports over 3 years.

The Company's plan provides the flexibility needed to take advantage of this rapidly evolving field by enabling Company staff, with the input from our TE Collaborative partners, to evolve programs and initiatives to meet market needs and promote, encourage, and accomplish increased transportation electrification within UNSE's service territory.

While the STEP identified all the barriers to EV adoption, the Company's TE IP focuses more specifically on the barriers best addressed by the electric utility. These include lack of awareness, insufficient charging infrastructure, EV charging costs and grid impacts, and access for underserved and low to moderate income customers. Each of these is discussed in more detail below.

1. Lack of Awareness

National surveys have found widespread lack of knowledge of the commercial availability of EVs, purchase incentives, fueling options, maintenance cost savings, as well as an EVs ability to meet most people's daily driving needs.^{1/2} These barriers can be especially significant for disadvantaged populations, since educational campaigns and outreach activities often do not fully consider the importance of communicating specifically to those communities. This general lack of awareness goes beyond the vehicles themselves. As described by the STEP *EV Infrastructure* working group findings, the supporting technologies, and components that make up a TE system, such as different types of EV charging plugs or electricity pricing structures, are also foreign to many consumers, which creates an additional hurdle to broad adoption of EVs.

2. Insufficient Charging Infrastructure

Insufficient availability of suitable and reliable charging infrastructure also presents a significant barrier to adoption of light-duty EVs. This is especially true for residents of multi-unit dwellings, including many historically disadvantaged communities, who often do not have the ability to install charging infrastructure at their residence.

As identified by the STEP *EV Infrastructure working group,* in the STEP, there are four primary barrier categories that hinder the further deployment of charging infrastructure in Arizona: procurement costs, operational costs, soft costs, and utility engagement and information. Procurement costs include hardware costs (the equipment itself) and the costs of installation. Operational costs include software and networking fees, ongoing maintenance, and the cost of electricity through utility electric rates. Soft costs include permitting; securing the required right-of-way and any parking restrictions; and various fees related to required equipment inspections. Finally, the barrier of utility engagement and information includes a lack of knowledge about EV charging station siting and interconnection processes.

3. EV Charging Costs and Grid Impacts

¹ National Renewable Energy Laboratory, Singer, M., "The Barriers to Acceptance of Plug-in Electric Vehicles: 2017 Update," NREL Technical Report: NREL/TP-5400-70371. Available at: <u>https://www.nrel.gov/docs/fy18osti/70371.pdf.</u>

² International Council on Clean Transportation, Jin, L. and Peter, S., "Literature of electric vehicle consumer awareness and outreach activities," March 21, 2017. Available at: <u>https://www.theicct.org/sites/default/files/publications/Consumer-EV-Awareness_ICCT_Working-Paper_23032017_vF.pdf</u>.

Growth in EV adoption creates growth in electricity demand, at times requiring distribution upgrades and potentially additional capacity resources. In addition, charging loads for EVs are fundamentally different than other end-use load types for which the distribution system has been designed and built. Left unmanaged, these EV loads are likely to have high peak load coincidence factors.³ While EV adoption is still in its nascency, as EV adoption grows in our service territory, it increases opportunities to deliver value to our customers through incentives and initiatives that encourage beneficial charging behaviors. According to vehicle registration data, at the end of 2021, 351 battery electric vehicles were registered in the Company's service territory (Figure 2). The Company is well positioned to reduce our customers' fueling costs through awareness of our EV rates. By leveraging the knowledge gained from Tucson Electric Power Company's ("TEP") existing grid planning efforts, the Company will minimize impacts and costs to the electrical grid.



Figure 2. Battery Electric Vehicles Registered in the Company's Service Territory 2013-2021

4. Access for Underserved Communities and Low-to-Moderate Income (LMI) Customers

For the benefits of TE to be equitably accessible across all socioeconomic groups and geographic areas, particular consideration must be given to communication methodologies, EV infrastructure deployment planning and incentive structure. The Company plans to address these considerations and deliver the benefits of TE to customers by leveraging the right partnerships and elevating the voices of the community.

Activities to reach underserved communities and LMI customers will include targeted education, increased incentives for residential EV charging installations, multifamily housing charging stations, and mass transit charging infrastructure for underserved communities.

³ Utility Dive, Walton, R., "Uncoordinated trouble? Electric vehicles can be a grid asset, but only with planning and investments," January 31, 2018. Available at: <u>https://www.utilitydive.com/news/uncoordinated-trouble-electric-vehicles-can-be-a-grid-asset-but-only-with/515787/</u>.

For the purposes of the TE IP, LMI customers may be identified at the individual or community level, depending on the program or offering. To be eligible to receive the enhanced incentives under the residential and micro mobility offerings, customers will need to verify participation in another UNSE, State or Federal income qualified program.

For the purposes of this TE IP, LMI communities will be determined using the EPA EJScreen mapping tool, available at ejscreen.epa.gov/mapper. Eligible LMI communities will be defined as those communities within a Low-Income Population of 80-90 Percentile or greater. The tool defines the percentile group as the percent of individuals whose ratio of household income to poverty level in the past 12 months was less than 2 (as a fraction of individuals for whom ratio was determined).

See Figure 3 for an example of the tool with the Low-Income Population regions on the map. UNSE will use this tool for guidance in determining eligibility for LMI community targeted incentives such as the multifamily, commercial retail and workplace rebates.



Figure 3. Sample Low Income Population Areas

https://ejscreen.epa.gov/mapper/ accessed May 20, 2022

Portfolio Overview

The TE IP is comprised of three program groupings aimed at addressing the customer segments and use cases outlined in Decision No. 78383 and includes programs to address key barriers to electric vehicle adoption and provide offerings to serve:

- 1. Low-to-Moderate Income customers (LMI)
- 2. Single-family dwellings
- 3. Multi-family dwellings
- 4. Commercial customers
- 5. Industrial customers
- 6. Public highway corridors
- 7. Public fleets

The Company's service territory has unique opportunities for transportation electrification particularly given the fact that the Kingman and Havasu area are cross-traffic corridors between California and Nevada. Santa Cruz County is dominated by freight travel traffic and the associated electric vehicles are not yet in mass production. Therefore, the TE IP focuses on education and outreach in year one, transitioning to program implementation and offerings in years two and three.

Most of the TE IP offerings will create access to charging infrastructure through a utility incentive model (Figure 2) as outlined below.

Figure 2. Utility Incentive Model



For measures using this approach, all infrastructure behind the customer meter is installed, owned, and maintained privately by the customer and supported with the help of utility incentives to offset the initial deployment. This model ensures that the distinction between utility-owned equipment and customer owned equipment remains clear. To overcome barriers to EV adoption, UNSE will offer program services that are discussed in more detail below.

1) Customer Outreach, Education, and Awareness

Providing customers with easy to understand, accessible information is the foundation of trusted customer relationships. To achieve this goal, the TE IP portfolio of programs will support customer awareness and outreach to educate customers on the benefits of TE and support them on their EV journey. Because the process of educating customers and increasing awareness of TE options and technologies cannot be structured in a one-size-fits-all manner, the Company will use customer segmentation data to tailor messaging to the intended audiences and/or use cases. As part of this

effort, the Company proposes to develop a new EV microsite aimed at simplifying access to information for residential and non-residential customers.

Leveraging the new microsite and existing energy programs, the Company proposes creating multiple marketing campaigns aimed at heightening awareness for its electrification offerings. The Company also proposes to develop an EV Showcase that will provide customers with the opportunity for a hands-on experience with EVs and charging infrastructure.

2) Residential Customer EV Adoption

To meet the EV charging needs of single-family residential customers the Company proposes the following offerings:

- 1. Residential Existing Homes Standard use case (50 participants over 3 years)
 - a. The company proposes to provide an incentive up to \$500 for the installation of networked or non-networked chargers in existing homes.
- 2. Residential Existing Homes LMI use case (20 participants over 3 years)
 - a. The company proposes an incentive of \$800 toward networked or non-networked chargers and a \$300 panel upgrade allowance in existing homes.
- 3. Residential EV Rate Plans– Implementation of two (2) residential rates that mirror the TEP residential EV rates approved by the Commission on July 19, 2019. See Exhibit UNSETEIP-1
 - a. Super Off-Peak Time-of-Use Electric Vehicle Plan This plan offers low energy charges most of the day, on weekends and on major holidays, but higher rates during on-peak hours when customers typically use the most energy
 - b. Super Off-Peak Demand Time-of-Use Electric Vehicle Plan This plan combines lower off-peak rates with on-peak rates and a demand charge based on the customer's highest individual hour of usage during on-peak periods.

3) Commercial Customer EV Adoption

The Company's commercial programs aim to address barriers associated with fleet, workplace, retail and multi-unit dwelling, public transit and highway corridors. These charging scenarios provide significant opportunities to support the adoption of electric vehicles. The Company intends to address the barrier of insufficient charging infrastructure, cost of EVSE deployment and access by communities through the support of the following program offerings.

- 1. Commercial EV Program⁴ Workplace, Retail, Fleets and Multifamily
 - a. Standard Use Case (60 ports over 3 years)
 - i. The Company proposes providing customers with a per port incentive of:

Charger Type	Per port	
	incentive	
Level 2	\$1,200	
DCFC	\$12,000	

⁴ Eligible project costs under the Smart City EV Program include: EV charging station and related equipment, Electrical service upgrades required for the installation, Design and engineering services, Construction and installation (materials and labor), Service, warranty and O&M agreements

- b. LMI/Non-Profit Use Case (20 ports over years 2 3)
 - i. The Company proposes providing customers with a per port incentive of:

Charger Type	Per port incentive
Level 2	\$2,000
DCFC	\$15,000

- ii. In recognition that both landowners and tenants in low-income multifamily complexes face greater barriers to installing EV charging infrastructure, the Company proposes to provide LMI qualifying projects with an incentive to cover 100% of project costs, capped at \$3,000 per L2 port.
- 2. Public Transit (Charging infrastructure to support 5 buses over 3 years) to support the transition of public transit fleets to zero emission buses, the Company proposes to provide incentives to offset the cost of EV chargers and associated infrastructure.

Charger Power	Per port
output	incentive
Up to 62kW	\$40,000
Up to 100 kW	\$65,000
Up to 150 kW	\$75,000

- 3. Commercial EV Rate Plans Implementation of one (1) stand-alone DCFCX charging rate and two (2) riders, commercial sub-metered and stand-along SGS charging. Rates mirror TEP EV charging rates approved by the Commission on July 28, 2021. See Exhibit UNSETEIP-1.
 - a. Stand-Alone Electric Vehicle Charging This pricing plan is geared toward companies and vendors that install new, stand-alone direct current (DC) fast charging stations, which require sufficient energy to charge EVs in a short amount of time. The rate does not include a demand charge.
 - b. Small General Service Electric Vehicle Charging This plan is designed for standalone DC fast chargers. Customers under this rate would receive service under the Company's small commercial time-of-use rate but with a higher electric usage threshold - up to 50,000 kilowatt hours (kWh) a month – and no demand charge.
 - c. Submetered Electric Vehicle Charging This plan is designed to support existing small, medium and large commercial time-of-use customers that install charging stations for their customers, employees or their own EV fleets. Service to these chargers would be 'sub-metered' and available at a "super-off-peak" rate from 10 p.m. to 5 a.m. every day.

Stakeholder Engagement

The Company believes that open and consistent dialogue with stakeholders is paramount to the success of the TE IP. As such, through the term of the TE IP, the Company will hold quarterly TE Collaborative Meetings. These meetings will enable the Company to solicit stakeholder feedback and provide

stakeholders with updates and progress reports on TE IP activities. The Company may hold additional TE Collaborative meetings as needed.

Portfolio Management

Given the rapid evolution of transportation electrification, UNSE anticipates that amendments to programs and offerings may be filed to address changes in the transportation electrification market.

To better manage program budgets to serve customer needs, the Company requests the flexibility to shift up to 50% of each program budget across another program to adjust to the market needs and maximize benefits which may result in a particular program budget exceeding its budget estimate.

As currently approved by the Commission for DSM programs, the Company requests that TE IP expenditures above 5% of the total budget shall still be considered prudent.

The Company also proposes to set aside 30% of the commercial and residential program budgets for LMI customers. Should the company need to shift budget dollars across portfolios to meet market needs and emerging trends, the Company commits to retaining 30% set aside for LMI customers as calculated as an overall budget and not at the program level.

Program Administration

To implement the objectives and scope of the TE IP, the Company will need to actively manage and administer programs. We will leverage existing resources where possible and will also need to add new full-time staff resources. Where appropriate the company will enlist support from third-party experts for program administration. In addition, the implementation of the TE IP offerings will trigger in-house information technology costs such as rate integration into billing systems and website hosting fees.

Reporting

The Company proposes to provide an Annual TE IP Progress report to be filed July 15th of each plan year. This report will include and replace the reporting requirements associated with the Statewide Transportation Electrification Plan and Fleet Electrification Status Update as required by Decision No. 78383 and include and replace the reporting requirements and cadence of Decision No. 77289. The metrics tracked in the annual report will mirror the metrics the Company reported in its Semi-Annual Progress Report filed with the Commission on March 15, 2022⁵.

Cost Recovery

The Company has proposed an Accounting Order herein to track program expenses in alignment with Commission Decision No. 77289. The Accounting Order will provide the Company the opportunity to recover program costs in a subsequent rate case.

As part of the filing of this TE IP, and pursuant to the Commission's Electric Vehicle Policy Implementation Plan ("EV Policy") (Decision No. 77289 (July 19, 1019)), UNSE hereby requests that the Commission approve an accounting order authorizing the deferral of costs related to the Company's TE IP Programs until such prudently incurred costs can be considered in a future general rate case. This

⁵ https://docket.images.azcc.gov/E000018310.pdf?i=1652980255009

accounting order would facilitate the funding of UNSE's programs after TE IP approval. The Commission's EV Policy states that Public Service Corporations ("PSCs"), such as UNSE, may request an accounting order to track pilot program costs:

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 basis⁶.

This proposed accounting order is permitted under FERC Uniform System of Accounts ("USOA") guidelines⁷, which the Commission has adopted as part of its regulation of electric utilities.⁸⁹ The proposed language in the accounting order would make clear that UNSE is authorized to defer O&M costs for TE IP Programs for future recovery. The language is intended to provide UNSE with a reasonable assurance of recovery, subject to the Commission's review for reasonableness and prudence, so the Company can record those costs as a regulatory asset in accordance with GAAP requirements. UNSE also would agree to the reporting requirements contained in Decision No. 74911.

UNSE requests that the Commission include in its order approving its TE IP the following ordering paragraphs:

IT IS FURTHER ORDERED that UNS Electric is authorized to defer for possible later recovery through rates, the O&M costs related to its Commission-approved TE IP.

IT IS FURTHER ORDERED that UNS Electric shall prepare and retain accounting records sufficient to permit detailed review, in a rate proceeding, all deferred costs and deferred savings as authorized herein.

	Year 1	Year 2	Year 3	Total
Education and Outreach				
Program Expenses	\$15,000	\$15,000	\$15,000	\$45,000
Residential				
Rebates	\$0	\$21,000	\$26,500	47,500
Commercial				
Rebates	\$0	\$353,000	\$428,000	\$781,000
Program Administration	\$135,000	\$135,000	\$125,000	\$405,000
TOTAL	\$150,000	\$524,000	\$604,500	\$1,278,500

Budget Overview

⁶ Decision No. 77289, Item 3, Page 3, <u>https://docket.images.azcc.gov/0000199128.pdf</u>.

⁸ See A.A.C. R14-2-212(G)(2).

⁷ See e.g. FERC Order 552 (Docket No. RM92-1) (March 31, 1993) (allowing for the creation of regulatory assets and liabilities through actions of regulatory agencies - establishing FERC Accounts 182.3 and 254).

⁹ The Commission approved a similar order in 2015 for TEP's sister company, UNS Electric, Inc. ("UNS Electric"), related to its acquisition of an interest in Gila River Generating Station Unit 3.^[4] In this case, the accounting order would serve the public interest by supporting TEP's existing and proposed EV Pilot Program and the Commission's EV Policy. TEP requests approval of the language below, which is modeled after the Commission's order in Decision No. 74911 regarding UNS Electric's Gila River Unit 3 acquisition.

Requests of the Commission

The Company respectfully requests the following:

- 1) Commission approval of the TE IP as proposed;
- 2) Commission approval of the proposed budget and budget flexibility;
- 3) Commission approval of an Accounting Order authorizing the deferral for future recovery of costs associated with the TE IP;

ERSOTE

EGDCFCX

Rider 16

- 4) Commission approval of the following tariffs as represented in Exhibit UNSETEIP-1
 - a. Residential EV Charging Super Off-Peak
 - b. Residential EV Charging Demand Super Off-Peak ERDSOTE
 - c. Commercial Stand-Alone Fast Charging
 - d. Commercial Submetered EV Charging
 - e. Stand-Alone EV Charging for SGS Rider 17
- 5) Commission adoption of a finding that the TE IP is in alignment with the Statewide Transportation Plan and the Commission's Electric Vehicle Policy Implementation Plan (Decision 77289) and that the activities and programs therein contribute to the achievement of the medium adoption scenario of 1,076,000 light-duty electric vehicles (95,000 in TEP service territory) by 2030;
- 6) Commission adoption of a finding that the TE IP provides benefits to electric utility ratepayers and electric vehicle drivers, improves the electrical system's efficiency, the integration of variable resources, the system's operational flexibility, the utilization of the system during offpeak hours, increases access to the use of electricity as a transportation fuel (including among hard-to reach customer segments and markets), spurs innovation, competition, and increased consumer choices in transportation electrification and related infrastructure and services, contributes to meeting air quality standards and minimizes air emissions, fosters private market investment and educates electric utility ratepayers on the benefits of transportation electrification;
- Commission approval no later than November 4th, 2022, so the Company can begin to implement the TE IP by January 1st, 2023.

Conclusion

The proposed TE IP will assist in meeting the Commission approved STEP EV goal of 1,076,000 light-duty vehicles on the road by 2030. UNSE looks forward to delivering enhanced value to our customers by providing trusted information, implementing targeted offerings to reduce financial and technical barriers, increasing access to EV infrastructure and benefits for LMI customers, grid planning for greater asset utilization, and reducing fueling costs through use of EV specific rates and managed charging options.

Acronyms

- EV Electric Vehicles
- EVSE Electric Vehicle Supply Equipment
- LMI Low to moderate income
- STEP Statewide Transportation Electrification Plan
- TE Transportation Electrification
- TE IP Transportation Electrification Implementation Plan

Exhibit UNSETEIP-1: Tariffs



Original Sheet No.: <u>110</u> Superseding: Original

Residential Super Off-Peak Time-of-Use Electric Vehicle

AVAILABILITY

Available throughout the Company's entire electric service area where the facilities of the Company are of adequate capacity and are adjacent to the premises.

APPLICABILITY

To all single-phase (subject to availability at point of delivery) residential electric service in individual private dwellings and individually metered apartments when all service is supplied at one point of delivery and energy is metered through one meter.

Not applicable to resale, breakdown, temporary, standby, auxiliary service, or service to electrical equipment that causes excessive voltage fluctuations.

Customers taking service under this rate plan must have a qualified highway approved Battery Electric Vehicle or Plug-in Hybrid Electric Vehicle as determined by the Company's sole discretion and appropriate home charging equipment.

Customers must stay on this rate for a minimum period of one (1) year, unless the Customer is disqualified by one of the other Applicability conditions.

Service under this rate will commence when the appropriate meter has been installed.

CHARACTER OF SERVICE

The service shall be single-phase, 60 Hertz, and at one standard nominal voltage as mutually agreed and subject to availability at point of delivery.

RATE

A monthly bill at the following rate plus any adjustments incorporated herein:

BUNDLED STANDARD OFFER SERVICE - SUMMARY OF BASIC SERVICE AND ENERGY CHARGES:

Basic Service Charge (per month):	\$12.00
Energy Charges (per kWh): 0- 400 401 +	\$0.036700 \$0.042700
Delivery Services-Energy is a bundled charge that includes: Local Delivery, Generation Capacity and Transmission.	

Base Power Charges (per kWh):	Summer	Winter
	(May-October)	(November-April)
On-Peak	\$0.111000	\$0.091550
Off-Peak	\$0.042500	\$0.038570
Super Off-Peak	\$0.032500	\$0.028570
The Power Supply Charge shall be comprised of the Ba	se Power Charge and the Purchased Power and Fuel A	Adjustment Clause (PPFAC), a
per kWh adjustment in accordance with Rider-1. The P	PPEAC reflects increases or decreases in the cost to t	he Company for energy either

per kWh adjustment in accordance with Rider-1. The PPFAC reflects increases or decreases in the cost to the Company for energy either generated or purchased above or below the base cost per kWh sold. Please see Rider-1 for current rate.

Filed By:	Dallas J. Dukes
Title:	Vice President, Energy Programs and Pricing
District:	Entire Electric Service Area

Rate:	ERSOTE
Effective:	Pending
Decision No.:	XXXXX

UniSourceEnergy services

UNS Electric, Inc.

Original Sheet No.:_____ Superseding: Original 110-1

TIME-OF-USE TIME PERIODS

The Summer On-Peak period is 3:00 p.m. to 7:00 p.m., Monday through Friday (excluding Memorial Day, Independence Day, and Labor Day).

The Winter On-Peak periods are 6:00 a.m. - 9:00 a.m. and 6:00 p.m. - 9:00 p.m., Monday through Friday (excluding Thanksgiving Day, Christmas Day, and New Year's Day).

The Super Off-Peak periods are 10:00 p.m. - 5:00 a.m. daily, Monday through Sunday.

All other hours are Off-Peak. If a holiday falls on Saturday, the preceding Friday is designated Off-Peak; if a holiday falls on Sunday, the following Monday is designated Off-Peak.

MONTHLY CUSTOMER ASSISTANCE RESIDENTIAL ENERGY SUPPORT (CARES) DISCOUNT:

For current and new eligible CARES customers taking service under the Residential Service Time-of-Use tariff, the monthly bill shall be in accordance to the rate above except that a discount of \$16.00 per month shall be applied.

For all customers, no CARES discount will be applied that will reduce the bill to less than zero.

CARES ELIGIBILITY

- 1. The UNS Electric account must be in the Customer's name applying for a CARES discount.
- 2. Applicant must be a UNS Electric residential Customer residing at the premise.
- 3. Applicant must have a combined household income at or below 150% of the federal poverty level. See Income Guidelines Chart on UNS Electric's website at www.uesaz.com or contact a UNS Electric customer care representative.

DIRECT ACCESS

A Customer's Direct Access bill will include all unbundled components except those services provided by a qualified third party. Those services may include Metering (Installation, Maintenance and/or Equipment), Meter Reading, Billing and Collection, Transmission and Generation. If any of these services are not available from a third party supplier and must be obtained from the Company, the rates for Unbundled Components set forth in this tariff will be applied to the Customer's bill.

UNS ELECTRIC STATEMENT OF CHARGES

For all additional charges and assessments approved by the Arizona Corporation Commission see the UNS Electric Statement of Charges which is available on UNS Electric's website at www.uesaz.com.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company and/or the price or revenue from the electric energy or service sold and/or the volume of energy generated or purchased for sale and/or sold hereunder.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

Rate: ERSOTE Effective: Pending Decision No.: XXXXX



Original Sheet No.:_____ Superseding: Original 110-2

BUNDLED STANDARD OFFER SERVICE CONSISTS OF THE FOLLOWING UNBUNDLED COMPONENTS:

Basic Service Charge Components (per month): Meter Services Meter Reading Billing & Collection Customer Delivery Total	\$ 1.00 \$ 1.58 \$ 4.37 <u>\$ 5.05</u> \$12.00
Energy Charge Components (per kWh): 0 – 400 kWh Over 400 kWh Generation Transmission	\$0.007500 \$0.013500 \$0.018500 \$0.010700
Power Supply Charges (per kWh): Base Power Supply Summer (May – October) On-Peak Base Power Supply Summer (May – October) Off-Peak Base Power Supply Summer (May – October) Super Off-Peak Base Power Supply Winter (November – April) On-Peak Base Power Supply Winter (November – April) Off-Peak Base Power Supply Winter (November – April) Super Off-Peak PPFAC (see Rider-1 for current rate)	\$0.111000 \$0.042500 \$0.032500 \$0.091550 \$0.038570 \$0.028570 Varies

Rate: ERSOTE Effective: Pending Decision No.: XXXXX

UniSourceEnergy Services

UNS Electric, Inc.

Original Sheet No.: Superseding: Original 111

Residential Demand Super Off-Peak Time-of-Use Electric Vehicle

AVAILABILITY

Available throughout the Company's entire electric service area where the facilities of the Company are of adequate capacity and are adjacent to the premises.

APPLICABILITY

To all single-phase (subject to availability at point of delivery) residential electric service in individual private dwellings and individually metered apartments when all service is supplied at one point of delivery and energy is metered through one meter.

Not applicable to resale, breakdown, temporary, standby, auxiliary service, or service to electrical equipment that causes excessive voltage fluctuations.

Customers must stay on this rate for a minimum period of one (1) year, unless the Customer is disqualified by one of the other Applicability conditions.

Service under this rate will commence when the appropriate meter has been

installed. CHARACTER OF SERVICE

The service shall be single-phase, 60 Hertz, and at one standard nominal voltage as mutually agreed and subject to availability at point of delivery.

RATE

A monthly bill at the following rate plus any adjustments incorporated herein:

BUNDLED STANDARD OFFER SERVICE - SUMMARY OF BASIC SERVICE, DEMAND, AND ENERGY

CHARGES

Basic Service Charge (per month):	\$12.00
Demand Charge (per kW): 0 - 7 kW Over 7 kW	\$5.50 \$7.75
Energy Charges (per kWh):	\$0.011870

Delivery Services-Energy is a bundled charge that includes: Local Delivery, Generation Capacity and Transmission.

Base Power Charges (per kWh):	Summer	Winter	
	(May-October)	(November-April)	
On Peak	\$0.111000	\$0.091550	
Off Peak	\$0.042500	\$0.038570	
Super Off-Peak	\$0.032500	\$0.028570	

The Power Supply Charge shall be comprised of the Base Power Charge and the Purchased Power and Fuel Adjustment Clause (PPFAC), a per kWh adjustment in accordance with Rider-1. The PPFAC reflects increases or decreases in the cost to the Company for energy either generated or purchased above or below the base cost per kWh sold. Please see Rider-1 for current rate.

Rate:ERDSOTEEffective:PendingDecision No.:XXXXX

UniSourceEnergy services

UNS Electric, Inc.

Original Sheet No.: Superseding: Original

BILLING DEMAND

The monthly billing demand shall be the greatest measured 1-hour average demand during the on-peak time-of-use hours of the billing period.

TIME-OF-USE TIME PERIODS

The Summer On-Peak period is 3:00 p.m. to 7:00 p.m., Monday through Friday (excluding Memorial Day, Independence Day, and Labor Day).

The Winter On-Peak periods are 6:00 a.m. - 9:00 a.m. and 6:00 p.m. - 9:00 p.m., Monday through Friday (excluding Thanksgiving Day, Christmas Day, and New Year's Day).

All other hours are Off-Peak. If a holiday falls on Saturday, the preceding Friday is designated Off-Peak; if a holiday falls on Sunday, the following Monday is designated Off-Peak.

MONTHLY CUSTOMER ASSISTANCE RESIDENTIAL ENERGY SUPPORT (CARES) DISCOUNT:

For current and new eligible CARES customers taking service under the Residential Service Demand Time-of-Use tariff, the monthly bill shall be in accordance to the rate above except that a discount of \$16.00 per month shall be applied.

For all customers, no CARES discount will be applied that will reduce the bill to less than zero.

CARES ELIGIBILITY

- 1. The UNS Electric account must be in the Customer's name applying for a CARES discount.
- 2. Applicant must be a UNS Electric residential Customer residing at the premise.
- 3. Applicant must have a combined household income at or below 150% of the federal poverty level. See Income Guidelines Chart on UNS Electric's website at www.uesaz.com or contact a UNS Electric customer care representative.

DIRECT ACCESS

A Customer's Direct Access bill will include all unbundled components except those services provided by a qualified third party. Those services may include Metering (Installation, Maintenance and/or Equipment), Meter Reading, Billing and Collection, Transmission and Generation. If any of these services are not available from a third party supplier and must be obtained from the Company, the rates for Unbundled Components set forth in this Tariff will be applied to the Customer's bill.

UNS ELECTRIC STATEMENT OF CHARGES

For all additional charges and assessments approved by the Arizona Corporation Commission see the UNS Electric Statement of Charges which is available on UNS Electric's website at www.uesaz.com.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company and/or the price or revenue from the electric energy or service sold and/or the volume of energy generated or purchased for sale and/or sold hereunder.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

Filed By:Dallas J. DukesTitle:Vice President, Energy Programs and PricingDistrict:Entire Electric Service Area

Rate:ERDSOTEEffective:PendingDecision No.:XXXXX

UniSourceEnergy SERVICES

UNS Electric, Inc.

Original Sheet No.: 111-2 Superseding: Original

BUNDLED STANDARD OFFER SERVICE CONSISTS OF THE FOLLOWING UNBUNDLED COMPONENTS:

Basic Service Charge Components (per month):	
Description Meter Services Meter Reading Billing & Collection Customer Delivery Total	\$ 1.00 \$ 1.58 \$ 4.37 <u>\$ 5.05</u> \$12.00
Demand Charges (per kW):	
0 – 7 kW Demand Delivery Generation Capacity Transmission	\$1.74 \$2.51 \$1.25
Over 7 kW Demand Delivery Generation Capacity Transmission	\$2.45 \$3.54 \$1.76
Energy Charge Components (per kWh): Local Delivery Generation Capacity Transmission	\$0.006470 \$0.004400 \$0.001000
Power Supply Charges (per kWh): Base Power Supply Summer (May – October) Off-Peak Base Power Supply Summer (May – October) Super Off-Peak Base Power Supply Winter (November – April) On-Peak Base Power Supply Winter (November – April) Off-Peak Base Power Supply Winter (November – April) Super Off-Peak PPFAC (see Rider-1 for current rate)	\$0.111000 \$0.042500 \$0.032500 \$0.091550 \$0.038570 \$0.028570 Varies

Rate:	ERDSOTE
Effective:	Pending
Decision No.:	XXXXX



Original Sheet No.: 224 Superseding: Original

Stand-Alone Electric Vehicle Charging (DCFCX)

AVAILABILITY

Available throughout the Company's entire electric service area where the facilities of the Company are of adequate capacity and are adjacent to the premises.

APPLICABILITY

This optional rate schedule is available to General Service customers where electricity is primarily consumed by electric vehicle charging stations that are separately metered from other facilities unless those facilities are incidental to the charging load (e.g. irrigation system timer or high efficiency area lighting).

Other buildings that are on the same lot as the vehicle charging facilities (such as convenience stores or fleet maintenance facilities) will be separately metered and classified as non-residential under the appropriate general service rate.

Customers may switch between applicable rate tariffs once in a rolling twelve month period.

Service under this rate will commence when the appropriate meter has been installed by UNS Electric.

Not applicable to breakdown, temporary, standby, auxiliary service, or service to electrical equipment that causes excessive voltage fluctuations.

Resale of energy for the use of electric vehicle charging is allowed under this tariff.

CHARACTER OF SERVICE

The service shall be single or three-phase, 60 Hertz, and at one standard nominal voltage as mutually agreed and subject to availability at point of delivery.



Original Sheet No.: 224-1 Superseding: Original

RATE

A monthly bill at the following rate plus any adjustments incorporated herein:

BUNDLED STANDARD OFFER SERVICE - BASIC SERVICE, DEMAND, AND ENERGY CHARGES

The Basic Service Charge shall be the Basic Service Charge of the otherwise applicable time-of-use tariff as expressed in the table below:

	EGSGST	EGMGST	EGLGST	EILPST
Qualifying Criteria	Monthly kWh Consumption does not meet or exceed 12,000 kWh in two consecutive months	Measured kW does not meet or exceed 750 kW	Service at a voltage of less than 69 kV	Service at a voltage equal to or greater than 69 kV
Basic Service Charge	\$20.00	\$100.00	\$300.00	\$1,500.00

In the event a customer exceeds the maximums of the Qualifying Criterion of their current Basic Service Charge in a billing period, they will receive the Basic Service Charge of the Qualifying Criterion they do not exceed in the next billing period.

kWh per kW for delivered energy:

Tier	First 30kWh/kW	Next 60kWh/kW	Next 120kWh/kW	Additional kWh/kW
kWh Rate	\$0.150000	\$0.100000	\$0.062500	\$0.031250

Power Supply Charge (per kWh)	Summer (May – October)	Winter (November – April)
Base Power Supply On-Peak	\$0.114886	\$0.101047
Base Power Supply Off-Peak	\$0.033100	\$0.031960
Base Power Supply Super Off-Peak	\$0.030600	\$0.029190

Purchased Power and Fuel Adjustment Clause (PPFAC): The Base Power Supply Charge shall be subject to a per kWh adjustment in accordance with Rider-1 to reflect any increase or decrease in the cost to the Company for energy either generated or purchased above or below the base cost of purchased power and fuel.



Original Sheet No.: _ Superseding: Original

224-2

BILL EXAMPLE

For a 30 day bill consisting of 100 kW of billing demand and 41,000 kWh of energy, the kWh per kW for delivered energy will be billed as follows:

	Low	Upper			Billed kWh in		
	Bound	Bound	Scaled B	Bounds	Tier	Rate (\$/kWh)	Billed (\$)
First 30kWh/kW	0	30	0	3,000	3,000	0.15000	450
Next 60 kWh/kW	30	90	3,000	9,000	6,000	0.10000	600
Next 120 kWh/kW	90	210	9,000	21,000	12,000	0.06250	750
Additional kWh/kW	210	720	21,000	72,000	20,000	0.03125	625

BILLING kW

The monthly billing kW shall be the greatest of: the maximum 15-minute measured interval demand during the Onpeak billing hours, 75% of the maximum 15-minute measured demand during the Off-peak billing hours, or 50% of the maximum 15-minute measured demand during the Super Off-peak billing hours during the billing period.

TIME-OF-USE TIME PERIODS

The Summer On-Peak period is 2:00 p.m. to 8:00 p.m., Monday through Friday (excluding Memorial Day, Independence Day, and Labor Day).

The Winter On-Peak periods are 5:00 a.m. - 9:00 a.m. and 5:00 p.m. - 9:00 p.m., Monday through Friday (excluding Thanksgiving Day, Christmas Day, and New Year's Day).

The Super Off-Peak periods are 10:00 p.m. – 4:00 a.m. daily, Monday through Sunday.

All other hours are Off-Peak. If a holiday falls on Saturday, the preceding Friday is designated Off-Peak; if a holiday falls on Sunday, the following Monday is designated Off-Peak.

DIRECT ACCESS

A Customer's Direct Access bill will include all unbundled components except those services provided by a gualified third party. Those services may include Metering (Installation, Maintenance and/or Equipment), Meter Reading, Billing and Collection, Transmission and Generation. If any of these services are not available from a third party supplier and must be obtained from the Company, the rates for Unbundled Components set forth in this tariff will be applied to the customer's bill.

UNS Electric STATEMENT OF CHARGES

For all additional charges and assessments approved by the Arizona Corporation Commission see the UNS Electric Statement of Charges which is available on UNS Electric's website at www.uesaz.com.



Original Sheet No.: Superseding: Original

224-3

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company and/or the price or revenue from the electric energy or service sold and/or the volume of energy generated or purchased for sale and/or sold hereunder.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

ADDITIONAL NOTES

Additional charges may be directly assigned to a customer based on the type of facilities (e.g., metering) dedicated to the customer or pursuant to the customer's contract, if applicable. Additional or alternate Direct Access charges may be assessed pursuant to any Direct Access fee schedule authorized.



Original Sheet No.: 2 Superseding: Original

224-4

BUNDLED STANDARD OFFER SERVICE CONSISTS OF THE FOLLOWING UNBUNDLED COMPONENTS:

Basic Service Charge (per month):	<u>EGSGST</u>	<u>EGMGST</u>	EGLGST	<u>EILPST</u>
Meter Services	\$1.28	\$2.16	\$6.48	\$121.16
Meter Reading	\$4.96	\$7.48	\$22.43	\$184.75
Billing & Collection	\$5.62	\$9.55	\$28.64	\$537.20
Customer Delivery	<u>\$8.14</u>	<u>\$80.81</u>	<u>\$242.45</u>	<u>\$656.89</u>
Total	\$20.00	\$100.00	\$300.00	\$1,500.00
	First 30	Next 60	Next 120	Additional
Energy Charge Components (per kWh)	<u>kWh/kW</u>	<u>kWh/kW</u>	<u>kWh/kW</u>	<u>kWh/kW</u>
Local Delivery	\$0.08900	\$0.03900	\$0.03050	\$0.01025
Generation Capacity	\$0.05000	\$0.05000	\$0.02100	\$0.01000
Transmission	\$0.01100	\$0.01100	\$0.01100	\$0.01100

Power Supply Charges (per kWh):

PPFAC

Base Power Supply Summer (May-October) On-Peak Base Power Supply Summer (May- October) Off-Peak

Base Power Supply Summer (May- October) Super Off-Peak

Base Power Supply Winter (November-April) On-Peak

Base Power Supply Winter (November -April) Off-Peak Base Power Supply Winter (November -April) Super Off-Peak \$0.114886 \$0.033100 \$0.030600 \$0.101047 \$0.031960 \$0.029190 In accordance with Rider 1

Rate:EGDCFCXEffective:PendingDecision No.:XXXXX



Original Sheet No.: 703 Superseding: Original

Rider-16 Submetered Electric Vehicle Charging for General Service Customers

AVAILABILITY

Available throughout the Company's entire electric service area where the facilities of the Company are of adequate capacity and electric vehicle charging facilities are submetered at the premise.

APPLICABILITY

To customers taking electric service on one of the Company's General Service time-of-use rate schedules. Service under this rate rider will commence when the appropriate submetering equipment has been installed.

Resale of energy for the use of electric vehicle charging is allowed under this rate rider.

CHARACTER OF SERVICE

Must meet all service requirements for the Customer's otherwise applicable rate schedule.

RATE

Customers taking service on this rate rider must take service on one of the Company's current General Service time-of-use rate schedules. Rates for electric service shall be subject to the terms and charges contained in the Customer's applicable time-of-use rate schedule except for the discounts described herein.

Customers taking service on this rate rider shall receive the following discounts to the effective Off-Peak Base Power Charges for submetered electric vehicle charging during Super Off-Peak time-of-use periods.

Base Power Charge Discount (\$/kWh)	Summer (May-October)	Winter (November-April)
Small General Service	\$0.00750	\$0.00750
Medium General Service	\$0.00250	\$0.00250
Large General Service	\$0.00500	\$0.00500

The Super Off-Peak time-of-use periods are defined as 10:00 PM to 4:00 AM Monday through Sunday.

METERING

In accordance with the Company's specifications, prior to taking service under this rate rider, Customer will be responsible for installing equipment necessary to install a Company submeter to measure, credit, and bill energy used by electric vehicle charging facilities.

UNSE STATEMENT OF CHARGES

For all additional charges and assessments approved by the ACC see the TEP Statement of Charges which is available on TEP's website at <u>www.uesaz.com</u>.

UniSourceEnergy SERVICES

UNS Electric, Inc.

Original Sheet No.: Superseding: Original 703-1

TAX CLAUSE

To the charges computed under this rider, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company and/or the price or revenue from the electric energy or service sold and/or the volume of energy generated or purchased for sale and/or sold hereunder.

RULES AND REGULATIONS

This standard Rules and Regulations of the Company as on file with the ACC shall apply where not inconsistent with this rider.

Rate: R-16 Effective: Decision No.: XXXXX

Pending



Original Sheet No.: 703 Superseding: Original

Rider-17 Stand-Alone Electric Vehicle Charging for Small General Service

AVAILABILITY

Available throughout the Company's entire electric service area where the facilities of the Company are of adequate capacity and are adjacent to the premises.

APPLICABILITY

This optional rate schedule is available to General Service customers where electricity is primarily consumed by electric vehicle charging stations that are separately metered from other facilities unless those facilities are incidental to the charging load (e.g. irrigation system timer or high efficiency area lighting).

Other buildings that are on the same lot as the vehicle charging facilities (such as convience stores or fleet maintenance facilities) will be separately metered and classified as non-residential under the appropriate general service rate.

Service under this rate will commence when the appropriate meter has been installed by UNSE.

Not applicable to breakdown, temporary, standby, auxiliary service, or service to electrical equipment that causes excessive voltage fluctuations.

Resale of energy for the use of electric vehicle charging is allowed under this rate rider.

CHARACTER OF SERVICE

The service shall be single or three-phase, 60 Hertz, and at one standard nominal voltage as mutually agreed and subject to availability at point of delivery.

RATE FOR ELECTRIC SERVICE

Customers taking service on this rate rider may take service on the Company's current Small General Service Time-of-Use rate schedule. For purposes of this rate rider, in the event a customer exceeds 50,000 kWh in two consecutive months or a customer has taken service on this rate rider for a period of seven (7) years, whichever comes first, the customer will be required to take service on the Company's Stand-Alone Electric Vehicle Charging (DCFCX) rate schedule or any of the Company's applicable Medium or Large General Service rate schedules.

This rate rider will be available until June 30, 2031. After June 30, 2031, all customers taking service on this rate rider will be required to take service on the Company's Stand-Alone Electric Vehicle Charging (DCFCX) rate schedule or any of the Company's applicable Medium or Large General Service Time-of-Use rate schedules.

UNS ELECTRIC STATEMENT OF CHARGES

For all additional charges and assessments approved by the ACC see the UNS Electric Statement of Charges which is available on UNS Electric's website at <u>www.uesaz.com</u>.

UniSourceEnergy **SERVICES**

UNS Electric, Inc.

Original Sheet No.: Superseding: Original

703-1

TAX CLAUSE

To the charges computed under this rider, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company and/or the price or revenue from the electric energy or service sold and/or the volume of energy generated or purchased for sale and/or sold hereunder.

RULES AND REGULATIONS

This standard Rules and Regulations of the Company as on file with the ACC shall apply where not inconsistent with this rider.

Rate: R-17 Effective: Decision No.: XXXXX

Pending