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DOCKET NO. _____

APPLICATION OF EL PASO ELECTRIC COMPANY FOR APPROVAL OF ITS TEXAS ELECTRIC VEHICLE-READY PILOT PROGRAMS AND TARIFFS	**§**	**PUBLIC UTILITY COMMISSION OF TEXAS**

TABLE OF CONTENTS

Statement of Intent and Application

Attachment A: Letter of Support From Edison Electric Institute

Attachment B: Proposed Notice

Direct Testimony of George Novela

Direct Testimony of Angelina Rodriguez

- Exhibit AR-1: Letters of Support
- Exhibit AR-2: Public Charging Infrastructure in EPE's Texas Service Territory
- Exhibit AR-3: NARUC Resolution On Urgency of Preparing For Widespread Transportation Electrification
- Exhibit AR-4: EV Smart Rewards Pilot Program Tariff
- Exhibit AR-5: PowerConnect Pilot Program Tariff

Direct Testimony of Manuel Carrasco

- Exhibit MC-1: Bill Comparison
- Exhibit MC-2: WHEV Pilot Incentive Credit Calculations
- Exhibit MC-3: Schedule No. WHEV – Whole House Electric Vehicle Pilot Incentive Credit Rider
- Exhibit MC-4: Schedule No. TCTX – Take Charge TX Pilot Program
- Exhibit MC-5: Take Charge TX Pilot Program Levelized Payment Calculation

DOCKET NO. _____

APPLICATION OF EL PASO ELECTRIC COMPANY FOR APPROVAL OF ITS TEXAS ELECTRIC VEHICLE READY PILOT PROGRAMS AND TARIFFS	§ § § §	**PUBLIC UTILITY COMMISSION OF TEXAS**

STATEMENT OF INTENT AND APPLICATION OF EL PASO ELECTRIC COMPANY FOR APPROVAL OF TEXAS ELECTRIC VEHICLE-READY PILOT PROGRAMS AND TARIFFS

TO THE HONORABLE PUBLIC UTILITY COMMISSION OF TEXAS AND MUNICIPAL REGULATORY AUTHORITIES:

El Paso Electric Company ("EPE" or "Company") files this Statement of Intent and Application for approval of the Texas Electric Vehicle ("EV")-Ready Pilot Programs and Tariffs, which include: 1) the EV Smart Rewards Pilot Program, 2) the Whole House EV ("WHEV") Pilot Incentive Credit Rider, 3) the PowerConnect Pilot Program, and 4) the Take Charge TX Pilot Program. In support, EPE respectfully shows as follows:

I. BUSINESS ADDRESS AND AUTHORIZED REPRESENTATIVES

EPE's business address is 100 N. Stanton Street, El Paso, Texas 79901. EPE's authorized representatives for the purpose of receiving service of documents are:

EL PASO ELECTRIC COMPANY

Rosanna Al-Hakeem, *Attorney-Staff*
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II. PARTIES AND JURISDICTION

EPE is an electric utility, a public utility, and a utility, as those terms are defined in the Public Utility Regulatory Act, Tex. Util. Code Ann. §§ 11.004(1) and 31.002(6) ("PURA"). EPE is headquartered in El Paso, Texas, with its business address located at 100 N. Stanton Street, El Paso, Texas 79901, and provides services to customers in both Texas and New Mexico. This application pertains to a Texas-specific program, available only in EPE's Texas service territory. The only EPE customers that will be affected by this Application are those customers who elect to participate in one of the voluntary program tariffs proposed. EPE is requesting that its proposed EV-Ready Pilot Program tariffs become effective 35 days after the filing of this application.

The Commission and eight Texas municipalities have jurisdiction over this matter. The Commission has jurisdiction over this matter under PURA §§ 14.001 (general powers), 32.001 (original jurisdiction over rates, operations, and services), and 36.101 through 36.111 (procedures for utility-proposed rate changes). Eight Texas municipalities have jurisdiction over this matter because they have retained original jurisdiction over EPE's retail rates. Therefore, EPE will file this application contemporaneously with each municipal regulatory authority. These municipalities are El Paso, Anthony, Clint, Horizon City, San Elizario, Socorro, Van Horn, and Vinton.

III. TESTIMONY AND SUPPORTING EXHIBITS

Included in this application are direct testimonies and exhibits supporting the Texas EV-Ready Pilot Programs and Tariffs. EPE offers the direct testimonies of George Novela, Angelina Rodriguez, and Manuel Carrasco, as well as a letter of support from the Edison Electric Institute.

George Novela is EPE's Director of Economic & Rate Research. Mr. Novela provides an overview of the application and proposed programs, introduces the Company's witnesses, provides EPE's EV forecast and projected EV load impact, and explains how the proposed programs will assist EPE in preparing for the increasing numbers of EVs in its service area.

Angelina Rodriguez is the Supervisor of Electrification at EPE. Ms. Rodriguez provides a summary of the four proposed pilot programs and recent developments in the electric industry and governmental policies that informed development of the programs. Ms. Rodriguez also describes

the marketing research and customer input developed by the Company regarding EVs, identifies the existing EV charging infrastructure in the EPE service area, and she explains how the proposed programs respond to the barriers customers have indicated that they face in the transition to EVs. Finally, she provides additional details regarding the EV Smart Rewards Pilot Program, the PowerConnect Pilot Program, and the Take Charge TX Pilot Program.

Manuel Carrasco is the Manager of Rate Research. Mr. Carrasco explains the existing rate options and off-peak incentives that could affect the costs of EV charging, and he provides additional details regarding the proposed Whole House EV Pilot Incentive Credit Rate Rider tariff and the Take Charge TX Pilot Program tariff.

Additionally, the Edison Electric Institute ("EEI") has provided a letter of support for the proposed Texas EV-Ready Pilot Programs that explains in detail the reasoning and the basis for the EEI's support of the proposed programs. A copy of the letter of support, addressed to the Commission, is attached to the petition as **Attachment A**.

IV. "EV-READY" PILOT PROGRAMS

Customers and communities across Texas and in EPE's service area are purchasing EVs in increasing numbers. Taking a proactive role in preparing for transportation electrification now - while EV adoption remains relatively low - is important for EPE to ensure that EV adoption in the future is integrated efficiently with the grid to enable the Company to support customer decisions in favor of transportation electrification. As a means of taking a proactive role, EPE requests approval of several pilot programs and tariffs. In particular, the proposed tariffs reflect new voluntary residential and non-residential programs and rate options designed to prepare for and support the transportation electrification initiatives and decisions pursued by EPE's customers. The proposed tariffs include the following portfolio of programs and rate options:

- *EV Smart Rewards Pilot Program.* This program provides incentives to residential customers for enrolling and participating in EPE's utility-managed EV charging program.
- *WHEV Pilot Incentive Credit Rider.* This program encourages residential customers who own EVs to charge their EVs during the overnight/early morning hours by providing an incentive credit on electricity usage from midnight to 8 am.
- *PowerConnect Pilot Program.* This program provides non-residential customers who are installing EV charging infrastructure on their premises with a rebate credit to reduce

the customer's upfront cost for utility distribution-system improvements that are needed to support the EV charging infrastructure.

- *Take Charge TX Pilot Program*. This program provides non-residential customers with the opportunity to request that EPE arrange, in whole or part, for the purchase, installation, and maintenance of EV charging infrastructure selected by the customer for EV charging on the customer's premises.

The WHEV Pilot Incentive Credit Rider is proposed to remain available until revised or terminated in a future rate proceeding. The other programs are proposed with the following limitations:

- *EV Smart Rewards Pilot Program.* This program will be limited to 880 customers and will terminate after two years unless extended in a future proceeding.
- *PowerConnect Pilot Program.* This program is limited to a budget of $3,095,950 and will terminate after two years unless extended in a future proceeding.
- *Take Charge TX Pilot Program*. This program will close to new projects after two years unless extended in a future proceeding.

The information gathered from the proposed pilot programs will help in evaluating customers' responsiveness to special rate options and advanced load control programs. The pilot programs are also designed to provide EPE with the necessary information to evaluate the possible need for potential infrastructure upgrades from increased saturation of electric vehicles on its distribution system. Collecting this type of information will be crucial to better plan and help shift native system load in a manner that better utilizes EPE's infrastructure and in turn helps reduce costs for its customers. The potential benefits of the proposed pilot programs for participating and non-participating customers and for EPE would include, among others, information, and the opportunity for "lessons learned" regarding:

- How to minimize investment in new infrastructure to support EV charging,
- How to shift demand for EV charging services to the lowest load periods on the grid,
- How reducing adverse grid impacts and promoting improved system utilization in connection with the increase in EV charging can provide downward pressure on electric rates,
- How turnkey solutions offered to participating non-residential customers, including small commercial customers can provide greater access to transportation electrification, without adversely impacting non-participating customers, and
- How EPE can support customer and community goals to achieve environmental benefits such as the reduction of urban air pollution and greenhouse gas emissions through transportation electrification.

With regard to cost recovery, for the Take Charge TX Program, participating customers will be responsible for the full cost of the equipment and services provided through a monthly fixed fee added to their bill. For the other three pilot programs, EPE may seek cost recovery related to the programs in a future proceeding.

The EV-Ready Pilot Programs have been designed to assist the Company in preparing for the growing numbers of EVs in its service area and to support and facilitate customer decisions regarding EV charging infrastructure consistent with the state and federal actions evidencing policy goals that support the further electrification of the transportation sector. In designing the programs, the Company is also aware of statutory requirements that all rates be reasonable as well as sufficient, equitable, and consistent in application to each class of customer and not be unreasonably preferential, prejudicial, or discriminatory. The growing number of EVs, the need for EPE to prepare for the growth of EVs, and the state and federal policies in support of transportation electrification together provide a reasonable basis for the proposed EV-Ready Pilot Programs and Tariffs.

V. PROTECTIVE ORDER

As part of its application in this proceeding, EPE anticipates the need to provide certain confidential information. Accordingly, EPE requests that the Commission's standard protective order be issued in this proceeding.

VI. NOTICE

EPE proposes to provide notice of this filing consistent with 16 TAC § 22.55, "Notice in Other Proceedings." Because the proposed programs and tariffs are voluntary, no existing customers will be affected by this Application unless they choose to participate in one of the proposed programs. Therefore, EPE proposes to provide notice of this filing by a one-time publication in newspapers of general circulation in the Company's service area. EPE's proposed form of notice is attached as **Attachment B**.

EPE proposes an intervention deadline of 45 days following the filing of this Application.

VII. CONCLUSION AND REQUEST FOR RELIEF

For the reasons described above and as detailed in the attached direct testimony of the Company's witnesses, EPE seeks Commission and Municipal approval of the Texas EV-Ready Pilot Programs and Tariffs. In particular, EPE respectfully requests approval of (1) the

Commission's standard protective order for use in this proceeding, (2) EPE's proposed form and method of notice, (3) EPE's proposed EV-Ready Pilot Programs and Tariffs, and (4) such further relief to which the Company is entitled.

Respectfully submitted,

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/s/Rosanna Al-Hakeem

ATTORNEYS FOR
EL PASO ELECTRIC COMPANY

Edison Electric INSTITUTE

Power by Association

VIA E-MAIL

December 7, 2022

Peter Lake
Chairman
Public Utility Commission of Texas
1701 N. Congress Ave., 7th Floor
Austin, Texas 78701

Re: Petition of El Paso Electric for Approval of Texas EV-Ready Pilot Programs

Dear Chairman Lake,

The Edison Electric Institute (EEI) respectfully submits this letter to the Public Utility Commission of Texas (Commission) in support of El Paso Electric's (EPE) Petition in the above-referenced proceeding. EEI monitors electric vehicle (EV) proceedings across the country and appreciates the opportunity to provide the Commission with a national perspective on the integral role electric companies play in accelerating electric transportation through programs that deploy, incentivize, and provide rebates for charging infrastructure, that help cover the cost of make-ready work, and which help integrate EVs into the grid in an efficient manner.

EEI is the association that represents all U.S. investor-owned electric companies. Our members operate in all 50 states and the District of Columbia and provide electricity for 235 million Americans. Collectively, the electric power industry supports more than 7 million jobs in communities across the United States. EEI's member companies, which include El Paso Electric, deliver safe, reliable, affordable, and increasingly clean electricity that powers the economy, transforms transportation through increased use of EVs, and enhances the lives of all Americans.

As of July 2022, 62 electric companies in 34 states and the District of Columbia have received regulatory approval to invest nearly **$3.7 billion** in EV programs across the country.[1] This includes recent approvals in Nevada,[2] California,[3] Colorado,[4] and Florida,[5] which together account for more than $800 million in investment. While this is an impressive number, more is needed to deploy necessary infrastructure and to incentivize greater EV adoption in the near term. The type of EV program can vary by state and electric company, but usually includes at least one of the following elements: (1) investments in, or ownership of, charging infrastructure; (2) customer rebates or

[1] *See* Edison Electric Institute, "Electric Transportation State Biannual Regulatory Update: July 2022," https://www.eei.org/-/media/Project/EEI/Documents/Issues-and-Policy/Electric-Transportation/ET-Biannual-State-Regulatory-Update.pdf

[2] *See* Public Utilities Commission of Nevada, *Order Approving Economic Recovery Transportation Electrification Plan for the Period 2022-2024*, Docket No. 21-09004

[3] *See* Public Service Commission of the State of California, *Decision Authorizing Southern California Edison Company's Charge Ready 2 Infrastructure and Market Education Programs*, Application 18-06-015

[4] *See* Colorado Public Utility Commission, *Commission Decision Granting Application with Modifications,* Proceeding No. 20A-0204E

[5] *See* Florida Board of Public Utilities, *Decision and Order Approving Stipulation,* Docket No. 20210015-EI

incentives for all or part of charging infrastructure deployment; (3) customer education and outreach; and (4) rate design. Separately or working in tandem, these elements can unlock value for all customers by growing and making the EV market attainable for all participants, by helping to integrate EV charging into the electric grid in a cost-effective manner, and by driving outcomes that protect customer interests while maximizing customer value.

Electric companies, such as El Paso Electric, are well-positioned to make targeted and strategic investments in EV charging infrastructure that benefit the broader community and accelerate EV adoption. Texas is currently one of the largest markets for EVs with the 4th highest EV sales among all states and is projected to remain a market leader in the coming years.[6] The Electric Reliability Council of Texas (ERCOT) projects that there will be 1 million EVs on the road in Texas by 2028.[7] Supporting this number of EVs would require roughly 5,000 public DC fast chargers (DCFC) and more than 110,000 public Level 2 chargers based on EEI's charging infrastructure projections.[8] The current number of public DCFC and Level 2 chargers in Texas would need to quadruple to reach those figures.[9] This penetration is unlikely to be achieved without significant electric company investment as recent sources of federal funding like the National Electric Vehicle Infrastructure (NEVI) Program focus only on DCFC and are insufficient to meet the projected needs for charging infrastructure. Programs such as the one proposed by EPE focus on the rapid deployment of charging infrastructure and will help ensure that the transition to EVs is a seamless one for customers.

Nationally, the current lack of EV charging infrastructure is one of the primary barriers to widespread EV adoption. EPE's proposed PowerConnect Pilot and Take Charge TX Pilot Programs aim at reducing obstacles to installing EV charging infrastructure for commercial customers. As designed, the proposed enhancements are an example of how electric company investment in EV charging infrastructure can guide outcomes that protect all customer interests and maximize customer value, both directly and indirectly. The new EV programs would directly benefit customers by further reducing the barrier to entry for EV adoption in many ways, including making direct investments in the deployment of much-needed charging infrastructure and offering a simple, turn-key charging solution for all non-residential customers including fleets and owners of multi-unit dwellings.

The PowerConnect Pilot Program was specifically designed to help the Texas Department of Transportation (DOT), local school districts and other entities with make-ready costs on the utility-side of the meter. Programs such as the PowerConnect Pilot can be paired with federal NEVI funds being administered by the DOT to help stretch those funds and deploy more infrastructure with the same amount of public investment. As a founding member of EEI's National Electric Highway Coalition (NEHC), EPE has long demonstrated its commitment to ensuring that EV drivers have a foundational network of EV charging stations. EPE will be able to leverage the knowledge and resources of other NEHC members to ensure that infrastructure is deployed efficiently, as well as connect with interested parties who will host the stations as they work alongside the DOT to deploy

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[6] *See* Atlas EV Hub, "State EV Sales Dashboard," December 2022, https://www.atlasevhub.com/materials/automakers-dashboard/

[7] *See* Texas Department of Transportation, Texas Electric Vehicle Infrastructure Plan, July, 2022, available at https://ftp.txdot.gov/pub/txdot/get-involved/statewide/EV%20Charging%20Plan/TexasElectricVehicleChargingPlan.pdf

[8] *See* Edison Electric Institute, Electric Vehicle Sales and the Charging Infrastructure Required Through 2030, June 2022, available at https://www.eei.org/-/media/Project/EEI/Documents/Issues-and-Policy/Electric-Transportation/EV-Forecast--Infrastructure-Report.pdf

[9] Alternative Fuels Data Center, "Electric Vehicle Charging Station Locations", https://afdc.energy.gov/fuels/electricity_locations.html#/find/nearest?fuel=ELEC

NEVI funds. Furthermore, investment in EV infrastructure like that proposed by EPE in this proceeding will improve charging access to all customers – including those who may lack dedicated parking, thereby making this technology and its benefits within reach for everyone. This program can also be leveraged by school districts who are seeking to electrify their buses. Recent funding for electric school buses as part of the Bipartisan Infrastructure Law, including funding for the deployment of 134 electric school buses across 13 school districts in Texas, covers only a portion of the cost of charging infrastructure and leaves school districts and their electric company partners to cover the remainder.[10]

Increased adoption of EVs, when added to the grid efficiently, can provide benefits to all customers. EPE's proposed EV Smart Rewards Pilot Program targets efficient adoption of EVs by incentivizing residential customers to participate in active managed EV charging and charge during off-peak hours. The additional electricity demand from EVs added to the grid in a way that more fully utilizes existing infrastructure puts downward pressure on rates for all customers.[11] EPE's proposal would encourage efficient charging behavior from customers and allow for EPE to evaluate the acceptance and effectiveness of managed charging incentives. Based on the data collected from the EV Smart Rewards Pilot, EPE would be able to tailor future offerings to reduce adverse grid impacts related to unmanaged charging and add additional load without the need for additional investments.

In addition to all the direct customer benefits summarized above, EVs emit less air pollution than traditional gasoline powered vehicles, which enhances communities' efforts to reduce their carbon emissions. As of 2020, Texas's transportation sector accounts for 31 percent of GHG emissions, which is the second largest sector of carbon emissions behind industrial processes.[12] When looking to reduce emissions, light-duty vehicles should not be the only vehicle segment up for consideration. Medium- and heavy-duty vehicles, including trucks, buses and fleets should also be prioritized as they typically account for a larger share of air pollutants and have lower fuel efficiency when compared to light-duty vehicles.[13] Many states have recognized the value of electrifying trucks and buses and have dedicated more than $1.6 billion in public funds to this technology.[14] EPE's PowerConnect Pilot and Take Charge TX Pilot programs would help to address the charging infrastructure needs of these larger use segments, helping to spur adoption of medium- and heavy-duty EVs and replace the most fuel-intensive vehicles with zero-emission electric vehicles.

As Texas works to implement policies that support greater deployment of EVs and grow the market for all participants, electric companies should not only be permitted to participate in this space but also be given an important role in designing and implementing programs that best meet the needs of all customers while also helping to integrate EV charging into the grid in a cost-effective manner. Importantly, this concept was endorsed by the National Association of Regulatory Utility

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[10] *See* United States Environmental Protection Agency, "Awarded Clean School Bus Program Rebates," November, 2022, https://www.epa.gov/cleanschoolbus/awarded-clean-school-bus-program-rebates#map

[11] *See* Synapse Energy, "Electric Vehicles Are Driving Electric Rates Down: June 2019 Update," https://www.synapse-energy.com/sites/default/files/EV-Impacts-June-2019-18-122.pdf; *See also* Energy and Environmental Economics, "Cost-Benefit Analysis of Plug-in Electric Vehicle Adoption in the AEP Ohio Service Territory," https://www.ethree.com/wp-content/uploads/2017/10/E3-AEP-EV-Final-Report-4_28.pdf

[12] Energy Information Administration, "Energy-Related CO2 Emission Data Tables," https://www.eia.gov/environment/emissions/state/

[13] Driving California's Transportation Emissions to Zero, April 2021, https://escholarship.org/uc/item/3np3p2t0#article_abstract

[14] *See* Atlas Public Policy, "Medium- and Heavy-Duty Vehicle electrification," May 2021, https://www.atlasevhub.com/materials/medium-and-heavy-duty-vehicle-electrification/

Commissioners (NARUC) at its most recent meeting in New Orleans.[15] EPE's programs aim to do just that; the proposed enhancements provide the Commission with an opportunity to take immediate, concrete action to advance the State's goals, make EV technology available for all customers, maintain leadership in advanced transportation technologies, and expand the benefits of electric transportation.

EEI thanks the Commission for the opportunity to share our thoughts on EPE's Petition and the overall growth of EVs in Texas.

Respectfully submitted,

Philip D. Moeller
Executive Vice President,
Business Operations Group and
Regulatory Affairs
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[15] *See* https://pubs.naruc.org/pub/E7FD666D-1866-DAAC-99FB-424B6C2F867D, ERE – 1 Resolution on the Urgency of Preparing for Widespread Transportation Electrification.

NOTICE OF NEW RATE REQUEST

On January 31, 2023, El Paso Electric Company ("EPE" or the "Company") filed a statement of intent and application ("Application") with the Public Utility Commission of Texas ("Commission") for approval of four new rate tariffs, collectively described as the Company's Texas Electric Vehicle-Ready Pilot Programs and Tariffs. EPE's Application was assigned Docket No. _____, and is styled *Application of El Paso Electric Company for Approval of its Texas Electric Vehicle-Ready Pilot Programs and Tariffs*. EPE also filed the Application simultaneously with each of the Texas municipalities that has retained original jurisdiction over EPE's retail rates.

The proposed tariffs reflect new voluntary residential and non-residential programs and rate options designed to prepare for and support the transportation electrification initiatives and decisions pursued by EPE's customers. The proposed tariffs include the following portfolio of programs and rate options:

- *EV Smart Rewards Pilot Program.* This program provides incentives to residential customers for enrolling and participating in EPE's utility-managed electric vehicle ("EV") charging.
- Whole House EV *("WHEV") Pilot Incentive Credit Rider.* This program encourages residential customers who owns EVs to charge their EVs overnight by providing an incentive credit on electricity usage from midnight to 8 am under the WHEV rider.
- *PowerConnect Pilot Program.* This program provides non-residential customers who are installing EV charging infrastructure on their premises with a rebate credit to reduce the customer's upfront cost for utility distribution-system improvements that are needed to support the EV charging infrastructure.
- *Take Charge TX Pilot Program*. This program provides non-residential customers with the opportunity to request that EPE arrange, in whole or part, for the purchase, installation, and maintenance of EV charging infrastructure selected by the customer for EV charging on the customer's premises.

For the Take Charge TX Program, participating customers will be responsible for the full cost of the equipment and services provided through a monthly fixed fee added to their bill. For the other three pilot programs, EPE may seek cost recovery related to the programs in a future proceeding after an evaluation of the actual costs and benefits of the programs.

The WHEV Pilot Incentive Credit Rider is proposed to remain available until revised or terminated in a future rate proceeding. The other programs are proposed with the following limitations:

- *EV Smart Rewards Pilot Program.* This program will be limited to 880 customers and will terminate after two years unless extended in a future proceeding.
- *PowerConnect Pilot Program.* This program is limited to a budget of $3,095,000 and will terminate after two years unless extended in a future proceeding.
- *Take Charge TX Pilot Program*. This program will close to new projects after two years unless extended in a future proceeding.

The only EPE customers that will be affected by this Application are those customers who elect to participate in one of the voluntary tariffs proposed. EPE is requesting that the proposed

EV-Ready Pilot Program tariffs become effective March 7, 2023, which is 35 days after the filing of this Application.

Persons with questions or who want more information about EPE's Application may contact EPE at 100 N. Stanton Street, El Paso, Texas 79901, or call 1-800-351-1621, then 7, then ext. 4354, during normal business hours. Persons may also email EPE_Reg_Mgmt@epelectric.com with questions or to request more information or a copy of the Application. A complete copy of the Application is available for inspection at the address listed above.

Commission rules provide that the deadline to intervene in the proceeding before the Commission is 45 days from filing, or March 17, 2023, unless changed by an Order. Persons who wish to intervene in or comment upon these proceedings, or obtain further information, should contact the Public Utility Commission of Texas, P.O. Box 13326, Austin, Texas 78711-3326, or call the Commission's Office of Consumer Protection at (512) 936-7120 or toll free at (888) 782-8477. Hearing-and speech-impaired individuals with text telephones ("TTY") may contact the Commission at (512) 936-7136 or use Relay Texas (toll-free) 1-800-735-2989.

A copy of EPE's petition may be viewed on the Commission's webpage at www.puc.state.tx.us. The Commission maintains an electronic copy of all filings on the "Filings—Filings Search" section of its webpage. The control number for this proceeding on the Commission's webpage is PUC Docket No. _____.

DOCKET NO. _____

APPLICATION OF EL PASO ELECTRIC COMPANY FOR APPROVAL OF ITS TEXAS ELECTRIC VEHICLE-READY PILOT PROGRAMS AND TARIFFS	§ § § § §	PUBLIC UTILITY COMMISSION OF TEXAS

DIRECT TESTIMONY

OF

GEORGE NOVELA

FOR

EL PASO ELECTRIC COMPANY

JANUARY 31, 2023

TABLE OF CONTENTS

SUBJECT		PAGE
I.	INTRODUCTION AND QUALIFICATIONS	1
II.	PURPOSE OF TESTIMONY	2
III.	SUMMARY OF TEXAS EV-READY PILOT PROGRAMS AND REQUESTED APPROVALS	3
IV.	EV FORECASTS	6
V.	SYSTEM RESOURCE PLANNING IMPACTS	10
VI.	PROGRAM BUDGETS	15
VII.	CONCLUSION	17

I. Introduction and Qualifications

Q1. PLEASE STATE YOUR NAME, AND BUSINESS ADDRESS.

A. My name is George Novela. My business address is 100 North Stanton Street, El Paso, Texas 79901.

Q2. BY WHOM ARE YOU EMPLOYED?

A. I am employed by El Paso Electric Company ("EPE" or "Company").

Q3. WHAT IS YOUR CURRENT POSITION WITH EPE?

A. I am the Director of Economic and Rate Research.

Q4. WHAT ARE YOUR DUTIES AND RESPONSIBILITIES AS DIRECTOR OF ECONOMIC AND RATE RESEARCH?

A. I manage and direct the activities of the Load Research and Data Analytics Department as well as the Rates Department. Responsibilities include the preparation of long-term customer, energy, and load forecasts, rates functions, preparation of weather normalization, analysis of load research data, and the preparation of load research studies and reports.

Q5. PLEASE SUMMARIZE YOUR EDUCATIONAL AND PROFESSIONAL QUALIFICATIONS.

A. Prior to working at EPE, I worked as the Research Coordinator for the City of El Paso's Department of Economic Development from 2007 to 2008. My duties included calculating incentive packages for new and expanding businesses, producing impact studies, and coordinating recruitment efforts with various public and private stakeholders.

In 2008, I began working for EPE as a Load Research Specialist, where I specialized in analyzing EPE's large customers load characteristics, i.e., monthly and annual energy consumption, coincident demand, maximum demand, and load profile shapes. I was promoted to Senior Economist in 2011, where my responsibilities included the development of the long-term energy, demand, and customer forecasts utilized for planning purposes. In 2014, I worked briefly for EPE's Energy Efficiency Department as a Program Coordinator where I oversaw energy efficiency initiatives for residential

customers in both Texas and New Mexico. In 2014, I was promoted to the Manager of Economic Research, where I oversaw the Company's long-term forecasting and load research programs. I was promoted to Director of Economic and Rate Research in 2021, where I manage and direct the activities of the Load Research and Data Analytics and Rates Departments.

I graduated from The University of Texas at El Paso with a Bachelor of Business Administration in Economics in 2006, a Master of Science in Economics in 2008, and a Master of Business Administration in Finance in 2012. I received a Graduate Certificate in Public Utility Regulation & Economics from New Mexico State University in 2014.

In addition, I have taught undergraduate courses in Macroeconomics and Microeconomics at El Paso Community College.

Q6. PRIOR TO THIS MATTER, HAVE YOU EVER PROVIDED TESTIMONY IN A REGULATORY PROCEEDING?

A. Yes, I have filed testimony with the Public Utility Commission of Texas ("PUCT" or "Commission") and the New Mexico Public Regulation Commission.

II. Purpose of Testimony

Q7. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to present and support EPE's Application for Approval of its Texas Electric Vehicle ("EV")-Ready Pilot Programs and Tariffs. The proposed programs include the: 1) EV Smart Rewards Pilot Program, 2) PowerConnect Pilot Program, 3) Take Charge TX Pilot Program, and 4) Whole House EV ("WHEV") Incentive Credit Rate Rider. In my testimony, I introduce the other witnesses in this case; describe the proposed pilot programs and why EPE is proposing the programs; present EPE's EV forecast and expected load impact from EVs; discuss how the proposed programs will assist EPE in preparing for increasing numbers of EVs in its service area; and present the estimated program costs.

Q8. PLEASE DESCRIBE THE OTHER WITNESSES THAT EPE IS PRESENTING IN THIS PROCEEDING.

A. EPE is presenting the testimony of two other witnesses in this proceeding. These witnesses and the general subject matter of their testimony are as follows:

- Angelina Rodriguez, Supervisor of the Electrification Department. Ms. Rodriguez's testimony summarizes EPE's proposed Texas EV-Ready Pilot Programs and provides additional detail regarding the 1) EV Smart Rewards Pilot Program, 2) PowerConnect Pilot Program, and 3) Take Charge TX Pilot Program. Ms. Rodriguez also describes recent developments in the electric industry and in governmental policies regarding transportation electrification and EVs that support this application. Further, Ms. Rodriguez identifies the existing EV charging infrastructure in the EPE service area and describes EPE's market research and customer input regarding transportation electrification and EVs.
- Manuel Carrasco is the Manager of Rate Research. Mr. Carrasco's testimony describes EPE's rate and rate options that incentivize off-peak electricity consumption and discusses the development and application of the WHEV Incentive Credit Rate Rider. Mr. Carrasco also addresses EPE's proposed tariff for Take Charge TX Pilot Program and how this tariff was developed, along with EPE's plan for cost recovery for the associated costs.

III. Summary of Texas EV-Ready Pilot Programs and Requested Approvals

Q9. PLEASE SUMMARIZE EPE'S EV-READY PILOT PROGRAMS.

A. The EPE's Texas EV-Ready Pilot Programs include the following proposed portfolio of programs and rate options. Each program is voluntary and available to eligible customers as specified in the relevant tariffs:

- *EV Smart Rewards Pilot Program* is a managed EV charging program that provides incentives to residential customers for enrolling and participating in EPE's utility-managed EV charging program. The program is designed to enable EPE to evaluate customers' acceptance of utility-managed EV charging and the efficiency of such programs to optimize the use of existing infrastructure and minimize the required investment in additional infrastructure.
- *PowerConnect Pilot Program* is a rebate program for non-residential customers who are installing EV charging infrastructure on their premises that will help reduce the

upfront cost of upgrades or improvements to EPE's distribution system, up to the utility meter, that are needed to support service to the EV charging infrastructure.

- *Take Charge TX Pilot Program* is a program for non-residential customers where the customer can choose the desired EV infrastructure and equipment that could be purchased, installed and operated by EPE, in whole or part, including a fully turnkey solution, to mitigate the challenge of managing EV charging stations installation and maintenance for the customer. Customers will be responsible for the full cost of the equipment and services provided through a monthly fixed fee added to their bill during the term of the pilot program agreement.
- *WHEV Pilot Incentive Credit Rider* is a program that will help residential customers save money on their electric bill if they shift EV charging to the overnight/early morning hours of midnight to 8 am.

Q10. WHY IS EPE PROPOSING THESE PILOT PROGRAMS?

A. Customers and communities in EPE's service area are purchasing EVs in increasing numbers. Taking a proactive role in preparing for transportation electrification now - while EV adoption remains relatively low - is important for EPE to ensure that EV adoption in the future is integrated efficiently with the grid to enable the Company to support customer decisions in favor of transportation electrification. The information gathered from the proposed pilot programs will help in evaluating customers' responsiveness to special rate options and advanced load control programs, such as managed charging. The pilot programs are designed to provide EPE with necessary information to evaluate the possible need for potential infrastructure upgrades from increased saturation of electric vehicles on its distribution system. Collecting this type of information will be crucial to better plan and help shift native system load in a manner that better utilizes EPE's infrastructure and in turn helps reduce costs for its customers. The potential benefits of the proposed pilot programs for participating and non-participating customers and for EPE would include lessons learned regarding:

- How to reduce adverse grid impacts related to unmanaged charging to minimize required investment in new infrastructure which benefits all customers,

- How EPE can support customers and communities who are attempting to address projected needs for charging infrastructure,
- How improved system utilization can contribute to the recovery of the EPE's fixed costs, thereby creating downward pressure on electric rates and benefiting all customers,
- How turnkey solutions offered to participating non-residential customers, including small commercial customers, governmental customers, and multi-unit dwelling owner-customers ("MUD"), can support greater access to transportation electrification with no charges to non-participating customers; and
- How EPE can support customer and community goals to achieve environmental benefits, such as the reduction of urban air pollution and greenhouse gas emissions, through transportation electrification.

Q11. WHAT COMMISSION APPROVAL IS EPE SEEKING IN THIS APPLICATION?

A. EPE requests approval of the Texas EV-Ready Pilot Programs and specifically requests the approval of the following pilot programs and tariff revisions in this Application:

- EV Smart Rewards Pilot Program and tariff schedule,
- PowerConnect Pilot Program and tariff schedule,
- Take Charge TX Pilot Program and tariff schedule, and
- WHEV Pilot Incentive Credit Rider tariff schedule.

Q12. WHAT DOES EPE SEE AS ITS ROLE WITH REGARD TO TRANSPORTATION ELECTRIFICATION IN ITS TEXAS SERVICE TERRITORY?

A. Utilities are responsible for the operation of the electric grid. Early planning is required to ensure the electric grid will be able to accommodate and support the increased demand caused as customers shift towards electric vehicles. EPE's role with regard to the anticipated expansion of transportation electrification is to 1) offer customers rate options and load management programs that may improve utilization of the Company's fixed assets, and thus create a downward pressure on electricity rates, which may benefit all customers; 2) support federal and state EV initiatives, including the National Electric Vehicle Infrastructure ("NEVI") program, by assisting with customer's needs for charging

infrastructure; and 3) conduct early planning and data collection to ensure the electric grid and system generation will be able to accommodate increased demand due to customers' EV adoption.

Q13. IS EPE'S ROLE WITH RESPECT TO THE ANTICIPATED GROWTH OF TRANSPORTATION ELECTRIFICATION UNIQUE?

A. In some respects it is, in other respects it is not. EV transportation is a new technology, one that is enjoying rapid growth because of customer demand. Insofar as it is a new technology, EV is unique. On the other hand, in a general sense the programs and tariffs that EPE proposes in this docket to deal with the rapid growth of EV transportation are not unique. There is a long tradition of electric utilities formulating experimental programs to deal with changes in customer demand borne of evolving national and state policy. These include such changes in policy as fuel shifting in the form of renewable energy, the purchase of small power production and cogeneration power, the acquisition of off system purchases and sales of electricity to serve native load customers from neighboring utility grids, the development of distributed power and micro-grids, and energy conservation policies such as peak shaving and load shifting, to name a few. And now, EV transportation. In addition, EPE and other utilities have long worked with its customers to tailor infrastructure programs to fit their customers' evolving needs based on changes in technology and national and state policy.

IV. EV Forecasts

Q13. WHY DOES EPE FORECAST THE NUMBER OF EVS IN ITS TEXAS SERVICE TERRITORY?

A. EV adoption is growing and, in turn, increased adoption will lead to increased usage of electric systems. Accurate forecasts of EV adoption and their associated usage profiles will be key in properly planning resources for future need. EV adoption is being supported nationwide by federal programs and in the State of Texas through a variety of policy frameworks, incentives and plans to support EV accessibility for all Texans. For example, the State of Texas through the Texas Commission on Environmental Quality ("TCEQ") offers a variety of incentives through programs such as: Light-Duty Motor Vehicle Purchase or Lease Incentive Program, Texas Clean Fleet Program, Alternative Fueling Facilities Program, and Texas Clean School Bus Program.[1]

Another important policy to support EV adoption in the State of Texas is the Texas Electric Vehicle Infrastructure Plan required under the NEVI Formula Program.[2] The plan was developed by the Texas Department of Transportation ("TxDOT") in conjunction with the TCEQ and the State Energy Conservation Office at the Texas Comptroller.[3] The vision of the Texas Electric Vehicle Infrastructure Plan is to enable current and future drivers of EVs to confidently travel across the state for work, recreation, and exploration. The Texas Electric Vehicle Infrastructure Plan was approved by the Federal Highway Administration ("FHWA") on September 27, 2022[4], as further described in EPE witness Rodriguez testimony. Therefore, the Company expects that EV adoption will continue to increase in its service territory, and as mentioned above, it is important for EPE to ensure that EV adoption in the future is integrated efficiently with the grid by developing accurate EV forecasts to enable the Company to support customer decisions in favor of transportation electrification.

Q14. HAS EPE DETERMINED THE NUMBER OF EVS IN ITS TEXAS SERVICE TERRITORY?

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[1] Texas Commission on Environmental Quality, Texas Emissions Reduction Plan. <https://www.tceq.texas.gov/airquality/terp/programs>

[2] The NEVI program is authorized under the Bipartisan Infrastructure Law, enacted as the Infrastructure Investment and Jobs Act (IIJA), (Pub. L. 117-58).

[3] Texas Department of Transportation, Texas Electric Vehicle Infrastructure Plan, July 2022. <https://ftp.txdot.gov/pub/txdot/get-involved/statewide/EV%20Charging%20Plan/TexasElectricVehicleChargingPlan.pdf>

[4] U.S. Department of Transportation, Federal Highway Administration, Texas Electric Vehicle Infrastructure Plan – Approval Letter, September 2022. <https://ftp.txdot.gov/pub/txdot/get-involved/statewide/EV%20Charging%20Plan/TX_Approval_Letter.pdf>

A. Yes. There are an estimated 2,555 light-duty EVs in EPE's Texas Service territory as of November 2022.[5] Thirty-two percent (818) of the total light-duty EV count of 2,555 were added in 2022 (January 2022 through November 2022) and over 54% (1,397) were added over the past 2 years (January 2021 to November 2022). This recent rapid increase of light-duty EVs clearly shows an acceleration in EV adoption in EPE's service territory.

Q15. WHAT IS THE BASIS FOR THAT ESTIMATE?

A. EPE's Load Research and Data Analytics Department used publicly available EV registration data from the Electric Vehicles North Texas initiative of the Dallas-Fort Worth Clean Cities program to estimate the number of EVs in EPE's Texas service territory.

Q16. HAS EPE FORECASTED EV MARKET GROWTH IN ITS TEXAS SERVICE TERRITORY?

A. Yes. EPE's Load Research and Data Analytics Department produces a yearly long-term light-duty EV forecast that goes out over a 20-year forecast horizon. EPE currently estimates that there will be 8,854 light-duty EVs in EPE's Texas service territory by the end of 2025. I highlight the expected Texas residential light-duty electrification load through 2025 because this is the approximate duration of the proposed pilot program.

Q17. WHAT IS THE BASIS FOR THAT ESTIMATE?

A. EPE's long-term light-duty EV forecast uses an S-Curve forecast model methodology and data from various sources, such as, the Texas Department of Transportation, U.S. Census Bureau, U.S. Department of Energy National Renewable Energy Laboratory ("NREL"), U.S. Energy Information Administration ("EIA"), S&P Global, and EPE.

Q18. HAS EPE IDENTIFIED THE CHARGING INFRASTRUCTURE ALREADY IN PLACE IN EPE'S SERVICE TERRITORY.

A. Yes. Please see the direct testimony of EPE witness Rodriguez for a detailed discussion of existing charging infrastructure in EPE's Texas service area as well as the Company's

[5] Dallas-Fort Worth Clean Cities Coalition, Electric Vehicles North Texas (EVNT), Electric Vehicles in Texas, November 2022. <https://www.dfwcleancities.org/evsintexas>

projections for charging infrastructure needs by 2025. As explained by EPE witness Rodriguez, however, most EV charging is currently done at the detached, single-family homes of the EV owners themselves.

Q19. IS THERE A PARTICULAR NEED FOR EPE TO SUPPORT THE EXPANSION OF THE CHARGING INFRASTRUCTURE AVAILABLE FOR CUSTOMERS THAT RESIDE IN MULTI-UNIT DWELLINGS?

A. Yes. Access to home charging can be limited depending on the type of housing. For example, EPE's experience is that customers in detached housing are more likely to have access to home charging than customers that live in apartments or MUDs.[6] As the EV market continues to grow from early adopters (typically customers with high-income and detached homes that have access to off-street parking) to the general public, EPE anticipates that there will be an even greater need for charging infrastructure for customers without access to home charging such as customers residing in MUDs.

Q20. HAS EPE FORECASTED THE NUMBER OF EVS THAT WILL BE OWNED BY CUSTOMERS THAT RESIDE IN MUDS SUCH AS APARTMENTS?

A. Yes. EPE's Load Research and Data Analytics Department estimates that there will be approximately 750 light-duty EVs at MUDs such as apartments, by the end of 2025.

Q21. WHAT IS THE BASIS FOR THAT ESTIMATE?

A. EPE's Load Research and Data Analytics Department estimated the number of customers who own an EV and reside in a MUD, utilizing its light-duty EV forecast and EV customer housing characteristics. The EV customer housing characteristics are based on a survey conducted by the Institute of Transportation Studies at the University of California-Davis[7] and adjusted using data from the U.S. Census Bureau[8] to better reflect the customers and

[6] See also, G. Yanbo, C. Simeone, A. Duvall, and E. Wood. There's No Place Like Home: Residential Parking, Electrical Access, and Implications for the Future of Electric Vehicle Charging Infrastructure. October 2021. Golden, CO: National Renewable Energy Laboratory. NREL/TP-5400-81065. https://www.nrel.gov/docs/fy22osti/81065.pdf.

[7] G. Tal, J.H. Lee, and M.A. Nicholas. Institute of Transportation Studies, UC Davis. Observed Charging Rates in California. September 2018.

[8] U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates, Selected Housing Characteristics, El Paso County, Texas.
<https://data.census.gov/cedsci/table?q=DP04&g=0500000US48141&tid=ACSDP5Y2020.DP04>

housing characteristics of EPE's Texas service territory. The distribution of EV customers by housing type, coupled with the forecasted number of light-duty EVs, indicates the number of charging plugs that will be needed at MUDs to support the forecasted EV growth. EPE estimates that ideally, 750 charging plugs would be needed to support the projected 750 light-duty EVs at MUDs by the end of 2025. Given that EV customers that reside at MUDs may not have a designated parking space or share parking with other users, EPE's proposed pilot programs are intended to reach up to 25% (188 charging plugs) of the total estimated forecasted number of light-duty EVs at MUDs.

V. System Resource Planning Impacts

Q22. HAS EPE FORECASTED THE IMPACT OF EVS ON EPE'S TEXAS NATIVE SYSTEM LOAD?

A. Yes. EPE's Load Research and Data Analytics Department has forecasted 5 MW of additional demand at the time of system peak due to residential light-duty EV charging in EPE's Texas service territory by the end of 2025.

Q23. DOES EPE CONSIDER 5 MW TO BE A LARGE IMPACT?

A. No, 5 MW is a small value with respect to the native system load, i.e., 5 MW would be equivalent to 0.22% of the native system load (2,201 MW in 2022). However, this 5 MW is only the expected Texas residential light-duty electrification load through 2025. Although electrification load is expected to ramp up at faster pace beyond the year 2025, 2025 is highlighted because that will cover the approximate duration of the pilot programs. In addition, there will be other types of electrification load on EPE's system, such as medium and heavy-duty vehicle load. Having the EV pilot programs in place while saturation of EVs remain relatively low is key to collecting information that can be used to better serve and prepare for larger EV penetration levels.

Q24. WHAT IS THE BASIS FOR THAT ESTIMATE?

A. EPE's Load Research and Data Analytics Department used the number of forecasted light-duty EVs by 2025, and residential (level-1 and level-2) light-duty EV charging load profiles developed by Energy and Environmental Economics ("E3") for EPE. Two types

of EV charging profiles were developed by E3 for EPE, non-managed and managed charging. The non-managed charging profile assumes that drivers are not sensitive to price signals or rate schedules and charge their vehicles whenever more charge is needed. The managed charging profile was developed based on driving data from the National Highway Traffic Safety Administration ("NHTSA") and an assumption that time-of-use pricing or other programs would be in place to incentivize most customers to shift electric vehicle charging away from peak load hours.

Figures 1 and 2 show the hourly residential non-managed and managed charging profiles, respectively. Figures 1 and 2 also show the comparison of the respective average hourly charging profiles on a yearly basis, for summer and winter months. The managed charging profile has a much flatter load profile and significantly reduces the impact of EVs on peak demand hours in the late afternoon and early evening. Even though the charging demand of a light-duty EV can reach maximums between 1.2-1.4kW (level-1) and 3.3-19.2 kW (level-2),[9] the actual average demand is lower as there are many hours where the EVs are not charging. For EPE's long-term light-duty EV forecast conducted in 2022, non-managed charging was assumed through 2026, while from 2027 forward the managed charging profile was assumed. This assumption was made as, over time, it is expected that most of EPE's customers that own an EV will enroll in time-varying rates that incentivize off-peak charging. In EPE's 2023 long-term light-duty EV forecast, a combination of non-managed and managed charging profiles will be utilized simultaneously from 2024 forward as this will better reflect the transition of EV customers from non-managed charging to managed charging programs as they become available for EPE's customers.

[9] M. Nicholas, D. Hall and N. Lutsey. The International Council on Clean Transportation. Quantifying the Electric Vehicle Charging Infrastructure Gap Across U.S. Markets. Jan 2019. <https://theicct.org/sites/default/files/publications/US_charging_Gap_20190124.pdf>

Figure 1. Average Light-Duty EV Residential Non-Managed Charging Profiles.

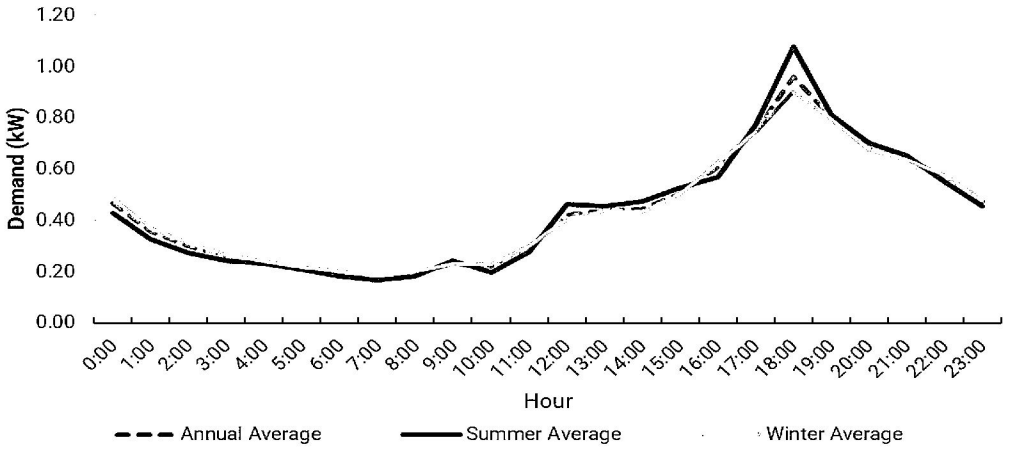
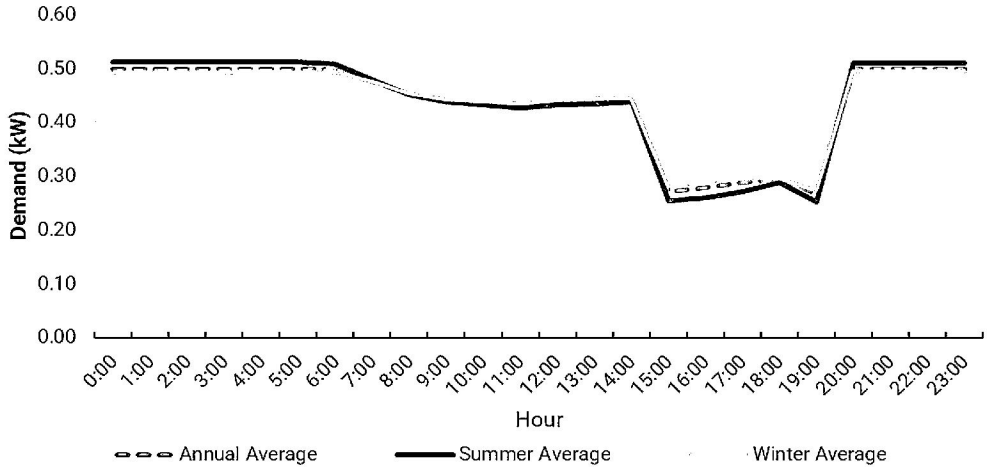


Figure 2. Average Light-Duty EV Residential Managed Charging Profiles.



Q25. HAS EPE ALSO DEVELOPED A LONGER-TERM ENERGY AND DEMAND FORECAST RELATED TO THE POTENTIAL IMPACT OF LIGHT-DUTY EVS ON THE EPE SYSTEM?

A. Yes. Figures 3 and 4 show EPE's light-duty EV energy (MWh) and demand (MW) forecast through 2035. Figure 3 also provides a comparison of EPE's light-duty EV forecast where unmanaged charging is available. This comparison is to show the growth of demand if no managed charging is available and the potential impacts it can have on EPE's system. EPE estimates that on average each additional light-duty EV consumes approximately 3,825 kWh per year. Although the movement towards managed charging does not have a significant impact on total kWh consumption, there is a significant impact on demand. As

seen in Figure 4, the energy requirements are the same for both scenarios; however, as seen in Figure 3, the magnitude of the demand is substantially greater for the case where unmanaged charging occurs.

Figure 3. Light-duty EV Demand (MW) Forecast 2023-2035.

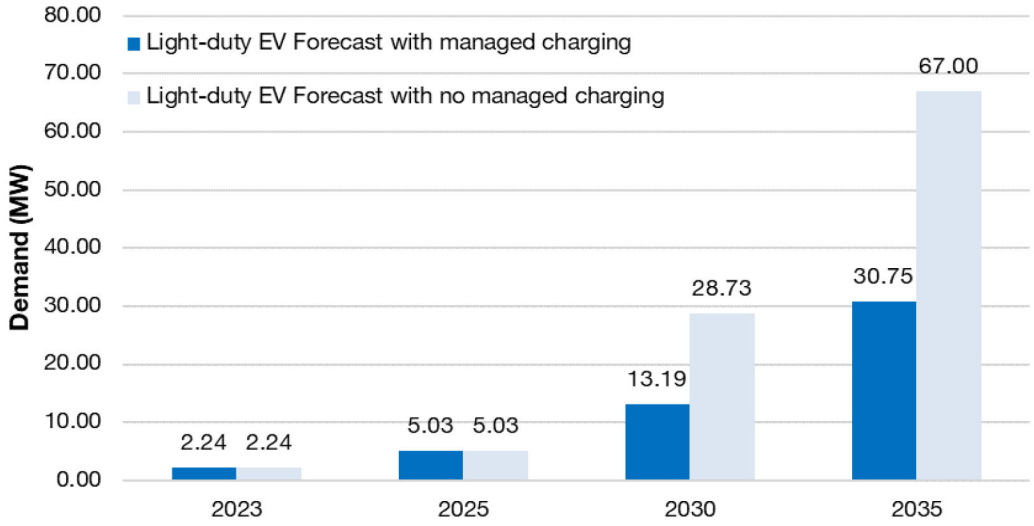
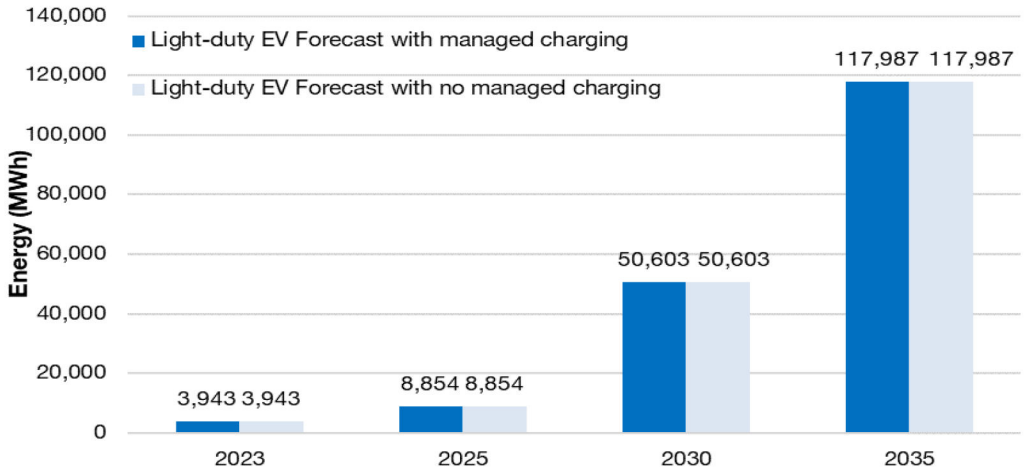


Figure 4. Light-duty EV Energy (MWh) Forecast 2023-2035.



Q26. DOES EPE EMPLOY THESE ELECTRIFICATION FORECASTS FOR ITS NATIVE SYSTEM PLANNING?

A. Yes. Currently EPE adjusts its native system load forecast to account for both light and medium-duty electric vehicles. Above, I highlight only light-duty electric vehicle growth

because it is the vehicle class that is expected to show significant load growth in the near term, which is during the life of this proposed pilot program.

Q27. IS THIS THE ONLY TYPE OF ELECTRIFICATION LOAD EPE EXPECTS IN FUTURE YEARS?

A. No. Electrification load is expected to come from a variety of areas, such as light-duty, medium-duty, and heavy-duty vehicles. Electrification load may also grow in other sectors, such as manufacturing or in transportation (non-buses).

Q28. WHAT OTHER ELECTRIFICATION LOADS DOES EPE FORECAST?

A. In addition to light-duty EV forecast, EPE also produces forecasts for medium and heavy-duty EVs. The market for medium and heavy-duty EV is still relatively small when compared to light-duty EVs. As of December 2021, there were 6,317 medium and heavy-duty EVs in circulation in the U.S. of which 5,102 were heavy-duty transit/school buses and 801 medium-duty trucks/vans.[10] To put this number into perspective, 918,464 light-duty EVs were sold in the U.S. from January through December 2022.[11] With respect to EPE's Texas service territory, 50 electric transit vehicles (medium-duty) and 25 electric buses (heavy-duty) are expected to be acquired by local school districts and transit agencies between 2023-2024, with a potential for an additional 30+ electric buses between 2024-2025 from other entities.

Early adoption of medium and heavy-duty EVs has focused on regional haul and urban delivery. The reasons for these specific areas are: 1) transportation routes are shorter requiring lower battery capacity; 2) predefined schedules and routes allow for optimized charging; and 3) the current high-power charging network along major long-haul corridors is very limited. Although the current stock of medium and heavy-duty EVs in the U.S. and EPE's service territory is limited, there are various policy initiatives nationwide such as the Inflation Reduction Act of 2022, coupled with growing interest in low/zero-emissions

[10] Medium- and Heavy-Duty Vehicle Electrification Market Data, Atlas Public Policy EV Hub, accessed November 2, 2022, <https://www.atlasevhub.com/materials/medium-and-heavy-duty-vehicleelectrification/.>

[11] Argonne National Laboratory (ANL), Energy Systems Division. Light Duty Electric Drive Vehicles Monthly Sales Updates, accessed January 17, 2023. <https://www.anl.gov/es/light-duty-electric-drive-vehicles-monthly-sales-updates>

medium and heavy-duty trucks from major transportation and logistics companies that suggests an increase in medium and heavy-duty EV adoption in the near future.

The El Paso region is considered an international major transportation hub, where advanced logistics is a key industry with trucking transportation as one of the major components of this industry. As such a transportation hub, EPE expects that, as medium and heavy-duty EVs evolve and achieve price parity with diesel/gasoline-run commercial vehicles, they will become an integral part of trucking fleets in EPE's service territory.

Q29. HOW WILL THE PROPOSED EV-READY PILOT PROGRAMS ASSIST EPE IN STUDYING THE IMPACT OF EVS ON FUTURE EPE RESOURCE PLANNING?

A. The proposed EV-Ready Pilot Programs will assist EPE in examining how EV programs affect the efficiency of system generation resources, analyzing potential demand impacts as EV adoption increases, evaluating the potential to help improve system operational flexibility (especially with regard to integration of variable resources), and improving system generation resource utilization during off-peak hours. For example, in a technical report prepared by the Pacific Northwest National Laboratory ("PNNL"), it was found that EV charging load could reduce renewable curtailments. Furthermore, the PNNL study found that EV managed charging has significant operational benefits in solar-rich areas where it can reduce the "duck curve" by reducing the coincident peak and the ramp requirements in the evening when the sun sets.[12] EPE regularly reviews and considers studies developed by the U.S. Department of Energy such as the PNNL study in developing its forecasts of loads and resources.

VI. Program Budgets

Q30. PLEASE SUMMARIZE THE PROPOSED BUDGETS FOR THE TEXAS EV-READY PILOT PROGRAMS.

A. EPE's proposed two-year budget for the Texas EV-Ready Pilot Programs is $11,283,547.00. The budget for each program is summarized in Table 1 below.

[12] Pacific Northwest National Laboratory, Electric Vehicles at Scale – Phase I Analysis: High EV Adoption Impacts on the Western U.S. Power Grid, Technical Report, July 2020. <https://www.pnnl.gov/sites/default/files/media/file/EV-AT-SCALE_1_IMPACTS_final.pdf>

Table 1. Proposed Budget for Texas EV-Ready Pilot Programs.

Program	Total Estimated Costs
EV Smart Rewards Pilot Program	$804,947
PowerConnect Pilot Program	$3,095,950
Take Charge TX Pilot Program	$7,382,650
Total 2-year Texas EV-Ready Pilot Program Costs	$11,283,547

The WHEV does not have a specific budget because it is not expected to require any material incremental costs to implement.

Q31. HOW DID EPE DETERMINE THE PROPOSED BUDGET FOR THE EV SMART REWARDS PILOT PROGRAM?

A. EPE conducted a review of a managed charging incentive design guide for utilities, developed by the Smart Electric Power Alliance ("SEPA") and determined the incentive structures for customers that enroll in this program. EPE also issued a Request for Proposals ("RFP") for software and/or services that will enable the implementation of the EV Smart Rewards Pilot Program. Please see the direct testimony of EPE witness Rodriguez for more detail regarding the budget for the program summarized above.

Q32. HOW DID EPE DETERMINE THE PROPOSED BUDGET FOR THE POWERCONNECT PILOT PROGRAM?

A. EPE based the proposed budget on infrastructure upgrade costs from similar EV charging infrastructure projects requested by EPE customers. Please see the direct testimony of EPE witness Rodriguez for more detail regarding the budget for the program summarized above.

Q33. HOW DID EPE DETERMINE THE PROPOSED BUDGET FOR THE TAKE CHARGE TX PILOT PROGRAM?

A. EPE based the incentives on infrastructure upgrade costs from EV charging infrastructure projects requested by EPE customers and industry reports for similar infrastructure projects. Please see the direct testimony of EPE witness Rodriguez for more detail regarding the budget for the program summarized above.

Q34. ARE THESE ESTIMATED COSTS REASONABLE?

A. Yes. As described above, they are based on EPE's experience with similar infrastructure or the approved programs of other utilities.

Q35. HOW IS EPE PROPOSING TO RECOVER THESE COSTS?

A. For the Take Charge Pilot Program, EPE will charge participating customers a monthly fixed fee to recover the full cost of the equipment and services provided to the customer and avoid financial impact to EPE's non-participating customers. Please refer to EPE witness Carrasco's direct testimony regarding the development and applicability of the monthly fixed fee.

EPE is not currently seeking cost recovery of either the EV Smart Rewards or PowerConnect pilot programs in this filing but may address cost recovery in future rate proceedings.

VII. Conclusion

Q36. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

DOCKET NO. _____

APPLICATION OF EL PASO ELECTRIC COMPANY FOR APPROVAL OF ITS TEXAS ELECTRIC VEHICLE-READY PILOT PROGRAMS AND TARIFFS	§ § § § §	PUBLIC UTILITY COMMISSION OF TEXAS

DIRECT TESTIMONY

OF

ANGELINA RODRIGUEZ

FOR

EL PASO ELECTRIC COMPANY

JANUARY 31, 2023

TABLE OF CONTENTS

SUBJECT		PAGE
I.	INTRODUCTION AND QUALIFICATIONS	1
II.	PURPOSE OF TESTIMONY	2
III.	SUMMARY OF PROPOSED TEXAS EV-READY PILOT PROGRAMS	3
IV.	EV CHARGING INFRASTRUCTURE IN EPE'S TEXAS SERVICE TERRITORY	6
V.	MARKET RESEARCH AND CUSTOMER INPUT	10
VI.	EV SMART REWARDS PILOT PROGRAM	13
VII.	POWERCONNECT PILOT PROGRAM	16
VIII.	TAKE CHARGE TX PILOT PROGRAM	18
IX.	SUMMARY AND CONCLUSION	22

EXHIBITS

AR-1 – Customers' Letters of Support
AR-2 – Public Charging Infrastructure in EPE's Texas Service Territory
AR-3 – Resolutions Passed by the NARUC Board of Directors
AR-4 – EV Smart Rewards Pilot Program Tariff
AR-5 – PowerConnect Pilot Program Tariff

I. Introduction and Qualifications

Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Angelina Rodriguez. My business address is 100 N. Stanton Street, El Paso, Texas 79901.

Q2. HOW ARE YOU EMPLOYED?

A. I am employed by El Paso Electric Company ("EPE" or the "Company") as the Supervisor of Electrification.

Q3. PLEASE SUMMARIZE YOUR EDUCATIONAL AND PROFESSIONAL QUALIFICATIONS.

A. I have been the Supervisor of EPE's Electrification Team since April 2022. Prior to this position, I was a Senior Project Manager in EPE's Emergent Technologies and Innovation Department in charge of development and implementation of the Company's transportation electrification projects for approximately two years.

I began my career in 2013 as an Associate in EPE's Corporate Development Department where I was responsible for the Company's process improvement initiatives as well as coordination of Distributed Generation ("DG") interconnection processes. I was then promoted to the role of a Project Manager where I was responsible for the successful implementation of the Texas Community Solar Program and EPE's Demand Response Pilot Programs in both the Texas and New Mexico jurisdictions. In this role, I was also responsible for keeping track of the Company's Renewable Energy Credits ("RECs") for meeting New Mexico Renewable Portfolio Standard ("RPS") requirements and assisting with preparation of the annual RPS reports.

I was awarded a Master of Business Administration in Finance with Honors from The University of Texas at El Paso in 2015 and a Graduate Certificate in Public Utilities Regulation and Economics ("PURE") from New Mexico State University in 2018. I also earned my Project Management Professional ("PMP") certification from the Project Management Institute in 2015. My volunteer work includes serving as a Vice President of Rio Grande Electric Auto Association and on the Board of Directors of the National Electric Vehicle Association.

Q4. PLEASE DESCRIBE YOUR CURRENT RESPONSIBILITIES WITH EPE.

A. As the Supervisor of Transportation Electrification, I lead the development of the Company's transportation electrification strategies, initiatives, and projects. In my role, I provide oversight and assistance to the EPE Electrification Team related to pilot program development and implementation, customer outreach initiatives, technical evaluations, and implementation of new technology solutions in the Company's business operations.

Q5. HAVE YOU PREVIOUSLY PRESENTED TESTIMONY BEFORE UTILITY REGULATORY BODIES?

A. No.

II. Purpose of Testimony

Q6. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to support EPE's Application for Approval of its Texas Electric Vehicle ("EV")-Ready Pilot Programs and Tariffs. In my testimony, I provide a summary of recent developments with regard to transportation electrification and customer input EPE has received regarding EVs, both of which informed EPE's preparation of the EV-Ready Pilot Programs. I also summarize the proposed pilot programs and describe how the programs are responsive to input the Company has received from its customers regarding transportation electrification. Further, my testimony provides additional details regarding three of the four proposed pilot programs: (1) EV Smart Rewards Pilot Program; (2) PowerConnect Pilot Program, and (3) Take Charge TX Pilot Program.

Q7. ARE YOU SPONSORING ANY EXHIBITS IN YOUR TESTIMONY?

A. Yes. I am sponsoring the following exhibits, which are attached to this testimony:

- Exhibit AR-1: Customers' Letters of Support;
- Exhibit AR-2: Public Charging Infrastructure in EPE's Texas Service Territory;
- Exhibit AR-3: Resolutions Passed by the NARUC Board of Directors;
- Exhibit AR-4: EV Smart Rewards Pilot Program Tariff; and
- Exhibit AR-5: PowerConnect Pilot Program Tariff.

Q8. WERE THE EXHIBITS YOU ARE SPONSORING PREPARED BY YOU OR UNDER YOUR DIRECT SUPERVISION?

A. Yes.

III. Summary of Proposed Texas EV-Ready Pilot Programs

Q9. PLEASE SUMMARIZE EPE'S PROPOSED TEXAS EV-READY PILOT PROGRAMS.

A. EPE's Texas EV-Ready Pilot Programs include the following proposed portfolio of programs and rate options. Each program is voluntary and available to eligible customers as specified in the relevant tariffs:

- *EV Smart Rewards Pilot Program* is a managed EV charging program for residential customers that is designed to enable EPE to evaluate customers' acceptance of utility-managed EV charging and the efficiency of such programs to optimize the use of existing infrastructure and minimize the required investment in additional infrastructure.
- *PowerConnect Pilot Program* is a rebate program for non-residential customers who are installing EV charging infrastructure on their premises that will help reduce the upfront cost of upgrades or improvements to EPE's distribution system, up to the utility meter, that are needed to support service to the EV charging infrastructure.
- *Take Charge TX Pilot Program* is a program for non-residential customers where the customer can choose the desired EV infrastructure and equipment that could be purchased, installed and operated by EPE, in whole or part, including a fully turnkey solution, to mitigate the challenge of managing EV charging stations installation and maintenance for the customer. Customers will be responsible for the full cost of the equipment and services provided through a monthly fixed fee added to their bill during the term of the pilot program agreement.
- *Whole House EV ("WHEV") Pilot Incentive Credit Rider* is a program that will help residential customers save money on their electric bill if they shift EV charging to the overnight/early morning hours of midnight to 8 a.m.

In my testimony, I discuss in detail the first three pilot programs summarized above. Please see the direct testimony of EPE witness Manuel Carrasco for details regarding the

proposed WHEV Pilot Incentive Credit Rider tariff schedule and the proposed Schedule No. TCTX-Take Charge TX Pilot Program tariff.

Q10. PLEASE SUMMARIZE THE RECENT DEVELOPMENTS REGARDING TRANSPORTATION ELECTRIFICATION THAT SHAPED THE PREPARATION OF EPE'S PROPOSED EV-READY PILOT PROGRAMS.

A. In 2019, in light of the growth of the EV sector, customer inquiries, and requirements of legislation in New Mexico,[1] EPE began researching the EV programs and initiatives developed by other utilities, conducting industry research, and analyzing the EV market and charging infrastructure availability in its New Mexico and Texas service territories.

In December 2020, EPE filed an application for approval of its initial Transportation Electrification Plan ("TEP") for its New Mexico customers with the New Mexico Public Regulation Commission. EPE received approval of the TEP on November 12, 2021. EPE launched its New Mexico TEP programs on January 1, 2022. EPE's New Mexico TEP programs include rebate programs for charging stations and installation, pilot rate options such as the WHEV Rate Rider Incentive Credit, and a customer outreach program. EPE is authorized to recover its NM TEP program expenses through a TEP Cost Rider. EPE is authorized to record TEP costs for the first year of the TEP in a regulatory asset as they occur.

Upon conclusion of the New Mexico proceeding, EPE increased its attention to finalizing development of EV pilot programs for its Texas retail service area. Meanwhile, however, in November 2021, the federal Infrastructure Investment and Jobs Act ("IIJA")[2] was enacted, increasing the U.S. commitment to the electrification of the transportation sector with $7.5 billion for a nationwide network of EV charging stations and an additional $5 billion for low-carbon and zero-emission school buses. Under the IIJA, the U.S. Department of Transportation's Federal Highway Administration ("FHWA") National Electric Vehicle Infrastructure ("NEVI") Formula Program will provide funding to states to strategically deploy EV charging stations and to establish an interconnected network to

[1] See NMSA 1978, Section 62-8-12, which became effective on June 14, 2019, in New Mexico.
[2] For a copy of the act, please see https://www.congress.gov/bill/117th-congress/house-bill/3684.

facilitate data collection, access, and reliability. Funding is available for up to 80% of eligible project costs.

Pursuant to the NEVI Formula Program, the Texas Department of Transportation ("TxDOT"), in conjunction with the Texas Commission on Environmental Quality and the State Energy Conservation Office, developed the Texas Electric Vehicle Infrastructure Plan,[3] which was approved by the FHWA on September 27, 2022. The multi-year plan will focus on interstate routes first, with off-interstate routes and urban areas to be addressed in the following years. During Year One, TxDOT will focus on building out the Electric Alternative Fuel Corridors ("EAFC") to meet FHWA guidance, targeting 55 new locations that will complement the existing 27 locations. TxDOT has identified two locations in EPE's service territory, Fort Hancock and Sierra Blanca, for installation of four Direct Current Fast Charging ("DCFC") plugs at each location. During Year Two and beyond (or after EAFC are completed), TxDOT will focus on rural counties, small urban areas, and Metropolitan Planning Organizations ("MPOs") territories.

Further, in August 2022, the federal Inflation Reduction Act[4] was enacted, under which federal tax credits will be available not only for new electric vehicles but also for used electric vehicles. Additionally, the act extended tax credits for new light-duty EVs and for charging equipment through 2032. Commercial EVs will also be eligible for federal tax credits for the first time ever, up to 30% of the sales price up to $7,500 for vehicles with a Gross Vehicle Weight Rating ("GVWR") of less than 14,000 pounds and up to $40,000 for GVWR of 14,000 pounds or greater. The law allocates $3 billion for electrifying the United States Postal Service fleet, including vehicles and charging infrastructure, and $1 billion to states, municipalities, Indian tribes, or non-profit school transportation associations to replace certain heavy-duty vehicles with clean EVs. The law also includes provisions of support for EV manufacturing and supply chains.

Q11. HOW WERE THESE RECENT DEVELOPMENTS CONSIDERED AS EPE PREPARED ITS PROPOSED EV-READY PILOT PROGRAMS?

[3] For a copy of the Texas plan, please see https://www.txdot.gov/projects/projects-studies/statewide/texas-electric-vehicle-planning-03-22-22.html.

[4] For a copy of the act, please see https://www.congress.gov/bill/117th-congress/house-bill/5376/text.

A. Throughout 2022, EPE worked on developing pilot programs for its Texas service area that would align with the federal programs, state plans, and customer input. Accordingly, EPE reviewed and considered the programs and plans described above and engaged in additional conversations with its local stakeholders and customers in Texas that are interested in the installation of charging infrastructure at their facilities, such as local school districts, transit authorities, universities, colleges, apartments, hospitals, military installations, and local municipalities, which helped the Company identify specific customer interests and needs in its Texas service territory. EPE developed the proposed TX EV-Ready Pilot Programs specifically to address the needs of its Texas customers, and the customers agree. Please find the letters of support from EPE's school district customers in Exhibit AR-1.

IV. EV Charging Infrastructure in EPE's Texas Service Territory

Q12. PLEASE DESCRIBE THE CHARGING STATIONS THAT ARE CURRENTLY AVAILABLE IN EPE'S TEXAS SERVICE TERRITORY.

A. As of August 2022, there were 88 public charging plugs[5] in EPE's Texas service territory. Please refer to Exhibit AR-2 of my testimony. Most of the charging stations are level 2 stations that can provide approximately 25 miles of range per hour of charge. These level 2 charging stations are generally in areas where customers are expected to spend a few hours of time, such as the airport, retail stores, auto dealerships, parking garages, gyms, and hotels. There are also a few locations with DCFC stations, also referred to as level 3 charging stations, that can offer approximately 100 to 200+ miles of range per 30 minutes of charging. Those DCFC stations are located along highway corridors.

Q13. ARE ALL OF THESE PUBLIC CHARGING STATIONS AVAILABLE TO ALL EV MAKES AND MODELS?

A. No. Not all charging stations can be used by all vehicle makes and models, with some available exclusively to Tesla vehicles. Of the 88 charging plugs specified above, 63 plugs are currently available to non-Tesla vehicles.

[5] EV charging plug is the connector that is plugged into a vehicle to charge it. A charging station can have one or multiple charging plugs.

Q14. ARE ANY OF THE EXISTING PUBLIC CHARGING STATIONS OWNED AND OPERATED BY EPE?

A. No. However, EPE is working with the City of El Paso and EV charging Original Equipment Manufacturers ("OEMs") on a pilot project to install up to 20 public charging stations within the city limits to improve customer access to EV charging in the region, and gain experience with EV charging stations while taking steps to support the City's efforts in meeting its own sustainability goals.

Q15. HAS THE TXDOT IDENTIFIED A GOAL FOR THE NUMBER OF CHARGING LOCATIONS THAT SHOULD BE DEVELOPED AS A PART OF THE TEXAS EV INFRASTRUCTURE PLAN?

A. Yes, the TxDOT identified the need for 55 alternative fuel corridor locations and 190 locations in county seats in the state of Texas, with a minimum of 4 plugs to be available at each location. For MPO charging development, TxDOT will work with MPOs to determine the exact number and locations of EV stations in later phases of the plan. However, as indicated below, the charging infrastructure that is planned and funded through Texas EV Infrastructure plan will be insufficient to meet the needs of Texas customers.

Q16. DOES THE UNITED STATES DEPARTMENT OF ENERGY HAVE A TOOL FOR PROJECTING EV INFRASTRUCTURE NEEDS IN AN AREA?

A. Yes.

Q17. PLEASE DESCRIBE THE DEPARTMENT OF ENERGY TOOL AND ITS RESULTS WITH REGARD TO THE CHARGING INFRASTRUCTURE NEEDED TO ACCOMMODATE THE FORECASTED INCREASE IN EV ADOPTION IN THE EPE TEXAS SERVICE AREA.

A. The Department of Energy ("DOE") Electric Vehicle Infrastructure Projection Tool ("EVI-Pro") Lite[6] estimates EV charging infrastructure needs based on a given estimated

[6] For a copy of the tool please see https://afdc.energy.gov/evi-pro-lite.

number of EVs. EPE evaluated the availability of public charging infrastructure in its Texas service territory using EVI-Pro Lite based on EPE's estimate that there will be 8,854 EVs in the EV service area by the end of 2025 and concluded that existing infrastructure will not be sufficient to meet customer needs through 2025, as summarized in **Table 1** below.

Table 1: *Charging Plug Requirements for Projected Number of Light-Duty EVs*

Types of Charging Plugs	Plugs Needed in 2025	Existing Non-Tesla Plugs Available	Additional Non-Tesla Plugs Needed in 2025
Workplace	192	8	184
Public Level 2	150	54	96
Public DC Fast Charging	27	9	18

Q18. PLEASE EXPLAIN WHY EPE DID NOT COUNT TESLA PLUGS AS AVAILABLE FOR ALL MAKES AND MODELS IN TABLE 1.

A. EPE did not include Tesla charging plugs in the count of available plugs for all makes and models because Tesla charging stations were designed exclusively for Tesla vehicles. For example, currently non-Tesla vehicles cannot use Tesla DCFC stations. Further, to qualify for NEVI funding, federal law requires the Combined Charging System ("CCS") connector used for most American and European vehicles, which is different than the Tesla connector. In November 2022, Tesla announced that it was opening up the Tesla DCFC connector for use by anybody and renaming it the North American Charging Standard ("NACS") thus inviting all makers of charging stations and cars to use their connector, however it is unknown at this time how quickly or whether use of their connector will expand to other car brands.[7]

Q19. HOW MANY EVS DOES EPE ESTIMATE ARE ALREADY PRESENT IN ITS

[7] For a copy of the announcement, please see https://www.tesla.com/blog/opening-north-american-charging-standard.

SERVICE AREA AND WHERE ARE THESE VEHICLES MOST COMMONLY BEING CHARGED?

A. As indicated by Company witness George Novela, EPE estimates that there were approximately 2,555 light-duty EVs owned by customers in its Texas service area as of November 2022. In most instances, these vehicles are being charged daily at the detached, single-family homes of the vehicles' owners.

Q20. PLEASE DESCRIBE THE STATE OF EV CHARGING AT MULTI-UNIT DWELLINGS SUCH AS APARTMENTS BUILDINGS IN THE EPE SERVICE AREA.

A. EPE is aware of only one Multi-Unit Dwelling ("MUDs") in its Texas service area that currently offers EV charging to its tenants, but EPE has received interest from customers and several MUDs for assistance in supporting EV charging at their properties.

Q21. HAS EPE FORECASTED THE NUMBER OF CHARGING PLUGS NEEDED FOR CUSTOMERS THAT RESIDE IN MUDS SUCH AS APARTMENTS?

A. Yes. EPE's Load Research and Data Analytics Department estimates that there will be approximately 750 light-duty EVs at MUDs, by the end of 2025. Please see the Direct Testimony of EPE witness George Novela for more detail. EPE's proposed pilot programs are intended to reach up to 25% (188 charging plugs) of the total estimated forecasted number of light-duty EVs at MUDs.

Q22. DO THE PROPOSED EV-READY PILOT PROGRAMS HELP ADDRESS THE PROJECTED CHARGING INFRASTRUCTURE NEEDS AND SUPPORT CUSTOMERS WHO DECIDE TO TRANSITION TO ELECTRIC VEHICLES?

A. Yes. EPE's proposed EV-Ready Pilot Program would help address the projected charging infrastructure needs and support customers who decide to transition to electric transportation by offering customers programs for their home charging, as well as by offering programs that support public, fleet, MUD, workplace and DCFC infrastructure development in EPE's Texas service territory.

V. Market Research and Customer Input

Q23. PLEASE DESCRIBE EPE'S MARKET RESEARCH REGARDING EPE CUSTOMERS' PERCEPTIONS OF EVs.

A. EPE contracted with a third-party consumer panel provider to survey 470 residential customers, with 74% of respondents being residents of El Paso County, to gauge interest, level of understanding, and familiarity with EVs. The third-party consumer panel provider was further engaged to conduct follow-up focus groups to further understand customer understanding of EVs, existing customer barriers, and customer willingness to transition to EVs in the future. In addition, EPE has directly engaged with its commercial customers to learn about their electrification goals, which further helped develop the proposed Texas EV-Ready Pilot Programs.

Q24. PLEASE SUMMARIZE THE RESULTS OF EPE'S RESIDENTIAL CUSTOMER SURVEY AND OTHER INPUT FROM CUSTOMERS.

A. EPE initiated this initial customer survey to learn about: (1) customer awareness and general perceptions about EVs; (2) EV-owner demographics; and (3) interest in EV ownership. The survey revealed that current EV owners tend to be young adults, with higher income than the general population and with a bachelor's degree. The survey also revealed that forty-five percent of respondents indicated interest in buying an EV in the next two to five years. Following up on the initial survey, in phone conversations, EPE customers expressed that the cost of installing a second meter is cost prohibitive for them to enroll in EPE's existing Electric Vehicle Charging ("EVC") rate and indicated an interest in an additional rate option or load management program.

Q25. WAS EPE ABLE TO IDENTIFY CUSTOMER CONCERNS REGARDING BARRIERS TO EV ADOPTION BASED ON THESE SURVEY RESPONSES?

A. Yes, the survey responses confirmed that the following are primary customer concerns regarding barriers to EV adoption: (a) low customer awareness and understanding of EVs, (b) the upfront cost of EVs and charging infrastructure, and (c) lack of charging infrastructure, especially for customers who do not have access to home charging, or who travel long distances.

Q26. PLEASE SUMMARIZE COMMERCIAL CUSTOMERS' INPUT.

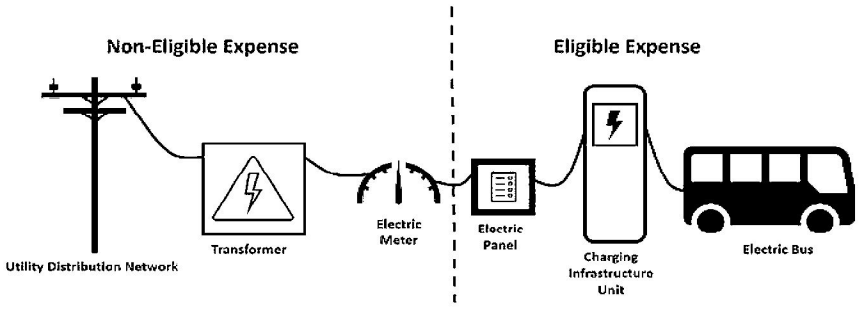
A. EPE directly engaged in conversations with its local stakeholders and customers interested in the installation of charging infrastructure at their facilities, such as local school districts, transit authorities, universities, colleges, apartments, hospitals, the military, and local municipalities, which helped the Company identify specific customer needs and develop pilot programs that address those needs. In particular, these customers indicated that barriers to further EV charging infrastructure development include a lack of upfront capital to cover the cost of equipment, installation, and utility infrastructure upgrades, limited knowledge about EV charging equipment options, and lack of time to conduct project management activities needed for installation of EV charging infrastructure at their facilities. For example, as further described below, school districts interested in electrification of school buses that have applied for 2022 Clean School Bus Program[8] with the Environmental Protection Agency ("EPA"), or intend to apply in the future program years, discovered that the EPA's funding does not cover any utility-side of the meter upgrades that may be needed to support the installation of charging stations. Also, several owners and managers of MUD facilities, such as apartments, have expressed to EPE that their tenants are asking for EV charging infrastructure on their properties, but apartment owners do not have the expertise on how to select, install and manage charging infrastructure at their facilities, making it difficult to meet customer needs.

Q27. WHAT OTHER FACTORS DID EPE CONSIDER WHEN DEVELOPING ITS EV-READY PROGRAMS?

A. EPE also considered availability of federal funding, to ensure EPE's proposed programs will supplement and not duplicate other funding sources. For example, EPE's PowerConnect Pilot program was designed to supplement the available EPA's Clean School Bus Program. As noted above, EPA's program currently only provides funding for school buses, charging stations, and installation on the customer-side of the meter, but does not offer school districts funding for utility-side of the meter upgrades as shown in the Figure 1 below.

[8] For a description of the program, please see https://www.epa.gov/cleanschoolbus.

Figure 1. 2022 Clean School Bus Program with EPA[9]



Additionally, utilities that are a part of the Edison Electric Institute ("EEI") were asked to support the NEVI program with make-ready support, such as EPE's proposed PowerConnect Pilot Program, that can help supplement federal dollars dedicated to state DOTs' NEVI plans for building EV fast charging infrastructure along highway corridors. Federal funding for the NEVI program is supporting 80% of the project costs, with a need for additional 20% of funding, which EPE proposes to support through the proposed PowerConnect Pilot Program or Take Charge TX program.

Further, as noted above, TxDOT received an approval of the Texas NEVI plan on September 27, 2022, targeting eight plugs at two locations within EPE's Texas service territory for installation of DCFC stations in the next two years. After completing DCFC installations, TxDOT will be working with El Paso MPO on planning additional EV charging infrastructure which will also require supplemental funding from private sector.

Moreover, in a recent resolution regarding the urgency of transportation electrification, the National Association of Regulatory Utility Commissions ("NARUC") recommended that state DOTs, federal and State officials work with utilities to ensure that new investments are coordinated with existing programs and minimize costs, and for state DOTs to ensure NEVI program will provide funding for EV infrastructure deployment, in partnership with utilities and other stakeholders. Please refer to exhibit AR-3 for a copy of Resolutions Passed by the NARUC Board of Directors at the November 13-16, 2022 Annual Meeting and Education Conference.

[9] See https://nepis.epa.gov/Exe/ZyPDF.cgi/P1014WNH.PDF?Dockey=P1014WNH.PDF, Program Guide, page 17 of 18.

Q28. ARE EPE'S EV-READY PILOT PROGRAMS DESIGNED TO ADDRESS CUSTOMERS' INPUT?

A. Yes.

Q29. HOW ARE THE COMPANY'S PROPOSED EV-READY PILOT PROGRAMS DESIGNED TO ADDRESS CUSTOMER INPUT?

A. As further described below, all the proposed EV-Ready Pilot Programs were designed to address customer input. For example, the EV Smart Rewards pilot program, as well as the WHEV Pilot Incentive Credit Rider, will address residential customers' concerns about the cost of installing the second meter that is required to meter EV charging under the Company's existing Schedule No. EVC. Neither the smart charging program nor the WHEV Pilot Incentive Credit Rider program would require installation of a second meter.

The proposed PowerConnect Pilot Program will help address the need for supplemental funding for local school districts, TxDOT's NEVI program, as well as help reduce the cost of utility-side of the meter upgrades for local municipalities, fleets, MUDs, and other commercial customers looking to install charging infrastructure for their employees, tenants or public.

Additionally, for commercial customers whose primary concern is the upfront cost and ongoing management of EV charging infrastructure and equipment, the proposed Take Charge TX Pilot Program will offer a flexible solution to align with customer-selected equipment and maintenance preferences, up to a full turnkey solution, with a monthly charge over the term of the program agreement with the customer.

VI. EV Smart Rewards Pilot Program

Q30. PLEASE DESCRIBE THE EV SMART REWARDS PILOT PROGRAM.

A. The EV Smart Rewards Pilot program will be a voluntary program that engages EPE's residential customers in active EV charging management directly through the customer's vehicle or EV charging station. Please see Exhibit AR-4 for a copy of the proposed EV Smart Rewards Pilot Program tariff.

Q31. WHAT IS THE OBJECTIVE OF THE EV SMART REWARDS PILOT PROGRAM?

A. The objective of the proposed program is to evaluate customers' acceptance and efficacy of utility-managed EV charging with minimal to no impact to customer's driving behavior, to reduce adverse grid impacts related to unmanaged charging in order to optimize the use of existing infrastructure and minimize required investment in additional infrastructure. This program will help EPE evaluate the effectiveness of several managed charging strategies such as (a) reduction of EV charging impacts on the electric grid during peak hours, (b) mitigation of a new load spike after current peak hours (also referred to as a "timer peak"), (c) evaluation of the potential to absorb excess renewable energy or energy during low carbon hours; d) ability to increase customer engagement with the utility and help customers control charging costs.

Q32. WHAT ARE THE ELIGIBILITY REQUIREMENTS FOR THE EV SMART REWARDS PILOT PROGRAM?

A. EPE customers will be able to enroll in the EV Smart Rewards Pilot Program if (a) the customer has a qualifying vehicle with telematics capabilities; or (b) the customer will be using a qualifying networked charging station.

Q33. WHAT INCENTIVES WILL EPE OFFER TO CUSTOMERS TO ENROLL IN THE SMART REWARDS PILOT PROGRAM?

A. For eligible customers, this program will offer a one-time enrollment incentive of $125, with an additional annual incentive of $50 for customers that allow EPE to schedule at least 80% of their monthly charging each month during off-peak periods. All participating customers will have an opportunity to earn additional rewards for participating in low carbon or other demand response events, with an incentive of $1/event with a maximum cap at $5/month. Please refer to Exhibit AR-4 for a copy of the EV Smart Rewards Pilot Program tariff.

Q34. HOW WERE THE LEVELS OF THE INCENTIVES DEVELOPED?

A. To develop incentive levels that could reasonably be expected to achieve the targeted level of participation, EPE reviewed the EV Managed Charging Incentive Design guide which

was developed by Smart Electric Power Alliance ("SEPA").[10] SEPA assessed approximately forty managed charging programs across a variety of customer segments to identify how utilities are designing their program incentive structures and the value of incentives to their customers. A summary of their findings included the data on enrollment incentives ranging from $25 to $450, with a median incentive being $125. The same resource provided guidance on a typical annual incentive ranging from $20 to $250, with median annual incentive value of $50. To determine the incentive amount for low carbon or other demand response events, EPE used its selected vendor's recommendation of $5/month submitted to EPE during competitive Request for Proposal ("RFP") process described below.

Q35. WILL EPE SELECT A VENDOR FOR IMPLEMENTATION OF THE EV SMART REWARDS PILOT PROGRAM THROUGH A COMPETITIVE BIDDING PROCESS?

A. Yes. On July 1, 2022, EPE issued an RFP for software and/or services that will enable the implementation of EV Smart Rewards Pilot Program. EPE received seven proposals. EPE conducted an initial bid screening evaluation, and due diligence evaluation processes to develop a shortlist of four bidders. After reviewing shortlist bidder presentations, EPE selected a vendor and is currently in the contract negotiations process.

Q36. HOW MANY CUSTOMERS DOES EPE PLAN TO ENGAGE IN THIS PROGRAM?

A. EPE will target and allow up to 880 EVs and charging stations in this program, which will represent approximately 10% of forecasted EVs in EPE's service territory by the end of 2025. The program will terminate after two years unless extended in a future proceeding.

Q37. WHAT IS THE TOTAL ESTIMATED COST OF THE PROPOSED EV SMART REWARDS PILOT PROGRAM?

A. The estimated cost of a two-year EV Smart Rewards Pilot Program is $804,947, which includes software, marketing, customer incentives, and incentive processing fees.

[10] A copy of the guide may be reviewed at https://sepapower.org/resource/managed-charging-incentive-design/

Q38. IF THE PROGRAM IS SUCCESSFUL, CAN IT BE EXPANDED TO A LARGER CUSTOMER BASE?

A. Yes, the solution selected as a result of the RFP process can allow EPE to expand the program.

VII. PowerConnect Pilot Program

Q39. PLEASE DESCRIBE THE POWERCONNECT PILOT PROGRAM.

A. Please see Exhibit AR-5 for a copy of the proposed PowerConnect Pilot Program tariff. EPE's proposed PowerConnect Pilot Program will offer a rebate credit to eligible non-residential customers and was designed to help reduce or offset utility-side infrastructure costs for its commercial customers who are installing EV charging equipment, in particular the costs of improvements to the distribution system up to the utility meter (including power lines, metering, transformers, switch gear and other traditional distribution infrastructure) that are needed to support the customers' EV charging equipment. Customers will have an opportunity to procure their own charging equipment and hire their preferred electrical contractor or EV charging installation company, while EPE will provide "utility-side" upgrades at no or reduced upfront cost to the customer. The goal of this program is to be complementary to other available federal programs created through the Infrastructure Investment and Jobs Act, such as the NEVI program for installation of charging stations by Texas DOT and the Clean School Bus program administered by EPA. Please refer to Figure 2 below for a graphical representation of PowerConnect Pilot Program, and its comparison to the current business as usual model.

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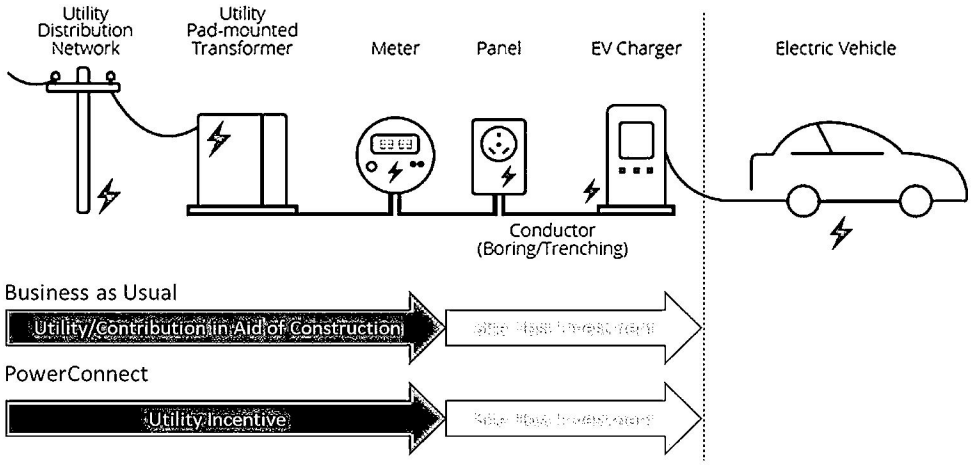
Figure 2. PowerConnect Pilot Program



Q40. WHAT ITEMS ARE NOT ELIGIBLE FOR THE POWERCONNECT PILOT PROGRAM?

A. The ineligible equipment includes customer-side equipment such as: conductors, boring/trenching, panels for stations, EV charging station, network equipment, bollards, signs, lighting, maintenance, network fees, and other customer-side equipment.

Q41. WHAT ARE THE ELIGIBILITY REQUIREMENTS FOR THE POWERCONNECT PILOT PROGRAM?

A. EPE's PowerConnect Pilot Program will be open to all of EPE's commercial customers, including school districts, TxDOT, and MPOs, local municipalities, fleets, MUDs, and businesses looking to install EV charging stations for their fleets, employees, tenants, customers and/or the public. Program enrollments will be processed on the first-come, first-serve basis and will terminate after two years unless extended in a future proceeding. Please refer to Exhibit AR-5 for details on the proposed PowerConnect Pilot Program tariff.

Q42. WHAT INCENTIVES WILL EPE OFFER TO CUSTOMERS THROUGH ITS POWERCONNECT PILOT PROGRAM?

A. EPE will offer commercial customers that plan to install EV charging stations the following incentives per site for utility-side infrastructure upgrades (up to the utility meter):

- Up to $20,000 for MUDs, workplace and public charging projects;

- Up to $100,000 for fleet charging projects; and
- Up to $200,000 for DCFC projects.

Q43. HOW WERE THESE UPGRADE REBATE INCENTIVES DETERMINED?

A. The maximum available rebate credit amounts per site were determined using EPE's infrastructure upgrade cost estimates from similar EV charging infrastructure projects requested by EPE customers and are consistent with incentives seen in other utilities' programs as shown in the Table 1 below.

Table 1. Utilities' Rebate Credit Levels

Utility	DCFC	Level 2
EPE	Up to $200,000	Up to $20,000
PSEG[11]	$205,623-$529,302	$30,366
Eversource[12]	$150,000	$20,000

Q44. WHAT IS THE TOTAL ESTIMATED COST OF THE POWERCONNECT PILOT PROGRAM?

A. The estimated cost of a two-year program is $3,095,950.

Q45. IS THERE A MAXIMUM INCENTIVE PER ENTITY?

A. Yes, no more than 20% of the overall PowerConnect Pilot Program budget will be available to any one entity.

VIII. Take Charge TX Pilot Program

Q46. PLEASE DESCRIBE THE TAKE CHARGE TX PILOT PROGRAM.

A. The proposed Take Charge TX Pilot Program is a flexible, voluntary program for non-residential customers where the customer can choose the desired utility-side EV

[11] For the PSEG program, see https://www.psegliny.com/saveenergyandmoney/greenenergy/ev/-/media/67247606BEEE4CC0A6438408ED0348BB.ashx.

[12] For the Eversource program, see https://www.eversource.com/content/docs/default-source/save-money-energy/ct-ev-comprehensive-program-manual.pdf?sfvrsn=9b958f62_6.

infrastructure (e.g., transformer, switch gear, etc.) and customer-side equipment (e.g., panel, charging station, etc.) that could be purchased, installed, and operated by EPE, in whole or part, including a fully turnkey solution, to mitigate the challenge of managing EV charging stations' installation and maintenance for the customer. Customers will be responsible for a monthly fixed fee added to their bill during the term of the pilot program agreement. A copy of the proposed program tariff with the monthly fixed fee percentages is presented in the direct testimony of Company witness Carrasco.

Q47. WHAT ARE THE ELIGIBILITY REQUIREMENTS FOR THE TAKE CHARGE TX PILOT PROGRAM?

A. This program will be open to EPE's non-residential customers, including fleet managers, government agencies, school districts, business owners, military customers, and MUD managers and developers that are interested in placement of EV charging stations and associated equipment on their property. All participants must execute the program agreement. The agreement is attached to the tariff that is included as an exhibit in the direct testimony of EPE witness Carrasco. During the term of the agreement, EPE will be responsible for equipment maintenance and operations to ensure EV equipment continues to be operable.

Q48. WHAT IS THE EXPECTED LIFE OF EV CHARGING EQUIPMENT, AND WHAT HAPPENS TO IT AT THE END OF THAT EXPECTED LIFE?

A. As EPE witness Carrasco discusses in his testimony, EPE is proposing a 10-year expected life of the EV Charging equipment for depreciation purposes. At the end of that expected life, the Company will choose to either remove or abandon in place such equipment.

Q49. CAN A CUSTOMER REQUEST CHANGES TO THE EV INFRASTRUCTURE OR EQUIPMENT AFTER THE COMMENCEMENT OF THE CUSTOMER AGREEMENT?

A. Yes, participating customer may request changes to EV infrastructure or equipment, but all updates and modifications will be subject to a new agreement.

Q50. WHERE ON THE CUSTOMERS PREMISES CAN THE EV CHARGING INFRASTRUCTURE AND RELATED EQUIPMENT BE LOCATED?

A. EPE will conduct a site visit with the customer and offer customer options for installation of EV charging equipment and infrastructure that can meet the customer's needs and minimize the cost of distribution upgrades.

Q51. WILL EPE CONTRACT WITH AN EV CHARGING OEM COMPANY OR A THIRD PARTY TO INSTALL THE CHARGER EQUIPMENT AND INFRASTRUCTURE?

A. Yes. EPE will have a list of prequalified suppliers for both EV charging OEMs and third-party installers. Once the customer reaches out to EPE to express interest in the program, EPE will send an email to a prequalified list of suppliers registered with the Company to request a quote for each project. EPE will present the results of the submitted quotes to the customer to make a final decision on the vendor selection. Customers will have a flexibility to choose the equipment and vendor that meets their needs. However, EPE will have the right to reject projects based on reliability concerns or unreasonable costs.

Q52. WILL THE MARKETING AND EDUCATIONAL MATERIALS FOR THE TAKE CHARGE TX PROGRAM BE VENDOR NEUTRAL?

A. Yes. All marketing and educational materials for the Take Charge Texas program will be vendor neutral.

Q53. WILL INFRASTRUCTURE AND EQUIPMENT INSTALLATION CREATE ECONOMIC OPPORTUNITIES?

A. Yes. EPE anticipates that the installation of EV infrastructure would benefit the local economy through job creation. The EV infrastructure installation and maintenance will require skilled labor to be available in EPE's Texas service territory.

Q54. PLEASE EXPLAIN HOW EL PASO ELECTRIC WILL PROCESS AND HANDLE CUSTOMER SERVICE ISSUES RELATED TO THIS OFFERING.

A. For customers who decide to immediately own the charging station, customer support will be available through their selected EV charging station's OEM. Issues relating to any EV charging station owned by the Company as well as issues related to Company's distribution infrastructure will be handled through existing Company customer service processes.

Q55. ARE THERE ANY REQUIREMENTS FOR AVAILABILITY OF EV CHARGING STATIONS TO PUBLIC?

A. No. Non-residential customers who participate in the program will have the sole discretion on whether to make their charging station(s) available to the general public or only to specific users such as the customer's employees or tenants.

Q56. WHICH ENTITY WILL SET THE PRICING POLICY FOR EV CHARGING STATIONS INSTALLED THROUGH TAKE CHARGE TX PROGRAM?

A. Participating customers will be responsible for setting a pricing policy for EV charging station and may sell electricity per hour, per kWh, as a subscription, or at no cost, at the customer's sole discretion. Under Section 31.002(6)(J)(iv) of the Public Utility Regulatory Act in Texas, an individual or entity offering public access to an EV charger is authorized to request compensation from EV drivers without becoming an electric utility under state law and without subjecting themselves to the Commission's regulatory oversight as a utility.

Q57. WHAT IS THE ESTIMATED TIMING FOR THE AVAILABILITY OF THE TAKE CHARGE TX PROGRAM?

A. The Company is currently working on establishing relationships with EV charging OEMs and local installers in order to be able to offer Take Charge TX program immediately upon the approval from the Commission.

Q58. WHAT IS THE TOTAL ESTIMATED COST OF THE TAKE CHARGE TX PILOT PROGRAM?

A. The estimated cost of a two-year program is $7,382,650.

Q59. HOW WILL THE TAKE CHARGE TX PILOT PROGRAM COSTS BE RECOVERED?

A. Participating customers will be charged a monthly fixed fee on their electric bill for this service to recover the full cost of the equipment and services provided to the customer and avoid financial impact to EPE's non-participating customers. Please refer to EPE witness Carrasco's direct testimony regarding the development and applicability of the monthly fixed fee.

IX. Summary and Conclusion

Q60. PLEASE SUMMARIZE THE PROPOSED COSTS FOR TEXAS EV-READY PILOT PROGRAMS?

A. The proposed budget for the Texas EV-Ready Pilot Programs is $11,283,547. Table 2 below shows the estimated cost for each program component.

Table 2: Proposed Two-Year Budget for Texas EV-Ready Pilot Programs

Program Component	Total Estimated Costs
EV Smart Rewards Pilot Program	$804,947
PowerConnect Pilot Program	$3,095,950
Take Charge TX Pilot Program	$7,382,650
Total 2-year Texas EV-Ready Pilot Program Costs	**$11,283,547**

Q61. PLEASE SUMMARIZE YOUR TESTIMONY.

A. EPE's TX EV Ready Pilot Programs were designed to support regional transportation electrification initiatives pursued by EPE's customers, address current and future charging infrastructure gaps, while helping evaluate customer's responsiveness to special rate options and advanced load control programs. All proposed pilot programs were designed using residential and commercial customers' input and will provide EPE with helpful and necessary information about how EV customers are charging. This type of information will be crucial to better plan and help manage EV load in a manner that better utilizes EPE's infrastructure and in turn helps reduce costs for its customers.

Q62. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

"A" RATED
THE DISTRICT
YSLETA INDEPENDENT SCHOOL DISTRICT

Ysleta Independent School District
9600 Sims Dr | El Paso, TX | 79925 | 915-434-0000

November 16, 2022

Angie Rodriguez
Supervisor of Electrification
El Paso Electric Company

RE: El Paso Electric Texas Electric Vehicle Ready Pilot Program Application

To Whom It May Concern:

Ysleta Independent School District ("ISD") is excited to support the El Paso Electric's ("EPE's") application for approval of its Texas Electric Vehicle ("EV") Ready Pilot Programs, in particular the proposed PowerConnect Pilot Program designed to supplement the Environmental Protection Agency's ("EPA's") Clean School Bus Program funding with rebates for upgrades to EPE's distribution system for the purpose of supporting EV charging infrastructure installation for all-electric school buses. Ysleta ISD is a large urban school district serving over 35,000 students with daily school bus transportation.

EPE's proposed PowerConnect Pilot Program could assist local school districts with reduction of utility upgrade costs, not covered by EPA grant, thus providing a significant assistance during ISDs' transition to no emission school buses in an effort to combat climate change and protect our children. This project brings together public and private interests to help accelerate the transition to electrification and promote our region's sustainability. Thank you for your consideration and please feel free to reach me at 915-434-0032 if you have any questions.

Sincerely,

Xavier De La Torre, Ed.D.
Superintendent of Schools
Ysleta Independent School District

SOCORRO INDEPENDENT SCHOOL DISTRICT
Office of the Superintendent
District Service Center • 12440 Rojas Dr. • El Paso, Texas 79928-5200 • Phone 915-937-0000 • Fax 915-851-7572 • www.sisd.net

December 7, 2022

Angie Rodriguez
Supervisor of Electrification
El Paso Electric Company

RE: El Paso Electric Texas Electric Vehicle Ready Pilot Program Application

To Whom It May Concern:

Socorro Independent School District is excited to support the El Paso Electric application for approval of its Texas Electric Vehicle (EV) Ready Pilot Programs. The proposed PowerConnect Pilot Program is designed to supplement the Environmental Protection Agency (EPA) Clean School Bus Program funding with rebates for upgrades to El Paso Electric's distribution system for the purpose of supporting electric vehicle charging infrastructure installation for all-electric school buses.

Socorro ISD received a notice of grant award on October 25, 2022. The reserved funds include $9,375,000 for twenty-five (25) new electric buses and $500,000 for eligible charging infrastructure, which does not cover any costs of utility-side infrastructure upgrades. El Paso Electric's proposed program will help Socorro ISD with reduction of utility upgrade costs that are not covered by the EPA grant, thus, providing significant assistance during our transition to no emission school buses in an effort to combat climate change and protect our children. The El Paso Electric's support is essential to enabling Socorro ISD to proceed with installation of EV charging infrastructure for electric school buses. This project brings together public and private interests to help accelerate the transition to electrification and promote our region's sustainability.

Thank you for your consideration and please feel free to reach me if you have any questions.

Respectfully,

Nate Carman, Ed.D.

Nate Carman, Ed.D.
Superintendent of Schools

Public Charging Infrastructure in EPE's TX Service Territory as of August 2022

Station Name	Street Address	City	State	ZIP	Level 2 - Non-Tesla charging port	Level 2-Tesla ports	DCFC -Non-Tesla charging port	DCFC - Tesla charging port	Total Ports
Days inn – Van Horn	600 E Broadway	Van Horn	TX	79855	0	0	4	0	**4**
Hampton Inn Van Horn Tesla Supercharger	1921 Frontage Rd.	Van Horn	TX	79855	0	0	0	8	**8**
Sun Metro- Mission Valley Terminal	9065 Alameda Ave	El Paso	TX	79907	2	0	0	0	**2**
Courtyard by Marriot El Paso East Tesla Destination	12065 Gateway Blvd W	El Paso	TX	79936	0	3	0	0	**3**
Viva Nissan/ Mission Chevy	1310 N Zaragoza Rd	El Paso	TX	79936	1	0	0	0	**1**
City Municipal Center	7969 San Paulo Drive	El Paso	TX	79907	2	0	0	0	**2**
Walmart 512/ Supercenter	10727 Gateway Blvd West	El Paso	TX	79935	0	0	4	0	**4**
El Paso Automated & Industrial Systems Inc.	10151 Montana Ave	El Paso	TX	79935	4	0	0	0	**4**
The Fountains at Farah	8889 Gateway Boulevard West	El Paso	TX	79925	5	0	0	0	**5**
Cutter Aviation El Paso – Tesla Destination	1771 Shutter Columbia Dr	El Paso	TX	79925	0	2	0	0	**2**

JLR (Jaguar and Rover) El Paso	1148 Airway Blvd	El Paso	TX	79925	2	0	1	0	**3**
Wyndham El Paso	2027 Airway Blvd	El Paso	TX	79925	2	0	0	0	**2**
El Paso International Airport Short Term parking	6701 Convair Road	El Paso	TX	79925	4	0	0	0	**4**
BMW El Paso	6318 Montana Ave	El Paso	TX	79925	2	0	0	0	**2**
Home2 Suites by Hilton El Paso- Tesla Destination	6308 Montana Ave	El Paso	TX	79925	3	0	0	0	**3**
Casa Nissan	5855 Montana Ave	El Paso	TX	79925	1	0	0	0	**1**
Texas Tech University Hospital MSB Station 2	5310 El Paso Dr.	El Paso	TX	79905	1	0	0	0	**1**
DeadBeach Brewery	406 Durango St.	El Paso	TX	79901	0	1	0	0	**1**
Sun Metro Glory Road – 2nd Level	100 E Glory Road	El Paso	TX	79902	1	0	0	0	**1**
Kinective Station 1	1020 Belvidere St	El Paso	TX	79912	2	0	0	0	**2**
Sun Metro Westside	7535 Remcon Circle	El Paso	TX	79912	2	0	0	0	**2**
Rudy's Country Store – Tesla supercharger	6401 South Desert Boulevard	El Paso	TX	79932	0	0	0	8	**8**
Texas Tech University Hospital MOB Station 1	2000B Woodrow Bean	El Paso	TX	79911	5	0	0	0	**5**

	Transmountain Dr								
Kansas Parking Garage	122 N Kansas St.	El Paso	TX	79901	2	0	0	0	**2**
Verizon Wireless	11950 Don Haskins Dr	El Paso	TX	79936	4	0	0	0	**4**
Casa Ford	5815 Montana Ave	El Paso	TX	79925	2	0	0	0	**2**
Sunland Park Chrysler	900 Crockett St.	El Paso	TX	79922	1	0	0	0	**1**
Charlie Clark Nissan	6451 S Desert Blvd.	El Paso	TX	79932	2	0	0	0	**2**
Infiniti of El Paso	6501 S Desert Blvd	El Paso	TX	79932	2	0	0	0	**2**
Best Western El Paso Airport Entrada Hotel	2001 Airway Blvd	El Paso	TX	79925	1	0	0	0	**1**
Weststar Tower Level 2	601 N Mesa St.	El Paso	TX	79901	4	0	0	0	**4**
Totals					**54**	**9**	**9**	**16**	**88**

Resolutions Passed by the NARUC Board of Directors

at the

November 13-16, 2022

Annual Meeting and Education Conference

In New Orleans Louisiana

TABLE OF CONTENTS

I. Committee on Energy Resources and the Environment **Page 3**

ERE- 1 Resolution on the Urgency of Preparing for Widespread Transportation Electrification

Resolution recommends that DOE, DOT, JOET, NASEO, & State DOTs [1] work with NARUC to develop resources/training programs to address issues presented by widespread EV adoption, *e.g.*, timely & efficient federal funding, accommodating growth of EV charging, costs and benefits of EV adoption, deployment of charging infrastructure, and rate design issues; and [2] work with utilities to ensure that new investments are coordinated with existing programs and minimize costs.

II. Water Committee **Page 6**

WTR – 1 Resolution Calling for Permanent Annual Federal Funding for a Low-Income Water and Wastewater Assistance Program

Resolution urges Congress to provide permanent annual funding for a federal low-income water and wastewater assistance program.

WTR – 2 *Resolution Supporting Fair and Equal Customer Access to Federal and State Drinking Water and Wastewater Funding Programs*

Resolution urges Congress and state general assemblies to take steps and make any necessary program modifications in federal and state law to assure that customers served by private utilities have fair and equal access to federal and state water and wastewater programs.

ERE-1 Resolution on the Urgency of Preparing for Widespread Transportation Electrification

Whereas the transition to electric-drive vehicles can provide substantial economic, environmental, and public health benefits for consumers and is a key strategy to decarbonizing the transportation sector for a growing number of States;

Whereas automobile, truck and bus manufacturers have announced plans to offer more than 130 models of electric-drive vehicles by 2026, including more light-duty vehicles as well as fleet vehicles and medium- and heavy-duty trucks, and invest over $330 billion dollars in electrification and associated research and development by 2025, making those vehicles more affordable and increasing their performance;

Whereas numerous States and cities have already taken significant actions and made binding commitments to speed the deployment of charging infrastructure and promote adoption of electric-drive light-, medium-, and heavy-duty vehicles, providing a foundation upon which national actions and collaborations can build;

Whereas many of America's investor-owned electric utilities have partnered with customers from the public and private sector to deploy electric vehicle ("EV") charging infrastructure, educated their customers about the benefits of EVs and fleet electrification, and received approval to implement rates and programs to encourage EV charging in a manner that improves grid utilization and helps integrate intermittent renewable generators, yielding benefits to all electric utility customers;

Whereas the Infrastructure Investment and Jobs Act ("IIJA") allocates $7.5 billion to support deployment of EV charging within communities and along transportation corridors, including the $5 billion National Electric Vehicle Formula ("NEVI") Program—which provides formula grant funds to all 50 States to acquire, install, operate, and maintain EV chargers, with the goal of building a national EV network—and $2.5 billion in grant funding for community-based charging and alternative fuel corridors to be disbursed by the U.S. Department of Transportation ("DOT") via a competitive grant process that prioritizes rural areas, low- and moderate-income neighborhoods, and other communities with limited access to convenient charging, in addition to $4.5 billion for port upgrades and electrification, $5 billion to fund zero emission and clean school buses, more than $5 billion to fund low- and no-emission transit buses, and $3 billion in U.S. Department of Energy ("DOE") matching funding for Smart Grid technologies, including EV charging, and vehicle-to-grid technologies;

Whereas the IIJA creates a new Joint Office of Energy and Transportation ("Joint Office") to oversee disbursal of these monies;

Whereas the IIJA requires the DOT and DOE to issue guidance to the States that will address fostering enhanced, coordinated, public-private or private investment in EV charging infrastructure, and it directs the States to develop grant programs to disburse awarded funds, subject to DOT-issued guidelines;

Whereas the Inflation Reduction Act ("IRA") further commits nearly $370 billion in direct federal investments in programs to address climate change and energy production, including new and extended tax credits for EVs and EV charging equipment;

Whereas State energy offices in every region of the nation are integrating electric distribution system and EV charging infrastructure planning and policy, coordinating with environmental agencies in the investment of $2.9 billion in VW settlement funds, collaborating with utilities and local governments on EV infrastructure planning, and spearheading State and regional governor-designated EV infrastructure deployment actions and policies;

Whereas State departments of transportation are responsible for implementing certain IIJA programs, including the $5 billion NEVI Program, that provide funding for EV infrastructure deployment, in partnership with utilities and other stakeholders;

Whereas timely and efficient administration of the funding allocated by the IIJA and other federal funding sources will require an unprecedented scope and a degree of collaboration and coordination between local, State and national government entities, regulators and electric utilities, utilities and the automotive industry, as well as a host of other relevant stakeholders;

Whereas EV charging can place significant new demands on local distribution systems, rapid innovation in charger and vehicle technology is steadily increasing the connected load of fleet depots and DC fast charging plazas, which together with the clustering of personal electric vehicle charging in residential areas could result in concentrated loads of several megawatts;

Whereas utility regulators in more than 30 States have already authorized electric companies to deploy more than $3 billion for transportation electrification investments, of which more than $800 million will be directed toward historically marginalized communities;

Whereas utility regulators have specific expertise in understanding the impacts of EV adoption on the power system and electric utility rates, regulators can apply their expertise in establishing policy and reviewing plans to serve EV charging load in a way that ensures it is done in a cost-effective manner that keeps pace with the speed of transportation electrification while maintaining reliability, resilience and safety, and without unduly burdening customers who do not drive or own electric vehicles; *and*

Whereas the IIJA also commits substantial federal dollars to grid investments and improvements, utility regulators can apply their expertise and decision-making processes to determine which utility investments present reliable value propositions that support the spirit of the IIJA; *now, therefore be it*

Resolved that the Board of Directors of the National Association of Regulatory Utility Commissioners ("NARUC"), convened at its Annual Meeting and Education Conference in New Orleans, Louisiana, recommends that the U.S. Department of Energy, U.S. Department of Transportation, Joint Office of Energy and Transportation, National Association of State Energy Officials, and State departments of transportation move swiftly to work with and support NARUC to develop resources and training programs to address the policy and planning issues presented by widespread adoption of electric-drive vehicles, including the timely and efficient deployment of federal funding, planning to accommodate the growth of EV charging on the grid, the costs and

benefits of electric vehicle adoption, the equitable and cost-effective deployment of EV charging infrastructure, and rate design considerations for EV charging; *and be it further*

Resolved that NARUC also recommends that the aforementioned federal and State officials work with local utilities and other stakeholders to ensure that new investments are coordinated with existing programs and efforts with the goal of managing EV usage to minimize cost to customers and deploying EV charging infrastructure and making related, necessary electric grid upgrades in the most effective, efficient, and equitable manner possible in light of specific community needs.

_____

Sponsored by the Committee on Energy Resources and the Environment
Adopted by the NARUC Board of Directors on November 15, 2022

EL PASO ELECTRIC COMPANY (N)

SCHEDULE NO. EVSR

ELECTRIC VEHICLE SMART REWARDS PILOT PROGRAM

APPLICABILITY

The Electric Vehicle ("EV") Smart Rewards Pilot Program ("Program") is available on a voluntary basis to Residential Customers. Through the EV Smart Rewards Program, the Company will remotely communicate directly with a Customer-enrolled EV or an EV charging station, at Customer's service location within EPE's Texas Service Territory, to schedule charging during the times most beneficial for efficient operation of the Company's electrical grid.

TERRITORY

Texas Service Area

TYPE OF SERVICE

The program is limited to 880 EVs and EV charging stations and will terminate after two years, unless extended in a future proceeding.

To enroll in the Program, participating Customers must have an active account in good standing with the Company, connect their vehicle or charging station to the Company's platform, and set their desired charging preferences. Based on Customer's charging preferences, the Company will optimize each EV's charging schedule to maximize the operational efficiency of the Company's electrical grid. During the Program Period, the Company may test several load management strategies including but not limited to: a) EV Load Shifting to the Off-Peak or Super Off-Peak Periods, b) Demand Response events, and c) Low-Carbon events, as further defined below. Customer will have the option to opt out of EV load shifting or events, e.g. manually override the Company-scheduled charging for a single event for any reason, at any time.

DEFINITIONS

Demand Response and Low Carbon Events
The process through which the Company sends a signal to the Customer's EV or Networked EVSE to modify the charging schedule in an attempt to reduce or increase overall load from EV charging to optimize resources available to the Company and/or align EV charging with the lowest-carbon generation available. Each event may be continuous or segmented throughout the day, at the Company's discretion. Customers will be notified of the upcoming events and will have the option to opt out. Customers will be able to earn incentives for each event.

EV Load Shifting

EL PASO ELECTRIC COMPANY (N)

SCHEDULE NO. EVSR

ELECTRIC VEHICLE SMART REWARDS PILOT PROGRAM

Using Customer's preferred charging settings (such as desired battery level at the end of the charging session and ready-by time), the Company will optimize each EV's charging schedule to the operational efficiency of the Company's electrical grid, while seeking to ensure that the Customer's EV is charged by the time the Customer needs it. Customers can override the Company-scheduled charging for any reason, at any time, but the number of overrides may affect the Customer's Annual Participation Incentive.

EV Telematics
Refers to the communication of data between a data center and an EV which includes sending control commands and retrieving charging session data. Not all EVs have telematics that can allow for communications with the Company's software and thus may not qualify for participation in the Program.

Networked Electric Vehicle Supply Equipment (EVSE)
Internet-enabled equipment that interconnects the electrical grid to the EV charging station to enable sending control commands and retrieving charging session data. Not all internet-enabled EVSE can be adjusted remotely by the Company and thus may not qualify for participation in the Program.

Off-Peak Period
The off-peak hours are defined in Schedule No. 01 Residential Service Rate, and are currently defined as all other hours not covered in the On-Peak Period. The On-Peak Period is currently defined as 12:00 P.M. through 6:00 P.M., Mountain Daylight Time, Monday through Friday, for the Summer months. The Summer months are defined as June through September.

Program Period
The two-year period that this rate schedule will remain in effect, beginning with the effective date the Commission approves for this rate schedule. The Program Period will terminate after two years, unless extended in a future proceeding.

Super Off-Peak Period
The super off-peak hours are defined in Schedule No. EVC Electric Vehicle Charging Rate, and are currently defined as the Super Off-Peak Period of 12:00 A.M. through 8:00 A.M. during Mountain Standard and Daylight Time, in all months. The Super Off-Peak Period is a subset of the Off-Peak Period defined above.

PROGRAM INCENTIVES

One-Time Enrollment Incentive	$125.00
Annual Participation Incentive	$50.00

EL PASO ELECTRIC COMPANY (N)

SCHEDULE NO. EVSR

ELECTRIC VEHICLE SMART REWARDS PILOT PROGRAM

All participating Customers, whether connecting through EV Telematics or Networked EVSE, will have an opportunity to earn additional rewards for participating in Low Carbon or other Demand Response events. The additional reward is an incentive of $1 per event up to a maximum incentive payment of $5 per month.

LIMITATION OF LIABILITY AND INDEMNIFICATION

Customers taking service under the Program agree to hold the Company free of liability for any damage, defects, failures, fires, vehicle damage or other damages to person or property associated with the proper or improper charging through EV Telematics, Networked EVSE, interruption signal, or charging equipment.

Customers who elect to take service under the Program agree to indemnify and save harmless the Company from all claims or losses of any sort due to death or injury to person or property resulting from interruption of electric service under the Program or from the operation of the EV Telematics, Networked EVSE, interruption signal, or charging equipment.

TERMS AND CONDITIONS

Service supplied under this rate schedule is subject to the Company's Rules and Regulations on file with the Public Utility Commission of Texas and available for inspection at Company offices, and under the following terms and conditions:

1. The EV Smart Rewards Program will target up to a total of 880 EVs and charging stations. The enrollments are processed on the first-come, first-serve basis until the Program is full.

2. Customer will maintain an active account in good standing and all terms and conditions of the Customer's applicable retail rate schedule will continue to apply. The Customer will be billed for their monthly energy usage for EV charging under their applicable retail rate schedule.

3. Customer must complete the Program enrollment, and the Company must review and approve the Customer's enrollment to participate in the Program. The Company shall submit the One-Time Enrollment Incentive payment to the Customer approximately twenty (20) working days from the date the enrollment is approved.

4. Customer will qualify for the full amount of the Annual Participation Incentive after completing 12 consecutive months in the program and allowing the Company to schedule at least 80% of their charging in each month. The Company shall submit the Annual Participation Incentive payment to the Customer approximately twenty (20) working days from the date these qualifications are confirmed by the Company.

EL PASO ELECTRIC COMPANY (N)

SCHEDULE NO. EVSR

ELECTRIC VEHICLE SMART REWARDS PILOT PROGRAM

5. The Program Incentives cannot be applied to Customer's account balance.

6. Customers subscribing under the Program will be enrolled for a 12-month period and will be automatically re-enrolled for successive 12-month periods in the Program unless the Customer terminates participation in the Program with one month notice or unless the Program is terminated.

7. Customer may request to unenroll from the Program at any time after the initial 12-month enrollment period, irrespective of the automatic re-enrollments, upon giving a one month's notice of termination of participation to the Company.

8. Customer can manually opt out of a Company-scheduled EV charging session at any time. If Customer opts out more than 20% of the time of the Company-scheduled charging sessions during a consecutive 12-month period, however, the Customer will not qualify for the Annual Participation Incentive.

9. Company reserves the right to verify the network connectivity of Customer's EV or Networked EVSE at any time.

10. The Company retains the right to retain Customer's EV Telematics data, including the data through the date of unenrollment of Customers who unenrolled from the Program.

11. The Program Incentives are limited to no more than two vehicles or two EV charging stations per participating Customer. A second EV or charging station may be added by a participating Customer if the Program has not exceeded 880 EVs and charging stations.

12. Participating Customers relocating within the Company's Texas service territory may continue on the Program at the new service location so long as the Program criteria are met.

13. If the Company determines that Customer's equipment has been rendered ineffective or offline, then the Company may discontinue the Customer's participation in the Program. A Customer that is removed from the Program is eligible to participate again at the Company's discretion.

PRORATION ADJUSTMENTS

Program Incentives supplied under this rate schedule are subject to proration adjustments.

(N)

EL PASO ELECTRIC COMPANY

SCHEDULE NO. PC

POWERCONNECT PILOT PROGRAM

APPLICABILITY

The PowerConnect ("Program") is available, on a voluntary basis, to Eligible Customers installing qualified Level 2 charging station/s, or DC Fast Charging ("DCFC") station/s, or both, on their premises for employees, tenants, fleet, customers and/or the public and require upgrades or improvements to the Company's electrical distribution system.

TERRITORY

Texas Service Area

TYPE OF SERVICE

The Program offers Eligible Customers a rebate for a portion of the Company's Estimated Extension Cost for distribution system upgrades or improvements necessary to provide electric vehicle charging capabilities. The Program does not cover the cost of EV charging equipment or Customer-side of the meter infrastructure upgrades or equipment installation.

DEFINITIONS

Eligible Customer
Any Permanent Customer, as defined in the Company's Line Extension Policy and Construction Charges ("Line Extension Policy"), with an active account in good standing and taking service under the Company's Schedule Nos. 02 (Small General Service), 24 (General Service), 25 (Large Power Service), 41 (City and County Service) and Non-Residential Customers taking service under Schedule No. EVC (Electric Vehicle Charging Rate).

Estimated Extension Cost
Currently defined in the Line Extension Policy as the Company's estimate of the Extension Cost calculated based on the current costs to install the same or similar type of Line Extension, as such terms are defined, determined, and applied in the Line Extension Policy.

Program Period
The two-year period that this rate schedule will remain in effect, beginning with the effective date the Commission approves for this rate schedule. The Program Period will terminate after two years, unless extended in a future proceeding.

POWERCONNECT REBATE AMOUNT

EL PASO ELECTRIC COMPANY (N)

SCHEDULE NO. PC

POWERCONNECT PILOT PROGRAM

Eligible Customers may request a rebate under this rate schedule that will be a credit applied to the Estimated Extension Cost. The availability of a rebate is dependent on the Program Period funding, which is $3,095,950, unless revised in a future proceeding.

Sites	Maximum Rebate Available Per Site
Workplace	Up to $20,000
Public	Up to $20,000
Fleet	Up to $100,000
DC Fast Charging	Up to $200,000
Multi-Unit Dwellings	Up to $20,000

TERMS AND CONDITIONS

Service supplied under this rate schedule is subject to the Company's Rules and Regulations on file with the Public Utility Commission of Texas and available for inspection at Company offices, and under the following terms and conditions:

1. No more than 20% of the Program funding will be available to one Eligible Customer. The rebates requested are processed on a first-come, first-serve basis until the Program Period funding is fully expended.

2. Eligible Customer will maintain an active account in good standing and all terms and conditions of the Eligible Customer's applicable retail rate schedule will continue to apply. The Eligible Customer will be billed for its monthly energy usage for EV charging under its applicable retail rate schedule.

3. Company retains the right to approve or deny Customer's application based upon project eligibility and program requirements.

4. If the Company's Estimated Extension Cost exceeds the Maximum Rebate Available Per Site, Eligible Customer will be responsible for covering the remainder of the costs as a Customer Contribution, as defined in the Line Extension Policy.

5. Program rebates cannot be applied to Eligible Customer's current or future account balances.

6. Program rebates are not refundable to the Eligible Customer.

EL PASO ELECTRIC COMPANY

(N)

SCHEDULE NO. PC

POWERCONNECT PILOT PROGRAM

7. Company will not be responsible for the purchase, operation, and/ or maintenance of the EV charging stations or customer-side infrastructure upgrades or equipment installation.

8. The Program is only available to Eligible Customers that request a Line Extension for an EV charging infrastructure project with a project start date after the effective date of this rate schedule.

9. Qualified Level 2 charging station projects must meet the following requirements:
   - UL 2594 listed;
   - ENERGY STAR ® certified;
   - Networked charging capabilities; and
   - Non-proprietary J1772 charging plug.

10. Qualified DCFC station projects must meet the following requirements:
   - UL 2202, 2231-1, 2231-2, and 9741, or other applicable UL standard;
   - Networked charging capabilities; and
   - Available non-proprietary charging plugs that are compatible with multiple vehicle makes and models (SAE Combo, CHAdeMO).

11. For charging stations that do not meet qualification criteria specified above, customers will have the option to submit an application for Company's review.

12. Company reserves the right to verify the EV charging equipment is installed within a reasonable amount of time after the Completion Date, as such term is defined in the Line Extension Policy, to avoid reclaim of the rebate by the Company.

DOCKET NO. _____

APPLICATION OF EL PASO ELECTRIC COMPANY FOR APPROVAL OF ITS TEXAS ELECTRIC VEHICLE-READY PILOT PROGRAMS AND TARIFFS	§ § § § §	PUBLIC UTILITY COMMISSION OF TEXAS

DIRECT TESTIMONY

OF

MANUEL CARRASCO

FOR

EL PASO ELECTRIC COMPANY

JANUARY 31, 2023

TABLE OF CONTENTS

SUBJECT		PAGE
I.	INTRODUCTION AND QUALIFICATIONS	1
II.	PURPOSE OF TESTIMONY	2
III.	DESCRIPTION OF EXISTING RATE SCHEDULE OPTIONS	3
IV.	WHOLE HOUSE EV ("WHEV") PILOT INCENTIVE CREDIT RATE RIDER	8
V.	TAKE CHARGE TX PILOT PROGRAM TARIFF	12
VI.	STATUTORY REQUIREMENTS FOR RATES/TARIFFS	16
VII.	CONCLUSION	17

EXHIBITS

MC-1 – Bill Comparison (with/without EV charging)
MC-2 – WHEV Pilot Incentive Credit Calculation
MC-3 – Schedule No. WHEV – Whole House Electric Vehicle Pilot Incentive Credit
MC-4 – Schedule No. TCTX – Take Charge TX Pilot Program
MC-5 – Take Charge TX Pilot Program Levelized Payment Calculation

I. Introduction and Qualifications

Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Manuel Carrasco. My business address is 100 N. Stanton Street, El Paso, Texas 79901.

Q2. HOW ARE YOU EMPLOYED?

A. I am employed by El Paso Electric Company ("EPE" or the "Company") as the Manager of Rate Research.

Q3. PLEASE SUMMARIZE YOUR EDUCATIONAL AND PROFESSIONAL QUALIFICATIONS.

A. I graduated with both a bachelor's in accounting and a master's in economics from New Mexico State University ("NMSU"). I graduated from NMSU's Accounting program, with honors, in 1995 and from NMSU's Regulatory Economics program in 1999. NMSU's Regulatory Economics program consists of specific courses related to public utilities such as revenue requirements, cost allocation, and pricing in the utility industry. This concentrated graduate program is offered by only a few universities nationwide.

My professional career began in 1993 as a rate analyst with the Utilities Department of the City of Las Cruces, New Mexico, where my responsibilities included performing cost of service and rate design studies; preparing fiscal budget and financial forecasts; and developing forecasts of customers, consumption, and revenues. During my tenure with the City of Las Cruces, I received increasing levels of responsibility culminating with a promotion to Manager of the Rate & Economic Analysis section. My experience also includes working as an Accountant/Analyst at Sierra Pacific Power Company and as a Senior Pricing Analyst at Colorado Springs Utilities.

I began working for EPE in 2009 as a Rate Analyst Specialist. In 2011, I was promoted to Senior Rate Analyst; promoted to Supervisor in 2015; and in 2018, I was promoted to my current position.

In addition to my professional experience and education, I have attended professional development seminars sponsored by National Economic Research Associates (also known as NERA Economic Consulting, Inc.), Electric Utility Consultants Inc.,

The Brattle Group, NMSU's Center for Public Utilities, American Gas Association, Edison Electric Institute, Association of Edison Illuminating Companies, and American Water Works Association.

Q4. PLEASE DESCRIBE YOUR CURRENT RESPONSIBILITIES WITH EPE.

A. As Manager of Rate Research, my responsibility is to oversee the preparation of economic, statistical, cost and rate design studies; development of models and methodologies for cost of service, profitability and pricing studies; and perform annualization and revenue forecasts.

Q5. HAVE YOU PREVIOUSLY PRESENTED TESTIMONY BEFORE UTILITY REGULATORY BODIES?

A. Yes, I have previously filed testimony with the Public Utility Commission of Texas ("PUCT" or "Commission") and testified before the New Mexico Public Regulation Commission ("NMPRC").

II. Purpose of Testimony

Q6. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to support EPE's Application for Approval of its Texas Electric Vehicle ("EV")-Ready Pilot Programs and Tariffs. In my testimony, I describe EPE's existing rates and rate options that incentivize off-peak electricity consumption and I present the proposed Whole House Electric Vehicle ("WHEV") Pilot Incentive Credit Rate Rider tariff schedule, which would also provide an incentive to residential EV-owner customers to charge during off-peak hours.

Another portion of my testimony addresses EPE's proposed tariff for the Take Charge TX Pilot Program and how that tariff was developed, along with EPE's plan for cost recovery of that program. Please see the direct testimony of EPE witness Angelina Rodriguez for additional detail regarding the proposed Take Charge TX Pilot Program.

Q7. ARE YOU SPONSORING ANY EXHIBITS IN YOUR TESTIMONY?

A. Yes. I am sponsoring the following exhibits, which are attached to this testimony:

- Exhibit MC-1: Bill Comparison (with/without EV charging);
- Exhibit MC-2: WHEV Pilot Incentive Credit Calculation;
- Exhibit MC-3: Schedule No. WHEV – Whole House Electric Vehicle Pilot Incentive Credit;
- Exhibit MC-4: Schedule No. TCTX – Take Charge TX Pilot Program; and
- Exhibit MC-5: Take Charge TX Pilot Program Levelized Payment Calculation.

Q8. WERE THE EXHIBITS YOU ARE SPONSORING PREPARED BY YOU OR UNDER YOUR DIRECT SUPERVISION?

A. Yes.

III. Description of Existing Rate Schedule Options

Q9. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR DIRECT TESTIMONY?

A. In this section of my direct testimony, I describe EPE's existing rates and rate options that incentivize the efficient use of its system and that may apply to EV charging.

Q10. PLEASE DESCRIBE THE CURRENT SCHEDULE NO. 01 – RESIDENTIAL SERVICE RATE OPTIONS.

A. EPE's current Schedule No. 01 – Residential Service is applicable to single-family residences or individually metered apartments for primarily domestic or home use. The rate includes three monthly rate options: Standard Service, Alternative Time of Day ("TOD"), and Demand Charge TOD.

The Standard Service Rate option is selected by most customers and consists of a monthly customer charge and a seasonal, inclining two-block energy charge. The inclining block rate structure applies to a six-month summer season, from May through October. The first block of the summer energy charge of 600 kilo-watt hours ("kWh") includes about a one cent per kWh differential over the non-summer energy charge. The second block of the summer energy charge, for usage above 600 kWh includes a differential of about a half cent per kWh over the first block.

The Alternative TOD Rate is an optional rate that consists of a monthly customer charge and energy charges that apply based on the day and time that usage occurs. The on-

peak energy charge applies from 12:00 P.M. to 6:00 P.M. Mountain Daylight Time ("MDT") weekdays during the summer season, defined as June through September, and the off-peak energy charge applies during all other hours of the year. The on-peak energy charge is more than three times the off-peak energy charge.

The Demand Charge TOD Rate is another optional rate that consists of a monthly customer charge, a demand charge, and energy charges that apply based on the day and time that usage occurs. The on-peak energy charge applies from 12:00 P.M. to 6:00 P.M. MDT weekdays during the summer season, and the off-peak energy charge applies during all other hours of the year. The summer season for the Demand Charge TOD Rate is also defined as June through September. The on-peak energy charge is almost four times the off-peak energy charge.

Q11. WILL A RESIDENTIAL CUSTOMER TYPICALLY SEE AN INCREASE IN THEIR MONTHLY USAGE AS A RESULT OF EV CHARGING AT HOME?

A. Yes. For example, a networked level 2 charging station's power requirements range between 3.3 to 19.2 kilowatts ("kW") when charging, and the typical charge time is two to four hours to fully charge the battery. A recent analysis prepared by EPE's Load Research and Data Analytics Department shows an estimated annual energy usage for three different light-duty EV models averaging at 3,825 kWh.[1] Based on this information, a residential EV-owner customer could expect to see an average increase in their monthly usage of 319 kWh because of EV charging.

Q12. HOW MUCH ENERGY DOES THE TYPICAL RESIDENTIAL CUSTOMER USE IN A MONTH FOR HOUSEHOLD PURPOSES?

A. For the twelve-month period ended September 2022, a typical residential customer consumed a year-round monthly average of 681 kWh.

Q13. BASED ON THE INFORMATION PROVIDED ABOVE, WHAT IS THE YEAR-ROUND AVERAGE MONTHLY ELECTRICITY COST TO THE TYPICAL

[1] *2022 Light-Duty Electric Vehicles Impact Analysis and Forecast*, EPE Economic Research Department, October 2022.

RESIDENTIAL CUSTOMER THAT INSTALLS A LEVEL 2 CHARGER TO CHARGE THEIR VEHICLE?

A. Under the Standard Service Rate option of Schedule No. 01, the incremental 319 kWh for EV charging will add $46.11 to the average residential monthly bill. Under the Alternative TOD Monthly Rate option, and if all charging is done during the off-peak hours, the incremental cost is $36.66; a savings of $9.45 from the Standard Service Rate.[2] Those savings diminish rapidly, however, if any charging is done during on-peak hours. Exhibit MC-1 includes the bill calculations for a residential customer at various levels of electricity consumption, with or without the incremental EV charging load. All bill calculations are based on currently effective rates and exclude interim riders (e.g., rate case expense surcharge).

Q14. DO EPE'S TARIFFED NON-RESIDENTIAL RATE SCHEDULES INCLUDE A TOD RATE OPTION WHICH EV CHARGING COULD BE SERVED UNDER?

A. Yes. Those rate schedules are:

- Schedule No. 02 – Small General Service,
- Schedule No. 24 – General Service,
- Schedule No. 25 – Large Power Service, and
- Schedule No. 41 – City and County Service.

The on-peak energy charges of these schedules' TOD rate options apply from 12:00 P.M. to 6:00 P.M. MDT weekdays during the summer season, and off-peak charges apply during all other hours of the year. The summer season for all rate options is defined as June through September. The on-peak energy charges are priced several times more than the off-peak energy charges.

Exhibit MC-1 also provides the bill calculations for a typical non-residential customer at various levels of electricity consumption, with and without the incremental EV charging load. All bill calculations are based on currently effective rates and exclude interim riders (e.g., rate case expense surcharge). For the rate schedules that have multiple

[2] According to www.fueleconomy.gov, all-electric vehicle fuel economy is given in miles per gallon equivalent, where 33.7 kWh = 1 gallon of gasoline. Therefore, 319 kWh per month for EV charging is equivalent to consuming approximately 10 gallons of gasoline per month. The typical residential customer, therefore, is also saving the cost of each gallon of gasoline exceeding 10 gallons per month.

rate options, the calculations show savings under the TOD rate, as compared to the standard rate. The incremental cost related to EV charging, however, will be higher if the customer is unable to shift the entire EV charging load to the off-peak period.[3]

Q15. PLEASE DESCRIBE THE CURRENT SCHEDULE NO. EVC – ELECTRICITY VEHICLE CHARGING.

A. Schedule No. EVC was initially approved in Docket No. 44941 and was approved again in EPE's most recent base rate case, Docket No. 52195. The rate schedule is available, on a voluntary basis, to residential and commercial customers that have a separately metered facility dedicated solely for the charging of electric vehicles and only for charging activity operating up to 480 volts ("V"). The schedule's rates and rate structure provide customers with price incentives to encourage the charging of electric vehicles during off-peak periods and dissuade customers from charging during summer on peak periods, when EPE's generation system experiences its peak loads.

The Monthly Rate section of the rate schedule lists the following qualifying retail rate schedules along with the applicable rates under Schedule No. EVC:

- Schedule No. 01 – Residential Service;
- Schedule No. 02 – Small General Service;
- Schedule No. 24 – General Service;
- Schedule No. 25 – Large Power Service; and
- Schedule No. 41 – City and County Service.

Like the other TOD rates and rate options, the on-peak period in this rate schedule is defined as 12:00 P.M. to 6:00 P.M. MDT, Monday through Friday, for the months of June through September. Schedule No. EVC offers a feature not offered to customers in any of the retail rate schedules, which is a "Super Off-Peak Period" rate applicable to daily consumption, from 12:00 A.M. to 8:00 A.M. MDT.

Exhibit MC-1 also includes the bill calculations for EV charging for each of the qualifying retail rate schedules listed in Schedule No. EVC. The bill calculation for the incremental load of EV charging assumes the charging occurs in the Super Off-Peak

[3] In the calculations, it is assumed that the incremental load of EV charging occurs in the off-peak periods and, for lower load factor bills (i.e., 20% and 40%), not at the time that the highest measured demand occurs.

Period. For example, the exhibit shows that the incremental load of EV charging under Schedule No. EVC for a residential EV-owner customer costs $21.01 per month. That monthly cost is about $25 and $16 less than the additional cost for the same incremental load billed under the Schedule No. 01 Standard and Alternative TOD rate options, respectively.

Q16. WHICH RATE OPTION ARE EV-OWNER CUSTOMERS ENCOURAGED TO SELECT?

A. EV-owner customers are encouraged to consider selecting Schedule No. EVC, but, if Schedule No. EVC is not a practical option for the customer due to the cost of the additional meter required to take service under the rate schedule, then EV-owner customers are encouraged to sign up for service under a TOD rate option because it allows customers to charge their EVs overnight, when EPE's system has more capacity available to serve that additional electrification load, and when savings on monthly electric bills can be maximized by the customer.

However, EPE understands that personal or business circumstances may not allow some customers to take service under a TOD rate option. For example, although a customer can charge their EV during late evening or early morning hours, that customer may not be able to shift non-EV charging consumption (e.g., air conditioning) to off-peak hours. A TOD rate option could potentially result in a significant increase in monthly electricity costs due to the electricity consumption during on-peak hours which the customer was unable to reduce or shift to the off-peak hours. As discussed in the next section of this testimony, EPE proposes to offer an incentive to charge during late evening or early morning hours to residential EV-owner customers that can't fully benefit from Schedule No. EVC or Schedule No. 01's TOD rate option.

Q17. HOW DO GENERAL RATEPAYERS BENEFIT FROM THE EXISTING AND THE EV-READY PILOT PROGRAMS THAT ENCOURAGE EV CHARGING DURING OFF-PEAK HOURS?

A. Effective management of EV incremental load can result in downward pressure on electricity rates because incremental loads occurring during those times when there is

available capacity in EPE's system, between late evening and early morning hours, has the potential to improve EPE's system load factor.[4] That is, if the incremental load occurs in the off-peak hours, it will reduce the need for EPE to invest in and seek cost recovery of the additional generation resources that would be needed to address the additional load caused by EV charging if it was to occur at the time period that its system peaks. By using the existing generation resources' capacity that is available during the off-peak period, then cost recovery of those resources is spread amongst the increased levels of consumption, thus resulting in downward pressure on electricity rates. While EPE's existing rates encourage off-peak EV charging to some extent, the WHEV Pilot Incentive Credit Rider, described below, and the EV Smart Rewards Pilot Program, described in the direct testimony of EPE witness Rodriguez, will provide further incentives to encourage off-peak EV charging.

IV. Whole House EV ("WHEV") Pilot Incentive Credit Rate Rider

Q18. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR DIRECT TESTIMONY?

A. In this section of my direct testimony, I present EPE's proposed WHEV pilot incentive credit that would be available to residential EV-owner customers and that provides an incentive to charge their EVs during very early morning hours (*i.e.*, midnight to 8 am).

Q19. WHY OFFER A WHEV PILOT INCENTIVE CREDIT?

A. The proposed WHEV pilot incentive credit provides two benefits to EV-owner customers: (1) avoidance of the cost of having a second meter installed on their premises that is required to take service under Schedule No. EVC, and (2) saving on their monthly electric bill if they charge their EVs during the Super Off-Peak Period, as discussed in detail below. The proposed incentive benefits EPE's other customers by helping diminish the impact of EV charging on system peak demand, as discussed previously and as further discussed by Company witness Novela.

[4] In the Direct Testimony of EPE witness George Novela filed in Docket No. 52195, Mr. Novela states that over the past decade, the EPE system load factor has fallen, dropping from 55.7% in 2011 to 45.4% in 2020. A lower load factor indicates that EPE's system has underutilized capacity.

Q20. HAS EPE QUANTIFIED A RESIDENTIAL CUSTOMER'S COST OF HAVING A SECOND METER INSTALLED FOR THE PURPOSE OF TAKING SERVICE UNDER RATE SCHEDULE EVC?

A. Yes. EPE estimated the cost to the customer of contracting for wiring electric service for a second meter could be up to $5,000. As explained in the direct testimony of EPE witness Rodriguez, this cost presents a particular barrier to residential customers seeking to take advantage of incentives included in Schedule No. EVC, namely, a very low energy charge for charging in the Super Off-Peak Period.

Q21. PLEASE DESCRIBE HOW THE PROPOSED WHEV PILOT INCENTIVE CREDIT IS CALCULATED.

A. The WHEV pilot incentive credit is based on EPE's incremental capacity cost of $107.90 per kW-year and on the load data of the Residential rate class.[5] Based on this information, the incremental generation cost on a kilowatt-hour basis was determined to be $0.02586 per kWh. EPE assumed that 100% of that capacity cost could be avoided during off-peak period energy usage, therefore, the proposed WHEV pilot incentive credit is set at $0.02586 per kWh. Exhibit MC-2 provides the details of the calculation of the incentive credit.

Q22. DO YOU CONSIDER EPE'S PROPOSED WHEV PILOT INCENTIVE CREDIT TO BE A DISCOUNTED RATE SUBJECT TO SECTION 36.007 OF THE PUBLIC UTILITY REGULATORY ACT?

A. No. As discussed above, the incentive credit was calculated to reflect the actual lower cost of producing electricity during the hours when EPE's existing system has the most available capacity to serve additional load. Further, I affirm that, while the combination of the Schedule No. 01 energy charge and the proposed WHEV incentive credit will result in a lower, net energy charge for each kWh consumed during the Super Off-Peak Period, that net energy charge will not be less than marginal cost, that is, not less than the residential rate class's variable operation and maintenance unit cost.

[5] EPE's incremental capacity cost of $107.90 kW-year was used in the rate design of the Docket No. 52195 Commission-approved, currently effective TOD rates and rate options.

Q23. HOW WILL THE WHEV PILOT INCENTIVE CREDIT BE CALCULATED ON THE CUSTOMER BILL?

A. The WHEV Pilot Incentive Credit Rate Rider works with any rate option under the Schedule No. 01 – Residential Service tariff schedule that an EV-owner customer has chosen to take service under, including EV-owner customers that have distributed generation. The customer's monthly bill will include all consumption, including the energy used in charging the electric vehicle, as measured by a single meter. All energy consumed will be charged at the normal, applicable rate. To encourage overnight charging, the energy used between the hours of 12:00 A.M. and 8:00 A.M. (the "Incentive Credit Period"), which should include the energy to charge the EV as well as non-EV energy usage, will receive the credit and be reflected in the customer's monthly bill. For example, the average residential customer using an estimated 319 kWh each month during the Incentive Credit Period to charge the EV will see a $8.25 (319 kWh x $0.02586 per kWh) incentive credit on their monthly electric bill.

Q24. WILL THE WHEV PILOT INCENTIVE CREDIT RESULT IN AN OVERALL CREDIT IN THE CUSTOMER'S BILL?

A. No. The WHEV pilot incentive credit is designed to reduce (or, at most, eliminate) the energy charges on a customer's bill and not to provide credit balances on the customer's account. The credit will be limited so that the customer's bill follows the monthly minimum charge provision from Schedule No. 01.

Q25. IS EPE INCLUDING A PROPOSED WHEV PILOT INCENTIVE CREDIT RATE RIDER TARIFF IN THIS APPLICATION?

A. Yes. A proposed Schedule No. WHEV – Whole House EV Pilot Incentive Credit Rate Rider is included with my testimony as Exhibit MC-3.

Q26. WHEN DOES EPE PROPOSE TO REVIEW THIS "PILOT" INCENTIVE CREDIT TARIFF?

A. EPE intends to reevaluate the credit rate and participation in its next general rate case filing.

Q27. HAS THE COMMISSION APPROVED AN INCENTIVE CREDIT PROPOSED BY ANY OTHER NON-ERCOT UTILITY?

A. Yes. In Docket No. 51415, Southwestern Electric Power Company ("SWEPCO") proposed a Residential Service Plug-In Electric Vehicle ("PEV") Rider which operates like EPE's proposed WHEV incentive credit. A credit would be applied to the customer's bill for all off-peak period PEV kWh usage measured by the sub-meter. The PEV off-peak period was defined as the hour beginning at 11:00 p.m. through the hour ending at 5:00 a.m. for all months of the year.

SWEPCO's Commission-approved Residential Service PEV Rider provides a credit for all off-peak kWh of $0.0275 per kWh. That rider is not available to customers that operate a distributed generation resource or that take service under the distributed renewable generation schedule.

Q28. HAS ANY OTHER COMMISSION APPROVED WHEV INCENTIVE CREDITS SIMILAR TO WHAT EPE IS PROPOSING IN THIS APPLICATION?

A. Yes. In EPE's New Mexico Transportation Electrification Plan filing, the NMPRC approved a $0.04740 per kWh incentive credit for all residential service energy usage during the hours of midnight to 8:00 AM.[6]

Also, although not an incentive credit per se, some utilities offer WHEV rate plans that provide a lower energy charge during late night/early morning hours for EV charging energy usage. For example, in Public Service Company of New Mexico's ("PNM") Transportation Electrification Program, the NMPRC approved a $0.0304438 per kWh WHEV energy charge for all residential service usage between 10:00 PM to 5:00 AM.[7] Due to the block rate structure of PNM's Rate No. 1A rate design, the 'incentive credit' is the difference between each block's rate and the WHEV energy charge, depending on each month's total energy usage. This rate structure involves complicated billing calculations to distinguish consumption to bill under the block rates and for the EV charging.

[6] NMPRC Case No. 20-00241-UT, Final Order, November 10, 2021.
[7] NMPRC Case No. 20-00237-UT, Final Order, November 10, 2021.

V. Take Charge TX Pilot Program Tariff

Q29. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR DIRECT TESTIMONY?

A. In this section of my direct testimony, I address EPE's proposed tariff for the Take Charge TX Pilot Program and how that tariff was developed, along with EPE's plan for cost recovery of that program.

Q30. PLEASE DESCRIBE THE PROPOSED TARIFF FOR THE PROPOSED TAKE CHARGE TX PILOT PROGRAM.

A. The proposed Schedule No. TCTX – Take Charge TX Pilot Program tariff is available to non-residential customers that qualify to take service for EV charging under one of the following rate schedules:

- Schedule No. 02 – Small General Service
- Schedule No. 24 – General Service
- Schedule No. 25 – Large Power Service
- Schedule No. 41 – City and County Service
- Schedule No. EVC – Electric Vehicle Charging

The proposed tariff provides non-residential customers the option to choose the desired EV infrastructure and equipment that could be purchased, installed, and operated by EPE, in whole or part, including a fully turnkey solution, to mitigate the challenge of managing an EV charging station's installation, operation, and maintenance. Through the proposed Schedule No. TCTX, participants will pay a monthly fixed fee to EPE for the recovery of those infrastructure and equipment costs over a customer-selected repayment term (between 1 year and 10 years) as well as an operations and maintenance ("O&M") fee over the 10-year customer agreement term. The proposed Schedule No. TCTX, which also includes the Take Charge TX Customer Agreement, is presented in Exhibit MC-4.

Q31. WHAT IS THE EXPECTED LIFE OF THE TAKE CHARGE TX PILOT PROGRAM EV CHARGING EQUIPMENT, AND WHAT HAPPENS TO IT AT THE END OF THAT EXPECTED LIFE?

A. As discussed later in my direct testimony, the expected book life of Take Charge TX Pilot Program EV equipment is 10 years. The contract term of the customer agreement will

continue for the 10-year life of the Company's investment, regardless of the repayment term selected by the customer. Upon expiration or earlier termination of the customer agreement, the Company will either remove or abandon in place the equipment. In the event the Company notifies the customer that it has elected to abandon in place such EV charging equipment, title to it will automatically vest in the customer, and the Company will have no further obligations or liabilities in connection with the equipment.

Q32. WHAT IS THE DIFFERENCE BETWEEN THE "CONTRACT" AND "REPAYMENT" TERMS DISCUSSED ABOVE?

"Contract term" represents the 10-year period that EPE will own and operate the EV charging equipment located on the customer's premise, behind the electric meter. "Repayment term" represents the period (1 to 10 years) that the customer selects to repay EPE for the EV charging infrastructure and equipment costs. The repayment term can encompass a shorter period than the contract term but cannot extend past it.

Q33. HOW WILL EPE ENSURE THAT NON-PARTICIPATING CUSTOMERS WILL NOT BE NEGATIVELY AFFECTED IN ANY WAY BY COSTS ASSOCIATED WITH SCHEDULE NO. TCTX?

A. Costs associated with Schedule No. TCTX will only be charged to those customers that voluntarily elect to enroll in the Take Charge TX Pilot Program. To ensure this, EPE will maintain separate accounting of all infrastructure and equipment costs associated with Schedule No. TCTX through the implementation of subaccounts to track and remove direct and allocation of indirect costs from its determination of ratepayer revenue requirements in general rate cases.

Q34. DOES EPE'S TAKE CHARGE TX TARIFF OFFER A NEW RATE SCHEDULE FOR ELECTRICITY USED AT THE CHARGER?

A. No. The customer will be paying for all electricity usage for EV charging under the existing, applicable non-residential retail rate schedule listed above.

Q35. PLEASE DISCUSS HOW EPE'S PROPOSED SCHEDULE NO. TCTX WAS DEVELOPED AND PRICED.

A. EPE developed the percentage-cost rate under Schedule No. TCTX by calculating level monthly payment percentages to be applied to the investment made by the Company using the 8.915% before tax weighted-average cost of capital ("WACC") calculated based on the 7.501% after-tax WACC, as agreed in the settlement reached by the parties and approved by the PUCT in EPE's recent base rate case, along with the associated insurance and property tax expense factors.[8] EPE also assumes a property tax and insurance escalation rate of 2% annually.

The level monthly payment percentage, shown in Exhibit MC-5, was calculated for a repayment term period of up to 10 years. The level monthly percentages for application during the customer-selected repayment term are reflected in Schedule No. TCTX. The repayment term and associated percentage would apply monthly to the infrastructure and equipment investment made by the Company. These percentage-based rates are also similar to how the Company charges customers for facility rental charges under its Rate Schedule No. 99, Miscellaneous Service Charges.

As discussed by EPE witness Rodriguez, EPE expects that each installation will differ due to each customer's needs and preferences and proposes to address recovery of associated O&M expenses separately for each installation. An agreed-upon fixed amount to cover those ongoing O&M expenses will be in addition to the Schedule No. TCTX percentage-based monthly charge and may change during the contract term of the customer agreement, based on the level of service desired by the customer.

In Schedule No. TCTX, certain necessary legal provisions are addressed in the separate customer agreement to reflect the fact that EPE-owned and operated equipment may be located on the customer's premises, behind the customer's existing electric meter. Those legal provisions would supplement and/or supersede certain provisions included in EPE's Rule and Regulations, as applied to the customer taking service under Schedule No. TCTX.

[8] Order Approving EPE's Application to Change Rates, Docket No. 52195, Final Order 09-15-2022.

Q36. HOW WILL THE MONTHLY LEVEL PAYMENT AND FIXED O&M CHARGE BE CALCULATED ON THE CUSTOMER BILL?

The monthly level payment under the Schedule No. TCTX tariff will be specified in the individual customer agreement and calculated as EPE's investment in EV charging infrastructure and equipment at that customer's premise multiplied by the level monthly payment percentage for the repayment term selected by the customer. For example, if EPE's investment is $5,000 and the customer selects a five-year repayment period, then the monthly level payment assessed to this customer is $109.40 ($5,000 x 2.188%) for 60 months.

As discussed previously, the fixed O&M charge will be a customer specific agreed-upon amount. The fixed O&M charge will be added to the monthly level payment to reduce the number of line items appearing on the customer's bill. For example, if the fixed O&M charge is $10, the customer's bill will show $119.40 for Take Charge TX charges.

Q37. HOW DOES EPE PROPOSE TO BOOK THE COSTS IT INCURS AND ANY NEW REVENUES RECEIVED UNDER THE TAKE CHARGE TX PILOT PROGRAM?

A. EPE is proposing that any grid investment (upstream of the EV-related infrastructure and equipment) would be booked as it is today. EV charging equipment costs would be booked in accordance with Federal Energy Regulatory Commission's ("FERC") Uniform System of Accounts to electric plant account 371 (Installations on customers' premises). Depreciation expense associated directly with the EV charging infrastructure and equipment investment will be booked in accordance with FERC Uniform System of Accounts to account 403 (Depreciation expense). All ongoing maintenance expenses associated directly with the EV charging infrastructure and equipment investment will be booked in accordance with FERC Uniform System of Accounts to account 598 (Maintenance of miscellaneous distribution plant) and any operating expenses will be booked in accordance with FERC Uniform System of Accounts to account 586 (Meter expenses). Other associated expenses incurred, like additional property taxes, will be booked to the FERC accounts currently used for similar types of expenses. As far as monthly revenues received under Schedule No. TCTX and fixed O&M charges, EPE

proposes that those revenues be booked in accordance with FERC Uniform System of Accounts to revenue account 456 (Other electric revenues) and treated as an offset against EPE's overall revenue requirement.

Q38. HOW DOES EPE PROPOSE TO ADDRESS DEPRECIATION FOR THE TAKE CHARGE TX PILOT PROGRAM?

A. EPE proposes the 3.22% annual depreciation rate applied to electric plant account 371, which implies an average useful equipment life of approximately 31 years, for the utility-side EV charging infrastructure (e.g., distribution network upgrades, transformer, switch gear, etc.) and a straight-line depreciation rate of 10% annually for the customer-side EV charging equipment (e.g., panel, charging station, any associated boring and trenching, etc.), considering that these equipment are projected to have a 10-year expected life.

VI. Statutory Requirements for Rates/Tariffs

Q39. ARE THE RATES IN EPE'S PROPOSED EV-READY PILOT PROGRAM TARIFFS REASONABLE?

A. Yes. The rates are cost-based as applicable or else set to incentivize the intended customer behaviors consistent with the programs of other utilities.

Q40. ARE THE RATES IN EPE'S PROPOSED EV-READY PILOT PROGRAM TARIFFS UNREASONABLY PREFERENTIAL, PREJUDICIAL, OR DISCRIMINATORY?

A. No. The pilot programs target customers who are not similarly situated to other customers because they are either EV owners or are seeking to install equipment to serve EV customers. This difference provides a reasonable basis for these targeted pilot programs in light of Company and customer interests in supporting, gathering information regarding, and managing EV charging activities.

Q41. ARE EPE'S PROPOSED EV-READY PILOT PROGRAMS SUFFICIENT, EQUITABLE, AND CONSISTENT IN APPLICATION TO EACH CLASS OF CUSTOMER?

A. Yes. The programs are designed to provide appropriate and adequate rates or incentives to

achieve the program goals, and the programs will treat eligible customers in a consistent and equitable manner according to the program requirements and parameters.

VII. Conclusion

Q42. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

	Without EV Charging					With EV Charging					Incremental Cost Due to EV Charging		
Line No.	Average kW per Month	Average kWh per Month	Load Factor	Standard Rate Option	TOD Rate Option	EV Charging kW per Month [1, 2]	EV Charging kWh per Month [1]	Average kWh per Month	Standard Rate Option	TOD Rate Option	Standard Rate Option	TOD Rate Option	Difference
1	Rate No. 01 - Residential Service												
2	100		--	$ 23.49	$ 21.53		319	419	$ 68.78	$ 58.20	$ 45.29	$ 36.67	$ (8.62)
3	250		--	$ 44.79	$ 39.85		319	569	$ 90.07	$ 76.52	$ 45.28	$ 36.67	$ (8.61)
4	500		--	$ 80.28	$ 70.47		319	819	$ 126.12	$ 107.13	$ 45.84	$ 36.66	$ (9.18)
5	Avg Use 681		--	$ 107.66	$ 89.39		319	1,000	$ 153.77	$ 126.05	$ 46.11	$ 36.66	$ (9.45)
6	750		--	$ 116.15	$ 101.02		319	1,069	$ 162.25	$ 137.68	$ 46.10	$ 36.66	$ (9.44)
7	1,000		--	$ 152.28	$ 131.57		319	1,319	$ 198.39	$ 168.24	$ 46.11	$ 36.67	$ (9.44)
8	2,000		--	$ 296.81	$ 253.90		319	2,319	$ 342.92	$ 290.56	$ 46.11	$ 36.66	$ (9.45)
9	Rate No. 02 - Small General Service												
10	1,000		--	$ 161.31	$ 153.45		638	1,638	$ 256.37	$ 239.80	$ 95.06	$ 86.35	$ (8.71)
11	2,500		--	$ 384.82	$ 365.12		638	3,138	$ 479.89	$ 451.47	$ 95.07	$ 86.35	$ (8.72)
12	5,000		--	$ 757.35	$ 717.94		638	5,638	$ 852.41	$ 804.30	$ 95.06	$ 86.36	$ (8.70)
13	7,500		--	$ 1,129.87	$ 1,070.76		638	8,138	$ 1,224.94	$ 1,157.12	$ 95.07	$ 86.36	$ (8.71)
14	10,312		--	$ 1,548.88	$ 1,467.64		638	10,950	$ 1,643.96	$ 1,554.00	$ 95.08	$ 86.36	$ (8.72)
14	Rate No. 24 - General Service - Secondary Voltage												
15	50	7,300	20%	$ 1,327.85	$ 1,238.13	14	638	7,938	$ 1,387.33	$ 1,286.71	$ 59.48	$ 48.58	$ (10.90)
16	50	14,600	40%	$ 1,962.14	$ 1,828.99	14	638	15,238	$ 2,015.21	$ 1,877.57	$ 53.07	$ 48.58	$ (4.49)
17	50	21,900	60%	$ 2,539.78	$ 2,419.81	14	638	22,538	$ 2,752.86	$ 2,632.67	$ 213.08	$ 212.86	$ (0.22)
18	50	29,200	80%	$ 3,097.98	$ 3,010.63	14	638	29,838	$ 3,311.06	$ 3,223.49	$ 213.08	$ 212.86	$ (0.22)
19	300	43,800	20%	$ 7,664.26	$ 7,126.00	50	9,125	52,925	$ 8,514.94	$ 7,820.76	$ 850.68	$ 694.76	$ (155.92)
20	300	87,600	40%	$ 11,469.98	$ 10,671.00	50	9,125	96,725	$ 12,228.90	$ 11,365.76	$ 758.92	$ 694.76	$ (64.16)
21	300	131,400	60%	$ 14,935.83	$ 14,216.00	50	9,125	140,525	$ 16,220.32	$ 15,497.49	$ 1,284.49	$ 1,281.49	$ (3.00)
22	300	175,200	80%	$ 18,285.03	$ 17,761.05	50	9,125	184,325	$ 19,569.53	$ 19,042.54	$ 1,284.50	$ 1,281.49	$ (3.01)
23	500	73,000	20%	$ 12,733.38	$ 11,836.32	50	9,125	82,125	$ 13,584.06	$ 12,531.07	$ 850.68	$ 694.75	$ (155.93)
24	500	146,000	40%	$ 19,076.26	$ 17,744.64	50	9,125	155,125	$ 19,835.18	$ 18,439.39	$ 758.92	$ 694.75	$ (64.17)
25	500	219,000	60%	$ 24,852.67	$ 23,653.00	50	9,125	228,125	$ 26,137.16	$ 24,934.49	$ 1,284.49	$ 1,281.49	$ (3.00)
26	500	292,000	80%	$ 30,434.68	$ 29,561.31	50	9,125	301,125	$ 31,719.16	$ 30,842.81	$ 1,284.48	$ 1,281.50	$ (2.98)
27	Rate No. 25 - Large Power Service - Secondary Voltage												
28	1,000	146,000	20%		$ 29,524.04	50	9,125	155,125		$ 29,971.00		$ 446.96	
29	1,000	292,000	40%		$ 37,650.00	50	9,125	301,125		$ 38,096.96		$ 446.96	
30	1,000	438,000	60%		$ 45,775.94	50	9,125	447,125		$ 47,280.23		$ 1,504.29	
31	1,000	584,000	80%		$ 53,901.87	50	9,125	593,125		$ 55,406.16		$ 1,504.29	
32	2,000	292,000	20%		$ 58,796.72	50	9,125	301,125		$ 59,243.68		$ 446.96	
33	2,000	584,000	40%		$ 75,048.59	50	9,125	593,125		$ 75,495.55		$ 446.96	
34	2,000	876,000	60%		$ 91,300.49	50	9,125	885,125		$ 92,804.78		$ 1,504.29	
35	2,000	1,168,000	80%		$ 107,552.35	50	9,125	1,177,125		$ 109,056.65		$ 1,504.30	
36	5,000	730,000	20%		$ 146,614.67	50	9,125	739,125		$ 147,061.63		$ 446.96	
37	5,000	1,460,000	40%		$ 187,244.40	50	9,125	1,469,125		$ 187,691.36		$ 446.96	
38	5,000	2,190,000	60%		$ 227,874.10	50	9,125	2,199,125		$ 229,378.39		$ 1,504.29	
39	5,000	2,920,000	80%		$ 268,503.83	50	9,125	2,929,125		$ 270,008.13		$ 1,504.30	
40	Rate No. 41 - City and County Service (No demand charge on first 15 kW measured)												
41	10	3,650	20%	$ 671.41	$ 482.79	14	638	4,288	$ 713.38	$ 523.17	$ 41.97	$ 40.38	$ (1.59)
42	10	7,300	40%	$ 911.55	$ 727.52	14	638	7,938	$ 953.51	$ 767.90	$ 41.96	$ 40.38	$ (1.58)
43	10	10,950	60%	$ 1,151.68	$ 972.28	14	638	11,588	$ 1,488.86	$ 1,307.87	$ 337.18	$ 335.59	$ (1.59)
44	10	14,600	80%	$ 1,391.81	$ 1,217.01	14	638	15,238	$ 1,728.99	$ 1,552.60	$ 337.18	$ 335.59	$ (1.59)
45	300	45,990	20%	$ 9,572.00	$ 9,436.78	50	9,125	55,115	$ 10,172.33	$ 10,014.26	$ 600.33	$ 577.48	$ (22.85)
46	300	91,980	40%	$ 12,597.68	$ 12,520.40	50	9,125	101,105	$ 13,198.01	$ 13,097.89	$ 600.33	$ 577.49	$ (22.84)
47	300	137,970	60%	$ 15,623.35	$ 15,604.07	50	9,125	147,095	$ 17,278.00	$ 17,235.87	$ 1,654.65	$ 1,631.80	$ (22.85)
48	300	183,960	80%	$ 18,649.02	$ 18,687.73	50	9,125	193,085	$ 20,303.67	$ 20,319.53	$ 1,654.65	$ 1,631.80	$ (22.85)
49	800	118,990	20%	$ 24,917.85	$ 24,874.63	50	9,125	128,115	$ 25,518.18	$ 25,452.12	$ 600.33	$ 577.49	$ (22.84)
50	800	237,980	40%	$ 32,746.18	$ 32,852.99	50	9,125	247,105	$ 33,346.51	$ 33,430.48	$ 600.33	$ 577.49	$ (22.84)
51	800	356,970	60%	$ 40,574.50	$ 40,831.32	50	9,125	366,095	$ 42,229.15	$ 42,463.12	$ 1,654.65	$ 1,631.80	$ (22.85)
52	800	475,960	80%	$ 48,402.83	$ 48,809.64	50	9,125	485,085	$ 50,057.48	$ 50,441.44	$ 1,654.65	$ 1,631.80	$ (22.85)
53	Rate No. EVC - Electric Vehicle Charging												
54	Rate 01					-	319	319		$ 21.01		$ 21.01	$ 21.01
55	Rate 02					-	638	638		$ 40.02		$ 40.02	$ 40.02
56	Rate 24					14	638	638		$ 97.13		$ 97.13	$ 97.13
57	Rate 24					50	9,125	9,125		$ 704.31		$ 704.31	$ 704.31
58	Rate 25					50	9,125	9,125		$ 650.28		$ 650.28	$ 650.28
59	Rate 41					14	638	638		$ 107.92		$ 107.92	$ 107.92
60	Rate 41					50	9,125	9,125		$ 745.33		$ 745.33	$ 745.33

Note 1:

Table 1: 2021 EV Specifications and Estimated Annual Usage per Vehicle.

EV Parameter	Average Value
Range per Charge (Miles)	279
Battery Capacity (kWh)	69
Fuel Economy (kWh/mi)	0.283
Miles Driven Per Year	13,500
Annual Energy Usage (kWh)	3,825

Applied to Residential Service — Monthly Usage
No Workplace Charging Access: 319

Applied to Non-Residential, lower load (kW) bill calculations
With Workplace Charging Access: 319 (assumes most charge at workplace)
Level 2 Charger Number of Ports: 2
kW per Port 7.2

Note 2:

Table 9: Electric Vehicle Charging Equipment Terminology and Specifications in the United States.

Charging Level	Voltage/Current	Typical Power	EV Miles of Range per Hour	Location
Level 1	120 V(AC)/20A	1.2–1.4 kW (AC)	3-4 miles	Primarily home and some workplace
Level 2	208/240V(AC)/20-100A	3.3, 6.6–19.2 kW (AC)	10–20 miles	Home, workplace, and public
DC Fast	400 V–1,000 V (DC)/ 20-400A	50 kW or More (DC)	150-1,000 miles	Public, intercity

DCFC is applied to rate classes' 300 kW and greater. Min. kW Capacity: 50 Charging Hrs per Day: 6 kWh / Mo.: 9,125

Tables 1 and 9 are from the 2022 Light-Duty Electric Vehicles Impact Analysis and Forecast, EPE Economic Research Department, October 2022

El Paso Electric Company
Texas EV Ready Pilot Program and Tariffs Filing
Rate Design - WHEV Incentive Credit

Line	Item	Description	$/kWh	
1	A	Incremental Capacity Cost	$107.90	kW-yr
2	B	Off-Peak Recovery %	100.00%	Variable
3	C	Off-Peak Hours	21.99	Set by Definition
4	D	Expected Off-Peak Load Factor	51.97%	
5	E	Number of Off-Peak Days for the Period	365	Number of Off-Peak Days (Including holidays)
6	P	Incremental Generation Cost ($/kWh)	**$0.02586**	**Use for WHEV Incentive Credit**
	Where:	P = (A * B) / (C * D * E)		

Month	# of Days	Rate 01 Off-Peak Hours	Total Hours
Jan	31	24.00	744
Feb	28	24.00	672
Mar	31	24.00	744
Apr	30	24.00	720
May	31	24.00	744
Jun	30	18.00	540
Jul	31	18.00	558
Aug	31	18.00	558
Sep	30	18.00	540
Oct	31	24.00	744
Nov	30	24.00	720
Dec	31	24.00	744
Total	365	21.99	8028

TEXAS RATE 01 - TEXAS RESIDENTIAL SERVICE LOAD STUDY DATA

Month	Off-Peak Energy Used (kWh)	Off-Peak Maximum Class Demand (kW)	Off-Peak Load Factor
Jan	430	1.10	52.53%
Feb	395	0.95	59.76%
Mar	405	0.91	59.87%
Apr	520	1.80	40.21%
May	788	2.21	48.04%
Jun	715	2.61	51.92%
Jul	857	2.91	52.31%
Aug	876	2.83	54.02%
Sep	560	2.27	42.59%
Oct	597	1.75	45.77%
Nov	419	1.07	54.55%
Dec	503	1.09	62.10%
		Ave. Off-Peak Load Factor:	51.97%

Exhibit MC-3

(N)

EL PASO ELECTRIC COMPANY

SCHEDULE NO. WHEV

WHOLE HOUSE ELECTRIC VEHICLE PILOT INCENTIVE CREDIT

APPLICABILITY

This Incentive Credit is applicable to bills for electric service provided under Schedule No. 01 Residential Service Rate. Customers must have a qualifying electric vehicle that is registered with the Texas Department of Motor Vehicles using the same service address as the EPE residential account. Qualifying accounts must provide proof of EV registration annually to EPE.

TERRITORY

Texas Service Area

TYPE OF SERVICE

Energy usage during the Incentive Credit Period will be multiplied by the Incentive Credit rate to calculate the incentive credit presented on the monthly bill. Energy usage for all hours will be charged at the applicable Rate No. 01 rate. Electric energy will be measured by a single meter, or other measuring device, of each kind needed.

MONTHLY RATES

Incentive Credit Rate, per kWh	$0.02586

The Incentive Credit Period shall be from 12:00 A.M. through 8:00 A.M., during Mountain Standard and Daylight Time, in all months. All other hours not covered by the Incentive Credit Period do not qualify for the Incentive Credit.

MONTHLY MINIMUM CHARGE

The Incentive Credit presented on the monthly bill shall be limited so that the Monthly Minimum Charge provision of Schedule No. 01 Residential Service Rate is followed.

TERMS AND CONDITIONS

Service supplied under this rate schedule is subject to the Company's Rules and Regulations on file with the Public Utility Commission of Texas and available for inspection at Company offices.

PRORATION ADJUSTMENTS

Charges for service supplied under this rate schedule are subject to proration adjustments.

EL PASO ELECTRIC COMPANY (N)

SCHEDULE NO. TCTX

TAKE CHARGE TX PILOT PROGRAM

APPLICABILITY

This Take Charge TX Pilot Program is available to customers that qualify to take metered electric service under Schedule No. 02 Small General Service Rate, Schedule No. 24 General Service Rate, Schedule No. 25 Large Power Service Rate, Schedule No. 41 City and County Service Rate, and non-residential customers seeking to take service under Schedule No. EVC Electric Vehicle Charging.

TERRITORY

Texas Service Area

TYPE OF SERVICE

The Take Charge TX Pilot Program is a flexible, voluntary program for non-residential customers where the customer can choose the desired electric vehicle (EV) charging infrastructure and equipment that could be purchased, installed, and operated by the Company, in whole or part, including a fully turnkey solution, to mitigate the challenge of managing the EV charging station's installation and maintenance for the customer. Prior to installation of the infrastructure and equipment, all participants must execute the Take Charge TX Customer Agreement, which is incorporated herein.

MONTHLY RATES

Selected Recovery Term (Years)	Monthly Charge
1	9.250%
2	4.828%
3	3.358%
4	2.625%
5	2.188%
6	1.898%
7	1.694%
8	1.541%
9	1.423%
10	1.330%

The Monthly Charge is calculated and assessed monthly, based on the customer-selected repayment term monthly charge percentage in the table above, on the Company's total installed cost of EV charging infrastructure and equipment at the Customer's location.

EL PASO ELECTRIC COMPANY (N)

SCHEDULE NO. TCTX

TAKE CHARGE TX PILOT PROGRAM

MONTHLY MINIMUM CHARGE

The monthly minimum charge consists of the Monthly Charge and the Operations and Maintenance fee associated with the EV charging equipment.

TERMS OF PAYMENT

The due date of the bill for utility service shall not be less than sixteen (16) days after issuance. A bill becomes delinquent if not received at the Company by the due date. If the due date falls on a holiday or weekend, the next Company business day shall apply.

TERMS AND CONDITIONS

Service supplied under this rate schedule is subject to the Company's Rules and Regulations on file with the Public Utility Commission of Texas and available for inspection at Company offices.

EPE will have the right to reject projects based on reliability concerns or unreasonable costs.

PRORATION ADJUSTMENTS

Charges for service supplied under this rate schedule are subject to proration adjustments.

(N)

EL PASO ELECTRIC COMPANY

SCHEDULE NO. TCTX

TAKE CHARGE TX PILOT PROGRAM

Customers seeking to voluntarily sign up for the Take Charge TX Pilot Program must execute with the Company the following Take Charge TX Customer Agreement.

TAKE CHARGE TX CUSTOMER AGREEMENT

El Paso Electric (the "Company") and _____ (the "Customer"), enter into this Take Charge TX Agreement (the "Agreement") as of _____ (the "Effective Date"). Company and Customer may be referred to hereinafter individually as a "Party" or collectively as the "Parties", and each as a "Party").

RECITALS

WHEREAS Company currently provides electric service to Customer in accordance with the terms and conditions set forth in Company's Tariffs, including applicable rate schedules; and

WHEREAS Company has agreed to procure, install, operate, and maintain additional facilities for the purpose of charging electric vehicles (the "EVs") on Customer's premises as part of its EV pilot program under Schedule No. TCTX, Take Charge TX Pilot Program, all as more fully described below; and

WHEREAS Customer agrees to pay all charges for such additional facilities and related services contemplated in this Agreement.

NOW, THEREFORE, for and in consideration of the mutual covenants set forth herein, the Parties agree as follows:

PART 1: DESCRIPTION OF CHARGING STATION INFRASTRUCTURE

1.1 **Take Charge TX Facilities.** The Take Charge TX facilities ("Facilities") may include one or all of the following: one or more EV charging stations ("Charging Stations") and associated equipment on customer and utility side of the meter as agreed upon by Customer and Company and described in Exhibit A attached hereto and incorporated herein. Customer's property is identified in Exhibit B, attached hereto and incorporated herein (the "Premises"). The Facilities may include the Charging Station(s) and all electrical equipment, hardware, software, and supporting equipment and structures installed by Company's designated vendor(s) and/ or service provider(s) (collectively, the "Contractors") such as electric distribution cabinets and equipment, breakers, side arm disconnect, electric service connection to the Charging Station(s) from the existing electric meter in the case of behind-the-meter installations, or from Company's distribution grid, in the case of in-front-of-meter installations, as more specifically discussed below. Unless included in Exhibit A, any existing electrical components that are to be utilized in the installation process

do not constitute the Facilities for the purposes of this Agreement. Any modifications, replacements, and/or additions to the equipment covered by this Agreement will need to be subject to a new agreement covering the installed costs of such infrastructure under Schedule No. TCTX.

1.2 **Type of Installation.** Exhibit A stipulates one of the following installation options based on the requested location of the Charging Station(s) on the Premises:

(A) **Behind the Meter ("BTM") Installation.** Company may install the Facilities on an existing pad site where the Customer previously installed electric vehicle charging equipment (an "Existing Pad Site") or, alternatively, construct a new pad site. Notwithstanding whether there is an Existing Pad Site, BTM installation will require installation of the necessary electrical components, including but not limited to electric vehicle charging equipment, behind an existing electric meter, utilizing the existing electrical service panel, all in compliance with customer installation standards set forth in the Company's Tariff and any applicable rate schedule, rules, or regulations; or

(B) **In Front of Meter ("IFOM") Installation.** Company to install new electrical components dedicated specifically to providing dedicated electric service to the Facilities, and a new service agreement added to Customer's account for billing that service.

PART 2: OWNERSHIP OF EQUIPMENT

2.1 Notwithstanding the type of installation, Company owns all Facilities installed by Company or its Contractors except for electrical components installed or paid for by the Customer.

2.2 Notwithstanding 4.3 of this agreement, title to all Facilities which Company owns under the terms of this Agreement shall remain in the Company, and Customer acknowledges and agrees that this Agreement confers no ownership rights or interest to Customer in the Facilities equipment owned by Company.

PART 3: CUSTOMER WARRANTIES AND REPRESENTATIONS

3.1 Customer represents and warrants that:

(A) It is the sole owner of the Premises; or

(B) There are multiple property owners of record of the Premises, and Customer has been designated as the exclusive agent of all such property owners with

EL PASO ELECTRIC COMPANY (N)

SCHEDULE NO. TCTX

TAKE CHARGE TX PILOT PROGRAM

authority to enter into this Agreement and to execute the ROW (as defined below) on behalf of all of them.

3.2 Customer executed the right-of way in Exhibit C, attached hereto and incorporated herein (the "ROW") granting Company the exclusive right to erect, locate, install, and operate the Facilities on the Premises. At Company's election, Company may record the ROW or a memorandum reflecting the ROW in the real property records of the county of record. As stated therein, Customer shall not permit any levy, lien, or other legal process to be attached to the Facilities and shall immediately notify Company if any of the foregoing shall occur.

3.3 Customer acknowledges that Company will make substantial expenditures to install the Facilities in reliance on the terms of this Agreement.

3.4 **Customer will provide the Company access to the Facilities for maintenance between the hours of 7:00 AM and 7:00 PM, seven days a week, or, in the case of an emergency, at any time upon receiving prior notification from the Company.**

PART 4: TERM; DISPOSAL OF THE FACILITIES EQUIPMENT; FEES; INCENTIVES

4.1 **Contract Period.** The initial term of the Customer Agreement will continue for the 10-year life of the Company's investment (the "Contract Term") regardless of the number of years that the customer will make payments under Schedule No. TCTX (the "Recovery Term").

4.2 **Recovery Term.** The Recovery Term will commence on the Effective Date and will continue for _____ years after the date that the Facilities are placed into service ("Commencement Date").

4.3 **Disposal of Facilities.** Upon expiration or earlier termination of the Agreement, Company shall have the right, at its sole option and discretion, to either remove or abandon in place such Facilities. In the event Company notifies Customer that it has elected to abandon in place such Facilities, title to such Facilities shall automatically vest in Customer, without further action on the part of Company, and Company shall have no further obligations or liabilities in connection therewith. Upon request by Customer and at Customer's expense, and subject to Customer paying any outstanding Fees and any amounts due pursuant to Sections 4 and 5, Company will provide a duly executed bill of sale with respect to the Facilities and/or a Release evidencing the surrender of the ROW.

4.4 **Fees.** Customer agrees to pay the following fees (the "Fees"):

EL PASO ELECTRIC COMPANY (N)

SCHEDULE NO. TCTX

TAKE CHARGE TX PILOT PROGRAM

(A) **Infrastructure Charge.** Pursuant to Schedule No. TCTX, Customer will pay a net monthly Infrastructure Charge payment of $_____ for the Recovery Term to compensate Company for the cost of procurement, construction, and installation of the Facilities equipment. This charge will be paid on a monthly basis for the duration of the Recovery Term, starting from the Commencement Date.

(B) **O&M Charge.** Customer will pay a monthly charge of $_____ for the duration of the Contract Term to compensate Company for the annual cost of operating and maintaining the Facilities based on the type and level of service requested by Customer ("O&M Charge"). The O&M Charge does not include nor is it intended to reflect any increased electricity consumption associated with Customer's use of Facilities. Such increased electricity consumption will be billed in accordance with Company's applicable rate schedules and riders applied to Customer's current electric service for a BTM installation or new electric service for an IFOM installation.

(C) **Monthly Billing.** The Infrastructure Charge and the O&M Charge are in addition to Company's standard charges for electric service under its Tariff. The Infrastructure Charge and the O&M Charge will be included together as a separate line item in Customer's monthly utility bill.

4.5 **Available Incentives.** Certain incentives, tax credits, and/or rebates may be available for the Facilities (collectively, the "Incentives"), and Company may, in its sole discretion, claim those Incentives. Customer shall not claim any Incentives without Company's prior written approval.

PART 5: TERMINATION

5.1 **Termination by Company for Breach.** Company may terminate this Agreement due to Customer's breach of this Agreement. Should Company terminate this Agreement before the end of the Contract Term pursuant to the provisions in this Section 5.1, then Customer shall pay Company a lump sum equal to the remaining unpaid Fees calculated through the end of the Contract Term. Customer will be liable for all court costs, attorneys' fees, and other costs associated with the collection of all amounts owed under the terms of this Agreement.

5.2 **Termination by Customer.** Should Customer terminate this Agreement prior to the Commencement Date, Customer shall pay Company for all costs incurred by Company in preparing to install the Facilities equipment up to that point, including Contractor fees, non-refundable equipment costs, restocking fees, shipping costs, design, surveying and planning costs, and any applicable permit related costs. Should Customer terminate this Agreement after the Commencement Date, but prior to the

end of its Contract Term, then in addition to all other rights of recovery allowed herein or in accordance with applicable law, Customer shall pay Company a lump sum equal to the remaining unpaid Fees calculated through the end of the Contract Term. Customer will be liable for all court costs, attorney's fees, and other costs associated with the collection of all amounts owed under the terms of this Agreement.

5.3 **Termination Due to Change in Law or Regulatory Action.** The Company may terminate this agreement and remove its Facilities from the Premises to the extent the Company ownership of the Facilities is determined to be inappropriate or impermissible by the applicable regulatory or governmental authorities.

PART 6: CONSTRUCTION AND OPERATION OF FACILITIES EQUIPMENT

6.1 **Project Contingencies.** Installation of the Facilities equipment is conditioned on satisfaction of the following contingencies.

(A) Execution and delivery of all necessary documentation to give effect to the ROW, as described in Section 3.2.

(B) The remediation, to Company's sole satisfaction, of any hazardous materials, contamination, or other environmental conditions at the Premises that affect the Facilities. The cost of such remediation is not included in the Fees.

(C) Company will provide a best estimate of the Infrastructure Charge prior to executing this Agreement; however, the Infrastructure Charge may change following detailed site assessments and confirmation of project design. Consequently, the Infrastructure Charge will not be fixed and final until execution of the Agreement.

6.2 **Procurement and Installation.** If Customer elects to have Company procure and/or install Facilities, Company will provide labor, equipment, and materials necessary to install the Facilities that the Customer elected to have on the Premises. Company will obtain any necessary permits required to prepare the area and install and operate the Charging Station(s), as requested by the Customer and specified in this Agreement. With Customer's prior consent, Company may paint, place, erect, or project signs, marks, or advertising devices on or about the Area or elsewhere on the Premises, including signage on or around the Charging Station(s) designating the area "EV Charging Parking Only."

6.3 **Monitor and Maintain.** During the Contract Term, Company will monitor and maintain the Facilities in accordance with Customer's selections indicated on Exhibit A. Customer will pay the amount designated in Section 4.3 above and any electric

usage charges that Customer is obligated to pay Company for Company's non-residential rates, riders, and agreements. Customer agrees to provide Company, its Contractors, and/ or service partners with access to the Facilities as reasonably required.

6.4 **Charging Station Use.** The Charging Station(s) may be made available to the general public or select users (the "Users"), in Customer's sole discretion. Users may be required to accept certain terms of use imposed by third-party product suppliers. Customer, in its sole discretion, will determine the applicable fees for any and all Users and the method of payment to Customer for such usage. Customer is responsible for collection of all applicable sales tax associated with such usage. Company will not collect any fee from User(s).

6.5 **Duties of Care.**

(A) **Charging Station Maintenance.** Company shall maintain Charging Station(s) in good working condition, ordinary wear and tear excepted, if elected by the Customer and specified in this Agreement. Company does not guarantee uninterrupted or continual operation of the Charging Station(s) and, in its sole discretion, may interrupt operation when necessary whether by suspending service and/or removing equipment that, in Company's sole discretion, poses a risk to the public or to operations, or to perform maintenance on the Facilities.

(B) **Customer Obligations.** The Customer will not remove, mar, deface, obscure, or otherwise tamper with the Charging Station labels. Furthermore, Customer agrees, at its own expense and at all times during the Contract Term, to keep public areas, parking spaces, streets and sidewalks appurtenant to the Facilities Area reasonably free of debris and rubbish and in good repair and condition. Customer shall notify Company immediately if Customer becomes aware that the Facilities have become unsafe, damaged, or inoperable. Customer shall immediately report all claims and/or incidents associated with the Facilities to Company. If there are operational or maintenance issues with a Charging Station, Customer will not undertake any of repair to Company-owned Facilities; instead, Customer will promptly contact Company's representative identified in this Section so that Company can perform the necessary repairs. Customer will be responsible for repair and maintenance of existing electrical components installed or paid for by the Customers as well as any existing pad site. Customer shall not move (or remove) the Charging Station(s) from their installed location(s).

EL PASO ELECTRIC COMPANY (N)

SCHEDULE NO. TCTX

TAKE CHARGE TX PILOT PROGRAM

Company's Representative: _____

Name: _____

Address: _____

_____

_____

Email and Phone: _____

6.6 **Software License and Internet Access.** All Charging Station hardware and software are provided by third-party suppliers. Company will assist Customer with the deployment and provision of the software (or cloud-based software service) and any software management and support services. Customer will be required to enter into a direct license/service agreement with the third-party licensor (the "Software License"). Customer will be responsible for provisioning internet connectivity to the Facilities equipment, if required. Customer's use of the software and related services will be governed by the terms of the Software License in addition to the terms of this Agreement.

6.7 **Charging Station Usage Data.** Company shall have the right to view, copy, and analyze anonymized Charging Station usage data and usage reports for Company's own purposes and to perform tasks such as provisioning, configuration, troubleshooting, validating installation of the Charging Station(s), and energy management for the Contract Term of the Agreement. Customer hereby authorizes Company and its representatives to request and obtain such anonymized reports directly from the third-party provider(s) of Facilities support services. For the avoidance of doubt, Company shall have no liability or responsibility for data breaches or other misuse of Facilities usage data, including data relating to end-user transactions. Customer will contract directly with a third-party for data transfer and any claim related to breach of data security or misuse of data will be between Customer and the third-party, not Company.

PART 7: PUBLICITY

7.1 **Publicity.** Customer acknowledges that it may be required to post signage at Company's request. The foregoing notwithstanding, Customer may not use Company's name, service mark, design, or any Company's intellectual property without Company's prior written consent. Neither party will make any public announcement regarding this Agreement, or any project that may be developed under

this Agreement, without first obtaining the prior written consent of the other party. Any proposed press releases or other promotional materials will need approval by both the Company and Customer. No publication or promotional material may claim or imply that Company endorses Customer's business, brand, products, environmental attributes, or Customer generally. Customer agrees that it will not place Company's logo, trademark, service mark, or advertising device on any portion of the Charging Station(s) or in the Facilities area without Company's prior written consent. Customer has the right to advise mapping services, vehicle navigation system manufacturers, and/or smart phone application developers of the existence of the Charging Station(s) at the Facilities area. To promote and inform the public about the Charging Station(s), Customer may disclose to the public information about the location of the Charging Station(s) and its status and may use the business name (or project or shopping center name as designated by Customer) and address of the Facilities area in promotional materials, websites, and maps. With Customer's prior written consent, Company may use Customer's logo, trademark, or service mark in promotional materials, websites, or maps.

PART 8: INSURANCE

8.1 **Insurance** Customer shall provide and maintain, at its own expense, insurance coverages in forms and amounts that Customer believes will adequately protect it but in no case less than:

(A) Commercial General Liability Insurance, including Contractual Liability Coverage covering liability assumed under this Agreement, Products Liability Coverage, Completed Operations Coverage to remain in effect for three (3) years following the expiration or termination of this Agreement, Broad Form Property Liability Coverage, Personal Injury Coverage, and Explosion, Collapse and Underground Hazards Coverage, with a combined single limit of $1,000,000 (one million dollars) per occurrence for Bodily Injury and Property Damage.

(B) Excess or Umbrella Liability Coverage following the form of coverages required in Subsection 8.1(A) with limits of liability, when combined with such primary coverage limits, equal to $2,000,000 (two million dollars) per occurrence.

(C) Such other insurance as may be deemed necessary or desirable by the Company.

8.2 Customer's insurance policies required by Subsections 8.1 above, shall include Company and Company's affiliates as additional insureds with respect to Customer's performance under and liability arising from this Agreement. All of Customer's policies shall be endorsed to waive subrogation against Company and its affiliates for personal injury, including death, and property damage. All of Customer's policies of

insurance shall be primary insurance and noncontributing with any other insurance maintained by Company and its affiliates. Customer shall endeavor to provide Company notice of policy cancellation or material change in accordance with the policy provisions. Policies are to be written by insurers that carry A.M. Best Rating of AVII or better. Customer shall provide Company with Certificates of Insurance issued to Company and its affiliates evidencing coverage currently in effect upon execution of this Agreement and annually thereafter pursuant to the requirements of this Section 8.

8.3 The minimum insurance requirements set forth above shall not vary, limit, or waive Customer's legal or contractual responsibilities or liabilities to any party. It is agreed that Customer's insurance shall apply to Customer's indemnity and defense obligations under this Agreement. If it is judicially or statutorily determined that the insurance required hereunder exceeds the monetary limits permitted under applicable law, the parties agree that said insurance requirements shall automatically be amended to conform to the maximum monetary limits permitted under such law.

8.4 In the event that the indemnities provided for in this Agreement are judicially or statutorily determined to be invalid, impermissible, or exceed permissible amounts, such indemnities shall automatically be deemed to be amended to conform to applicable law; provided, however, that Company and its affiliates shall continue to be covered by such insurance policy(ies) as additional insureds to the extent of Customer's indemnification responsibilities set forth in this Agreement, with such insurance to be primary as to all other policies (including any deductibles or self-insurance retentions) of Company and its affiliates that may provide coverage. Customer and its insurer(s) waive all rights of subrogation and contribution against Company and its affiliates to the extent that liabilities are assumed by Customer.

8.5 **Casualty.** If all or any portion of the Facilities are damaged or destroyed by fire or other casualty which reasonably materially and adversely affects their operation, then Company may at its election either (i) repair or replace the affected Facilities, in which case Customer shall continue to pay the Fees set forth in this Agreement, or (ii) terminate this Agreement by giving at least twenty (20) days written notice.

PART 9: PRODUCT WARRANTIES; INDEMNIFICATION; LIMITATION OF LIABILITY

9.1 **Product Warranties.** All Charging Station hardware and software are provided by third-party suppliers. If applicable, Company will pass through to Customer the benefit of any and all warranties offered to customers by the product suppliers. Customer acknowledges and agrees that (i) Customer is solely responsible for selecting products that satisfy Customer's operational requirements; and (ii) Company does

not provide any warranties with respect to defects in the materials or workmanship of the products supplied by such third-party suppliers.

9.2 **Protection of Company's Property.** The Customer will properly protect the Company's property located on the Premises. In the event of any loss or damage to the Company's property caused by or arising out of carelessness, neglect, or misuse by Customer or other unauthorized parties, the cost of making good such loss or repairing such damage will be paid by the Customer.

9.3 **Customer's Liability to Company and Indemnification.** Customer shall be responsible to the Company for any loss or damage to the Company's property; (a) resulting from abuse of the Facilities, or (b) caused by Customer, Customer's agents and assigns, Users, or any third-party within the control of the Customer. Customer shall indemnify, defend and hold Company harmless from any and all liabilities, claims, demands, administrative proceedings, orders, judgements, assessments, fines, penalties, costs and lawsuits, of whatever nature and expenses of any kind of nature (including reasonable attorneys' fees) that may be imposed on, incurred by, or asserted against the Company, its affiliates, and their contractors and each of their agents, officers, directors, shareholders, control persons, employees, agents, successors, assigns, and representatives (the "Indemnitees") or any of them by any third-party or parties (including, without limitation, or governmental entity), caused by, arising from, relating to or in connection with, in whole or in part, directly or indirectly: (i) the negligent, willful or intentional acts or omissions of Customer, its agents, contractors, subcontractors or employees or Users during the Contract Term of this Agreement and any agreed extensions thereof; (ii) misuse of the Facilities by any User; (iii) breach of any of the representations, warranties, covenants or the terms of this Agreement, except to the extent any of the liabilities are caused by the gross negligence of the Indemnitees; (iv) misuse of software or any breach of the terms of a software license by any person other than Company; or (iv) any unauthorized use, disclosure or loss of User information including personal information.

9.4 **Limitation of Liability.** Except for Customer's indemnification obligations and obligation to pay the Fees, neither party shall be liable to the other party for any special, incidental, consequential, punitive, or indirect damages or loss of profit or business interruption damages whatsoever. IN ADDITION, UNDER NO CIRCUMSTANCES WILL COMPANY'S TOTAL AGGREGATE LIABILITY FOR DAMAGES ARISING UNDER OR WITH RESPECT TO THIS AGREEMENT EXCEED THE TOTAL FEES PAID BY CUSTOMER PURSUANT TO THIS AGREEMENT IN THE 24 MONTH PERIOD PRECEDING THE DATE ON WHICH THE LAST SUCH CLAIM FOR DAMAGES AROSE. For the purposes of the preceding sentence, the date on which a claim for damages arises shall be the date on which the statute of limitations period for such claims begins to run.

EL PASO ELECTRIC COMPANY

(N)

SCHEDULE NO. TCTX

TAKE CHARGE TX PILOT PROGRAM

PART 10: NOTICES

10.1 Any notice given by either Party to the other pursuant to this Agreement, shall be in writing and be deemed validly given if delivered in person, delivered by private, prepaid courier, sent by facsimile with confirmation, sent by email to named contacts for the other Party with email confirmation of receipt, or deposited in the mail properly stamped with the required postage and addressed to the last-known office address of the respective addressee. Either Party hereto shall have the right to change any address or addressee it may have given to the other Party by giving such other Party due notice in writing of such a change. Until so changed, notices shall be given to the addressees at the addresses set forth below.

	Customer:	Company:
Name:	_____	_____
Address:	_____	_____
	_____	_____
	_____	_____
ATTN:	_____	_____

PART 11: MISCELLANEOUS

11.1 **Relationship of the Parties; Force Majeure.** The Parties are independent contractors in performance of this Agreement. This Agreement: (i) creates no joint venture, partnership, fiduciary, or agency relationship for any purpose beyond that contemplated by the Agreement in conformance with the Schedule No. TCTX; (ii) confers no right or remedy on any person other than the Parties and their respective successors or permitted assigns; and (iii) creates no contractual relationship with, or cause of action for any third-party. Neither Party is responsible for delay or failure in performance (except with respect to the obligation to pay amounts otherwise due and owing) to the extent the delay or failure is caused by fire, flood, explosion, war, embargo, government requirement, civil or military authority, act of God, pandemic (other than the Covid 19 pandemic except to the extent that there are material adverse changes to the trajectory of the Covid 19 pandemic), change in the law, act or omission of carriers, or other similar cause beyond the Party's control.

EL PASO ELECTRIC COMPANY (N)

SCHEDULE NO. TCTX

TAKE CHARGE TX PILOT PROGRAM

11.2 Governing Law. Texas law governs all matters, including torts, relating to this Agreement, without regard to choice of law principles. The Parties will resolve a claim or dispute under this Agreement in a state or federal court sitting in El Paso County, Texas. Each Party consents to exclusive jurisdiction and venue in these courts. This Agreement and its exhibits comprise the Parties' final and exclusive expression of their rights and obligations regarding the Facilities equipment and supersede any prior oral or written representation, promise, or agreement. Captions are for convenience only and do not affect interpretation; "include" means "include but are not limited to"; "or" means "either or both"; and defined terms are singular or plural as context requires. Provisions that logically should apply beyond Agreement expiration or termination will survive expiration or termination.

11.3 Modification; Waiver; Assignment; Severability. No amendment or modification of this Agreement is effective unless made in a writing signed by both Parties. Each Party agrees to execute documents or perform acts reasonably necessary to perform each provision of this Agreement. Failure of a Party to insist on strict performance of any provision does not waive the right to require future performance; a waiver in one instance is not a waiver regarding a later obligation or breach. This Agreement binds and benefits the Parties and their respective heirs, successors, assigns, including successor Premises owners. If there is an assignment or change in control of all, or substantially all, of a Party's operations or assets, the Party must provide prompt written notice and the Parties will cooperate to ensure that the Agreement binds the successor. If a court rules a provision unenforceable to any extent, the rest of that provision and all others remain effective; the Parties will negotiate in good faith to replace the provision. If a court finds a provision unreasonably broad in time or scope, the Parties desire that the court reduce it to the maximum allowable parameter, instead of holding it totally unenforceable.

11.4 Capitalized Terms. Any capitalized term not specifically defined herein has the meaning ascribed to it in the Rules and Regulations of the Company's Tariff.

11.5 Counterparts. Each Party agrees to all terms and conditions of this Agreement, as of the Effective Date. This Agreement may be executed in any number of counterparts. The Parties may exchange counterparts by facsimile transmission or as a scanned image (e.g., .pdf, or .tiff file extension) as an attachment to email; a facsimile or scanned signature is an original signature for all purposes.

(Signatures commence on next page.)

EL PASO ELECTRIC COMPANY (N)

SCHEDULE NO. TCTX

TAKE CHARGE TX PILOT PROGRAM

EL PASO ELECTRIC

By: _____

Name: _____

Title: _____

CUSTOMER

By: _____

Name: _____

Title: _____

EL PASO ELECTRIC COMPANY (N)

SCHEDULE NO. TCTX

TAKE CHARGE TX PILOT PROGRAM

Exhibit A

FACILITIES EQUIPMENT, SOFTWARE, AND MAINTENANCE OPTIONS

EL PASO ELECTRIC COMPANY (N)

SCHEDULE NO. TCTX

TAKE CHARGE TX PILOT PROGRAM

Exhibit B

THE PREMISES

(N)

EL PASO ELECTRIC COMPANY

SCHEDULE NO. TCTX

TAKE CHARGE TX PILOT PROGRAM

EXHIBIT C

RIGHT-OF-WAY

EL PASO ELECTRIC COMPANY

_____, a _____, hereinafter called Grantor, whether one or more, for and in consideration paid by EL PASO ELECTRIC COMPANY the receipt and sufficiency of which is hereby acknowledged, has granted, sold and conveyed, and by these presents does grant, sell and convey unto the said EL PASO ELECTRIC COMPANY, a corporation duly organized and existing under the laws of the State of Texas, hereinafter called Grantee, for a term of _____ years from the Effective Date (as defined below) the EXCLUSIVE RIGHT, PRIVILEGE, AND RIGHT-OF-WAY to enter upon and to install, maintain, operate, inspect, patrol, repair, and remove electric vehicle charging station(s) and all associated equipment, including but not limited to a electric vehicle charging stations, concrete pads, electrical interconnection facilities, and any bollards or fencing deemed necessary by Grantee, said Take Charge TX Infrastructure to be erected simultaneously or at different future times, with the right to replace structures or fixtures composed of one type of material or materials with structures or fixtures of any other type of material or materials at any time and from time to time without further payment, upon, over, under and across that parcel of land owned by Grantor, said easement being _____FEET BY FEET (the "Easement Area") as depicted on the attached Attachment A, incorporated herein.

Grantor agrees that it shall not erect, locate, or permit the erection or placement of any building, structures, overhangs, trees, shrubs, or object of any type outside of said Easement Area, whether on a temporary or permanent basis, that will interfere with Grantee's access, operations, or the rights granted to Grantee hereunder or that violate any clearance, safety or operational requirements, guidelines or specifications as set forth in the National Electrical Safety Code, applicable operating guidelines associated with the Take Charge TX Infrastructure, and all other applicable laws, regulations, building codes, zoning ordinances, or other ordinances or requirements. Grantor shall not change the elevation of the land within the Easement Area where such elevation change causes a violation in any clearance, safety, or operational requirements set forth in the National Electrical Safety Code Requirements, applicable operating guidelines associated with the Take Charge TX Infrastructure, or any other applicable laws, regulations, building codes, zoning ordinances, or other ordinances or requirements, or limits ingress/egress to, from and along the land covered by the Easement Area. Grantee shall have ingress and egress at any time to, from and along the land covered by the Easement Area or Grantor's adjoining land.

(N)

EL PASO ELECTRIC COMPANY

SCHEDULE NO. TCTX

TAKE CHARGE TX PILOT PROGRAM

Grantor hereby covenants with and represents and warrants to said Grantee that Grantor has good and marketable title to said land, and has the unqualified right to grant the privileges herein contained.

Grantor shall not permit any levy, lien or other legal process to be attached to the Take Charge TX Infrastructure. Title to all Take Charge TX Infrastructure which Grantee owns under the terms of this Right-of-Way shall remain in the Grantee, and Grantor acknowledges and agrees that this Right-of-Way confers no ownership rights or interest to Grantor in the Take Charge TX Infrastructure owned by Grantee. Upon expiration or earlier termination of this Right-of-Way, Grantee shall have the right, at its sole option and discretion, to abandon in place all such Take Charge TX Infrastructure. In the event Grantee notifies Grantor that it has elected to abandon in place such Take Charge TX Infrastructure, title to such Take Charge TX Infrastructure shall automatically vest in Grantor, without further action on the part of Grantee, and Grantee shall have no further obligations or liabilities in connection therewith.

All the Agreements and stipulations herein contained, and all of the obligations herein assumed, shall inure to the benefit of and be binding upon the heirs, successors and assigns of the respective parties thereto.

This Right of Way is effective as of the ___ day of _____, 20__ (the "Effective Date").

EL PASO ELECTRIC

By: _____

Name: _____

Title: _____

CUSTOMER

By: _____

Name: _____

Title: _____

EL PASO ELECTRIC COMPANY (N)

SCHEDULE NO. TCTX

TAKE CHARGE TX PILOT PROGRAM

ACKNOWLEDGEMENT

STATE OF_____

COUNTY OF_____

On _____, 2023, _____ known to me (or proved to me on the basis of satisfactory evidence) to be the individual whose name is subscribed to the within instrument, personally appeared before me and acknowledged to me that he executed the same on behalf of said limited liability company.

_____
Name:
Notary Public

ACKNOWLEDGEMENT

STATE OF_____

COUNTY OF_____

On _____, 2023, _____ known to me (or proved to me on the basis of satisfactory evidence) to be the individual whose name is subscribed to the within instrument, personally appeared before me and acknowledged to me that he executed the same on behalf of said limited liability company.

_____
Name:
Notary Public

El Paso Electric Company
Texas EV Ready Pilot Program and Tariffs Filing
Schedule No. TCTX - Take Charge Texas Pilot Program Percentage Rates

		Level Payments				Level Monthly Percentage Rates		
Line No.	Recovery Term Years	Assumed Investment	Number of Payments	Pre Tax Cost of Capital.	Monthly Payment	Return On & Of	Prop. Tax and Prop. Ins	Total Cost Rate Without O&M
(a)	(b)	(c)	(d)	(e)	(f)	(g) = (f)/(c)	(h)	(i) = (g)+(h)
1	1	$1,000	12	8.92%	$87.41	8.741%	0.509%	9.250%
2	2	$1,000	24	8.92%	$45.65	4.565%	0.263%	4.828%
3	3	$1,000	36	8.92%	$31.76	3.176%	0.182%	3.358%
4	4	$1,000	48	8.92%	$24.84	2.484%	0.141%	2.625%
5	5	$1,000	60	8.92%	$20.72	2.072%	0.116%	2.188%
6	6	$1,000	72	8.92%	$17.98	1.798%	0.100%	1.898%
7	7	$1,000	84	8.92%	$16.05	1.605%	0.089%	1.694%
8	8	$1,000	96	8.92%	$14.61	1.461%	0.080%	1.541%
9	9	$1,000	108	8.92%	$13.50	1.350%	0.073%	1.423%
10	10	$1,000	120	8.92%	$12.62	1.262%	0.068%	1.330%

Input:
Pretax Cost of Capital (COC) 8.915%

El Paso Electric Company
Texas EV Ready Pilot Program and Tariffs Filing
Schedule No. TCTX - Take Charge Texas Pilot Program Percentage Rates

Line No.	Year	Number of Payments	Insurance & Property Tax	Monthly Payment	Total Payments	Level Monthly Ins & Prop Tax Percentage Rates
	(a)	(b)	(c)	(d)	(e) = (b)x(d)	(e)
1	1	12	$ 7.70	$5.09	$61.08	0.509%
2	2	24	$ 7.85	$2.63	$63.12	0.263%
3	3	36	$ 8.01	$1.82	$65.52	0.182%
4	4	48	$ 8.17	$1.41	$67.68	0.141%
5	5	60	$ 8.33	$1.16	$69.60	0.116%
6	6	72	$ 8.50	$1.00	$72.00	0.100%
7	7	84	$ 8.67	$0.89	$74.76	0.089%
8	8	96	$ 8.84	$0.80	$76.80	0.080%
9	9	108	$ 9.02	$0.73	$78.84	0.073%
10	10	120	$ 9.20	$0.68	$81.60	0.068%
11	NPV		$58.92			

Input:

Aftertax Discount Rate	6.8760%
Assumed Investment	$ 1,000.00
Insurance Rate	0.1200%
Property Tax Rate	0.6500%
Property Tax & Insurance Gross Up	2.0000%

The following files are not convertible:

40a Exhibit MC-1 Bill Impact Analysis.xlsx

40b Exhibit MC-2 EVC Incentive Credit.xlsx

40f Exhibit MC-5 Take Charge TX Pilot Program.xlsx

Please see the ZIP file for this Filing on the PUC Interchange in order to access these files.

Contact centralrecords@puc.texas.gov if you have any questions.