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APPLICATION OF EL PASO ELECTRIC COMPANY FOR APPROVAL OF ITS TEXAS ELECTRIC VEHICLE -READY PILOT PROGRAMS AND TARIFFS	§ § § § §	**STATE OFFICE OF ADMINISTRATIVE HEARING**

CROSS-REBUTTAL TESTIMONY

OF

JARED BALLEW

ON BEHALF OF EV.ENERGY CORP

March 12, 2024

I. Introduction and Summary of Recommendations

Q: Please state your name.

A: My name is Jared Ballew.

Q: Are you the same Jared Ballew who provided Direct Testimony on behalf of EV.ENERGY CORP (ev.energy) in this proceeding on February 20, 2024?

A: Yes.

Q: What is the purpose of your Cross-Rebuttal Testimony?

A: The purpose of my Cross-Rebuttal Testimony is to provide ev.energy's responses to the Direct Testimony of Public Utility Commission of Texas – Rate Regulation Division (Staff) witness Adrian Narvaez and Office of Public Utility Counsel (OPUC) witness Evan D. Evans regarding El Paso Electric Company's (EPE or the Company) proposed EV Smart Rewards Pilot.

Q: Please summarize your recommendations for the Commission.

A: I continue to support the recommendation included in my initial testimony that the Public Utility Commission of Texas (Commission) approve EPE's proposed EV Smart Rewards Pilot as proposed.

II. Responses to Staff

Q: What will you address in this section of your testimony?

A: In this section of my testimony, I will respond to Staff witness Narvaez regarding the proposed EV Smart Rewards Pilot.

Q: What does Staff recommend with respect to EPE's proposed EV Smart Rewards Pilot?

A: Staff witness Narvaez first argues that none of EPE's proposed programs in this proceeding "are necessary for EPE to provide adequate and reasonable electric utility service to its customers" or "necessary for EPE to maintain its financial integrity."[1] With respect to the EV Smart Rewards Pilot specifically, Staff witness Narvaez argues that EPE has "not shown why modifications to its rate design applicable to all customers would not better encourage a shift in electric consumption from on-peak periods to off-peak periods."[2] He also argues that the participation incentives EPE proposes for the EV Smart Rewards Pilot "would likely result in unjust and unreasonably preferential and discriminatory subsidies that may be recovered at the expense of other customers."[3] Finally, Staff witness Narvaez argues that all of the types of EV programs EPE proposes "will always result in the discriminatory policy of subsidizing EV customers by shifting costs to other customers" and suggests that "EV-specific policy" would be better implemented by establishing a separate EV rate class.[4]

Q: How do you respond to Staff's assertion that none of EPE's programs are necessary?

A: With respect to the EV Smart Rewards Pilot, the implication of this assertion is that Staff apparently believes that EPE should not take any proactive steps to prepare for the continued growth of EVs and the major new load that they will bring to EPE. EPE witness

[1] Narvaez Direct at p. 8, ll. 14-19.
[2] *Id.* at p. 10, ll. 5-7.
[3] *Id.* at p. 11, ll. 15-7.
[4] *Id.* at p. 13 at ll. 8-10 and p. 14, ll. 12-14.

Novela provided unrebutted analysis demonstrating that residential EV charging load will contribute approximately 5 MW to EPE's peak demand by the end of 2025.[5]

The EV charging load that contributes to peak demand will only grow if the EV charging load is left unmanaged. The purpose of the EV Smart Rewards Pilot is to provide EPE with the tools and expertise to manage residential EV charging load to ensure that it does not contribute to peaks and that the benefits of EV charging can be realized. If EPE fails to manage EV charging load, it will be forced to meet a growing peak demand through expensive investments in new generation and grid upgrades. Under traditional cost-of-service principles, all customers would pay for the costs of these new investments triggered by unmanaged EV charging load.

Failing to effectively manage EV charging load is likely to be much more expensive for EPE's customers. Given the highly flexible nature of EV charging load, failing to manage EV charging load would be a major missed opportunity for EPE to achieve the benefits that managed charging can realize and ensure that EV load growth does not exacerbate grid and distribution constraints necessitating infrastructure upgrades. I discuss many of these benefits in more detail below.

[5] Novela Direct at p. 10, ll. 13-15 and p. 11, ll. 15-17 (noting that EPE's forecast assumed non-managed charging profiles through 2026).

Q: How do you respond to Staff's assertion that EPE has not shown that the EV Smart Rewards Pilot would be more effective at shifting consumption from on-peak periods to off-peak periods than modifications to rate design applicable to all customers?

A: Notably, Staff witness Narvaez does not provide any specific or even conceptual recommendations for potential rate design modifications that he believes would be more effective at shifting consumption from on-peak to off-peak periods. EPE already offers an optional time-of-day rate for residential customers that encourages them to avoid using electricity between noon and 6 PM during summer months.[6] Given that EPE already offers this time-of-day option to all residential customers, it is unclear why Staff witness Narvaez believes that EPE should have proposed modifying rates that are available to all customers to encourage off-peak EV charging instead of proposing the EV Smart Rewards Pilot.

EPE is rightly developing a suite of tools to plan effectively for increased EV charging load. In addition to the optional time-of-day rate available to all residential customers, EPE also currently offers Schedule EVC, which offers time-of-use rates for residential and commercial customers for separately metered EV charging load, as I discussed in my Direct Testimony.[7] However, as I also discussed in my Direct Testimony, both whole-home time-of-day rates and Schedule EVC have limitations that the EV Smart Rewards Pilot addresses. Specifically, many customers might be unwilling to take service on whole-home time-of-day rates because they are unable or unwilling to shift other

[6] El Paso Electric Company Schedule No. 01, Residential Service Rate (available at: https://www.epelectric.com/files/html/Rates_and_Regulatory/TX%20Rates/Section%201%20-%20Sheet%2004.0%20-%20Schedule%2001%20Residential%20Service%20Rate.pdf).
[7] Ballew Direct at p. 12, ll. 16-17.

electric loads to off-peak periods but who do not care when their EV charges as long as it is charged in when they need it.[8] Schedule EVC requires the installation of a second meter, which can be cost-prohibitive for many customers.[9] Both of these options are passive in that they work by sending a price signal and hoping that customers respond to it. By contrast, the EV Smart Rewards Pilot relies on the inherent flexibility of EV charging to actively manage charging load, allowing EPE to manage EV charging around grid conditions in real-time without any action needed on the part of the customer (other than to sign up for the program).

Q: When comparing the EV Smart Rewards Pilot to other load management techniques, is it relevant that the EV Smart Rewards Pilot is a pilot program?

A: Yes. Staff witness Narvaez does not acknowledge that one of the primary purposes of any pilot program is for the utility to study the potential benefits and effectiveness of a smaller pilot before developing a larger program that incorporates pilot learnings. It is unreasonable for Staff to expect EPE to demonstrate that the EV Smart Rewards Pilot is more effective than unspecified rate design changes available to all customers for the simple reason that EPE does not currently have any experience with the EV Smart Rewards Pilot. Given the promise and potential of the EV Smart Rewards Pilot that EPE has demonstrated, the Commission should allow EPE to offer the Pilot for the proposed two-year period, report on program results, and utilize learnings to potentially develop an expanded program.

[8] *Id.* at p. 6, ll. 9-18.
[9] *Id.* at p. 13, ll. 7-14.

Q: How do you respond to Staff's assertion that the participation incentives EPE proposes to offer through the EV Smart Rewards Pilot are likely to be "unjust and unreasonably preferential and discriminatory subsidies"?

A: I recognize that the Commission's Preliminary Order in this proceeding asked whether "the proposed rates for the EV Smart Rewards Pilot Program comply with the requirements of the Texas Public Utility Regulatory Act (PURA) § 36.003."[10] ev.energy will address this issue in more detail in briefing, but I suggest that the Commission not apply this standard to the EV Smart Rewards Pilot for the simple reasons that it is a pilot and is a load management program, rather than a traditional rate. As discussed in my initial testimony, the incentives included in the EV Smart Rewards Pilot are not intended to incentivize EV adoption, but rather to compensate customers for providing load management services through the program.[11] However, it is difficult if not impossible for EPE to demonstrate that the incentives are cost-based prior to collecting data from the pilot program to assess the benefits the program can realize. EPE's approach to benchmark its incentives using incentive amounts from other utility managed charging programs is appropriate for the proposed pilot. Incentive amounts can be refined in future iterations of the program once data is collected that allows EPE to better evaluate the benefits of the program.

[10] Preliminary Order at p. 3.
[11] Ballew Direct at p. 14.

Q: Has the Commission found that other customer programs that seek to reduce peak demand are "unjust and unreasonably preferential and discriminatory subsidies"?

A: No, not to my knowledge. EPE currently offers the Commission-approved Energy Wise Savings Program, in which EPE actively manages customers' smart thermostats to mitigate peak load on hot days.[12] Through this program, EPE provides customers with discounts on smart thermostats and participation incentives in exchange for the right to control the thermostats to shift cooling load away from peak hours. This incentive package is not a type of "unreasonable preference or advantage concerning rates" that is prohibited by PURA § 36.003. Customers that participate in the Energy Wise Savings Program are not simply receiving a subsidy; rather, participants are providing a valuable service to EPE and all of EPE's other customers by reducing the amount that their cooling load contributes to peak demand.

The EV Smart Rewards Pilot is analogous to the Energy Wise Savings Program in this respect. Participating customers will not simply receive an incentive at the expense of all other customers as Staff asserts. Rather, participating customers will be compensated for the valuable service of allowing EPE to actively control their EV charging so that their charging load occurs during beneficial periods (e.g., avoiding on-peak charging, reducing curtailment of renewable generation, etc.). As discussed above, if EPE were unable to shift EV charging load in this manner, it would likely result in increased investment in new

[12] https://tx.epelectricmarketplace.com/content_drpc_info.html.

generation and grid upgrades, as well as miss out on the other benefits associated with managed charging, to the detriment of all customers.

Q: Would you classify programs like the Energy Wise Savings Program or the proposed EV Smart Rewards Pilot as rates?

A: No, I would classify these programs as demand response or load management programs. Witness Narvaez's recommendation overlooks the fact that the EV Smart Rewards Pilot is a load management program that is overlaid on top of the customer's existing rate and not a new standalone rate offering, and that these programs provide benefits to all customers. Specifically, the EV Smart Rewards program would shift EV charging load for participating customers to beneficial periods (e.g., off-peak hours) when the grid is underutilized. In other words, residential customers that participate in the EV Smart Rewards Pilot, by participating in a load management program, can be expected to provide value to other EPE customers, not just participants.

Q: Are there any provisions within PURA that apply to these types of programs?

A: Yes. I am not an attorney, but it is my understanding that PURA § 31.005 states that electric utilities shall consider establishing customer-option programs that encourage the reduction of air contaminant emissions.[13] Additionally, Chapter 1095 – H.B. 2129, the same legislation which enacted PURA § 31.005, included a non-codified legislative act which states:

[13] PURA § 31.005.

> (a) In recognition that advances in digital and communications equipment and technologies, including new metering and meter information technologies, have the potential to increase the reliability of the regional electrical network, encourage *dynamic pricing and demand response*, make better use of generation assets and transmission and generation assets, and provide more choices for consumers, the legislature encourages the adoption of these technologies by electric utilities in this state.[14]

Finally, PURA § 36.204 permits the Commission to allow for timely recovery of costs – and authorize additional incentives – for conservation, *load management*, purchased power, and renewable resources.[15]

Q: Given these provisions, do you think it is appropriate to apply PURA § 36.003 in isolation to demand response and load management programs?

A: No, I do not. However, even if PURA § 36.003 were applied to the EPE's proposals in this case, Staff's position entirely ignores the fact that these programs will bring benefits to all ratepayers, and not solely increase costs to the detriment of customers. Staff's position also mischaracterizes the customer incentives included in the proposed EV Smart Rewards Pilot as "subsidies," when their purpose is to compensate customers for providing crucial load management services.

[14] Ch. 1095 – HB 2129, Section 8, p. 427 of PURA (emphasis added).
[15] PURA § 36.204 (1) and (2).

Q: How do you respond to Staff's assertion that the types of EV programs EPE proposes "will always result in the discriminatory policy of subsidizing EV customers by shifting costs to other customers" and the suggestion that "EV-specific policy" would be better implemented by establishing a separate EV rate class?

A: As just discussed, the EV Smart Rewards Pilot is not a subsidy to customers with EVs. Rather, the Pilot compensates participants for providing load management services.

Staff witness Narvaez provides very little detail on how a separate EV rate class would work, but I strongly recommend the Commission reject this problematic suggestion. First, a separate EV rate class would presumably require all customers with EVs to have separate meters, which would be costly, unnecessary, and discriminatory against customers with EVs. Second, the charging profiles of residential EV charging, commercial low-voltage (Level 2) charging, and commercial high-voltage (DC fast) charging are all very different from one another. Different use cases within these categories also have very different charging profiles; for example, the charging profile of Level 2 chargers used for fleets is different from the charging profile of Level 2 chargers used at workplaces or residences. The fact that these vastly different load profiles all result in the charging of an EV is insufficient justification for a separate rate class for EVs.

Finally, and perhaps most importantly, when managed effectively EVs have the potential to provide massive benefits to *all* customers in the form of downward pressure on rates by increasing the utility's energy sales without contributing to peak demand, among

other benefits described in my initial testimony.[16] If EV chargers were in a separate rate class, under traditional cost-of-service principles only the separate EV rate class would enjoy these benefits. By treating EVs as just another load for *ratemaking* purposes, and by exploiting EVs as a uniquely flexible load for *load management* purposes, EPE and the Commission can ensure that all customers enjoy the benefits of EV adoption.

Q: Is there any evidence that these types of programs can be expected to provide benefits to all customers and not just program participants?

A: Yes. Increased deployment of EV charging infrastructure, if managed effectively, can create sufficient new load to reduce per-unit energy costs, resulting in lower electricity rates and net benefits for all ratepayers.[17] For example, a state-wide cost-benefit analysis of EV adoption in Nevada conducted by MJ Bradley and Associates found that net benefits to ratepayers, in the form of reduced electric bills, would be $3.6 billion by 2050.[18] Similarly, a state-wide cost-benefit analysis of EV adoption in New Mexico by MJ Bradley and Associates found that the net benefits to ratepayers, in the form of reduced electric bills, in a moderate EV adoption scenario would be $400 million by 2050 and reach $4.8 billion by 2050 in a high EV adoption scenario.[19]

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[16] Ballew Direct at pp. 9-10.
[17] *See, e.g.* MJ Bradley & Associates, *Plug-in Electric Vehicle Cost-Benefit Analysis: Maryland*, filed on August 28, 2018, in Maryland Public Utilities Commission Case No. 9478 (2018), pp. 18-19; Gabel Associates, Inc. (2018), Long Island Cost and Benefits, https://www.psegliny.com/saveenergyandmoney/solarrenewableenergy/electricvehicles/-/media/2C0D0CC8E48648ECBB38463CD0405826.ashx, p. 44.
[18] https://www.crm.com/globalassets/documents/mjba-archive/reports/2021/nv_pev_cb_analysis_final_january-2021.pdf.
[19] https://www.crm.com/globalassets/documents/mjba-archive/reports/2020/nm-pev-cb-analysis-final-jan2020.pdf.

Further, a study commissioned by Public Service Electric and Gas (PSE&G) Long Island found that managed charging could generate significant net benefits in the form of deferred and reduced grid impacts and deliver an additional 30% saving to ratepayers.[20] Managed charging can help ensure that EV charging takes place at times that are most beneficial to the grid and support the creation of widespread benefits resulting from more efficient grid utilization and avoided system upgrades.

In addition, several studies highlight that the expected long-term electric sales from incremental EV load exceeds the marginal cost of grid infrastructure to support that load and managed charging boosts the net benefits for ratepayers.[21] According to a NARUC report published in October 2019, EV load that charges during off-peak hours can provide positive net revenue flowing back to all customers due to the efficient use of the existing electric grid.[22] The Regulatory Assistance Project similarly found that EV load is capable of responding quickly to signals, as well as being inherently flexible over time, meaning that EVs are flexible over both the course of a day as well as "within minutes and seconds," which allows them to be utilized as demand response/load management assets.[23]

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[20] Gabel Associates, Inc. (2018), Long Island Cost and Benefits, https://www.psegliny.com/saveenergyandmoney/solarrenewableenergy/electricvehicles/-/media/2C0D0CC8E48648ECBB38463CD0405826.ashx, and associated presentation https://www.lipower.org/wp-content/uploads/2018/10/EV-Study-LIPA-Board-Presentation-Oct-24-2018-FINAL.pdf.

[21] *See, e.g.*, E3 (Apr. 2017), *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.

[22] NARUC (Oct. 2019), Electric Vehicles: Key Trends, Issues, and Considerations for State Regulators at 21, ("NARUC EV White Paper") https://pubs.naruc.org/pub/32857459-0005-B8C5-95C6-1920829CABFE; https://www.synapse-energy.com/sites/default/files/EV-Impacts-June-2019-18-122.pdf/.

[23] Regulatory Assistance Project (Jan. 2019), Beneficial Electrification of Transportation, at 37 ("RAP 2019 Electrification Report"), https://www.raponline.org/wp-content/uploads/2023/09/rap-farnsworth-shipley-sliger-lazar-beneficial-electrification-transportation-2019-january-final.pdf.

Further, a 2024 study by Synapse Energy Economics found that EV drivers across the US have contributed approximately $3.12 billion more than their associated costs, driving rates down for all customers.[24] The addition of new dispersed load during off-peak hours can result in the wider distribution of fixed costs, leading to lower rates for all customers.[25]

Finally, studies in California found that managed charging could help avoid up to $35 billion in distribution grid investment by 2035 in the state.[26] In effect, prudent investments in EV charging infrastructure, paired with managed charging, results in increases in electricity usage during beneficial periods, exerting downward pressure on retail rates that can benefit all utility customers regardless of EV ownership.

Q: What do you recommend with respect to Staff's recommendations?

A: I recommend that the Commission reject Staff's recommendations with respect to the EV Smart Rewards Pilot and approve the program.

III. Responses to OPUC

Q: What does OPUC recommend with respect to EPE's proposed EV Smart Rewards Pilot?

A: OPUC witness Evans recommends rejecting the EV Smart Rewards Pilot based on two concerns. First, OPUC witness Evans is concerned that EPE's proposed enrollment

[24] Synapse Energy Economics (Jan., 2024), Electric Vehicles are Driving Electric Rates Down for All Customers, https://www.synapse-energy.com/sites/default/files/Electric%20Vehicles%20Are%20Driving%20Rates%20Down%20for%20All%20Customer%20Update%20Jan%202024%2021-032.pdf.
[25] NARUC EV White Paper at 21.
[26] https://www.canarymedia.com/articles/ev-charging/evs-will-put-more-stress-on-californias-grid-smart-charging-can-help.

incentive, annual participation incentive, and per-event incentives are not cost-based because they "are not based upon any estimated cost savings."[27] Second, OPUC witness Evans is concerned that EPE has not proposed any protections to ensure that non-participating customers do not bear the cost of the EV Smart Rewards Pilot.[28]

Q: Before your respond to these specific concerns, what is your understanding of the purpose of the EV Smart Rewards Pilot?

A: The purpose of the EV Smart Rewards Pilot is to allow EPE to test the effectiveness of active managing charging programs to mitigate the impact of unmanaged EV charging load on the grid. As discussed above, failing to effectively manage EV charging load will result in EVs contributing to increased peak demand, which will require expensive system upgrades that will be paid for by all customers. Effective managed charging programs can help realize various benefits, providing cost savings to all customers.

Q: How do you respond to OPUC's first concern that EPE's proposed incentives for the EV Smart Rewards Pilot are not cost-based?

A: In the context of the purpose of the EV Smart Rewards Pilot, this concern is entirely misplaced. OPUC witness Evans criticizes EPE for basing its proposed incentives on incentives offered by other utilities and contends that the incentives are not based on any estimated cost savings. Again, because the EV Smart Rewards Pilot is a pilot program, it is impossible to know with any precision the level of cost savings the program will achieve, but the purpose of the program is to provide cost savings to *all* customers in the form of

[27] Evans Direct at p. 11, ll. 4-10.
[28] *Id.* at p. 12, ll. 3-15.

avoided investments in new generation and grid upgrades and downward pressure on rates. If the Pilot is a success, the benefits enjoyed by all customers should far outweigh the total cost of the program. Additionally, utility programs are iterative and incentive levels can be refined in future iterations of EPE's managed charging program offerings once data is collected through the pilot.

With this context, which OPUC ignores, it simply does not make sense to provide participating customers with incentives that are based on the estimated cost savings, and likely impossible to calculate without collecting data through a pilot. Were EPE to provide participating customers with incentives based on the cost savings provided through the pilot, non-participating customers would not enjoy any of the savings. Such a result would defeat the very purpose of the program.

Q: How do you respond to OPUC's second concern that there must be protections against non-participating customers bearing the costs of the EV Smart Rewards Pilot?

A: Here again, OPUC's concern does not make sense in the context of the intended purpose of the EV Smart Rewards Pilot, which is to realize benefits for *all* customers by managing EV charging activity. If non-participating customers do not pay for the cost of EPE's active managed charging program, then they should not receive any benefits from it under traditional cost-of-service principles. It is entirely reasonable for all of EPE's customers to pay the start-up costs for a load management program that is expected to provide widespread benefits to all customers when it is fully implemented.

Q: What do you recommend?

A: I recommend that the Commission reject OPUC's recommendations with respect to the EV Smart Rewards Pilot and approve the program.

IV. Conclusion and Recommendations

Q: Please summarize your recommendations for the Commission.

A: I continue to support the recommendation included in my initial testimony that the Commission approve EPE's EV Smart Rewards Pilot as proposed.