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Item Number - 1

PUCT DOCKET NO. _____

APPLICATION OF EL PASO	§	
ELECTRIC COMPANY FOR	§	
AMENDMENT TO ITS	§	PUBLIC UTILITY COMMISSION
COMMISSION-APPROVED AMS	§	
DEPLOYMENT PLAN	§	OF TEXAS
	§	

APPLICATION

El Paso Electric Company (EPE or the Company) files this request to amend its previously-approved plan for the deployment of its advanced metering system (AMS) (Deployment Plan)¹ pursuant to 16 Tex. Admin. Code (TAC) § 25.130(d)(10).

I. Introduction

Consistent with 16 TAC § 25.130(d)(10),² EPE seeks approval of an amendment to its AMS Deployment Plan to implement an Operations Optimizer tool, which will enhance the features provided by EPE's AMS. Currently, EPE's AMS Operations manually reviews all alerts and alarms, issues field activities as needed, and tracks their completion to ensure metering issues are resolved. This process results in a significant amount of manual labor, with resources dedicated to re-reviewing alerts and monitoring field activity status. EPE believes that it is appropriate to implement Itron's Operations Optimizer to enhance the management of alerts and alarms generated by AMS meters to improve its AMS operations and customer service. Implementing the Operations Optimizer tool will provide EPE with the tools and capabilities needed to enhance

¹ *Application of El Paso Electric Company for Advanced Metering System (AMS) Deployment Plan, AMS Surcharge, and Non-Standard Metering Service Fees*, Docket No. 52040, Order (Dec. 15, 2022).

² 16 TAC § 25.130(d)(10) provides: "If an electric utility has received approval of its deployment plan from the commission, the electric utility must obtain commission approval before making any changes to its AMS that would affect the ability of a customer, the customer's REP of record, or entities authorized by the customer to utilize any of the AMS features identified in the electric utility's deployment plan by filing a request for amendment to its deployment plan. In addition, an electric utility may request commission approval for other changes in its approved deployment plan. The commission will act upon the request for an amendment to the deployment plan within 45 days of submission of the request, unless good cause exists for additional time. If an electric utility filed a notice of deployment, the electric utility must file an amendment to its notice of deployment at least 45 days before making any changes to its AMS that would affect the ability of a customer, the customer's REP of record, or entities authorized by the customer to utilize any of the AMS features identified in the electric utility's notice of deployment. This paragraph does not in any way preclude the electric utility from conducting its normal operations and maintenance with respect to the electric utility's transmission and distribution system and metering systems."

operational efficiency, improve data management, reduce cost, and deliver enhanced customer service. EPE is expecting to automate field activities associated with AMS alarms and alerts and reduce the amount of manual review when identifying metering issues. The system will also track end-to-end workflow process to manage alarms.

II. Proposed Changes to the Deployment Plan and Supporting Testimony

The following are the specific proposed changes to EPE's AMS Deployment Plan, as outlined in the Direct Testimony of Grisel E. Ramirez, Supervisor of Advanced Metering and Analytics, included with this application:

- HSPM Exhibit GER-1: Draft Amendment 4 to the Order Document for AMI Products & Services between EPE and Itron, with amended terms, including pricing.
- Exhibit GER-2: EPE's Second Revised Advanced Metering System Deployment Plan – marked and clean.
- Exhibit GER-3: EPE's Second Revised Statement of AMS Functionality – marked and clean.
- Confidential Exhibit GER-4: Operations Optimizer Essentials and Advanced Use Case Descriptions.
- HSPM Exhibit GER-5: Draft Operational Optimizer Integration CCS SOW.

III. Business Address and Authorized Representatives

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. EPE's authorized representative for the purpose of receiving service of documents are as follows:

Linda Pleasant
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100 N. Stanton
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EPE's authorized legal representatives and designated recipients for service of pleadings and other documents are:

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State Bar No. 24097285
El Paso Electric Company
P.O. Box 892
El Paso, Texas 79960
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General inquiries concerning this filing should be directed to Ms. Pleasant at the above stated address and telephone number. All pleadings, motions, orders and other documents filed in this proceeding should be served on Ms. Al-Hakeem, Mr. Olson, and Ms. Olney at the above stated addresses.

IV. Jurisdiction

The Public Utility Commission of Texas (Commission) has jurisdiction over this matter under PURA³ § 39.5521 and 16 TAC § 25.130(d)(10).

V. Impact on Rates

The Company is not requesting a change to the AMS surcharge.

³ Public Utility Regulatory Act, Tex. Util. Code § 11.001-66.016 (PURA).

VI. Affected Customers

The Company and its retail customers with an AMS meter will be affected by the relief requested in this application, except for customer accounts that are unmetered or receive service at transmission voltage.

VII. Scope of Proceeding and Procedural Schedule

This proceeding is governed by 16 TAC § 25.130(d)(10), which provides that the “commission will act upon the request for an amendment to the Deployment Plan within 45 days of submission of the request, unless good cause exists for additional time.”

VIII. Notice

Notice in this proceeding is governed by 16 TAC § 22.55, which provides that the presiding officer may require a party to provide reasonable notice to affected persons. EPE is aware of only three other applications for an AMS Deployment Plan change under 16 TAC § 25.130(d)(10), and in those proceedings notice was required to be provided to the parties in the underlying AMS deployment docket.⁴ Accordingly, EPE proposes to provide, concurrent with this filing, notice to all parties that participated in its original AMS Deployment Plan proceeding, Docket No. 52040, as evidenced by the accompanying certificate of service.

IX. Protective Order

Portions of this filing constitute highly sensitive and confidential materials filed under seal. These materials will be made available to Commission Staff and any intervenors upon entry of an appropriate Protective Order ensuring preservation of the confidentiality of these materials. EPE respectfully requests that the Commission adopt its standard Protective Order. Pending issuance of a Protective Order in this case, EPE will make confidential or highly sensitive information available through a secure online site to parties who execute a Protective Order Certification as

⁴ *Application of Entergy Texas, Inc. for Amendment to Its Commission-Approved AMS Deployment Plan as Required by the Final Order in Docket No. 48745*, Docket No. 54339, Order No. 2 (Nov. 20, 2022); *Application of Texas-New Mexico Power Company for Amendment to Commission Approved AMS Deployment Plan*, Docket No. 43239, Order No. 2 (Oct. 2, 2014); *Application of Oncor Electric Delivery Company LLC for Amendment to Its Commission Approved Advanced Metering System (AMS) Deployment Plan*, Docket No. 42214, Order No. 2 (Feb. 12, 2014).

attached to the Commission's standard Protective Order. As Attachment A to its Application, EPE is also submitting its statement of counsel supporting the confidentiality of certain documents included in its filing.

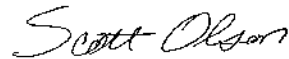
X. Requested Relief

EPE requests approval of its proposed amendment to its AMS Deployment Plan plan to implement an Operations Optimizer tool, which will enhance the features provided by EPE's AMS. EPE also requests that (1) a procedural schedule be established leading to Commission approval of the request within 45 days; (2) the notice proposed by the Company be approved as to form, content and proposed distribution, and that proof of service be evidenced by the attached Certificate of Service; (3) the requested Protective Order be issued; and (4) EPE be granted such other relief to which the Commission deems EPE to be entitled.

Respectfully submitted,

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ATTORNEYS FOR EL PASO ELECTRIC
COMPANY

Certificate of Service

I certify that on June 5, 2025, a true and correct copy of this document was served on all parties to Docket No. 52040 by electronic service consistent with the Commission's Second Order Suspending Rules filed on July 16, 2020 in Project No. 50664.

Scott Olson

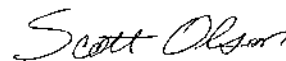
List of Confidential (Protected Material)/ Highly Sensitive (Highly Sensitive Protected Material) Information

The following is a list of testimony, schedules, exhibits and workpapers that are included in this Application and considered by El Paso Electric Company (“EPE” or “the Company”) to be Confidential (Protected Material) or Highly Sensitive (Highly Sensitive Protected Material) information, the protected designation, the reason for protection and a list of witnesses sponsoring the information or the schedule to which the information relates. The Company considers the information listed below to be commercial or financial information or customer specific information that is exempted from disclosure under the Public Information Act. TEX. GOV’T CODE ANN. §§ 552.101 and 552.110; TEX. UTIL. CODE ANN. §§ 32.101(c) and 39.001(b)(4).

DOCUMENT	DESIGNATION	REASON FOR PROTECTION	SPONSOR
Exhibit GER-1 (HSPM)	Highly Sensitive Protected Material	Commercial/Financial Information	Ramirez, Grisel E.
Exhibit GER-4 (Confidential)	Confidential	Commercial/Financial Information	Ramirez, Grisel E.
Exhibit GER-5 (HSPM)	Highly Sensitive Protected Material	Commercial/Financial Information	Ramirez, Grisel E.
Portions of the Direct Testimony of Grisel E. Ramirez	Highly Sensitive Protected Material	Commercial/Financial Information	Ramirez, Grisel E.

I certify that I have reviewed the documents listed above and state in good faith that the information is exempt from public disclosure under the Public Information Act and merits the application designation of Confidential (Protected) Materials or Highly Sensitive (Highly Sensitive Protected) Materials detailed in the Commission’s Standard Protective Order.

Date: June 5, 2025



Scott Olson

Docket No. _____

APPLICATION OF EL PASO	§	
ELECTRIC COMPANY FOR	§	
AMENDMENT TO ITS	§	PUBLIC UTILITY COMMISSION
COMMISSION-APPROVED AMS	§	
DEPLOYMENT PLAN	§	OF TEXAS
	§	
	§	

DIRECT TESTIMONY

OF

GRISEL E. RAMIREZ

FOR

EL PASO ELECTRIC COMPANY

PUBLIC REDACTED

JUNE 5, 2025

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EXHIBITS

GER-1 (HSPM)	Amendment 4 to the Order Document for AMI Products & Service
GER-2	EPE's Second Revised Advanced Metering System Deployment Plan
GER-3	EPE's Second Revised Statement of AMS Functionality
GER-4 (Confidential)	Operations Optimizer Essentials and Advanced Use Case Descriptions
GER-5 (HSPM)	CCS-OO Platform Integration Costs

I. Introduction and Qualifications

Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Grisel E. Ramirez. My business address is 100 North Stanton Street,
El Paso, Texas 79901.

Q2. HOW ARE YOU EMPLOYED.

A. I am employed by El Paso Electric Company (EPE or Company) as a Supervisor
of Advanced Metering and Analytics.

Q3. PLEASE BRIEFLY DESCRIBE YOUR PROFESSIONAL EXPERIENCE AND
EDUCATIONAL BACKGROUND.

A. I have been the Supervisor of Advanced Metering and Analytics at EPE since
December 2021. Prior to this position, I was a Supervisor of the Emergent
Technologies and Innovations Department from 2019 to 2021 where I led
development of emerging technologies projects and programs, including pilot
program initiatives, feasibility studies, assessment of technology investment
opportunities, and other related work such as process improvement initiatives. In
this capacity I also managed the transition of the Company's demand response pilot
program to a permanent program now managed by EPE's Energy Efficiency
Department. I also supervised the project management efforts for EPE's Advanced
Metering System (AMS) project, and was responsible for the development of the
proposed Transportation Electrification Plan rebate pilot program. Prior to that
position, I was a Senior Engineer in the Infrastructure Initiatives Department at EPE
for more than three years.

1 I began my career at the Texas Commission on Environmental Quality
2 regulating facilities for Air Quality Compliance. I then progressed to a Project
3 Manager position with the Border Environment Cooperation Commission where I
4 certified major multi-million-dollar projects for the U.S.-Mexico Border
5 Communities and was in charge of coordination efforts between various State and
6 Federal entities on Climate Plans. I then took a role as Utility Engineer with El Paso
7 Water Utilities responsible for large-scale project management and development.

8 I was awarded a Bachelor of Science Degree in Mechanical Engineering
9 with Honors in 2005 and earned a Master's Degree in Civil Engineering in 2012
10 from the University of Texas at El Paso. In the same year, I earned my certification
11 as a Professional Engineer from the State of Texas and obtained my Project
12 Management Professional (PMP) certification from Project Management Institute
13 in 2015. In May 2025, I earned my certification as a Professional Engineer from
14 the State of New Mexico.

15
16 Q4. HAVE YOU EVER PROVIDED TESTIMONY IN A REGULATORY
17 PROCEEDING?

18 A. Yes. I have previously provided testimony before the Public Utility Commission of
19 Texas in Docket No. 52040. I have also previously provided testimony before the
20 New Mexico Public Regulation Commission.

21
22 **II. Purpose of Testimony**

23 Q5. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

24 A. My direct testimony supports EPE's application for an amendment to its AMS
25 Deployment Plan to implement an Operations Optimizer Platform (OO Platform),

1 which will enhance the features provided by EPE's AMS. First, I explain why the
2 proposed amendment is appropriate. Second, I describe the features of the proposed
3 OO Platform. Third, I outline the changes to EPE's current contract with Itron, Inc.
4 Finally, I sponsor the changes to EPE's Revised Advanced Metering System
5 Deployment Plan and Revised Statement of AMS Functionality as a result of the
6 project.

7
8 **III. Overview of the filing**

9 Q6. PLEASE SUMMARIZE EPE'S PROPOSED AMENDMENT TO ITS AMS
10 DEPLOYMENT PLAN.

11 A. EPE proposes to amend its AMS Deployment Plan to add an OO Platform, which
12 will enhance the features of EPE's near fully-deployed AMS. At a high level, the
13 OO Platform automatically analyzes meter data and alerts, which can improve
14 operational efficiency through automating some tasks, reducing call center volume,
15 reducing truck rolls, dispatching the correct resources when truck rolls are
16 necessary based on improved analytics, identifying theft and misconfigured meters,
17 and increasing customer satisfaction through proactively identifying and
18 responding to issues before they become concerns or result in unplanned outages.
19 EPE also expects to be able to implement this functionality for a ten-year period
20 without affecting the current AMS surcharge rate or increasing the total estimated
21 cost of the AMS deployment.

22

1 **IV. Requested Amendment to EPE's AMS Deployment Plan**

2 Q7. WHEN DID EPE BEGIN ITS AMS DEPLOYMENT?

3 A. The Commission approved EPE's AMS Deployment plan in Docket No. 52040 in
4 December 2022. EPE began deploying meters in April 2023.

5

6 Q8. HAS EPE COMPLETED ITS AMS DEPLOYMENT IN TEXAS?

7 A. No. As of the filing date of EPE's Application, EPE's AMS deployment in Texas
8 is approximately 96% complete. EPE has installed approximately 385,028 of
9 399,378 AMS meters.

10

11 Q9. WHY IS AN AMENDMENT TO EPE'S AMS DEPLOYMENT PLAN
12 APPROPRIATE AT THIS TIME?

13 A. An amendment to EPE's AMS Deployment Plan is appropriate at this time to
14 incorporate enhanced operational capabilities made possible by advancements in
15 analytics and automation tools now available from EPE's AMS vendor, Itron, Inc.
16 These advancements are critical to fully realizing the benefits of EPE's AMS
17 infrastructure and ensuring long-term operational efficiency, cost savings, and
18 system reliability. EPE's AMS Operations currently faces significant challenges in
19 managing the high volume of alarms and alerts generated by AMS meters. Each
20 alert must be manually reviewed by EPE staff to determine validity, appropriate
21 action, and whether a field activity is required. Once a field activity is issued, staff
22 must track its completion and verify resolution. This highly manual process is
23 labor-intensive, subject to delays and inconsistencies, and increasingly
24 unsustainable as the number of installed smart meters continues to grow.

1 To address this, EPE proposes to implement Itron's OO Platform, which is
2 a purpose-built analytics and workflow management tool designed to convert raw
3 AMS data into actionable insights. The OO Platform will allow EPE to automate
4 the prioritization of alarms and alerts, reduce false positives, and only generate field
5 activities when necessary, based on rule-based logic and severity classification.
6 This will significantly reduce manual review and follow-up work for EPE personnel
7 and improve the timeliness and accuracy of issue resolution.

8
9 Q10. PLEASE DESCRIBE THE FUNCTIONALITY OF THE OO PLATFORM.

10 A. Itron's OO Platform supports over 75 use cases organized under three general
11 categories, as shown in Exhibit GER-4 (Confidential):

- 12 • AMI Operations – enables monitoring and analysis of meter and endpoint
13 health, including communication failures, voltage anomalies, missing reads,
14 meter temperature, system out-of-synch, meter configuration and location
15 corrections, and power quality events.
- 16 • Revenue Assurance – detects energy diversion (theft), reversed energy flow,
17 inactive account consumption, stolen meter, misconfigured meters, and
18 potential metering errors that impact billing accuracy.
- 19 • Network Operations – provides visibility into network performance, asset
20 misassignments, high meter reboots, back-up battery management, and helps
21 validate connectivity of meters to the appropriate network node.

22 Deployment of this technology will allow EPE to move from reactive to
23 proactive system management. It will also improve customer service by enabling
24 faster, more targeted responses to metering issues and minimizing the operational
25 burden on field personnel and support teams.

1

2 Q11. WILL OTHER SYSTEM ENHANCEMENTS BE NECESSARY TO SUPPORT
3 THE OO PLATFORM?

4 A. Yes. To support the OO Platform implementation, EPE must also develop a reliable
5 daily data interface between its Oracle's Customer Cloud Service (CCS) System
6 and the OO Platform. The daily extract will allow the OO Platform to analyze
7 customer usage and metering data in near real-time, flag anomalies, and
8 automatically create the appropriate field activities for CCS to route through
9 KloudGin, EPE's new mobile dispatch system. The new extract will be based on
10 an existing file structure to minimize CCS System performance impacts and
11 implementation complexity. The draft scope of work and estimated costs for the
12 CCS integration are detailed in Exhibit GER-5 (HSPM).

13

14 Q12. PLEASE SUMMARIZE THE BENEFITS OF THE PROPOSED AMENDMENT
15 TO EPE'S AMS DEPLOYMENT PLAN.

16 A. The proposed amendment to EPE's AMS Deployment Plan reflects EPE's efforts
17 to modernize its AMS operations, enhance safety and service reliability, and ensure
18 that the AMS deployment delivers the maximum operational and customer value
19 as envisioned in the original business case. The OO Platform will enable a scalable
20 and sustainable model for AMS operations as the deployment nears completion.

21

22 Q13. DID EPE CONSIDER OTHER SOLUTIONS TO THE AMS OPERATIONS
23 CHALLENGES?

24 A. Yes. EPE considered three alternatives.

25

1 Q14. PLEASE DESCRIBE THOSE THREE ALTERNATIVES.

2 A. The three alternatives to the Operation Optimizer project were: (1) continue
3 working with the manual processes with additional resources, (2) develop an
4 internal AMS work management system, and (3) develop Power BI Dashboards to
5 address specific use cases.

6

7 Q15. WHY DID EPE CHOOSE ITRON'S OO PLATFORM OVER THE OTHER
8 ALTERNATIVES?

9 A. EPE selected Itron's OO Platform because it uniquely combines advanced analytics
10 with workflow automation tailored specifically for AMS operations. Unlike other
11 analytics-only tools, Operations Optimizer is both a diagnostic and operational tool
12 that enables EPE to identify, prioritize, and act on actionable alarms and system
13 anomalies within a single platform.

14 Key reasons for selecting the OO Platform include:

- 15 • **Integrated Solution:** the OO Platform is developed and supported by Itron, the
16 same vendor that provides EPE's AMS network and head-end system. This
17 ensures full compatibility and seamless integration, using the same database
18 without additional integration costs.
- 19 • **Comprehensive Use Cases:** the OO Platform includes 75 pre-developed use
20 cases across metering, network performance, revenue assurance, and safety
21 alerts. It also offers flexibility to expand and develop additional use cases as
22 needed. (See Exhibit GEB-4 (Confidential)).
- 23 • **Workflow Automation:** Beyond analytics, the OO Platform features a built-in
24 automation engine to generate, assign, and track field activities in response to
25 prioritized events—capabilities not offered by other tools evaluated.

- 1 • **Enhanced Visibility & Safety:** the OO Platform provides near real-time insight
2 into meter-related safety issues and delivers actionable data within 24 hours to
3 support timely response and mitigation.
- 4 • **Cost Effectiveness:** As a commercial off-the-shelf solution, the OO Platform
5 is less costly and faster to implement than building a custom toolset or piecing
6 together multiple solutions.
- 7 • **Data Synergy:** The OO Platform is able to leverage data from both EPE's CCS
8 System and Itron's head-end system to deliver enhanced analytics that support
9 customer service, metering accuracy, system health, and billing operations.
- 10 • **Ad Hoc Reporting:** the OO Platform offers powerful reporting capabilities to
11 track performance, monitor trends, and identify opportunities for continuous
12 improvement.

13 Ultimately, the unique combination of real-time analytics, automation,
14 seamless integration, and cost-effective deployment made Itron's OO Platform the
15 optimal solution to support the long-term success and efficiency of EPE's AMS
16 operations.

17
18 Q16. HAVE YOU PROVIDED THE AMENDMENT TO EPE'S CONTRACT WITH
19 ITRON?

20 A. Yes. I have provided the draft amendment as HSPM Exhibit GER-1. EPE and Itron
21 are close to finalizing terms, and the pricing information contained in Exhibit GER-
22 1 is not expected to change materially, if at all.

23
24 Q17. WHAT IS THE CONTRACT LENGTH?

25 A. The amendment to the contract has a term of ten years.

26
27 Q18. WHAT ARE THE AMENDMENTS TO EPE'S EXISTING CONTRACT WITH
28 ITRON TO IMPLEMENT OPERATIONS OPTIMIZER?

29 A. The contract amendment contains the following key term changes:

- 1 • Itron will install and maintain the necessary software components and
- 2 applications to support the use of the OO Platform, set up the necessary data
- 3 exchange, and implement functionality within the OO Platform.
- 4 • Professional / Implementation Services, including application training for
- 5 EPE employees.
- 6 • Itron Cloud Services, including a one-time perpetual license fee, recurring
- 7 (annual) maintenance and cloud service fees for the term of the contract and
- 8 one-time setup and delivery services fees.
- 9 • Software Maintenance and Cloud Services will be prepaid annually.
- 10 • Itron will provide an assigned resource to assist with questions, general
- 11 inquiries and support related to existing use cases and query building
- 12 through the tool.

13
14 Q19. WHAT ARE THE ESTIMATED COST TO IMPLEMENT THE OO
15 PLATFORM?

16 A. The implementation and operations adds an additional \$ [REDACTED] (over the course
17 of ten years), broken down as follows:

18 Capital Costs:

- 19 • Software Total: \$ [REDACTED]
- 20 • Professional Services Total: \$ [REDACTED]
- 21 • Software Integration Services Total: \$ [REDACTED] (Exhibit GER-5 HSPM))

22 O&M Costs:

- 23 • Cloud Services Total: \$ [REDACTED]
- 24 • Software Maintenance Total: \$ [REDACTED]

25
26 Q20. HOW DO THESE COSTS AFFECT THE ESTIMATED AMS COSTS
27 PRESENTED IN EPE'S PRIOR REVISED DEPLOYMENT PLAN?

28 A. While these costs are incremental to the total costs previously reviewed by the
29 Commission, EPE currently has unutilized contingency of approximately \$9.2

1 million. Therefore, the total estimated cost of the AMS deployment, including the
2 new Operations Optimizer feature, is not expected to increase.

3

4 Q21. HAS EPE UPDATED THE SURCHARGE MODEL TO REFLECT THE
5 OPERATIONS OPTIMIZER COSTS?

6 A. No. As described in the prior question, there would not be any expected change
7 because the costs of the new Operations Optimizer feature are expected to fall
8 within the contingency.

9

10 Q22. IS EPE SEEKING TO ADJUST ITS AMS SURCHARGE IN THIS
11 PROCEEDING?

12 A. No. The surcharge does not need to change. According to 16 TAC § 25.130(k)(1),
13 the surcharge may include estimated costs, which will be reconciled in accordance
14 with 16 TAC § 25.130(k)(6). EPE would therefore include the actual costs of the
15 Operations Optimizer implementation and ongoing operations in a future
16 reconciliation.

17

18 Q23. HAS EPE REVISED IT ADVANCED METERING SYSTEM DEPLOYMENT
19 PLAN TO REFLECT THE CHANGES TO THE CONTRACT WITH ITRON?

20 A. Yes. The revised Advanced Metering System Deployment Plan is attached to my
21 testimony as Exhibit GER-2.

22

23 Q24. HAS EPE REVISED ITS STATEMENT OF AMS FUNCTIONALITY TO
24 REFLECT THE CHANGES TO THE CONTRACT WITH ITRON?

25 A. Yes, although these revisions are non-substantive labeling changes to remain
26 consistent with the Deployment Plan. No substantive changes are necessary

1 because the Statement of Functionality covers required functionality, and the
2 implementation of the Operations Optimizer does not affect any of the required
3 AMS functionality. The revised Statement of AMS Functionality is attached to my
4 testimony as Exhibit GER-3.

5
6 Q25. WHAT IS EPE'S CONTEMPLATED TIMELINE FOR IMPLEMENTATION OF
7 THE OO PLATFORM?

8 A. The implementation of the OO Platform assumes a five-month project duration.
9

10 **V. Recommendations**

11 Q26. WHAT ACTION DO YOU RECOMMEND IN THIS MATTER?

12 A. I recommend that the Commission approve EPE's proposed amendment to its AMS
13 Deployment Plan to implement an OO Platform tool to enhance the benefits of
14 EPE's AMS.
15

16 Q27. WHAT EFFECTIVE DATE IS EPE RECOMMENDING IN THIS MATTER?

17 A. I recommend that the Commission approve EPE's request within 45 days as
18 required by 16 TAC § 25.130(d)(10).
19

20 **VI. Conclusion**

21 Q28. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

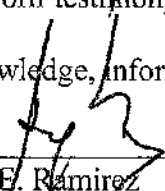
22 A. Yes.

ATTESTATION

STATE OF TEXAS

COUNTY OF EL PASO

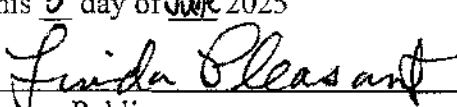
Grisel E. Ramirez states that the attached is her sworn testimony and that the statements contained therein are true and correct to the best of her knowledge, information, and belief.



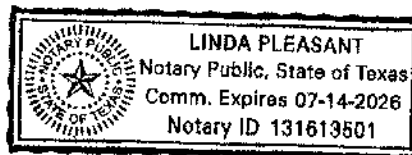
Grisel E. Ramirez

SWORN AND SUBSCRIBED BEFORE ME

This 5 day of June 2025



Notary Public



My Commission Expires:

PUBLIC

Exhibit GER-1 is a Highly Sensitive Protected Material and will be provided upon receipt of a signed Protective Order (Confidentiality Disclosure Agreement) entered in this case.

Second Revised Attachment A

**EL PASO ELECTRIC COMPANY'S
SECOND REVISED ADVANCED METERING SYSTEM DEPLOYMENT PLAN**

1. Purpose. The purpose of this document is to present El Paso Electric Company's ("EPE" or "Company") revised plan for deployment of an advanced metering system ("AMS Deployment Plan"). The information required by 16 Tex. Admin. Code ("TAC") § 25.130(d)(4) is contained in this document.

2. Advanced Metering Technology.

(a) The advanced metering technology that EPE intends to deploy will provide or support the system features identified in 16 TAC § 25.130(g)(1) adopted by the Public Utility Commission of Texas ("Commission"). The specific features of the proposed advanced metering technology are described below.

(b) The advanced meters EPE plans to deploy can be read automatically and remotely.

(c) The advanced meters EPE plans to deploy will provide for two-way communications between the AMS meter and other EPE AMS systems. The communications technologies that EPE plans to use are described in Section 3 below.

(d) The proposed advanced meters rated at 200 amps or less for single-phase service contain a service switch that can be used to remotely connect or disconnect service via the advanced metering system network. The advanced meters to be deployed have the capability of load-side voltage detection, and the service switch will not close if load-side voltage is detected. The service switch also has the capability to open when a configured current or demand limit level is exceeded. The service switch will have the capability to reconnect after a configurable amount of elapsed time.¹

(e) EPE's proposed AMS has the capability to time-stamp meter data. Periodic meter reading data is consistent with the International Electrotechnical Commission (IEC) DLMS-COSEM standards, and can be time (hour, minute, and second) and date stamped.

(f) EPE's proposed advanced meters have the ability to measure, store, display, and report "out flow" and "in flow" energy consumption. In addition, all of EPE's advanced meters have the ability to support fixed block or rolling demand intervals for demand measurement and the capability to monitor voltage. The planned advanced meters also contain a threshold value (duration) that is programmable for detecting power outages.

¹ Loads that currently utilize 200-amp poly-phase meters, which includes some commercial customers and some residential customers, will not have a service switch until a poly-phase meter with those devices become available in the market. Company witness James Schichtl explains this requested waiver in his Direct Testimony.

(h) EPE's proposed advanced meters will have the capability to provide on-demand reads of a customer's advanced meter through the graphical user interface of the web portal when requested by a customer or entities authorized by the customer, subject to network traffic such as interval data collection and planned and unplanned outages. EPE's proposed advanced meters will also have the capability to provide on-demand reads of a customer's advanced meter through an application programming interface when requested by entities authorized by the customer, subject to network traffic such as interval data collection and planned and unplanned outages.

(i) The residential and non-residential advanced meters that will be deployed have the capability of recording multiple channels of consumption data and storing that data in the advanced meter. The interval length for load profile will be programmable for 15-minute intervals for residential customers and 5-minute intervals for non-residential customers. Thus, EPE's proposed AMS will have the capability to provide 15-minute interval or shorter data via the web portal to residential customers and entities authorized by the customer on a day-after basis, consistent with data availability, transfer and security standards.

- Customers will have the capability to download AMS usage data on a day-after basis via Green Button Download My Data.
- Entities authorized by the customer will have access to AMS usage data on a day-after basis via Green Button Connect My Data.

(j) EPE's advanced meters will have load profile storage capability that will provide data storage on board the advanced meter that complies with nationally recognized non-proprietary standards.

(k) The advanced meters EPE plans to deploy meet applicable ANSI standards.

(l) EPE will have the ability to update the proposed AMS features as the need arises. EPE will comply with any relevant notification requirements in 16 TAC § 25.130(g)(4).

For more information on the associated meter technology, see EPE's Statement of AMS Functionality, Exhibit B to this Application.

3. Communications Technologies.

(a) EPE plans to implement a communications network capable of providing the Company with access to all advanced meters within the service area. AMS deployment includes a communication network comprised of:

- A radio network able to support electric AMS and multiple applications.

- A flexible and scalable AMS head-end² system to support use cases as needed.
- Electric meter communication modules that may be inserted into meters from meter suppliers of EPE's choice. There may be some limited instances where, due to the remote location of a meter or meters, the meter will include a cellular radio that will be used to directly access the backhaul cellular network.
- Integration support for the head-end system.
- Ongoing support for system maintenance and optimization.
- Additional support for the end-to-end AMS solution as follows:
 1. Backhaul is provided by both EPE's ethernet network and a third-party cellular provider to ensure a seamless interface between the communications network and head-end system is maintained.
 2. EPE-selected systems will integrate and ensure interoperability with EPE legacy and back office IT systems.

(b) **Smart Energy Platform** - The communications network will utilize both 900 MHz RF mesh operating in the unlicensed ISM (Industrial, Scientific, and Medical) spectrum and cellular technology creating a "last mile network platform" covering EPE's service territory. The peer-to-peer design of the communications network accommodates a mix of paths automatically adapting and routing around obstacles connecting remote or hard-to-reach locations. Standard-based access points connect with any backhaul technology, including ethernet/fiber, LTE cellular, WiMAX, and a variety of other wired and wireless options. Dual mesh and cellular (LTE capable) RF interface, known as a socket access point (SocketAP), uses RF to micromesh nearby meter nodes and then backhaul data over the WAN via LTE to the head-end system. All cellular equipment will be LTE capable.

(c) **Open Standards** - The AMS is an open, Wi-SUN FAN compliant and native IPv6 platform. Open standards protect against obsolescence of proprietary systems and utilizes the latest IP-based security solutions. By deploying a standards-based advanced grid, customers benefit from a broader set of device and software choices as suppliers compete to deliver the best advanced grid solutions. The system's support of open standards, coupled with the ability to perform over-the-air firmware upgrades to support future standards, maintains currency of the platform current for the life of the deployment.

² Itron's head-end system, UtilityIQ, is a software suite that includes applications designed to help utilities collect and manage AMS meter consumption data. For example, applications included in the head-end system such as Advanced Metering Manager (AMM) and Meter Program Configurator (MPC) are secure and scalable solutions that support meter reading, management and analysis for power quality, and meter status, among other things.

(d) **IP Support** - The AMS is optimized to gather and send data, program network equipment, and signal devices throughout its service territory - all the way to the end customer premise. All neighborhood area network ("NAN") interfaces support both IPv4 and IPv6 (IPv4 is predominantly used for tunneling IPv6 on the WAN, DNP3, and other Distribution Automation protocols in the NAN). Ancillary, IETF RFC compliant Internet Protocols also include: DHCP (client/server), PPP, IPsec (AH and AH/ESP as appropriate), IKE, SNMPv2/3, DNS, and NTP. Itron supports IEC 61850 via Ethernet and IP. Support for IEC 61850 data interchange is accomplished through UtilityIQ's Web Services APIs.

(e) **The Network** - The architecture combines a high-performance radio with peer to peer communication and significant processing power on each endpoint, enabling distributed intelligence. The platform architecture enables uniform operation across disparate deployment environments, from urban to rural. It also enables the platform to support a much higher ratio of endpoints per take-out point than other advanced grid solutions, supporting as many as 16,000 per access point ("AP") but designed to support 8,000 to ensure full redundancy. Radios can reach a device up to a kilometer or more away, which is critical in rural environments, and use software techniques to ensure highly reliable operation in dense deployments.

(f) **Network Access Point** - The access point, or take-out point, is designed to support full redundancy at a high ratio of 8,000 endpoints per AP. The AP is also designed with the ability to carry additional IP traffic (e.g., distribution automation and streetlights) from the same location on the same AP. The AP is a weather-hardened router and may be optionally configured as ethernet only, cellular only, or ethernet and cellular. Notable key features include dynamic network discovery and self-healing, backup power option, automatic failover, and "over-the-air" firmware upgrades.

(g) **Network Relay** - The relay extends the network between the AP and endpoints. The system's standards-based RF network enables two-way communications between the AP and endpoints, providing secure, real-time measurement and control. The relay supports thousands of integrated meters and provides multi-hop, two-way networking to extend the reach of utility networks.

(h) **Communications Module** - The communications module for electric meters includes a reliable, Wi-SUN compliant IEEE 802.15.4g standards-based radio that provides two-way networking capability. The communications module communicates with integrated meters via a serial connection and relays meter consumption information on a bi-directional basis (where applicable), time of use registers, demand / reset functionality, remote connect / disconnect actions (for single phase meters with rating at or below 200 amps), interval data (including multi-channel interval), event logs, power quality events, and other information. The communications module allows for remote meter configuration and programming and can be upgraded over-the-air via the wireless network, eliminating the need for a field technical visit to evolve the meter's capabilities.

The communications module contains a super-capacitor that holds power to the communications module when power is lost to the integrated meter. It is designed to hold for 75 seconds. The system's standard configuration is to use the first 60 seconds as hold time before transmitting a last gasp message in order to allow automated recovery equipment an opportunity to restore power. The remaining 15 seconds of power are adequate for meters to transmit last gasp messages through the mesh communications network. This design reduces false last gasps and improves the quality of outage data going to an Outage Management System ("OMS"). The hold time is configurable so that it can be set to match other automated recovery designs.

4. Systems Developed During the Deployment Period.

(a) The advanced metering technology described in Section 2 requires communication networks that will need to be installed in connection with the AMS deployment. The communication network has its own head-end software system that supports the two-way data flow between the advanced meters and the other information technology infrastructure. This system performs several functions, such as production of schedules for reading, connecting and disconnecting meters and performing on-demand reads. This system monitors the operations of associated communication networks to determine whether the network is operating properly.

(b) Certain existing IT systems will also require upgrades or modifications.

(c) Various integrations with other existing systems will also be needed. The Company expects these to be developed as a combination of web services or file-based transfers that "push" or "pull" data from one system in one format to another system, potentially in a different format, and communication messages in a standard format between systems in support of advanced metering functions (e.g., reconnects, disconnects, on-demand reads).

(d) EPE will implement Itron's Operations Optimizer to electronically enhance the management of alerts and alarms generated by AMS meters. The Operations Optimizer tool will help identify true alarms and alerts and automate the generation of field activities through its workflow. In conjunction with implementing the Operations Optimizer, EPE will also develop a reliable interface between its Customer Cloud Service ("CCS") System and the Operations Optimizer to provide a daily data extract. This extract will be used by the Operations Optimizer to perform analytics on customer usage, detect system performance issues, and create the necessary field activities for CCS to process and route to the new KloudGin system.

5. Timeline for Customer Web Portal Development.

(a) The customer portion of the web portal will be developed and operational to coincide with meter deployment beginning in 2023. For the vast majority of EPE customers, their usage data will be available on the web portal within two business days after the existing meter is

replaced with an AMS meter. A small portion of customers located in fringe areas of an active deployment zone, which is likely less than one percent of customers, may see a few days of delay accessing interval data for the first time due to the necessary formation of the mesh network. Once sufficient meters are in place to form the mesh, interval data will be available on the portal the day after consumption. The customer-authorized third-party vendor portion of the web portal is expected to be developed and implemented by UtilityAPI with integration to Opower and Oracle CCS. That functionality is estimated to be operational 12 months after the commencement of meter deployment. See Exhibit 1, which includes a more detailed schedule of web portal development, implementation, and functionality.

6. Deployment Schedule by Specific Area (geographic information).

(a) EPE's preliminary year-over-year meter deployment schedule using approximate meter numbers is as follows. See Exhibit 2 for a detailed deployment schedule by geographic area.

Preliminary Meter Deployment Schedule				
	2023	2024	2025	Total
Total Company	190,942	291,690	46,154	528,786
Texas	161,990	206,656	30,321	398,867

7. Reports.

(a) EPE began filing monthly status reports meeting the requirements of 16 TAC § 25.130(d)(9) in June 2022. The monthly progress report will include the number of advanced meters installed; variations in the AMS Deployment Plan; any significant problems EPE has experienced; the number of advanced meters replaced as a result of AMS problems, if any, and the status of AMS feature deployment, including progress of the development of the web portal, Green Button Connect My Data, and authorized third-party on-demand reads, and any changes in deployment of those features.

8. Schedule for Deployment of Customer Web Portal Functionalities.

(a) The customer portion of the web portal will be developed and operating to coincide with meter deployment beginning in 2023. EPE will continue to use Oracle's Opower web and mobile functionality for residential and non-residential AMS customers, which provides a suite of smart energy tools. Those tools include High Bill Alert, Bill Comparison, Neighborhood Comparison, Data Brower, Energy Use Overview, Ways to Save, Smart Energy Tips and Home Energy Analysis. The web portal will also feature Green Button Download My Data and customer on-demand read functionality.

For customer-authorized third-party usage data access, Green Button Connect My Data is expected to be provided by UtilityAPI, and that functionality will be available by 12 months after meter deployment commences. Authorized third-party on-demand read access is also expected to be provided by UtilityAPI and available 12 months after meter deployment commences.

See Exhibit 1 for additional detail on the timeline for development of web portal functionality and third-party data access.

Second Revised Attachment A

EL PASO ELECTRIC COMPANY'S SECOND REVISED ADVANCED METERING SYSTEM DEPLOYMENT PLAN

1. Purpose. The purpose of this document is to present El Paso Electric Company's ("EPE" or "Company") revised plan for deployment of an advanced metering system ("AMS Deployment Plan"). The information required by 16 Tex. Admin. Code ("TAC") § 25.130(d)(4) is contained in this document.

2. Advanced Metering Technology.

(a) The advanced metering technology that EPE intends to deploy will provide or support the system features identified in 16 TAC § 25.130(g)(1) adopted by the Public Utility Commission of Texas ("Commission"). The specific features of the proposed advanced metering technology are described below.

(b) The advanced meters EPE plans to deploy can be read automatically and remotely.

(c) The advanced meters EPE plans to deploy will provide for two-way communications between the AMS meter and other EPE AMS systems. The communications technologies that EPE plans to use are described in Section 3 below.

(d) The proposed advanced meters rated at 200 amps or less for single-phase service contain a service switch that can be used to remotely connect or disconnect service via the advanced metering system network. The advanced meters to be deployed have the capability of load-side voltage detection, and the service switch will not close if load-side voltage is detected. The service switch also has the capability to open when a configured current or demand limit level is exceeded. The service switch will have the capability to reconnect after a configurable amount of elapsed time.¹

(e) EPE's proposed AMS has the capability to time-stamp meter data. Periodic meter reading data is consistent with the International Electrotechnical Commission (IEC) DLMS-COSEM standards, and can be time (hour, minute, and second) and date stamped.

(f) EPE's proposed advanced meters have the ability to measure, store, display, and report "out flow" and "in flow" energy consumption. In addition, all of EPE's advanced meters have the ability to support fixed block or rolling demand intervals for demand measurement and the capability to monitor voltage. The planned advanced meters also contain a threshold value (duration) that is programmable for detecting power outages.

¹ Loads that currently utilize 200-amp poly-phase meters, which includes some commercial customers and some residential customers, will not have a service switch until a poly-phase meter with those devices become available in the market. Company witness James Schichtl explains this requested waiver in his Direct Testimony.

(h) EPE's proposed advanced meters will have the capability to provide on-demand reads of a customer's advanced meter through the graphical user interface of the web portal when requested by a customer or entities authorized by the customer, subject to network traffic such as interval data collection and planned and unplanned outages. EPE's proposed advanced meters will also have the capability to provide on-demand reads of a customer's advanced meter through an application programming interface when requested by entities authorized by the customer, subject to network traffic such as interval data collection and planned and unplanned outages.

(i) The residential and non-residential advanced meters that will be deployed have the capability of recording multiple channels of consumption data and storing that data in the advanced meter. The interval length for load profile will be programmable for 15-minute intervals for residential customers and 5-minute intervals for non-residential customers. Thus, EPE's proposed AMS will have the capability to provide 15-minute interval or shorter data via the web portal to residential customers and entities authorized by the customer on a day-after basis, consistent with data availability, transfer and security standards.

- Customers will have the capability to download AMS usage data on a day-after basis via Green Button Download My Data.
- Entities authorized by the customer will have access to AMS usage data on a day-after basis via Green Button Connect My Data.

(j) EPE's advanced meters will have load profile storage capability that will provide data storage on board the advanced meter that complies with nationally recognized non-proprietary standards.

(k) The advanced meters EPE plans to deploy meet applicable ANSI standards.

(l) EPE will have the ability to update the proposed AMS features as the need arises. EPE will comply with any relevant notification requirements in 16 TAC § 25.130(g)(4).

For more information on the associated meter technology, see EPE's Statement of AMS Functionality, Exhibit B to this Application.

3. Communications Technologies.

(a) EPE plans to implement a communications network capable of providing the Company with access to all advanced meters within the service area. AMS deployment includes a communication network comprised of:

- A radio network able to support electric AMS and multiple applications.

- A flexible and scalable AMS head-end² system to support use cases as needed.
- Electric meter communication modules that may be inserted into meters from meter suppliers of EPE's choice. There may be some limited instances where, due to the remote location of a meter or meters, the meter will include a cellular radio that will be used to directly access the backhaul cellular network.
- Integration support for the head-end system.
- Ongoing support for system maintenance and optimization.
- Additional support for the end-to-end AMS solution as follows:
 1. Backhaul is provided by both EPE's ethernet network and a third-party cellular provider to ensure a seamless interface between the communications network and head-end system is maintained.
 2. EPE-selected systems will integrate and ensure interoperability with EPE legacy and back office IT systems.

(b) **Smart Energy Platform** - The communications network will utilize both 900 MHz RF mesh operating in the unlicensed ISM (Industrial, Scientific, and Medical) spectrum and cellular technology creating a "last mile network platform" covering EPE's service territory. The peer-to-peer design of the communications network accommodates a mix of paths automatically adapting and routing around obstacles connecting remote or hard-to-reach locations. Standard-based access points connect with any backhaul technology, including ethernet/fiber, LTE cellular, WiMAX, and a variety of other wired and wireless options. Dual mesh and cellular (LTE capable) RF interface, known as a socket access point (SocketAP), uses RF to micromesh nearby meter nodes and then backhaul data over the WAN via LTE to the head-end system. All cellular equipment will be LTE capable.

(c) **Open Standards** - The AMS is an open, Wi-SUN FAN compliant and native IPv6 platform. Open standards protect against obsolescence of proprietary systems and utilizes the latest IP-based security solutions. By deploying a standards-based advanced grid, customers benefit from a broader set of device and software choices as suppliers compete to deliver the best advanced grid solutions. The system's support of open standards, coupled with the ability to perform over-the-air firmware upgrades to support future standards, maintains currency of the platform current for the life of the deployment.

² Itron's head-end system, UtilityIQ, is a software suite that includes applications designed to help utilities collect and manage AMS meter consumption data. For example, applications included in the head-end system such as Advanced Metering Manager (AMM) and Meter Program Configurator (MPC) are secure and scalable solutions that support meter reading, management and analysis for power quality, and meter status, among other things.

(d) **IP Support** - The AMS is optimized to gather and send data, program network equipment, and signal devices throughout its service territory - all the way to the end customer premise. All neighborhood area network ("NAN") interfaces support both IPv4 and IPv6 (IPv4 is predominantly used for tunneling IPv6 on the WAN, DNP3, and other Distribution Automation protocols in the NAN). Ancillary, IETF RFC compliant Internet Protocols also include: DHCP (client/server), PPP, IPsec (AH and AH/ESP as appropriate), IKE, SNMPv2/3, DNS, and NTP. Itron supports IEC 61850 via Ethernet and IP. Support for IEC 61850 data interchange is accomplished through UtilityIQ's Web Services APIs.

(e) **The Network** - The architecture combines a high-performance radio with peer to peer communication and significant processing power on each endpoint, enabling distributed intelligence. The platform architecture enables uniform operation across disparate deployment environments, from urban to rural. It also enables the platform to support a much higher ratio of endpoints per take-out point than other advanced grid solutions, supporting as many as 16,000 per access point ("AP") but designed to support 8,000 to ensure full redundancy. Radios can reach a device up to a kilometer or more away, which is critical in rural environments, and use software techniques to ensure highly reliable operation in dense deployments.

(f) **Network Access Point** - The access point, or take-out point, is designed to support full redundancy at a high ratio of 8,000 endpoints per AP. The AP is also designed with the ability to carry additional IP traffic (e.g., distribution automation and streetlights) from the same location on the same AP. The AP is a weather-hardened router and may be optionally configured as ethernet only, cellular only, or ethernet and cellular. Notable key features include dynamic network discovery and self-healing, backup power option, automatic failover, and "over-the-air" firmware upgrades.

(g) **Network Relay** - The relay extends the network between the AP and endpoints. The system's standards-based RF network enables two-way communications between the AP and endpoints, providing secure, real-time measurement and control. The relay supports thousands of integrated meters and provides multi-hop, two-way networking to extend the reach of utility networks.

(h) **Communications Module** - The communications module for electric meters includes a reliable, Wi-SUN compliant IEEE 802.15.4g standards-based radio that provides two-way networking capability. The communications module communicates with integrated meters via a serial connection and relays meter consumption information on a bi-directional basis (where applicable), time of use registers, demand / reset functionality, remote connect / disconnect actions (for single phase meters with rating at or below 200 amps), interval data (including multi-channel interval), event logs, power quality events, and other information. The communications module allows for remote meter configuration and programming and can be upgraded over-the-air via the wireless network, eliminating the need for a field technical visit to evolve the meter's capabilities.

The communications module contains a super-capacitor that holds power to the communications module when power is lost to the integrated meter. It is designed to hold for 75 seconds. The system's standard configuration is to use the first 60 seconds as hold time before transmitting a last gasp message in order to allow automated recovery equipment an opportunity to restore power. The remaining 15 seconds of power are adequate for meters to transmit last gasp messages through the mesh communications network. This design reduces false last gasps and improves the quality of outage data going to an Outage Management System ("OMS"). The hold time is configurable so that it can be set to match other automated recovery designs.

4. Systems Developed During the Deployment Period.

(a) The advanced metering technology described in Section 2 requires communication networks that will need to be installed in connection with the AMS deployment. The communication network has its own head-end software system that supports the two-way data flow between the advanced meters and the other information technology infrastructure. This system performs several functions, such as production of schedules for reading, connecting and disconnecting meters and performing on-demand reads. This system monitors the operations of associated communication networks to determine whether the network is operating properly.

(b) Certain existing IT systems will also require upgrades or modifications.

(c) Various integrations with other existing systems will also be needed. The Company expects these to be developed as a combination of web services or file-based transfers that "push" or "pull" data from one system in one format to another system, potentially in a different format, and communication messages in a standard format between systems in support of advanced metering functions (e.g., reconnects, disconnects, on-demand reads).

(d) EPE will implement Itron's Operations Optimizer to electronically enhance the management of alerts and alarms generated by AMS meters. The Operations Optimizer tool will help identify true alarms and alerts and automate the generation of field activities through its workflow. In conjunction with implementing the Operations Optimizer, EPE will also develop a reliable interface between its Customer Cloud Service ("CCS") System and the Operations Optimizer to provide a daily data extract. This extract will be used by the Operations Optimizer to perform analytics on customer usage, detect system performance issues, and create the necessary field activities for CCS to process and route to the new KloudGin system.

5. Timeline for Customer Web Portal Development.

(a) The customer portion of the web portal will be developed and operational to coincide with meter deployment beginning in 2023. For the vast majority of EPE customers, their usage data will be available on the web portal within two business days after the existing meter is replaced with an AMS meter. A small portion of customers located in fringe areas of an active deployment zone, which is likely less than one percent of customers, may see a few days of delay

accessing interval data for the first time due to the necessary formation of the mesh network. Once sufficient meters are in place to form the mesh, interval data will be available on the portal the day after consumption. The customer-authorized third-party vendor portion of the web portal is expected to be developed and implemented by UtilityAPI with integration to Opower and Oracle CCS. That functionality is estimated to be operational 12 months after the commencement of meter deployment. See Exhibit 1, which includes a more detailed schedule of web portal development, implementation, and functionality.

6. Deployment Schedule by Specific Area (geographic information).

(a) EPE's preliminary year-over-year meter deployment schedule using approximate meter numbers is as follows. See Exhibit 2 for a detailed deployment schedule by geographic area.

Preliminary Meter Deployment Schedule				
	2023	2024	2025	Total
Total Company	190,942	291,690	46,154	528,786
Texas	161,990	206,656	30,321	398,867

7. Reports.

(a) EPE began filing monthly status reports meeting the requirements of 16 TAC § 25.130(d)(9) in June 2022. The monthly progress report will include the number of advanced meters installed; variations in the AMS Deployment Plan; any significant problems EPE has experienced; the number of advanced meters replaced as a result of AMS problems, if any, and the status of AMS feature deployment, including progress of the development of the web portal, Green Button Connect My Data, and authorized third-party on-demand reads, and any changes in deployment of those features.

8. Schedule for Deployment of Customer Web Portal Functionalities.

(a) The customer portion of the web portal will be developed and operating to coincide with meter deployment beginning in 2023. EPE will continue to use Oracle's Opower web and mobile functionality for residential and non-residential AMS customers, which provides a suite of smart energy tools. Those tools include High Bill Alert, Bill Comparison, Neighborhood Comparison, Data Brower, Energy Use Overview, Ways to Save, Smart Energy Tips and Home Energy Analysis. The web portal will also feature Green Button Download My Data and customer on-demand read functionality.

For customer-authorized third-party usage data access, Green Button Connect My Data is expected to be provided by UtilityAPI, and that functionality will be available by 12 months after

meter deployment commences. Authorized third-party on-demand read access is also expected to be provided by UtilityAPI and available 12 months after meter deployment commences.

See Exhibit 1 for additional detail on the timeline for development of web portal functionality and third-party data access.

Second Revised Attachment B

**EL PASO ELECTRIC COMPANY'S
SECOND REVISED STATEMENT OF AMS FUNCTIONALITY**

- 1. Purpose.** The purpose of this document is to present El Paso Electric Company's ("EPE" or "Company") Second Revised Statement of AMS Functionality. The information required by 16 Tex. Admin. Code ("TAC") § 25.130(d)(3) is contained in this document.
- 2. Technological requirements.** The advanced metering system described in EPE's AMS Deployment Plan submitted to the Commission as Exhibit A meets the requirements specified in 16 TAC § 25.130(g), except where a waiver is requested below.
- 3. Service Area Variances between Technology and Meter Functions.** EPE plans to use Radio Frequency Mesh Network ("RF Mesh") communication technologies in its deployment of advanced meters throughout the Company's service area but reserves the right to deploy alternative technologies in areas where customer density is very low, making it cost prohibitive to extend RF Mesh technology to those areas. E.g., there may be some limited instances where, due to the remote location of a meter or meters, the meter will include a cellular radio that will be used to directly access the backhaul cellular network. Creating the needed communications network across the Company's large and varied service areas in the most cost-effective manner may require use of multiple technologies.
- 4. Request for Waivers.** The Company requests waiver of the functionalities contemplated by 16 TAC § 25.130(g) in the following circumstances:
 - Loads that currently utilize 200 amp poly-phase meters, which includes some commercial customers and some residential customers, will not have a service switch until a poly-phase meter with those devices become available in the market. Company witness James Schichtl explains this requested waiver in his Direct Testimony.
 - Waivers the Company is seeking with regard to matters other than AMS functionality are explained in the direct testimony of Company witness Schichtl.
- 5. Table of Functionality.** The following table describes how EPE's AMS meets each of the system features set forth in 16 TAC § 25.130(g)(1).

**TABLE OF FUNCTIONALITY
MINIMUM SYSTEM FEATURES**

Rule 25.130(g)(1)	Requirement	EPE Implementation
(A)	Automated or remote meter reading	<ul style="list-style-type: none"> • EPE will gather a minimum of 15-minute or shorter interval data scheduled periodically each day from AMS meters. • EPE will provide a time stamped register reading for each meter each day. • All collected reading data will be made available no later than the day after it was collected. • EPE meter data gathering process will include a daily scheduled demand reset of meters that collect demand readings.
(B)	Two-way communications between the meter and the electric utility	EPE's AMS will provide two-way communications between the AMS meter and AMS systems.
(C)	Remote disconnection and reconnection capability for meters rated at or below 200 amps	EPE will deploy advanced meters rated at 200 amps or less for single-phase service that contain a service switch capable of remotely connecting or disconnecting service via the AMS network.
(D)	Time-stamp meter data	EPE's proposed AMS has the capability to time-stamp meter data. Periodic meter reading data is consistent with the International Electrotechnical Commission (IEC) DLMS-COSEM standards file table standards, and can be time (hour, minute, and second) and date stamped.
(E)	Access to customer usage data by the customer, the customer's REP of record, entities authorized by the customer provided that 15-minute interval or shorter data from the electric utility's AMS must be transmitted to the electric utility's or a	EPE's AMS will support providing usage data for residential, commercial, and industrial accounts in 15-minute intervals or shorter that will be available to customers on the Company's web portal the next day and through Green Button Download

Rule 25.130(g)(1)	Requirement	EPE Implementation
	group of electric utilities' web portal on a day-after basis.	My Data. The same AMS usage data will be available to customer-authorized third parties through Green Button Connect My Data.
(F)	Capability to provide on-demand reads of a customer's advanced meter through the graphical user interface of an electric utility's or a group of electric utilities' web portal when requested by a customer, the customer's REP of record, or entities authorized by the customer subject to network traffic such as interval data collection, market orders if applicable, and planned and unplanned outages.	EPE's AMS will support and provide on-demand meter reads accessible by customers and customer-authorized third parties through the web portal's graphical user interface.
(G)	For an electric utility that provides access through an application programming interface (API), the capability to provide on-demand reads of a customer's advanced meter data, subject to network traffic such as interval data collection, market orders if applicable, and planned and unplanned outages.	EPE's AMS will support customer-authorized third-party on-demand reads through an API, subject to rate limits of 100 simultaneous connections and 25 on-demand reads per minute, 1,500 on-demand reads per hour, and a total of 36,000 per day, and further subject to network traffic such as interval data collection, market orders if applicable, and planned and unplanned outages.
(H)	On-board meter storage of meter data that complies with nationally recognized non-proprietary standards such as in American National Standards Institute (ANSI) C12.19 tables or International Electrotechnical Commission (IEC) DLMS-COSEM standards.	The on-board meter storage feature of the EPE advanced meter will be consistent with International Electrotechnical Commission (IEC) DLMS-COSEM standards.
(I)	Open standards and protocols that comply with nationally recognized nonproprietary standards such as ANSI C12.22, including future revisions.	EPE AMS will be C12.22 compliant upon deployment.

Rule 25.130(g)(1)	Requirement	EPE Implementation
(J)	For an electric utility in the ERCOT region, the capability to communicate with devices inside the premises, including, but not limited to, usage monitoring devices, load control devices, and prepayment systems through a home area network (HAN), based on open standards and protocols that comply with nationally recognized non-proprietary standards such as ZigBee, Home-Plug, or the equivalent through the electric utility's AMS. This requirement applies only to a HAN device paired to a meter and in use at the time that the version of the web portal approved in Docket Number 47472 was implemented and terminates when the HAN device is disconnected at the request of the customer or a move-out transaction occurs for the customer's premises.	Not applicable; EPE is not in the ERCOT region.
(K)	The ability to upgrade these features as the need arises.	EPE advanced meters and communications modules can be remotely upgraded with firmware or configuration changes.

Second Revised Attachment B

**EL PASO ELECTRIC COMPANY'S
SECOND REVISED STATEMENT OF AMS FUNCTIONALITY**

- 1. Purpose.** The purpose of this document is to present El Paso Electric Company's ("EPE" or "Company") Second Revised Statement of AMS Functionality. The information required by 16 Tex. Admin. Code ("TAC") § 25.130(d)(3) is contained in this document.
- 2. Technological requirements.** The advanced metering system described in EPE's AMS Deployment Plan submitted to the Commission as Exhibit A meets the requirements specified in 16 TAC § 25.130(g), except where a waiver is requested below.
- 3. Service Area Variances between Technology and Meter Functions.** EPE plans to use Radio Frequency Mesh Network ("RF Mesh") communication technologies in its deployment of advanced meters throughout the Company's service area but reserves the right to deploy alternative technologies in areas where customer density is very low, making it cost prohibitive to extend RF Mesh technology to those areas. E.g., there may be some limited instances where, due to the remote location of a meter or meters, the meter will include a cellular radio that will be used to directly access the backhaul cellular network. Creating the needed communications network across the Company's large and varied service areas in the most cost-effective manner may require use of multiple technologies.
- 4. Request for Waivers.** The Company requests waiver of the functionalities contemplated by 16 TAC § 25.130(g) in the following circumstances:
 - Loads that currently utilize 200 amp poly-phase meters, which includes some commercial customers and some residential customers, will not have a service switch until a poly-phase meter with those devices become available in the market. Company witness James Schichtl explains this requested waiver in his Direct Testimony.
 - Waivers the Company is seeking with regard to matters other than AMS functionality are explained in the direct testimony of Company witness Schichtl.
- 5. Table of Functionality.** The following table describes how EPE's AMS meets each of the system features set forth in 16 TAC § 25.130(g)(1).

**TABLE OF FUNCTIONALITY
MINIMUM SYSTEM FEATURES**

Rule 25.130(g)(1)	Requirement	EPE Implementation
(A)	Automated or remote meter reading	<ul style="list-style-type: none"> • EPE will gather a minimum of 15-minute or shorter interval data scheduled periodically each day from AMS meters. • EPE will provide a time stamped register reading for each meter each day. • All collected reading data will be made available no later than the day after it was collected. • EPE meter data gathering process will include a daily scheduled demand reset of meters that collect demand readings.
(B)	Two-way communications between the meter and the electric utility	EPE's AMS will provide two-way communications between the AMS meter and AMS systems.
(C)	Remote disconnection and reconnection capability for meters rated at or below 200 amps	EPE will deploy advanced meters rated at 200 amps or less for single-phase service that contain a service switch capable of remotely connecting or disconnecting service via the AMS network.
(D)	Time-stamp meter data	EPE's proposed AMS has the capability to time-stamp meter data. Periodic meter reading data is consistent with the International Electrotechnical Commission (IEC) DLMS-COSEM standards file table standards, and can be time (hour, minute, and second) and date stamped.
(E)	Access to customer usage data by the customer, the customer's REP of record, entities authorized by the customer provided that 15-minute interval or shorter data from the electric utility's AMS must be transmitted to the electric utility's or a	EPE's AMS will support providing usage data for residential, commercial, and industrial accounts in 15-minute intervals or shorter that will be available to customers on the Company's web portal the next day and through Green Button Download My Data. The same AMS usage data

Rule 25.130(g)(1)	Requirement	EPE Implementation
	group of electric utilities' web portal on a day-after basis.	will be available to customer-authorized third parties through Green Button Connect My Data.
(F)	Capability to provide on-demand reads of a customer's advanced meter through the graphical user interface of an electric utility's or a group of electric utilities' web portal when requested by a customer, the customer's REP of record, or entities authorized by the customer subject to network traffic such as interval data collection, market orders if applicable, and planned and unplanned outages.	EPE's AMS will support and provide on-demand meter reads accessible by customers and customer-authorized third parties through the web portal's graphical user interface.
(G)	For an electric utility that provides access through an application programming interface (API), the capability to provide on-demand reads of a customer's advanced meter data, subject to network traffic such as interval data collection, market orders if applicable, and planned and unplanned outages.	EPE's AMS will support customer-authorized third-party on-demand reads through an API, subject to rate limits of 100 simultaneous connections and 25 on-demand reads per minute, 1,500 on-demand reads per hour, and a total of 36,000 per day, and further subject to network traffic such as interval data collection, market orders if applicable, and planned and unplanned outages.
(H)	On-board meter storage of meter data that complies with nationally recognized non-proprietary standards such as in American National Standards Institute (ANSI) C12.19 tables or International Electrotechnical Commission (IEC) DLMS-COSEM standards.	The on-board meter storage feature of the EPE advanced meter will be consistent with International Electrotechnical Commission (IEC) DLMS-COSEM standards.
(I)	Open standards and protocols that comply with nationally recognized nonproprietary standards such as ANSI C12.22, including future revisions.	EPE AMS will be C12.22 compliant upon deployment.
(J)	For an electric utility in the ERCOT region, the capability to communicate	Not applicable; EPE is not in the ERCOT region.

Rule 25.130(g)(1)	Requirement	EPE Implementation
	with devices inside the premises, including, but not limited to, usage monitoring devices, load control devices, and prepayment systems through a home area network (HAN), based on open standards and protocols that comply with nationally recognized non-proprietary standards such as ZigBee, Home-Plug, or the equivalent through the electric utility's AMS. This requirement applies only to a HAN device paired to a meter and in use at the time that the version of the web portal approved in Docket Number 47472 was implemented and terminates when the HAN device is disconnected at the request of the customer or a move-out transaction occurs for the customer's premises.	
(K)	The ability to upgrade these features as the need arises.	EPE advanced meters and communications modules can be remotely upgraded with firmware or configuration changes.

PUBLIC

Exhibit GER-4 is Confidential Material and will be provided upon receipt of a signed Protective Order (Confidentiality Disclosure Agreement) entered in this case.

PUBLIC

Exhibit GER-5 is Highly Sensitive Protected Material and will be provided upon receipt of a signed Protective Order (Confidentiality Disclosure Agreement) entered in this case.