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APPLICATION OF CENTERPOINT	§	STATE OFFICE
ENERGY HOUSTON ELECTRIC, LLC	§	
FOR APPROVAL OF ITS	§	OF
TRANSMISSION AND DISTRIBUTION	§	
SYSTEM RESILIENCY PLAN	§	ADMINISTRATIVE HEARINGS

DIRECT TESTIMONY AND EXHIBITS OF

ERIC S. AUSTIN

ON BEHALF OF

WALMART INC.

April 8, 2025

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Exhibits:

ESA-1 Witness Qualifications

I. Introduction

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND OCCUPATION.

A. My name is Eric S. Austin and my business address is 2608 SE J Street, Bentonville, AR 72716-0550. I am employed by Walmart Inc. (“Walmart”) as Sr. Manager, Utility Partnerships – Regulatory.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS DOCKET?

A. I am testifying on behalf of Walmart.

Q. PLEASE DESCRIBE YOUR EDUCATION AND EXPERIENCE.

A. In 2009, I earned a Bachelor of Science degree in Education from Texas A&M University – Commerce, and I am currently earning a Masters of Legal Studies from Texas A&M University. I have over twelve years of experience in the utility industry, including both investor-owned utilities and cooperatives. I was involved in several areas of the utility business, including generation, transmission, distribution, demand response, and electric vehicle charging. Most recently before Walmart, I was the Manager of Electric Transportation and Public Charging at American Electric Power (“AEP”). I joined Walmart in 2023 as a Senior Manager, Utility Partnerships. My Witness Qualifications Statement is attached as Exhibit ESA-1.

1 **Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE THE PUBLIC**
2 **UTILITIES COMMISSION OF TEXAS?**

3 A. Yes, I filed Testimony in Docket No. 55338, Docket No. 57259, Docket No.
4 56954, Docket No. 56735, Docket No. 56545, Docket No. 56548, and Docket
5 No. 57057.

6 **Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE OTHER STATE**
7 **REGULATORY COMMISSIONS OR LEGISLATURES?**

8 A. Yes; I have submitted testimony with the New Mexico state legislature and
9 served as an expert witness in Kansas and New Mexico on matters relating to
10 Electric Vehicle Charging Infrastructure and Geothermal Heat Pumps. I have
11 also submitted testimony in New Hampshire, Oregon, Wisconsin, Indiana,
12 Missouri, New Mexico, Louisiana, Washington, Oklahoma, and Nevada.

13 **Q. ARE YOU SPONSORING EXHIBITS IN YOUR TESTIMONY?**

14 A. Yes. I am sponsoring the exhibits listed in the Table of Contents.

15 **Q. PLEASE BRIEFLY DESCRIBE WALMART'S OPERATIONS IN TEXAS.**

16 A. As shown on Walmart's website, Walmart operates 590 retail units, 22
17 distribution centers, three fulfillment centers, and related facilities, and
18 employs over 176,000 associates in the State of Texas.¹ In fiscal year ending

¹ <https://corporate.walmart.com/about/location-facts/united-states/texas>

1 2024, Walmart purchased \$100.8 billion worth of goods and services from
2 Texas-based suppliers, supporting over 261,000 supplier jobs in Texas.²

3 **Q. PLEASE BRIEFLY DESCRIBE WALMART’S OPERATIONS WITHIN THE**
4 **SERVICE TERRITORY FOR CENTERPOINT ENERGY HOUSTON ELECTRIC,**
5 **LLC (“CENTERPOINT” OR “COMPANY”).**

6 A. Walmart is a large customer of CenterPoint, currently having 84 retail stores,
7 four distribution centers, and related facilities that take electric service
8 primarily on the Company’s Secondary > 10 kVa rate schedule.

9
10 **II. Purpose of Testimony and Summary of Recommendations**

11 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

12 A. The purpose of my testimony is to respond to the *Application of CenterPoint*
13 *Energy Houston Electric, LLC for Approval of its Transmission and Distribution*
14 *System Resiliency Plan* filed January 31, 2025 (“Application”), along with
15 supporting testimony, and to provide recommendations to assist the
16 Commission in its thorough and careful consideration of the Company’s
17 proposed Transmission and Distribution System Resiliency Plan (“Resiliency
18 Plan”). Specifically, my testimony will address the areas of investment
19 proposed by the Company.

² *Id.*

1 **Q. PLEASE SUMMARIZE WALMART’S RECOMMENDATIONS TO THE**
2 **COMMISSION.**

3 A. Walmart strongly supports investments that enhance grid resiliency but
4 believes the Company’s Resiliency Plan should focus on initiatives primarily
5 aimed at improving resiliency. These investments should be evaluated using
6 widely accepted, verifiable metrics to ensure that any approved funding is
7 contributing to a more reliable and resilient grid for customers. To that end,
8 Walmart’s recommendations to the Commission are as follows:

9 (1) **Distribution Hardening Proposals.** Walmart recommends that the
10 Commission ensure that projects approved as part of the Company’s
11 proposed distribution hardening plan are carefully evaluated,
12 accurately categorized, and directly tied to improved resiliency.
13 Upgrades driven by load growth or system modernization should be
14 evaluated and funded through general rate cases.

15 (2) **Next-Generation Advanced Metering Infrastructure (“AMI”).**
16 Walmart recommends that the Commission consider the expense and
17 benefits of the AMI investments proposed by the Company as it relates
18 to resiliency and determine whether these types of investments should
19 be evaluated as part of a comprehensive general rate case that
20 accounts for broader system performance, customer engagement,
21 and technology advancement.

(3) **Transmission Hardening Plan.** Walmart recommends that the Commission critically examine the prudence and scale of the proposed transmission investments. The nearly 60 percent increase over the last measured three-year period warrants close scrutiny to distinguish resiliency needs from system modernization or capacity growth initiatives. Only transmission projects that demonstrably enhance storm resilience and are not duplicative of existing plans or responsibilities should be approved within the Resiliency Plan.

(4) **69kV to 138kV Conversion.** Walmart recommends the Commission recognize that while 69 kV to 138 kV conversions offer system-wide benefits, only a portion of the cost should be approved under this Resiliency Plan. The resiliency-driven components - such as storm hardening - may be eligible, while the capacity and modernization components should be examined through the general ratemaking process.

(5) **RM-16 – DISTRIBUTION CAPACITY ENHANCEMENT/SUBSTATION ENHANCEMENT.** Walmart proposes a two-pronged approach:

(1) The Commission should promote policies that support customer-driven solutions to manage peak load and reduce stress on transformers.

1 (2) Funding approval under the Resiliency Plan should be limited
2 to the incremental cost of resiliency-related upgraded needed
3 beyond what customer-sited or demand-side alternatives can
4 achieve. Any additional capacity expansion components
5 should be determined in a general rate case.

6 (6) **DISTRIBUTION SYSTEM UNDERGROUND MEASURES.** Walmart
7 recommends that the Commission approve only the portions of RM-2
8 that focus on new undergrounding in high-risk, high-impact locations -
9 such as freeway and interstate crossings - where resiliency benefits are
10 well-supported. Walmart opposes inclusion of RM-18 in this docket, as
11 it reflects routine system upkeep that should be addressed through a
12 general rate case.

13 (7) **VEGETATION AND WILDFIRE MEASURES.** The Commission should
14 carefully consider the proposed vegetation and wildfire measures in
15 light of:

- 16 (a) the limited amount of service area at risk,
17 (b) similarly requested actions, such as undergrounding, that is seen in
18 other measures, and
19 c) the overall cost increases proposed by the measures.

20 Walmart recommends that the Commission prioritize approval
21 of vegetation and wildfire mitigation activities that are well-targeted,

1 supported by relevant risk data, and reasonably aligned with the level
2 of exposure.

3 (8) **MICROGRID PILOT PROGRAM.** Walmart recommends that the
4 Commission approve the Company's proposed microgrid pilot
5 program.

6 **Q. DOES THE FACT THAT YOU MAY NOT ADDRESS AN ISSUE OR POSITION**
7 **ADVOCATED BY THE COMPANY INDICATE WALMART'S SUPPORT?**

8 A. No. The fact that an issue is not addressed herein or in related filings should
9 not be construed as an endorsement of, agreement with, or consent to any
10 filed position.

11
12 **III. Resiliency Plan Overview**

13 **Q. PLEASE BRIEFLY EXPLAIN THE STATUTORY AUTHORITY UNDER WHICH**
14 **THE COMPANY IS FILING IT RESILIENCY PLAN.**

15 A. In 2023, the Texas Legislature passed H.B. 2555, creating PURA § 38.078,
16 which allows electric utilities to seek Commission approval for transmission
17 and distribution system resiliency plans.³ The Legislature found that
18 strengthening this infrastructure against extreme weather can reduce outage

³ See Application, pp. 1-2.

1 times and restoration costs, benefiting all customers and improving overall
2 reliability.⁴

3 **Q. CAN YOU PLEASE PROVIDE A SHORT SUMMARY OF THE COMPANY'S**
4 **PROPOSED RESILIENCY PLAN?**

5 A. The Company's Resiliency Plan includes 39 Resiliency Measures designed to
6 harden and modernize its transmission and distribution system.⁵ These
7 measures cover flood mitigation, information technology and physical
8 security upgrades, targeted vegetation management, and wildfire risk
9 reduction.⁶ The Resiliency Plan also proposes a pilot program to evaluate the
10 role of utility-scale microgrids in restoration during certain resiliency events.⁷
11 The total estimated cost is approximately \$5.543 billion in capital
12 expenditures and \$210.7 million in incremental O&M costs over 2026–2028.⁸

⁴ See *id.*

⁵ See *id.* at 16.

⁶ See *id.*

⁷ See *id.*

⁸ See *id.*

1 **Q. HOW DOES THE COMPANY PROPOSE TO RECOVER COSTS APPROVED**
2 **UNDER ITS PROPOSED RESILIENCY PLAN?**

3 A. Based on my understanding, the Company is seeking the option to recover
4 distribution-related costs, including incremental vegetation management
5 costs, over a three-year period for future recovery as a regulatory asset.⁹

6 **Q. IS A RESILIENT GRID IMPORTANT TO WALMART?**

7 A. Yes, it is. As a retailer that provides essential goods and services, Walmart is
8 uniquely positioned to support utilities, first responders, and the broader
9 community - both during normal operations and in times of extreme weather
10 events. For example, in Walmart's experience, utility personnel responsible for
11 site visits and restoring transmission and distribution systems often need a
12 range of supplies - from water and cell phones to bed sheets. Walmart values
13 the ability to meet these needs, helping to ensure that field crews have what
14 they require to restore power quickly and safely.

15 Importantly, it is not only utility workers who turn to Walmart in these
16 moments. As a consistent presence in the communities we serve, Walmart
17 aims to lead in supporting daily needs as well as in times of disruption, such
18 as recovery from hurricanes or other extreme weather events. This includes
19 providing critical supplies to first responders, non-profit organizations, and

⁹ See *id.* at 18-19.

1 community shelters, reinforcing our commitment to resilience and
2 community care.¹⁰

3 **Q. WITH REGARD TO CENTERPOINT, HAS WALMART EXPERIENCED POWER**
4 **OUTAGES DURING THE 2024 CALENDAR YEAR?**

5 A. Yes, it has. In 2024, after excluding outages caused by extreme weather
6 events, Walmart facilities within the Company's service territory experienced
7 approximately 400 power outages lasting 15 minutes or more. As such,
8 Walmart is generally supportive of the Company's efforts to invest in system
9 improvements for resiliency. However, as discussed in more detail in my
10 testimony, Walmart has concerns with certain elements of the proposed
11 Resiliency Plan that appear to include investments not primarily focused on
12 resiliency. These investments may be more appropriately considered in a
13 general rate case. Additionally, it is important to ensure that the effectiveness
14 of these efforts - namely, improved system resiliency - is being properly
15 measured, so that any funding approved under the Resiliency Plan is
16 contributing to a more reliable and resilient grid for customers.

¹⁰ <https://corporate.walmart.com/news/2021/09/01/as-disasters-mount-were-extending-our-support>

IV. Overhead Distribution System Hardening

(A) Overview

Q. WHAT IS THE COMPANY PROPOSING FOR OVERHEAD DISTRIBUTION SYSTEM HARDENING?

A. The Company is proposing a comprehensive overhead distribution hardening effort through fifteen resiliency measures, with a proposed capital budget of approximately \$1 billion and an O&M request of \$6.6 million.¹¹ Additionally, the company is proposing the undergrounding of approximately 400 miles of distribution lines in strategically targeted areas with a proposed budget of \$860 million.¹² Most of the physical infrastructure portion of this proposal is included in Resiliency Measures One (“RM-1”) and Resiliency Measures Four (“RM-4”).¹³

Q. WHAT PHYSICAL STRUCTURE UPGRADES ARE INCLUDED UNDER RM-1, RM-4, AND OTHER EFFORTS?

A. As part of the Greater Houston Resiliency Initiative (“GHRI”) Phase II, the Company plans to replace 25,000 distribution poles, upgrade some wooden poles to more wind-resistant materials such as steel or composite, and add new poles to reduce conductor span.¹⁴ These upgrades are designed to meet

¹¹ See Direct Testimony of Deryl Tumlinson, page 19, line 6.

¹² See Guidehouse Independent Analysis and Review, page 75, Table 5-1.

¹³ *Id*

¹⁴ See System Resiliency Plan, page 33, Figure SRP-8.

1 higher wind tolerance thresholds (110 mph inland, 132 mph coastal).¹⁵ The
2 GHRI also includes a targeted initiative to underground approximately 400
3 miles of distribution lines as part of its resiliency strategy.¹⁶

4 **Q. WHAT IS THE FOCUS AND PROPOSED BUDGET FOR RM-1 AND RM-4?**

5 A. RM-1 focuses on circuit-level structural reinforcements with non-wooden
6 poles, or retrofits, to mitigate extreme winds, microburst and hurricanes.¹⁷
7 This request includes a proposed capital budget of \$513.4 million with no
8 O&M costs.¹⁸

9 RM-4 is similarly focused on replacing and upgrading poles on an
10 individual basis, but also includes bracing for certain existing structures.¹⁹
11 Although the Company states that RM-4 projects are prioritized based on the
12 Company's latest pole inspection data,²⁰ the prioritization methodology for
13 RM-1 remains unclear. RM-4 has a proposed budget of \$251.6 million.²¹

14 **Q. ARE THE PROPOSED DISTRIBUTION HARDENING MEASURES PRUDENT**
15 **FROM A RESILIENCY STANDPOINT?**

16 A. Upgrades such as transitioning from Class 3 to Class 1 poles and rebuilding
17 entire circuits with heavier conductors and shorter spans could just as easily

¹⁵ See *id.*

¹⁶ *Id.*

¹⁷ See *id.*, page 70, Figure SRP-29.

¹⁸ See Application, page 16, figure APP-15

¹⁹ See Generally Direct Testimony of Eugene Shlatz, page 29.

²⁰ See Guidehouse Exhibit ELS-2, page 255 paragraph 3

²¹ See Application, page 16, figure APP-15.

1 be classified as system capacity improvements. These efforts appear to be
2 motivated at least in part by customer growth and system expansion needs,
3 raising concerns about the appropriate regulatory framework.²²

4 **Q. PLEASE EXPLAIN.**

5 A. While there may be some overlap between investments made for resilience
6 purposes and those driven by other considerations - such as load growth or
7 addressing existing system needs that would otherwise require capital
8 investment - it is important that cost recovery through the Resiliency Plan be
9 focused primarily on projects that directly support resiliency. This does not
10 preclude recovery of other types of projects, but investments that are not
11 primarily resiliency-focused should be included in the Company's next
12 general rate case.

13
14 **(B) Approval Outside of Rate Case**

15 **Q. WHY DOES WALMART BELIEVE THAT A GENERAL RATE CASE IS THE**
16 **APPROPRIATE FORUM FOR APPROVING COSTS RELATED TO**
17 **INVESTMENTS MADE BY THE COMPANY?**

18 A. Walmart understands that the Company is statutorily authorized to seek
19 Commission approval of certain transmission and distribution system

²² See generally System Resiliency Plan, page 252, Section 6.3.1 and Figure 6-17.

1 investment costs through a Resiliency Plan, rather than through the traditional
2 general rate case process. However, Walmart believes that, aside from
3 investments that are clearly demonstrated to be primarily for resiliency
4 purposes and eligible for special treatment under statute, the appropriate
5 forum for approving all other transmission and distribution system upgrades
6 is a general rate case.

7 **Q. PLEASE EXPLAIN.**

8 A. In a general rate case, the Commission conducts a thorough and systematic
9 review of all relevant costs, benefits, and risks - including those associated
10 with specific capital investments and those related to the Company's overall
11 operations. This process ensures that all factors affecting the prudence of
12 expenditures, as well as the fair allocation and recovery of costs across
13 customer classes, are fully considered. Commission-approved rates are
14 established through a comprehensive evaluation of the Company's test year
15 rate base, rate of return, and capital structure. By contrast, under the
16 Company's proposed Resilience Plan, only select capital expenditures related
17 to transmission and distribution system upgrades are reviewed by the
18 Commission. Key components such as the Company's overall rate of return
19 and capital structure - though directly impacted by these system upgrades -
20 would not be subject to the same level of scrutiny.

1 **Q. WHAT IS WALMART’S RECOMMENDATION TO THE COMMISSION**
2 **REGARDING THE DISTRIBUTION HARDENING PROPOSALS.**

3 A. Walmart strongly supports investments that enhance grid resiliency. However,
4 Walmart recommends that the Commission ensure that projects approved as
5 part of the Company’s proposed plan are carefully evaluated, accurately
6 categorized, and directly tied to improved resiliency. Upgrades driven by load
7 growth or system modernization should be evaluated and funded through
8 general rate cases. Maintaining a clear and consistent distinction between
9 true resiliency enhancements and broader infrastructure improvements is
10 important for ensuring consistent regulatory treatment for these types of
11 investments that follow long-standing regulatory principles.

12
13 **V. Advanced Metering Technology Upgrades**

14 **Q. WHAT IS YOUR UNDERSTANDING OF THE COMPANY’S ADVANCED**
15 **METERING UPGRADE REQUEST AS IT PERTAINS TO THE RESILENCY PLAN?**

16 A. My understanding is that the Company proposes to deploy next-generation
17 advanced metering infrastructure (“AMI”) as part of its Resiliency Plan under
18 a project known as “AMI 2.0 Refresh.”²³ This includes an associated
19 broadband communications upgrade, Spectrum Acquisition (or “RM-28”),

²³ See Exhibit ELS-2, page 168, Section 5.8.3 Spectrum Acquisition.

1 which is expected to improve bandwidth, lower latency, and support broader
2 grid modernization initiatives.²⁴ While these upgrades provide long-term
3 operational benefits, their direct impact on system resiliency is not clearly
4 established.

5 **Q. WHAT IS RM-28?**

6 A. It is my understanding that RM-28 refers to the acquisition of dedicated
7 spectrum to support an improved broadband communication network for grid
8 modernization projects.²⁵ This network is intended to supplement, and
9 ultimately replace, portions of the current broadband network used by the
10 Company.²⁶ The Company seeks approximately \$42 million in capital
11 spending for this initiative with no budgeted O&M costs.²⁷

12 **Q. IS THERE A PROPOSED DEPLOYMENT SCHEDULE FOR RM-28?**

13 A. It does not appear that the Company has provided any type of deployment
14 schedule for the RM-28 initiative.

15 **Q. IS THERE A PROPOSED SCHEDULE FOR AMI 2.0 DEPLOYMENT?**

16 A. Based on my understanding, although the AMI 2.0 Refresh is identified as a key
17 driver for the additional spectrum acquisitions under RM-28, no specific
18 timeline or phases for this deployment of AMI 2.0 Refresh or other devices are

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

1 outlined in the Company's filing, nor is a detailed budget for the AMI 2.0
2 Refresh provided.

3 **Q. HOW DOES THE COMPANY PROPOSE THAT ADVANCED METERING WILL**
4 **LEAD TO INCREASED RESILENCY?**

5 A. The Company asserts that advanced meters can enhance outage detection,
6 enable faster restoration, and support advanced grid functions during
7 emergencies.²⁸ However, these benefits are secondary and indirect. AMI
8 systems primarily serve functions such as real-time energy monitoring,
9 customer billing accuracy, remote service switching, and integration of
10 distributed energy resources. These functions are valuable, but better aligned
11 with operational efficiency and modernization goals than with core resiliency
12 objectives.

13 **Q. ARE YOU AWARE OF THE METHODS USED BY UTILITIES TO MEASURE**
14 **OUTAGES, DURATION OF OUTAGES, AND FREQUENCY OF OUTAGES?**

15 A. Yes, I am. Based on my understanding and experience, most utilities rely on
16 the industry standard - SAIDI, SAIFI, and CAIDI - to measure data points that
17 provide the utility information on outages, including their duration and
18 frequency.

²⁸ See Resiliency Plan, page 7 and page 20.

1 **Q. WHAT IS YOUR UNDERSTANDING OF SAIDI?**

2 A. It is my understanding that SAIDI (System Average Interruption Duration Index)
3 measures the average duration of outages that customers experience over a
4 specified period of time. It is calculated by dividing the total customer outage
5 duration by the total number of customers served during the same period,
6 giving the average time a customer is without power due to interruptions.

7 **Q. WHAT IS YOUR UNDERSTANDING OF SAIFI?**

8 A. It is my understanding that SAIFI (System Average Interruption Frequency
9 Index) measures the average number of outages a customer experiences over
10 a specified period of time. It is calculated by dividing the total number of
11 customer interruptions by the total number of customers during that defined
12 period.

13 **Q. WHAT IS YOUR UNDERSTANDING OF CAIDI?**

14 A. It is my understanding that CAIDI (Customer Average Interruption Duration
15 Index) measures the average time it takes to restore power to customers after
16 an interruption by dividing the total customer outage duration by the total
17 number of customers affected for a set period of time.

18 **Q. HOW DOES AMI IMPACT SAIDI, SAIFI, AND CAIDI VALUES?**

19 A. While AMI systems may enable more granular detection of outages and
20 service disruptions, they do not directly affect outage occurrence or
21 restoration times. For example:

- 1 • **SAIDI:** AMI does not shorten the duration of outages - it merely
2 improves detection and recordkeeping.
- 3 • **SAIFI:** AMI does not prevent outages, and thus has minimal impact on
4 their frequency.
- 5 • **CAIDI:** Restoration times are largely influenced by field response and
6 system design, which AMI does not materially alter.

7 Overall, AMI serves as a data enhancement tool, not a physical resilience
8 asset. It supports planning and customer service initiatives but offers only
9 marginal, if any, direct improvements to resiliency metrics.

10 **Q. DOES WALMART OPPOSE INVESTMENTS IN ADVANCED METERING**
11 **TECHNOLOGY?**

12 A. No. Walmart acknowledges the value of advanced metering systems and
13 supports their use for improved customer service and system management.
14 However, Walmart does not believe that AMI investments should be proposed
15 in a Resiliency Plan. Instead, these types of upgrades are more appropriately
16 reviewed in a general rate case, where, as explained earlier in my testimony,
17 project approval, including costs, can be considered alongside other system
18 modernization initiatives and customer benefits.

1 **Q. WHAT IS WALMART’S RECOMMENDATION TO THE COMMISSION**
2 **REGARDING THE COMPANY’S PROPOSED INVESTMENT IN NEXT-**
3 **GENERATION AMI AS A PART OF ITS RESILIENCY PLAN?**

4 A. Walmart recommends that the Commission consider the expense and
5 benefits of the AMI investments proposed by the Company as it relates to
6 resiliency and determine whether these types of investments should be
7 evaluated as part of a comprehensive general rate case that accounts for
8 broader system performance, customer engagement, and technology
9 advancement.

10
11 **VI. Transmission and Substation Hardening Measures**

12 **(A) Transmission System Hardening**

13 **Q. WHAT IS THE COMPANY REQUESTING IN ITS RESILIENCY PLAN WITH**
14 **REGARD TO TRANSMISSION SYSTEM HARDENING?**

15 A. The Company proposes to strengthen and reinforce its transmission system
16 to better withstand extreme wind and resiliency events.²⁹ In its Resiliency Plan,
17 the Company is proposing five different transmission related measures,³⁰ two
18 of which, RM-6, and RM-16, are discussed below.

²⁹See Direct Testimony of David Mercado, page 20, lines 13-16.

³⁰ See Direct Testimony of David Mercado, page 20, line 13.

1 **Q. WHAT IS YOUR UNDERSTANDING OF RM-6, THE TRANSMISSION SYSTEM**
2 **HARDENING MEASURE?**

3 A. My understanding is the RM-6 measure is designed to strengthen the overhead
4 transmission system against extreme winds and other weather conditions and
5 would have the highest cost at nearly \$1.5 billion.³¹ RM-6 includes the
6 Company's day-to-day activities to maintain and operate the transmission
7 system, including (i) inspection and maintenance, (ii) repair or replacement,
8 (iii) upgrades to equipment, and (iv) construction, vegetation management,
9 and restoration.³² Specifically, retrofitting 1,473 wooden structures to steel or
10 concrete³³ and replacing infrastructure dating back to the 1960s to new wind
11 ratings and design standards.³⁴

12 **Q. ARE THESE PROJECTS INCLUDED IN ERCOT'S TRANSMISISON**
13 **PLANNING?**

14 A. It is unclear from the Company's filing whether the proposed transmission
15 projects are included in ERCOT's planning, or if the projects could be
16 subsidized by ERCOT as part of a larger project. In a December 2024 report,
17 ERCOT references grid reliability and resiliency as part of the document's key
18 takeaways regarding hurricane scenarios and extreme winter peak scenarios;

³¹ See Application, page 16, Figure APP-15.

³² See Direct Testimony of David Marcado, page 14, lines 3-8.

³³ See Resiliency Plan, page 88, Section 5.1.5.6, Transmission System Hardening.

³⁴ *Id.*

1 additional transmission enhancements were found to be beneficial, and
2 substation hardening was found to have a critical role in resiliency.³⁵ Given
3 ERCOT's emphasis on grid reliability and its recognition of the value of
4 substation hardening during hurricane and winter events, it is plausible that
5 portions of RM-6 could qualify for ERCOT support or coordination. However,
6 without that documentation, it is difficult to assess whether these costs could
7 or should be partially offset.

8 **Q. WHAT IS WALMART'S RECOMMENDATION TO THE COMMISSION AS IT**
9 **PERTAINS TO THE COMPANY'S REQUEST FOR TRANSMISSION**
10 **HARDENING AS PART OF THE RESILIENCY PROGRAM?**

11 A. Walmart recommends that the Commission critically examine the prudence
12 and scale of the proposed transmission investments. The nearly 60 percent
13 increase over the last measured three-year period warrants close scrutiny to
14 distinguish resiliency needs from system modernization or capacity growth
15 initiatives. Only transmission projects that demonstrably enhance storm
16 resilience and are not duplicative of existing plans or responsibilities should
17 be approved within the Resiliency Plan.

³⁵ See ERCOT Report on Existing and Potential Electric System Constraints and Needs, December 2024, page 24, Key takeaways.

1 **(B) 69kV Conversion Projects**

2 **Q. WHAT IS YOUR UNDERSTANDING OF THE 69KV CONVERSION PROJECTS?**

3 A. The proposed plan is to remove aged 69kV transformers and replace 462
4 structures with higher wind rated poles and re-conductor with the goal of
5 eliminating the need to maintain 69kV equipment, provide additional 138kV
6 feeds into downtown Houston, and enhance the grid by increasing line voltage
7 via the conversion.³⁶ The overall budget for this measure is \$369.3 million.³⁷

8 **Q. WHAT IS THE ADVANTAGE OF CONVERTING 69KV LINES TO 138KV LINES?**

9 A. While the Company cites resiliency gains from stronger structures and higher
10 voltage, the majority of the described benefits - including operational
11 consistency, lower currents, and improved load transfer - point to system
12 performance and growth capacity rather than resilience.³⁸ The Resiliency Plan
13 also does not demonstrate whether the trend of converting 69 kV to 138 kV, as
14 cited by an independent third-party consultant engaged by the Company –
15 Guidehouse - is primarily for resiliency or load planning purposes nor does it
16 provide a list of other utilities that have recently made similar conversions.³⁹

³⁶ See Resiliency Page, page 92, Section 5.1.5.7, 69kV Conversion Projects.

³⁷ See Figure APP-15.

³⁸ See Resiliency Plan, page 94, History of Effectiveness.

³⁹ See Guidehouse Exhibit ELS-2, Section 5.3.9.7.

1 **Q. IS THERE EVIDENCE OF COORDINATION WITH ERCOT ON THESE**
2 **CONVERSIONS?**

3 A. It is not clear from the Company's filing whether these conversion projects are
4 included in ERCOT's long-term transmission planning. The Resiliency Plan
5 references compatibility with the broader ERCOT system, but does not
6 confirm whether these upgrades are recognized, approved, or cost-shared
7 through that process.⁴⁰

8 **Q. WHAT IS WALMART'S RECOMMENDATION TO THE COMMISSION**
9 **REGARDING THE 69KV TO 138KV CONVERSION?**

10 A. Walmart recommends the Commission recognize that while 69 kV to 138 kV
11 conversions offer system-wide benefits, only a portion of the cost should be
12 approved under this Resiliency Plan. The resiliency-driven components - such
13 as storm hardening - may be eligible, while the capacity and modernization
14 components should be examined through the general ratemaking process as
15 explained in more detail earlier in my testimony.

⁴⁰ See Direct Testimony of David Mercado, page 13, lines 19-23.

1 **(C) Distribution Capacity Enhancements/Substations**

2 **Q. WHAT IS YOUR UNDERSTANDING OF RM-16, THE DISTRIBUTION CAPACITY**
3 **ENHANCEMENT/SUBSTATION ENHANCEMENT?**

4 A. It is my understanding that the primary goal of RM-16 is to enhance the
5 capacity of the distribution system, specifically focusing on substations while
6 also addressing overheating transformer issues.⁴¹ This proposal has an
7 estimated budget of \$138 million in capital and nearly \$580 million in O&M
8 costs.⁴² The program's goal is to replace four to five distribution substations
9 per year, with a total of 19 over the Resiliency Plan's three-year period.⁴³
10 Additionally, the plan includes 17 new distribution circuits constructed per
11 year, with a total of 51 over three years, 26 of which at 34.5kV and 25 at
12 12.47kV.⁴⁴

13 **Q. WAS RM-16 INCLUDED IN THE COMPANY'S PRIOR RESILIENCY FILING?**

14 A. No. it was not.⁴⁵

15 **Q. WHAT IS WALMART'S CONCERN WITH THE PROPOSED RM-16?**

16 A. Similar to some other measures previously stated, the RM-16 will add some
17 level of resiliency as it builds out a more robust substations and circuits that

⁴¹ See Exhibit NB-3, page 13, additionally in my experience, transformer overheating typically results from sustained overloading, poor cooling, degraded insulation, harmonic interference, or extreme environmental conditions - all of which are increasingly relevant in growing service territories like CenterPoint's.

⁴² See Application, page 17, Figure APP 15.

⁴³ See Exhibit ELS-2, page 134, section 5.6.3.3.

⁴⁴ *Id.*

⁴⁵ See Exhibit ELS-2, page 143, Section 5.6.3.2.

1 add additional capacity to high growth, high load areas. The proposed solution
2 - new substations and circuits - delivers clear load growth benefits; however,
3 alternative approaches such as distributed storage, demand response, and
4 onsite generation should also be considered. Walmart, which already
5 operates approximately 50 onsite generation assets in the service territory,
6 strongly supports consideration of these types of customer-driven
7 alternatives.

8 Furthermore, RM-16 seems to work in concert with the 69kV line
9 conversion measure further appearing to be a load growth initiative first and
10 resiliency measure second. With the increased population and meter growth
11 as discussed in Company witness Brownwell's testimony, it is not a far stretch
12 to see these measures as an easy way to increase capacity by replacing
13 existing infrastructure with a more robust grid to manage the service area
14 growth in the name of storm and weather resiliency instead of through proper
15 regulatory efforts.⁴⁶

16 **Q. WHAT IS WALMART'S RECOMMENDATION TO THE COMMISSION**
17 **REGARDING RM-16.**

18 A. Walmart proposes a two-pronged approach:

⁴⁶ See generally Direct Testimony of Nathan Brownwell, pages 11-16.

1 (2) The Commission should promote policies that support customer-
2 driven solutions to manage peak load and reduce stress on
3 transformers.

4 (2) Funding approval under the Resiliency Plan should be limited to the
5 incremental cost of resiliency-related upgraded needed beyond what
6 customer-sited or demand-side alternatives can achieve. Any
7 additional capacity expansion components should be determined in a
8 general rate case.

9
10 **VII. Strategic Undergrounding**

11 **Q. WHAT IS YOUR UNDERSTANDING OF THE STRATEGIC UNDERGROUNDING**
12 **MEASURES (RM-2 AND RM-18) PROPOSED IN THE RESILIENCY PLAN?**

13 A. The proposed undergrounding measures, RM-2 and RM-18, have a budget of
14 \$860 million with a plan to reconductor and rejuvenate aging infrastructure.⁴⁷
15 These measures are part of the broader extreme wind resiliency concern and
16 propose to bury 111 miles of overhead line, many along freeway crossings and
17 interstates (RM-2).⁴⁸ Additionally, part of the Company's request is to

⁴⁷ See Appendix D, page 3, Underground Cable.

⁴⁸ See Direct Testimony of Randy Pryor, page 8, line 10.

1 modernize the aged cable that has currently been in place since the 1970's
2 (RM-18).⁴⁹ This portion of the Resiliency Plan includes \$128.4 million.⁵⁰

3 **Q. DOES WALMART VIEW DISTRIBUTION LINE UNDERGROUNDING AS A**
4 **RESILIENCY MEASURE?**

5 A. Yes - in part. Walmart agrees that undergrounding in specific high-risk
6 corridors such as freeway and interstate crossings can improve resiliency.
7 These areas are particularly vulnerable to extreme weather events, vehicular
8 accidents, and other hazards that may compromise overhead infrastructure.
9 In such cases, targeted undergrounding provides a rational and effective
10 means of reducing outage frequency and duration.

11 However, the proposal to replace or upgrade older underground
12 infrastructure as part of the same Resiliency Plan (i.e., RM-18) does not meet
13 the same threshold. This work appears to be routine maintenance or asset
14 replacement, more appropriate for recovery through a general rate case.

15 **Q. WHAT IS WALMART'S RECOMMENDATION TO THE COMMISSION**
16 **REGARDING DISTRIBUTION SYSTEM UNDERGROUND MEASURES?**

17 A. Walmart recommends that the Commission approve only the portions of RM-
18 2 that focus on new undergrounding in high-risk, high-impact locations - such
19 as freeway and interstate crossings - where resiliency benefits are well-

⁴⁹ See Direct Testimony of Eugene Shlatz, page 49. Extreme temperature and heat.

⁵⁰ See Application, page 17, figure APP-15.

1 supported. Walmart opposes inclusion of RM-18 in this docket, as it reflects
2 routine system upkeep that should be addressed through a general rate case.
3

4 **VIII. Vegetation Management and Wildfire Mitigation**

5 **Q. WHAT IS YOUR UNDERSTANDING OF THE PROPOSED VEGETATION**
6 **MANAGEMENT MEASURES OF THE RESILIENCY PLAN?**

7 A. The Company is proposing an increased O&M budget of \$141.4 million for
8 vegetation management for distribution and transmission lines.⁵¹ This is
9 above the requested \$46 million budget the Company requested in its recent
10 rate case filing, Docket No. 56211.⁵² The distribution portion of the requested
11 spend would be deferred to a future filing.⁵³

12 **Q. WHAT EFFORTS ARE INCLUDED IN THE PROPOSED VEGETATION**
13 **MANAGEMENT MEASURE?**

14 A. The Company is proposing the use of LiDAR technology to capture data,
15 including vegetation outside rights-of-way ("ROW") or easements to help
16 determine tree fall risks.⁵⁴ The proposal also includes Neara, an AI powered
17 vendor that can help predict future risks and determine resiliency related

⁵¹ See Application, page 16, figure APP-15.

⁵² See Direct Testimony of Jeff Garmon, page 13, lines 2-7.

⁵³ See PUCT Docket No. 56211.

⁵⁴ See Direct Testimony of Eric Easton, page 26, lines 21-23.

1 improvements, as needed.⁵⁵ This is in addition to trimming and historical
2 vegetation management practices.

3 **Q. WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED**
4 **WILDFIRE MITIGATION PROPOSAL?**

5 A. The wildfire mitigation proposal is made up of five measures that include two
6 areas of wildfire concern - portions of Montgomery County and the southern
7 portion of Brazoria County.⁵⁶ While the Company currently has a wildfire
8 mitigation plan, the Resiliency Plan includes additional measures such as
9 increased vegetation management, visual inspections and installations of
10 IGSDs,⁵⁷ along with re-configuring relay settings on selected distribution
11 circuits and undergrounding certain overhead distribution lines.⁵⁸ It is my
12 understanding that some of the proposed increased vegetation management
13 measures will increase the current ROW width in high risk areas.⁵⁹ Notably, the
14 three largest cost drivers are:

- 15 • **RM-23:** Undergrounding in wildfire-prone areas – \$50 million
- 16 • **RM-24:** Enhanced vegetation management – cost unspecified in

17 Company's filing

⁵⁵ *Id.* at 28, lines 3-8.

⁵⁶ *Id.* at line 11-12.

⁵⁷ *Id.* at 30, lines 20-21

⁵⁸ *Id.* at 31, lines 18-20.

⁵⁹ *Id.* at 32, line 1.

- 1 • **RM-25:** IGSD deployment focused on wildfire resilience – \$19.4
2 million.⁶⁰

3 Combined, these measures represent nearly \$100 million in proposed
4 wildfire-related investments.⁶¹

5 **Q. WHAT IS WALMART’S RECOMMENDATION TO THE COMMISSION**
6 **REGARDING VEGETATION AND WILDFIRE MEASURES?**

7 A. The Commission should carefully consider the proposed vegetation and
8 wildfire measures in light of the limited amount of: a) service area at risk, b)
9 similarly requested actions, such as undergrounding, that is seen in other
10 measures, and c) the overall cost increases proposed by the measures.
11 Walmart recommends that the Commission prioritize approval of vegetation
12 and wildfire mitigation activities that are well-targeted, supported by relevant
13 risk data, and reasonably aligned with the level of exposure.

14
15 **IX. Pilot Program**

16 **Q. WHAT IS YOUR UNDERSTANDING OF THE PILOT PROGRAM PROPOSED BY**
17 **THE COMPANY AS PART OF THE RECILINCY PLAN?**

18 A. My understanding is that the Company is proposing a Microgrid Program in
19 which the Company will coordinate with select third parties to operate utility

⁶⁰ See Direct Testimony of Eric Easton, Figure EE-8.

⁶¹ See *id.*

1 scale microgrids in the Company's service area and provide input on their
2 efforts.⁶²

3 **Q. CAN YOU ELABORATE ON THE MICROGRID PROGRAM?**

4 A. It is my understanding that the Company is proposing to have a utility scale
5 microgrid program to provide reliability and resiliency solutions in the future.⁶³
6 The Company has chosen to have this as a pilot project, separate from the
7 Resiliency Plan, in an effort to respond to customer interest, and to collect
8 evidence on utility-scale microgrids, third party supporters, and investment
9 needs.⁶⁴

10 **Q. IS WALMART INTERESTED IN THE COMPANY'S PROPOSED MICROGRID**
11 **PROGRAM?**

12 A. Yes, depending on the requirements and costs. Walmart has substantial
13 experience with distributed generation, back-up generation, renewable
14 energy, and community solar projects both on and offsite. In addition to
15 Walmart's current investment in these technologies, it continues to identify
16 additional opportunities across the United States, including Texas markets.
17 The availability of energy resiliency and reliability programs such as the

⁶² See Direct Testimony of Brad Tutunjian, page 5, lines 9-11.

⁶³ See *generally*, Direct Testimony of Brad Tutunjian, page 5, lines 15-23 and page 6, lines 1-4.

⁶⁴ *Id.*

1 Company's proposed microgrid program, support access to reliable power
2 that is essential to businesses and other customers.

3 **Q. WHY IS WALMART INTERESTED IN MICROGRID DEVELOPMENT?**

4 A. As mentioned above, reliability and resiliency are essential to Walmart's
5 business. The retail stores, distribution centers, and fueling stations depend
6 on reliable delivery of energy. Within this, Walmart has aggressive clean energy
7 goals that lend well to community solar, net metering, onsite generation, and
8 microgrids. Walmart believes that a collaborative microgrid program such as
9 the program proposed by the Company in the Resiliency Plan can offer
10 numerous benefits, including enhanced reliability, resiliency, and access to
11 clean energy, which would flow through to all customers.

12 **Q. WHAT IS WALMART'S RECOMMENDATION TO THE COMMISSION AS IT**
13 **PERTAINS TO THE MICROGRID PILOT PROGRAM PROPOSED BY THE**
14 **COMPANY AS PART OF THE RESILIENCY PLAN?**

15 A. Walmart recommends that the Commission approve the Company's
16 proposed microgrid pilot program.

17 **Q. DOES THIS COMPLETE YOUR TESTIMONY?**

18 A. Yes.

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EXPERIENCE

October 2023 – present

Walmart Inc., Bentonville AR

Sr. Manager, Utility Partnerships

March 2022 – October 2023

American Electric Power

Manager, Electric Transportation and Public Charging

March 2019 – March 2022

Francis Energy

SVP, Utility Operations

January 2019 – Jan 2021

Ausco Energy Services

Owner, General Manager

August 2012 - December 2016

Western Farmers Electric Cooperative

C&I Market Manager

EDUCATION

2009 Texas A&M University -Commerce Bachelor of Science

Current Texas A&M University Master of Legal Studies

Filed Testimony and Comments

2015

New Mexico

Senate Bill 249

Renewable Energy bill allowing the transfer of heat from a ground source heat pump to be calculated and used as renewable energy.

2023

New Hampshire

DE-23-039

Application of Granite State Power, Liberty, for Authority to Adjust Electric Rates.

2024*Washington*

WA-U-210590

Proceeding to develop a policy statement addressing alternatives to traditional cost of service rate making, including performance measures or goals, targets, performance incentives, and penalty mechanisms.

New Mexico

23-00271-UT

Application for Authorization of Large Customer Renewable Connect Program and Tariff and Other Associated Relief.

Nevada

24-02026

Public Utility Commission Docket for Sierra Pacific Power Company d/b/a NV Energy's Electric General Rate Case Filing

Oklahoma

2023-000087

Application for Electric Rate Adjustment for Oklahoma Gas and Electric Company

2023-000086

Application for Electric Rate Adjustment for Public Service of Oklahoma, an American Electric Power Company.

Louisiana

U-36956

Application for Electric Rate Increase, weather through a Formula Rate Plan extension or rate review and proposed electric vehicle program or rates.

Texas

Docket No. 55338

Proceeding to Resolve Issues in Docket No. 53719 Related to Transportation Electrification and Charging Infrastructure.

Docket No. 56548

Center Point application of its Transmission and Distribution system resiliency plan.

Docket No. 56545

Oncor Energy application of its Transmission and Distribution system resiliency plan.

Docket No. 56735

Entergy Texas, Inc., application of its Transmission and Distribution system resiliency plan.

Docket No. 56954

Texas New Mexico Power application of its Transmission and Distribution system resiliency plan.

Docket No. 57259

Southwestern Electric Power Company, an American Electric Power company, application of its Transmission and Distribution system resiliency plan.

Docket No. 57057

AEP Texas's application of its Transmission and Distribution system resiliency plan.

Indiana

Cause No. 46090

Indiana Michigan Power's application for Electric Transportation programs and public charging rates.

Oregon

Docket No UE-233

Pacificorp's Application for Electric rate adjustments.

Wisconsin

Docket No 5-UR-111

WEPCo/WG application for electric and gas rate adjustments.

Missouri

Docket No ER-2024-0319

Ameren general rate case requested EV charging rate.

INDUSTRY TRAINING

2012 Guernsey, Utility Rate case and Cost of Service training

2010 NRECA CKAE certification

2024 "The Basics" New Mexico State Utility Rate Management Training