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APPLICATION OF ENTERGY TEXAS, INC. FOR AUTHORITY TO CHANGE RATES	§ § §	BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS

REBUTTAL TESTIMONY

OF

MELANIE L. TAYLOR

ON BEHALF OF

ENTERGY TEXAS, INC.

NOVEMBER 2022

ENTERGY TEXAS, INC.
REBUTTAL TESTIMONY OF MELANIE L. TAYLOR
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I. INTRODUCTION AND PURPOSE

Q1. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND POSITION.

A. My name is Melanie L. Taylor. My business address is 2107 Research Forest Drive, The Woodlands, Texas 77380. I am currently Vice President of Reliability for Entergy Texas, Inc. ("ETI").

Q2. ARE YOU THE SAME MELANIE L. TAYLOR WHO FILED DIRECT TESTIMONY IN THIS CASE ON BEHALF OF ETI?

A. Yes.

Q3. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. I respond to issues raised by Evan D. Evans on behalf of the Office of Public Utility Counsel ("OPUC") and Mark E. Garrett on behalf of certain Cities.[1]

II. RESPONSE TO INTERVENORS

Q4. CRITICIZING THE COMPANY'S AMS DEPLOYMENT, OPUC WITNESS EVAN D. EVANS CLAIMS THAT ETI'S OUTAGE FREQUENCY AND DURATION HAVE NOT SIGNIFICANTLY IMPROVED SINCE AMS DEPLOYMENT BEGAN.[2] HOW DO YOU RESPOND?

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[1] Cities include the Cities of Anahuac, Beaumont, Bridge City, Cleveland, Dayton, Groves, Houston, Huntsville, Liberty, Montgomery, Navasota, Nederland, Oak Ridge North, Orange, Pine Forest, Pinehurst, Port Arthur, Port Neches, Roman Forest, Rose City, Shenandoah, Silsbee, Sour Lake, Splendora, Vidor, West Orange, and Willis.

[2] Direct Testimony of Evan Evans at 17.

A. Mr. Evans's criticisms are premature given the timing of AMS deployment. Mr. Evans's analysis begins with the 2018 Service Quality Report, which covers calendar year 2018 reliability statistics, and ends with the 2021 Service Quality report, which covers calendar year 2021 reliability statistics. ETI's advanced meter mass deployment did not begin until March 2019, and it did not conclude until March 2021. As ETI witness William Phillips, Jr. explained, optimization of the communication network is continuing through 2022.[3] Accordingly, it is too early to evaluate whether the AMS deployment is having an impact on outage rates or duration. In the interim, however, the AMS meters are providing faster and more precise outage detection through their last-gasp feature, which alerts the distribution operations center that the meter lost power, and crews are better able to pinpoint outage locations, which can ultimately improve outage duration as well as improved safety for the crews due to less scouting required to identify outage locations.

Moreover, the deployment of AMS meters themselves would not be expected to have a significant impact on outage statistics. In essence, meter failures do not cause outages (a failed meter simply will not record usage). Rather, it is the advanced metering system, including the communications network, that provides the foundation for improved reliability. For example, as I explained in my direct testimony, ETI has recently invested approximately $23.5 million in distribution automation ("DA") technology, which utilizes the communication network made

[3] Direct Testimony of William Phillips, Jr. at 8.

up of the AMS meters and associated repeaters, access points, and backhaul system.[4] DA includes "smart" distribution devices, including reclosers, regulators, and capacitors, that are equipped with electronic controls that enable the devices to communicate with utility software, e.g., the new distribution management system and updated outage management system, and perform real-time sensing and reconfiguration of the distribution system. Together those systems are being utilized to enable "self-healing networks," which monitor the distribution system for any outage conditions and automatically reconfigure the path of power to isolate the outage to a minimum number of customers and restore power to all unaffected customers in the surrounding area. As I described in my direct testimony, since 2019, ETI installed 45 new reclosers as part of automated load transfer systems, resulting in 8,125 avoided customer interruptions over the 2020 through 2021 time period.[5] ETI plans to continue investing in those systems.

I also described in my direct testimony the Enterprise Asset Management ("EAM") system that was implemented in 2020.[6] In addition to improving workforce management, the EAM includes distribution assets tracking and monitoring, that, together with the AMS backbone and DA infrastructure, facilitates a more data-driven, proactive approach to making reliability improvements by, for example, identifying devices for replacement before they fail. Accordingly, through the maturation of the AMS foundational technology and the

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4 Direct Testimony of Melanie Taylor ("Taylor Direct") at 58.

5 Taylor Direct at 32.

6 Taylor Direct at 13, 67-68.

investment in new advanced technologies like DA and EAM, ETI's long term reliability strategy is being enhanced to include more proactive and long-lasting improvements that are expected to improve reliability and enhance the resiliency of the distribution grid to extreme weather. Those results will take more time to materialize, and it is premature to evaluate the effect of the not-yet-completed AMS deployment on reliability.

Q5. DISCUSSING THE EFFECTIVENESS AND EFFICIENCY OF ETI'S MANAGEMENT, CITIES WITNESS MARK E. GARRETT CRITICIZES THE COMPANY'S OUTAGE FREQUENCY AND DURATION STATISTICS IN 2021 RELATIVE TO OTHER COMPANIES THAT MR. GARRETT SELECTED FOR A BENCHMARKING ANALYSIS.[7] HOW DO YOU RESPOND?

A. It is difficult to have a true comparison of reliability statistics among utilities due to a number of variables. First, although SAIFI and SAIDI are industry standards, there are differences in how they are measured. For example, some utilities use Institute of Electrical and Electronics Engineers ("IEEE") Standards 1366-2012 ("IEEE 1366") to calculate and define SAIFI and SAIDI measurements, and IEEE 1366 contains a definition of Major Events that may be excluded from the calculations. The threshold for Catastrophic Events discussed in IEEE 1366 also varies by utility, and the exclusion or inclusion of these events have significant effects on the IEEE's 2.5 Beta Method calculation and thresholds. The calculation

[7] Direct Testimony of Mark Garrett at 82-83.

of Major Events as filed with the Public Utility Commission of Texas' ("PUCT") rule 16 Tex. Admin. Code § 25.52 for Service Quality Reports defines excluded days differently than the 2.5 Beta Method referenced in IEEE 1366. Moreover, utilities have discretion on including or excluding certain types of outages in reporting SAIFI and SAIDI, which can affect reported scores. An example of this would be whether emergency or scheduled switching is included in the scores. There are also variations in how weather cause categories are defined, which affects whether certain weather outages are included or excluded in the scores.

Second, it is difficult to identify an accurate peer that operates under the exact same parameters as ETI. For example, customer density, number of line miles, weather patterns, geography, data gathering practices, load growth, and customer count all can have a positive or negative reliability effect that varies yearly. In fact, load growth and customer count have a direct correlation to the age and type of infrastructure required to serve a utility's load reliably. Areas that have experienced recent load and customer growth tend to have newer facilities and modern construction standards that, from a reliability perspective, perform better than areas that have seen a decline in customer count and have not had the benefit of newer infrastructure.

Further, one of the primary contributors to higher SAIFI and SAIDI performance that should be considered distinctly as to ETI is the geographical characteristics that are common to ETI's service territory. Many of ETI's customers are located in rural areas and tend to be spread out geographically.

Reliability scores tend to increase (lower scores are better) as population density decreases due to longer feeders and the time required to locate faults and fewer feeder interconnections, therefore impacting SAIDI. In addition, the cost of improving and maintaining reliability is distributed across fewer customers as opposed to utilities with increased population densities. SAIDI scores are also negatively affected by the terrain in which ETI's customers reside. For example, dense vegetation and tall trees are two of the common obstacles that tend to hinder ETI's ability to quickly navigate the terrain when there is an outage in these heavily-vegetated areas. As I explained in my direct testimony, ETI has also implemented new safety measures that require more extensive deenergized work, which also negatively affects SAIDI.

Weather is another common factor that contributes to higher SAIFI and SAIDI scores. All utilities are vulnerable to weather-related events, although the frequency and type of events may differ regionally. Texas, however, is subject to both warm and cold weather events as opposed to one or the other. Examples include severe thunderstorms, hurricanes, straight line winds, tornadoes, ice storms, occasional snow, and extended periods of extreme heat and drought (and occasionally extreme cold). ETI's territory is also located in an area with high lightning activity, with some counties experiencing more than 150 events/km^2/year per Vaisala Global Lightning Density Maps (greater than 96 events is considered

high).[8] The frequency and variety of these weather-related events negatively affects ETI's SAIFI and SAIDI when compared to other utilities outside the region.

Mr. Garret did not provide any such comparative analysis between ETI and the proxy group companies in his benchmarking data. Accordingly, drawing conclusions about ETI's reliability performance from broad benchmarking comparisons is of limited value. Instead, an evaluation of SAIFI and SAIDI from year to year for ETI is a better way to evaluate ETI's reliability performance, which is reported annually to the Commission in ETI's Service Quality Reports.

Q6. WHAT IS THE TREND IN ETI'S RELIABILITY PERFORMANCE?

A. I presented and explained ETI's long-term reliability performance (2010 through 2021) in my direct testimony at pages 14-21. In summary, ETI's SAIFI scores are better than the PUCT-established target of 1.88 by an average margin of 45 basis points (0.45). SAIDI missed the target by an average of 48 minutes, but I explained how those SAIDI scores are largely the result of unusual weather events that does not rise to the Major Event Day level (and thus excluded from most reliability calculations) and uncontrollable outages, primarily trees falling from outside the right-of-way,[9] underground conductor "dig-ins" from third party contractors, and public vehicles striking electric facilities. Next in my direct testimony, I described the extensive efforts that the Company is undertaking to address reliability,

[8] https://interactive-lightning-map.vaisala.com/.
[9] See Figure 13 in Taylor Direct.

including building on the AMS foundation and associated grid modernization activities.[10] In short, not only has ETI exceeded the PUCT-established SAIFI target for over a decade, it is fully committed to continued investment in reliability enhancement using the AMS foundation and the latest technology. For example, in 2020, ETI stood up a dedicated reliability group comprised of engineers whose sole focus is to continuously, proactively and reactively, evaluate infrastructure performance and execute ETI's proven reliability programs.

III. CONCLUSION

Q7. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

[10] Taylor Direct at 21-39.

AFFIDAVIT OF MELANIE L. TAYLOR

THE STATE OF TEXAS)
)
COUNTY OF Montgomery)

This day, Melanie Taylor the affiant, appeared in person before me, a notary public, who knows the affiant to be the person whose signature appears below. The affiant stated under oath:

My name is Melanie L. Taylor. I am of legal age and a resident of the State of Texas. The foregoing testimony and exhibits offered by me are true and correct, and the opinions stated therein are, to the best of my knowledge and belief, accurate, true and correct.

Melanie L. Taylor
Melanie L. Taylor

SUBSCRIBED AND SWORN TO BEFORE ME, notary public, on this the 15 day of November 2022.

Donna W. Robert
Notary Public, State of Texas

My Commission expires:

DONNA W. ROBERT
Notary Public, State of Texas
Comm. Expires 03-14-2023
Notary ID 3784202