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ADDENDUM OF SOUTHWESTERN PUBLIC SERVICE COMPANY TO ITS SERVICE QUALITY REPORT FOR THE 2021 REPORTING YEAR

The Public Utility Commission of Texas (Commission), in Ordering Paragraph No. 5 in its February 28, 2019 Order in Docket No. 48826, *Agreed Notice of Violation and Settlement Agreement Relating to Southwestern Public Service Company's (SPS) Violation of PURA § 38.005 and 16 TAC 25.52, Concerning Reliability and Continuity of Service*, requires SPS to “file a report regarding actions to bring feeders that are found to be in violation of any of its system-wide service quality standards for two or more consecutive years into compliance with the Commission's service quality standards, and this report must be filed as an addendum to SPS’s required annual service quality reports, as prescribed by 16 TAC § 25.81.” This Addendum is filed to comply with that requirement.

Two Consecutive Years (One Year Violation)

- a. Sherman County - SHER1452
 - i. Circuit SHER1452 out of the Sherman County Substation is 23.3 miles long and in 2021 served 51 customers in the northern Texas panhandle north of Stratford. The terrain is primarily flat farmland.
 - ii. The feeder performance failure is due to SAIDI (2 years). In 2021, 10 events impacted this line. Eight of these events impacted specific overhead transformers and affected 3 customers or less. The remaining two events impacted the entire circuit and were the result of floating (detached) conductors occurring during rain, lightning, and wind events. These two events accounted for 87% of the Customer Minutes Out (CMO) on this circuit for the year. The restorations for these two events were performed in an average of 4 hours.
 - iii. In 2021, 7 corrective action and system improvement work orders were completed to repair conductor (1), perform O&M repair (3), replace poles (1), and replace transformers (2), for a total spend of \$9,630.13.

- b. Pringle – PRIN1E15
 - i. Circuit PRIN1E15 out of the Pringle Interchange is 148.4 miles long and in 2021 served 214 customers in the northern Texas panhandle north of Stinnett. The terrain is primarily farmland, low scrub brush ranchland, and includes broken canyons in the Canadian River watershed.
 - ii. The feeder performance failure is due to SAIDI (2 years). In 2021, 53 events impacted this line with 3 events representing 60% of the CMO. The primary causes of the 3 major events were broken pole, conductor fatigue, and connector failure and the restorations were performed on average in 4.7 hours.
 - iii. In 2021, 100 corrective action and system improvement work orders were completed to replace arresters (20), repair conductor (4), replace capacitor banks (1), replace crossarms (28), replace cutouts (3), replace fuses (2) perform O&M repairs (15), replace poles (2), remove crossarms (2), repair down guy (1), repair grounding (1), repair insulators (2), replace down guys (15), and replace transformers (4), for a total spend of \$191,094.68.

- c. Channing – CHAN1568
 - i. Circuit CHAN1568 out of the Channing Substation is 28.6 miles long and in 2021 served 61 customers in the Texas panhandle northwest of Amarillo. The terrain is primarily flat farmland.
 - ii. The feeder performance failure is due to SAIDI (2 years). In 2021, 25 events impacted this line with a single broken pole event which occurred during storm conditions contributing to 53% of the CMO and taking 12.8 hours to restore. The storm was a high wind event and resulted in 33 outages across the SPS system. Sustained winds over 50 MPH and gusts upwards of 85 MPH were experienced across the system which restricted SPS's ability to conduct aerial work, thus impacting the restoration time. Other impactful events were caused by broken poles, an animal contact in the substation, and a burning solid blade disconnect taking on average 1.9 hours to restore.

- iii. In 2021, 10 corrective action work orders were completed to replace arresters (1), replace cutouts (1), perform O&M repairs (2), replace poles (1), and replace transformers (5), for a total spend of \$34,618.26.

d. Channing – CHAN1564

- i. Circuit CHAN1564 out of the Channing Substation is 24.9 miles long and in 2021 served 30 customers in the panhandle, northwest of Amarillo. The terrain is primarily flat farmland.
- ii. The feeder performance failure is due to SAIDI (3 years) and SAIFI (2 years). In 2021, 15 events impacted this line. The 6 most impactful events comprised 71% of the CMO and were caused by floating (detached) conductor events occurring during rain, wind, and lightning events. The average restoration time for these 6 events was 3.2 hours.
- iii. In 2021, 15 corrective action work orders were completed to repair conductor (2), replace crossarms (7), perform O&M repairs (3), and replace transformers (3), for a total spend of \$22,393.43.

SPS provides the information below as additional context for the Causes of Forced Interruptions as outlined in Table 1 of the Service Quality Report.

The interruptions attributed to “Weather” are those believed to be caused by weather that did not result in damage to or failure of utility-owned equipment. For example, lightning strikes resulting in a feeder lockout where no equipment is found to be damaged would be categorized under “Weather.”

Weather may be the root cause of other interruptions that result in equipment damage or failure, but in order to track these types of interruptions with more granularity, the outage cause is attributed to the failed equipment and reported under “Utility-owned Equipment.” For example, a pole or crossarm that was broken due to an ice storm would be recorded as a broken pole or broken crossarm which rolls up to utility-owned equipment, even though the weather conditions at the time were what initiated the failure of the equipment.

To further provide clarification on the impacts of weather in relation to forced interruptions, the table below depicts the reliability data and the associated weather code at the time of the event for both the total system and utility-owned equipment category.

Weather Codes of Forced Interruptions	Percentage for System	Percentage for Utility-owned Equipment
Rain and Lightning	17.8%	14.4%
Wind	11.2%	16.5%
Rain	6.0%	8.6%
Extreme Cold	5.9%	9.4%
Extreme Heat/Humidity	4.0%	3.1%
Icing	3.5%	4.7%
Lightning	2.7%	0.4%
Wind & Lightning	1.7%	1.3%
Snow	1.0%	1.1%
Fog	0.6%	0.8%
Tornado	0.3%	0.3%
Frost	0.1%	0.2%
Hail	0.1%	0.2%
Sleet	0.0%	0.0%
Fair	45.2%	38.9%