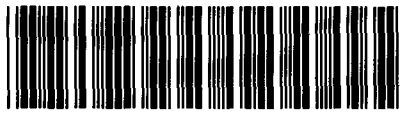

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PROJECT NO. 39339

REPORT FOR ELECTRIC UTILITY STORM HARDENING REQUIRED BY 16 TAC § 25.95	§ § §	**PUBLIC UTILITY COMMISSION OF TEXAS**

SOUTHWESTERN ELECTRIC POWER COMPANY'S SUMMARY REPORT ON STORM HARDENING REQUIRED BY 16 TEX. ADMIN. CODE § 25.95

NOW COMES Southwestern Electric Power Company (SWEPCO), an American Electric Power (AEP) operating company providing bundled service in the state jurisdictions of Texas, Arkansas, and Louisiana within the Southwest Power Pool (SPP), and files the attached summary update report pursuant to 16 Tex. Admin. Code § 25.95 (TAC). This is the fourth update to SWEPCO's five-year System Hardening Plan summary filed April 29, 2016.

Dated: May 1, 2020

Respectfully submitted,
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SOUTHWESTERN ELECTRIC POWER COMPANY'S SUMMARY REPORT ON STORM HARDENING REQUIRED BY 16 TEX. ADMIN. CODE § 25.95

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May 1, 2020

I. INTRODUCTION

Southwestern Electric Power Company (SWEPCO or the Company) provides the following update to its five-year System Hardening Plan summary filed April 29, 2016 pursuant to 16 TAC § 25.95. The summary update below does not include responsive information for all items in 16 TAC § 25.95(e)(1) through (12). In accordance with 16 TAC § 25.95(d), SWEPCO provides information below for items that have been updated during the last year. SWEPCO incorporates herein by reference its 2016 summary and 2019 update for information that remains unchanged.

II. SWEPCO'S SUMMARY UPDATE REPORT

16 TAC § 25.95. Electric Utility Infrastructure Storm Hardening.

(e) Updating and contents of Storm Hardening Plan. A utility's Storm Hardening Plan shall be updated at least every five years and shall include, at a minimum, the utility's:

(7) Plans and procedures to enhance the reliability of overhead and underground transmission and distribution facilities through the use of transmission and distribution automation;

Transmission:

SWEPCO designs its transmission system for Supervisory Control and Data Acquisition (SCADA) which allows display of real time status such as voltage and currents and allows control of operationally important transmission switches and transmission breakers by dispatchers. SCADA adds the capability of analyzing system problems and also improves response to problems on the transmission system.

SWEPCO also designs its transmission system with microprocessor relays which provide protection to the power system. Other features provided by these microprocessor relays are control, monitoring, fault location, and limited fault recording. Digital Fault Recorders (DFRs) are also integrated in selected locations throughout the system to record

faults and swing disturbances. Through these microprocessor relays and DFRs, event data is available following the event and used to support the analysis and application needed and to enhance reliability.

Distribution:

Distribution automation implemented at SWEPCO operates based on over-current or loss of voltage. This has proven to be the most effective and reliable means of reducing the number of customers affected by a system outage. SWEPCO also utilizes manual sectionalizing switches (both pole mounted and pad mounted). These switches are strategically placed along feeders and taps at locations which enable isolation of damaged equipment and restoration of service to as many customers as possible while repairs are made.

Fault indicating devices have been installed at many of these manual switches. These devices provide valuable information which help make the decisions about how to proceed with service restoration. All decisions concerning the operation of any manually operated switches are made at the central Distribution Dispatch Center (DDC).

SWEPCO has integrated "intelligent" controlled switches in the northern part of Longview on the 35 kV distribution system. This self-healing system consists of 26 switches on five different circuits. This automated system facilitates communication with the DDC and enhances the customer restoration process. Automation has also been installed at two hospitals (in Gary and Mt. Enterprise), Longview Sewer Plant, Longview North Industrial Park, and an industrial gas plant. Approximately 65% of SWEPCO's Texas distribution breakers are on SCADA, giving the DDC monitor and control functionality.

SWEPCO is now in the third year of an ongoing distribution grid modernization plan. This plan has several components all designed to improve reliability, harden the distribution system, and decrease the breadth of outages. In 2019, the Company replaced 1,778 poles, installed 15 S&C Intellirupters as part of the Distribution Automation Circuit Reconfiguration (DACR) system, replaced 34 obsolete feeder breakers, increased Basic Impulse Insulation Level (BIL) on equipment and structures on 76 circuits, and upgraded 19 underground distribution loops in residential subdivisions.