



Control Number: 50666



Item Number: 6

Addendum StartPage: 0

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# Southwestern Electric Power Company

## 2020 Energy Efficiency Plan and Report

16 Tex. Admin. Code §§ 25.181, 25.182 and 25.183



April 1, 2020

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Project No. 50666



An **AEP** Company

BOUNDLESS ENERGY

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## INTRODUCTION

Southwestern Electric Power Company (SWEPCO or Company) presents this Energy Efficiency Plan and Report (EEPR) to comply with 16 Tex. Admin. Code §§ 25.181, 25.182 and 25.183 (TAC) (EE Rule), implementing Public Utility Regulatory Act (PURA) § 39.905. As mandated by this section of PURA, the EE Rule requires that each investor-owned electric utility achieve the following minimum goals through market-based standard offer programs (SOPs), targeted market transformation programs (MTPs) or other utility self-delivered programs. 16 TAC § 25.181(e)(1) provides in pertinent part as follows:

- (e)(1) An electric utility shall administer a portfolio of energy efficiency programs to acquire, at a minimum, the following:
  - (A) Beginning with the 2013 program year, until the trigger described in subparagraph (B) of this paragraph is reached, the utility shall acquire a 30% reduction of its annual growth in demand of residential and commercial customers.
  - (B) If the demand reduction goal to be acquired by a utility under subparagraph (A) of this paragraph is equivalent to at least four-tenths of 1% its summer weather-adjusted peak demand for the combined residential and commercial customers for the previous program year, the utility shall meet the energy efficiency goal described in subparagraph (C) of this paragraph for each subsequent program year.
  - (C) Once the trigger described in subparagraph (B) of this paragraph is reached, the utility shall acquire four-tenths of 1% of its summer weather-adjusted peak demand for the combined residential and commercial customers for the previous program year.
  - (D) Except as adjusted in accordance with subsection (u) of this section, a utility's demand reduction goal in any year shall not be lower than its goal for the prior year, unless the commission establishes a goal for a utility pursuant to paragraph (2) of this subsection.

The EE Rule includes specific requirements related to the implementation of SOPs and MTPs that control the manner in which electric utilities must administer their portfolio of energy efficiency programs in order to achieve their mandated annual demand reduction goals. SWEPCO's Plan enables it to meet its statutory goals through implementation of energy efficiency programs in a manner that complies with PURA §39.905 and the EE Rule. This EEPR covers the periods of time as required in the EE Rule. The following section describes the information that is contained in each of the subsequent sections and appendices.

## **EEPR ORGANIZATION**

This EEPR consists of an Executive Summary, thirteen sections, a list of acronyms and three appendices.

### **Executive Summary**

- Summarizes SWEPCO's plans for achieving its goals and projected energy efficiency savings for Program Years 2020 and 2021 and highlights SWEPCO's achievements for Program Year 2019.

### **Energy Efficiency Plan**

- Section I describes SWEPCO's program portfolio. It details how each program will be implemented and presents related informational and outreach activities.
- Section II explains SWEPCO's targeted customer classes and describes the estimated size of each class and the method used in determining those class sizes.
- Section III presents SWEPCO's demand and energy goals and projected savings for the prescribed planning period detailed by program for each customer class.
- Section IV describes SWEPCO's proposed energy efficiency budgets for the prescribed planning period detailed by program for each customer class.

### **Energy Efficiency Report**

- Section V documents SWEPCO's demand reduction goal for each of the previous five years (2015-2019) based on its weather-adjusted peak demand.
- Section VI compares SWEPCO's projected energy and demand savings to its reported and verified savings by program for calendar years 2018 and 2019.
- Section VII details SWEPCO's incentive and administration expenditures for each of the previous five years (2015-2019) detailed by program for each customer class.
- Section VIII compares SWEPCO's actual 2019 expenditures with its 2019 budget by program for each customer class. It identifies funds committed but not expended and funds remaining and not committed. It also explains any cost deviations of more than 10% from SWEPCO's overall program budget.
- Section IX describes the results from SWEPCO's MTPs.
- Section X documents SWEPCO's Research and Development activities.
- Section XI documents SWEPCO's 2020 Energy Efficiency Cost Recovery Factor (EECRF).
- Section XII provides a summary of the 2019 EECRF.
- Section XIII documents SWEPCO's Underserved Counties.

### **Acronyms**

- A list of abbreviations for common terms used within this document.

### **Appendices**

- Appendix A – Reported and Verified Demand and Energy Reduction by County.
- Appendix B – Program Templates.
- Appendix C – Optional Supporting Documentation.

## EXECUTIVE SUMMARY

The Energy Efficiency Plan (Plan) portion of this EEPR discusses how SWEPCO intends to achieve savings of at least a 30% reduction in its annual growth in demand of residential and commercial customers by December 31, 2020. SWEPCO's Plan addresses achieving the corresponding calculated energy savings goal, which is derived from its demand savings goal each year using a 20% conservation load factor [16 TAC § 25.181(e)(4)]. The goals, budgets and implementation procedures that are included in this Plan are consistent with the requirements of the EE Rule, using lessons learned from past experience and customer participation in the various historical energy efficiency programs. A summary of SWEPCO's projected annual goals and budgets is presented in Table 1.

**Table 1: Summary of Goals, Projected Savings (at the Meter)<sup>1</sup> and Proposed Budgets**

Calendar Year	Average Growth in Demand (MW)	Average Peak Demand (MW)	Goal Metric: 30% Growth (MW)	Goal Metric: 0.4% Peak Demand (MW)	Peak Demand Goal (MW)	Energy Goal (MWh)	Projected Demand Reduction (MW)	Projected Energy Savings (MWh)	Projected Budget (000's)*
2020	-1.51	1,221	-0.45	4.88	5.60	9,811	10.35	15,012	\$4,432
2021	-0.78	1,220	-0.23	4.88	5.60	9,811	10.35	15,012	\$4,432**

\*The 2020 and 2021 Projected Budgets include costs associated with Evaluation, Measurement & Verification (EM&V) activities.

\*\*The 2021 projected EM&V budget matches actual EM&V expenses incurred in calendar year 2019 for review of the 2018 program year. The 2021 projected EM&V budget is only a projection and actual costs may differ.

The Energy Efficiency Report portion demonstrates that in 2019 SWEPCO cost-effectively implemented SOPs and MTPs as provided for by PURA §39.905. SWEPCO exceeded its demand and energy reduction goals to be achieved by December 31, 2019 by procuring 11,848 kW and 16,359,189 kWh at a total cost of \$3,961,282. Programs in 2019 included the Commercial Solutions MTP, Commercial SOP, Hard-to-Reach SOP, Load Management SOP, On-Line Home Energy Checkup, Residential SOP, Schools Conserving Resources MTP, and the Open MTP.

<sup>1</sup> Average Growth in Demand figures are from Table 4; Projected Savings from Table 5; Projected Budgets from Table 6.

# ENERGY EFFICIENCY PLAN

## I. 2020 PROGRAMS

### A. 2020 Program Portfolio

SWEPCO has implemented a variety of programs in 2020 to enable the Company to meet its goals in a manner that complies with PURA § 39.905 and the EE Rule. These programs target broad market segments and specific market sub-segments with significant opportunities for cost-effective energy savings.

Table 2 below summarizes SWEPCO's programs and targeted customer class markets for Program Year 2020. The programs are described in further detail in Subsection D. SWEPCO maintains a website containing all of the requirements for energy efficiency service provider (EESP) or project sponsor participation; the Energy Efficiency Evaluation, Measurement & Verification (EM&V) guidelines; and links to the program manuals in the Contractor Center at [SWEPCO.com/Save](https://swepco.com/save). This site is the primary method of communication to provide program updates and information to customers, potential EESPs and other interested parties.

**Table 2: 2020 Energy Efficiency Program Portfolio**

Program	Target Market	Application	Link to Program Manual
Commercial Solutions MTP	Commercial	Retrofit/New Construction	<a href="https://swepco.com/save/residential/programs/ContractorCenter.aspx">https://swepco.com/save/residential/programs/ContractorCenter.aspx</a>
Commercial SOP	Commercial	Retrofit/New Construction	<a href="https://swepco.com/save/residential/programs/ContractorCenter.aspx">https://swepco.com/save/residential/programs/ContractorCenter.aspx</a>
Hard-to-Reach SOP	Low-Income Residential	Retrofit	<a href="https://swepco.com/save/residential/programs/ContractorCenter.aspx">https://swepco.com/save/residential/programs/ContractorCenter.aspx</a>
Load Management SOP	Commercial	Retrofit	<a href="https://swepco.com/save/residential/programs/ContractorCenter.aspx">https://swepco.com/save/residential/programs/ContractorCenter.aspx</a>
Online Energy Checkup	Residential	Education	<a href="https://swepco.com/save/residential/calculate/?state=TX">https://swepco.com/save/residential/calculate/?state=TX</a>
Open MTP	Commercial	Retrofit	<a href="https://swepco.com/save/residential/programs/ContractorCenter.aspx">https://swepco.com/save/residential/programs/ContractorCenter.aspx</a>
Residential SOP	Residential	Retrofit/New Construction	<a href="https://swepco.com/save/residential/programs/ContractorCenter.aspx">https://swepco.com/save/residential/programs/ContractorCenter.aspx</a>
SCORE MTP	Commercial	Retrofit/New Construction	<a href="https://swepco.com/save/residential/programs/ContractorCenter.aspx">https://swepco.com/save/residential/programs/ContractorCenter.aspx</a>

## **B. Implementation Process**

MTPs are managed by third-party implementers. These program implementers design, market and execute the applicable MTP. Based on the specific MTP, the implementer may perform outreach activities to recruit local contractors and provide participating contractors with specialized education, training/certification and tools as necessary. Implementers validate proposed measures and projects, perform quality assurance/quality control, and verify and report savings derived from the program.

SOPs are administered by the utility with project sponsors providing eligible program measures. Project sponsors are usually EESPs or SWEPCO customers. A SWEPCO customer can act as an EESP if it is a commercial customer with a peak load equal to or greater than 50 kW. SWEPCO monitors projects being submitted so as to not accept duplicate enrollments.

## **C. Outreach Activities**

Various outreach activities are conducted, depending on the targeted program. Many of these activities are the same for several programs. For this reason, SWEPCO's outreach activities are grouped together below.

- Maintain internet webpages with detailed project eligibility, end-use measures, incentives, procedures and application forms;
- Send direct emails to inform and update potential project sponsors on SWEPCO energy efficiency program opportunities;
- Participate in local, regional and industry-related outreach activities as necessary;
- Target SWEPCO customers with demand and energy savings opportunities;
- Conduct workshops, as necessary, to explain the program, project sponsor implementation, reporting requirements and incentive information;
- Contract with a third-party implementer to conduct outreach, planning activities and recruit additional subcontractors;
- Conduct specific project sponsor training sessions, as necessary, based on the energy efficiency programs being implemented; and
- Facilitate media opportunities to spotlight successful projects and/or interesting stories as applicable.

Additional outreach activities occur as the opportunity arises.



## **D. Description of Existing Programs**

### **Commercial Solutions Market Transformation Program (CS MTP)**

SWEPCO's CS MTP targets commercial customers (other than public schools) served by SWEPCO that do not have the in-house capability or expertise to: 1) identify, evaluate and undertake energy efficiency improvements; 2) properly evaluate energy efficiency proposals from vendors; and/or 3) understand how to leverage their energy savings to finance projects. The CS MTP facilitates the identification of demand and energy savings opportunities, general operating characteristics, long-range energy efficiency planning and overall measure acceptance by the targeted customers. Incentives are paid to EESPs or customers for eligible energy efficiency measures that are installed in new or retrofit applications that result in verifiable demand and energy savings.

### **Commercial Standard Offer Program (CSOP)**

The CSOP targets commercial customers (other than public schools) of all sizes, providing incentives for new construction and retrofit installation of measures that reduce demand and save energy in non-residential facilities. The CSOP encourages electric energy efficiency improvements that go above and beyond the efficiency gains typically achieved in retrofit or replacement projects. Energy and demand savings will be based only on reductions that exceed current state and federal minimum efficiency standards, if such standards apply. Incentives are paid to EESPs or customers on the basis of deemed savings or verified demand and energy savings.

### **Hard-to-Reach Standard Offer Program (HTR SOP)**

The HTR SOP targets residential customers in existing homes with total annual household incomes at or below 200% of current federal poverty guidelines and who have properly completed a Public Utility Commission of Texas (PUCT) approved income verification form, or who have been designated as HTR-eligible through another PUCT-approved verification methodology. Incentives are paid to project sponsors for eligible measures installed in retrofit applications that result in verifiable demand and energy savings. Project comprehensiveness is encouraged and customer education regarding energy conservation behavior is provided through materials distributed by project sponsors.

### **Load Management Standard Offer Program (LM SOP)**

The LM SOP targets commercial customers with a peak electric demand of 500 kW or more. Incentive payments are based on measured and verified demand reduction of curtailed loads during the summer peak period. Load management events are dispatched by SWEPCO, using a one-hour-ahead notice for load reduction periods of one to four hours duration.

### **Online Home Energy Checkup (Home Energy Checkup)**

The Home Energy Checkup is designed to provide a web-based, do-it-yourself home energy audit that equips residential customers with valuable information to help them manage their energy use and cost. The tool provides functionality that produces a printer-friendly report that:

- Factors in weather and local electricity prices;
- Uses the customer's actual historic energy usage in savings calculations;
- Estimates monthly and annual energy usage and costs; and
- Provides customized energy saving recommendations and potential savings for implemented measures.

At this time, it is not anticipated that SWEPCO will report savings associated with the use of this Home Energy Checkup.

### **Open Market Transformation Program (Open MTP)**

The Open MTP has been developed to offer energy efficiency services to small commercial customers with peak demands less than 100 kW. This customer group is the segment least served by SWEPCO's SOPs or MTPs. The Open MTP is designed to overcome barriers unique to small commercial customers that prevent them from participating in energy efficiency programs proven to be successful for larger business owners. These barriers include:

- Minimal technical knowledge among small business owners;
- Concerns about performance uncertainty and hidden costs;
- Owner/tenant challenges;
- Lack of capital, expertise and staff; and
- Adequate information or the ability to research costs.

To overcome these barriers, the program offers a turnkey approach in which marketing, energy education, site-specific energy analysis, financial incentives, equipment procurement and installation can be provided.

### **Residential Standard Offer Program (RSOP)**

The RSOP targets all residential customers, paying incentives to project sponsors for eligible measures installed in new and retrofit applications that result in verified demand and energy savings. Project comprehensiveness is encouraged. The following requirements must be reported in order to claim early retirement savings from residential HVAC projects:

- Photos of gauges showing the existing unit in full functional status;
- The age of the existing unit;
- Photo of the existing unit nameplate;
- Model number, serial number and manufacturer of the existing unit;
- The sizing of the new unit must be less than or equal to that of the existing unit; and

- Customer responses to a survey questionnaire documenting the condition of the existing unit and customer motivation for unit replacement.

### **Schools Conserving Resources Market Transformation Program (SCORE MTP)**

The SCORE MTP provides energy efficiency and demand reduction solutions for public and private educational entities grades K-12 as well as colleges and universities. This program is designed to help educate and assist these customers in lowering their energy use by integrating energy efficiency into their short- and long-term planning, budgeting and operational practices. The program assists with the identification of demand and energy savings opportunities, and provides detailed energy use, detailed building operational characteristics and long-range energy efficiency planning. Incentives are paid to participating customers for eligible energy efficiency measures that are installed in new or retrofit applications that provide verifiable demand and energy savings.

### **E. New Programs for 2020**

SWEPSCO has no new programs for 2020.

### **F. Discontinued Programs**

SWEPSCO has no discontinued programs for 2020.

## II. CUSTOMER CLASSES

SWEPCO's energy efficiency programs target residential and commercial customer classes. SWEPCO's energy efficiency programs also target customer sub-classes, including Low-Income and Schools. The annual projected savings targets are allocated among these customer classes and sub-classes by examining historical program results and by evaluating economic trends, in compliance with 16 TAC § 25.181(e)(3)(A). Table 3 summarizes the number of active customers in each eligible customer class at SWEPCO in the month of January 2020. It should be noted that the actual distribution of the annual goal to be achieved and budget required to achieve the goal must remain flexible based upon the conditions of the marketplace, the potential interest a customer class may have in a specific program and the overriding objective of meeting SWEPCO's mandated demand reduction goal in total. SWEPCO offers a varied portfolio of SOPs and MTPs such that all eligible customer classes have access to energy efficiency alternatives.

**Table 3: Summary of Customer Classes**

<b>Customer Class</b>	<b>Number of Customers</b>
Commercial	30,149
Residential	164,264
Hard-to-Reach* <sup>2</sup>	54,371

\* The Hard-to-Reach customer count is a subset of the Residential total.

<sup>2</sup> According to the U.S. Census Bureau's 2018 Current Population Survey, 33.1% of Texas families fall below 200% of the poverty threshold. Applying that percentage to the SWEPCO's residential customer base of 164,264, the number of HTR customers is estimated to be 54,371.

### **III. ENERGY EFFICIENCY GOALS AND PROJECTED SAVINGS**

As prescribed by the EE Rule, SWEPCO's annual demand reduction goal is specified as a percent of its historical, weather-normalized, five-year average growth in demand. SWEPCO's 2020 goal is calculated based upon the average annual growth in peak demand for the years 2014 through 2018, inclusive (the most recent historical load growth data available). SWEPCO's 2021 goal is calculated based upon the average annual growth in peak demand for the years 2015 through 2019, inclusive (the most recent historical load growth data available).

SWEPCO's demand reduction goal to be achieved is prescribed by the EE Rule to be at least 30% of this calculated annual growth in demand of residential and commercial customers. The corresponding annual energy savings goal is determined by applying a 20% conservation load factor to the applicable demand reduction goal for the Program Year. A utility's demand reduction goal in megawatts for any year cannot be less than the previous year's goal.

Table 4 presents the actual historical annual growth in demand for the previous five years used to calculate SWEPCO's goals.

**Table 4: Annual Growth in Demand and Energy Consumption**

Calendar Year	Peak Demand (MW) @ Source						Energy Consumption (GWh) @ Meter				Energy Efficiency Goal Calculations			
	Total System		Residential & Commercial				Total System		Residential & Commercial					
	Actual	Weather Adjusted	Actual	Weather Adjusted	Opt-Out	Peak Demand at Source Net Opt-outs	Actual	Weather Adjusted	Actual	Weather Adjusted	Peak Demand at Meter	Load Growth at Meter	5 Year Average Growth at Meter	30% Growth at Meter
2014	1,511	1,626	1,328	1,442	-106	1,336	7,798	7,823	5,505	5,530	1,234	7.39	NA	NA
2015	1,607	1,579	1,428	1,399	-118.06	1,281	7,893	7,844	5,896	5,847	1,183	-50.86	NA	NA
2016	1,488	1,543	1,411	1,466	-109.12	1,357	7,076	7,067	5,302	5,294	1,253	70.15	NA	NA
2017	1,417	1,551	1,284	1,418	-102	1,316	7,142	7,191	5,280	5,329	1,216	-37.76	NA	NA
2018	1,488	1,543	1,363	1,417	-97	1,320	7,378	7,291	5,488	5,401	1,219	3.51	NA	NA
2019	1,470	1,574	1,329	1,432	-100	1,332	7,233	7,224	5,431	5,421	1,230	11.08	-12.19	-3.66
2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-1.51	-0.45
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.78	-0.23

\*Line losses are derived from the loss factors determined in SWEPCO's most recent line loss study.

Table 5 presents the projected demand reduction and energy savings, by program, for each customer class and for each of the years 2020 and 2021. Projected savings reflect the estimated demand and energy savings that SWEPCO's programs are expected to achieve with fully developed program budgets for each of the years shown.

**Table 5: Projected Demand and Energy Savings by Program for Each Customer Class  
For 2020 and 2021 (at the Meter)**

<b>2020</b>	<b>Projected Savings</b>	
<b>Customer Class and Program</b>	<b>Demand (kW)</b>	<b>Energy (kWh)</b>
<b>Commercial</b>	<b>7,173</b>	<b>10,228,233</b>
Commercial Solutions MTP	490	2,112,275
Commercial SOP	942	4,909,354
Load Management SOP	5,000	65,229
Open MTP	251	1,029,100
SCORE MTP	490	2,112,275
<b>Residential</b>	<b>2,122</b>	<b>3,237,760</b>
Residential SOP	2,122	3,237,760
<b>Hard-to-Reach</b>	<b>1,057</b>	<b>1,545,630</b>
Hard-to-Reach SOP	1,057	1,545,630
<b>Total Annual Projected Savings</b>	<b>10,352</b>	<b>15,011,623</b>

<b>2021</b>	<b>Projected Savings</b>	
<b>Customer Class and Program</b>	<b>Demand (kW)</b>	<b>Energy (kWh)</b>
<b>Commercial</b>	<b>7,173</b>	<b>10,228,233</b>
Commercial Solutions MTP	490	2,112,275
Commercial SOP	942	4,909,354
Load Management SOP	5,000	65,229
Open MTP	251	1,029,100
SCORE MTP	490	2,112,275
<b>Residential</b>	<b>2,122</b>	<b>3,237,760</b>
Residential SOP	2,122	3,237,760
<b>Hard-to-Reach</b>	<b>1,057</b>	<b>1,545,630</b>
Hard-to-Reach SOP	1,057	1,545,630
<b>Total Annual Projected Savings</b>	<b>10,352</b>	<b>15,011,623</b>

#### **IV. PROGRAM BUDGETS**

Table 6 presents total projected budget allocations required to meet SWEPCO's projected demand and energy savings to be achieved for the Program Years 2020 and 2021. The budget allocations are defined by the overall projected demand and energy savings, the avoided costs of capacity and energy specified in the EE Rule, the allocation of demand goals among customer classes and the incentive levels by customer class. Table 6 budget allocations are detailed by customer class, program and in the following budget categories: incentive payments; administration; research and development (R&D); and evaluation, measurement and verification (EM&V).



**Table 6: Projected Annual Budget by Program for Each Customer Class**

<b>2020</b>	<b>Incentives</b>	<b>Admin</b>	<b>R&amp;D &amp; EM&amp;V</b>	<b>Total Budget</b>
<b>Commercial</b>	<b>\$1,770,000</b>	<b>\$296,014</b>	<b>\$0</b>	<b>\$2,066,014</b>
Commercial Solutions MTP	\$310,000	\$54,706		\$364,706
Commercial SOP	\$650,000	\$114,706		\$764,706
Load Management SOP	\$250,000	\$44,118		\$294,118
Open MTP	\$250,000	\$27,778		\$277,778
SCORE MTP	\$310,000	\$54,706		\$364,706
<b>Residential</b>	<b>\$1,150,000</b>	<b>\$202,941</b>	<b>\$0</b>	<b>\$1,352,941</b>
Residential SOP	\$1,150,000	\$202,941		\$1,352,941
<b>Hard-to-Reach</b>	<b>\$700,000</b>	<b>\$123,529</b>	<b>\$0</b>	<b>\$823,529</b>
Hard-to-Reach SOP	\$700,000	\$123,529		\$823,529
<b>Research and Development (R&amp;D)</b>			<b>\$125,000</b>	<b>\$125,000</b>
<b>TOTAL PROGRAM BUDGET</b>	<b>\$3,620,000</b>	<b>\$622,484</b>	<b>\$125,000</b>	<b>\$4,367,484</b>
<b>EM&amp;V</b>			<b>\$64,991</b>	<b>\$64,991</b>
<b>TOTAL BUDGET</b>	<b>\$3,620,000</b>	<b>\$622,484</b>	<b>\$189,991</b>	<b>\$4,432,475</b>

<b>2021</b>	<b>Incentives</b>	<b>Admin</b>	<b>R&amp;D &amp; EM&amp;V</b>	<b>Total Budget</b>
<b>Commercial</b>	<b>\$1,770,000</b>	<b>\$296,014</b>	<b>\$0</b>	<b>\$2,066,014</b>
Commercial Solutions MTP	\$310,000	\$54,706		\$364,706
Commercial SOP	\$650,000	\$114,706		\$764,706
Load Management SOP	\$250,000	\$44,118		\$294,118
Open MTP	\$250,000	\$27,778		\$277,778
SCORE MTP	\$310,000	\$54,706		\$364,706
<b>Residential</b>	<b>\$1,150,000</b>	<b>\$202,941</b>	<b>\$0</b>	<b>\$1,352,941</b>
Residential SOP	\$1,150,000	\$202,941		\$1,352,941
<b>Hard-to-Reach</b>	<b>\$700,000</b>	<b>\$123,529</b>	<b>\$0</b>	<b>\$823,529</b>
Hard-to-Reach SOP	\$700,000	\$123,529		\$823,529
<b>Research and Development (R&amp;D)</b>			<b>\$125,000</b>	<b>\$125,000</b>
<b>TOTAL PROGRAM BUDGET</b>	<b>\$3,620,000</b>	<b>\$622,484</b>	<b>\$125,000</b>	<b>\$4,367,484</b>
<b>EM&amp;V</b>			<b>\$64,446<sup>3</sup></b>	<b>\$64,446<sup>3</sup></b>
<b>TOTAL BUDGET</b>	<b>\$3,620,000</b>	<b>\$622,484</b>	<b>\$189,446</b>	<b>\$4,431,930</b>

<sup>3</sup> The projected 2021 EM&V budget shown in Table 6 above matches the actual EM&V expenses incurred in calendar year 2019 for review of the 2018 program year. This projected 2021 EM&V budget is only a projection and actual costs may differ.

# ENERGY EFFICIENCY REPORT

## V. HISTORICAL DEMAND AND ENERGY SAVINGS GOALS FOR THE PREVIOUS FIVE YEARS

Table 7 contains SWEPCO's actual demand and energy goals, and actual savings achieved for the previous five years (2015-2019) calculated in accordance with the EE Rule.

**Table 7: Historical Demand and Energy Goals\* and Savings Achieved**

Calendar Year	Actual Weather Adjusted Demand Goal (MW)	Actual Weather Adjusted Energy Goal (MWh)	Savings Achieved (MW)	Savings Achieved (MWh)
2015	5.6	9,811	9.86	15,262
2016	5.6	9,811	11.94	20,648
2017	5.6	9,811	13.63	18,875
2018	5.6	9,811	13.97	17,084
2019	5.6	9,811	11.85**	16,359

\* Actual weather-adjusted MW and MWh goals as reported in SWEPCO's EEPRs filed in years 2015-2019.

\*\* Reported savings achieved at the source are 11.85 MW ( $11.85 \times \frac{1}{(1-7.33\%)}$ ) = 12.79 MW.

## VI. PROJECTED, REPORTED AND VERIFIED DEMAND AND ENERGY SAVINGS

**Table 8: Projected versus Reported and Verified Savings for 2019 and 2018  
(at the Meter)**

<b>2019</b>	<b>Projected Savings</b>		<b>Reported and Verified Savings</b>	
<b>Customer Class and Program</b>	<b>kW</b>	<b>kWh</b>	<b>kW</b>	<b>kWh</b>
<b>Commercial</b>	<b>7,064</b>	<b>9,699,879</b>	<b>8,467</b>	<b>10,605,507</b>
Commercial Solutions MTP	490	2,112,775	455	2,144,146
Commercial SOP	833	4,380,000	916	5,197,934
Load Management SOP	5,000	65,229	6,319	57,724
Open MTP	251	1,029,100	253	1,035,302
SCORE/CitySmart MTP	490	2,112,775	523	2,170,401
<b>Residential</b>	<b>1,818</b>	<b>2,707,636</b>	<b>2,136</b>	<b>3,774,072</b>
Residential SOP	1,818	2,707,636	2,136	3,774,072
<b>Hard-to-Reach</b>	<b>1,167</b>	<b>1,737,000</b>	<b>1,246</b>	<b>1,979,610</b>
Hard-to-Reach SOP	1,167	1,737,000	1,246	1,979,610
<b>Total Annual Savings</b>	<b>10,049</b>	<b>14,144,515</b>	<b>11,848</b>	<b>16,359,189</b>

<b>2018</b>	<b>Projected Savings</b>		<b>Reported and Verified Savings</b>	
<b>Customer Class and Program</b>	<b>kW</b>	<b>kWh</b>	<b>kW</b>	<b>kWh</b>
<b>Commercial</b>	<b>7,599</b>	<b>8,860,837</b>	<b>10,040</b>	<b>10,817,515</b>
Commercial Solutions MTP	490	2,112,775	465	2,648,555
Commercial SOP	743	3,579,086	790	4,375,933
Load Management SOP	5,625	27,101	8,033	104,797
Open MTP	251	1,029,100	253	1,055,006
SCORE/CitySmart MTP	490	2,112,775	499	2,633,224
<b>Residential</b>	<b>1,773</b>	<b>3,105,818</b>	<b>2,439</b>	<b>3,928,310</b>
Residential SOP	1,773	3,105,818	2,439	3,928,310
<b>Hard-to-Reach</b>	<b>1,425</b>	<b>2,496,600</b>	<b>1,480</b>	<b>2,271,566</b>
Hard-to-Reach SOP	1,425	2,496,600	1,480	2,271,566
<b>Total Annual Savings</b>	<b>10,797</b>	<b>14,463,255</b>	<b>13,959</b>	<b>17,017,391</b>

## VII. HISTORICAL PROGRAM EXPENDITURES

This section documents SWEPCO's incentive and administration expenditures for the previous five years (2015-2019) detailed by program for each customer class.

**Table 9: Historical Program Incentive and Administrative Expenditures for 2015 through 2019 (\$000's)**

	2019		2018		2017		2016		2015	
<b>Commercial</b>	Incent	Admin	Incent	Admin	Incent	Admin	Incent	Admin	Incent	Admin
CS MTP	\$294.60	\$40.82	\$298.61	\$32.88	\$418.46	\$32.17	\$307.77	\$43.71	\$237.46	\$40.72
CSOP	\$534.46	\$104.32	\$453.71	\$104.15	\$622.81	\$74.45	\$622.51	\$118.23	\$329.17	\$85.75
Load Management SOP	\$154.48	\$28.81	\$191.63	\$34.32	\$307.79	\$16.41	\$187.79	\$31.00	\$145.26	\$25.42
Open MTP	\$247.62	\$22.32	\$249.99	\$23.98	\$249.24	\$21.80	\$249.99	\$28.43	\$249.67	\$33.12
SCORE MTP	\$312.07	\$45.23	\$316.21	\$41.19	\$220.80	\$28.42	\$284.58	\$44.18	\$209.54	\$37.76
<b>Residential</b>										
CoolSaver <sup>SM</sup> MTP	NAP	NAP	NAP	NAP	NAP	NAP	NAP	NAP	\$151.03	\$13.38
LED Instore Rebate	NAP	NAP	NAP	NAP	\$187.25	\$9.03	NAP	NAP	NAP	NAP
RSOP	\$999.48	\$160.17	\$1,050.23	\$137.43	\$845.14	\$117.23	\$989.96	\$80.52	\$809.46	\$85.07
<b>Hard-to-Reach</b>										
HTR SOP	\$699.00	\$107.98	\$775.12	\$97.17	\$834.95	\$100.97	\$864.97	\$70.95	\$584.98	\$65.07
<b>R&amp;D</b>		\$145.48	NAP	\$141.22	NAP	\$134.38	NAP	\$174.82	NAP	\$108.17
<b>Evaluation and Measurement &amp; Verification</b>		\$64.45	NAP	\$56.24	NAP	\$62.73	NAP	\$57.11	NAP	\$78.82
<b>Total Expenditures</b>	\$3,241.71	\$719.58	\$3,335.50	\$668.58	\$3,686.44	\$597.59	\$3,507.57	\$648.95	\$2,716.57	\$573.28

## VIII. PROGRAM FUNDING FOR CALENDAR YEAR 2019

As shown in Table 10, the Total Projected Budget for 2019 was \$4,019,621. Total Funds Expended for 2019 were \$3,961,282. This is an overall total program expenditure difference of less than 10% from the amount budgeted.

The following individual program expenditures differed from their respective proposed budgets by more than 10% as explained below.

Load Management SOP did not fully utilize its incentive budget due to a lower than expected participation.

**Table 10: Program Funding for Calendar Year 2019**

2019	Number of Participating ESI ID Accounts	Total Projected Budget	Actual Funds Expended (Incentives)	Admin	EM&V	Total funds Expended
<b>Commercial</b>	<b>113</b>	<b>\$1,830,719</b>	<b>\$1,543,226</b>	<b>\$241,500</b>		<b>\$1,784,726</b>
Commercial Solutions MTP	22	\$364,706	\$294,600	\$40,824		\$335,424
Commercial SOP	40	\$588,235	\$534,455	\$104,323		\$638,779
Load Management SOP	6	\$235,294	\$154,480	\$28,808		\$183,288
Open MTP	40	\$277,778	\$247,621	\$22,317		\$269,938
SCORE MTP	5	\$364,706	\$312,070	\$45,229		\$357,298
<b>Residential</b>	<b>2,121</b>	<b>\$1,176,470</b>	<b>\$999,481</b>	<b>\$160,171</b>		<b>\$1,159,653</b>
Residential SOP	1,329	\$1,176,470	\$999,481	\$160,171		\$1,159,653
<b>Hard-to-Reach Residential</b>		<b>\$823,529</b>	<b>\$699,001</b>	<b>\$107,977</b>		<b>\$806,979</b>
Hard-to-Reach SOP	792	\$823,529	\$699,001	\$107,977		\$806,979
<b>Total Program Expenditures</b>		<b>\$3,830,718</b>	<b>\$3,241,709</b>	<b>\$509,649</b>		<b>\$3,751,358</b>
<b>Research &amp; Development</b>		<b>\$125,000</b>		<b>\$145,479</b>		<b>\$145,479</b>
<b>EM&amp;V</b>		<b>\$63,903</b>			<b>\$64,446</b>	<b>\$64,446</b>
<b>Total</b>	<b>2,234</b>	<b>\$4,019,621</b>	<b>\$3,241,709</b>	<b>\$655,128</b>	<b>\$64,446</b>	<b>\$3,961,282</b>

## **IX. MARKET TRANSFORMATION PROGRAM RESULTS**

### **SCORE MTP**

The SCORE MTP that is implemented by a third party contractor provided non-cash incentives, such as building energy analyses, technical assistance and communications support, as well as monetary incentives for the installation of documented energy efficiency measures that reduce peak demand and energy use. In 2019, SWEPCO projected to acquire 490 kW in demand savings from this program. SWEPCO has verified and reported savings of 523 kW. This included participation by 5 customers in three counties.

### **Commercial Solutions MTP**

SWEPCO contracted with a third-party program implementer for the Commercial Solutions MTP to provide commercial facilities non-cash incentives, such as technical assistance to identify energy efficiency opportunities, education in promoting best practices and communication support services. Program participants received cash incentives for the installation of documented energy efficiency measures that reduced peak demand and energy consumption. For 2019, SWEPCO projected to acquire 490 kW of demand savings from this program. SWEPCO's verified and reported results are 455 kW. This included participation by 22 customers in nine different counties.

### **Open MTP**

The Open MTP contractor provided small commercial customers with less than 100 kW demand non-cash incentives such as technical assistance to identify energy efficiency opportunities and education in promoting best practices. The direct install program provided a turnkey approach, providing participants cash incentives for the installation of documented energy efficiency measures that reduced peak demand and energy consumption. For 2019, SWEPCO projected 251 kW of demand savings from this program. SWEPCO's verified and reported results are 253 kW. This included participation by 40 customers in six different counties.

## **X. ADMINISTRATIVE AND RESEARCH AND DEVELOPMENT COSTS**

### **Administrative Costs**

Administrative costs incurred by SWEPCO to meet its energy efficiency goals and objectives include, but may not be limited to, energy efficiency employees' payroll, marketing, costs associated with regulatory filings, and EM&V costs outside of the actual cost associated with the EM&V contractor. Any portion of these costs which are not directly assignable to a specific program are allocated among the programs in proportion to the program incentive costs.

### **Program Research and Development**

R&D activities are intended to help SWEPCO meet future energy efficiency goals by researching new technologies, program options and developing better, more efficient ways to administer current programs. In 2019 SWEPCO dedicated resources to enhance electronic data collection and management system for current programs. In addition, SWEPCO participated with EUMMOT in researching potentially new deemed savings measures for various programs.

## **XI. 2020 ENERGY EFFICIENCY COST RECOVERY FACTOR (EECRF)**

In PUCT Docket 49499, SWEPCO received approval to recover the following:

- \$4,367,484 Cost of SWEPCO's Energy Efficiency programs projected for 2020
- \$746,312 Performance bonus for 2018 savings achievement
- \$-81,311 SWEPCO's under-recovery of its actual energy efficiency program costs for 2018
- \$64,991 Projected EM&V costs

Approval was granted for a total revenue requirement of \$5,097,476.

The adjusted rates, as given in Table 11, went into effect on January 1, 2020.

**Table 11: 2020 EECRF**

<b>Customer Class</b>	<b>Factor per kWh</b>
Residential	\$ 0.001181
General Service	\$ 0.000971
Lighting & Power	\$ 0.000755
Municipal Pumping	\$ 0.000165
Municipal Service	\$ 0.002061
Cotton Gin	\$ 0.000060
Large L & P<69kV	\$ 0.000526
Electric Furnace/Metal Melting <69kV	\$ 0.003261
Oil Field Large Industrial Power	\$ 0.000258
Lighting	\$ -



## **XII. 2019 EECRF SUMMARY**

### **Revenue Collected Through EECRF**

Table 12 below outlines a summary of SWEPCO's 2019 EECRF including costs, performance bonus, prior year's over recovery and current year's under recovery.

**Table 12: Under Recovery of Energy Efficiency Costs in 2019**

	<b>Authorized per Docket No. 48334</b>	<b>Actual Expenses</b>
2019 Program Costs	\$ 3,955,718	\$ 3,896,836
2018/2019 EM&V costs	\$ 63,903	\$ 64,446
2017 (Over)/Under Recovery	\$ 231,035	\$ 231,035
2017 Bonus	\$ 859,328	\$ 859,328
2019 Total Costs & Bonus	\$ 5,109,984	\$ 5,051,645
2019 EECRF Revenue		\$ 5,219,750
2019 (Over)/Under		\$ (168,105)

## **XIII. UNDERSERVED COUNTIES**

An underserved county is defined by SWEPCO as any county that did not report demand or energy savings through any of the 2019 SOPs or MTPs. Per 16 TAC § 25.181(I)(2)(U), a list of the 2019 Underserved Counties is as follows:

Childress	Collingsworth	Donley	Hall	Hopkins
Morris	Rains	Red River	Smith	Wheeler

## ACRONYMS

<b>A/C</b>	Air Conditioning
<b>CS MTP</b>	Commercial Solutions Market Transformation Program
<b>CSOP</b>	Commercial Standard Offer Program
<b>EE Rule</b>	Energy Efficiency Rule, 16 TAC §§ 25.181, 25.182 and 25.183
<b>EECRF</b>	Energy Efficiency Cost Recovery Factor
<b>EEPR</b>	Energy Efficiency Plan and Report
<b>EESP</b>	Energy Efficiency Service Provider
<b>EM&amp;V</b>	Evaluation, Measurement & Verification
<b>HTR SOP</b>	Hard-to-Reach Standard Offer Program
<b>LM SOP</b>	Load Management Standard Offer Program
<b>MTP</b>	Market Transformation Program
<b>NAP</b>	Not Applicable
<b>PLAN</b>	Energy Efficiency Plan
<b>PUCT</b>	Public Utility Commission of Texas
<b>PURA</b>	Public Utility Regulatory Act
<b>R&amp;D</b>	Research and Development
<b>RSOP</b>	Residential Standard Offer Program
<b>SCORE MTP</b>	Schools Conserving Resources Market Transformation Program
<b>SOP</b>	Standard Offer Program
<b>SWEPCO</b>	Southwestern Electric Power Company

**APPENDIX A:**

**REPORTED AND VERIFIED DEMAND AND ENERGY REDUCTION**

**BY COUNTY**

County	Residential SOP		Hard-to-Reach SOP		Commercial Solutions MTP		Commercial SOP		Load Management SOP		SCORE/CitySmart MTP		Open MTP	
	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
BOWIE	81	198,509	16	21,113	63	266,551	286	1,759,364	1,300	9,671			95	377,632
CAMP	31	54,043			21	92,554	8	31,200	525	4,584				
CASS	1	2,588	13	20,422	1	4,045	51	208,424					31	130,551
FRANKLIN	60	114,503			23	239,069								
GREGG	1,023	1,686,136	784	1,230,280	154	791,864	373	2,066,393	5,440	38,695	507	2,060,581	45	224,314
HARRISON	401	744,914	265	426,087	16	57,641	28	132,033	600	4,774			21	91,009
MARION	13	23,967	4	5,489			6	25,234						
MORRIS	47	83,609												
PANOLA	134	249,445	110	187,248	25	98,535								
RUSK	202	356,666	30	48,085			118	758,328			14	92,001	12	47,950
SMITH	9	15,041												
TITUS	33	55,031	3	6,188	142	564,829	31	152,280						
UPSHUR	96	173,617	14	22,442							3	17,819	48	163,846
WOOD	4	14,132					8	31,508						
HALL	1	615	3	8,040										
SHELBY	0	1,256	4	4,218	10	29,058								
VAN ZANDT	0	0					3	12,695						
<b>Total</b>	<b>2,136</b>	<b>3,774,072</b>	<b>1,246</b>	<b>1,979,610</b>	<b>455</b>	<b>2,144,146</b>	<b>914</b>	<b>5,177,459</b>	<b>7,865</b>	<b>57,724</b>	<b>523</b>	<b>2,170,401</b>	<b>253</b>	<b>1,035,302</b>

## **APPENDIX B:**

### **PROGRAM TEMPLATES**

SWEPCO does not have any program templates to provide.

## **APPENDIX C:**

### **OPTIONAL SUPPORTING DOCUMENTATION**

SWEPCO has no Optional Supporting Documentation to provide.