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# **Southwestern Public Service Company Amended 2017 Energy Efficiency Plan and Report**

**Substantive Rules § 25.181 and § 25.183**

**May 1, 2017**

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Project No. 46907



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## Introduction

Southwestern Public Service Company (“SPS”) presents this Energy Efficiency Plan and Report (“EEPR”) to comply with 16 Tex. Admin. Code §§ 25.181 and 25.183 (“TAC”) (collectively sometimes referred to herein as the “EE Rules”), which are the Public Utility Commission of Texas’s (“Commission”) rules implementing Public Utility Regulatory Act (“PURA”) § 39.905.<sup>1</sup> As mandated by this section of PURA, 16 TAC § 25.181(e)(1) requires that each investor-owned electric utility achieve the following minimum goal through market-based standard offer programs (“SOPs”), targeted market transformation programs (“MTPs”), or utility self-delivered programs:

- A utility shall acquire a 30% reduction of its annual growth in demand of residential and commercial customers.
- A utility may have a different demand reduction goal if the demand reduction goal of 30% of its annual growth in demand is equivalent to at least four-tenths of 1% of its summer weather-adjusted peak demand for the combined residential and commercial customers. This is also known as the “trigger”.
- Once the trigger is satisfied, 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.

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<sup>1</sup> PURA is codified at Tex. Util. Code Ann. §§ 11.001–58.303 (West 2016), §§ 59.001–66.017 (West 2007 & Supp. 2016).

## **Energy Efficiency Plan and Report Organization**

This EEPR consists of an executive summary and two main components: the Energy Efficiency Plan (“EEP”) and the Energy Efficiency Report (“EER”).

- The Executive Summary highlights SPS’s reported achievements for 2016 and SPS’s plans for achieving its 2017 and 2018 projected energy efficiency savings goals.

### **Energy Efficiency Plan**

- Section I describes SPS’s program portfolio. It details how each program will be implemented, discusses related informational and outreach activities, and introduces any programs not included in SPS’s previous EEP.
- Section II explains SPS’s targeted customer classes, specifying the size of each class and the method for determining those sizes.
- Section III presents SPS’s projected energy efficiency savings for the prescribed planning period broken out by program for each customer class.
- Section IV describes SPS’s proposed energy efficiency budgets for the prescribed planning period broken out by program for each customer class.

### **Energy Efficiency Report**

- Section V documents SPS’s actual weather-adjusted demand savings goals and energy targets for the previous five years (2012-2016).
- Section VI compares SPS’s projected energy and demand savings to its reported and verified savings by program for calendar years 2015 and 2016.
- Section VII documents SPS’s incentive and administration expenditures for the previous five years (2012-2016) broken out by program for each customer class.
- Section VIII compares SPS’s actual program expenditures for 2016 to its 2016 budget categorized by program for each customer class.
- Section IX describes the results from SPS’s MTPs.
- Section X details SPS’s current Energy Efficiency Cost Recovery Factor (“EECRF”) collection.
- Section XI reflects SPS revenue collected through the 2016 EECRF.
- Section XII breaks out the over/under-recovery of energy efficiency program costs.
- Section XIII discusses SPS’s performance bonus.

### **Appendices**

- Appendix A – Reported kilowatt (“kW”) and kilowatt-hour (“kWh”) savings listed by county for each program.

## Executive Summary

SPS submits this EEPR to comply with the EE Rules for Program Years (“PY”) 2017 and 2018. The EEP portion of this EEPR details SPS’s efforts to achieve reductions in peak demand and energy use among its residential and commercial customers. For PYs 2017 and 2018, SPS has developed energy efficiency portfolios designed to meet goals prescribed by 16 TAC § 25.181.

### EEP Summary

The following table presents SPS’s 2017 and 2018 goals and budgets under PURA § 39.905 and the EE Rules.

**Table 1: Summary of Goals, Projected Savings, and Projected Budgets (at Meter)**

Calendar Year	Average Growth in Demand (MW)	Goal Metric: 30% Growth (MW)	Goal Metric: 0.4% Peak Demand (MW)	Goal Metric: 0.4% Peak Demand <sup>2</sup> (MW)	Demand Goal (MW)	Goal Metric: 30% Energy (MWh)	Energy Goal (MWh)	Budget
2017	(1.230)	(0.369)	6.599	6.665	5.495	(647)	9,627	\$ 3,918,867
2018	(6.576)	(1.973)	6.569	6.610	5.495	(3,457)	9,627	\$ 3,955,074

Table 1 shows SPS’s goal(s) calculations for PY 2017 and 2018. The goals for PY 2017 were approved by the Commission in Docket No. 45916.

SPS calculated the demand goal as 30% of the historical five-year annual growth in demand pursuant to 16 TAC § 25.181(e)(1).<sup>3</sup> The calculated demand reduction goal for 2018 yields a goal metric of -1.973 MW because SPS’s historical five-year annual growth in demand is negative. Therefore, SPS is using the previous year’s demand reduction goal of 5.495 MW in accordance with 16 TAC § 25.181(e)(3)(D).

The “Energy (MWh) Goal” is calculated from the demand goal using a 20% conservation load factor, as mandated in 16 TAC § 25.181(e)(4). Thus, the “Energy (MWh) Goal” is 20% of the product of the “Demand Goal (MW)” and 8,760 (the number of hours in a typical year).

<sup>2</sup> In Table 1, the Goal Metric presents SPS’s actual, calculated values as prescribed in 16 TAC § 25.181(e)(1). The “Demand Goal (MW)” and “Energy Goal (MWh)” presents SPS’s actual goals as prescribed in 16 TAC § 25.181(e)(3)(D). The second column for “Goal Metric: 0.4% Peak Demand (MW)” is provided consistent with SPS’s response to Staff RFI No. 3-1 from Docket No. 45916, as well as Section F of the Unopposed Stipulation in Docket No. 45916.

<sup>3</sup> For a calculation of Average Growth in Demand, see Table 5; and Projected Budget amounts are from Table 7. All kW/MW and kWh/MWh figures in this table, and throughout this EEPR, are given “at Meter.”

SPS will implement the following SOPs, MTPs, and Low-Income Weatherization programs in 2018:

- Large Commercial SOP;
- Load Management SOP;
- Retro-Commissioning MTP;
- Residential Home Lighting MTP;
- Small Commercial MTP;
- Residential SOP;
- Hard-to-Reach SOP; and
- Low-Income Weatherization.

The projected savings, budgets, and implementation plans included in this EEPR comply with the EE Rules and incorporate lessons learned from energy efficiency service providers (“EESP”) and customer participation in the various energy efficiency programs. The projected savings reported in this document assume that all of the available funds for energy efficiency programs are reserved by contractors and/or for self-delivered programs and expended energy efficiency projects.

### **EER Summary**

The EER portion of this EEPR demonstrates that in 2016 SPS achieved 8.19 MW of reduction in demand and 14,451 MWh of energy savings, which were 149% and 150%, respectively, of SPS’s demand goal of 5.495 MW and energy savings goal of 9,627 MWh.

The expenditures for these 2016 programs were \$3,310,175,<sup>4</sup> which was 98% of SPS’s budget. To meet the goal of a 30% reduction in demand growth through energy efficiency, SPS implemented: the Residential SOPs for single- and multi-family residences; the Commercial SOP; the Load Management SOP; the Hard-to-Reach SOP for low-income, single- and multi-family residences; and the Low-Income Weatherization program. SPS’s Retro-Commissioning

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<sup>4</sup> This number includes costs associated with all 2016 EM&V activities and SPS’s 2016 EECRF expenses.

MTP program targeted qualifying commercial class customers. Table 2 below compares the 2016 projected savings and budget to the reported and verified savings as well as actual expended funds for 2016.

**Table 2: Summary of 2016 Projected Savings and Budget, Reported/Verified Savings, and Expended Funds**

Calendar Year	Demand Goal (MW)	Energy Goal (MWh)	Projected MW Savings	Projected MWh Savings	Reported and Verified MW Savings	Reported and Verified MWh Savings	Total Funds Budgeted	Total Funds Expended
2016	5.495	9,627	7.10	11,300	8.19	14,451	\$ 3,390,063	\$ 3,310,175

# Energy Efficiency Plan

## I. 2017 and 2018 Programs

### A. Program Portfolios

PURA § 39.905 and 16 TAC § 25.181 establish peak demand reduction goals and program guidelines for investor-owned electric utilities in Texas. SPS is committed to offering cost-effective energy efficiency programs to ensure that its retail customers are offered the same energy efficiency services that are available to consumers in other areas of the state.

This EEP reflects SPS’s continued commitment to provide its customers with energy efficiency opportunities. For PY 2018, SPS proposes to offer multiple SOPs, multiple MTPs, and a weatherization program to its residential and commercial customer classes to meet the requirements under the EE Rules. The following EEP outlines SPS’s planned efforts to encourage its residential and commercial customers to participate in its energy efficiency programs, including a discussion of proposed programs, budgets, and program impact estimates.

Table 3 below summarizes the programs and targeted customer classes.

**Table 3: Energy Efficiency Program Portfolio**

<b>Program</b>	<b>Target Customer Class</b>	<b>Application</b>
Large Commercial SOP	Large Commercial	Retrofit; New Construction
Small Commercial MTP	Small Commercial	Retrofit; New Construction
Load Management SOP	Commercial	Curtable Load
Retro-Commissioning MTP	Large Commercial	Retrofit
Residential SOP	Residential	Retrofit; New Construction
Home Lighting MTP	Residential	Buydown
Hard-to-Reach SOP	Residential Hard-to-Reach	Retrofit
Low-Income Weatherization	Low-Income	Retrofit

The programs listed in Table 3 are described in further detail below. SPS also maintains a website describing all of the requirements for project participation, the forms required for project submission, and the current available funding. That website, which can be accessed at <http://www.xcelefficiency.com/>, is the primary method by which SPS communicates with potential project sponsors about program updates and information.



## ***B. Administrative and Research Costs for 2017 and 2018***

SPS's administrative costs are incurred to support the development and implementation of its programs, as well as the regulatory compliance requirements associated with PURA § 39.905 and 16 TAC § 25.181. The costs include, but are not limited to employee labor and loading costs, employee travel expenses, the purchase of supplies, updating program databases, and legal costs. SPS monitors these costs on an ongoing basis and will make regular corrections to administrative spending, wherever possible, to ensure cost-effectiveness and regulatory compliance.

Research and Development costs include those costs for conducting studies and analyses to identify new programs or measures to enhance the energy efficiency or load management offerings and meet future energy and demand goals.

## ***C. Existing Programs for 2018***

SPS will continue to offer the following pre-existing programs in 2018:

### **Commercial Standard Offer Program**

The Commercial SOP targets commercial customers with single-meter demand of 100 kW or more or aggregate meter demand of 250 kW or more. Incentives are paid to project sponsors based on verified deemed savings for a wide range of measures installed in new or retrofit applications. Typical eligible measures include commercial cooling and ventilation, fan and pump motor efficiency, fan and pump variable speed drives, high efficiency commercial lighting applications, commercial refrigeration enhancements, and industrial process upgrades.

### **Small Commercial Market Transformation Pilot Program**

The Small Commercial MTP Pilot is designed to assist small business customers with identifying and implementing cost-effective energy efficiency solutions for their workplace. Small business customers often encounter greater barriers to participation in energy efficiency programs that are not experienced by larger commercial and industrial ("C&I") customers. Often the two biggest barriers are lack of access to capital and a lack of information about what energy efficiency measures and strategies are the most cost-effective for the customer's individual situation. The

Small Commercial MTP seeks to assist customers in overcoming these challenges by providing increased guidance throughout the decision-making process to help small business customers plan for, prioritize, and implement energy efficient measures. SPS issued a Request for Proposal in June 2016 and chose a program implementer in October 2016.

### **Load Management Standard Offer Program**

The Load Management SOP was developed in 2012 in accordance with 16 TAC § 25.181, which authorizes participating project sponsors (customers or third-party sponsors) to provide on-call, voluntary curtailment of electricity consumption during peak demand periods in return for incentive payments. Incentives are based on verified demand savings that occur at SPS distribution sites taking primary or secondary service or at eligible institutional customers' sites as a result of calls for curtailment. Customers are not required to produce a specific level of curtailed load, but they will receive payments for only the amount of load curtailed.

### **Residential Standard Offer Program**

The Residential SOP provides incentives to service providers for retrofit and new construction installations of a wide range of residential measures that provide verifiable demand and energy savings. This program has two components, one for single-family residences and one for multi-family residences. Incentives and savings are tracked separately for these components but are reported together in this EEPR.

### **Home Lighting Market Transformation Pilot Program**

The Home Lighting MTP Pilot offers SPS's customers point-of-sale rebates to reduce the cost of purchasing new, efficient light emitting diode ("LED") bulbs through qualifying retailers. Point-of-sale rebates occur when the bulb manufacturer, retailer, and SPS combine funds to offer instant rebates on a variety of bulb models, targeted for residential use, enabling customers to purchase discounted LEDs without completing rebate forms. The program was rolled out in limited participating retailers in late 2016 as part of a research and development effort, and launched as a full pilot program in 2017.

### **Hard-to-Reach Standard Offer Program**

Hard-to-Reach customers are defined by 16 TAC § 25.181(c)(27) as customers with an annual household income at or below 200% of federal poverty guidelines. The Hard-to-Reach SOP provides incentives for the comprehensive retrofit installations of a wide range of measures that reduce demand and save energy. This program is split into two segments, one for single-family residences and one for multi-family residences. Incentives and savings are tracked separately for these segments but are reported together in this EEPR.

### **Low-Income Weatherization Program**

SPS's Low-Income Weatherization program is designed to cost-effectively reduce the energy consumption and energy costs of SPS's low-income customers. Under this program, one or more program implementers contract with sub-recipients and other not-for-profit community action and government agencies to provide weatherization services to SPS residential customers who meet the current Department of Energy income-eligibility guidelines. Customers also must have electric air conditioning to be eligible for the program. Implementation of SPS's Low-Income Weatherization program provides eligible residential customers appropriate weatherization measures and basic on-site energy education and satisfies the requirements of 16 TAC § 25.181(r).

### **Retro-Commissioning Market Transformation Program**

The Retro-Commissioning MTP is a program designed for identifying and implementing low-cost/no-cost measures, as well as capital projects to optimize and enhance existing facility systems by improving performance, reducing peak demand (kW), and saving energy (kWh). The program is flexible as to facility size, but caters to facilities with significant savings potential, which typically requires a minimum of 50,000 square feet of air-conditioned space.

### ***D. New and Modified Programs for 2018***

SPS does not propose any new or modified programs for the 2018 plan year.

## ***E. General Implementation Plan***

### **Program Implementation**

SPS will implement its energy efficiency programs in a non-discriminatory and cost-effective manner. For 2017 and 2018, SPS intends to conduct programs using the following activity schedule:

- In November 2016, SPS allowed sponsors to submit applications, which were reviewed and accepted in the order of receipt.
- Throughout 2017, SPS has and will offer approved EESPs contracts to implement projects. After contract execution, the EESP may begin implementation and reporting of measures. All projects must be completed and results reported to SPS before November 15, 2017. SPS will continue to inform the EESP community of pertinent news and updates by posting program notices on its energy efficiency website, offering local and Internet-based workshops (if necessary), and sending email notices to various energy service company associations.
- No later than January 1, 2018, SPS will announce its 2018 energy efficiency programs and open its website application pages to assist EESPs in preparing project applications for PY 2018. The application process gives sponsors feedback on whether particular projects are eligible and the level of incentives for which they may qualify.
- Throughout 2018, SPS will offer contracts to approved EESPs to implement energy efficiency projects. After contract execution, the EESP may begin implementation and reporting of measures. All projects must be completed and results reported to SPS before November 15, 2018. SPS will continue to inform the EESP community of pertinent news and updates by posting program notices on its energy efficiency website, offering local and Internet-based workshops (if necessary), and sending email notices to various energy service company associations.
- During 2017 and 2018, the Retro-Commissioning Program will utilize a third-party program implementer who will work with commissioning agents and SPS account management to conduct outreach and identify suitable facilities.

### **Program Tracking**

SPS uses an online database to track program activity in its SOPs. The online database is accessible to project sponsors, implementers, and administrators. All program data can be entered in real-time, capturing added customer information (class, location by county, and utility

account), installed measures (quantity, deemed or measured, serial numbers, and paid incentives), authorized incentives, inspection results (including adjustments), invoice requests, and payments. The database allows SPS to guard against duplicate incentive requests to SPS's programs.

SPS uses separate databases to track program activity for the Retro-Commissioning, Home Lighting MTP, and Low Income Weatherization programs. The databases are managed by the third-party implementers for the programs.

### **Measurement and Verification**

Many of the projects implemented under these programs will report demand and energy savings utilizing "deemed savings estimates" reviewed by the Independent Evaluator and approved by the Commission. If deemed savings have not been approved for a particular installation, such savings will be reported using an approved measurement and verification approach as allowed under 16 TAC § 25.181(p).

The International Performance Measurement and Verification Protocol will be used in the following situations:

- A Commission-approved deemed savings estimate is not available for the energy efficiency measures included in an eligible project; or
- An EESP has elected to follow the protocol because it believes that measurement and verification activities will result in a more accurate estimate of the savings associated with the project than would application of the Commission-approved deemed savings value.

### **Outreach and Research Activities**

SPS anticipates that outreach to a broad range of EESPs and market segments will be necessary to meet the savings goals required by PURA § 39.905 and the EE Rules. SPS markets the availability of its programs by maintaining its website (<http://www.xcelefficiency.com/>), which is the primary method of communication used to provide potential project sponsors with program updates and information. It contains detailed information regarding requirements for project

participation, project eligibility, end-use measure eligibility, incentive levels, application procedures, and current available funding. All application forms required for project submission are available for download on the website.

SPS offers outreach workshops for the Residential and Hard-to-Reach SOPs. These workshops are held in person or via webinar. SPS invites air conditioning contractors, weatherization service providers, lighting vendors, big-box retailers, and national energy service companies to participate in the workshops. These workshops explain program elements, such as responsibilities of the project sponsor, project requirements, incentive information, and the application and reporting process. SPS coordinates the timing of its workshops to avoid overlap with other utilities' schedules. These workshops increase accessibility to EESPs who may work in several areas.

SPS participates in statewide outreach activities and attends industry-related meetings to generate awareness and interest in its energy efficiency programs. In addition, SPS sends mass email notifications to keep potential project sponsors interested and informed.

SPS uses a mix of large C&I customer account management staff and third-party implementation staff to educate customers about the Load Management SOP and Retro-Commissioning MTP. In 2018, the account management team and third-party implementation staff will continue their efforts to hold customer meetings and use marketing materials to explain the program and the requirements for participation.

## **II. Customer Classes**

SPS targets the Commercial, Residential, and Hard-to-Reach customer classes with its energy efficiency programs. Table 4 summarizes the number of customers in each of the target customer classes. The annual budgets are allocated to customer classes by examining historical program results, evaluating economic trends, and taking into account 16 TAC § 25.181(e)(3)(F), which states that no less than 5% of the utility's total demand goal should be achieved through programs for Hard-to-Reach customers. SPS has relied on historical achievements to determine the budget allocations for the 2017 and 2018 PYs. Although these guidelines have been set, the actual distribution of the budget must remain flexible based upon the response of the marketplace and the potential interest that a customer class may have in a specific program.

**Table 4: Summary of Customer Classes**

<b>Customer Class</b>	<b>Qualifications</b>	<b>Number of Customers<sup>5</sup></b>
<b>Commercial</b>	< 69 kV service voltage	53,994
<b>Residential</b>	Non-Hard-To-Reach Residential	210,358
<b>Hard-to-Reach</b>	Hard-To-Reach Income Requirements	33,447

### **III. Projected Energy Efficiency Savings and Goals**

16 TAC § 25.181(e) requires that investor-owned utilities administer energy efficiency programs to achieve a demand reduction equivalent to 30% of the utility’s average demand growth by December 31, 2018. A utility may have a different demand reduction goal if the demand reduction goal of 30% of its annual growth in demand is equivalent to at least four-tenths of 1% of its summer weather-adjusted peak demand for the combined residential and commercial customers. This is also known as the “trigger” that shifts utilities’ goal metric from 30% of its annual growth in demand to four-tenths of 1% of its summer weather-adjusted peak demand. SPS has determined that it has not reached the “trigger” for 2017 PY nor will it reach the “trigger” for the 2018 PY.

Table 5 provides the peak load data used to calculate the demand reduction projection for the demand goal for 2018, as required by the EE Rules. To calculate this goal, SPS applied an average line loss factor of 9.62%<sup>6</sup> to the weather-normalized peak demand value for residential and commercial customers. SPS then removed the peak demand of opt-out customers from the residential and commercial peak demand values. Finally, SPS calculated the average peak demand growth for the previous five years (2012-2016). As shown in the average annual growth column, SPS has experienced average negative peak demand growth of -7 MW including opt-out customers.

<sup>5</sup> Commercial and Residential number of customers reflect actual SPS customer counts as of December 2016. Hard-to-Reach customers were estimated based on the most recently available U.S. Census data. In 2015, 15.9% of Texans were below the poverty threshold. (<http://www.census.gov/quickfacts/table/IPE120215/48>)

<sup>6</sup> SPS’s most recently approved line loss study can be found in Docket No. 42004. For purposes of the EEPR, SPS uses a simple average of line losses for all levels from the source to the meter.

**Table 5: Annual Growth in Demand and Energy Consumption (at Meter)<sup>7</sup>**

Calendar Year	Peak Demand (MW)				Energy consumption (MWh)				Growth (MW)	Average Growth	Demand Goal	Energy Goal
	Total System		Residential & Commercial		Total System		Residential & Commercial		Actual Weather Adjusted	Actual Weather Adjusted		
	Actual	Actual Weather Adjusted	Actual	Actual Weather Adjusted	Actual	Actual Weather Adjusted	Actual	Actual Weather Adjusted				
2008	2,587	2,589	1,694	1,696	14,143,864	14,198,484	7,668,155	7,717,744	20	0	NA	NA
2009	2,592	2,561	1,735	1,707	13,920,045	13,932,332	7,371,821	7,382,989	30	0	NA	NA
2010	2,567	2,582	1,707	1,716	14,175,553	14,110,580	7,512,089	7,452,380	-30	20	NA	NA
2011	2,522	2,494	1,779	1,750	14,054,830	13,730,734	7,963,150	7,639,055	17	25	NA	NA
2012	2,634	2,523	1,887	1,775	13,880,058	13,721,135	7,748,839	7,589,916	28	7	NA	NA
2013	2,468	2,425	1,656	1,633	13,994,646	13,859,306	7,764,906	7,629,565	15	9	NA	NA
2014	2,506	2,497	1,711	1,702	14,061,579	14,038,723	7,712,573	7,689,717	-139	13	NA	NA
2015	2,405	2,478	1,618	1,691	14,032,058	14,004,866	7,621,821	7,549,761	73	12	4	6,291
2016	2,499	2,449	1,726	1,677	13,958,248	13,905,333	7,498,352	7,445,437	-9	-22	-7	-11,476
2017	NA	NA	NA	1,700	NA	NA	NA	7,530,096	-8	-1	0	-647
2018	NA	NA	NA	1,722	NA	NA	NA	7,565,277	NA	-7	-2	-3,457

<sup>7</sup> New line loss factors for 2013 were approved for SPS in Docket No. 42004. This line loss factor has not been applied when calculating the “Residential & Commercial” columns.



For 2017 and 2018, SPS developed budgets to meet the energy and demand goals in a cost-effective manner, as prescribed by 16 TAC § 25.181. Details of these budgets, including the allocation of funds to specific programs, are given in Section IV.

SPS calculated the projected savings of its energy efficiency programs from these proposed budgets, using the cost per kW of demand reduction achieved in previous SPS programs and the budget allocation for each program. SPS then calculated the expected energy savings from the projected demand reductions using the average load factors from previous PYs (with adjustments for market conditions and other potential changes). Table 6 shows the projected demand and energy savings broken out by program.

**Table 6: Projected Demand and Energy Savings Broken Out by Program for Each Customer Class (at Meter)**

2017	Projected Savings	
	kW	kWh
<b>Commercial</b>	<b>5,000</b>	<b>7,252,800</b>
Commercial SOP	700	2,452,800
Retro-Commissioning MTP	600	4,000,000
Load Management SOP	3,500	-
Small Commercial MTP	200	800,000
<b>Residential</b>	<b>1,125</b>	<b>3,439,880</b>
Residential SOP	1,100	3,179,880
Home Lighting MTP	25	260,000
<b>Hard-to-Reach</b>	<b>1,025</b>	<b>3,007,640</b>
Hard-to-Reach SOP	800	2,312,640
Low-Income Weatherization	225	695,000
<b>Total Annual Projected Savings</b>	<b>7,150</b>	<b>13,700,320</b>
2018	Projected Savings	
	kW	kWh
<b>Commercial</b>	<b>5,595</b>	<b>9,058,770</b>
Commercial SOP	1,060	2,870,600
Retro-Commissioning MTP	835	5,388,170
Load Management SOP	3,500	-
Small Commercial MTP	200	800,000
<b>Residential</b>	<b>1,180</b>	<b>2,592,590</b>
Residential SOP	980	1,092,590
Home Lighting MTP	200	1,500,000
<b>Hard-to-Reach</b>	<b>1,005</b>	<b>1,565,910</b>
Hard-to-Reach SOP	755	890,910
Low-Income Weatherization	250	675,000
<b>Total Annual Projected Savings</b>	<b>7,780</b>	<b>13,217,270</b>

## IV. Program Budgets

**Table 7: Proposed Annual Budget Broken Out by Program for Each Customer Class**

<b>2017</b>	<b>Incentives</b>	<b>Admin</b>	<b>R&amp;D</b>	<b>EM&amp;V</b>	<b>Total Budget</b>
<b>Commercial</b>	\$ 1,825,000	\$ 70,856	\$ -	\$ 21,425	\$ 1,917,281
Commercial SOP	\$ 350,000	\$ 40,824	\$ -	\$ 9,387	\$ 400,211
Retro-Commissioning MTP	\$ 900,000	\$ -	\$ -	\$ 6,952	\$ 906,952
Load Management SOP	\$ 175,000	\$ 25,000	\$ -	\$ 5,085	\$ 205,085
Small Commercial MTP	\$ 400,000	\$ 5,032	\$ -	\$ -	\$ 405,032
<b>Residential</b>	\$ 690,000	\$ 36,911	\$ -	\$ 5,210	\$ 732,121
Residential SOP	\$ 640,000	\$ 31,911	\$ -	\$ 5,210	\$ 677,121
Home Lighting MTP	\$ 50,000	\$ 5,000	\$ -	\$ -	\$ 55,000
<b>Hard-to-Reach</b>	\$ 1,020,000	\$ 17,459	\$ -	\$ 7,006	\$ 1,044,465
Hard-to-Reach SOP	\$ 630,000	\$ 17,459	\$ -	\$ 4,477	\$ 651,935
Low-Income Weatherization	\$ 390,000	\$ -	\$ -	\$ 2,529	\$ 392,529
<b>Research &amp; Development</b>	\$ -	\$ -	\$ 40,000	\$ -	\$ 40,000
<b>General Administration</b>	\$ -	\$ 185,000	\$ -	\$ -	\$ 185,000
<b>Evaluation, Measurement &amp; Verification</b>	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Rider Expenses</b>	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Expenditures</b>	<b>\$ 3,535,000</b>	<b>\$ 310,226</b>	<b>\$ 40,000</b>	<b>\$ 33,641</b>	<b>\$ 3,918,866</b>
<b>2018</b>	<b>Incentives</b>	<b>Admin</b>	<b>R&amp;D</b>	<b>EM&amp;V</b>	<b>Total Budget</b>
<b>Commercial</b>	\$ 1,825,000	\$ 72,273	\$ -	\$ 16,757	\$ 1,914,030
Commercial SOP	\$ 350,000	\$ 41,641	\$ -	\$ 5,815	\$ 397,456
Retro-Commissioning MTP	\$ 900,000	\$ -	\$ -	\$ 7,716	\$ 907,716
Load Management SOP	\$ 175,000	\$ 25,500	\$ -	\$ 1,682	\$ 202,182
Small Commercial MTP	\$ 400,000	\$ 5,132	\$ -	\$ 1,544	\$ 406,676
<b>Residential</b>	\$ 830,000	\$ 37,649	\$ -	\$ 8,708	\$ 876,357
Residential SOP	\$ 590,000	\$ 32,549	\$ -	\$ 6,707	\$ 629,256
Home Lighting MTP	\$ 240,000	\$ 5,100	\$ -	\$ 2,001	\$ 247,101
<b>Hard-to-Reach</b>	\$ 910,000	\$ 17,808	\$ -	\$ 8,180	\$ 935,988
Hard-to-Reach SOP	\$ 500,000	\$ 17,808	\$ -	\$ 5,644	\$ 523,452
Low-Income Weatherization	\$ 410,000	\$ -	\$ -	\$ 2,536	\$ 412,536
<b>Research &amp; Development</b>	\$ -	\$ -	\$ 40,000	\$ -	\$ 40,000
<b>General Administration</b>	\$ -	\$ 188,700	\$ -	\$ -	\$ 188,700
<b>Evaluation, Measurement &amp; Verification</b>	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Rider Expenses</b>	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Expenditures</b>	<b>\$ 3,565,000</b>	<b>\$ 316,430</b>	<b>\$ 40,000</b>	<b>\$ 33,644</b>	<b>\$ 3,955,074</b>

## Energy Efficiency Report

### V. Historical Demand Savings Goals and Energy Targets for Previous Five Years

Table 8 documents SPS's demand and energy reduction goals for the previous five years (2012-2016) calculated in accordance with 16 TAC § 25.181 and actual demand reduction and energy savings achieved.

**Table 8: Historical Demand and Energy Savings Goals and Achievements (at the Meter)**

Calendar Year	Adjusted Demand Goal (MW)	Adjusted Energy Goal (MWh)	Actual Demand Reduction (MW)	Actual Energy Savings (MWh)
2016	5.49	9,627	8.19	14,451
2015	5.49	9,627	8.17	14,537
2014	5.39	9,449	5.02	11,900
2013	5.60	9,100	5.10	7,950
2012	4.70	8,249	5.33	9,077

### VI. Projected Versus Reported and Verified Demand and Energy Savings

This section documents SPS's projected savings and its reported and verified savings for PYs 2015 and 2016. Table 9 shows the savings for SOPs, MTPs, and the Low-Income Weatherization program. SPS's 2015 programs produced 8.17 MW demand savings or 149% of the statutory goal of 5.495 MW. SPS's 2016 programs produced 8.19 MW demand savings or 149% of the statutory goal of 5.495 MW.

**Table 9: Projected versus Reported and Verified Savings for 2015 and 2016 (at Meter)**

2015	Projected Savings		Verified Savings	
	MW	MWh	MW	MWh
<b>Commercial</b>	5.47	7,629	6.67	10,184
Commercial SOP	1.90	4,993	1.87	6,429
Small Commercial SOP	0.30	660	0.13	532
Retro-Commissioning MTP	0.26	1,976	0.42	3,188
Load Management SOP	3.00	-	4.25	34
<b>Residential</b>	1.04	1,813	0.83	2,387
Residential SOP	1.04	1,813	0.83	2,387
<b>Hard-to-Reach</b>	0.71	1,247	0.67	1,966
Hard-to-Reach SOP	0.59	1,037	0.44	1,272
Low-Income Weatherization	0.12	210	0.22	694
<b>Total Annual Savings Goals</b>	<b>7.21</b>	<b>10,689</b>	<b>8.17</b>	<b>14,537</b>
2016	Projected Savings		Verified Savings	
	MW	MWh	MW	MWh
<b>Commercial</b>	5.10	6,044	6.35	8,466
Commercial SOP	1.70	4,468	1.05	3,728
Small Commercial SOP	0.10	263	0.07	308
Retro-Commissioning MTP	0.30	1,314	0.65	4,399
Load Management SOP	3.00	-	4.57	32
<b>Residential</b>	1.10	2,891	0.96	2,946
Residential SOP	1.10	2,891	0.96	2,946
<b>Hard-to-Reach</b>	0.90	2,365	0.88	3,040
Hard-to-Reach SOP	0.80	2,102	0.64	2,333
Low-Income Weatherization	0.10	263	0.24	707
<b>Total Annual Savings Goals</b>	<b>7.10</b>	<b>11,300</b>	<b>8.19</b>	<b>14,451</b>

## VII. Historical Program Expenditures

This section documents SPS's incentive and administrative expenditures for the previous five years (2012-2016) broken out by program for each customer class. Table 10 shows expenditures for SOPs, MTPs, and the Low-Income Weatherization Program.

**Table 10: Historical Program Incentive and Administrative Expenditures for 2012 through 2016<sup>8</sup>**

Program	2016		2015		2014		2013		2012	
	Incent. (000s)	Admin (000s)	Incent. (000s)	Admin (000s)	Incent. (000s)	Admin (000s)	Incent. (000s)	Admin (000s)	Incent. (000s)	Admin (000s)
<b>Commercial</b>	\$ 1,459	\$ 70	\$ 1,501	\$ 132	\$ 905	\$ 56	\$ 578	\$ 88	\$ 955	\$ 70
Large Commercial SOP	\$ 416	\$ 40	\$ 598	\$ 96	\$ 523	\$ 26	\$ 291	\$ 44	\$ 829	\$ 19
Small Commercial SOP	\$ 26	\$ 5	\$ 43	\$ 16	\$ 66	\$ 5	\$ 48	\$ 19	\$ 31	\$ 18
Retro-Commissioning MTP	\$ 789	\$ -	\$ 647	\$ 2	\$ 227	\$ 1	\$ 124	\$ 4	NA	NA
Load Management SOP	\$ 229	\$ 24	\$ 213	\$ 17	\$ 89	\$ 25	\$ 115	\$ 21	\$ 95	\$ 33
<b>Residential</b>	\$ 626	\$ 26	\$ 556	\$ 42	\$ 531	\$ 19	\$ 584	\$ 34	\$ 288	\$ 12
Residential SOP	\$ 626	\$ 26	\$ 556	\$ 42	\$ 531	\$ 19	\$ 584	\$ 34	\$ 288	\$ 12
<b>Hard-to-Reach</b>	\$ 862	\$ 62	\$ 710	\$ 76	\$ 618	\$ 41	\$ 615	\$ 64	\$ 495	\$ 32
Hard-to-Reach SOP	\$ 500	\$ 20	\$ 352	\$ 23	\$ 355	\$ 14	\$ 342	\$ 32	\$ 205	\$ 16
Low-Income Weatherization	\$ 362	\$ 42	\$ 358	\$ 54	\$ 263	\$ 28	\$ 273	\$ 32	\$ 290	\$ 16
<b>Research &amp; Development</b>	\$ -	\$ 33	\$ -	\$ 3	\$ -	\$ 30	\$ -	\$ 10	\$ -	\$ 35
<b>General Administration</b>	\$ -	\$ 103	\$ -	\$ 62	\$ -	\$ 172	\$ -	\$ 134	\$ -	\$ 32
<b>Evaluation, Measurement &amp; Verification</b>	\$ -	\$ 35	\$ -	\$ 35	\$ -	\$ 60	\$ -	\$ 63	NA	NA
<b>Rider Expenses</b>	\$ -	\$ 34	\$ -	\$ 109	\$ -	\$ 129	\$ -	\$ 79	NA	NA
<b>Total Expenditures</b>	\$ 2,947	\$ 363	\$ 2,767	\$ 459	\$ 2,054	\$ 507	\$ 1,777	\$ 472	\$ 1,738	\$ 181

<sup>8</sup> 2015 expenditures from Project No. 45675; 2014 expenditures from Project No. 44480; EEPR 2013 expenditures from Project No. 42264 EEPR; 2012 expenditures from Project No. 41196 EEPR; 2011 expenditures from Project No. 40194 EEPR.

## VIII. Program Funding for Calendar Year 2016

As shown in Table 11, SPS spent a total of \$ \$3,310,175<sup>9</sup> on its energy efficiency programs in 2016, which is \$79,887 less than SPS's 2016 approved budget of \$3,390,063.

**Table 11: Program Funding for Calendar Year 2016**

Customer Segment and Program	Total Projected Budget	Participants	Actual Funds Expended (Incentives)	Actual Funds Expended (Admin)	Total Funds Expended	Budget and Expenditure Variance
<b>Commercial &amp; Industrial</b>	\$ 1,557,209	131	\$ 1,459,258	\$ 69,821	\$ 1,529,080	98%
Large Commercial SOP	\$ 934,321	74	\$ 416,307	\$ 40,445	\$ 456,752	49%
Small Commercial SOP	\$ 58,300	32	\$ 25,604	\$ 5,114	\$ 30,718	53%
Retro-Commissioning MTP	\$ 389,800	8	\$ 788,797	\$ -	\$ 788,797	202%
Load Management SOP	\$ 174,788	17	\$ 228,550	\$ 24,262	\$ 252,812	145%
<b>Residential</b>	\$ 654,038	1,223	\$ 626,027	\$ 26,330	\$ 652,357	100%
Residential SOP	\$ 654,038	1,223	\$ 626,027	\$ 26,330	\$ 652,357	100%
<b>Hard-to-Reach</b>	\$ 928,894	1,154	\$ 861,789	\$ 62,253	\$ 924,041	99%
Hard-to-Reach SOP	\$ 516,394	845	\$ 499,502	\$ 19,999	\$ 519,501	101%
Low-Income Weatherization	\$ 412,500	309	\$ 362,287	\$ 42,253	\$ 404,540	98%
<b>Research &amp; Development</b>	\$ 40,000		\$ -	\$ 33,155	\$ 33,155	83%
<b>General Administration</b>	\$ 175,165		\$ -	\$ 103,009	\$ 103,009	59%
<b>Evaluation, Measurement &amp; Verification</b>	\$ 34,756		\$ -	\$ 34,756	\$ 34,756	100%
<b>EECRF Rider Expenses</b>	\$ -		\$ -	\$ 33,777	\$ 33,777	NA
<b>Total</b>	\$ 3,390,063	2,508	\$ 2,947,074	\$ 363,101	\$ 3,310,175	98%

Pursuant to 16 TAC § 25.181(n)(2)(Q), SPS is required to provide an explanation of annual program spending variance from budgets if the variance exceeds a positive or negative 10 percent. In 2016, four programs met this criterion: Large Commercial SOP, Small Commercial SOP, Load Management SOP, and Retro-Commissioning MTP.

- The Large Commercial SOP was below budgeted spending primarily due to a shift in program spending to the Retro-Commissioning program to support capital projects identified through the Retro-Commissioning program.
- The Small Commercial SOP was again undersubscribed due to potential barriers, such as capital constraints and a lack of dedicated personnel resources at customers' facilities. In 2017, SPS is offering a new MTP designed to help small commercial customers overcome these barriers.
- The Load Management SOP exceeded its budget as some participants provided a greater level of demand reduction than forecasted.

<sup>9</sup> This number includes SPS's direct program costs, as well as indirect programs costs including research and development, EM&V, and EECRF rate case expenses.

- Retro-Commissioning MTP exceeded its budget as SPS shifted funding from other programs to this program to accommodate a number of capital projects identified through the operational studies identified in the program. By combining the projects, SPS is better able to maximize participant savings by combining the new capital measures with improved operational performance by the customer.

**Table 12: Expenditures for Targeted Low-Income Program**

2016 Budget	Required Expenditures	Actual Expenditures	% of Budget
\$ 3,390,063	\$ 339,006	\$ 404,540	12%

As shown in Table 12, SPS spent approximately 12% of its 2016 approved portfolio budget on its targeted low-income energy efficiency program.

## **IX. Market Transformation Program Results**

SPS launched its Commercial Retro-Commissioning MTP in April 2013. In 2016, SPS completed eight projects that resulted in a reduction of 646 kW and 4,399,048 kWh. SPS expects additional, similar projects to be completed in 2017.

## **X. 2016 Energy Efficiency Cost Recovery Factor (EECRF)**

On January 6, 2016 in Docket No. 44698, the Commission approved SPS’s 2016 EECRF to recover a total of \$2,674,540 in expenses associated with its 2016 energy efficiency programs, effective January 1, 2016.

**Table 13: 2016 EECRF Rates**

<b>Rate Schedule</b>	<b>\$/kWh</b>
Residential Service	\$0.000668
Small General Service	\$0.00069
Secondary General Service	\$0.000151
Primary General Service	\$0.000246
Small Municipal and School Service	\$0.000019
Large Municipal Service	\$(0.000266)
Large School Service	\$0.001193

## **XI. Revenue Collected through EECRF (2016)**

SPS collected \$2,547,097 through its 2016 EECRF, which was effective January 1, 2016.

## XII. Over/Under-recovery of Energy Efficiency Program Costs

SPS spent \$763,079 more than what was recovered by the EECRF as shown in Table 14 below.

**Table 14: Over/Under Recovery**

EECRF Recoveries	\$ 2,547,097
Program Expenditures	\$ 3,276,399
2016 EECRF Rate Case Expenses	\$ 33,777
Net Over (Under) Recovery	\$ (763,079)

## XIII. Performance Bonus Calculation

SPS achieved an 8,402 kW reduction in peak demand from its energy efficiency programs offered in 2016 along with 14,040,506 kWh in energy savings. SPS's demand reduction target for 2016 was 5,495 kW. This achievement represents 153% of SPS's 2016 goal, qualifying it for a Performance Bonus pursuant to 16 TAC § 25.181(h). SPS therefore is eligible for a Performance Bonus of \$774,495 which it will request in its May 1, 2017 EECRF filing for cost recovery in 2018. Table 15 summarizes SPS's Performance Bonus calculation.

**Table 15: Performance Bonus Calculation**

<b>2016 Performance Bonus</b>	<b>kW</b>	<b>kWh</b>
Demand and Energy Goals	<b>5,495</b>	<b>9,627,240</b>
Actual Demand and Energy Savings	8,188	14,451,094
Reported/Verified Hard-to-Reach	638	
Program Costs (excluding bonus)	\$3,309,061	
<b>Performance Bonus</b>	<b>\$774,495</b>	



# Acronyms

<b>C&amp;I</b>	Commercial and Industrial
<b>Commission</b>	Public Utility Commission of Texas
<b>EECRF</b>	Energy Efficiency Cost Recovery Factor
<b>EEP</b>	Energy Efficiency Plan
<b>EEPR</b>	Energy Efficiency Plan and Report
<b>EER</b>	Energy Efficiency Report
<b>EE Rules</b>	Energy Efficiency Rules, PUCT Substantive Rules § 25.181 and § 25.183
<b>EESP</b>	Energy Efficiency Service Provider
<b>EM&amp;V</b>	Evaluation, Measurement, and Verification
<b>HTR</b>	Hard-to-Reach
<b>kW</b>	kilowatt
<b>kWh</b>	kilowatt hour
<b>LED</b>	Light Emitting Diode
<b>MTP</b>	Market Transformation Program
<b>PURA</b>	Public Utility Regulatory Act
<b>PY</b>	Program Year
<b>SOP</b>	Standard Offer Program
<b>SPS</b>	Southwestern Public Service Company
<b>TAC</b>	Texas Administrative Code

## APPENDIX A: REPORTED DEMAND AND ENERGY REDUCTION BY COUNTY 2016

<b>Large and Small Commercial SOP</b>			
<b>County</b>	<b># of Premises</b>	<b>kW</b>	<b>kWh</b>
Bailey	1	14	79,789
Carson	2	5	29,105
Dallam	1	6	40,999
Deaf Smith	3	18	89,551
Gray	2	9	42,965
Hutchinson	3	23	30,040
Lamb	1	9	32,502
Moore	3	13	73,896
Ochiltree	1	6	36,702
Potter	39	926	3,185,893
Randall	12	91	356,802
Sherman	1	7	36,778
<b>Total</b>	<b>69</b>	<b>1,129</b>	<b>4,035,023</b>

<b>Load Management SOP</b>			
<b>County</b>	<b># of Premises</b>	<b>kW</b>	<b>kWh</b>
Cochran	1	645	4,247
Hartley	2	84	505
Moore	2	512	4,070
Parmer	1	571	4,058
Potter	7	891	6,384
Randall	2	488	3,361
Terry	1	1,000	6,649
Yoakum	1	380	2,613
<b>Total</b>	<b>17</b>	<b>4,571</b>	<b>31,887</b>

<b>Recommissioning MTP</b>			
<b>County</b>	<b># of Premises</b>	<b>kW</b>	<b>kWh</b>
Gray	1	9	30,020
Hale	2	26	384,635
Lamb	1	99	425,924
Parmer	2	53	662,493
Potter	1	16	60,395
Randall	1	443	2,835,581
<b>Total</b>	<b>8</b>	<b>646</b>	<b>4,399,048</b>

<b>Residential SOP</b>			
<b>County</b>	<b># of Premises</b>	<b>kW</b>	<b>kWh</b>
Armstrong	1	1	829
Bailey	24	70	224,426
Deaf Smith	8	20	45,658
Floyd	2	6	12,863
Gray	98	71	589,448
Hale	59	126	272,176
Hansford	1	1	3,005
Hutchinson	14	10	30,503
Lamb	1	3	6,130
Moore	7	8	9,587
Oldham	2	2	2,923
Parmer	18	37	148,383
Potter	334	385	943,320
Randall	192	225	656,274
<b>Total</b>	<b>761</b>	<b>963</b>	<b>2,945,526</b>

<b>Hard-to-Reach SOP</b>			
<b>County</b>	<b># of Premises</b>	<b>kW</b>	<b>kWh</b>
Bailey	7	23	72,267
Carson	1	1	12,354
Deaf Smith	10	24	90,884
Floyd	3	11	27,385
Gray	67	41	51,224
Hale	33	87	197,343
Hutchinson	44	33	76,313
Moore	2	2	18,660
Parmer	12	37	129,012
Potter	206	310	1,333,468
Randall	43	69	324,155
<b>Total</b>	<b>428</b>	<b>638</b>	<b>2,333,064</b>

<b>Low Income Weatherization</b>			
<b>County</b>	<b># of Premises</b>	<b>kW</b>	<b>kWh</b>
Carson	1	0	891
Deaf Smith	76	216	665,666
Potter	31	20	31,261
Randall	9	6	8,728
<b>Total</b>	<b>117</b>	<b>242</b>	<b>706,546</b>