# **Southwestern Public Service Company Amended 2016 Energy Efficiency Plan** and Report

**Substantive Rules § 25.181 and § 25.183** 

**April 29, 2016** 

Project No. 45675



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#### Introduction

Southwestern Public Service Company ("SPS") presents this Energy Efficiency Plan and Report ("EEPR") to comply with 16 Texas Administrative Code ("TAC") §§ 16 TAC § 25.181 and 25.183 ("EE Rule"), which are the Public Utility Commission of Texas' ("Commission") rules implementing Public Utility Regulatory Act ("PURA") § 39.905. As mandated by this section of PURA, 16 TAC § 25.181(e)(1) of 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 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".
- When a utility satisfies the trigger, 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>&</sup>lt;sup>1</sup> PURA is codified at Tex. UTIL. CODE ANN. §§11.001 – 66.016 (Vernon 2008 and Supp. 2015).

### **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 2015 and SPS's plans for achieving its 2016 and 2017 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 provides an introduction to 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 (2011-2015).
- Section VI compares SPS's projected energy and demand savings to its reported and verified savings by program for calendar years 2014 and 2015.
- Section VII documents SPS's incentive and administration expenditures for the previous five years (2011-2015) broken out by program for each customer class.
- Section VIII compares SPS's actual program expenditures for 2015 to its 2015 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 2015 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 Rule for Program Years ("PY") 2016 and 2017. 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 2016 and 2017, SPS has developed energy efficiency portfolios designed to meet goals prescribed by 16 TAC § 25.181.

#### **EEP Summary**

The following table presents SPS's 2016 and 2017 goals and budgets under PURA § 39.905 and the EE Rule.

Table 1: Summary of Goals, Projected Savings, and Projected Budgets (at Meter)<sup>2</sup>

Calendar Year	Average Growth in Demand (MW)	Goal Metric: 30% Growth (MW)	Goal Metric: 0.4% Peak Demand (MW)	Demand Goal (MW)	Goal Metric: 30% Energy (MWh)	Energy Goal (MWh)	Budget
2016	(0.975)	(0.293)	6.315	5.495	(513)	9,627	\$ 3,390,063

Table 1 shows SPS's goal calculations for PY 2016 and 2017. The goal for PY 2016 was approved by the Commission in Docket No. 44698. 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 2017 yields a goal metric of -0.153 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 pursuant to 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).

SPS will implement the following SOPs, MTPs, and Low-Income Weatherization programs in 2017:

• Large Commercial SOP;

<sup>&</sup>lt;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).

<sup>&</sup>lt;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."

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

In 2017, SPS proposes to add two new MTP pilots to its portfolio; Residential Home Lighting and Small Business Efficiency. SPS also proposes to remove the Small Commercial and Industrial SOP from its portfolio. These modifications are discussed further in Section I. The SOPs and MTPs, and the weatherization program will ensure that all eligible customer classes have access to energy efficiency opportunities.

The projected savings, budgets, and implementation plans included in this EEPR comply with the EE Rule 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 2015 SPS achieved 8.172 MW of reduction in demand and 14,537 MWh of energy savings, which were 149% and 151%, respectively, of SPS's demand goal of 5.495 MW and energy savings goal of 9,627 MWh.

The expenditures for these 2015 programs were \$3,225,500,<sup>4</sup> which was 101% 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

<sup>&</sup>lt;sup>4</sup> This number includes costs associated with all 2015 EM&V activities and SPS's 2015 EECRF expenses.

residences, and the Low-Income Weatherization program. SPS's Retro-Commissioning MTP program targeted qualifying commercial class customers. Table 2 below compares the 2015 projected savings and budget to the reported and verified savings and actual expended funds for 2015.

Table 2: Summary of 2015 Projected Savings and Budget, Reported/Verified Savings, and Expended Funds

	Demand	Energy	Projected	Projected	Reported and	Reported and		
Calendar	Goal	Goal	MW	MWh	Verified MW	Verified MWh	Total Funds	Total Funds
Year	(MW)	(MWh)	Savings	Savings	Savings	Savings	Budgeted	Expended
2015	5.495	9,627	7.212	10,689	8.172	14,537	\$ 3,195,897	\$ 3,225,500

#### **Energy Efficiency Plan**

#### **I.** 2016 and 2017 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 2017, 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 Rule. 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** 

Program	<b>Target Customer Class</b>	Application
Large Commercial SOP	Large Commercial	Retrofit; New Construction
Small Business MTP	Small Commercial	Retrofit; New Construction
Load Management SOP	Commercial	Curtailable 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 <a href="http://www.xcelefficiency.com/">http://www.xcelefficiency.com/</a>, is the primary method by which SPS communicates with potential project sponsors about program updates and information.

#### B. Administrative and Research Costs for 2016 and 2017

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 2016

SPS will continue to offer the following pre-existing programs in 2016:

#### **Commercial Standard Offer Program**

The Commercial SOP currently has two components. The Large Commercial component of the Commercial SOP targets commercial customers with single-meter demand of 100 kW or more or aggregate meter demand of 250 kW or more. The Small Commercial component targets commercial customers with a single-meter demand of less than 100 kW or with a demand less than 250 kW for the sum of commonly-owned meters. Incentives are paid to project sponsors for measures installed in new or retrofit applications that provide verifiable demand and energy savings. The Small Commercial and Large Commercial incentives and savings are tracked and reported separately.

#### **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 multifamily residences. Incentives and savings are tracked separately for these components but are reported together in this EEPR.

#### 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 includes certain measures with less than a 10-year life (e.g., Compact Fluorescent Lights ("CFL")). 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 Market Transformation Program 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 2017

SPS will offer the following programs in 2017:

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

The Home Lighting MTP will offer 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 will be offered late in 2016 as part of a research and development effort to ensure full implementation in 2017.

#### **Small Business Market Transformation Pilot Program**

The Small Business Market Transformation Pilot Program 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 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 Business 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 will issue a Request for Proposals in 2016 from potential implementers and will evaluate the results of those bids prior to launching the program.

#### **Small Commercial Standard Offer Program**

The Small Commercial SOP program, which targets commercial customers with a single-meter demand of less than 100 kW or with a demand less than 250 kW for the sum of commonly-owned meters, will be replaced by the Small Business MTP in 2017. However, if there are no cost-effective responses from SPS's RFP for the Small Business MTP, SPS will continue the Small Commercial SOP.

#### D. General Implementation Plan

#### **Program Implementation**

SPS will implement its energy efficiency programs in a non-discriminatory and cost-effective manner. For 2016 and 2017, SPS intends to conduct programs using the following activity schedule:

- In November 2015, SPS allowed sponsors to submit applications, which were reviewed and accepted in the order of receipt.
- Throughout 2016, 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, 2016. 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 the first quarter of 2017, SPS will announce its 2017 energy efficiency
  programs and open its website application pages to assist EESPs in preparing project
  applications for PY 2017. The application process gives sponsors feedback on
  whether particular projects are eligible and the level of incentives for which they may
  qualify.

- Throughout 2017, 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, 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.
- During 2016 and 2017, 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 standard offer programs. 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 and Low Income Weatherization programs. The databases are managed by the third-party implementers for the programs.

For the proposed Home Lighting MTP and Small Business MTP, SPS has not determined whether it will use the online database used for SOP programs or whether it will use a separate database maintained by the program implementers. In the second half of 2016, SPS expects to request pricing for these services from implementers as part of its competitive bidding process and will determine the most cost-effective solution prior to implementation.

#### **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 ("IPMVP") 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 Rule. SPS markets the availability of its programs by maintaining its website (<a href="http://www.xcelefficiency.com/">http://www.xcelefficiency.com/</a>), 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 each SOP. 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 commercial and industrial customer account management staff and third-party implementation staff to educate customers about the Load Management SOP and Retro-Commissioning MTP. In 2016, 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 historic achievements to determine the budget allocations for the 2016 and 2017 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>	Qualifications	Number of Customers <sup>5</sup>
Commercial	< 69 kV service voltage	54,255
Residential	Non-HTR Residential	209,784
Hard-to-Reach	HTR Income Requirements	33,775

(http://www.census.gov/hhes/www/poverty/data/incpovhlth/2014/tables.html)

<sup>&</sup>lt;sup>5</sup> Commercial and Residential number of customers reflect actual SPS customer counts as of December 2015. Hard-to-Reach customers were estimated based on the most recently available U.S. Census data. In 2014, 16.1% of Texans were below the poverty threshold.

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

16 TAC § 25.181 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, 2017. 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 2016 PY nor will it reach the "trigger" for the 2017 PY.

Table 5 provides the peak load data used to calculate the demand reduction projection for the demand goal for 2017, as required by the EE Rule. To calculate this goal, SPS applied an average line loss factor of 9.62% 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 (2011-2015). As shown in the average annual growth column, SPS has experienced average negative peak demand growth of -1 MW including opt-out customers.

<sup>&</sup>lt;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>

					₹	₹	₹	₹	₹	₹		8	õ	86
			Energy	Goal	Z	Z	Z	Z	Z	Z	NA	6,308	-11,230	-268
			Demand	Goal	ΑN	ΑN	ΑN	ΑN	ΑN	ΑN		4	φ	0
Average Growth			Actual Weather	Adjusted	0	0	20	25	7	6	13 NA	12	-21	-
Growth (MW)			Actual Weather Actual Weather Actual Weather	Adjusted	20	30	-30	17	28	15	-137	74	AN	AN
h)	Residential & Commercial		Actual Weather	Adjusted	7,717,744	7,382,989	7,452,380	7,639,055	7,589,916	7,629,565	7,689,717	7,549,761	7,722,756	7,853,516
nption (MWI	Residential			Actual	14,198,484 7,668,155	13,932,332 7,371,821	14,110,580 7,512,089	13,730,734 7,963,150	13,721,135 7,748,839	13,859,306 7,764,906	7,712,573	7,621,821	AN	NA
Energy consumption (MWh)	Total System		Actual Weather	Adjusted	14,198,484	13,932,332	14,110,580	13,730,734	13,721,135	13,859,306	14,038,723	13,959,998	AN	NA
	Total			Actual	1,696 14,143,864	1,707 13,920,045	1,716 14,175,553	1,750 14,054,830	1,775 13,880,058	1,633 13,994,646	1,702 14,061,579	1,691 14,032,058	AN	NA
	R Commercial	5	Actual Weather	Adjusted	1,696	1,707	1,716	1,750	1,775	1,633	1,702	1,691	1,738	1,777
and (MW)	Residential & Com			Actual	1,694	1,735	1,707	1,779	1,887	1,656	1,711	1,618	Ϋ́	ΑN
Peak Demand (MW	Total System		Actual Weather	Adjusted	2,589	2,561	2,582	2,494	2,523	2,425	2,497	2,478	ΑN	ΨN
	Total			Actual	2,587	2,592	2,567	2,522	2,634	2,468	2,506	2,405	ΑN	AN
		1	Calendar	Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017

<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.

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For 2016 and 2017, 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)

2016	Projec	ted Savings
	kW	kWh
Commercial	5,100	6,044,400
Commercial SOP	1,700	4,467,600
Small Commercial SOP	100	262,800
Recommissioning MTP	300	1,314,000
Load Management SOP	3,000	-
Residential	1,100	2,890,800
Residential SOP	1,100	2,890,800
Hard-to-Reach	900	2,365,200
Hard-to-Reach SOP	800	2,102,400
Low-Income Weatherization	100	262,800
Total Annual Projected Savings	7,100	11,300,400
2017	Projec	ted Savings
	kW	kWh
Commercial	5,000	7,252,800
Commercial SOP	700	2,452,800
Small Commercial SOP	-	-
Recommissioning MTP	600	4,000,000
Load Management SOP	3,500	-
Small Commercial MTP	200	800,000
Residential	1,125	3,439,880
Residential SOP	1,100	3,179,880
Home Lighting MTP	25	260,000
Hard-to-Reach	1,025	3,007,640
Hard-to-Reach SOP	800	2,312,640
Low-Income Weatherization	225	695,000
Total Annual Projected Savings	7,150	13,700,320

## IV. Program Budgets

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

2016	<u>Ir</u>	ncentives	<u>Admin</u>		R&D		EM&V	То	tal Budget
Commercial	\$	1,495,200	\$ 62,009	\$	-	\$	-	\$	1,557,209
Commercial SOP	\$	906,100	\$ 28,221	\$	-	\$	-	\$	934,321
Small Commercial SOP	\$	53,300	\$ 5,000	\$	-	\$	-	\$	58,300
Recommissioning MTP	\$	385,800	\$ 4,000	\$	-	\$	-	\$	389,800
Load Management SOP	\$	150,000	\$ 24,788	\$	-	\$	-	\$	174,788
Small Commercial MTP	\$	-	\$ -	\$	-	\$	-	\$	-
Residential	\$	632,500	\$ 21,538	\$	-	\$	-	\$	654,038
Residential SOP	\$	632,500	\$ 21,538	\$	-	\$	-	\$	654,038
Home Lighting MTP	\$	-	\$ -	\$	-	\$	-	\$	-
Hard-to-Reach	\$	875,000	\$ 53,894	\$	-	\$	-	\$	928,894
Hard-to-Reach SOP	\$	500,000	\$ 16,394	\$	-	\$	-	\$	516,394
Low-Income Weatherization	\$	375,000	\$ 37,500	\$	-	\$	-	\$	412,500
Research & Development	\$	-	\$ -	\$	40,000	\$	-	\$	40,000
General Administration	\$	-	\$ 175,165	\$	-	\$	-	\$	175,165
Evaluation, Measurement & Verification	\$	-	\$ -	\$	-	\$	34,756	\$	34,756
Rider Expenses	\$	-	\$ -	\$	-	\$	-	\$	-
Total Expenditures		3,002,700	\$ 312,606	\$	40,000	\$	34,756		3,390,063
2017	<u>Ir</u>	ncentives	<u>Admin</u>		R&D		EM&V	To	tal Budget
Commercial	\$	1,825,000	\$ 70,856	\$	-	\$	-	\$	1,895,856
Commercial SOP	\$	350,000	\$ 40,824	\$	-	\$	-	\$	390,824
Small Commercial SOP	\$	-	\$ -	\$	-	\$	-	\$	-
Recommissioning MTP	\$	900,000	\$ -	\$	-	\$	-	\$	900,000
Load Management SOP	\$	175,000	\$ 25,000	\$	-	\$	-	\$	200,000
Small Commercial MTP	\$	400,000	\$ 5,032	\$	-	\$	-	\$	405,032
Residential	\$	690,000	\$ 36,911	\$	-	\$	-	\$	726,911
Residential SOP	\$	640,000	\$ 31,911	\$	-	\$	-	\$	671,911
Home Lighting MTP	\$	50,000	\$ 5,000	\$	-	\$	-	\$	55,000
Hard-to-Reach		1,020,000	\$ 17,459	\$	-	\$	-		1,037,459
Hard-to-Reach SOP	\$	630,000	\$ 17,459	\$	-	\$	-	\$	647,459
Low-Income Weatherization	\$	390,000	\$ -	\$	-	\$	-	\$	390,000
Research & Development	\$	-	\$ -	\$	40,000	\$	-	\$	40,000
General Administration	\$	-	\$ 185,000	\$	-	\$	-	\$	185,000
Evaluation, Measurement & Verification	\$	-	\$ -	\$	-	\$	-	\$	-
				\$		\$	-	\$	_
Rider Expenses	\$	-	\$ -	Ф	-	Ψ	-	Ψ	

#### **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 (2011-2015) 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	Adjusted Demand	Adjusted Energy	Actual Demand	Actual Energy
Year	Goal (MW)	Goal (MWh)	Reduction (MW)	Savings (MWh)
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
2011	3.86	6,761	3.88	13,821
2010	3.86	6,761	3.67	15,699
2009	2.75	4,813	2.70	10,271

#### 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 2014 and 2015. Table 9 shows the savings for SOPs and the Low-Income Weatherization program. SPS's 2014 programs produced 5.02 MW demand savings or 93% of the statutory goal of 5.39 MW. SPS's 2015 programs produced 8.17 MW demand savings or 149% of the statutory goal of 5.495 MW.

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Table 9: Projected versus Reported and Verified Savings for 2014 and 2015 (at Meter)

2014	Projecto	ed Savings	Verified	Savings
	MW	MWh	MW	MWh
Commercial	5.47	7,629	3.73	7,071
Commercial SOP	1.90	4,993	1.53	5,069
Small Commercial SOP	0.30	660	0.19	797
Retro-Commissioning MTP	0.26	1,976	0.22	1,195
Load Management SOP	3.00	-	1.79	9
Residential	1.04	1,813	0.74	2,979
Residential SOP	1.04	1,813	0.74	2,979
Hard-to-Reach	0.71	1,247	0.55	1,851
Hard-to-Reach SOP	0.59	1,037	0.45	1,517
Low-Income Weatherization	0.12	210	0.10	334
Total Annual Savings Goals	7.21	10,689	5.02	11,900
2015	Projecte	ed Savings	Verified	Savings
	MW	MWh	MW	MWh
Commercial	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
Residential	1.04	1,813	0.83	2,387
Residential SOP	1.04	1,813	0.83	2,387
Hard-to-Reach	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
Total Annual Savings Goals	7.21	10,689	8.17	14,537

This section documents SPS's incentive and administrative expenditures for the previous five years (2011-2015) 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 2011 through 2015<sup>8</sup>

Program		2015			2014	14		20	2013			2012	12			2011		Г
	Incent. (000s)		Admin (000s)	=	(s000	Incent. (000s) Admin (000s)		ıt. (000s)	Incent. (000s) Admin (000s)	(s000	Incent. (000s) Admin	(s000)	Admin (0	и (sooo)	Incent. (000s) Admin (000s)	)0s) Ac	min (0	(SO(
Commercial	\$ 1,5	1,501 \$	132	s	902	\$ 2	\$ 99	218	\$	88	\$	922	s	3 02	8 \$	\$ 888		61
Large Commercial SOP	9	\$ 869	96	s	523	\$ 2	26 \$	291	S	44	s	829	s	19	8 \$	818 \$		99
Small Commercial SOP	\$	43 \$	16	\$	99	\$	\$ 2	48	\$	19	\$	31	\$	18	\$	\$ 02		2
Retro-Commissioning MTP	9 \$	647 \$	2	မှာ	227	s	٦ \$	124	s	4		ΑN		Α		ΑN		ΑĀ
Load Management SOP	\$ 2	213 \$	17	€	88	\$ 2	25 \$	115	s	21	\$	92	s	33 8	- \$	\$	•	
Residential	\$	\$ 959	42	မှာ	531	\$	19 \$	584	s	34	s	288	s	12	8	399		25
Residential SOP	\$	\$ 959	42	s	531	\$	19 \$	584	s	34	s	288	s	12	\$	399		25
Statewide CFL MTP		ΝΑ	NA		Α	NA	4	Ν		Α		A/N		Α	2	N/A		₹
Hard-to-Reach	2 \$	210 \$	9/	\$	618	\$ 41	1	615	\$	64	\$	495	\$	32	\$ 2	238 \$		36
Hard-to-Reach SOP	\$	352 \$	23	မှာ	322	\$	14 \$	342	s	32	s	205	s	16	\$ 2	238 \$		16
Low-Income Weatherization	8	328 \$	54	\$	263	\$ 2	28 \$	273	\$	32	\$	290	\$	16	\$ 3	300		20
Research & Development	· \$	\$	3	8		\$	30 \$		S	10	\$		s	32 8	· \$	\$		
General Administration	\$	\$	62	s		\$ 172	2 \$	1	s	134	\$	ı	s	32 8	· \$	\$		
Evaluation, Measurement & Verification	\$	\$	35	\$		9 \$	\$ 09		\$	63		NA		NA		NA		AA
Rider Expenses	\$	<del>\$</del> -	109	€		\$ 129	\$ 6	٠	\$	62		NA		NA		NA		ΑA
Total Expenditures	\$ 2,7	2,767 \$	459	\$	2,054	\$ 206	\$ 9	1,777	S	472	\$	1,738	· \$	181	\$ 1,7	1,792	_	122

<sup>8</sup> 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.

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#### VIII. Program Funding for Calendar Year 2015

As shown in Table 11, SPS spent a total of \$3,225,500<sup>9</sup> on its energy efficiency programs in 2015, which is \$29,603 greater than SPS's 2015 approved budget of \$3,195,897.

**Table 11: Program Funding for Calendar Year 2015** 

	То	tal		Ac	tual Funds	Act	tual Funds			Budget and
	Pr	ojected		Ex	pended	Ex	pended	To	tal Funds	Expenditure
Customer Segment and Program	Bu	dget	Participants	(In	centives)	(Ac	lmin)	Ex	pended	Variance
Commercial & Industrial	\$	1,641,656	180	\$	1,500,614	\$	131,931	\$	1,632,545	99%
Large Commercial SOP	\$	988,737	110	\$	597,672	\$	95,739	\$	693,411	70%
Small Commercial SOP	\$	134,339	43	\$	42,902	\$	16,466	\$	59,368	44%
Retro-Commissioning MTP	\$	333,818	11	\$	647,439	\$	2,350	\$	649,789	195%
Load Management SOP	\$	184,762	16	\$	212,600	\$	17,377	\$	229,977	124%
Residential	\$	634,757	1,103	\$	556,074	\$	41,551	\$	597,625	94%
Residential SOP	\$	634,757	1,103	\$	556,074	\$	41,551	\$	597,625	94%
Hard-to-Reach	\$	763,542	812	\$	710,074	\$	76,110	\$	786,183	103%
Hard-to-Reach SOP	\$	408,199	583	\$	351,612	\$	22,575	\$	374,187	92%
Low-Income Weatherization	\$	355,343	229	\$	358,462	\$	53,535	\$	411,997	116%
Research & Development	\$	40,000		\$	-	\$	3,026	\$	3,026	8%
General Administration	\$	56,400		\$	-	\$	62,346	\$	62,346	111%
Evaluation, Measurement & Verification	\$	59,542		\$	-	\$	34,756	\$	34,756	58%
EECRF Rider Expenses	\$	-		\$	-	\$	109,018	\$	109,018	NA
Total	\$	3,195,897	2,095	\$	2,766,762	\$	458,739	\$	3,225,500	101%

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 2015, five programs met this criterion: Large Commercial SOP, Small Commercial SOP, Load Management SOP, Retro-Commissioning MTP, and Low-Income Weatherization.

- The Large Commercial SOP was below 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 customer's facilities. In
  2017, SPS plans to offer a new market transformation program 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 forecast.

<sup>&</sup>lt;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 was overspent 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.
- For SPS's Low-Income Weatherization Program, 16 TAC § 25.181(r) requires that each unbundled transmission and distribution utility ensure that annual expenditures for the targeted low-income energy efficiency program are not less than 10% of the utility's energy efficiency budget for the PY. Although SPS is not unbundled, it operates with the intent of complying with this requirement. As depicted in Table 12, SPS exceeded this target in 2015 because it completed a number of large multi-family projects.
- SPS's administrative costs included 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.

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

2015	Budget	Required Expenditures	Actual Expenditures	% of Budget
\$	3,195,897	\$ 319,590	\$ 413,361	13%

As shown in Table 12, SPS spent approximately 13% of its 2015 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 of 2013. In 2015, SPS completed eleven projects that resulted in a reduction of 420 kW and 3,188,423 kWh. SPS expects additional, similar projects to be completed in 2016.

#### X. 2015 Energy Efficiency Cost Recovery Factor (EECRF)

On November 24, 2014 in Docket No. 42454, the Commission approved SPS's 2015 EECRF to recover a total of \$2,394,815 in expenses associated with its 2015 energy efficiency programs, effective January 1, 2015.

Table 13: 2015 EECRF Rates

Rate Schedule	\$/kWh	
Residential Service	\$0.000636	
Small General Service	\$0.00036	
Secondary General Service	\$0.000216	
Primary General Service	\$0.000056	
Small Municipal and School Service	\$0.000463	
Large Municipal Service	\$0.000314	
Large School Service	\$0.000971	

#### **XI.** Revenue Collected through EECRF (2015)

SPS collected \$2,381,298 through its 2015 EECRF, which was effective January 1, 2015.

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

SPS spent \$861,138 more than what was recovered by the EECRF as shown in Table 14 below.

**Table 14: Over/Under Recovery**<sup>10</sup>

EECRF Recoveries	\$ 2,381,299
Program Expenditures	\$ 3,133,419
2015 EECRF Rate Case Expenses	\$ 109,018
Net Over (Under) Recovery	\$ (861,138)

#### XIII. Performance Bonus Calculation

SPS achieved an 8,166 kW reduction in peak demand from its energy efficiency programs offered in 2015 along with 14,536,587 kWh in energy savings. SPS's demand reduction target for 2015 was 5,495 kW. This achievement represents 149% of SPS's 2015 goal, qualifying it for a Performance Bonus pursuant to 16 TAC § 25.181(h). SPS therefore is eligible for a Performance

<sup>&</sup>lt;sup>10</sup> Program expenditures in Table 14 do not match expenditures reported elsewhere in the EEPR due to the inclusion of PY 2014 and 2015 actual, allocated M&V costs and the removal of PY 2015 EM&V costs. The program expenditures reported in Table 14 correlate with the expenditures SPS was approved to recover in PY 2015 in Docket No. 42454. Totals may not tie due to rounding.

Bonus of \$804,512, which it will request in its May 1, 2016 EECRF filing for cost recovery in 2017. Table 15 summarizes SPS's Performance Bonus calculation.

**Table 15: Performance Bonus Calculation** 

2015 Performance Bonus	kW	kWh
Demand and Energy Goals	5,495	9,627,240
Demand and Energy Savings		
Reported/Verified Total (including HTR, measures with 10-yr EUL, and measures with EULs < or > 10 years), and excludes savings from L/I Weatherization Program Reported/Verified Hard-To-Reach	8,166 830	14,536,587
Program Costs	\$3,2	25,501
Performance Bonus	\$80	04,512

## Acronyms

**C&I** Commercial and Industrial

**CFL** Compact Fluorescent Light

**EECRF** Energy Efficiency Cost Recovery Factor

**EEP** Energy Efficiency Plan

**EEPR** Energy Efficiency Plan and Report

**EER** Energy Efficiency Report

**EE Rule** Energy Efficiency Rule, PUCT Substantive Rules § 25.181 and § 25.183

**EESP** Energy Efficiency Service Provider

HTR Hard-to-Reach

**IPMVP** International Performance Measurement and Verification Protocol

**kW** kilowatt

**kWh** kilowatt hour

**LED** Light Emitting Diode

**M&V** Measurement and Verification

MTP Market Transformation Program

**PUCT** Public Utility Commission of Texas

**PURA** Public Utility Regulatory Act

**PY** Program Year

**SOP** Standard Offer Program

**SPS** Southwestern Public Service Company

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## Appendix

# APPENDIX A: REPORTED DEMAND AND ENERGY REDUCTION BY COUNTY 2015

Large Commercial SOP					
County # of Premises kW kWh					
Carson	4	39	187,340		
Dallam	1	1	11,138		
Gray	9	82	435,298		
Hale	3	42	263,927		
Hockley	2	28	187,695		
Hutchinson	3	221	481,528		
Moore	8	97	473,574		
Ochiltree	1	27	193,503		
Potter	18	1,072	2,720,775		
Randall	18	255	1,492,272		
Wheeler	1	4	22,207		
Total	68	1,868	6,469,256		

Small Commercial SOP					
County # of Premises kW kWh					
Carson	1	1	8,120		
Castro	1	3	18,517		
Gray	1	5	17,629		
Hockley	1	5	44,453		
Hutchinson	5	12	53,928		
Potter	8	74	248,452		
Randall	3	26	106,186		
Sherman	1	9	39,862		
Total	21	135	537,148		

Load Management SOP					
County # of Premises kW kWh					
Hartley	2	635	5,076		
Moore	2	1,707	13,656		
Parmer	1	582	4,656		
Potter	8	798	6,380		
Randall	2	419	3,352		
Yoakum	1	111	884		
Total	16	4,252	34,004		

Recommissioning MTP				
County # of Premises kW kWh				
Potter	10	176	1,263,687	
Randall	1	244	1,924,737	
Total	11	420	3,188,423	

Residential SOP					
County # of Premises kW kWh					
Armstrong	2	7	19,823		
Bailey	2	7	24,187		
Castro	4	12	30,690		
Deaf Smith	62	83	424,119		
Gray	22	18	48,730		
Hale	45	106	310,579		
Hansford	4	5	14,062		
Hutchinson	40	20	63,052		
Lamb	4	12	31,676		
Moore	49	64	262,457		
Ochiltree	37	19	16,499		
Oldham	4	4	12,203		
Parmer	3	2	18,277		
Potter	186	221	437,597		
Randall	315	247	658,177		
Sherman	1	3	13,048		
Swisher	1	1	1,521		
Total	781	830	2,386,697		

Hard-to-Reach SOP					
County # of Premises kW kWh					
Bailey	3	3	23,067		
Carson	1	0	3,217		
Castro	3	10	22,836		
Deaf Smith	40	54	234,536		
Floyd	1	2	1,465		
Gray	22	19	69,394		
Hale	23	58	151,495		
Hutchinson	49	29	113,618		
Lamb	4	10	20,860		
Moore	20	49	196,413		
Ochiltree	24	19	15,872		
Parmer	6	18	53,329		
Potter	87	143	313,063		
Randall	27	29	52,440		
Total	310	444	1,271,605		

Low Income Weatherization				
County # of Premises kW kWh				
Carson	1	2	3,152	
Deaf Smith	32	95	296,253	
Potter	22	16	42,778	
Randall	58	113	352,221	
Total	113	225	694,404	