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PUBLIC UTILITY COMMISSION
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APPLICATION OF SOUTHWESTERN §
PUBLIC SERVICE COMPANY TO §
ADJUST ITS ENERGY EFFICIENCY §
COST RECOVERY FACTOR §

PUBLIC UTILITY COMMISSION

OF TEXAS

DIRECT TESTIMONY

of

J. DEREK SHOCKLEY

on behalf of

SOUTHWESTERN PUBLIC SERVICE COMPANY

(filename: ShockleyEECRFDirect.doc)

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GLOSSARY OF ACRONYMS AND DEFINED TERMS

<u>Acronym/Defined Term</u>	<u>Meaning</u>
Commission	Public Utility Commission of Texas
EECRF	Energy Efficiency Cost Recovery Factor
EEPR	Energy Efficiency Plan and Report
EESP	Energy Efficiency Service Provider
EM&V	Evaluation, Measurement, and Verification
EUL	Estimated Useful Life
FERC	Federal Energy Regulatory Commission
HTR	Hard-to-Reach
KP&L	Kansas Power and Light Company
kW	Kilowatt
kWh	Kilowatt-hour
MTP	Market Transformation Program
MW	Megawatt
MWh	Megawatt-hour
PURA	Public Utility Regulatory Act
PY	Program Year
R&D	research and development
Rule 25.181	16 TAC § 25.181
SOP	Standard Offer Program
SPS	Southwestern Public Service Company, a New Mexico corporation
TAC	Texas Administrative Code
TRM	Technical Reference Manual

<u>Acronym/Defined Term</u>	<u>Meaning</u>
Xcel Energy	Xcel Energy Inc.
XES	Xcel Energy Services Inc.

LIST OF ATTACHMENTS

<u>Attachment</u>	<u>Description</u>
JDS-1	SPS's Amended 2016 Energy Efficiency Plan and Report (Filename: Attachment JDS-1.doc)
JDS-2	Costs per kW and kWh for 2013-2016 (Filename: Attachment JDS-2.xls)
JDS-3(CONF)	Energy Efficiency Service Providers and EESPs Receiving Five Percent of More of Incentive Payments (Filename: Attachment JDS-3(CONF).pdf)
JDS-4	Master Estimated Useful Life Spreadsheet through TRM 2.1 (Filename: Attachment JDS-4.xls)

**DIRECT TESTIMONY
OF
J. DEREK SHOCKLEY**

1 **I. WITNESS IDENTIFICATION AND QUALIFICATIONS**

2 **Q. Please state your name and business address.**

3 A. My name is J. Derek Shockley. My business address is 1800 Larimer Street,
4 Denver, Colorado 80202.

5 **Q. On whose behalf are you testifying in this proceeding?**

6 A. I am filing testimony on behalf of Southwestern Public Service Company, a New
7 Mexico corporation ("SPS") and wholly-owned electric utility subsidiary of Xcel
8 Energy Inc. ("Xcel Energy"). Xcel Energy is a utility holding company that owns
9 several electric and natural gas utility operating companies, a regulated natural
10 gas pipeline company, and transmission development companies.¹

11 **Q. By whom are you employed and in what position?**

12 A. I am employed by Xcel Energy Services Inc. ("XES"), the service company
13 subsidiary of Xcel Energy, as Manager, Product Portfolio Supervision.

14 **Q. Please describe your duties as Manager, Product Portfolio Supervision.**

15 A. I am responsible for supervising the energy efficiency and load management
16 programs in Texas. In that capacity, I analyze the cost-effectiveness of current
17 program offerings and delivery methods, evaluate potential energy efficiency and

¹ Xcel Energy is the parent company of four utility operating companies: Northern States Power Company, a Minnesota corporation; Northern States Power Company, a Wisconsin corporation; Public Service Company of Colorado, a Colorado corporation; and SPS. Xcel Energy's natural gas pipeline company is WestGas Interstate, Inc. Through a subsidiary, Xcel Energy Transmission Holding Company, LLC, Xcel Energy also owns three transmission-only operating companies: Xcel Energy Southwest Transmission Company, LLC; Xcel Energy Transmission Development Company, LLC; and Xcel Energy West Transmission Company, LLC, all of which are either currently regulated by the Federal Energy Regulatory Commission ("FERC") or expected to be regulated by FERC.

1 load management programs, and assist the product development group, which
2 creates programs and offerings for the Xcel Energy subsidiaries. In addition, I
3 oversee programs and manage the trade outreach activities for commercial
4 demand side management efforts throughout Colorado.

5 **Q. Please describe your educational background.**

6 A. I have a Bachelor of Business Administration – Emphasis Finance degree from
7 Washburn University in Topeka, Kansas.

8 **Q. Please describe your professional experience.**

9 A. I began my career with Kansas Power and Light Company (“KP&L”) (now
10 Westar Energy) and spent ten years in roles that included the development and
11 management of company-wide electric marketing, demand side management, and
12 energy efficiency programs. In 1996, I became Director of Project Management
13 for a subsidiary of KP&L and worked with energy-related new business start-ups.
14 I then became Vice President of Onsite Business Services, where I managed two
15 wholly-owned subsidiaries and oversaw acquisition activities for the Kansas
16 division. In 2000, I became a majority owner and Secretary/Treasurer of
17 Mid-States Energy Works, where my responsibilities included business
18 management, sales, and marketing for the company. I joined Xcel Energy in 2008
19 as the Trade Relations Manager for the Business Demand Side Management
20 programs in Colorado. In 2011, I accepted my current position as Manager,
21 Product Portfolio Supervision. As I testified above, I am currently responsible for
22 oversight of the energy efficiency and load management programs and contractors
23 in Texas.

- 1 **Q. Have you testified or filed testimony before any regulatory authorities?**
- 2 A. Yes. I have submitted prefiled testimony before the Public Utility Commission of
- 3 Texas (“Commission”) on behalf of SPS in the last four Energy Efficiency Cost
- 4 Recovery Factor (“EECRF”) proceedings, Docket Nos. 40293, 41446, 42454, and
- 5 44698.

1 provides the cost per kilowatt ("kW") and kilowatt-hour ("kWh") for PYs 2014-
2 2017. I am sponsoring Attachment JDS-3(CONF), which lists the EESPs eligible
3 in PY 2015 and to whom SPS paid more than five percent of the total incentive
4 payments in PY 2015. I also sponsor Attachment JDS-4, which is the Master
5 ("EUL") Spreadsheet from Technical Reference Manual ("TRM") 3.1 for energy
6 efficiency measures.

7 **Q. Please summarize your testimony in this proceeding.**

8 A. SPS offers an array of energy efficiency programs, available to all eligible Texas
9 customers in accordance with 16 Texas Administrative Code ("TAC") § 25.181
10 ("Rule 25.181"). The costs of those energy efficiency programs are reasonable,
11 as evidenced by the cost-effectiveness test discussed by SPS witness Michael V.
12 Pascucci and by comparison to costs in prior years. SPS has a transparent process
13 for engaging eligible EESPs and for approving payments to those EESPs after
14 they complete approved projects. Finally, SPS projects that it will exceed its
15 energy and demand goals in PY 2017.

16 **Q. Are Attachments JDS-1 and JDS-4 true and correct copies of the documents**
17 **they are represented to be?**

18 A. Yes.

19 **Q. Were Attachments JDS-2 and JDS-3(CONF) prepared by you or under your**
20 **direct supervision and control?**

21 A. Yes.

1 **III. PROGRAM YEAR 2017 ENERGY EFFICIENCY AND LOAD**
2 **MANAGEMENT PROGRAMS**

3 **Q. To whom will SPS offer energy efficiency and load management programs in**
4 **PY 2017?**

5 **A. In PY 2017, SPS will make energy efficiency programs available to all eligible**
6 **customers, which are defined in Rule 25.181(c)(11) as residential and commercial**
7 **customers.**

8 **Q. How does Rule 25.181 distinguish between commercial and industrial**
9 **customers?**

10 **A. Rule 25.181(c)(4) defines a “commercial customer” as a non-residential customer**
11 **taking service at distribution voltage during the prior program year. It also**
12 **includes non-profit customers or governmental entities, including educational**
13 **institutions. Rule 25.181(c)(30) defines industrial customers as a “for-profit**
14 **entity engaged in an industrial process taking service at transmission voltage, or a**
15 **for-profit entity engaged in an industrial process taking electric service at**
16 **distribution voltage that qualifies for a tax exemption under Tax Code § 151.317**
17 **and has submitted an identification notice pursuant to subsection (w) of this**
18 **section.”**

19 **Q. What are the eligible customer classes for SPS’s energy efficiency programs?**

20 **A. The following customers are eligible to participate in SPS’s energy efficiency**
21 **programs:**

- 22 ▪ Residential;
- 23 ▪ Residential Hard-To-Reach (“HTR”);
- 24 ▪ Small Commercial; and
- 25 ▪ Large Commercial

1 **Q. Are all customers within those classes considered to be eligible customers?**

2 A. No. Rule 25.181(w) allows industrial customers receiving service at distribution
3 voltage to opt out of participation in the energy efficiency programs if they
4 possess a Texas tax exemption certificate and make a timely request to the utility.
5 Mr. Pascucci discusses in his direct testimony the number of customers who have
6 opted out and the affect those customers have on SPS's energy efficiency goals.

7 **Q. What are SPS's PY 2017 energy efficiency goals?**

8 A. As discussed in more detail by Mr. Pascucci, SPS's 2017 demand reduction goal
9 is 5.495 megawatts ("MW") and the energy savings goal is 9,627 megawatt-hours
10 ("MWh"). SPS projects, however, that it will achieve as much as 7.15 MW in
11 demand reductions and 13,700 MWh in energy savings because of the mix of
12 programs to be offered in PY 2017.

13 **Q. Why is SPS offering a mix of programs that it expects will achieve higher**
14 **levels of demand and energy savings levels than its PY 2017 goals?**

15 A. SPS's programs are designed to ensure not only that both the demand and energy
16 goals are met, but also that the offerings are broad enough to appeal to many
17 different types of customers, thereby increasing customer participation in energy
18 efficiency and load management programs. The energy efficiency programs
19 benefit the participating customers by reducing their monthly electric bills. In
20 addition, the programs benefit both participants and non-participants by adding
21 cost-effective components to SPS's resource mix. Therefore, all customers
22 benefit when SPS exceeds the statutory minimum through cost-effective programs
23 that do not exceed the cost caps.

1 **Q. Have the Legislature and the Commission given any indication that they**
2 **want utilities to exceed the minimum goals?**

3 A. Yes. In Section 39.905(b)(2) of the Public Utility Regulatory Act (“PURA”), the
4 Legislature directed the Commission to “establish an incentive under PURA §
5 36.204 to reward utilities administering programs under this section that *exceed*
6 the minimum goals established by this section.”² Rule 25.181(d) provides that
7 utilities, “are encouraged to achieve demand reduction and energy savings
8 through a portfolio of cost-effective programs that *exceed* each utility’s energy
9 efficiency goals while staying within the cost caps established in subsection (f)(7)
10 of this section” (emphasis added).

11 **Q. Please provide a brief description of the energy efficiency and load**
12 **management programs that SPS will offer customers in PY 2017.**

13 A. To reach its projected demand and energy savings, SPS will offer the following
14 Standard Offer Program (“SOPs”) and Market Transformation Programs
15 (“MTPs”), as well as the Low-Income Weatherization Program, in PY 2017:

- 16 • Large Commercial SOP – Targets commercial customers with an annual single
17 meter demand of 100 kW or more or aggregate meter demand of 250 kW or more.
18 Incentives are paid to project sponsors for certain measures installed in new or
19 retrofit applications that provide verifiable demand and energy savings.
20 Examples include incentives for cooling, custom projects, heat pumps, lighting,
21 motors, and new construction.

² PURA is codified at TEX. UTIL. CODE ANN. §§ 11.001-66.016 (Vernon 2008 and Supp. 2014).

- 1 • Small Business MTP Pilot – Will target commercial customers with a single
2 meter demand less than 100 kW or aggregate metered demand of less than 250
3 kW. This offering is expected to utilize a third-party implementer which will
4 provide services and support such as energy efficiency audits to quantify and
5 qualify project opportunities, as well as provide assistance with identifying and
6 managing potential installers.
- 7 • Residential SOP – Targets residential single-family and multi-family customers
8 by providing incentives for cooling, heat pumps, duct sealing, insulation,
9 refrigerator upgrade/recycling, water heating, Energy Star appliances, Energy Star
10 windows, air infiltration reduction, and photovoltaic upgrades.
- 11 • Home Lighting MTP Pilot – Promotes the installation of high efficiency light
12 emitting diode bulbs to mass market customers. Incentives are provided at the
13 point of sale through buy-down efforts coordinated with retail outlets.
- 14 • Hard-to-Reach SOP – Targets customers with an annual household income at or
15 below 200 percent of federal poverty guidelines. The program pays incentives for
16 measures such as energy efficient showerheads, insulation, duct sealing, cooling,
17 refrigerator replacement and recycling, solar screens, water heating, and compact
18 fluorescent lighting.
- 19 • Low-Income Weatherization MTP – Provides funding to not-for-profit
20 community action and government agencies to provide weatherization services to
21 residential SPS customers who meet current Department of Energy income
22 eligibility guidelines.

- 1 • Load Management SOP – Targets small- to medium-sized businesses that can
2 reduce demand during peak summer months. Customers can either manage the
3 interruptions themselves or work with third-party service providers and receive an
4 incentive based on total demand reductions.
- 5 • Retro-Commissioning MTP – Targets non-residential customers interested in
6 learning more about their energy usage and willing to commit to recommended
7 energy saving activities on a timely basis. The program includes a systematic
8 evaluation of the customer's buildings and systems, implementation of low-cost
9 and no-cost measures to improve system operation, and recommendations of
10 larger energy efficiency upgrades. The retro-commissioning services are fully
11 paid by the program and additional incentives may be available to participating
12 customers.

13 These programs are discussed in more detail in Section I of the 2016
14 Amended EEPR, which is provided as Attachment JDS-1.

15 **Q. Is SPS proposing to change the design of any of its existing programs?**

16 A. No. SPS is not proposing to change the design or delivery of any existing
17 programs that will be continuing in 2017. However, SPS is clarifying the naming
18 of the Low Income program to define it as a MTP. Mr. Pascucci discusses the
19 policy behind this change in his direct testimony. I will discuss the programs
20 further in Section V of my testimony.

1 **Q. Why is SPS offering the Home Lighting MTP and the Small Business MTP in**
2 **2017?**

3 A. The primary reason SPS is offering these two new MTPs in 2017 is to expand the
4 ability of customers to participate in and benefit from the energy efficiency
5 offerings SPS provides. Both of these program offerings were selected as part of
6 the 2014 research and development (“R&D”) study commissioned by SPS to help
7 identify the best new offerings to customers. The Home Lighting MTP offers
8 customers a new avenue to participate and reduce their energy consumption.

9 The Small Business MTP is being offered in lieu of the Small Commercial
10 SOP, which SPS has historically offered. Over time, SPS has seen participation in
11 the SOP offering diminish. In addition, as discussed further below, SPS has
12 received feedback from the marketplace, and through the R&D study found that
13 there are barriers to small business customers’ participation, and other utilities in
14 Texas are successfully utilizing MTP type offerings to address this. The Small
15 Business MTP is designed to help customers overcome those barriers and ensure
16 robust participation by SPS’s small business customers.

17 **Q. What types of barriers do small business customers encounter?**

18 A. Typically, small business customers do not have the dedicated personnel
19 necessary to identify potential energy efficiency upgrades or follow through on
20 the implementation of energy efficiency measures. The Small Business MTP
21 program will offer small business customers dedicated resources to help identify
22 and implement energy efficiency solutions.

1 Small businesses also may struggle to meet the capital requirements
2 necessary to implement new measures, which can require significant upfront
3 costs. The Small Business MTP program will help customers identify measures
4 within their budgets and will offer incentives designed to more accurately reflect
5 the incremental costs that small business customers will incur to implement new
6 measures.

1 **IV. REASONABLENESS OF PY 2017 ENERGY EFFICIENCY PROGRAM**
2 **COSTS**

3 **Q. Does Rule 25.181(f) require a utility to determine that the energy efficiency**
4 **and load management costs are reasonable?**

5 A. Yes. Rule 25.181(f)(12) states that in a proceeding to establish or adjust an
6 EECRF, the utility must show that the costs to be recovered through the EECRF
7 are “reasonable estimates of the costs necessary to provide energy efficiency
8 programs and to meet the utility’s goals...”

9 **Q. What costs may a utility include in its EECRF?**

10 A. Rule 25.181(f)(1) states that an EECRF shall be calculated to recover four
11 elements of costs:

- 12 1. the utility’s forecasted annual energy efficiency program
13 expenditures;
- 14 2. the preceding year’s over- or under-recovery;
- 15 3. any performance bonus earned under Rule 25.181(h); and
- 16 4. Evaluation, Measurement, and Verification (“EM&V”) costs
17 allocated to the utility by the Commission.

18 **Q. What amounts comprise the forecasted energy efficiency program**
19 **expenditures?**

20 A. The forecasted annual energy efficiency program expenditures are comprised of
21 projected incentive payments, administrative costs, R&D, and EM&V costs.

1 **Q. What are incentive payments?**

2 A. Rule 25.181(c)(29) defines an “incentive payment” as the payment made by an
3 electric utility to an EESP, an end-use customer, or a third-party contractor to
4 implement and attract customers to energy efficiency programs, including
5 standard offer, market transformation, and self-delivered programs. Rule
6 25.181(g) provides the requirements applicable to incentive payments by a utility.

7 **Q. What are administrative costs?**

8 A. Administrative costs include all reasonable and necessary costs incurred by a
9 utility in carrying out its responsibilities under Rule 25.181(i), including, among
10 other things:

- 11 1. conducting informational activities designed to explain the SOPs and
12 MTPs to EESPs, retail electric providers, and vendors;
- 13 2. providing informational programs to improve customer awareness of
14 energy efficiency programs and measures;
- 15 3. reviewing and selecting energy efficiency programs in accordance
16 with Rule 25.181;
- 17 4. providing regular and special reports of energy and demand savings to
18 the Commission; and
- 19 5. carrying out any other activities that are necessary and appropriate for
20 successful program implementation.

21 In addition, Rule 25.181(f)(10)(I) includes “affiliate costs and EECRF proceeding
22 expenses” as a part of a utility’s administrative costs.

23 **Q. What are R&D costs?**

24 A. R&D costs are typically those costs incurred to develop and test new energy
25 efficiency programs.

26 **Q. What are EM&V costs?**

- 1 A. EM&V costs are the costs allocated to SPS by the Commission for the efforts
2 undertaken by the independent program evaluator to update the deemed savings in
3 the TRM and review program performance.
- 4 **Q. Has SPS included these types of forecasted costs in its EECRF request?**
- 5 A. As shown on Table 7 of Attachment JDS-1, SPS has included the incentive
6 payments that it will make under SOP and MTP programs and the costs of
7 administering those programs. In addition, SPS has included R&D costs in its
8 EECRF request for PY 2017. SPS has not included EM&V costs as of the time of
9 filing as there are not allocated EM&V costs for PY 2016 or 2017.
- 10 **Q. What is SPS's projected PY 2017 energy efficiency and load management**
11 **program budget?**
- 12 A. SPS projects total program expenditures of \$3,885,226 for PY 2017.
- 13 **Q. What are the costs of SPS's individual programs in PY 2017?**
- 14 A. Table JDS-1 below reflects SPS's forecasted costs of its 2017 energy efficiency
15 and load management programs. This table also is included in Attachment JDS-1
16 as Table 7.

1

Table JDS-1: Proposed 2017 Budget

2017	Incentives	Admin	R&D	EM&V	Total Budget
Commercial	\$ 1,825,000	\$ 70,856	\$ -	\$ -	\$ 1,895,856
Commercial SOP	\$ 350,000	\$ 40,824	\$ -	\$ -	\$ 390,824
Small Commercial SOP	\$ -	\$ -	\$ -	\$ -	\$ -
Retro-Commissioning 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	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenditures	\$ 3,535,000	\$ 310,226	\$ 40,000	\$ -	\$ 3,885,226

2 **Q. What are SPS's energy efficiency and load management program cost**
3 **estimates based upon?**

4 **A.** For the existing programs, the cost estimates for SPS's energy efficiency
5 programs are based upon the historic levels of administrative and incentive costs
6 that SPS incurred to implement these programs, as well as adjustments to account
7 for changing market conditions and the program offering mix. For new programs
8 in the 2017 portfolio, SPS relied on its experience in other service territories to
9 determine the expected costs to operate programs, and the results of the R&D
10 study commissioned in 2014. In addition, SPS reviews the costs of similar
11 programs being offered by other Texas utilities and on forecasts made by Frontier
12 Associates, which administers and coordinates a number of these programs for
13 Texas utilities.

1 **Q. Does SPS's budget for PY 2017 comply with the cost caps established in Rule**
2 **25.181(i)?**

3 A. Yes:

- 4 • the administrative cost for the programs offered in PY 2017 is
5 projected to be lower than 15 percent of the program's total costs;
6 • the cost of R&D is projected to be lower than 10 percent of the
7 previous program year's total costs; and
8 • the administrative costs and the R&D costs together add up to less than
9 20 percent of total program budget for PY 2017.

10 **Q. How do SPS's forecasted energy efficiency costs for PY 2017 compare to**
11 **energy efficiency costs in prior years?**

12 A. As reflected in Attachment JDS-2,³ SPS's forecasted energy efficiency total costs
13 in PY 2017 are similar to PY 2016 on a dollar-per-kW and dollar-per-kWh basis.
14 For PY 2017, SPS increased the cost per kW and kWh for the commercial
15 customer class to offset changes to lighting baseline standards.

16 The Commission approved the PY 2016 costs in Docket No. 44698. On a
17 dollar-per-kW basis and dollar-per-kWh basis, the projected overall program cost
18 for PY 2017 is similar to PY 2016 projections. Forecasted overall program costs
19 on a dollar-per-kW and dollar-per-kWh basis for PY 2017 as compared to PY
20 2014 and PY 2015 reflect a general trend towards higher costs primarily due to

³ The "total costs" for the Commercial, Residential, and HTR line items include only direct program administration and incentives. The "total costs" for the Totals line item includes all program incentive, program administration, general administration, EM&V, and R&D costs. EECRF expenses and performance bonus costs are excluded from the calculation.

1 the costs associated with acquiring energy savings. As baselines and standards
2 have increased, the ongoing trend has been higher incentive costs to acquire
3 savings.

4 **Q. To support the recovery of energy efficiency costs, Rule 25.181(f)(11)(I)**
5 **includes consideration of how a utility's forecasted energy efficiency**
6 **incentive costs compares to costs in other markets with similar conditions.**
7 **Does the market within which SPS operates allow for a meaningful**
8 **comparison to other markets?**

9 A. No. It is not feasible to make a meaningful comparison of SPS's forecasted
10 energy efficiency costs for PY 2017 to the costs incurred by utilities for markets
11 in other states because the regulatory requirements in each state are so different.
12 Furthermore, even within Texas the utilities' service areas do not necessarily
13 qualify as "markets with similar conditions." Because of the proximity of
14 customers and the access to materials, EESPs that operate in densely-populated
15 areas can often provide services more economically than EESPs that operate in
16 sparsely populated areas, which is characteristic of much of the SPS service area.

17 However, SPS has conducted two studies to compare the incentives
18 offered by SPS to those offered by other Texas utilities. The 2012 study reviewed
19 SPS's residential incentives and the 2014 study reviewed SPS's commercial
20 incentives. Both studies found that SPS's incentives were low compared to other
21 utilities. SPS increased its residential incentives to a comparable level in 2013
22 and achievement in the residential programs has been strong since that change.
23 SPS increased its commercial incentives for 2016 in an effort to improve

- 1 performance in those programs since they have underperformed and have been
- 2 underspent in recent years.

1 **V. ENERGY EFFICIENCY SERVICE PROVIDERS**

2 **Q. What do you discuss in this section of your testimony?**

3 A. I discuss the portion of Rule 25.181(f)(10)(H) that requires the utility to identify
4 each EESP receiving more than five percent of the utility's overall incentive
5 payments and the percentage of the utility's incentives received by those
6 providers. I also discuss Rule 25.181(f)(10)(K), which requires a discussion of
7 the utility's bidding and engagement process for contracting with EESPs,
8 including a list of all EESPs that participated in the utility's programs and
9 contractors paid with funds collected through the EECRF.

10 **Q. Please describe SPS's bidding and engagement process for contracting in**
11 **SPS's SOPs.**

12 A. For the Residential SOP, HTR SOP, and Large Commercial SOP, SPS's bidding
13 and engagement process for contracting with EESPs is the same. SPS posts its
14 program manuals and budgets for the upcoming program year online, and
15 potential EESPs are invited to apply. If the EESPs apply and meet the requisite
16 criteria, they are approved as participants and are eligible to sponsor projects that
17 qualify for incentive payments. When the EESP identifies a potential project, it
18 submits a request that SPS reviews and evaluates to determine whether it satisfies
19 the program requirements. If it does, then SPS approves the project and enters
20 into a standard contract with the EESP to undertake the work. Upon completion of
21 the project, including any inspections or verifications, SPS will process and remit
22 payment for the invoice to the EESP.

1 SPS also offers a Load Management SOP, which similarly posts a budget
2 and program manual. However, EESPs do not participate in the program. Instead,
3 individual customers nominate load reductions into the program and if they
4 deliver on those nominations are paid a standard incentive for the delivered load.
5 In some cases, customers may deliver more or less than the nominated load;
6 however, the customer will still receive the same standard incentive payment.
7 Upon calculation and verification of the customer's load reduction, SPS will
8 process and remit payment to the customer.

9 **Q. How does the bidding and engagement process work for MTPs?**

10 A. SPS's MTPs, Retro-Commissioning, Low-Income Weatherization, Home
11 Lighting, and Small Business utilize third-party implementation in lieu of EESPs
12 or direct customer involvement. As defined in Rule 25.1818(c)(37), market-
13 transformation programs are "strategic programs intended to induce lasting
14 structural or behavioral changes in the market." The third-party implementer is
15 typically acquired through a competitive solicitation and regularly invoices SPS
16 with the costs associated with delivering the program. For each program SPS
17 develops a budget with incentives for demand and energy savings that are
18 provided to the implementer upon completion of a project. Completion of a
19 project may require measurement and verification to be completed before
20 payment is made.

1 **Q. Please identify all EESPs that participated in SPS's energy efficiency**
2 **programs.**

3 A. My Attachment JDS-3(CONF) lists all of the EESPs that participated in PY 2015
4 programs.

5 **Q. Did any EESP receive more than five percent of SPS's overall incentive**
6 **payments?**

7 A. Yes. Three EESPs, which are identified on Attachment JDS-3(CONF), received
8 more than five percent of SPS's overall incentive payments.

9 **Q. Why did those EESPs receive more than five percent of SPS's overall**
10 **incentive payments?**

11 A. These three EESPs completed projects similar to those in past years, but at a
12 higher volume. That resulted in incentive payments above five percent of the
13 total incentive payments paid by SPS.

14 **Q. Did the payment of more than five percent of the overall incentive payment**
15 **budget to those EESPs leave SPS with a shortfall to pay for other potential**
16 **projects?**

17 A. No. All projects submitted from participating EESPs were approved and paid for
18 in PY 2015.

1 **VI. ESTIMATED USEFUL LIVES**

2 **Q. What do you address in this section of your testimony?**

3 A. I address the EUL of each measure in SPS's energy efficiency programs.

4 **Q. How does Rule 25.181 define the EUL of an energy efficiency measure?**

5 A. Rule 25.181(c)(19) defines EUL as the "number of years until 50% of installed
6 measures are still operable and providing savings..." The definition further notes
7 that the term EUL is used interchangeably with the term "measure life." In effect,
8 the EUL determines the period of time over which the benefits of the energy
9 efficiency measure are expected to accrue.

10 **Q. Please identify the EUL of each measure that SPS employs for its energy**
11 **efficiency programs.**

12 A. Please refer to Attachment JDS-4, which contains the EUL Master Table
13 approved by the Commission.

1 **VII. ENERGY AND DEMAND SAVINGS ACHIEVEMENTS FOR PY 2015**

2 **Q. How did SPS's projected energy and demand savings compare to its reported**
3 **savings PY 2015?**

4 **A. In 2015 SPS achieved 8.172 MW of reduction in demand and 14,537 MWh of**
5 energy savings, which were 149% and 151%, respectively, of SPS's demand goal
6 of 5.495 MW and energy savings goal of 9,627 MWh. The table below shows a
7 further breakdown of SPS's projected energy and demand savings compared to its
8 reported savings in PY 2015. This table is also shown in Section VI of
9 Attachment JDS-1.

10 **Table JDS-2: PY 2015 Demand and Energy Savings**

2015	Projected 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

11
12 **Q. Were there any circumstances in SPS's service area that affected SPS's**
13 **ability to achieve its Commission-approved goals in PY 2015?**

14 **A. No.**

15 **Q. Did SPS spend the full amount that it was authorized to spend for energy**
16 **efficiency programs in PY 2015?**

17 **A. Yes. As shown in Table 11 of Attachment JDS-1, SPS had a total projected**
18 budget of \$3,195,897 in PY 2015 and spent \$3,225,500 in that year. The majority

1 of this spending was on incentives. SPS spent 86% of total spending on
2 incentives which is 104% of its budget forecast. SPS underspent its total
3 administrative budget by 2%. Excluding rate cases expenses, which SPS cannot
4 budget for, SPS spent only 72% of its 2015 administrative budget forecast.

5 **Q. Does this conclude your pre-filed direct testimony?**

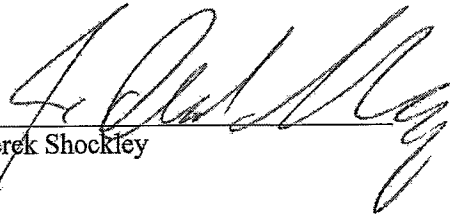
6 **A. Yes.**

AFFIDAVIT

STATE OF COLORADO)
)
DENVER COUNTY)

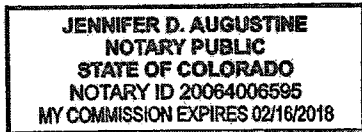
J. DEREK SHOCKLEY, first being sworn on his oath, states:


I am the witness identified in the preceding prepared direct testimony. I have read the testimony and the accompanying attachments and am familiar with their contents. Based upon my personal knowledge, the facts stated in the testimony are true. In addition, in my judgment and based upon my professional experience, the opinions and conclusions stated in the testimony are true, valid, and accurate.



J. Derek Shockley

Subscribed and sworn to before me today, April 26 2016.





Notary Public, State of Colorado
My Commission Expires: 2/16/18

CERTIFICATE OF SERVICE

I certify that on the 29th day of April 2016, a true and correct copy of the foregoing instrument was served on all parties of record by hand delivery, Federal Express, regular first class mail, certified mail, electronic mail, or facsimile transmission.



A handwritten signature in black ink, appearing to read "C. C. S. B.", is written above a horizontal line.

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”) § 39.905.¹ 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.

¹ 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)²

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
2017	(0.511)	(0.153)	7.110	5.495	(268)	9,627	\$ 3,885,226

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).³ 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;

² 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).

³ 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 \$3,225,500,⁴ 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

⁴ 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

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
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	Target Customer Class	Application
Large Commercial SOP	Large Commercial	Retrofit; New Construction
Small Business 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 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 multi-family 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 (<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 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

Customer Class	Qualifications	Number of Customers ⁵
Commercial	< 69 kV service voltage	54,255
Residential	Non-HTR Residential	209,784
Hard-to-Reach	HTR Income Requirements	33,775

⁵ 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. (<http://www.census.gov/hhes/www/poverty/data/incpovhlth/2014/tables.html>)

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%⁶ 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.

⁶ 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)⁷

Calendar Year	Peak Demand (MW)				Energy consumption (MWh)				Growth (MW)		Average Growth		Energy Goal
	Total System		Residential & Commercial		Total System		Residential & Commercial		Actual Weather Adjusted	Actual Weather Adjusted	Actual Weather Adjusted	Demand Goal	
			Actual	Actual Weather Adjusted			Actual	Actual Weather Adjusted					
	Actual	Actual Weather Adjusted	Actual	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	14,175,563	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	-137	13	NA	NA	
2015	2,405	2,478	1,618	1,691	14,032,058	13,959,998	7,621,821	7,549,761	74	12	4	6,308	
2016	NA	NA	NA	1,738	NA	NA	NA	7,722,756	NA	-21	-6	-11,230	
2017	NA	NA	NA	1,777	NA	NA	NA	7,853,516	NA	-1	0	-268	

⁷ 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.