1	Q.	HOW ARE THE 2017 EECRF COST CAPS DETERMINED?
2	A.	The method of calculating the 2017 cost caps is described in 16 TAC
3		§ 25.181(f)(7)(E) that states:
4 5 6 7 8		For the 2014 program year and thereafter, the residential and commercial cost caps shall be calculated to be the prior period's cost caps increased by a rate equal to the most recently available calendar year's percentage change in the South urban consumer price index (CPI), as determined by the Federal Bureau of Labor Statistics.
9		The most recently available calendar year's percentage change in the South urban
10		consumer price index is calendar year 2015. The percentage change for calendar year
11		2015 is negative. Since 16 TAC § 25.181(f)(7)(E) allows for an increase and did not
12		specifically address a decrease, TCC has evaluated the cap based on the 2016 per
13		kWh residential cap of \$.001265 and commercial cap of \$.000791. The 2017 cost
14		cap calculation is included in Schedule G.
15	Q.	HOW DO THE PROPOSED FACTORS FOR RESIDENTIAL AND
16		COMMERCIAL COMPARE TO THE 2017 COST CAPS?
17	A.	TCC's revised residential factor including the base rate energy efficiency amount and
18		excluding municipal EECRF proceeding expenses and EM&V statewide contractor
19		costs is \$.000950 per kWh, which does not exceed the residential maximum of
20		\$0.001265 per kWh based on the 2016 cap as explained above. The maximum
21		commercial rate per kWh for 2016 is \$0.000791 per kWh as explained above. The
22		updated commercial class factor, including the base rate amounts but without the
23		municipal EECRF proceeding expenses and statewide EM&V contractor cost, is
24		\$0.000715 per kWh, which does not exceed the cap for the commercial class.
25		Schedule G details the 2017 cost cap comparison.

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DIRECT TESTIMONY JENNIFER L. JACKSON

Q. HOW ARE ENERGY EFFICIENCY COSTS EXPRESSLY INCLUDED IN BASE RATES TREATED IN DETERMINING WHETHER EECRF FACTORS EXCEED THE AMOUNTS PRESCRIBED IN 16 TAC § 25.181(f)(7)?

TCC continues to recover an amount of energy efficiency costs expressly identified in 4 A. 5 its base rates so the sum of the base rate recovery of energy efficiency costs 6 (including the base rate revenue adjustment) and the EECRF shall not exceed the amounts prescribed in 16 TAC § 25.181(f)(7). In Docket No. 39360, the EECRF 7 class base rate per kWh amounts were identified. The base rate adjustment amount 8 9 on a per kWh basis also has been determined based on 2015 actual data. The 10 combination of the proposed 2017 EECRF factors, excluding municipal EECRF 11 proceeding expenses and the expressly identified base rate amounts, including the base rate adjustment, do not exceed the levels identified in 16 TAC § 25.181(f)(7) as 12 shown in detail in Schedule G. 13

14 Q. HOW HAS TCC TREATED THE MUNICIPAL RATE CASE EXPENSES AND
15 EM&V COST WHEN DETERMINING WHETHER THE PROPOSED EECRF
16 FACTORS EXCEED THE LIMITATIONS DETAILED IN 16 TAC § 25.181(f)(7)?

TCC has not included the municipal EECRF proceeding expenses from Docket No.

44717 or any statewide EM&V contractor's costs in its determination of the EECRF
factor limitations based on 16 TAC § 25.181(f)(7), which states that the municipal
EECRF proceeding expenses and the statewide EM&V contractor costs shall not
count against the utility's cost caps. TCC has included in Schedule E the total
EECRF factor calculation including the municipal EECRF proceeding expenses and
the EM&V cost and in Schedule G a separate calculation of the limitation on EECRF

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17

A.

DIRECT TESTIMONY JENNIFER L. JACKSON

1		factors without the municipal EECRF proceeding expenses and the statewide EM&V
2		contractor cost. The EECRF factors calculated without the municipal EECRF
3		proceeding expenses and the statewide EM&V contractor cost are slightly lower than
4		the total EECRF factors. TCC is requesting recovery of the municipal EECRF
5		proceeding expenses through the total proposed EECRF factor as shown on adjusted
6		Rider EECRF, Schedule F in this filing.
7	Q.	HAS TCC INCLUDED A CALCULATION OF THE 2015 CAP BASED ON
8		ACTUAL PROGRAM COSTS AND ACTUAL 2015 BILLING UNITS?
9	A.	Yes, TCC has included a 2015 cap calculation based on actual 2015 program costs
10		and billing units as part of Schedule G.
11	Q.	DID TCC EXCEED THE 2015 CAPS BASED ON ACTUAL DATA?
12	A.	No. TCC did not exceed the 2015 caps for either EECRF class.
13	Q.	HOW WERE THE 2015 CAPS CALCULATED?
14	A.	The 2015 caps were calculated by removing the statewide EM&V contractor's costs
15		and the municipal EECRF proceeding expenses paid in 2015 from the total 2015
16		Energy Efficiency actual costs, and dividing that total amount by the actual class
17		2015 EECRF billing units less any customer ID notice kWh. This calculation yields
18		the following results for the classes:

TCC Class	2015 Cost Cap Based on Actuals	2015 Cap
Residential	\$0.000956	\$0.001244
Commercial	\$0.000625	\$0.000778

1 Q. ARE SOME CUSTOMERS EXCLUDED FROM EECRF CHARGES?

A. Yes, in addition to transmission customers taking service at 69 kV, distribution
industrial customers meeting the definition and fulfilling the requirements as outlined
in 16 TAC § 25.181(c)(30) and (w) (ID Notice Customers) are excluded from EECRF
charges. Also, the lighting class has not been assigned or allocated any 2017 costs.

6 Q. ARE THE ID NOTICE CUSTOMERS ALSO EXCLUDED FROM ENERGY 7 EFFICIENCY BASE RATE COSTS?

8 A. Yes. TCC agreed in Docket No. 44717 to credit the ID Notice Customers for base
9 rate energy efficiency costs. TCC will credit ID Notice Customers for base rate
10 energy efficiency costs through a separate energy efficiency base rate credit factor
11 based on that agreement.

12 Q. HOW WAS THE BASE RATE CREDIT FACTOR CALCULATED?

The base rate energy efficiency credit factor was calculated by first identifying the 13 Α. 14 commercial rate class associated with each ID Notice Customer and the 15 corresponding energy and demand billing units for each ID Notice Customer within 16 each class. The rate class billing units were determined by summing all ID Notice Customer billing units identified in each rate class. Then, the appropriate base rate 17 18 billing unit (kWh or kW depending on rate class) was multiplied by the class base 19 rate energy efficiency factor shown on Schedule I to arrive at a total base rate energy 20 efficiency amount associated with the ID Notice Customers in each rate class. The 21 total base rate energy efficiency amount was then divided by the ID Notice Customer 22 kWh associated with each class to determine a per kWh credit to be applied to each 23 ID Notice Customer in program year 2017 through Rider EECRF. The total base rate

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energy efficiency amount by class and the class credit factor is shown below and can
 also be found in the ID Notice workpaper. The credit factors will also be included on
 the EECRF Rate Schedule.

Rate Class	Base Rate Billing Unit	Base Rate Schedule I	Unit	Total Base Rate EE	ID Notice Class kWh	kWh Credit
Sec <= 10 kW	1,741,982	0.000286	per kWh	\$498.21	1,741,982	(\$0.000286)
Sec > 10 kW	36,433.37	0.078608	per kW	\$2,863.95	9,543,564	(\$0.000300)
Primary IDR	104,022.72	0.105418	per kW	\$10,965.87	53,330,400	(\$0.000206)
Total				\$14,328.03	64,615,946	

4 Q. HAVE YOU PROVIDED THE REVISED TARIFF REFLECTING UPDATED
5 EECRF FACTORS AND CREDITS APPLICABLE TO ELIGIBLE CUSTOMERS?

- A. Yes. The proposed Rider EECRF shown in Schedule F includes the changes from the
 current Rider EECRF tariff. TCC requests that the Commission approve an adjusted
 Rider EECRF containing the proposed EECRF class kWh factors to be effective
 March 1, 2017.
- 10
- 11

IV. CONCLUSION

12 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. TCC is requesting recovery of \$9,049,531 through its adjusted EECRF, which
amount includes projected 2017 energy efficiency program costs of \$6,869,313, no
EM&V costs, the return of the over-recovery of \$1,284,811 in 2015 program costs,
municipal EECRF proceeding expenses from Docket No. 44717 of \$5,433 and the
2015 earned performance bonus of \$3,459,596. TCC's base rates include energy

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efficiency costs and those costs and adjusted revenues have been treated in
 accordance with 16 TAC § 25.181(f)(2).

The class assignment of the estimated 2017 program costs is based on the 3 direct assignment to the EECRF rate classes eligible for specific programs where 4 possible. Where more than one EECRF rate class is eligible to participate in a 5 specific 2017 program, the allocation of that program cost is based on a weighted 6 4CP demand allocator, adjusted based on the most recent projection of EECRF rate 7 class kWh, less the identification notice customer kWh. The class assignment of the 8 9 2015 actual program costs is based on direct assignment to the participating EECRF rate classes. The performance bonus has been assigned to the classes in accordance 10 with 16 TAC § 25.181(h)(6). The municipal EECRF proceeding expenses have been 11 assigned to the classes based on the 2017 program costs assigned to the classes. 12 Recovery of the 2017 EECRF revenue requirement is based on projected 2017 kWh 13 sales for all EECRF classes eligible for the EECRF. 14

15 Q. WHAT RELIEF IS TCC REQUESTING IN THIS PROCEEDING?

- 16 A. TCC is requesting that Rider EECRF contained in Schedule F be approved effective
 17 March 1, 2017.
- 18 Q. HAS TCC CALCULATED THE EECRF FACTORS IN A MANNER19 CONSISTENT WITH 16 TAC § 25.181?

20 A. Yes.

21 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

22 A. Yes, it does.

SCHEDULE A

2017 Projected Energy Efficiency Program Costs

				Total Projected
			Research &	Energy Efficiency
	Incentives	Administrative	Development	Costs
Commercial				
Commercial Solutions MTP	\$508,500	\$56,500		\$565,000
Commercial SOP	\$1,813,500	\$201,500		\$2,015,000
CoolSaver© A/C Tune-Up MTP	\$596,700	\$66,300		\$663,000
Load Management SOP	\$650,700	\$72,300		\$723,000
Open MTP	\$793,800	\$88,200		\$882,000
SCORE/CitySmart MTP	\$946,800	\$105,200		\$1,052,000
SMART Source SM Solar PV MTP	\$204,000	\$22,667		\$226,667
Residential				
CoolSaver© A/C Tune-Up MTP	\$675.000	\$75,000		\$750.000
Earth Networks Residential DR Pilot MTP	\$150,300	\$16,700		\$167,000
Efficiency Connection Pilot MTP	\$150,300	\$16,700		\$167,000
High Performance New Homes MTP	\$765.000	\$85,000		\$850,000
Reliant Residential DR Pilot MTP	\$5,040	\$560		\$5.600
Residential SOP	\$2,661,300	\$295,700		\$2,957,000
SMART Source SM Solar PV MTP	\$204,000	\$22,667		\$226,667
Hard-to-Reach				
Hard-to-Reach SOP	\$953,460	\$105,940		\$1,059,400
Targeted Low-Income Energy Efficiency				
Program	\$1,267,200	\$140,800		\$1,408,000
Research and Development				
R&D Programs	NAP	NAP	\$365,125	\$365,125
Total Projected Energy Efficiency costs	\$12,345,600	\$1,371,734	\$365,125	\$14,082,459

SCHEDULE A 2017 Projected Energy Efficiency Costs

	Res	Sec < 10	Sec > 10	Primary	Total
Commercial					
Commercial Solutions MTP		\$21,951	\$430,031	\$113,018	\$565,000
Commercial SOP		\$78,285	\$1,533,651	\$403,064	\$2,015,000
CoolSaver AC Tune-up MTP		\$32,199	\$630,801		\$663,000
Load Management SOP			\$572,531	\$150,469	\$723,000
SCORE/CitySmart MTP		\$40,871	\$800,695	\$210,434	\$1,052,000
SMART Source sm Solar PV MTP		\$8,806	\$172,520	\$45,341	\$226,667
Open MTP		\$42,835	\$839,165		\$882.000
Residential					
Efficiency Connection Pilot MTP	\$167,000				\$167,000
Earth Networks Residential DR Pilot MTP	\$167,000				\$167,000
Reliant Residential DR Pilot MTP	\$5,600				\$5.600
High Performance New Homes MTP	\$850,000				\$850.000
CoolSaver AC Tune-Up MTP	\$750,000				\$750,000
Residential SOP	\$2,957,000				\$2.957.000
SMART Source SM Solar PV MTP	\$226,667				\$226.667
Hard-to-Reach					100/01-14
Hard-to-Reach SOP	\$1,059,400				\$1.059.400
Targeted Low-Income Energy Efficiency Program	\$1,408,000				\$1.408.000
Research and Development (R&D)					
R&D Programs	\$196,194	\$6,563	\$128,576	\$33,792	\$365,125
EM&V	¢0	\$0	\$0	¢\$	\$
Total Energy Efficiency Program Revenue Requirement	\$7,786,861	\$231,510	\$5,107,971	\$956,117	\$14,082,459

Sponsored by: Pamela D. Osterloh, Robert Cavazos and Jennifer L. Jackson

PUC Docket No. 45929 Schedule A Page 2 of 2

TCC Schedule B

2015 Actual Energy Efficiency Expenditures

Customer Class and Program			2015		
				Evaluation,	
	T		Research &	Measurement	Total Funds
	Incentives	Administrative	Development	& Verification	Expended
Commercial					
Commercial Solutions MTP	\$ 660,876	\$ 62,020			\$722,896
Commercial SOP	<u>\$ 1,675,572</u>	\$ 178,072			\$1,853,644
CoolSaver© A/C Tune-Up MTP	\$ 601,336	\$ 45,725			\$647,061
Load Management SOP	\$ 650,201	\$ 51,710	<u> </u>		\$701.911
Open MTP	\$ 818,943	\$ 61,449			\$880,392
SCORE/CitySmart MTP	\$ 840,089	\$ 73,647	·····		\$913,736
SMART Source SM Solar PV MTP	\$ 58,555	\$ 6,409	······································		\$64,964
Residential	·				· · · · · · · ·
CoolSaver© A/C Tune-Up MTP	\$673.27	2 \$51.195			\$724.467
Efficiency Connection Pilot MTP	\$67.02	\$4 449			\$724,407
High Performance New Homes MTP	\$757.63	\$82,070	· · · · · · · · · · · · · · · · · · ·		\$830 708
Residential SOP	\$2,649.88	\$246.419	·····		\$2,896,301
SMART Source SM Solar PV MTP	\$207,61	3 \$16,329		····	\$223,947
Hard-to-Reach					
Hard-to-Reach SOP	\$922,102	\$97,609			\$1.019.711
Targeted Low Income Energy Efficiency	\$1.270 GA	£00.001			, , , , , , , <u>, , , , , , , , , , , , </u>
Program	51,270,04	\$98,091			\$1,368,732
Research & Development				·	· · · · ·
Research & Development	NAI	NAP	\$332,535	····	\$332,535
Evaluation, Measurement & Verification		<u></u>			
PY 2014 Statewide EM&V Contractor	NAF	NAP	NAP	\$222,263	\$222,263
TOTAL	\$11,853,756	\$1,075,191	\$332,535	\$222,263	\$13,483,745

SCHEDULE B 2015 Actual Energy Efficiency Expenditures

	Res	Sec < 10	Sec > 10	Primary	Total
Commercial Programs					
ComSol MTP		\$53,990	\$514,370	\$154,535	\$722,896
CSOP		\$54,673	\$1,602,015	\$196,955	\$1,853,644
CoolSaver		\$42,599	\$593,682	\$10,781	\$647,061
LM SOP		\$0	\$366,874	\$335,037	\$701,911
Open MTP		\$35,255	\$845,137	\$0	\$880,392
SCORE/CS MTP		\$55,161	\$536,547	\$322,027	\$913,736
SMART Source MTP - Comm		\$0	\$31,175	\$33,790	\$64,964
Total Commercial		\$241,677	\$4,489,800	\$1,053,126	\$5,784,603
Residential Programs					
Efficiency Connection Pilot MTP	\$71,478				\$71,478
CoolSaver	\$724,467				\$724,467
HP NH	\$839,708				\$839,708
RSOP	\$2,896,301				\$2,896,301
SMART Source MTP - Res	\$223,947				\$223,947
Total Residential	\$4,755,902				\$4,755,902
Hard-to-Reach Programs					
HTR SOP	\$1,019,711				\$1,019,711
TLI EEP	\$1,368,732				\$1,368,732
Total HTR	\$2,388,443				\$2,388,443
Total Programs	\$7,144,345	\$241,677	\$4,489,800	\$1,053,126	\$12,928,947
Research & Development	-				
R&D - Programs	\$215,424	\$4,898	\$90,886	\$21,327	\$332,535
R&D - EM&V	\$122,781	\$4,160	\$77,204	\$18,117	\$222,263
Total R&D	\$338,205	\$9,058	\$168,090	\$39,444	\$554,798
Total	\$7,482,550	\$250,735	\$4,657,890	\$1,092,570	\$13,483,745

AEP Texas Central Company Adjusted Energy Efficiency Cost Recovery Factor Filing

Schedule C Calculation of 2015 Over/Under Recovery Class Factor

2015 Residential Energy Efficiency Expenditures + R&D - Municipal EECRF Expenses	\$7,479,441
2015 Actual Residential Energy Efficiency Factor Revenues + Base	\$8,173,774
2015 Residential Over Recovery	(\$694,332)
2015 Commercial Energy Efficiency Expenditures + R&D - Municipal EECRF Expenses	\$5,998,677
2015 Actual Commercial Energy Efficiency Factor Revenues + Base	\$6,589,155
2015 Commercial Over Recovery	(\$590,479)
2015 Total Energy Efficiency Exnenditures + R&D - Municinal FFCRF Exnenses	\$13 478 118
2015 Actual Total Energy Efficiency Factor Revenues	\$14.762.929
2015 Over Recovery	(\$1.284,811)

	2015 Program Costs		
	Over/Under Recovery	2017 Forecasted Billing	2015 Over
Class	Allocation	kWh Unit	Recovery Factor Unit
Residential	(\$694,332)	10,214,614,464	(\$0.000068) kWh
Secondary <= 10 kW	(\$24,076)	448,057,520	(\$0.000054) kWh
Secondary > 10 kW	(\$725,917)	7,647,334,024	(\$0.000095) kWh
Primary	\$171,416	2,549,740,393	\$0.000067 kWh
Transmission	(\$11,902)	5,011,666,743	
Lighting	\$0	230,131,169	
Total	(\$1,284,811)	26,101,544,313	

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Schedule D 2015 Goal Achievement and Performance Bonus Calculation

TCC achieved 43,775 kW in demand savings and 68,482,226 kWh in energy savings by January 1, 2016. The total present value of the avoided costs associated with these demand reductions and energy savings is \$48,302,273. TCC's total costs for the 2015 program year were \$13,706,310. The resulting net benefits are \$34,595,962. TCC's demand reduction goal (DRG) was 12,930 kW and its energy savings goal was 22,653,000 kWh. TCC achieved 339% of its DRG and 302% of its energy savings goal, qualifying it for a performance bonus as calculated under 16 TAC § 25.181(h).

TCC's calculated bonus is 41,265,557; however, its maximum bonus allowed is 3,459,596, which is 10% of its total net benefits (16 TAC § 25.181(h)(3)).

	kW (Demand)	kWh (Energy)	
2015 Goals	12,930	22,653,000	
2015 Savings			
Reported/Verified Total	43,775	68,482,226	
Reported/Verified HTR	Verified HTR 1,858		
2015 Program Costs	\$13,706,310		
2015 Performance Bonus	\$3,459,596		

Performance Bonus Calculation

339%	Percentage of Demand Reduction Goal Met (Reported kW/Goal kW)
302%	Percentage of Energy Reduction Goal Met (Reported kWh/Goal kWh)
TRUE	Met Requirements for Performance Bonus?
\$48,302,273	Total Avoided Cost [Reported kW * PV (Avoided Capacity Cost) + Reported kWh * PV (Avoided Energy Cost), except for measure life other than 10 years for which PV (Avoided Capacity Cost) and PV (Avoided Energy Cost) are calculated using the specific measure lives]
\$13,706,310	Total Program Costs
\$34,595,962	Net Benefits (Total Avoided Cost – Total Expenses)

Bonus Calculation

\$41,265,557	Calculated Bonus [(Achieved Demand Reduction/Demand Goal - 100%) / 2 * Net Benefits]
\$3,459,596	Maximum Bonus Allowed (10% of Net Benefits)
\$3,459,596	Bonus (Minimum of Calculated Bonus and Bonus Limit)

Adjusted Energy Efficiency Cost Recovery Factor Filing **AEP Texas Central Company**

Schedule E Calculation of Requested EECRF by Customer Class Using Direct Assignment of EECRF Program Costs

TCC		
2017 Program Costs Above Base Rates	\$6,869,313	75.91%
EM&V	\$ 0	0.00%
2015 Over Recovery	(\$1.284.811)	-14 20%
Calculated Performance Bonus for 2015	\$3.459.596	38.23%
Municipal EECRF Proceeding Expenses Docket No. 44717	\$5,433	0.06%
Adjusted EECR Revenue Requirement	\$9,049,531	100.00%

	Total Adjusted 2017 EECR	2017 Forecasted	2017 EECR	
Class	Revenue Requirement	Billing kWh Unit	Factor RVSD 1	Unit
Residential	\$5,462,918	10,214,614,464	\$0.000535 k	M
Secondary <= 10 kW	\$148,992	448,057,520	\$0.000333 k	Wh
Secondary > 10 kW	\$3,276,565	7,647,334,024	\$0.000428 k	Wh
Primary	\$754,147	2,549,740,393	\$0.000296 k	Wh
Transmission	(\$593,092)	5,011,666,743	(\$0.000118) k	Wh
Lighting	\$0	230,131,169	\$0.000000 K	Wh
Total	\$9,049,531	26,101,544,313		

PUC Docket No. 45929 Schedule E

AEP TEXAS	CENTRAL CC	OMPANY	
TARIFF FOR	ELECTRIC D	ELIVERY SERVICE	
Applicable:	Entire System		
Chapter:	6	Section: 6.1.1	
Section Title:	Delivery Syste	em Charges	
Revision:	Eighth	Effective Date:	March 1, 2017

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6.1.1.6.4 Rider EECRF – Energy Efficiency Cost Recovery Factors

AVAILABILITY

Rider EECRF recovers the cost of energy efficiency programs not already included in base distribution service rates and is applicable to the kWh sales of Retail Customers taking retail electric delivery service from the Company.

APPLICABILITY

The Rider EECRF is applicable to the current month's billed kWh of each Retail Customer taking electric delivery service from the Company.

MONTHLY RATE

Rate Schedule	Factor
Residential Service	\$0.000535 per kWh
Secondary Service	R
Less than or Equal to 10 kW	\$0.000333 per kWh
Secondary Service	R
Greater than 10 kW	\$0.000428 per kWh
Primary Service	\$0.000296 per kWh
Transmission Service	(\$0.000118) per kWh
ID Notice Customer Base Rate Credit For distribution industrial customers meeting requirements in 16 TAC§25.181(c)(30) and (w) base rate energy efficiency credit will apply.	the definition and fulfilling the N (ID Notice Customers) the following N
Secondary Service Less Than or Equal to 10 kW Secondary Service Greater Than 10 kW Primary	(\$0.000286) per kWh N (\$0.000300) per kWh N (\$0.000206) per kWh N

NOTICE

This Rate Schedule is subject to the Company's Tariff and Applicable Legal Authorities.

AEP Texas Central Company Adjusted Energy Efficiency Cost Recovery Factor Filing

> Schedule G Cap Calculation

2017 Program Costs Above Base Rates (no EM&V cost)	\$6,869,313
2015 Over/Under Recovery	(\$1,284,811)
Calculated Performance Bonus for 2014	\$3,459,596

*no municipal EECRF proceeding expenses or EM&V costs are included in the cap calculation

Adjusted EECR Revenue Requirement⁴

\$9,044,098

	Total Adjusted 2017 EECR Revenue Recurrement (50			
Class	EM&V cost)	Billing kWh Unit	201/ EECK Factor (no EM&V)	Unit
Residential	\$5,459,914	10,214,614,464	\$0 000535	kWh
Secondary <= 10 kW	\$148,903	448,057,520	\$0 000332	kWh
Secondary > 10 kW	\$3,274,594	7,647,334,024	\$0 000428	kWh
Primary	\$753,779	2,549,740,393	\$0 000296	kWh
Transmission	(\$593,092)	5,011,666,743	(\$0 000118)	kWh
Lighting	\$0	230,131,169	\$0 00000	kWh
Total (no EM&V cost)	\$9,044,098	26,101,544,313		

Class	Base Rate per Final Order in Docket No 39360 Including Revenue Adjustment	2017 EECR Factor (no EM&V)	2017 Total	2016 Can	2017 Can
Residential	\$0 000415	\$0 000535	\$0 000950	\$0 001265	\$0 001265
Non-Residential	\$0 000323	\$0 000392	\$0 000715	162000 0\$	\$0 000791
Calculation of Non-Resider	ntial per kWh Rate				
2017 Rev Req 2017 kWh Combined per kWh	\$4,177,276 10,645,131,937 \$0 000392				

\$340,671 10,263,871,677 \$0 000033

Adjustment to Commercial 2015 Commercial kWh per kWh adjustment \$0 000290 \$0 000715

Combined Base per kWh Total 2017 per kWh

-0 18%

South Urban CPI

2015 Cap Analysis

				2015 Actual		
	Actual 2015 Program	2013 Performance	2013 (O)/U (no	Billing kWh (less	2015 per kWh Cost Based	
TCC	Costs*	Bonus	EM&V)	ID Notice)	on Actuals	2015 Can
Residential	\$7,356,660	\$2,678,172	(\$673.956)	9.789.352.021	\$0.000956	50 001 244
Non-Residential	\$5,899,195	\$1,917,063	(8),409,471)	10.252.070 857	\$0 000635	417100 00 417100 00
Total	\$13,255,855	\$4,595,235	(\$2,083,428)	20,041,422,878		011000.00
 *less TetraTech EM&	V costs & municinal FFCRF	Throceeding evnences				

Sponsored by Jennifer L Jackson

Adjusted Energy Efficiency Cost Recovery Factor Filing **AEP Texas Central Company**

26,166,160,260 Schedule H Texas Central Company Projected 2017 Retail kWh Sales

			- - - -	2017 Forecasted	
	2015 Historical	Percent of	Customer ID	Billing Unit Less ID	
Rate Classes	Billing Units	Total kWh	Notice kWh	Notice Customers	Unit
Residential	9,789,352,021	39.04%		10,214,614,464	kWh
Secondary <= 10 kW	431,073,114	1.72%	1,741,982	448,057,520	kWh
Secondary > 10 kW	7,338,100,753	29.26%	9,543,564	7,647,334,024	kWh
Primary	2,494,697,810	9.95%	53,330,400	2,549,740,393	kWh
Transmission	4,803,017,298	19.15%		5,011,666,743	kWh
Lighting	220,550,177	0.88%		230,131,169	kWh
Total	25,076,791,173	100.00%	64,615,946	26,101,544,313	
		Π	O Notice kWh	64,615,946	
		H	otal 2017 kWh	26,166,160,259	

PUC Docket No. 45929 Schedule H

AEP Texas Central Company Adjusted Energy Efficiency Cost Recovery Factor Filing

> Schedule I Energy Efficiency Program Costs Included in Base Rates

Docket No 33309 TCC Connesion Staff's Final Number Run 33309 TCC Dist Model re-run 010908

					I otal Energy								
			Customer	Customer	Efficiency Costs							Distribution	
	Distribution -	Distribution	Service -	Service	Expressly		Base	Docket No.		2015 EE Base		Function	
	FERC Account	Function	FERC	Function	Included In Base	Docket No 33309	Distribution	33309 EE Rate		Revenue -16 TAC 8	Aduistment to	Allocator	Wordhtod
Class	206	Allocator	Account 907	Allocator	Rates	Biling Data	Billing Unit	per Billing Unit	2015 Billing Unit	25 181	Base Revenue	w/out Trans	Allocator
Residential	\$2,948,779	47 209%	\$75,656	85 323%	\$3,024,435	8,352,353,434	kWh	\$0.000362	9.789.352.021	\$3 543 745	\$519310	47 209%	51 884%
Secondary <= 10 kW	\$107,362	1 719%	\$6,725	7 5848%	\$114,088	398,752,267	kWh	\$0 000286	431.073.114	\$173,287	001 03	1 710%	1 8800/
Secondary > 10 kW IDR	\$126,356	2.023%	\$24	0 0269%	S126.379	1.421.383	kW	\$0.078608	2 383 928 00	S187 306	\$61.016	7 07202	1 7 7220/
Secondary > 10 kW Non-IDR	\$1,825,465	29 225%	\$6,118	6.9001%	\$1.831.583	23.486.386	kW	\$0.078608	26 991 881 40	877 101 52	\$200.105	7050000	201102
Primary IDR	166'609\$	9 766%	\$37	0.0419%	\$610,028	5.776.539	kW	\$0 105418	5 668 591 50	\$507 577	1512151	70992 0	2/611.70
Primary Non-IDR	\$65,439	1 048%	\$23	0.0257%	\$65,462	631.219	kW	\$0 105418	551 891 00	\$58,179	(12,7,2,2)	1 0/80%	11510
Transmission	\$562,887	9 012%	\$5	0 0060%	\$562,892	13.980,065	kW	\$ 0.040264	14.434.471 70	\$581.190	\$18 797	0000%	%00000
Lighting	\$ 0	0000%	\$81	0 0915%	S81	229,634,991	kWh	\$0 000000	220.550.177	20	(\$81)	0000%	0.000%
Total	\$6,246,279	100.000%	\$88,670		\$6,334,949					\$7,213,146	\$878,197	90 988%	100.000%

PUC Docket No. 45929 Schedule I

Sponsored by Jennifer L. Jackson

Schedule J

2015 Energy Efficiency Service Providers Who Received Incentives from the Energy Efficiency Programs in 2015

A list of the energy service provides, those receiving more than 5% of the total incentive funds for 2014 and the associated contracts are provided.

The information provided in Schedule J is voluminous. The information is also CONFIDENTIAL, under the terms of the Protective Order. The Confidential information is available for review at the Austin offices of American Electric Power Company (AEP), 400 West 15th Street, Suite 1520, Austin, Texas, 78701, (512) 481-4562, during normal business hours, by parties to this case who have agreed to be bound by the Protective Order.

Schedule K

2015 Affiliate Costs

Cost Type 1 Administrative Costs 2 Administrative Costs 3 Administrative Costs 4 Administrative Costs 5 Total Administrative Costs 6 Program Direct Costs 9 Program Direct Costs 10 Program Direct Costs 11 Program Direct Costs 13 Program Direct Costs 13 Program Direct Costs 14 Program Direct Costs 15 Program Direct Costs 16 Program Direct Costs 17 R&D Costs 18 Total R&D Costs 18 Total R&D Costs 18 Total R&D Costs 19 Program Direct Costs 10 Program Direct Costs 11 Program Direct Costs 13 Program Direct Costs 14 Program Direct Costs 15 Program Direct Costs 16 Program Direct Costs 17 R&D Costs 18 Total R&D Costs 18 Total R&D Costs	Department Protect Description Affiliate 2015 (s) Discrission of Baasonalianaes & Nanaastin-Vilo Linkae Than Sanadard	10329 TX EE/DR Programs EON100551 EE/DR EECRF INC 3560 See Driverty Terranson Strended and Brian Frantis	10329 TX EE/DR Programs TXDSMANDA Texas DSM Admin & General TNC 211,436 See Direct Testmonies of Robert Cevazos. Parm Osterichi and Brian Frantz	10764 Legal GC/Administration TXDSMANDA Texas DSM Admin & General AEPSC 228 See Direct Testmonies of Robert Cavazos. Pam Octaerloh and Runa Frants	13168 Legal Reg Services West TXDSMANDA Texas DSM Admin & General AEPSC 1,843 See Direct Testimonies of Robert Cavazos, Pann Sterich and Brian Frantz	\$ 217,068		10229 IN EE/UK Frograms EUNINUSUS USM-RES Standard Otter INC 438 See Direct Testimonies of Robert Cavazos, Pam Osterioh and Brian Frantz	10329 TX EE/DR Programs EON100512 Dsm-C&I Standard Offer TNC 4,251 See Direct Testimonies of Robert Cavazos. Pam Osterloh and Brian Frantz	10329 TX EE/DR Programs EON100514 Dsm-Hard To Reach Std Offer TNC 20,109 See Direct Testimonies of Robert Cavazos. Pam Osterloh and Brian Frants	10329 TX EF/DR Programs EON100520 DSM-Load Management TNC 3.082 See Direct Testimonies of Robert Carazos. Pan Osterioh and Reian Frants	10329 TX EE/DR Programs EON100522 DSM-Low income Weatherization TNC 1.598 See Direct Testimonies of Rheart Coursons Parm Contention and Relative	10329 TX EF/DR Programs EON100534 DSM Solar PV Pilot MTP TNC 1.859 See Direct Testimonies of Robert Cavazos. Pam Ostenich and Rvian Frants	10329 TX EE/DR Programs EON100547 DSM - EM&V TNC 321 See Direct Testimonies of Robert Cavazos. Pam Osterioh and Rvian Frants	10329 TX EE/DR Programs EON100548 EE/DR Irrigation load Mgmt MTP TNC 111 See Direct Testimonies of Rohert Coursons Parm Ostanich and Reian Ferner	11060 Customer and Distr Services EDNANDA Distribution Anda Project AEPSC 678 See Direct Testimonies of Robert Cavazos. Pain Orserich and Rusian Frants	12883 EE & Consumer Programs EDNANDA Distribution Anda Project AEPSC 3.531 See Direct Testimonies of Rohert Coursons Parm Ortenfold and Reiser Frants	\$ 35,979	10329 TX EE/DR Programs EON100535 EE/DR R&D TNC 34,423 See Direct Testimonies of Robert Cavazos. Pam Osterioh and Brian Frantz	\$ 34,423	
Cost Type 1 Administrative Costs 2 Administrative Costs 3 Administrative Costs 4 Administrative Costs 5 Total Administrative Costs 6 Program Direct Costs 7 Program Direct Costs 10 Program Direct Costs 11 Program Direct Costs 12 Program Direct Costs 13 Program Direct Costs 14 Program Direct Costs 15 Program Direct Costs 16 Total Program Direct Costs 16 Total Program Direct Costs 17 R&D Costs 17 R&D Costs 18 Total R&D Costs 18 Total R&D Costs 19 R&D Costs 10 Program Direct Costs 10 Program Direct Costs 11 Program Direct Costs 13 Program Direct Costs 14 Program Direct Costs 15 Program Direct Costs 16 Total R&D Costs 17 R&D Costs 17 R&D Costs 18 Total R&D Costs 18 Total R&D Costs 19 R&D Costs 10 Program Direct Costs 10 Program Direct Costs 11 Program Direct Costs 13 Program Direct Costs 14 Program Direct Costs 15 Program Direct Costs 16 Total R&D Costs 17 R&D Costs 17 R&D Costs 18 Total R&D Costs 18 Total R&D Costs 19 Fortal R&D Costs 10 Program Direct Costs 10 Program Direct Costs 10 Program Direct Costs 11 Program Direct Costs 13 Program Direct Costs 14 Program Direct Costs 15 Program Direct Costs 16 Total Program Direct Costs 17 R&D Costs 17 R&D Costs 18 Total R&D Costs 19 Program Direct Costs 10 Program Direct Costs 10 Program Direct Costs 10 Program Direct Costs 10 Program Direct Costs 11 Program Direct Costs 13 Program Direct Costs 14 Program Direct Costs 15 Program Direct Costs 16 Program Direct Costs 17 R&D Costs 17 R&D Costs 18 Program Direct Program Direct Costs 18 Program Direct Costs 19 Program Direct Costs 10 Program Direct Program Direct Costs 10 Program Direct Costs 10 Program Direct Costs 10 Program Direct Program Direct Program Direct Program Direct Program Direct Program Direct P	Department	10329 TX EE/DR Programs EON	10329 TX EE/DR Programs TXDS	10764 Legal GC/Administration TXDS	13168 Legal Reg Services West TXDS			TUDED IN EE/UK Programs EUN.	10329 TX EE/DR Programs EON:	10329 TX EE/DR Programs EON:	10329 TX EE/DR Programs EON:	10329 TX EE/DR Programs EON:	10329 TX EE/DR Programs EON:	10329 TX EE/DR Programs EON:	10329 TX EE/DR Programs EON1	11060 Customer and Distr Services EDNA	12883 EE & Consumer Programs EDN/		10329 TX EE/DR Programs EON1		
	Cost Type	1 Administrative Costs	2 Administrative Costs	3 Administrative Costs	4 Administrative Costs	5 Total Administrative Costs	6 Broaram Direct Costs	o riugiann phett costs	7 Program Direct Costs	8 Program Direct Costs	9 Program Direct Costs	10 Program Direct Costs	11 Program Direct Costs	12 Program Direct Costs	13 Program Direct Costs	14 Program Direct Costs	15 Program Direct Costs	16 Total Program Direct Costs	17 R&D Costs	18 Total R&D Costs	

Schedule L Bidding and Engagement Process

AEP Texas Central Company (TCC) uses several procedural paths through which it contracts with energy efficiency service providers (EESPs) for the purpose of implementing energy efficiency and demand response (EE/DR) programs to achieve TCC's goals. The procedures and processes TCC uses differs according to the program type, as shown in more detail below.

Standard Offer Program (SOP) Process

TCC posts its program manuals, including specific application procedures and timelines on its web site (aeptexas.com/save). In accordance with the published schedule, EESPs may submit their project applications and all supplemental documentation required for participation in the program.

As part of the application process, EESPs describe the project measures to be installed, including applicable measurement and verification methods (M&V). As required, the M&V plan may include approved deemed savings values, or the appropriate International Performance Measurement and Verification Protocol (IPMVP) to be utilized.

TCC reviews each Project Application on a first-come, first-served basis. TCC awards contracts based upon each EESP's timely and complete submission of qualifications, history and appropriate reference information, and potential ability to help meet program goals. TCC may reject any Project Application for failure to meet the required procedures or deadlines. TCC may request clarification of, or additional information about, any item submitted as part of the Project Application.

TCC notifies each EESP of its application status according to program procedures and, if approved as a Project Sponsor, the available incentive budget. For any programs that require a Project Sponsor security deposit, the security deposit must be provided to TCC within the published timeline.

For residential projects, TCC and Project Sponsors enter into a standard offer agreement contract at which time the Project Sponsors may begin to solicit and engage residential customers to implement eligible EE measures.

EESPs or qualified commercial customers identify and submit applications for the installation of EE measures at commercial customer sites. TCC reviews the applications as described above. TCC and approved Project Sponsors enter into a standard offer agreement contract for the implementation of the EE measures or projects at commercial customer sites.

Schedule L Bidding and Engagement Process

Market Transformation Program (MTP) Process

TCC may implement an MTP as a full program or as a limited MTP pilot. Programs may be selected based on a concept presented by an EESP or from observation of successful programs already implemented at another utility. For programs proposed by an EESP that TCC deems viable, TCC may contract with the initiating EESP to implement the program on a limited pilot basis for a period typically no longer than three years.

When a pilot program has been deemed successful by TCC and a baseline study has been completed, TCC implements a competitive solicitation process. A Request for Proposals (RFP) is developed and sent electronically to all EESPs who have contacted TCC and expressed an interest in implementing such programs in the Texas market.

Interested EESPs submit program proposals according to the published requirements and schedule. TCC forms an internal proposal evaluation and scoring team, and all proposals are individually evaluated according to standard scoring criteria. References submitted by EESPs are contacted and interviewed. Scoring and reference results are consolidated and the EESP proposal with the highest score is selected for further negotiation as the program implementer.

Retail Electric Provider Engagement Process

AEP Texas Competitive Retail Relations department hosts an annual communications workshop for all Texas REPs. Detailed EE program information is disseminated to the REPs in attendance, along with an opportunity for the REPs to ask questions about participating in existing programs and also to provide suggestions of program ideas.

REPs are encouraged to submit a program template for a new program to TCC, either alone or through an EESP. For programs proposed by an REP that TCC deems viable, TCC may contract with the initiating REP to implement the program on a limited pilot basis for a period typically no longer than three years.

SCHEDULE M

Residential & Commercial EULs

Sector	TRM Section/End Use	Energy Efficiency Measure	EUL (years)	TRM Version
Custom	Custom	Custom	NA	NA
Residential	Lighting	Res Compact Fluorescent Lamps	5.3	10
Residential	HVAC	Res Duct Efficiency Improvement	18.0	1.0
Residential	HVAC	Res Central Air Conditioner	15.0	10
Residential	HVAC	Res Ground Source neat Pump	15.0	1.0
Residential	HVAC	Res Split System and Single-Package Heat Pumps (65 000-240 000)	15.0	1.0
Residential	HVAC	Res Split System and Single-Package Air Conditioners (65,000-240,000)	15.0	1.0
Residential	HVAC	Res Window Air Conditioner	13.0	1.0
Residential	Building Envelope	Res Air Infiltration	11.0	1.0
Residential	Building Envelope	Res Ceiling Insulation	25 0	10
Residential	Building Envelope	Res Wall Insulation	25 0	10
Residential	Building Envelope	Res Floor Insulation	25 0	10
Residential	Building Envelope	Res Energy Star Windows	25 0	10
Residential	Building Envelope	Res Solar Screens	10 0	1.0
Residential	Water Heating	Res Faucet Aerators	10 0	10
Residential	Water Heating	Res Low-Flow Showerheads	10 0	1.0
Residential	Water Heating	Res Water Heater Pipe Insulation	13 0	10
Residential	Water Heating	Res Water Heater Tank Insulation	7.0	1.0
Residential	Water Heating	Res Water Heater Replacement- High Efficiency and Fuel Substitution	13.0	1.0
Residential	Water Heating	Res Heat Pump Water Heater	13.0	1.0
Residential	water Heating	Kes water Heater Keplacement- Solar Water Heating	15.0	10
Residential	Appliances	Res Energy Star Ceiling Fans	10.0	10
Residential	Appliances	Res Energy star Clothes Washers	11.0	1.0
Residential	Appliances	Res Energy Star Distingastor	14.0	10
Residential	Арриансез	Kes Lifel gy Star Kenigerator	140	Docket
Residential	Appliances	Res Energy Star Refrigerator - Docket 42212	8.0	42212
Residential	Whole House	Res New Homes	23.0	1.0
Residential	Renewable Energy Systems	Res Solar Photovoltaic (PV)	30.0	1.0
Residential	Load Management	Res Direct Load Control Switches Installed on Outdoor Compressor Units	1.0	10
Residential	Load Management	Res Direct Load Control Switches Installed on Swimming Pool Pump Motors	1.0	1.0
Commercial	Lighting	Comm Lamps and Fixtures: Integrated-ballast CFL Lamps	2.5	1.0
Commercial	Lighting	Comm Lamps and Fixtures: Integrated-ballast LED Lamps	90	10
Commercial	Lighting	Comm Lamps and Fixtures. Light Emitting Diode	15.0	10
Commercial	Lighting	Comm Lamps and Fixtures ¹ Modular CFL and CCFL Fixtures	16.0	10
Commercial	Lighting	Comm Lamps and Fixtures: T8 and T5 Liner Fluorescents	15 5	1.0
Commercial	Lighting	Comm Lamps and Fixtures: T8 and T5 Linear Fluorescents replacing T12s with magnetic ballasts	8.5	10
Commercial	Lighting	Comm Lighting Controls. Occupancy Sensor	10.0	10
Commercial	Lighting	Comm Lighting Controls. Photocell (Daylight Control)	10.0	10
Commercial	HVAC	Comm Split System/Single Packaged Heat Pumps and Air Conditioners	15.0	10
Commercial	HVAC	Comm HVAC Chillers Centrifugal Chillers	20.0	1.0
Commercial	HVAC	Comm Packaged Terminal Air Conditioners, Heat Pumps, and Room Air	13 0	10
Commercial	HVAC	Comm HVAC VED on AHIL Supply Fans	15.0	1.0
Commercial		Comm Energy Star Boofs	15.0	1.0
Commercial	Building Envelope	Comm Window Film	10.0	10
Commercial	Food Service Equipment	Comm High Efficiency Combination Ovens	12.0	1.0
Commercial	Food Service Equipment	Comm High Efficiency Electric Convention Ovens	12.0	1.0
Commercial	Food Service Equipment	Comm Energy Star Commercial Dishwashers	11 0	10
Commercial	Food Service Equipment	Comm Hot Food Holding Cabinets	12 0	1.0
Commercial	Food Service Equipment	Comm Energy Star Electric Fryers	12.0	1.0
Commercial	Food Service Equipment	Comm Pre-Rinse Spray Valves	5.0	10
Commercial	Food Service Equipment	Comm Energy Star Electric Steam Cookers	10.0	10
Commercial	Retrigeration	Comm Door Heater Controls	12.0	1.0
Commercial	Ketrigeration	Comm ECM Evaporator Fan Motor	15 0	10
Commercial	Retrigeration	Comm Exercise Electronic Defrost Controls	100	10
Commercial	Refrigeration	Comm Night Covers for Onen Refrigerated Display Cases	10.0	10
Commercial	Refrigeration	Comm Solid Glass Door Reach-Ins	12.0	1.0
Commercial	Refrigeration	Comm Strip Curtains for Walk-In Refrigerated Storage	40	10
Commercial	Refrigeration	Comm Zero Energy Doors for Refrigerated Cases	12.0	10
Commercial	Miscellaneous	Comm Vending Machine Controls	5.0	10
Commercial	Renewables	Comm Solar Photovoltaic (PV)	30.0	1.0
Commercial	Load Management	Comm Load Curtailment Measure	1.0	10
Commercial	Lighting	Comm Lamps and Fixtures. Halogen Lamps	1.5	2.1
	18 17 - 1 - 14	Removed from TRM 1.0, but still allowed in LSF for PY 2014; added back into TRM 2.1		ana ang ang ang ang ang ang ang ang ang
Commercial	Lighting #	Comm Lamps and Fixtures: High Intensity Discharge Lamps Removed from TRM 1.0, but still allowed in LSF for PY 2014; added back into TRM 2.1	15.5	2,1
Commercial	Lighting	Comm Lamps and Fixtures: Integrated-ballast CCFL Lamps Removed from TRM 1.0, but still ollowed in LSF for PY 2014; added back into TRM 2.1	4.5	2,1

Schedule N

2017 Projected Energy Efficiency Goals and Objectives

Goal Metric 0.4% Peak Demand (MW)	Peak Demand Goal (MW)*	Energy Goal (MWh)	Projected Demand Reductio n (MW)	Projected Energy Savings (MWh)
0.01	C0.C	+C/.17	40.71	00070

1 TCC's Demand Reduction Goal, calculated according to PUC Rules, is four-tenths of 1% of its summer weather-adjusted peak demand for the combined residential and commercial customers for the previous program year.

2 TCC's Energy Savings Goal, calculated according to PUC Rules, is based on a 20% Capacity Factor.

3 Please see p. 9 through 10 of Ms. Osterloh's testimony for an explanation of how the Projected Demand Reduction and Energy Savings Objectives were determined.

TCC Schedule O

2017 Projected Energy Efficiency Program Savings

	20	17
	Demand	
	Reduction Target	Energy Savings
Customer Class and Program	(MW)	Target (MWh)
Commercial		
Commercial Solutions MTP	0.83	3,888
Commercial SOP	2.42	16,285
CoolSaver© A/C Tune-Up MTP	1.39	4,376
Load Management SOP	27.11	27
Open MTP	0.72	2,052
SCORE/CitySmart MTP	1.69	5,750
SMART Source SM Solar PV MTP	0.19	374
Residential		
CoolSaver© A/C Tune-Up MTP	1.02	3,224
Earth Networks Residential DR Pilot MTP	3.75	4
Efficiency Connection Pilot MTP	0.19	717
High-Performance New Homes MTP	0.54	1,631
Reliant Residential DR Pilot MTP	0.06	0.10
Residential SOP	4.93	18,214
SMART Source SM Solar PV MTP	0.17	320
Hard-to-Reach		
Hard-to-Reach SOP	1.26	4,579
Targeted Low-Income Energy Efficiency Program	0.63	1,227
Total Annual Projected Savings	46.91	62,668

TCC SCHEDULE P

2015 Energy Efficiency Programs' Cost - Net Benefit Ratio

2015	Sé	vings	Costs		Bene	fits		Benefit-Cost
Customer Class and Program	κw	kwh	Total Program Costs	Avoided Capacity Costs	Avoided Energy Costs	Total Avoided Cost	Net Benefits	Ben-Cost Ratio
Commercial	35,470	39,090,740	\$ 8,195,846	\$ 7,818,308	\$ 18,186,442	\$ 26,004,750	\$ 17,808,904	3.17
Commercial Solutions MTP	1,185	6,719,171	\$ 1,029,370	\$ 869,784	\$ 3,296,856	\$ 4,166,640	\$ 3,137,269	4.05
Commercial SOP	2,233	15,036,669	\$ 2,633,291	\$ 1,673,879	\$ 7,281,732	\$ 8,955,610	\$ 6,322,319	3.40
Commercial CoolSaver	1,593	5,104,501	\$ 916,528	\$ 545,863	\$ 1,163,292	\$ 1,709,155	\$ 792,627	1.86
Commercial Load Management SOP	27,418	27,418	\$ 984,001	\$ 2,081,191	\$ 1,384	\$ 2,082,575	\$ 1,098,575	2.12
Commercial Open MTP	629	3,059,520	\$ 1,237,449	\$ 384,503	\$ 1,171,485	\$ 1,555,988	\$ 318,538	1.26
Commercial SCORE/CS MTP	1,333	7,159,107	\$ 1,299,699	\$ 1,051,839	\$ 3,718,662	\$ 4,770,502	\$ 3,470,802	3.67
Commercial SMART Source MTP	1,029	1,984,354	\$ 95,508	\$ 1,211,249	\$ 1,553,031	\$ 2,764,281	\$ 2,668,773	28.94
Residential	6,448	23,706,806	\$ 6,715,307	\$ 4,986,564	\$ 12,593,255	\$ 17,579,819	\$ 10,864,511	2.62
Residential CoolSaver	1,051	3,997,053	\$ 1,022,188	\$ 367,677	\$ 930,906	\$ 1,298,583	\$ 276,395	1.27
idential Efficiency Connection Pilot MTP	17	62,004	\$ 105,247	\$ 13,661	\$ 33,355	\$ 47,015	\$ (58,232)	0.45
Residential HP New Homes MTP	501	1,903,959	\$ 1,178,196	\$ 521,553	\$ 1,317,401	\$ 1,838,954	\$ 660,758	1.56
Residential SOP	4,735	17,465,758	\$ 4,092,210	\$ 3,913,961	\$ 10,093,995	\$ 14,007,956	\$ 9,915,745	3.42
Residential SMART Source MTP	144	278,032	\$ 317,466	\$ 169,712	\$ 217,598	\$ 387,311	\$ 69,845	1.22
Hard-to-Reach	1,224	4,456,145	1,467,714	980,863	2,495,639	3,476,502	2,008,788	2.37
Residential Hard-to-Reach SOP	1,224	4,456,145	\$ 1,467,714	\$ 980,863	\$ 2,495,639	\$ 3,476,502	\$ 2,008,788	2.37
Residential Targeted Low Income EEP	634	1,228,535	\$ 1,917,050	\$ 548,805	\$ 713,198	\$ 1,262,003	\$ (655,047)	0.66
Portfolio Total	43,775	68,482,226	\$ 18,295,918	\$ 14,334,539	\$ 33,988,535	\$ 48,323,074	\$ 30,027,156	2.64

AEP Texas Central Company Adjusted Energy Efficiency Cost Recovery Factor Filing

PUC Docket No. 45929 Schedule Q

Schedule Q System and Line Losses

TCC kWh sales forecast for 2017 is based on energy delivered at the meter so it was not necessary to adjust the EECRF factors for system and line losses.

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TCC Schedule R

2016 Energy Efficiency Programs

Decentition	Provides mentives to air conditioning equipment distributions in one or more cities served by TCC. The program's objective is to increase the market penetration of high-efficiency air conditioning equipment for residential and commercia customers served by TCC.	Provides energy efficiency and demand reduction solutions for commercial customers identified as having a need for energy efficiency improvements and needing support from an outside source. Facilitates the identification of demand and energy savings opportunities, operating characteristics, program design, long-range energy efficiency planning and overall measure and program acceptance by the targeted customers. Incentives are paid to customers served by TCC for eligible measures installed in new or retrofit applications, which provide verifiable demand and energy savings	Provides incentives for the installation of a wide range of measures that reduce customer energy costs and reduce peak demand and/or save energy in non-residential facilities. Customer sites may include hotels, schools, manufacturing facilities, restaurants, and larger grocery stores. These customers have installed such eligible measures as lighting, new or replacement childer systems, high efficiency pumping systems, and other similar technologies. Incentives are paid to project sponsors based on deemed savings or on verified peak demand and/or energy savings using the International Performance Measurement and Verification Protocol	Offers assistance to contractors in obtaining the tools and expertise that will allow them to develop quantitative savings information for comprehensive tune-ups. This program targets contractors that provide air conditioning system tune-up services to residential and commercial customers. The program implementer targets various air conditioning equipment distributor networks and organizations by phone and site visits to gauge their interest in the program.	Targets residential customers by partnering with REPs who will promote energy efficiency to their customers Under this program, REPs will initially offer customers LED lamps at a discounted price via an online marketplace	Targets a specific subset of residential customers defined by P.U.C. Subst. R. §25 181(c)(27) as customers with a total household income that is less than 200% of the federal poverty gudelines. The program provides meentives for the installation of a wide range of measures that reduce residential customer energy of the federal provements to individual households at no or very low cost. Eligible cost-effectively provide energy efficiency unprovements to individual households at no or very low cost. Eligible measures much are conditioners, wall and ceiling insulation and air distribution duct improvements in existing homes incentives are paid to ESPs for eligible measures on the basis of deemed savings	Targets homebuilders and residential consumers The program's goal is to create conditions where consumers are demand ENERGY STAR qualified homes. Incentives are paid to homebuilders who construct homes to struct energy efficient building guidelines that are at least 15% above the local building code Incentives are also paid to independent home energy raters who verify the energy efficiency of the homes
Customer Class	Residential	Commercial	Commercial	Commercial & Residential	Residential	Hard-to-Reach	Residential
Program	A/C Distributor Pilot MTP	Commercial Solutions MTP	Commercial SOP	CoolSaver A/C Tune- up MTP	Efficiency Connection Pilot MTP	Hard-to-Reach SOP	High Performance New Homes MTP

PUC Docket No. 45929 Schedule R Page 1 of 2

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TCC Schedule R

2016 Energy Efficiency Programs

Prooram	Customer Class	Descrinton
Load Management SOP	Commercial	Targets commercial customers that have a mnumum demand of 500k kW or more. Incentives are paid to project sponsors that can identify and interrupt electric load on short notice. These payments are based on the delivery of metered demand reduction.
Open MTP	Commercial	
		Targets small commercial customers (peak demands not exceeding 100 kW in the previous 12 consecutive billings months) with limited ability to implement energy efficiency measures or to actively seek the help of a professional EESP. Available meetitives are paid directly to the contractor, thereby reducing a portion of the project cost for the customer. Additional meetitives may offset up to 100% of project costs for customers with a peak demand less than or equal to 10 kW.
Residential SOP	Residential	Provides incentives for the installation of a wide range of measures that reduce residential customer energy costs and cost- effectively reduce peak demand It is also designed to encourage private sector delivery of energy efficient products and services Eligible measures include replacement air conditioners, wall and ceiling insulation and air distribution duct improvements. Incentives are paid to Project Sponsors for eligible measures installed in retrofit applications on the basis of deened savings
SCORE/CitySmart MTP	Commercial	Provides energy efficiency and demand reduction solutions for cities and public schools SCORE/CitySmart will facilitate the identification of demand and energy savings opportunities, operating characteristics, long-range energy efficiency planning and overall measure and program acceptance by the targeted cities and schools Incentives are paid to cities and public school partners served by TCC for certain measures installed in new or retrofit applications, which provide verifiable demand and energy savings
SMART Source SM Solar PV MTP	Commercial & Residential	Provides incentives for residential and commercial customers that install solar electric (photovoltaic) systems interconnected on the customer's side of the electric service meter
Targeted Low-Income Energy Efficiency Program	Low-Income Residential	Designed to cost-effectively reduce the energy consumption and energy costs of TCC's low-income customers The program provides eligible residential customers with appropriate weatherization measures and basic on-site energy education. This program enhances and supplements the federally funded Weatherization Assistance Program.

PUC Docket No. 45929 Schedule R Page 2 of 2

AEP Texas Central Company

2016 Energy Efficiency Plan and Report

16 Tex. Admin. Code §§ 25.181 and 25.183

Amended May 27, 2016

Project No. 45675



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INTRODUCTION

AEP Texas Central Company (TCC or Company) presents this Energy Efficiency Plan and Report (EEPR) to comply with Public Utility Commission of Texas (PUCT or Commission) 16 Tex. Admin. Code §§ 25.181 and 25.183 (TAC) (EE Rule), which implement the Public Utility Regulatory Act (PURA) § 39.905. As mandated by this section of PURA, the EE Rule requires that each investor-owned electric transmission and distribution utility (TDU) achieve the following demand reduction goals through market-based standard offer programs (SOPs) and targeted market transformation programs (MTPs). 16 TAC § 25.181(e)(1) provides in pertinent part as follows:

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

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

EEPR Organization

This EEPR consists of an Executive Summary, fourteen sections, a list of acronyms, and four appendices.

• Executive Summary summarizes TCC's plans for achieving its goals and projected energy efficiency savings for program years 2016 and 2017 and highlights TCC's achievements for Program Year 2015.

Energy Efficiency Plan

- Section I describes TCC's program portfolio. It details how programs will be implemented, presents related informational and outreach activities, and provides an introduction to any programs not included in TCC's 2015 EEPR.
- Section II explains TCC's targeted customer classes, describes the estimated size of each class and the method of determining those class sizes.
- Section III presents TCC's energy and demand goals and projected savings for the prescribed planning period detailed by program for each customer class.
- Section IV describes TCC's proposed energy efficiency budgets for the prescribed planning period detailed by program for each customer class.

Energy Efficiency Report

- Section V documents TCC's demand reduction goal for each of the previous five years (2011-2015) based on its weather-adjusted peak demand and actual savings achieved for those years.
- Section VI compares TCC's projected energy and demand savings to its reported and verified savings by program for calendar years 2014 and 2015.
- Section VII details TCC's incentive and administration expenditures for each of the previous five years (2011-2015) detailed by program for each customer class.
- Section VIII compares TCC's actual 2015 expenditures with its 2015 budget by program for each customer class. It identifies funds committed but not expended and funds remaining and not committed. It also explains any cost differences of more than 10% from TCC's overall program budget and from each program budget.
- Section IX describes the results from TCC's MTPs.
- Section X describes Research and Development activities.
- Section XI documents TCC's 2016 Energy Efficiency Cost Recovery Factor (EECRF).
- Section XII documents TCC's 2015 EECRF Summary.
- Section XIII documents TCC's Underserved Counties.
- Section XIV describes TCC's Performance Bonus calculation for Program Year 2015.

Acronyms

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

Appendices

- Appendix A Reported and verified demand and energy reductions by county for each program.
- Appendix B Program templates for any new or significantly modified programs and programs not included in TCC's previous EEPR.
- Appendix C Existing energy efficiency contracts and obligations.
- Appendix D Data, explanations, or documents supporting other sections of the EEPR.

Executive Summary – Energy Efficiency Plan (Plan)

TCC plans to achieve its 2016 mandated demand and energy goals of 15,730 kW and 27,559,000 kWh as shown in Table 1 below through residential and non-residential SOPs and MTPs. TCC will utilize a budget of \$14,265,244 to accomplish these goals.

Goal Average **Metric:** Peak Projected Projected Peak Energy Projected Calendar 0.4% Demand Demand Energy Demand Goal Budget Year Peak Goal Reduction Savings at Meter (MWh) (000's)* Demand (MW) (MW) (MWh) (MW) (MW) 2016 3,934 15 73 15.73 27,559 46 82 62,528 \$14,265 2017 3,958 15 83 15 83 27,734 46 91 62,668 \$14,082

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

* The 2016 Projected Budget includes costs associated with Evaluation, Measurement & Verification activities.

Executive Summary – Energy Efficiency Report (Report)

TCC achieved demand and energy reductions of 43,775 kW and 68,482,227 kWh, respectively, in 2015. The total energy efficiency cost for achieving these savings was \$13,508,113. TCC's achievement exceeded the 2015 mandated energy efficiency goals of 12,930 kW and 22,653,000 kWh, thus allowing TCC to earn a Performance Bonus.

A broad portfolio of residential and non-residential SOPs and MTPs was used to accomplish these savings.

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

ENERGY EFFICIENCY PLAN

I. 2016 Programs

A. 2016 Program Portfolio

TCC has implemented a variety of programs in 2016 to enable it to meet its goals in a manner that complies with PURA § 39.905 and the EE Rule. These programs target broad market segments and specific market sub-segments with significant opportunities for cost-effective energy savings.

Table 2 summarizes TCC's programs and targeted customer class markets for Program Year 2016. The programs listed in Table 2 are described in further detail in Subsections B and C. TCC maintains a web site containing information on participation and forms required for project submission at <u>www.AEPTexas.com</u>. This site is the primary method of communication used to provide program updates and information to Retail Electric Providers (REPs), potential Energy Efficiency Service Providers (EESPs), and other interested parties.

Implementation Process

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

SOPs are managed in-house with project sponsors providing eligible program measures. Project sponsors are typically EESPs; however, for commercial projects a TCC end-use customer may serve as its own project sponsor. Eligible project sponsors can submit an application(s) for project(s) meeting the minimum SOP requirements.

TCC monitors projects being submitted so as to not accept duplicate enrollments.

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Outreach Activities

- Promote internet web sites with program information including project eligibility, end-use measures, incentives, procedures, application forms, and in some cases a list of participating project sponsors and the available program budget;
- Utilize mass e-mail notifications to inform and update potential project sponsors on TCC energy efficiency program opportunities;
- Conduct workshops as necessary to explain program elements such as responsibilities of the project participants, program requirements, incentive information and the application and reporting process;
- Conduct specific project sponsor/contractor training sessions as necessary based on the energy efficiency programs being implemented;
- Participate in local, regional, state-wide, and industry-related outreach activities as may be necessary; and
- Facilitate earned media opportunities, spotlighting successful projects and/or interesting stories as applicable.

Program	Target Market	Application	Link to Program Manual
Commercial Solutions MTP	Commercial	Retrofit & New Construction	http://eeprograms.net/aep/texascentral/aep-texas-central-commercial- solutions-program/
Commercial SOP	Commercial	Retrofit & New Construction	https://www.aeptexas.com/save/business/programs/TCCPrograms.aspx
CoolSaver sM A/C Tune-Up MTP	Commercial; Residential	Retrofit	http://eeprograms.net/aep/texascentral aep-texas-central-coolsaver-ac-tune- up-program/
Earth Networks Residential DR Pilot MTP	Residential	Retrofit	No website available
Efficiency Connection Pilot MTP	Residential	Retrofit	No website available
Hard-to-Reach SOP	Residential Hard-to-Reach	Retrofit	http://www.southtxsaves.com/resources-and-tips
High-Performance New Homes MTP	Residential	New Construction	https://www.aeptexas.com/save/residential/programs/TCCPrograms.aspx
Load Management SOP	Commercial	Retrofit	https://www.aeptexas.com/save/business/programs/TCCPrograms.aspx
Open MTP	Commercial	Retrofit	http://eeprograms.net/aep/texascentral/aep-texas-central-open/
Reliant Residential DR Pilot MTP	Residential	Retrofit	No website available
Residential SOP	Residential	Retrofit	https://www.aeptexas.com/save/residential/programs/TCCPrograms.aspx
SCORE/CitySmart MTP	Commercial	Retrofit & New Construction	http://eeprograms.net/aep/texascentral/aep-texas-central-score-program/ http://eeprograms.net/aep/texascentral/aep-texas-central-citysmart-program/
SMART Source SM Solar PV MTP	Commercial; Residential	Retrofit & New Construction	http://www.txreincentives.com/apv/
Targeted Low-Income Energy Efficiency Program	Low-Income Residential	Retrofit	No website available

Table 2: 2016 Energy Efficiency Program Portfolio

B. Existing Programs

Commercial Solutions Market Transformation Program (CS MTP)

The CS MTP targets commercial customers (other than governmental and educational entities) that do not have the in-house expertise to: 1) identify, evaluate, and undertake energy efficiency improvements; 2) properly evaluate energy efficiency proposals from vendors; and/or 3) understand how to leverage their energy savings to finance projects. Incentives are paid to customers served by TCC for eligible energy efficiency measures that are installed in new or retrofit applications that result in verifiable demand and energy savings.

Commercial Standard Offer Program (CSOP)

The CSOP targets commercial customers of all sizes. Variable incentives are available to project sponsors based upon verified demand and energy savings for eligible measures installed in new or retrofit applications.

CoolSaverSM A/C Tune-Up Market Transformation Program (CoolSaverSM MTP)

The CoolSaver^{ss} MTP is designed to overcome market barriers that prevent residential and small commercial customers from receiving high performance air conditioning (A/C) system tune-ups. The program works through local A/C networks to offer key program components, including:

- Training and certifying A/C technicians on the tune-up and air flow correction services and protocols.
- Paying incentives to A/C contactors for the successful implementation of A/C tune-up and air flow correction services.
- Paying incentives to A/C contractors who replace existing residential air conditioners and/or heat pumps with new high efficiency units of 16 SEER or higher.

Efficiency Connection Pilot MTP (EffCon)

The EffCon Pilot MTP is a partnership with REPs to help promote energy efficiency to TCC residential customers by offering discounted LED lamps via an online marketplace. A third-party implementer facilitates customer/REP participation and aids in the selection and management of an online retailer/vendor for the program website and order fulfillment.

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

The HTR SOP targets residential customers with total annual household incomes at or below 200% of current federal poverty guidelines. Incentives are paid to project sponsors for eligible measures installed in retrofit applications that result in verifiable demand and energy savings. Program incentives are higher for work performed in historically underserved counties to encourage activity. Project comprehensiveness is encouraged and customer education materials regarding energy conservation behavior are distributed by project sponsors.

High-Performance New Homes Market Transformation Program (New Homes MTP)

The New Homes MTP targets several market participants, primarily homebuilders and consumers. The program's goal is to create conditions in which consumers demand highly energy efficient homes, and homebuilders supply them. Incentives are paid to homebuilders who construct homes in the TCC service territory to strict energy-efficient building guidelines and that are at least 10% above the local building code. The program also offers a bonus incentive for homes that are ENERGY STAR[®]-certified. Each home results in verifiable demand and energy savings. In addition to homebuilder and consumer outreach, the New Homes MTP targets key allies in the homebuilding production and sales cycle: home energy raters, homebuilder sales agents, real estate agents, HVAC contractors, mortgage lenders, product manufacturers, homebuilder associations, and media outlets.

Load Management Standard Offer Program (LM SOP)

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

Open Market Transformation Program (Open MTP)

The Open MTP targets traditionally underserved small commercial customers who may not employ knowledgeable personnel with a focus on energy efficiency, who are limited in the ability to implement energy efficiency measures, and/or who typically do not actively seek the help of a professional EESP. Small commercial customers with a peak demand not exceeding 100 kW in the previous 12 consecutive billing months may qualify to participate in the program. Available incentives are paid directly to the contractor, thereby reducing a portion of the project cost for the customer.

The program is intended to overcome market barriers for participating contractors by providing technical support and incentives to implement energy efficiency upgrades and produce demand and energy savings.

The program implementer works with TCC to conduct outreach and planning activities for the Open MTP in the following manner:

- Identifies and recruits contractors who provide services to customers served by TCC to develop a network of participating contractors who will deliver the program directly to customers;
- Develops a recruitment packet with outreach information and enrollment materials that participating contractors can use when marketing the program to customers; and
- Conducts training as necessary to explain elements of the program, such as responsibilities of the participants, project requirements, incentive information, and the application and reporting process.

Residential Standard Offer Program (RSOP)

The RSOP targets residential customers in existing homes. Incentives are paid to project sponsors for eligible measures installed in retrofit applications that result in verified demand and energy savings. Program incentives are higher for work performed in historically underserved counties to encourage activity. Project comprehensiveness is encouraged.

SCORE/CitySmart Market Transformation Program (SCORE/CS MTP)

The SCORE/CS MTP provides energy efficiency and demand reduction solutions for public and private educational entities grades K-12 as well as colleges and universities. In addition to educational facilities, SCORE/CS MTP provides these same solutions to local, state, county and federal government customers. This program is designed to help educate and assist these customers in lowering their energy use by facilitating the integration of energy efficiency into their short- and long-term planning, budgeting, and operational practices. Incentives are paid to participating customers for eligible energy efficiency measures that are installed in new or retrofit applications that result in verifiable demand and energy savings.

SMART Sources Solar PV Market Transformation Program (PV MTP)

The PV MTP offers incentives to customers for the installation of solar photovoltaic (PV) systems interconnected on the customer's side of the meter. The incentives help offset the initial costs of installing solar PV systems, and encourage service providers to seek more installation opportunities. In addition to demand and energy savings achieved from the installations, the PV MTP aims to transform the solar PV market by increasing the number of qualified technicians and installers and decreasing the average installed cost of PV systems, thereby creating greater market economies of scale.

Targeted Low-Income Energy Efficiency Program (TLIP)

The TLIP is designed to cost-effectively reduce the energy consumption and energy costs for lowincome residential customers in TCC's service territory. Weatherization service providers install eligible weatherization and energy efficiency measures in qualified households that meet the Department of Energy (DOE) income-eligibility guidelines of at or below 200% of the federal poverty guidelines. A Savings-to-Investment Ratio of 1.0 or higher is required of each serviced dwelling unit.

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C. New Programs for 2016

Earth Networks Residential Thermostat Demand Response (DR) Pilot Program

Earth Networks (EN) will use the WeatherBug Home (WBH) technology to deliver an Integrated Demand Side Management (IDMS) aggregation program that will bring residential energy efficiency and demand response capacity to TCC.

Reliant Residential Demand Response (DR) Pilot Program

The Reliant Residential DR pilot program is a market transformation program that will be utilized to support TCC's energy efficiency goals. TCC will leverage an existing industry-recognized program from a Retail Electric Provider (REP) to reduce demand consumption. Reliant will use its existing customer base from their thermostat-based peak time rebate program, Degrees of Difference, to respond quickly to market conditions.

D. Discontinued Programs

TCC has no discontinued programs for 2016.

E. Existing DSM Contracts or Obligations

TCC has no existing DSM contracts or obligations.

II. Customer Classes

TCC's energy efficiency programs target its Residential and Commercial customer classes. TCC's energy efficiency programs also target customer sub-classes, such as Residential Hard-to-Reach and Low-Income, Schools, Small Businesses, and Local Governments.

The annual projected savings targets are allocated among these customer classes and sub-classes by examining historical program results and by evaluating economic trends, in compliance with 16 TAC § 25.181(e)(3).

Table 3 summarizes the number of customers in each customer class and the Residential Hard-to-Reach sub-class at TCC. The numbers listed are the actual number of active electric service accounts by class that TCC served for the month of January 2016. These numbers were used to determine goal and budget allocations for each customer class and program. It should be noted, however, that the actual distribution of the annual goal and budget required to achieve the goal must remain flexible based upon the conditions of the marketplace, the potential interest a customer class may have in a specific program, and the overriding objective of meeting TCC's mandated demand and energy reduction goals in total. TCC offers a varied portfolio of SOPs and MTPs such that all eligible customer classes have access to energy efficiency alternatives.

Customer Class	Number of Customers
Commercial	147,312
Residential	746,981
Hard-to-Reach ²	277,877

 Table 3: Summary of Customer Classes

* Hard-to-Reach customer count is a sub-set of the Residential total.

² According to the U.S. Census Bureau's 2014 Current Population Survey, 37.2% of Texas families fall below 200% of the poverty threshold. Applying that percentage to TCC's residential customer base of 746,981, the number of HTR customers is estimated to be 277,877.

III. Energy Efficiency Goals and Projected Savings

TCC's 2016 annual demand and energy reduction goals to be achieved are 15.73 MW and 27,559 MWh. TCC's 2017 annual goals are 15.83 MW and 27,734 MWh. These goals have been calculated as prescribed by the EE Rule.

The 2016 goal was calculated by applying four-tenths of 1% (0.004) of its summer weatheradjusted peak demand for the combined residential and commercial customers to the five year average (2010-2014) peak demand at the meter of 3,934 MW. This resulted in a calculated goal of 15.73 MW.

TCC's 2017 demand goal is calculated by applying four-tenths of 1% (0.004) of its summer weather-adjusted peak demand for the combined residential and commercial customers to the five year average (2011-2015) peak demand at the meter of 3,958 MW. This results in a calculated goal of 15.83 MW.

Table 4 presents historical annual growth in demand data for the previous five years that was used to calculate TCC's goals. Table 5 presents the projected demand and energy savings for Program Years 2016 and 2017 by program, for each customer class with fully-deployed program budgets.

Table 4: Annual Growth in Demand and Energy Consumption

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

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2016 Energy Efficiency Plan and Report

Table 5: Projected Demand and Energy Savings by Program for Each Customer Class for _______2016 and 2017 (at the Meter)

2016	Projected Savings		
Customer Class and Program	³ kW	kWh	
Commercial			
Commercial Solutions MTP	834	3,888,000	
Commercial SOP	2,417	16,278,090	
CoolSaver SM A/C Tune-Up MTP	1,393	4,376,124	
Load Management SOP	27,092	27,092	
Open MTP	718	2,051,894	
SCORE/CitySmart MTP	1,691	5,749,624	
SMART Source SM Solar PV MTP	149	288,000	
Residential			
CoolSaver SM A/C Tune-Up MTP	1,017	3,223,609	
Earth Networks Residential DR Pilot MTP	3,750	3,750	
Efficiency Connection Pilot MTP	190	717,025	
High-Performance New Homes MTP	539	1,631,874	
Reliant Residential DR Pilot MTP	60	60	
Residential SOP	4,937	18,211,834	
SMART Source SM Solar PV MTP	142	274,000	
Hard-to-Reach			
Hard-to-Reach SOP	1,258	4,578,986	
Targeted Low-Income Energy Efficiency Program	634	1,227,988	
Total Annual Projected Savings	46,821	62,527,950	

Table 5: Projected Demand and Energy Savings by Program for Each Customer Class for2016 and 2017 (at the Meter)(Continued)

· 2017	Projected Savings		
Customer Class and Program	kW	∞ kWh [∞]	
Commercial			
Commercial Solutions MTP	834	3,888,000	
Commercial SOP	2,418	16,285,274	
CoolSaver SM A/C Tune-Up MTP	1,393	4,376,124	
Load Management SOP	27,113	27,113	
Open MTP	718	2,051,894	
SCORE/CitySmart MTP	1,691	5,749,624	
SMART Source SM Solar PV MTP	194	374,026	
Residential			
CoolSaver sm A/C Tune-Up MTP	1,017	3,223,609	
Earth Networks Residential DR Pilot MTP	3,750	3,750	
Efficiency Connection Pilot MTP	190	717,025	
High-Performance New Homes MTP	539	1,631,874	
Reliant Residential DR Pilot MTP	60	60	
Residential SOP	4,937	18,213,100	
SMART Source SM Solar PV MTP	166	320,000	
Hard-to-Reach			
Hard-to-Reach SOP	1,258	4,579,193	
I argeted Low-Income Energy Efficiency Program	634	1,227,774	
Total Annual Projected Savings	46,912	62,668,440	

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IV. Program Budgets

Table 6 presents total proposed budget allocations required to meet TCC's projected demand and energy savings to be achieved for Program Years 2016 and 2017. The budget allocations are defined by the overall projected demand and energy savings, the avoided costs of capacity and energy specified in the EE Rule, allocation of demand goals, and the incentive levels by customer class. Table 6 budget allocations are detailed by customer class, program, and in the following budget categories: incentives, administration, research and development (R&D), and evaluation, measurement and verification (EM&V).

2016	Incentives	Admin	R&D	EM&V	Total Budget
Commercial	ar nati				<u> </u>
Commercial Solutions MTP	\$508,187	\$56,465			\$564,652
Commercial SOP	\$1,812,700	\$201,411			\$2,014,111
CoolSaver sm A/C Tune-Up MTP	\$595,950	\$66,217			\$662,167
Load Management SOP	\$650,200	\$72,244			\$722,444
Open MTP	\$793,546	\$88,172			\$881,718
SCORE/CitySmart MTP	\$946,678	\$105,186			\$1,051,864
SMART Source SM Solar PV MTP	\$204,000	\$22,667			\$226,667
Residential				F	
CoolSaver SM A/C Tune-Up MTP	\$675,000	\$75,000			\$750,000
Pilot MTP	\$150,000	\$16,667			\$166,667
Efficiency Connection Pilot MTP	\$150,000	\$16,666			\$166,666
MTP	\$765,000	\$85,000			\$850,000
Reliant Residential DR Pilot MTP	\$5,000	\$556			\$5,556
Residential SOP	\$2,661,115	\$295,679			\$2,956,794
SMART Source SM Solar PV MTP	\$204,000	\$22,667			\$226,667
Hard-to-Reach					
Hard-to-Reach SOP	\$953,417	\$105,935			\$1,059,352
Efficiency Program	\$1,267,421	\$140,825			\$1,408,246
Research and Development (R&D)					
R&D	NAP	NAP	\$368,887		\$368,887
Evaluation, Measurement & Verification (EM&V)					
EM&V	NAP	NAP	NAP	\$182,785	\$182,785
Total Budget	\$12,342,214	\$1,371,357	\$368,887	\$182,785	\$14,265,244

Table 6: Projected Annual Budget by Program for Each Customer Class for 2016 and 2017

AEP Texas Central Company

Table 6: Projected Annual Budget by Program for Each Customer Class for 2016 and 2017(Continued)

s 2017 s a	Incentives	Admin	R&D	Total Budget
Commercial				
Commercial Solutions MTP	\$508,500	\$56,500		\$565,000
Commercial SOP	\$1,813,500	\$201,500	-	\$2,015,000
CoolSaver [™] A/C Tune-Up MTP	\$596,700	\$66,300		\$663,000
Load Management SOP	\$650,700	\$72,300		\$723,000
Open MTP	\$793,800	\$88,200		\$882,000
SCORE/CitySmart MTP	\$946,800	\$105,200		\$1,052,000
SMART Source SM Solar PV MTP	\$204,000	\$22,667		\$226,667
Residential				
CoolSaver SM A/C Tune-Up MTP	\$675,000	\$75,000		\$750,000
Earth Networks Residential DR Pilot MTP	\$150,300	\$16,700		\$167,000
Efficiency Connection Pilot MTP	\$150,300	\$16,700		\$167,000
High-Performance New Homes MTP	\$765,000	\$85,000		\$850,000
Reliant Residential DR Pilot MTP	\$5,040	\$560		\$5,600
Residential SOP	\$2,661,300	\$295,700		\$2,957,000
SMART Source SM Solar PV MTP	\$204,000	\$22,667		\$226,667
Hard-to-Reach				
Hard-to-Reach SOP	\$953,460	\$105,940		\$1,059,400
Targeted Low-Income Energy Efficiency Program	\$1,267,200	\$140 800		\$1 408 000
Research and Development (R&D)	\$ 1,980 F 19800	<i><i><i><i><i><i></i></i></i></i></i></i>		,
R&D	NAP	NAP	\$365,125	\$365,125
Total Budget	\$12,345,600	\$1,371,734	\$365,125	\$14,082,459

ENERGY EFFICIENCY REPORT

V. Historical Demand and Energy Goals and Savings Achieved for the Previous Five Years

Table 7 contains TCC's demand and energy reduction goals and actual savings achieved for the previous five years (2011-2015) calculated in accordance with the EE Rule.

Calendar Year	lendar Year Actual Weather Goal (MW) Actual Weather Adjusted Demand Goal (MW) Actual Weather Adjusted Energy Goal (MWh)		Savings Achieved (MW)	Savings Achieved (MWh)	
2015	12.93	22,653	43.78	68,482	
2014	12.93	22,653	39.81	63,587	
2013	12.93	22,653	34.14	48,954	
2012	12.93	22,653	33.67	54,313	
2011	12.93	22,653	27.50	69,158	

 Table 7: Historical Demand and Energy Goals* and Savings Achieved (at the Meter)

* Actual Weather Adjusted MW and MWh Goals as reported in TCC's EEPRs filed in years 2011-2015.

VI. Projected, Reported and Verified Demand and Energy Savings

- 2015 ^t	Projected Savings		Reported and Verified Savings	
Customer Class and Program	kW	kWh	kW	kWh
Commercial				
Commercial Solutions MTP	834	3,888,000	1,185	6,719,171
Commercial SOP	3,625	17,467,000	2,233	15,036,669
CoolSaver ^{ssi} A/C Tune-Up MTP	1,393	4,376,124	1,593	5,104,501
Load Management SOP	16,255	43,000	27,418	27,418
Open MTP	676	2,051,894	680	3,059,520
SCORE/CitySmart MTP	1,691	5,749,624	1,333	7,159,107
SMART Source SM Solar PV MTP	149	288,000	1,029	1,984,354
Residential				
CoolSaver sM A/C Tune-Up MTP	1,017	3,223,609	1,051	3,997,053
Efficiency Connection Pilot MTP	105	525,131	17	62,004
High-Performance New Homes MTP	393	1,596,286	501	1,903,959
Residential SOP	4,838	14,835,000	4,734	17,465,758
SMART Source SM Solar PV MTP	142	274,000	144	278,032
Hard-to-Reach				
Hard-to-Reach SOP	1,315	3,686,000	1,224	4,456,145
Targeted Low-Income Energy Efficiency Program	634	1,110,000	633	1,228,535
Total Annual Savings	33,067	59,113,668	43,775	68,482,227