A. Once the total EECRF class revenue requirement based on the components listed above has been assigned to EECRF rate classes by direct assignment or by using the appropriate allocators, the EECRF factors are calculated by dividing the revenue requirement for each EECRF rate class by the 2016 projected billing units for each EECRF rate class. The 2016 EECRF factors are shown in Schedule E and the revised Rider EECRF is contained in Schedule F.

Q. WHAT BILLING UNIT IS TNC PROPOSING TO USE TO RECOVER THE ENERGY EFFICIENCY COSTS?

A. As was approved in Docket Nos. 36959, 38209, 39361, 40358, 41539, and 42509, TNC is proposing to continue to use an energy charge (kWh) for recovery of energy efficiency costs for all classes of customers included in the EECRF, as authorized by 16 TAC § 25.181(f)(6). TNC's kWh proposal is consistent with past approved EECRF billing methodologies and is in compliance with 16 TAC § 25.181(f)(6). TNC has supplied forecasted 2016 kWh data for all classes in Schedule H.

Q. PLEASE DESCRIBE HOW THE 2016 FORECASTED BILLING UNITS USED IN THE DEVELOPMENT OF THE EECRF FACTORS FOR PROGRAM YEAR 2016 WERE DETERMINED.

A. As part of the normal course of business, AEP projects monthly kWh sales for each of its operating companies, including TNC. The AEPSC Economic Forecasting Department provides the total retail sales forecasts by revenue class for the projected energy efficiency program year of January through December 2016. Because the kWh sales are projected on a revenue class basis, kWh data must be converted to EECRF rate class forecasted kWh sales. Forecasted kWh sales by EECRF rate class

were established by first determining each EECRF rate class's percentage of total retail sales based on twelve months of historical kWh sales data. Forecasted kWh sales by rate class were then calculated by multiplying each rate class's percentage of total retail kWh sales by the total retail forecasted kWh sales. As discussed above, the projection of the 2016 kWh accounts for the removal of the identification notice customer kWh. The annual class projected kWh sales less the customer identification notice kWh were used to determine the adjusted 2016 EECRF class factors. Schedule H specifies the process for determining the projected kWh sales by EECRF rate class.

Q. WERE SYSTEM AND LINE LOSSES USED TO DEVELOP THE EECRF FACTORS?

A. No. TNC's kWh sales forecast for 2016 is based on energy delivered at the meter, so it was not necessary to adjust the EECRF factors to reflect system and line losses.

Q. WHAT ARE THE PROPOSED 2016 EECRF RATE CLASS FACTORS?

A. The proposed 2016 factors by EECRF rate class are:

Rate Class	Proposed kWh Factor
Residential	$0.000436
Secondary <= 10 kW	$0.000165
Secondary > 10 kW	$0.000495
Primary	($0.000005)
Transmission	($0.000166)

Q. DO THE REVISED EECRF FACTORS INCLUDING BASE RATE AMOUNTS AND EXCLUDING MUNICIPAL EECRF PROCEEDING EXPENSES AND STATEWIDE EM&V CONTRACTOR COSTS EXCEED THE MAXIMUM PRICE PER KWH FOR RESIDENTIAL AND COMMERCIAL CUSTOMERS AS SPECIFIED IN 16 TAC § 25.181(f)(7)?

A. No, they do not. 16 TAC § 25.181(f)(7) recognizes two groups of customers for the purposes of setting cost caps, residential and commercial. Neither class factor exceeds the 2016 cost cap.

Q. HOW ARE THE 2016 EECRF COST CAPS DETERMINED?

A. The method of calculating the 2016 cost caps is described in 16 TAC § 25.181(f)(7). Cost caps for the 2016 program year for residential and commercial classes have been determined by applying a percentage increase to the 2015 caps as defined in 16 TAC § 25.181(f)(7). The percentage increase is the rate equal to the most recently available calendar year's percentage change in the South urban consumer price index, which for 2014 is 1.69 percent. The 1.69 percent increase is applied to the 2015 pre-determined residential cap of $.001244 and commercial cap of $.000778 to determine the 2016 residential cap of $.001265 and commercial cap of $.000791. The cost cap calculation is included in Schedule G.

Q. HOW DO THE PROPOSED FACTORS FOR RESIDENTIAL AND COMMERCIAL COMPARE TO THE CALCULATED COST CAPS?

A. TNC's revised residential factor including the base rate energy efficiency amount and excluding municipal EECRF proceeding expenses and EM&V costs is $.000800 per kWh, which does not exceed the residential maximum price of $0.001265 per kWh for 2016 as calculated pursuant to 16 TAC § 25.181(f)(7). The maximum commercial rate per kWh for 2016 is $0.000791 per kWh as calculated pursuant to 16 TAC § 25.181(f)(7). The updated commercial class factor, including the base rate amounts but without the municipal EECRF proceeding expenses and EM&V cost, is

$0.000541 per kWh, which does not exceed the 2016 cap for the commercial class. Schedule G details the 2016 cost cap comparison.

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)?

A. TNC continues to recover an amount of energy efficiency costs expressly identified in its base rates so the sum of the base rate recovery of energy efficiency costs (including the base rate adjustment) and the EECRF shall not exceed the amounts prescribed in 16 TAC § 25.181(f)(7). In Docket No. 39361, the EECRF class base rate per kWh amounts were identified. The base rate adjustment amount on a per kWh basis also has been determined based on 2014 actual data. The combination of the proposed 2016 EECRF factors, excluding municipal EECRF proceeding expenses and the statewide EM&V contractor cost for evaluating program year 2015 to be recovered through the 2016 EECRF factors, and the expressly identified base rate amounts do not exceed the levels identified in 16 TAC § 25.181(f)(7) as shown in detail in Schedule G.

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

A. TNC has not included the municipal EECRF proceeding expenses or the statewide EM&V contractor's cost for evaluating program year 2015 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. TNC 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 factors without the municipal EECRF proceeding expenses and the statewide EM&V contractor cost. The EECRF factors calculated without the municipal EECRF proceeding expenses and the statewide EM&V contractor cost are slightly lower than the total EECRF factors. TNC is requesting recovery of the municipal EECRF proceeding expenses and the program year 2015 EM&V cost through the total proposed EECRF factor as shown on adjusted Rider EECRF, Schedule F in this filing.

Q. HAS TNC INCLUDED A CALCULATION OF THE 2014 CAP BASED ON ACTUAL PROGRAM COSTS AND ACTUAL 2014 BILLING UNITS?

A. Yes, TNC has included a 2014 cap calculation based on actual 2014 program costs and billing units as part of Schedule G.

Q. DID TNC EXCEED THE 2014 CAPS BASED ON ACTUAL DATA?

A. No. TNC did not exceed the 2014 caps for either EECRF class.

Q. HOW WERE THE 2014 CAPS CALCULATED?

A. The 2014 caps were calculated by removing the statewide EM&V contractor's costs and the municipal EECRF case expenses paid in 2014 from the total 2014 Energy Efficiency actual costs, and dividing that total amount by the actual class 2014 EECRF billing units less any customer ID notice kWh. This calculation yields the following results for the classes:

TNC Class	2014 Cost Cap Based on Actuals	2014 Cap As Prescribed in §25.181(f)(8)(B)
Residential	$0.000800	$0.001225
Commercial	$0.000513	$0.000766

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 requirements as outlined in 16 TAC § 25.181(c)(30) and (w) are excluded from EECRF charges. Also, the lighting class has not been assigned or allocated any 2016 costs.

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

A. Yes. The proposed Rider EECRF shown in Schedule F includes the changes from the current tariff. TNC requests that the Commission approve an adjusted Rider EECRF containing the proposed EECRF class kWh factors to be effective March 1, 2016.

IV. CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. TNC is requesting recovery of $1,717,648 through its adjusted EECRF, which amount includes projected 2016 energy efficiency program costs of $1,480,871, EM&V costs of $32,247 for program year 2015, the return of the over-recovery of $330,517 in 2014 program costs, recovery of municipal EECRF proceeding expenses from Docket No. 42509 of $16,955, and recovery of the 2014 earned performance

bonus of $518,092. TNC's base rates include energy 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 2016 program costs is based on the direct assignment to the EECRF rate classes eligible for specific programs where possible. Where more than one EECRF rate class is eligible to participate in a specific 2016 program, the allocation of that program cost is based on a weighted 4CP demand allocator, adjusted based on the most recent projection of EECRF rate class kWh, less the identification notice customer kWh. The class assignment of the 2014 actual program costs is based on direct assignment to the participating EECRF rate classes. The projected EM&V costs for program year 2015 and the municipal EECRF proceeding expenses have been assigned to the classes based on the 2016 program costs assigned to the classes. Recovery of the 2016 EECRF revenue requirement is based on projected 2016 kWh sales for all EECRF classes eligible for the EECRF.

Q. WHAT RELIEF IS TNC REQUESTING IN THIS PROCEEDING?

A. TNC is requesting that Rider EECRF contained in Schedule F be approved effective March 1, 2016.

Q. HAS TNC CALCULATED THE EECRF FACTORS IN A MANNER CONSISTENT WITH 16 TAC § 25.181?

A. Yes.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

AEP Texas North Company
2016 Energy Efficiency Cost Recovery Factor

Schedule A

2016 Projected Energy Efficiency Costs

	Incentives	Administrative	Research and Development	Evaluation, Measurement, and Verfication	Total Projected Energy Efficiency Costs
Commercial					
Commercial Solutions MTP	$363,462	$54,311			$417,773
Commercial SOP	$200,000	$29,885			$229,885
Load Management SOP	$80,578	$12,041			$92,619
Open MTP	$419,241	$62,645			$481,886
SCORE/CitySmart MTP	$160,000	$23,908			$183,908
SMART Source[SM] Solar PV MTP	$82,620	$12,346			$94,966
Residential					
Efficiency Connection Pilot MTP	$150,000	$22,414			$172,414
Residential SOP	$419,610	$62,700			$482,310
SMART Source[SM] Solar PV MTP	$102,000	$15,241			$117,241
Hard-to-Reach					
Hard-to-Reach SOP	$162,719	$24,314			$187,033
Targeted Low-Income Energy Efficiency Program	$257,145	$38,424			$295,569
Research and Development (R&D)					
R&D			$200,000		$200,000
Total Projected Program Costs	$2,397,375	$358,229	$200,000	$0	$2,955,604
Evaluation, Measurement & Verification (EM&V)					
PY 2015 Evaluation, Measurement & Verification (EM&V)				$32,247	$32,247
Total Projected Energy Efficiency Costs, including EM&V	$2,397,375	$358,229	$200,000	$32,247	$2,987,851

Sponsored by: Robert Cavazos, Rhonda R Fahrlender and Jennifer L Jackson

AEP Texas North Company
2016 Energy Efficiency Cost Recovery Factor

Schedule A

2016 Projected Energy Efficiency Costs

TNC 2016	Res	Sec <= 10	Sec > 10	Primary	Total
Commercial					
Commercial Solutions MTP		$18,910	$260,896	$137,966	$417,773
Commercial SOP		$10,406	$143,561	$75,918	$229,885
Load Management SOP			$60,582	$32,037	$92,619
SCORE/CitySmart MTP		$8,325	$114,849	$60,734	$183,908
SMART Source[SM] Solar PV MTP		$4,299	$59,306	$31,362	$94,966
Open MTP		$32,568	$449,318		$481,886
Residential					
Efficiency Connection Pilot MTP	$172,414				$172,414
Residential SOP	$482,310				$482,310
SMART Source[SM] Solar PV MTP	$117,241				$117,241
Hard-to-Reach					
Hard-to-Reach SOP	$187,033				$187,033
Targeted Low-Income Energy Efficiency Program	$295,569				$295,569
Research and Development (R&D)					
R&D Programs	$88,872	$5,030	$69,399	$36,699	$200,000
Total Energy Efficiency Program	$1,343,439	$79,537	$1,157,911	$374,716	$2,955,604
Evaluation, Measurement & Verification					
Evaluation, Measurement & Verification	$14,658	$868	$12,633	$4,088	$32,247
Total Revenue Requirement	$1,358,097	$80,405	$1,170,545	$378,805	$2,987,851

AEP Texas North Company
2016 Energy Efficiency Cost Recovery Factor

Schedule B

2014 Actual Energy Efficiency Expenditures

	Incentives	Administrative	Research & Development	Evaluation, Measurement & Verification	Total Funds Expended
Commercial					
Commercial Solutions MTP	$296,581	$31,418			$327,999
Commercial SOP	$196,103	$35,582			$231,685
Irrigation Load Management MTP	$50,000	$6,589			$56,589
Load Management SOP	$41,495	$8,644			$50,139
Open MTP	$421,175	$48,227			$469,402
SCORE/CitySmart MTP	$216,141	$23,493			$239,634
SMART Source^{SM} Solar PV MTP	$44,284	$4,323			$48,607
Residential					
A/C Distributor Pilot MTP	$139,281	$21,691			$160,972
Residential SOP	$414,451	$57,478			$471,929
SMART Source^{SM} Solar PV MTP	$102,044	$9,961			$112,005
Hard-to-Reach					
Hard-to-Reach SOP	$160,598	$23,688			$184,286
Targeted Low-Income Energy Efficiency Prog.	$248,233	$32,815			$281,048
Research and Development					
Research and Development			$122,513		$122,513
Total Program Costs	$2,330,386	$303,909	$122,513		$2,756,808
Evaluation, Measurement, & Verification (EM&V)					
Statewide EM&V Contractor				$53,819	$53,819
Total Energy Efficiency Costs, including EM&V	$2,330,386	$303,909	$122,513	$53,819	$2,810,627

Sponsored by Rhonda R. Farhlender and Jennifer L Jackson

AEP Texas North Company
2016 Energy Efficiency Cost Recovery Factor

Schedule B

2014 Actual Energy Efficiency Expenditures

TNC 2014	Res	Sec <= 10	Sec > 10	Prim	Total
Commercial Programs					
Irrigation LM MTP		$0	$56,589	$0	$56,589
ComSol MTP		$12,721	$301,391	$13,888	$327,999
CSOP		$0	$89,911	$141,773	$231,685
LM SOP		$0	$50,139	$0	$50,139
Open MTP		$31,355	$438,047	$0	$469,402
SCORE/CS MTP		$0	$218,244	$21,390	$239,634
SMART Source MTP - Comm		$0	$48,607	$0	$48,607
Total Commercial		$44,076	$1,202,928	$177,051	$1,424,055
Residential Programs					
A/C Distributor Pilot MTP	$160,972				$160,972
RSOP	$471,929				$471,929
SMART Source MTP - Res	$112,006				$112,006
Total Residential	$744,907				$744,907
Hard-to-Reach Programs					
HTR SOP	$184,286				$184,286
TLI EEP	$281,048				$281,048
Total HTR	$465,334				$465,334
Total Programs	$1,210,241	$44,076	$1,202,928	$177,051	$2,634,296
Research & Development					
R&D - CCET	$322	$12	$324	$46	$704
R&D - SMART View IHD	$5,514				$5,514
R&D - Programs	$69,593	$1,462	$39,637	$5,603	$116,295
R&D - EM&V	$24,586	$915	$24,810	$3,507	$53,819
Total R&D	$100,015	$2,390	$64,772	$9,155	$176,331
Total	$1,310,256	$46,465	$1,267,700	$186,206	$2,810,627

AEP Texas North Company
Adjusted Energy Efficiency Cost Recovery Factor Filing

Schedule C
Calculation of 2014 Over Recovery Class Factor

2014 Residential Energy Efficiency Expenditures + R&D - Municipal EECRF Expenses	$1,302,510
2014 Actual Residential Energy Efficiency Program Revenues + Base	$1,460,425
2014 Residential Over Recovery	($157,915)
2014 Commercial Energy Efficiency Expenditures + R&D - Municipal EECRF Expenses	$1,491,162
2014 Actual Commercial Energy Efficiency Program Revenues + Base	$1,663,765
2014 Commercial Over Recovery	($172,603)
2014 Total Energy Efficiency Expenditures + R&D - Municipal EECRF Expenses	$2,793,672
2014 Actual Total Energy Efficiency Program Revenues	$3,124,190
2014 Over Recovery	($330,517)

Class	2014 Program Costs Over/Under Recovery Allocation	2016 Forecasted Billing kWh Unit	2014 Over/Under Recovery Factor	Unit
Residential	($157,915)	1,828,174,804	($0.000086)	kWh
Secondary <= 10 kW	($29,046)	142,610,909	($0 000204)	kWh
Secondary > 10 kW	$22,039	1,846,034,854	$0.000012	kWh
Primary	($164,265)	1,461,374,962	($0 000112)	kWh
Transmission	($1,331)	53,495,476	($0.000025)	kWh
Lighting	$0	42,556,907	$0.000000	kWh
Total	($330,517)	5,374,247,912		

Sponsored by: Jennifer L. Jackson

AEP Texas North Company
Energy Efficiency Cost Recovery Factor

Schedule D

2014 Goal Achievement and Performance Bonus Calculation

TNC achieved 8,150 kW in demand savings and 11,867,206 kWh in energy savings by January 1, 2015. The total present value of the avoided cost associated with these demand reductions and energy savings is $8,009,927. TNC's total program cost for the 2014 program year was $2,829,007. The resulting net benefits are $5,180,920. TNC's demand reduction goal (DRG) was 4,260 kW and its energy savings goal was 7,464,000 kWh. TNC achieved 191% of its DRG and 159% of its energy savings goal, qualifying it for a performance bonus as calculated under 16 TAC § 25.181(h).

TNC's calculated bonus is $2,365,630; however, its maximum bonus allowed is $518,092, which is 10% of its total net benefits (16 TAC § 25.181 (h)(3)).

	kW (Demand)	kWh (Energy)
2014 Goals	4,260	7,464,000
2014 Savings		
Reported/Verified Total	8,150	11,867,206
Reported/Verified HTR	334	
2014 Program Costs	$2,829,007	
2014 Performance Bonus	$518,092	

Performance Bonus Calculation

191%	Percentage of Demand Reduction Goal Met (Reported kW/Goal kW)
159%	Percentage of Energy Reduction Goal Met (Reported kWh/Goal kWh)
TRUE	Met Requirements for Performance Bonus?
$8,009,927	Total Avoided Cost [Reported kW * PV (Avoided Capacity Cost)] + [Reported kWh * PV (Avoided Energy Cost)]
$2,829,007	Total Program Costs
$5,180,920	Net Benefits (Total Avoided Cost – Total Expenses)

Bonus Calculation

$2,365,630	Calculated Bonus [(Achieved Demand Reduction/Demand Goal - 100%) / 2] * Net Benefits
$518,092	Maximum Bonus Allowed (10% of Net Benefits)
$518,092	*Bonus (Minimum of Calculated Bonus and Bonus Limit)*

Sponsored by: Robert Cavazos

AEP Texas North Company
Adjusted Energy Efficiency Cost Recovery Factor Filing

Schedule E
Calculation of Requested EECRF by Customer Class

TNC		
2016 Program Costs Above Base Rates	$1,480,871.03	86.22%
EM&V	$32,247.00	1.88%
2014 (Over)/Under Recovery	($330,517.41)	-19.24%
Calculated Performance Bonus for 2014	$518,092.00	30.16%
Municipal EECRF Proceeding Expenses	$16,955.23	0.99%
Adjusted EECR Revenue Requirement	$1,717,647.85	100.00%

Class	Adjusted EECR Revenue Requirement	2016 Forecasted Billing kWh Unit	2016 EECR Factor	Unit
Residential	$796,889	1,828,174,804	$0.000436	kWh
Secondary <= 10 kW	$23,461	142,610,909	$0.000165	kWh
Secondary > 10 kW	$913,298	1,846,034,854	$0.000495	kWh
Primary	($7,111)	1,461,374,962	($0.000005)	kWh
Transmission	($8,889)	53,495,476	($0 000166)	kWh
Lighting	$0	42,556,907	$0.000000	kWh
Total	$1,717,648	5,374,247,912		

Sponsored by. Jennifer L. Jackson

AEP TEXAS NORTH COMPANY
TARIFF FOR ELECTRIC DELIVERY SERVICE
Applicable: Entire System
Chapter: 6 Section: 6.1.1
Section Title: Delivery System Charges
Revision: Sixth Effective Date: March 1, 2016 T

6.1.1.6.6 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	$0.000436 per kWh	R
Secondary Service Less than or Equal to 10 kW	$0.000165 per kWh	I
Secondary Service Greater than 10 kW	$0.000495 per kWh	R
Primary Service	($0.000005) per kWh	I
Transmission Service	($0.000166) per kWh	R

NOTICE

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

AEP Texas North Company
Adjusted Energy Efficiency Cost Recovery Factor Filing

Schedule G
Cap Calculation

TNC		
2016 Program Costs Above Base Rates (no EM&V cost)	$1,480,871	88 76%
2014 (Over)/Under Recovery	($330 517)	-19 81%
Calculated Performance Bonus for 2014	$518,092	31 05%
Adjusted EECR Revenue Requirement (no EM&V cost)	$1,668,446	100 00%
	$3,143,179	

Class	Adjusted EECR Revenue Requirement (no EM&V cost)	2016 Forecasted Billing kWh Unit	2016 Proposed EECR Factor (no EM&V)	Unit
Residential	$774,525	1,828,174,804	$0 000424	kWh
Secondary <= 10 kW	$22,137	142,610,909	$0 000155	kWh
Secondary > 10 kW	$894,022	1,846,034,854	$0 000484	kWh
Primary	($13 349)	1,461,374,962	($0 000009)	kWh
Transmission	($8 889)	53,495,476	($0 000166)	kWh
Lighting	$0	42,556,907	$0 000000	kWh
Total (no EM&V cost)	$1,668,446	5,374,247,912		

TNC — South Urban CPI 1 69%

Class	Base Rate per Final Order in Docket No 39361 Including Revenue Adjustment	2016 Proposed EECR Factor (no EM&V)	2016 Total Base + EECRF (no EM&V)	2015 CAP	2016 Cap
Residential	$0 000376	$0 000424	$0 000800	$0 001244	$0 001265
Non-Residential	$0 000279	$0 000262	$0 000541	$0 000778	$0 000791

Calculation of Non-Residential per kWh Rate	
2016 Rev Req	$902,810
2016 kWh	3,450,020,725
Combined per kWh	$0 000262
Base Rev Req	$683,762
Base kWh	2,833,233,419
Combined per kWh	$0 000241
Adjustment to Comm	135,729
2016 Comm kWh	3,580,466,926
per kWh adjustment	$0 000038
Total 2016 per kWh	$0 000541

2014 Cap Analysis

TNC	Actual 2014 Program Costs*	2012 Performance Bonus	2012 (O)/U	2014 Actual Billing kWh (less ID Notice)	2014 Cost Cap Based on Actuals	2014 Cap As Prescribed in §25 181(f)(8)(B)
Residential	$1,277,924	$399,420	($205 538)	1,840,009,938	$0 000800	$0 001225
Non-Residential	$1,461,930	$489,257	($157,397)	3,495,003,599	$0 000513	$0 000766
Total	$2,739,854	$888,677	($362,935)	5,335,013,537		

*less TetraTech EM&V costs & muni expenses

Sponsored by Jennifer L Jackson

AEP Texas North Company
Adjusted Energy Efficiency Cost Recovery Factor Filing

Schedule H

Texas North Company Projected 2016 Retail kWh Sales	5,481,664,179

Rate Classes	2014 Historical Billing Units	Percent of Total kWh	Customer ID Notice kWh	2016 Forecasted Billing Unit	Unit
Residential	1,840,009,938	33.35%		1,828,174,804	kWh
Secondary <= 10 kW	145,179,358	2.63%	1,634,640	142,610,909	kWh
Secondary > 10 kW	1,883,161,671	34.13%	25,014,126	1,846,034,854	kWh
Primary	1,552,125,897	28.13%	80,767,501	1,461,374,962	kWh
Transmission	53,841,792	0.98%		53,495,476	kWh
Lighting	42,832,409	0.78%		42,556,907	kWh
Total	5,517,151,065	100.00%	107,416,267	5,374,247,912	
			ID Notice kWh	107,416,267	
			Total 2016 kWh	5,481,664,179	

Sponsored by: Jennifer L. Jackson

AEP Texas North Company
Adjusted Energy Efficiency Cost Recovery Factor Filing

Schedule I
Energy Efficiency Program Costs Included in Base Rates

Docket No 33310 Final Order

Class	Distribution - FERC Account 907	Distribution Function Allocator	Customer Service - FERC Account 907	Customer Service Function Allocator	Total Energy Efficiency Costs Expressly Included In Base Rates	Docket No 33310 Billing Data	Base Distribution Billing Unit	Docket No 33310 EE Rate per Billing Unit	2014 Billing Unit	2014 EE Base Revenue - 16 TAC § 25 181	Adjustment to Base Revenue	Distribution Function Allocator w/out Trans	Weighted Allocator
Residential	$602,129	46 553%	$783 7	77 215%	$602,913	1,713,078,230	kWh	$0 000352	1,840,009,938	$647,684	$44,770 44	46 553%	46 834%
Secondary <= 10 kW	$37,472	2 897%	$148 5	14 628%	$37,620	146,926,027	kWh	$0 000256	145,179,358	$37,166	($454 12)	2 897%	2 915%
Secondary > 10 kW IDR	$77,527	5 994%	$8 5	0 841%	$77,536	982,774	kW	$0 067725	1,183,370 30	$80,144	$2,607 84	5 994%	6 030%
Secondary > 10 kW Non-IDR	$399,266	30 869%	$66 9	6 592%	$399,333	6,058,441	kW	$0 067725	6,565,102 70	$444,622	$45,288 66	30 869%	31 055%
Primary IDR	$160,223	12 388%	$4 1	0 400%	$160,227	2,081,550	kW	$0 076100	3,253,490 50	$247,591	$87,363 31	12 388%	12 462%
Primary Non-IDR	$9,045	0 699%	$1 4	0 135%	$9,046	142,816	kW	$0 076100	131,002 60	$9,969	$923 07	0 699%	0 704%
Transmission	$7,753	0 599%	$0 8	0 083%	$7,754	443,710	kW	$0 017474	432,548 60	$7,558	($195 23)	0 000%	0 000%
Lighting	$0	0 000%	$1 1	0 107%	$1 09	57,913,901	kWh	$0 000000	42,832,409	$0	($1 09)	0 000%	0 000%
Total	$1,293,415	100 000%	$1,015	100 000%	$1,294,430					$1,474,733 03	$180,302 88	99 401%	100 000%

Sponsored by Jennifer L Jackson

AEP Texas North Company
2016 Energy Efficiency Cost Recovery Factor

Schedule J

Energy Efficiency Service Providers Who
Received More Than 5% of the Total Incentive Funds for 2014

A list of the energy service providers, 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.

AEP Texas North Company
2016 Energy Efficiency Cost Recovery Factor

Schedule K - Affiliate Costs
TNC Affiliate Costs
2014

Line	Cost Type	Department		Project Description		Affiliate	2014 ($)
1	Administrative Costs	10329	TX EE/DR Programs	TXDSMANDA	Texas DSM Admin & General	AEPSC	17,428
2	Administrative Costs	10329	TX EE/DR Programs	TXDSMANDA	Texas DSM Admin & General	TCC	16,830
3	Administrative Costs	10329	TX EE/DR Programs	EON100551	EE/DR EECRF	AEPSC	2,366
4	Administrative Costs	10329	TX EE/DR Programs	EON100551	EE/DR EECRF	TCC	3,882
5	Administrative Costs	10329	TX EE/DR Programs	EON100550	EE/DR Industrial Id Notice	TCC	69
6	Administrative Costs	10764	Legal GC/Administration	TXDSMANDA	Texas DSM Admin & General	AEPSC	87
7	Administrative Costs	13168	Legal Reg Services West	TXDSMANDA	Texas DSM Admin & General	AEPSC	1,120
8	Administrative Costs	13263	Distr, Cust Ops, & Reg Svcs	EON100551	EE/DR EECRF	AEPSC	618
9	Administrative Costs	13263	Distr, Cust Ops, & Reg Svcs	TXDSMANDA	Texas DSM Admin & General	AEPSC	5,491
10	**Total Administrative Costs**						**$ 47,892**
11	Program Direct Costs	10329	TX EE/DR Programs	EON100514	Dsm-Hard To Reach Std Offer	TCC	569
12	Program Direct Costs	10329	TX EE/DR Programs	EON100547	DSM - EM&V	TCC	17,644
13	Program Direct Costs	10329	TX EE/DR Programs	EON100547	DSM - EM&V	AEPSC	1,281
14	Program Direct Costs	10329	TX EE/DR Programs	EON100549	EE/DR Targeted Small Bus MTF	AEPSC	7
15	Program Direct Costs	13263	Distr, Cust Ops, & Reg Svcs	EON100547	DSM - EM&V	AEPSC	433
16	**Total Program Direct Costs**						**$ 19,935**
17	R&D Costs	10329	TX EE/DR Programs	EON100528	DSM R&D - CCET	AEPSC	532
18	R&D Costs	10329	TX EE/DR Programs	EON100535	EE/DR R&D	AEPSC	0
19	R&D Costs	10329	TX EE/DR Programs	EON100535	EE/DR R&D	TCC	3,683
20	R&D Costs	10329	TX EE/DR Programs	EON100542	DSM R&D-In Home Devices Pilc	AEPSC	4,359
21	R&D Costs	13263	Distr, Cust Ops, & Reg Svcs	EON100528	DSM R&D - CCET	AEPSC	167
22	**Total R&D Costs**						**$ 8,741**
23	**Grand Total**						**$ 76,567**

Sponsored by Brian J Frantz and Robert Cavazos

AEP Texas North Company
2016 Energy Efficiency Cost Recovery Factor

Schedule L
Bidding and Engagement Process

AEP Texas North Company (TNC) 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 TNC's goals. The procedures and processes TNC uses differs according to the program type, as shown in more detail below.

Standard Offer Program (SOP) Process

TNC 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.

TNC reviews each Project Application on a first-come, first-served basis. TNC 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. TNC may reject any Project Application for failure to meet the required procedures or deadlines. TNC may request clarification of, or additional information about, any item submitted as part of the Project Application.

TNC 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 TNC within the published timeline.

For residential projects, TNC 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. TNC reviews the applications as described above. TNC and approved Project Sponsors enter into a standard offer agreement contract for the implementation of the EE measures or projects at commercial customer sites.

AEP Texas North Company
2016 Energy Efficiency Cost Recovery Factor

Schedule L
Bidding and Engagement Process

Market Transformation Program (MTP) Process

TNC 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 TNC deems viable, TNC 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 TNC and a baseline study has been completed, TNC implements a competitive solicitation process. A Request for Proposals (RFP) is developed and advertised in several ways. It is posted to the Association of Energy Services Professionals web site (AESP.org) and monthly newsletter. The RFP is also sent by email to all EESPs who have notified TNC of a desire to implement such programs in the Texas market.

Interested EESPs submit program proposals according to the published requirements and schedule. TNC 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 (REP) 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 TNC, either alone or through an EESP. For programs proposed by an REP that TNC deems viable, TNC may contract with the initiating REP to implement the program on a limited pilot basis for a period typically no longer than three years.

AEP Texas North Company
2016 Energy Efficiency Cost Recovery Factor

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	1.0
Residential	HVAC	Res Duct Efficiency Improvement	18.0	1.0
Residential	HVAC	Res Central Air Conditioner	15.0	1.0
Residential	HVAC	Res Ground Source heat Pump	15.0	1.0
Residential	HVAC	Res Central Heat 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	1.0
Residential	Building Envelope	Res Wall Insulation	25.0	1.0
Residential	Building Envelope	Res Floor Insulation	25.0	1.0
Residential	Building Envelope	Res Energy Star Windows	25.0	1.0
Residential	Building Envelope	Res Solar Screens	10.0	1.0
Residential	Water Heating	Res Faucet Aerators	10.0	1.0
Residential	Water Heating	Res Low-Flow Showerheads	10.0	1.0
Residential	Water Heating	Res Water Heater Pipe Insulation	13.0	1.0
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	Res Water Heater Replacement- Solar Water Heating	15.0	1.0
Residential	Appliances	Res Energy Star Ceiling Fans	10.0	1.0
Residential	Appliances	Res Energy Star Clothes Washers	11.0	1.0
Residential	Appliances	Res Energy Star Dishwashers	11.0	1.0
Residential	Appliances	Res Energy Star Refrigerator	14.0	1.0
Residential	Appliances	Res Energy Star Refrigerator - Docket 42212	8.0	Docket 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	1.0
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	9.0	1.0
Commercial	Lighting	Comm Lamps and Fixtures: Light Emitting Diode	15.0	1.0
Commercial	Lighting	Comm Lamps and Fixtures: Modular CFL and CCFL Fixtures	16.0	1.0
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	1.0
Commercial	Lighting	Comm Lighting Controls: Occupancy Sensor	10.0	1.0
Commercial	Lighting	Comm Lighting Controls: Photocell (Daylight Control)	10.0	1.0
Commercial	HVAC	Comm Split System/Single Packaged Heat Pumps and Air Conditioners	15.0	1.0
Commercial	HVAC	Comm HVAC Chillers: Screw/Scroll/Reciprocating Chillers	20.0	1.0
Commercial	HVAC	Comm HVAC Chillers: Centrifugal Chillers	25.0	1.0
Commercial	HVAC	Comm Packaged Terminal Air Conditioners, Heat Pumps, and Room Air Conditioners	13.0	1.0
Commercial	HVAC	Comm HVAC VFD on AHU Supply Fans	15.0	1.0

AEP Texas North Company
2016 Energy Efficiency Cost Recovery Factor

SCHEDULE M

Residential & Commercial EULs

Sector	TRM Section/End Use	Energy Efficiency Measure	EUL (years)	TRM Version
Commercial	Building Envelope	Comm Energy Star Roofs	15.0	1.0
Commercial	Building Envelope	Comm Window Film	10.0	1.0
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	1.0
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	1.0
Commercial	Food Service Equipment	Comm Energy Star Electric Steam Cookers	10.0	1.0
Commercial	Refrigeration	Comm Door Heater Controls	12.0	1.0
Commercial	Refrigeration	Comm ECM Evaporator Fan Motor	15.0	1.0
Commercial	Refrigeration	Comm ~~Electric~~ Electronic Defrost Controls	10.0	1.0
Commercial	Refrigeration	Comm Evaporator Fan Controls	16.0	1.0
Commercial	Refrigeration	Comm Night Covers for Open Refrigerated Display Cases	5.0	1.0
Commercial	Refrigeration	Comm Solid Glass Door Reach-Ins	12.0	1.0
Commercial	Refrigeration	Comm Strip Curtains for Walk-In Refrigerated Storage	4.0	1.0
Commercial	Refrigeration	Comm Zero Energy Doors for Refrigerated Cases	12.0	1.0
Commercial	Miscellaneous	Comm Vending Machine Controls	5.0	1.0
Commercial	Renewables	Comm Solar Photovoltaic (PV)	30.0	1.0
Commercial	Load Management	Comm Load Curtailment Measure	1.0	1.0
Commercial	Lighting	Comm Lamps and Fixtures: Halogen Lamps *Removed from TRM 1.0, but still allowed in LSF for PY 2014; added back into TRM 2.1*	1.5	2.1
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 allowed in LSF for PY 2014; added back into TRM 2.1*	4.5	2.1

AEP Texas North Company
2016 Energy Efficiency Cost Recovery Factor

Schedule N

2016 Projected Energy Efficiency Goals and Objectives

Average Peak Demand at Meter (MW)	Goal Metric: 0.4% Peak Demand (MW)	Peak Demand Goal (MW)[1]	Energy Goal (MWh)[2]	Projected Demand Reduction (MW)[3]	Projected Energy Savings (MWh)[3]
1,002	4.01	4.26	7,464	5.72	11,372

1 16 TAC § 25.181(e)(1)(E) - A utility's demand reduction goal in megawatts for any year shall not be less than the previous year's goal.

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

3 Please refer to Section D of Ms. Fahrlender's testimony for an explanation of how the Projected Demand Reduction and Energy Savings Objectives were determined

Sponsored by: Rhonda R. Fahrlender

AEP Texas North Company
2016 Energy Efficiency Cost Recovery Factor

Schedule O

2016 Projected Energy Efficiency Program Savings

Customer Class and Program	Demand Reduction Target (MW)	Energy Savings Target (MWh)
Commercial		
Commercial Solutions MTP	0.32	2,000
Commercial SOP	0.74	2,920
Load Management SOP	2.75	19
Open MTP	0.36	1,344
SCORE/CitySmart MTP	0.16	1,000
SMART Source^{SM} Solar PV MTP	0.06	117
Residential		
Efficiency Connection Pilot MTP	0.11	525
Residential SOP	0.80	2,451
SMART Source^{SM} Solar PV MTP	0.07	137
Hard-to-Reach		
Hard-to-Reach SOP	0.22	590
Targetd Low-Income Energy Efficiency Program	0.12	268
Total Annual Projected Savings	5.72	11,372

Sponsored by: Rhonda R Fahrlender

AEP Texas North Company
2016 Energy Efficiency Cost Recovery Factor

TNC SCHEDULE P

2014 Energy Efficiency Programs' Benefit - Cost Ratio

2014	Savings			Benefits				Benefit-Cost
Customer Class and Program	kW	kWh	Total Program Costs	Avoided Capacity Costs	Avoided Energy Costs	Total Avoided Costs	Net Benefits	Ben-Cost Ratio
Commercial	**6,878.1**	**7,709,243.6**	**$ 1,519,168**	**$ 1,657,519**	**$ 3,120,379**	**$ 4,777,898**	**$ 3,258,730**	**3.15**
Commercial Solutions MTP	429	2,148,768	$ 348,346	$ 295,182	$ 856,700	$ 1,151,881	$ 803,535	3.31
Commercial SOP	656	2,928,945	$ 252,990	$ 489,283	$ 1,247,133	$ 1,736,416	$ 1,483,427	6.86
Irrigation Load Management MTP	454	3,636	$ 59,846	$ 34,475	$ 159	$ 34,635	$ (25,211)	0.58
Load Management SOP	4,654	31,961	$ 54,587	$ 353,409	$ 1,401	$ 354,810	$ 300,224	6.50
Open MTP	341	1,517,443	$ 495,167	$ 191,724	$ 496,927	$ 688,651	$ 193,484	1.39
SCORE/CitySmart MTP	316	1,024,498	$ 256,212	$ 260,338	$ 481,209	$ 741,547	$ 485,335	2.89
SMART Source[SM] Solar PV MTP	28	53,992	$ 52,021	$ 33,108	$ 36,850	$ 69,958	$ 17,937	1.34
Residential	**938**	**3,110,741**	**$ 792,333**	**$ 813,571**	**$ 1,589,790**	**$ 2,403,361**	**$ 1,611,028**	**3.03**
A/C Distributor Pilot MTP	86	307,653	$ 170,606	$ 69,918	$ 144,062	$ 213,980	$ 43,374	1.25
Residential SOP	791	2,684,792	$ 503,808	$ 671,113	$ 1,364,990	$ 2,036,104	$ 1,532,296	4.04
SMART Source[SM] Solar PV MTP	61	118,296	$ 117,919	$ 72,540	$ 80,738	$ 153,278	$ 35,358	1.30
Hard-to-Reach	**224**	**788,742**	**$ 199,557**	**$ 191,030**	**$ 399,848**	**$ 590,878**	**$ 391,321**	**2.96**
Hard-to-Reach SOP	224	788,742	$ 199,557	$ 191,030	$ 399,848	$ 590,878	$ 391,321	2.96
Targeted Low-Income Energy Efficiency Program	**110**	**258,480**	**$ 300,993**	**$ 102,072**	**$ 135,717**	**$ 237,789**	$ (63,204)	**0.79**
Portfolio Total	**8,150**	**11,867,206**	**$ 2,812,051**	**$ 2,764,193**	**$ 5,245,734**	**$ 8,009,927**	**$ 5,197,875**	**2.85**

Sponsored by: Robert C. Cavazos and Rhonda R. Fahrlender

Schedule Q
System and Line Losses

TNC kWh sales forecast for 2016 is based on energy delivered at the meter so it was not necessary to adjust the EECRF factors for system and line losses.

AEP Texas North Company
2016 Energy Efficiency Cost Recovery Factor

Schedule R

2016 Energy Efficiency Programs

Program	Customer Class	Description
Commercial Solutions MTP	Commercial	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, long-range energy efficiency planning and overall measure and program acceptance by the targeted customers. Incentives are paid to customers served by TNC for eligible measures installed in new or retrofit applications, which provide verifiable demand and energy savings.
Commercial SOP	Commercial	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 chiller systems, high efficiency pumping systems, and other similar technologies. Incentives are paid to project sponsors based on of deemed savings or on verified peak demand and/or energy savings using the International Performance Measurement and Verification Protocol.
Efficiency Connection Pilot MTP	Residential	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.
Hard-to-Reach SOP	Hard-to-Reach	Targets a specific subset of residential customers as defined by 16 TAC § 25.181(c)(27) as customer with a total household income that is less than 200% of the federal poverty guidelines. The program provides incentives for the installation of a wide range of measures that reduce residential customer energy costs and peak demand. It is designed to cost-effectively provide energy efficiency improvements to individual households at no or very low cost. Eligible measures include replacement air conditioners, wall and ceiling insulation and air distribution duct improvements in existing homes. Incentives are paid to EESPs for eligible measures on the basis of deemed savings.
Load Management SOP	Commercial	Targets commercial customers that have a minimum demand of 500 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 incentives are paid directly to the contractor, thereby reducing a portion of the project cost for the customer. Additional incentives 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 EESPs for eligible measures installed in retrofit applications on the basis of deemed 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. Incentive are paid to cities and public school partners served by TNC 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 TNC'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.

Sponsored by: Rhonda R. Fahrlender

AEP Texas North Company

2015 Energy Efficiency Plan and Report

Substantive Rules § 25.181 and § 25.183

April 1, 2015

Project No. 44480

AEP TEXAS
A unit of American Electric Power

Table of Contents

Introduction

AEP Texas North Company (TNC or Company) presents this Energy Efficiency Plan and Report (EEPR) to comply with Public Utility Commission of Texas (PUCT or Commission) Substantive Rules 25.181 and 25.183 (EE Rule), which implement 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). Substantive Rule 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% of its summer weather-adjusted peak demand for the combined residential and commercial customers for the previous program year, the utility shall meet the energy efficiency goal described in subparagraph (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. TNC's plan enables it to meet its statutory goals through implementation of energy efficiency programs in a manner that complies with PURA § 39.905 and the EE Rule. This EEPR covers the periods of time as required in the EE Rule. The following section describes the information that is contained in each of the subsequent sections and appendices.

EEPR Organization

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

- Executive Summary summarizes TNC's plans for achieving its goals and projected energy efficiency savings for program years 2015 and 2016 and highlights TNC's achievements for Program Year 2014.

Energy Efficiency Plan

- Section I describes TNC's program portfolio. It details how each program will be implemented, presents related informational and outreach activities, and provides an introduction to any programs not included in TNC's 2014 EEPR.
- Section II explains TNC's targeted customer classes, describes the estimated size of each class and the method of determining those class sizes.
- Section III presents TNC's energy and demand goals and projected savings for the prescribed planning period detailed by program for each customer class.
- Section IV describes TNC's proposed energy efficiency budgets for the prescribed planning period detailed by program for each customer class.

Energy Efficiency Report

- Section V documents TNC's demand reduction goal for each of the previous five years (2010-2014) based on its weather-adjusted peak demand and actual savings achieved for those years.
- Section VI compares TNC's projected energy and demand savings to its reported and verified savings by program for calendar years 2013 and 2014.
- Section VII details TNC's incentive and administration expenditures for each of the previous five years (2010-2014) detailed by program for each customer class.
- Section VIII compares TNC's actual 2014 expenditures with its 2014 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 TNC's overall program budget and from each program budget.
- Section IX describes the results from TNC's MTPs.
- Section X describes Research and Development activities.
- Section XI documents TNC's 2015 Energy Efficiency Cost Recovery Factor (EECRF).
- Section XII documents TNC's 2014 EECRF Summary
- Section XIII documents TNC's Underserved Counties.
- Section XIV describes TNC's Performance Bonus calculation for Program Year 2014.

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 TNC'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)

TNC plans to achieve its 2015 mandated demand and energy goals of 4,260 kW and 7,464,000 kWh as shown in Table 1 below through residential and non-residential SOPs and MTPs. TNC will utilize a budget of $3,010,847 to accomplish these goals.

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

Calendar Year	Average Peak Demand at Meter (MW)	Goal Metric: 0.4% Peak Demand (MW)	Calculated Peak Demand Goal (MW)	Peak Demand Goal (MW)*	Energy Goal (MWh)	Projected Demand Reduction (MW)	Projected Energy Savings (MWh)	Projected Budget (000's)**
2015	993	3.97	3.97	4.26	7,464	5.72	11,372	$3,011
2016	1,002	4.01	4.01	4.26	7,464	5.72	11,372	$2,988

*Substantive Rule 25.181(e)(1)(E) - Beginning in 2009 a utility's demand reduction goal in megawatts for any year shall not be less than the previous year's goal.
**The 2015 Projected Budget includes costs associated with Evaluation, Measurement and Verification activities.

Executive Summary – Energy Efficiency Report (Report)

TNC achieved demand and energy reductions of 8,150 kW and 11,867,206 kWh, respectively, in 2014. The total energy efficiency cost for achieving these savings was $2,810,627. TNC's achievement exceeded the 2014 mandated energy efficiency goals of 4,260 kW and 7,464,000 kWh, thus allowing TNC 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 Budget from Table 6.

ENERGY EFFICIENCY PLAN

I. 2015 Programs

A. 2015 Program Portfolio

TNC has implemented a variety of programs in 2015 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 TNC's programs and targeted customer class markets for Program Year 2015. The programs listed in Table 2 are described in further detail in Subsections B and C. TNC maintains a web site containing information on participation and forms required for project submission at www.AEPTexas.com. 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 TNC 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.

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

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 TNC 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.

Table 2: 2015 Energy Efficiency Program Portfolio

Program	Target Market	Application	Link to Program Manual
Commercial Solutions MTP	Commercial	Retrofit & New Construction	http://www.eeprograms.net/aep_texasnorth/commercial_solutions.php
Commercial SOP	Commercial	Retrofit & New Construction	https://www.aeptexas.com/save/business/programs/TNCPrograms.aspx
Efficiency Connection Pilot MTP	Residential	Retrofit	No website available
Hard-to-Reach SOP	Residential Hard-to-Reach	Retrofit	https://www.aeptexas.com/save/residential/programs/TNCPrograms.aspx
Load Management SOP	Commercial	Retrofit	https://www.aeptexas.com/save/business/programs/TNCPrograms.aspx
Open MTP	Commercial	Retrofit	http://eeprograms.net/aep_texasnorth/open.php
Residential SOP	Residential	Retrofit	https://www.aeptexas.com/save/residential/programs/TNCPrograms.aspx
SCORE/CitySmart MTP	Commercial	Retrofit & New Construction	http://www.eeprograms.net/aep_texasnorth/score.php http://www.eeprograms.net/aep_texasnorth/citysmart.php
SMART Source[SM] Solar PV MTP	Commercial; Residential	Retrofit & New Construction	http://www.txrenewables.com/aep/
Targeted Low-Income Energy Efficiency Program	Low-Income Residential	Retrofit	No Website Available

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 TNC for eligible energy efficiency measures 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 deemed and/or verified demand and energy savings for eligible measures installed in new or retrofit applications.

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 and for identified underserved measures to encourage activity. Project comprehensiveness is encouraged and customer education materials regarding energy conservation behavior are distributed by project sponsors.

Load Management Standard Offer Program (LM SOP)

The LM SOP targets commercial customers with a peak electric demand of 500 kW or more. Incentive payments are based upon measured and verified peak demand reduction of curtailed loads during the summer peak period. Load management events are dispatched by TNC, 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 TNC 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 TNC 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 Source^{SM} 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 companies offering installation services in the TNC service area, 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 low-income residential customers in TNC'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 current federal poverty guidelines. A Savings-to-Investment Ratio of 1.0 or higher is required at each serviced dwelling unit.

C. *New Programs for 2015*

Efficiency Connection Pilot MTP (EffCon)

The Efficiency Connection Pilot MTP is a partnership with REPs to help promote energy efficiency to TNC 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. Savings will be calculated using assumptions derived from national statistics and localizing that information to make it relevant to the local market.

D. Discontinued Programs

A/C Distributor Pilot Market Transformation Program (ACD MTP)

The objective of the ACD MTP was to increase the market penetration of high-efficiency A/C equipment for residential customers served by TNC. The program targeted a select number of A/C equipment distributors that supply A/C contractors operating in the TNC service territory. Incentives were paid to the distributor for the installation of the high-efficiency A/C equipment up to five tons in cooling capacity. Participation in the program was less than anticipated and the decision was made to discontinue the program.

Irrigation Load Management Market Transformation Program (ILM MTP)

The ILM MTP targeted commercial agricultural customers using electric drive irrigation pumps with at least 25 kW of electric peak demand. Incentive payments were based on measured and verified demand reduction of irrigation pump loads during the summer peak period. Load management events were dispatched by TNC, using a one-hour-ahead notice for curtailment periods of one to four hours duration. A key challenge of this program was meeting the program cost-effectiveness standard as described in the EE Rule. Per the Final Order in PUCT Docket No. 42509, TNC agreed to work with Commission Staff to re-evaluate the program to determine how best to proceed for Program Year 2015. As a result of discussions with Commission Staff, TNC has discontinued the ILM MTP for 2015.

E. Existing DSM Contracts or Obligations

TNC has no existing DSM contracts or obligations.

II. Customer Classes

TNC's energy efficiency programs target its Residential and Commercial customer classes. TNC'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 Substantive Rule 25.181(e)(3).

Table 3 summarizes the number of customers in each customer class and the Residential Hard-to-Reach sub-class at TNC. The numbers listed are the actual number of active electric service accounts by class that TNC served for the month of January 2015. 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 of a customer class, and the overriding objective of meeting TNC's mandated demand and energy reduction goals in total. TNC offers a varied portfolio of SOPs and MTPs such that all eligible customer classes have access to energy efficiency alternatives.

Table 3: Summary of Customer Classes

Customer Class	Number of Customers
Commercial	35,392
Residential	152,886
Hard-to-Reach [2]	56,874*

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

[2] According to the U.S. Census Bureau's Current Population Survey-2014 Annual Social and Economic Supplement, 37.2% of Texas families fall below 200% of the poverty threshold. Applying that percentage to TNC's residential customer base of 152,886, the number of Hard-to-Reach customers is estimated at TNC's residential customer base of 56,874.

III. Energy Efficiency Goals and Projected Savings

TNC's 2015 annual demand and energy reduction goals to be achieved are 4.26 MW and 7,464 MWh, respectively. These goals have been calculated as prescribed by the EE Rule.

TNC's 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 average peak demand at the meter of 993 MW. This results in a calculated goal of 3.97 MW. As stated in P.U.C. SUBST. R. 25.181(e)(1)(E), except as adjusted in accordance with subsection (w), a utility's demand reduction goal shall not be lower than the previous year's goal which was 4.26 kW, with a corresponding 7,464 MWh goal.

Table 4 presents historical annual growth in demand data for the previous five years that was used to calculate TNC's goals. Table 5 presents the projected demand and energy savings for Program Years 2015 and 2016 by program, for each customer class with fully-deployed program budgets.

Table 4: Annual Growth in Demand and Energy Consumption

Calendar Year	Peak Demand (MW) @ Source						Energy Consumption (MWh) @ Meter				Energy Efficiency Goal Calculations		
	Total System		Residential & Commercial				Total System		Residential & Commercial				
	Actual	Weather Adjusted	Actual	Weather Adjusted	Opt-Out	Peak Demand at Source	Actual	Weather Adjusted	Actual	Weather Adjusted	Peak Demand at Meter (11.5% line losses)*	5 year Average Peak Demand at Meter	Goal Metric: 0.4% Peak Demand at Meter
2010	1,144	1,142	1,131	1,128	-9 5	1,119	5,042	4,909	4,918	4,785	990	NA	NA
2011	1,203	1,130	1,194	1,118	-9 5	1,109	5,304	4,963	5,178	4,837	981	NA	NA
2012	1,172	1,114	1,168	1,107	-9 5	1,098	5,145	5,055	5,016	4,926	972	NA	NA
2013	1,147	1,145	1,142	1,140	-9 6	1,130	5,221	5,131	5,084	4,994	1,000	NA	NA
2014	1,086	1,164	1,084	1,161	-9.1	1,152	5,600	5,526	5,459	5,385	1,020	NA	NA
2015	NA	NA	NA	1,183	-9 5	1,174	NA	NA	NA	NA	1,039	993	3 97
2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,002	4 01

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

Table 5: Projected Demand and Energy Savings by Program for Each Customer Class for 2015 and 2016 (at the Meter)

2015	Projected Savings	
Customer Class and Program	**kW**	**kWh**
Commercial		
Commercial Solutions MTP	323	2,000,000
Commercial SOP	740	2,920,000
Load Management SOP	2,751	19,282
Open MTP	357	1,344,000
SCORE/CitySmart MTP	161	1,000,000
SMART Source^{SM} Solar PV MTP	61	117,000
Residential		
Efficiency Connection Pilot MTP	105	525,131
Residential SOP	800	2,451,000
SMART Source^{SM} Solar PV MTP	71	137,143
Hard-to-Reach		
Hard-to-Reach SOP	224	589,828
Targeted Low-Income Energy Efficiency Program	122	268,166
Total Annual Projected Savings	5,715	11,371,550

Table 5: Projected Demand and Energy Savings by Program for Each Customer Class for 2015 and 2016 (at the Meter)
(Continued)

2016	Projected Savings	
Customer Class and Program	**kW**	**kWh**
Commercial		
Commercial Solutions MTP	323	2,000,000
Commercial SOP	740	2,920,000
Load Management SOP	2,751	19,282
Open MTP	357	1,344,000
SCORE/CitySmart MTP	161	1,000,000
SMART Source[SM] Solar PV MTP	61	117,000
Residential		
Efficiency Connection Pilot MTP	105	525,131
Residential SOP	800	2,451,000
SMART Source[SM] Solar PV MTP	71	137,143
Hard-to-Reach		
Hard-to-Reach SOP	224	589,828
Targeted Low-Income Energy Efficiency Program	122	268,166
Total Annual Projected Savings	5,715	11,371,550

IV. Program Budgets

Table 6 presents total proposed budget allocations required to meet TNC's projected demand and energy savings to be achieved for the Program Years 2015 and 2016. 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 the following budget categories: incentives, administration, research and development (R&D), and evaluation, measurement and verification (EM&V).

Table 6: Projected Annual Budget by Program for Each Customer Class for 2015 and 2016

2015	Incentives	Admin	R&D	EM&V	Total Budget
Commercial					
Commercial Solutions MTP	$363,462	$54,311			$417,773
Commercial SOP	$200,000	$29,885			$229,885
Load Management SOP	$80,578	$12,041			$92,619
Open MTP	$419,241	$62,645			$481,886
SCORE/CitySmart MTP	$160,000	$23,908			$183,908
SMART Source^{SM} Solar PV MTP	$82,620	$12,346			$94,966
Residential					
Efficiency Connection Pilot MTP	$150,000	$22,414			$172,414
Residential SOP	$419,610	$62,700			$482,310
SMART Source^{SM} Solar PV MTP	$102,000	$15,241			$117,241
Hard-to-Reach					
Hard-to-Reach SOP	$162,719	$24,314			$187,033
Targeted Low-Income Energy Efficiency Program	$257,145	$38,424			$295,569
Research and Development (R&D)					
R&D	NAP	NAP	$200,000	NAP	$200,000
Evaluation, Measurement & Verification (EM&V)					
EM&V	NAP	NAP	NAP	$55,243	$55,243
Total Budget	$2,397,375	$358,229	$200,000	$55,243	$3,010,847

Table 6: Projected Annual Budget by Program for Each Customer Class for 2015 and 2016

2016	Incentives	Admin	R&D	EM&V	Total Budget
Commercial					
Commercial Solutions MTP	$363,462	$54,311			$417,773
Commercial SOP	$200,000	$29,885			$229,885
Load Management SOP	$80,578	$12,041			$92,619
Open MTP	$419,241	$62,645			$481,886
SCORE/CitySmart MTP	$160,000	$23,908			$183,908
SMART Source[SM] Solar PV MTP	$82,620	$12,346			$94,966
Residential					
Efficiency Connection Pilot MTP	$150,000	$22,414			$172,414
Residential SOP	$419,610	$62,700			$482,310
SMART Source[SM] Solar PV MTP	$102,000	$15,241			$117,241
Hard-to-Reach					
Hard-to-Reach SOP	$162,719	$24,314			$187,033
Targeted Low-Income Energy Efficiency Program	$257,145	$38,424			$295,569
Research and Development					
R&D	NAP	NAP	$200,000		$200,000
Evaluation, Measurement & Verification (EM&V)					
EM&V	NAP	NAP	NAP	32,247*	$32,247
Total Budget	$2,397,375	$358,229	$200,000	$32,247	$2,987,851

*Estimated EM&V costs for 2016 to evaluate Program Year 2015.

ENERGY EFFICIENCY REPORT

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

Table 7 contains TNC's demand and energy reduction goals and actual savings achieved for the previous five years (2010-2014) calculated in accordance with the EE Rule.

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

Calendar Year	Actual Weather Adjusted Demand Goal (MW)	Actual Weather Adjusted Energy Goal (MWh)	Savings Achieved (MW)	Savings Achieved (MWh)
2014	4.26	7,464	8.15	11,867
2013	4.26	7,464	6.93	9,087
2012	4.26	7,464	6.02	7,353
2011	(1.82)	(3,194)	4.18	8,801
2010	(1.83)	(3,202)	5.09	14,194

* Actual Weather Adjusted MW and MWh Goals as reported in TNC's EEPRs filed in years 2010-2014.

VI. Projected, Reported and Verified Demand and Energy Savings

Table 8: Projected versus Reported and Verified Savings for 2014 and 2013 (at the Meter)

2014	Projected Savings		Reported and Verified Savings	
Customer Class and Program	**kW**	**kWh**	**kW**	**kWh**
Commercial				
Commercial Solutions MTP	340	1,500,000	429	2,148,768
Commercial SOP	760	3,009,000	656	2,928,946
Irrigation Load Management MTP	800	38,400	454	3,636
Load Management SOP	2,751	19,282	4,654	31,961
Open MTP	340	1,344,000	341	1,517,443
SCORE/CitySmart MTP	340	1,500,000	316	1,024,498
SMART Source^{SM} Solar PV MTP	62	120,000	28	53,992
Residential				
A/C Distributor Pilot MTP	102	251,201	86	307,653
Residential SOP	870	1,899,000	791	2,684,792
SMART Source^{SM} Solar PV MTP	62	120,000	61	118,296
Hard-to-Reach				
Hard-to-Reach SOP	240	418,000	224	788,742
Targeted Low-Income Energy Efficiency Program	60	97,000	110	258,479
Total Annual Savings	6,727	10,315,883	8,150	11,867,206

Table 8: Projected versus Reported and Verified Savings for 2014 and 2013 (at the Meter) (Continued)

2013	Projected Savings		Reported and Verified Savings	
Customer Class and Program	**kW**	**kWh**	**kW**	**kWh**
Commercial				
Commercial Solutions Pilot MTP	340	1,075,000	237	984,202
Commercial SOP	400	1,752,000	282	1,251,684
Irrigation Load Management MTP	800	51,200	569	4,554
Load Management SOP	2,751	19,282	3,543	32,461
Open MTP	340	1,344,000	285	1,292,355
SCORE/CitySmart MTP	340	826,000	382	1,569,701
SMART Source^{SM} Solar PV Pilot MTP	50	106,000	81	156,016
Residential				
A/C Distributor Pilot MTP	102	251,201	98	338,769
Residential SOP	752	2,043,110	962	2,385,466
SMART Source^{SM} Solar PV Pilot MTP	50	106,000	33	62,800
Hard-to-Reach				
Hard-to-Reach SOP	240	653,561	349	767,152
Targeted Low-Income Energy Efficiency Program	55	221,613	111	241,639
Total Annual Savings	6,220	8,448,967	6,932	9,086,799