Q. DID AEP TEXAS EXCEED THE 2019 CAPS BASED ON ACTUAL DATA?

A. No. Neither the Central Division nor the North Division exceeded the 2019 caps for either EECRF class.

Q. HOW ARE ENERGY EFFICIENCY COSTS EXPRESSLY INCLUDED IN BASE RATES TREATED IN DETERMINING WHETHER EECRF FACTORS EXCEED THE AMOUNTS PRESCRIBED IN 16 TAC § 25.182(d)(7) FOR THE HISTORICAL PY 2019?

A. Each division recovered an amount of energy efficiency costs expressly identified in its base rates in 2019 so the sum of the base rate recovery of energy efficiency costs (including the base rate revenue adjustment) and the EECRF for PY 2019 shall not exceed the amounts prescribed in 16 TAC § 25.182(d)(7). In Docket Nos. 39360 and 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 2019 actual data. The detail for the cost cap calculation for 2019 is shown in Schedule G (2019 Cap) in the divisional workpapers.

Q. HOW WERE THE 2019 CAPS CALCULATED?

A. The 2019 caps were calculated by removing the statewide EM&V contractor's costs and the municipal EECRF proceeding expenses paid in 2019 from the total 2019 Energy Efficiency actual costs, and dividing that total amount by the class 2019 EECRF billing units less any customer ID notice kWh. Because the 2019 expenses are determined by division, the 2019 cost caps are shown for each division. This calculation yields the following results for the classes:

Central Division Class	2019 Cost per kWh	2019 Cap
Residential	$0.000887	$0.001303
Commercial	$0.000635	$0.000815

North Division Class	2019 Cost per kWh	2019 Cap
Residential	$0.000965	$0.001303
Commercial	$0.000473	$0.000815

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 (u) (ID Notice Customers) are excluded from EECRF charges. Also, the lighting class has not been assigned or allocated any 2021 costs.

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

A. Yes. As discussed above, PY 2021 costs are entirely recovered through Rider EECRF without any base rate recovery. Therefore, the credit assessed to the Secondary and Primary Service ID Notice Customers for base rate energy efficiency costs is no longer necessary and has been removed for the PY 2021 Rider EECRF.

Q. HAVE YOU PROVIDED THE REVISED TARIFF REFLECTING 2021 EECRF FACTORS FOR AEP TEXAS?

A. Yes. The proposed Rider EECRF is shown in the Schedule F. AEP Texas requests that the Commission approve Rider EECRF to be effective March 1, 2021.

IV. CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. AEP Texas is requesting recovery of $20,531,462 through its combined Rider EECRF, which include projected PY 2021 energy efficiency program costs of 17,747,659, EM&V costs of $211,988, the return of the over-recovery of $948,163 in 2019 program costs including interest, EECRF proceeding expenses from Docket No. 49592 of $44,303 and the 2019 earned performance bonus of $3,475,676.

AEP Texas' base rates for each division included energy efficiency costs in PY 2019. Those costs and the corresponding revenue adjustment have been treated in accordance with 16 TAC § 25.181(d)(1). The class assignment of the estimated PY 2021 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 2021 program, the allocation of that program cost is based on a weighted demand allocator from Docket No. 49494, adjusted based on the most recent projection of EECRF rate class kWh, less the identification notice customer kWh. The class assignment of the 2019 actual program costs is based on direct assignment to the participating EECRF rate classes in each division. The earned performance bonus has been assigned to the classes in accordance with 16 TAC § 25.182(e)(6). The EECRF proceeding expenses have been assigned to the classes using an allocator developed based on the PY 2021 program costs assigned to the classes. Recovery of the 2021 EECRF revenue requirement is based on projected 2021 kWh sales for all EECRF classes eligible for the EECRF.

Q. WHAT RELIEF IS AEP TEXAS REQUESTING IN THIS PROCEEDING?

A. AEP Texas is requesting that the following EECRF class factors below, included in AEP Texas Rider EECRF contained in Schedule F, be approved effective March 1, 2021.

EECRF Class	AEP Texas	Unit
Residential	$0.000937	kWh
Secondary <= 10 kW	$0.000625	kWh
Secondary > 10 kW	$0.000796	kWh
Primary	$0.000308	kWh
Transmission	($0.000221)	kW
Lighting	$0.000000	kWh

Q. HAS AEP TEXAS CALCULATED THE EECRF FACTORS IN A MANNER CONSISTENT WITH 16 TAC § 25.182?

A. Yes.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

AEP Texas
2021 Energy Efficiency Cost Recovery Factor

SCHEDULE A

2021 Projected Energy Efficiency Program Costs

	Incentives	Administrative	Research & Development	EM&V	Total Projected Energy Efficiency Costs
Commercial					
Commercial Solutions MTP	$903,248	$115,485			$1,018,733
Commercial SOP	$2,063,762	$238,895			$2,302,657
CoolSaver℠ A/C Tune-Up MTP	$596,700	$66,300			$663,000
Load Management SOP	$737,700	$85,300			$823,000
Open MTP	$1,213,041	$150,959			$1,364,000
SCORE/CitySmart MTP	$1,134,300	$133,310			$1,267,610
SMART Source℠ Solar PV MTP	$286,650	$35,017			$321,667
Residential					
CoolSaver℠ A/C Tune-Up MTP	$675,000	$75,000			$750,000
High Performance New Homes MTP	$765,000	$85,000			$850,000
Residential Pool Pump Pilot MTP	$150,300	$16,700			$167,000
Residential SOP	$3,359,298	$395,198			$3,754,496
SMART Source℠ Solar PV MTP	$306,660	$38,007			$344,667
Hard-to-Reach					
Hard-to-Reach SOP	$1,412,560	$156,840			$1,569,400
Targeted Low-Income Energy Efficiency Program	$1,799,159	$187,145			$1,986,304
Research and Development					
R&D Programs	NAP	NAP	$565,125		$565,125
Total Projected Program Costs	**$15,403,378**	**$1,779,156**	**$565,125**	**$0**	**$17,747,659**
Evaluation Measurement & Verification (EM&V)					
EM&V				$211,988	$211,988
Total Projected Energy Efficiency costs	**$15,403,378**	**$1,779,156**	**$565,125**	**$211,988**	**$17,959,647**

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

2021 AEP Texas	Res	Sec < 10	Sec > 10	Primary	Total
Commercial					
Commercial Solutions MTP		$44,738	$730,894	$243,100	$1,018,733
Commercial SOP		$101,122	$1,652,051	$549,483	$2,302,657
CoolSaver℠ A/C Tune-Up MTP		$29,116	$475,672	$158,212	$663,000
Load Management SOP			$617,587	$205,413	$823,000
Open MTP		$78,675	$1,285,325		$1,364,000
SCORE/CitySmart MTP		$55,668	$909,452	$302,490	$1,267,610
SMART Source℠ Solar PV MTP		$14,126	$230,781	$76,759	$321,667
Residential					
CoolSaver℠ A/C Tune-Up MTP	$750,000				$750,000
High Performance New Homes MTP	$850,000				$850,000
Residential Pool Pumps Pilot MTP	$167,000				$167,000
Residential SOP	$3,754,496				$3,754,496
SMART Source℠ Solar PV MTP	$344,667				$344,667
Hard-to-Reach					
Hard-to-Reach SOP	$1,569,400				$1,569,400
Targeted Low-Income Energy Efficiency Program	$1,986,304				$1,986,304
Research and Development (R&D)					
R&D Programs	$306,830	$11,343	$185,315	$61,637	$565,125
EM&V	$116,205	$3,999	$72,707	$19,077	$211,988
Total Energy Efficiency Program Revenue Requirement	$9,844,902	$338,788	$6,159,786	$1,616,171	$17,959,647

AEP Texas
2021 Energy Efficiency Cost Recovery Factor

Schedule B -1 Central Division

2019 Actual Energy Efficiency Expenditures

Customer Class and Program	2019				
	Incentives	Administrative	Research & Development	Evaluation, Measurement & Verification	Total Funds Expended
Commercial					
Commercial Solutions MTP	$ 504,949	$ 47,650			$552,599
Commercial SOP	$ 1,725,048	$ 194,849			$1,919,897
CoolSaver℠ A/C Tune-Up MTP	$ 647,821	$ 53,344			$701,165
Load Management SOP	$ 497,625	$ 40,063			$537,688
Open MTP	$ 795,313	$ 79,077			$874,390
SCORE/CitySmart MTP	$ 924,136	$ 87,108			$1,011,244
SMART Source℠ Solar PV MTP	$ 201,039	$ 14,945			$215,984
Residential					
CoolSaver℠ A/C Tune-Up MTP	$696,411	$57,306			$753,717
High Performance New Homes MTP	$807,359	$73,924			$881,283
Residential Pool Pump Pilot MTP	$58,350	$5,642			$63,992
Residential SOP	$2,735,844	$309,595			$3,045,439
SMART Source℠ Solar PV MTP	$200,448	$14,925			$215,373
Hard-to-Reach					
Hard-to-Reach SOP	$1,087,490	$93,039			$1,180,529
Targeted Low Income Energy Efficiency Program	$1,468,495	$149,630			$1,618,125
Research & Development					
Research & Development	NAP	NAP	$281,180		$281,180
Evaluation, Measurement & Verification					
Statewide EM&V Contractor	NAP	NAP	NAP	$180,198	$180,198
TOTAL	**$12,350,328**	**$1,221,097**	**$281,180**	**$180,198**	**$14,032,803**

2019 Central Division	Res	Sec < 10	Sec > 10	Primary	Total
Commercial Programs					
ComSol MTP		$8,156.31	$453,363.23	$91,079.58	$552,599.13
Commercial SOP		$27,584.33	$1,347,065.46	$545,246.94	$1,919,896.73
CoolSaver[SM] A/C Tune-Up MTP		$47,657.93	$609,500.32	$44,006.40	$701,164.64
Load Management SOP		$27.01	$185,626.03	$352,035.20	$537,688.24
Open MTP		$46,595.59	$827,794.83	$0.00	$874,390.42
SCORE/CitySmart MTP		$32,653.21	$967,597.98	$10,992.68	$1,011,243.87
SMART Source[SM] Solar PV MTP		$18,430.60	$197,552.97	$0.00	$215,983.56
Total Commercial		$181,104.98	$4,588,500.82	$1,043,360.80	$5,812,966.60
Residential Programs					
CoolSaver[SM] A/C Tune-Up MTP	$753,716.82				$753,716.82
High Performance New Homes MTP	$881,283.47				$881,283.47
Residential SOP	$3,045,438.97				$3,045,438.97
SMART Source[SM] Solar PV MTP	$215,373.84				$215,373.84
Residential Pool Pumps Pilot MTP	$63,992.05				$63,992.05
Total Residential	$4,959,805.14				$4,959,805.14
Hard-to-Reach Programs					
Hard-To-Reach SOP	$1,180,528.16				$1,180,528.16
Targeted Low Income Energy Efficiency Program	$1,618,124.75				$1,618,124.75
Total HTR	$2,798,652.91				$2,798,652.91
Total Programs	$7,758,458.06	$181,104.98	$4,588,500.82	$1,043,360.80	$13,571,424.66
Research & Development	$148,668.96	$4,145.35	$104,604.63	$23,761.42	$281,180.36
EM&V -statewide contr	$102,927.35	$2,417.25	$60,997.34	$13,855.82	$180,197.76
Total R&D	$251,596.31	$6,562.60	$165,601.97	$37,617.24	$461,378.12
Total 2019	$8,010,054.37	$187,667.58	$4,754,102.79	$1,080,978.04	$14,032,802.78

AEP Texas
2021 Energy Efficiency Cost Recovery Factor

Schedule B-2 North Division

2019 Actual Energy Efficiency Expenditures

Customer Class and Program	2019				
	Incentives	Administrative	Research & Development	Evaluation, Measurement & Verification	Total Funds Expended
Commercial					
Commercial Solutions MTP	$ 395,360	$ 59,443			$454,803
Commercial SOP	$ 249,428	$ 37,678			$287,107
Load Management SOP	$ 87,000	$ 9,973			$96,973
Open MTP	$ 400,294	$ 65,512			$465,806
SCORE/CitySmart MTP	$ 187,500	$ 26,306			$213,806
SMART Source[SM] Solar PV MTP	$ 83,946	$ 7,721			$91,667
Residential					
Residential Pool Pump Pilot MTP	$18,350	$4,037			$22,387
Residential SOP	$524,902	$54,208			$579,110
SMART Source[SM] Solar PV MTP	$99,796	$9,179			$108,975
Hard-to-Reach					
Hard-to-Reach SOP	$365,953	$34,673			$400,626
Targeted Low Income Energy Efficiency Program	$344,576	$33,528			$378,104
Research & Development					
Research & Development	NAP	NAP	$105,775		$105,775
Evaluation, Measurement & Verification					
Statewide EM&V Contractor	NAP	NAP	NAP	$31,790	$31,790
TOTAL	**$2,757,105**	**$342,259**	**$105,775**	**$31,790**	**$3,236,930**

2019 North Division	Res	Sec < 10	Sec > 10	Primary	Total
Commercial Programs					
ComSol MTP		$46,318.34	$408,484.80	$0.00	$454,803.13
Commercial SOP		$4,071.39	$283,035.30	$0.00	$287,106.69
Load Management SOP		$0.00	$57,135.36	$39,837.97	$96,973.34
Open MTP		$61,296.48	$404,509.10	$0.00	$465,805.58
SCORE/CitySmart MTP		$3,912.21	$209,894.08	$0.00	$213,806.29
SMART Source[SM] Solar PV MTP		$7,134.22	$84,533.10	$0.00	$91,667.32
Total Commercial		$122,732.63	$1,447,591.75	$39,837.97	$1,610,162.35
Residential Programs					
Residential SOP	$579,110.10				$579,110.10
SMART Source[SM] Solar PV MTP	$108,975.24				$108,975.24
Residential Pool Pumps Pilot MTP	$22,386.52				$22,386.52
Total Residential	$710,471.86				$710,471.86
Hard-to-Reach Programs					
Hard-To-Reach SOP	$400,626.45				$400,626.45
Targeted Low Income Energy Efficiency Program	$378,103.82				$378,103.82
Total HTR	$778,730.27				$778,730.27
Total Programs	$1,489,202.13	$122,732.63	$1,447,591.75	$39,837.97	$3,099,364.48
Research & Development	$59,925.03	$3,477.21	$41,205.46	$1,167.57	$105,775.27
EM&V -statewide contr	$15,607.23	$1,227.31	$14,543.78	$412.10	$31,790.42
Total R&D	$75,532.26	$4,704.52	$55,749.24	$1,579.67	$137,565.69
Total 2019	$1,564,734.39	$127,437.15	$1,503,340.98	$41,417.65	$3,236,930.17

AEP Texas Combined
Schedule C
Calculation of 2019 Over/Under Recovery Class Factor

2019 Residential Energy Efficiency Expenditures + R&D - Municipal EECRF Expenses	$9,549,277
2019 Actual Residential Energy Efficiency Factor Revenues + Base	$9,962,785
2019 Residential Over Recovery	($413,507)
2019 Commercial Energy Efficiency Expenditures + R&D - Municipal EECRF Expenses	$7,674,237
2019 Actual Commercial Energy Efficiency Factor Revenues + Base	$8,169,047
2019 Commercial Over Recovery	($494,810)
2019 Total Energy Efficiency Expenditures + R&D - Municipal EECRF Expenses	$17,223,514
2019 Actual Total Energy Efficiency Factor Revenues	$18,131,832
2019 Over Recovery	($908.318)
Interest on 2019 Over Recovery	($39,846)
Total Over Recovery With Interest	($948 163)

Class	2019 Program Costs Over/Under Recovery Allocation	2021 Forecasted Billing Unit	2019 Over/Under Recovery Factor	Unit
Residential	($431,647)	12,143,946,089	($0.000036)	kWh
Secondary <= 10 kW	($20,264)	610,821,720	($0 000033)	kWh
Secondary > 10 kW	($28,836)	9,299,306,836	($0 000003)	kWh
Primary	($463,698)	4,484,361,563	($0 000103)	kWh
Transmission	($3,719)	16,836,816	($0.000221)	kW
Lighting	$0	264,251,585	$0.000000	kWh
Total	($948,163)	26,819,524,609		

Over-Recovery Without Interest for 2021 Cap Purposes	
Class	2019 Program Costs Over/Under Recovery Allocation
Residential	($413,507)
Secondary <= 10 kW	(19,412.04)
Secondary > 10 kW	(27,624 38)
Primary	($444,211)
Transmission	($3,562 31)
Total Without Interest	($908,318)

Sponsored by: Jennifer L. Jackson

AEP Texas Central Division
Energy Efficiency Cost Recovery Factor

Schedule D

2019 Goal Achievement and Performance Bonus Calculation

Central Division achieved 39,698 kW in demand savings and 58,398,028 kWh in energy savings by December 31, 2019. The total present value of the avoided costs associated with these demand reductions and energy savings is $45,059,169. Central Division's total costs for purposes of calculating the bonus for the 2019 program year were $16,459,856. The resulting net benefits are $28,599,313. Central Division's demand reduction goal (DRG) was 16,140 kW and its energy savings goal was 28,277,000 kWh. Central Division achieved 246% of its DRG and 207% of its energy savings goal, qualifying it for a performance bonus as calculated under 16 TAC § 25.182(e).

Central Division's calculated bonus is $20,871,942; however, its maximum bonus allowed is $2,859,931, which is 10% of its total net benefits (16 TAC § 25.182(e) (3)).

	kW (Demand)	kWh (Energy)
2019 Goals	16,140	28,277,000
2019 Savings	39,698	58,398,028
Reported/Verified HTR	2,975	
2019 Program Costs (excluding bonus)	$14,064,194	
2019 Performance Bonus	$2,859,931	

Performance Bonus Calculation

246%	Percentage of Demand Reduction Goal Met (Reported kW/Goal kW)
207%	Percentage of Energy Reduction Goal Met (Reported kWh/Goal kWh)
TRUE	Met Requirements for Performance Bonus?
$45,059,169	Total Avoided Cost
$2,395,662	Docket No. 48297 requirement (add previous bonus to current year bonus calculation)
$16,459,856	Total Program Costs (including bonus)
$28,599,313	Net Benefits

Bonus Calculation

$20,871,942	Calculated Bonus [(Achieved Demand Reduction/Demand Goal - 100%) / 2 * Net Benefits]
$2,859,931	Maximum Bonus Allowed (10% of Net Benefits)
$2,859,931	*Bonus (Minimum of Calculated Bonus and Bonus Limit)*

Sponsored by: Robert Cavazos

AEP Texas North Division
Energy Efficiency Cost Recovery Factor

Schedule D

2019 Goal Achievement and Performance Bonus Calculation

North Division achieved 8,577 kW in demand savings and 11,968,217 kWh in energy savings by December 31, 2019. The total present value of the avoided costs associated with these demand reductions and energy savings is $9,907,326. North Division's total costs for purposes of calculating the bonus for the 2019 program year were $3,749,879. The resulting net benefits are $6,157,446. North Division's demand reduction goal (DRG) was 4,260 kW and its energy savings goal was 7,464,000 kWh. North Division achieved 154% of its DRG and 160% of its energy savings goal, qualifying it for a performance bonus as calculated under 16 TAC § 25.182(e).

North Division's calculated bonus is $1,674,346; however, its maximum bonus allowed is $615,745, which is 10% of its total net benefits (16 TAC § 25.182(e) (3)).

	kW (Demand)	kWh (Energy)
2019 Goals	4,260	7,464,000
2019 Savings	6,577	11,968,217
Reported/Verified HTR	718	
2019 Program Costs (excluding bonus)	$3,244,552	
2019 Performance Bonus	$615,745	

Performance Bonus Calculation

154%	Percentage of Demand Reduction Goal Met (Reported kW/Goal kW)
160%	Percentage of Energy Reduction Goal Met (Reported kWh/Goal kWh)
TRUE	Met Requirements for Performance Bonus?
$9,907,326	Total Avoided Cost
$505,327	Docket No. 48297 requirement (add previous bonus to current year bonus calculation)
$3,749,879	Total Program Costs (including bonus)
$6,157,446	Net Benefits

Bonus Calculation

$1,674,346	Calculated Bonus [(Achieved Demand Reduction/Demand Goal - 100%) / 2 * Net Benefits]
$615,745	Maximum Bonus Allowed (10% of Net Benefits)
$615,745	*Bonus (Minimum of Calculated Bonus and Bonus Limit)*

Sponsored by: Robert Cavazos

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

Central Division		
2021 Program Costs Above Base Rates	$17,747,659	86.44%
EM&V Evaluation of PY 2020	$211,988	1.03%
2019 Over Recovery	($908,318)	-4.42%
2019 Interest	($39,846)	-0.19%
Calculated Performance Bonus for 2019	$3,475,676	16.93%
EECRF Proceeding Expenses DN 49592	$44,303	0.22%
Adjusted EECRF Revenue Requirement	$20,531,462	100.00%

Class	Total Adjusted 2021 EECR Revenue Requirement	2021 Forecasted Billing Unit	2021 EECR Factor RVSD	Unit
Residential	$11,373,488	12,143,946,089	$0.000937	kWh
Secondary <= 10 kW	$381,611	610,821,720	$0.000625	kWh
Secondary > 10 kW	$7,398,632	9,299,306,836	$0.000796	kWh
Primary	$1,381,451	4,484,361,563	$0.000308	kWh
Transmission	($3,719)	16,836,816	($0 000221)	kW
Lighting	$0	264,251,585	$0 000000	kWh
Total	$20,531,462.29			

Class	2021 EECRF Program Costs with EM&V	2019 Over/Under With Interest	2019 Bonus	EECRF Proceeding Expenses DN 49592	Total 2021 EECRF Revenue Requirement	2021 Forecasted Billing Unit	2021 EECR Factor	Unit
Residential	$9,844,988	($431,647)	$1,935,862	$24,286	$11,373,488	12,143,946,089	$0.000937	kWh
Secondary <= 10 kW	$338,902	($20,264)	$62,136	$836	$381,611	610,821,720	$0 000625	kWh
Secondary > 10 kW	$6,162,477	($28,836)	$1,249,790	$15,202	$7,398,632	9,299,306,836	$0 000796	kWh
Primary	$1,613,280	($463,698)	$227,889	$3,980	$1,381,451	4,484,361,563	$0.000308	kWh
Transmission	$0	($3,719)	$0	$0	($3,719)	16,836,816	($0 000221)	kW
Lighting	$0	$0	$0	$0	$0	264,251,585	$0.000000	kWh
Total	$17,959,647	($948,163)	$3,475,676	$44,303	$20,531,462			

Sponsored by: Jennifer L. Jackson

6.1.1.4.2 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	$0.000937 per kWh
Secondary Service Less than or Equal to 10 kW	$0.000625 per kWh
Secondary Service Greater than 10 kW	$0.000796 per kWh
Primary Service	$0.000308 per kWh
Transmission Service	($0.000221) per kW

NOTICE

This rate schedule is subject to the Company's Tariff and Applicable Legal Authorities.

Schedule G
Cap Calculation

AEP Texas	
2021 Program Costs (no EM&V cost)	$17,747,659
2019 Over/Under Recovery without Interest	($908,318)
Calculated Performance Bonus - 2019	$3,475,676
AEP Texas EECRF Proceeding Expenses	$35,404
Adjusted EECR Revenue Requirement*	$20,350,421

*no municipal EECRF proceeding expenses or EM&V costs or interest on the over/under recovery are included in the cap calculation

Class	Total Adjusted 2021 EECRF Revenue Requirement (no EM&V cost)	2021 Forecasted Billing Unit	2021 EECR Factor (no EM&V)	Unit
Residential	$11,270,543	12,143,946,089	$0 000928	kWh
Secondary <= 10 kW	$378,294	610,821,720	$0 000619	kWh
Secondary > 10 kW	$7,324,051	9,299,306,836	$0.000788	kWh
Primary	$1,381,095	4,484,361,563	$0.000308	kWh
Transmission	($3 562)	16,836,816	($0 000212)	kW
Total (no EM&V cost)	20,350,421	26,538,436,208		

South Urban CPI 1 45%

Class	Base Rate Including Revenue Adjustment	2021 EECR Factor (no EM&V)	2021 Total	2020 Cap	2021 Cap
Residential	$0 000000	$0 000928	$0 000928	$0 001332	$0 001351
Non-Residential	$0 000000	$0 000631	$0 000631	$0 000833	$0 000845

Calculation of Non-Residential per kWh Rate	
2021 Rev Req	$9,083,440
2021 kWh	14,394,490,119
Combined per kWh	$0 000631

Sponsored by Jennifer L. Jackson

Schedule H

AEP Texas Projected 2021 Retail kWh Sales	32,296,698,215

Rate Classes	2019 Historical Billing Units	Percent of Total kWh	Customer ID Notice kWh	2021 Forecasted Billing Unit Less ID Notice Customers	Unit
Residential	12,027,154,038	37.60%		12,143,946,089	kWh
Secondary <= 10 kW	606,767,649	1 90%	1,846,645	610,821,720	kWh
Secondary > 10 kW	9,219,201,449	28.82%	9,441,304	9,299,306,836	kWh
Primary	4,656,540,239	14.56%	217,391,763	4,484,361,563	kWh
Transmission	5,214,689,507	16.30%		5,265,330,710	kWh
Lighting	261,695,691	0.82%		264,251,585	kWh
Total	31,986,048,573	100.00%	228,679,712	32,068,018,503	
			ID Notice kWh	228,679,712	
			Total 2021 kWh	32,296,698,215	

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Central Division
Schedule I
Energy Efficiency Program Costs Included in Base Rates

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

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 33309 Billing Data	Base Distribution Billing Unit	Docket No 33309 EE Rate per Billing Unit	2019 Billing Unit Adjusted For Base Rate Credit Units	2019 EE Base Revenue -16 TAC § 25 181	Adjustment to Base Revenue	Distribution Function Allocator w/out Trans	Weighted Allocator
Residential	$2,948,779	47 209%	$75,656	85 323%	$3,024,435	8,352,353,434	kWh	$0 000362	10,131,226,662	$3,667,504	$643,069 00	47 209%	51 884%
Secondary <= 10 kW	$107,362	1 719%	$6,725	7 5848%	$114,088	398,752,267	kWh	$0 000286	464,951,609	$132,976	$18,888 41	1 719%	1 889%
Secondary > 10 kW IDR	$126,356	2 023%	$24	0 0269%	$126,379	1,421,383	kW	$0 078608	2,313,482 60	$181,858	$55,479	2 023%	2 223%
Secondary > 10 kW Non-IDR	$1,825,465	29 225%	$6,118	6 9001%	$1,831,583	23,486,386	kW	$0 078608	26,509,919 26	$2,083,892	$252,309	29 225%	32 119%
Primary IDR	$609,991	9 766%	$37	0 0419%	$610,028	5,776,539	kW	$0 105418	6,181,402 61	$651,631	$41,603	9 766%	10 733%
Primary Non-IDR	$65,439	1 048%	$23	0 0257%	$65,462	631,219	kW	$0 105418	552,733 20	$58,268	($7,194)	1 048%	1 151%
Transmission	$562,887	9 012%	$5	0 0060%	$562,892	13,980,065	kW	$0 040264	15,932,458 40	$641,505	$78,612	0 000%	0 000%
Lighting	$0	0 000%	$81	0 0915%	$81	229,634,991	kWh	$0 000000	222,051,331	$0	($81)	0 000%	0 000%
Total	$6,246,279	100 000%	$88,670		$6,334,949					$7,417,633 82	$1,082,685	90 988%	100 000%

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North Division
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	2019 Billing Unit Adjusted For Base Rate Credit Units	2019 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	1,895,927,376	$667,366 44	$64,453	46 553%	46 834%
Secondary <= 10 kW	$37,472	2 897%	$148 5	14 628%	$37,620	146,926,027	kWh	$0 000256	137,917,471	$35,306 87	($2 313)	2 897%	2 915%
Secondary > 10 kW IDR	$77,527	5 994%	$8 5	0 841%	$77,536	982,774	kW	$0 067725	1,166,880 32	$79,027	$1,491	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	6,346,987 52	$429,850	$30,517	30 869%	31 055%
Primary IDR	$160,223	12 388%	$4 1	0 400%	$160,227	2,081,550	kW	$0 076100	3,160,647 58	$240,525	$80,298	12 388%	12 462%
Primary Non-IDR	$9,045	0 699%	$1 4	0 135%	$9,046	142,816	kW	$0 076100	317,951 67	$24,196	$15,150	0 699%	0 704%
Transmission	$7,753	0 599%	$0 8	0 083%	$7,754	443,710	kW	$0 017474	904,357 30	$15,803	$8,049	0 000%	0 000%
Lighting	$0	0 000%	$1 1	0 107%	$1 09	57,913,901	kWh	$0 000000	39,644,360	$0	($1)	0 000%	0 000%
Total	$1,293,415	100 000%	$1,015	100 000%	$1,294,430					$1,492,074	$197,644	99 401%	100 000%

Sponsored by Jennifer L Jackson

AEP Texas
2021 Energy Efficiency Cost Recovery Factor

Schedule J

2019 Energy Efficiency Service Providers
Who Received Incentives from the Energy Efficiency Programs in 2019

A list of the energy service providers, those receiving more than 5% of the total incentive funds for 2019 and the associated contracts are provided.

The information responsive to this request is HIGHLY SENSITIVE PROTECTED MATERIAL under the terms of the Protective Order. The Highly Sensitive 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.

Due to current restrictions associated with COVID-19, this information is being provided electronically and a secure login to access the information will be provided upon request to individuals who have signed the Protective Order Certification.

Schedule K - Costs
AEP Texas Central Division Costs - 2019

Line	Cost Type		Department		Project Description	Affilate	2019 ($)	Discussion of Reasonableness & Necessity/No Higher Than Standard
1	Administrative Costs	10329	TX EE/DR Programs	EON100551	EE/DR EECRF	AEP Texas North	15,433	See Direct Testimonies of Robert Cavazos, Pam Osterloh and Brian Lysiak
2	Administrative Costs	10329	TX EE/DR Programs	TXDSMANDA	Texas DSM Admin & General	AEP Texas North	130,382	See Direct Testimonies of Robert Cavazos, Pam Osterloh and Brian Lysiak
3	**Total Administrative Costs**						**$ 145,815**	
4	Program Direct Costs	10329	TX EE/DR Programs	EON100549	EE/DR Targeted Small Bus MTP	AEP Texas North	549	See Direct Testimonies of Robert Cavazos, Pam Osterloh and Brian Lysiak
5	Program Direct Costs	10329	TX EE/DR Programs	EON100520	DSM-Load Management - TX	AEP Texas North	521	See Direct Testimonies of Robert Cavazos, Pam Osterloh and Brian Lysiak
6	Program Direct Costs	10329	TX EE/DR Programs	EON100547	DSM - EM&V - TX	AEP Texas North	233	See Direct Testimonies of Robert Cavazos, Pam Osterloh and Brian Lysiak
7	**Total Program Direct Costs**						**$ 1,302**	
8	R&D Costs	10329	TX EE/DR Programs	EON100535	EE/DR R&D - TX	AEP Texas North	36,399	See Direct Testimonies of Robert Cavazos, Pam Osterloh and Brian Lysiak
9	**Total R&D Costs**						**$ 36,399**	
10	**Grand Total**						**$ 183,516**	

Sponsored by Brian T Lysiak

Schedule K - Costs
AEP Texas North Division Costs - 2019

Line	Cost Type	Department		Project	Project Description	Affiliate	2019 ($)	Discussion of Reasonableness & Necessity/No Higher Than Standard
1	Administrative Costs	10329	TX EE/DR Programs	TXDSMANDA	Texas DSM Admin & General	AEP Texas Central	47,340	See Direct Testimonies of Robert Cavazos, Rhonda Fahrlender and Brian Lysiak
2	**Total Administrative Costs**						**$ 47,340**	
3	Program Direct Costs	10329	TX EE/DR Programs	EON100547	DSM - EM&V - TX	AEP Texas Central	13,648	See Direct Testimonies of Robert Cavazos, Rhonda Fahrlender and Brian Lysiak
4	**Total Program Direct Costs**						**$ 13,648**	
5	R&D Costs	10329	TX EE/DR Programs	EON100535	EE/DR R&D - TX	AEP Texas Central	24,625	See Direct Testimonies of Robert Cavazos, Rhonda Fahrlender and Brian Lysiak
6	**Total R&D Costs**						**$ 24,625**	
7	**Grand Total**						**$ 85,613**	

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AEP Texas
2021 Energy Efficiency Cost Recovery Factor

Schedule L
Bidding and Engagement Process

AEP Texas 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 its goals. The procedures and processes AEP Texas uses differs according to the program type, as shown in more detail below.

Standard Offer Program (SOP) Process

AEP Texas posts specific program application procedures and timelines along with program manuals 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 a 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.

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

Each EESP is notified of its application status according to program procedures and, if approved as a Project Sponsor, the associated incentive budget.

For residential projects, AEP Texas and the approved Project Sponsor enter into a standard offer agreement contract. When the SOP agreement is fully executed, 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. Applications are reviewed as described above. AEP Texas and the approved Project Sponsor enter into a standard offer agreement contract for the implementation of the EE measures or projects at commercial customer sites.

AEP Texas
2021 Energy Efficiency Cost Recovery Factor

Schedule L
Bidding and Engagement Process

Market Transformation Program (MTP) Process

AEP Texas 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 are deemed viable, A may contract with the initiating EESP to implement the program on a limited pilot basis for a period typically no longer than two years.

When a pilot program has been deemed successful by AEP Texas and a baseline study has been completed, a competitive solicitation process is implemented. A Request for Proposals (RFP) is developed and may be posted on industry-related websites and/or may be sent electronically to all EESPs who have contacted AEP Texas and expressed an interest in implementing such programs in the Texas market.

Interested EESPs submit program proposals according to the published requirements and schedule. AEP Texas 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.

AEP Texas
2021 Energy Efficiency Cost Recovery Factor

SCHEDULE M

Residential & Commercial EULs

Residential & Commercial EULs				
Sector	**TRM Measure**	**Energy Efficiency Measure**	**EUL (years)**	***TRM Version***
Custom	NA	Custom	NA	*NA*
Residential	2 1 1	Res Standard Compact Fluorescent Lamps (10,000 to 11,000 hour Rated Measure Life)	11 0	*6 0*
Residential	2 1 1	Res Standard Compact Fluorescent Lamps (11,001 to 13,500 hour Rated Measure Life)	13 0	*6 0*
Residential	2 1 1	Res Standard Compact Fluorescent Lamps (13,501 to 17,500 hour Rated Measure Life)	16 0	*6 0*
Residential	2 1 1	Res Standard Compact Fluorescent Lamps (≥ 17,501 hour Rated Measure Life)	20 0	*6 0*
Residential	2 1 2	Res Specialty Compact Fluorescent Lamps (10,000 to 11,000 hour Rated Measure Life)	11 0	*6 0*
Residential	2 1 2	Res Specialty Compact Fluorescent Lamps (11,001 to 13,500 hour Rated Measure Life)	13 0	*6 0*
Residential	2 1 2	Res Specialty Compact Fluorescent Lamps (13,501 to 17,500 hour Rated Measure Life)	16 0	*6 0*
Residential	2 1 2	Res Specialty Compact Fluorescent Lamps (≥ 17,501 hour Rated Measure Life)	20 0	*6 0*
Residential	2 1 3	Res Energy Star Omni-Directional LED Lamps (15,000 year Rated Measure Life)	16 0	*6 0*
Residential	2 1 3	Res Energy Star Omni-Directional LED Lamps (20,000 year Rated Measure Life)	20 0	*6 0*
Residential	2 1 4	Res Energy Star Specialty and Directional LED Lamps (15,000 hour Rated Measure Life)	16 0	*6 0*
Residential	2 1 4	Res Energy Star Specialty and Directional LED Lamps (20,000 hour Rated Measure Life)	20 0	*6 0*
Residential	2 2 1	Res AC or HP Tune-Up	5 0	*6 0*
Residential	2 2 2	Res Duct Efficiency Improvement	18 0	*6 0*
Residential	2 2 3	Res Central AC	18 0	*6 0*
Residential	2 2 4	Res Ground Source Heat Pump	20 0	*6 0*
Residential	2 2 5	Res Central Heat Pump	15 0	*6 0*
Residential	2 2 6	Large Capacity Split System and Single-Package AC	18 0	*6 0*
Residential	2 2 6	Large Capacity Split System and Single-Package HP	15 0	*6 0*
Residential	2 2 7	Res Room (Window) Air Conditioner	8 0	*6 0*
Residential	2 2.8	ENERGY STAR Connected Thermostats	11 0	*6 0*
Residential	2 2 9	Smart Thermostat Demand Response	1 0	*6 0*
Residential	2 3 1	Res Air Infiltration	11 0	*6 0*
Residential	2 3 2	Res Ceiling Insulation	25 0	*6 0*
Residential	2 3 3	Res Attic Encapsulation	25 0	*6 0*
Residential	2 3 4	Res Wall Insulation	25 0	*6 0*
Residential	2 3 5	Res Floor Insulation	25 0	*6 0*
Residential	2 3 6	Res Energy Star Windows	25 0	*6 0*
Residential	2 3 7	Res Solar Screens	10 0	*6 0*
Residential	2 3.8	Cool Roofs	15 0	*6 0*
Residential	2 4 1	Res Faucet Aerators	10 0	*6 0*
Residential	2 4 2	Res Low-Flow Showerheads	10 0	*6 0*
Residential	2 4.3	Res Water Heater Pipe Insulation	13 0	*6 0*
Residential	2 4 4	Res Water Heater Tank Insulation	7 0	*6 0*
Residential	2 4 5	Res Water Heater Installation-Electric Tankless	20 0	*6 0*
Residential	2 4 5	Res Water Heater Installation-Fuel Substitution	11 0	*6 0*
Residential	2.4 6	Res Heat Pump Water Heater	13 0	*6 0*
Residential	2 4 7	Res Water Heater Replacement-Solar Water Heating	15 0	*6 0*
Residential	2 4 8	Showerhead Temperature Sensitive Restrictor Valves	10 0	*6 0*
Residential	2 4 9	Tub Spout and Showerhead Temperature Sensitive Restrictor Valves	10 0	*6 0*
Residential	2 5 1	Res Energy Star Ceiling Fans	10 0	*6 0*
Residential	2 5 2	Res Energy Star Clothes Washer	11 0	*6 0*
Residential	2 5 3	Res Energy Star Dishwashers	15 0	*6 0*
Residential	2 5 4	Res Energy Star Refrigerators	16 0	*6 0*
Residential	2 5 5	Energy Star Pool Pumps	10 0	*6 0*
Residential	2 6 1	Res Refrigerator/Freezer Recycling	8 0	*6 0*
Commercial	2 1 1	Comm Lamps and Fixtures Halogen Lamps	1 5	*6 0*
Commercial	2 1 1	Comm Lamps and Fixtures High Intensity Discharge Lamps	15 5	*6 0*
Commercial	2 1 1	Comm Lamps and Fixtures Integrated-ballast CCFL Lamps	4 5	*6 0*
Commercial	2 1 1	Comm Lamps and Fixtures Integrated-ballast CFL Lamps	2 5	*6 0*
Commercial	2 1 1	Comm Lamps and Fixtures Integral LED Lamps	9 0	*6 0*
Commercial	2 1 1	Comm Lamps and Fixtures Light Emitting Diode	15 0	*6 0*
Commercial	2 1 1	Comm Lamps and Fixtures Modular CFL and CCFL Fixtures	16 0	*6 0*
Commercial	2 1 1	Comm Lamps and Fixtures T8 and T5 Linear Fluorescents	15 5	*6 0*
Commercial	2 1 2	Comm Lighting Controls Occupancy Sensor	10 0	*6 0*
Commercial	2 1 2	Comm Lighting Controls Photocell (Daylighting Control)	10 0	*6 0*
Commercial	2 1 2	Comm Lighting Controls Timeclock	10 0	*6 0*
Commercial	2 1 2	Comm Lighting Controls Tuning Control	10 0	*6 0*
Commercial	2 2 1	Comm AC or HP Tune-Up	5 0	*6 0*
Commercial	2 2 2	Comm Split System/Single Packaged Heat Pumps and Air Conditioners	15 0	*6 0*
Commercial	2 2 3	Comm HVAC Chillers Screw / Scroll / Reciprocating Chillers	20 0	*6 0*
Commercial	2 2 3	Comm HVAC Chillers Centrifugal Chillers	25 0	*6 0*
Commercial	2 2 4	Comm Packaged Terminal Air Conditioners, Heat Pumps	15 0	*6 0*
Commercial	2 2 4	Comm Room Air Conditioners	11 0	*6 0*
Commercial	2 2 5	Comm HVAC VFD on AHU Supply Fans	15 0	*6 0*

AEP Texas
2021 Energy Efficiency Cost Recovery Factor

SCHEDULE M

Residential & Commercial EULs

Commercial	226	Condenser Air Evaporative Pre-Cooling	15 0	60
Commercial	231	Comm Energy Star Roofs	15 0	60
Commercial	232	Comm Window Film	10 0	60
Commercial	233	Entrance and Exit Door Air Infiltration	11 0	60
Commercial	241	Comm High Efficiency Combination Ovens	12 0	60
Commercial	242	Comm High Efficiency Electric Convention Ovens	12 0	60
Commercial	243	Comm Energy Star Commercial Dishwashers	11 0	60
Commercial	244	Comm Hot Food Holding Cabinets	12 0	60
Commercial	245	Comm Energy Star Electric Fryers	12 0	60
Commercial	246	Comm Pre-Rinse Spray Valves	5 0	60
Commercial	247	Comm Energy Star Electric Steam Cookers	12 0	60
Commercial	251	Comm Door Heater Controls	12 0	60
Commercial	252	Comm ECM Evaporator Fan Motor	15 0	60
Commercial	253	Comm Electronic Defrost Controls	10 0	60
Commercial	254	Comm Evaporator Fan Controls	16 0	60
Commercial	255	Comm Night Covers for Open Refrigerated Display Cases	5 0	60
Commercial	256	Comm Solid and Glass Door Reach-Ins	12 0	60
Commercial	257	Comm Strip Curtains for Walk-In Refrigerated Storage	4 0	60
Commercial	258	Comm Zero Energy Doors for Refrigerated Cases	12 0	60
Commercial	259	Door Gaskets for Walk-in and Reach-in Coolers and Freezers	4 0	60
Commercial	261	Comm Vending Machine Controls	5 0	60
Commercial	262	Comm Lodging Guest Room Occupancy Sensor Controls	10 0	60
Commercial	263	Comm Pump-Off Controller	15 0	60
Commercial	264	Energy Star Pool Pumps	10 0	60
Measurement and V	211	M&V AC Tune-Up	5 0	60
Measurement and V	212	M&V Ground Source HP	15 0	60
Measurement and V	213	Variable Refrigerant Flow Systems	15 0	60
Measurement and V	221	New Homes	23 0	60
Measurement and V	231	Nonresidential Solar PV	30 0	60
Measurement and V	232	Res Solar PV	30 0	60
Measurement and V	233	Solar Shingles	N/A	60
Measurement and V	241	Behavioral Measure Overview	1 0	60
Measurement and V	242	Air Compressors less than 75 hp	10 0	60
Measurement and V	243	Commercial Retro-Commissioning	5 0	60
Measurement and V	251	Res Load Curtailment	1 0	60
Measurement and V	252	Nonresidential Load Curtailment	1 0	60

AEP Texas
2021 Energy Efficiency Cost Recovery Factor

Schedule N

Average Peak Demand at Meter (MW)	Goal Metric: 0.4% Peak Demand (MW)	Peak Demand Goal (MW)	Energy Goal (MWh)	Projected Demand Reduction (MW)	Projected Energy Savings (MWh)
5,150	20.6	20.6	36,091	42.96	62,918

Sponsored by: Pamela D. Osterloh

AEP Texas
2021 Energy Efficiency Cost Recovery Factor

Schedule O

2021 Projected Energy Efficiency Program Savings

	2021	
Customer Class and Program	**Demand Reduction Target (MW)**	**Energy Savings Target (MWh)**
Commercial		
Commercial Solutions MTP	1.43	8,709
Commercial SOP	3.26	13,636
CoolSaver© A/C Tune-Up MTP	1.39	4,376
Load Management SOP	21.70	119
Open MTP	1.18	4,661
SCORE/CitySmart MTP	2.06	9,680
SMART Source^{SM} Solar PV MTP	0.54	787
Residential		
CoolSaver© A/C Tune-Up MTP	1.02	3,224
High-Performance New Homes MTP	0.54	1,632
Residential Pool Pumps Pilot MTP	0.13	1,018
Residential SOP	6.30	9,772
SMART Source^{SM} Solar PV MTP	0.27	696
Hard-to-Reach		
Hard-to-Reach SOP	2.24	3,293
Targeted Low-Income Energy Efficiency Program	0.91	1,315
Total Annual Projected Savings	**42.96**	**62,918**

Sponsored by: Pamela D. Osterloh

AEP Texas
2021 Energy Efficiency Cost Recovery Factor

SCHEDULE P-1 Central Division

2019 Energy Efficiency Programs' Cost - Net Benefit Ratio

Program Cost-effectiveness Summary

2019	Savings		Costs	Benefits				Benefit-Cost
Customer Class and Program	kW	kWh	Total Program Costs	Avoided Capacity Costs	Avoided Energy Costs	Total Avoided Cost	Net Benefits	Ben-Cost Ratio
Commercial	**27,598.0**	**36,572,284.0**	**7,081,525.7**	**8,036,167.6**	**16,901,323.0**	**24,937,490.6**	**17,855,964.9**	**3.5**
Commercial Solutions MTP	998	5,469,877	$ 680,221	$ 805,105	$ 2,804,131	$ 3,609,236	$ 2,929,015	5 3
Commercial SOP	3,147	14,268,008	$ 2,335,859	$ 2,517,218	$ 7,393,268	$ 9,910,486	$ 7,574,627	4 2
CoolSaver MTP Commercial	2,884	5,898,609	$ 856,061	$ 988,315	$ 1,284,391	$ 2,272,706	$ 1,416,646	2 7
Load Management SOP	17,612	103,072	$ 652,111	$ 1,336,874	$ 4,972	$ 1,341,846	$ 689,735	2 1
Open MTP	862	3,482,628	$ 1,060,888	$ 690,468	$ 1,772,236	$ 2,462,705	$ 1,401,817	2 3
SCORE/CitySmart MTP	1,907	6,741,698	$ 1,233,824	$ 1,475,861	$ 3,187,382	$ 4,663,242	$ 3,429,418	3 8
SMART Source Solar PV MTP Commercial	189	608,392	$ 262,562	$ 222,326	$ 454,943	$ 677,269	$ 414,707	2 6
Residential	**9,125**	**17,134,509**	**5,998,848**	**7,138,928**	**8,282,059**	**15,420,986**	**9,422,138**	**2.6**
CoolSaver MTP Residential	1,202	3,937,486	$ 916,762	$ 548,387	$ 1,098,777	$ 1,647,164	$ 730,402	1 8
High Performance New Homes MTP	1,530	2,037,375	$ 1,071,859	$ 1,591,893	$ 1,346,926	$ 2,938,819	$ 1,866,960	2 7
Residential Pool Pump Pilot MTP	13	99,067	$ 81,336	$ 8,048	$ 38,161	$ 46,209	$ (35,127)	0 6
Residential SOP	6,218	10,489,450	$ 3,667,230	$ 4,800,839	$ 5,371,115	$ 10,171,954	$ 6,504,724	2 8
SMART Source Solar PV MTP Residential	161	571,131	$ 261,660	$ 189,761	$ 427,080	$ 616,840	$ 355,180	2 4
Hard-to-Reach	**2,106**	**3,340,316**	**1,426,134**	**1,578,490**	**1,669,733**	**3,248,222**	**1,822,088**	**2.3**
Hard-to-Reach SOP	2,106	3,340,316	$ 1,426,134	$ 1,578,490	$ 1,669,733	$ 3,248,222	$ 1,822,088	2 3
Residential Targeted Low-Income EE Program	869	1,350,919	$ 1,946,550	$ 730,195	$ 722,275	$ 1,452,470	$ (494,080)	0.7
Portfolio Total	**39,698**	**58,398,028**	**$ 16,453,058**	**$ 17,483,780**	**$ 27,575,389**	**$ 45,059,169**	**$ 28,606,111**	**2.7**

Sponsored by Pamela D Osterloh and Robert Cavazos

AEP Texas
2021 Energy Efficiency Cost Recovery Factor

SCHEDULE P-2 North Division

2019 Energy Efficiency Programs' Cost - Net Benefit Ratio

Program Cost-effectiveness Summary

2019	Savings		Costs	Benefits				Benefit-Cost
Customer Class and Program	kW	kWh	Total Program Costs	Avoided Capacity Costs	Avoided Energy Costs	Total Avoided Cost	Net Benefits	Ben-Cost Ratio
Commercial	**4,718.1**	**8,611,113.2**	**1,949,687.7**	**1,656,786.2**	**4,391,459.8**	**6,048,246.0**	**4,098,558.3**	**3.1**
Commercial Solutions MTP	615	3,227,496	$ 550,900	$ 472,009	$ 1,580,590	$ 2,052,599	$ 1,501,698	3 7
Commercial SOP	469	2,213,656	$ 348,659	$ 388,868	$ 1,183,150	$ 1,572,018	$ 1,223,360	4 5
Load Management SOP	2,935	20,550	$ 118,096	$ 222,874	$ 992	$ 223,866	$ 105,770	1 9
Open MTP	322	1,316,351	$ 560,879	$ 251,843	$ 655,625	$ 907,467	$ 346,589	1 6
SCORE/CitySmart MTP	328	1,680,000	$ 260,439	$ 263,631	$ 856,122	$ 1,119,753	$ 859,315	4 3
Solar PV Commercial MTP	49	153,060	$ 110,715	$ 57,562	$ 114,981	$ 172,543	$ 61,827	1 6
Residential	**1,140**	**2,162,595**	**857,560**	**1,092,755**	**1,366,851**	**2,459,605**	**1,602,046**	**2.9**
Residential Pool Pump Pilot MTP	-	-	$ 28,479	$ -	$ -	$ -	$ (28,479)	0 0
Residential SOP	1,054	1,844,161	$ 697,646	$ 990,256	$ 1,127,638	$ 2,117,894	$ 1,420,248	3 0
Solar PV Residential MTP	87	318,434	$ 131,435	$ 102,499	$ 239,213	$ 341,711	$ 210,277	2 6
Hard-to-Reach	**600**	**994,684**	**482,843**	**561,247**	**612,625**	**1,173,872**	**691,029**	**2.4**
Hard-to-Reach SOP	600	994,684	$ 482,843	$ 561,247	$ 612,625	$ 1,173,872	$ 691,029	2 4
Residential Targeted Low-Income Program	119	199,824	$ 454,952	$ 109,817	$ 115,786	$ 225,602	$ (229,350)	0 5
Portfolio Total	**6,577**	**11,968,217**	**$ 3,745,043**	**$ 3,420,605**	**$ 6,486,721**	**$ 9,907,326**	**$ 6,162,283**	**2.6**

Sponsored by Pamela D Osterloh and Robert Cavazos

Schedule Q
System and Line Losses

The AEP Texas kWh sales forecast for 2021 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
2021 Energy Efficiency Cost Recovery Factor

Schedule R

2021 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, program design, long-range energy efficiency planning and overall measure and program acceptance by the targeted customers Incentives are paid to participating customers 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. 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 deemed savings or on verified peak demand and/or energy savings using the International Performance Measurement and Verification Protocol
CoolSaver^{SM} A/C Tune-up MTP	Commercial & Residential	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 also provides incentives for residential high efficiency air conditioner/heat pump replacements The program implementer targets various air conditioning equipment distributor networks and organizations by phone and site visits to gauge their interest in the program
Hard-to-Reach SOP	Hard-to-Reach	Targets a specific subset of residential customers defined by 16 TAC § 25 181(c)(27) as customers 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 Energy Efficiency Service Providers (EESPs) for eligible measures on the basis of deemed savings.
High Performance New Homes MTP	Residential	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 strict energy efficient building guidelines that are at least 10% above the local building code
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 verified demand savings methodology identified in the Texas TRM
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
Residential Pool Pumps Pilot MTP	Residential	Provides incentives to pool pump distributors for the installation of high-efficiency ENERGY STAR certified variable speed pool pumps in new and existing single-family properties
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 deemed savings
SCORE/CitySmart MTP	Commercial	Provides energy efficiency and demand reduction solutions for governmental and educational customers 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 customers Incentives are paid to governmental and educational customers 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 participating 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

AEP Texas Inc.

2020 Energy Efficiency Plan and Report

16 Tex. Admin. Code §§ 25.181, 28.182 and 25.183

May 29, 2020

Project No. 50666

An AEP Company

BOUNDLESS ENERGY℠

TABLE OF CONTENTS

INTRODUCTION

AEP Texas Inc. (AEP Texas or Company) presents this Energy Efficiency Plan and Report (EEPR) to comply with Public Utility Commission of Texas (PUC or Commission) 16 Tex. Admin. Code §§ 25.181, 25.182 and 25.183 (TAC) (EE Rule), which implement the Public Utility Regulatory Act (PURA) § 39.905. Effective December 31, 2016, AEP Texas Central Company (TCC) and AEP Texas North Company (TNC) were merged into their parent company, now called AEP Texas. The merger was approved by the Commission in Docket No. 46050 – *Application of AEP Texas Central Company, AEP Texas North Company, and AEP Utilities, Inc. for Approval of Merger.* The Commission ordered AEP Texas to "maintain separate TCC and TNC divisions, which will continue to charge separate rates and riders, and maintain separate tariffs, unless and until such time as the Commission may consider and approve consolidated rates and tariffs."[1] Consistent with the Commission's order, AEP Texas was maintaining two divisions within AEP Texas: AEP Texas – Central Division (formerly TCC) and AEP Texas – North Division (formerly TNC). Therefore, this EEPR filing for AEP Texas presents separate sets of historical information for the two divisions of AEP Texas. However, in its upcoming Energy Efficiency Cost Recovery Factor (EECRF) proceeding at the Commission, AEP Texas intends to request a combined EECRF for the two divisions of AEP Texas beginning in 2021.

As mandated by PURA § 39.905, 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:

(A) Beginning with the 2013 program year, until the trigger described in subparagraph (B) of this paragraph is reached, the utility shall acquire a 30% reduction of its annual growth in demand of residential and commercial customers.

(B) If the demand reduction goal to be acquired by a utility under subparagraph (A) of this paragraph is equivalent to at least four-tenths of 1% 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 (C) of this paragraph for each subsequent program year.

(C) Once the trigger described in subparagraph (B) 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.

[1] Docket No. 46050, *Application of AEP Texas Central Company, AEP Texas North Company, and AEP Utilities, Inc. for Approval of Merger,* Final Order at Ordering Paragraph No. 2 (Dec. 12, 2016).

(D) Except as adjusted in accordance with subsection (u) 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. AEP Texas' plans enable 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, thirteen sections, a list of acronyms, and three appendices.

Executive Summary

- Summarizes AEP Texas' plans for achieving its goals and projected energy efficiency savings for program years 2020 and 2021 and highlights AEP Texas' achievements for Program Year (PY) 2019.

Energy Efficiency Plan

- Section I describes the 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 the 2019 EEPR.
- Section II explains the targeted customer classes, describes the estimated size of each class and the method of determining those class sizes.
- Section III presents the energy and demand goals and projected savings for the prescribed planning period detailed by program for each customer class.
- Section IV describes the proposed energy efficiency budgets for the prescribed planning period detailed by program for each customer class.

Energy Efficiency Report

- Section V documents the demand reduction goal for each of the previous five years (2015-2019) based on its weather-adjusted peak demand and actual savings achieved for those years.
- Section VI compares the projected energy and demand savings to its reported and verified savings by program for PY 2018 and 2019.
- Section VII details the incentive and administration expenditures for each of the previous five years (2015-2019) detailed by program for each customer class.
- Section VIII compares the actual 2019 expenditures with the 2019 budget by program for each customer class. It also explains any cost differences of more than 10% from the overall program budget and from each program budget.

- Section IX describes the results from the MTPs.
- Section X describes Administrative costs and Research and Development activities.
- Section XI documents the 2020 EECRF.
- Section XII documents the 2019 EECRF Summary.
- Section XIII documents the Underserved Counties.

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 the previous EEPR.
- Appendix C – Data, explanations, or documents supporting other sections of the EEPR.

EXECUTIVE SUMMARY – ENERGY EFFICIENCY PLAN (PLAN)

AEP Texas makes this filing which includes information for the Central Division and North Division. Required details such as goals, budgets, program results, etc. will be provided for the Central and North divisions separately throughout this EEPR for 2020. Required details for 2021 are presented combined for AEP Texas.

The Central Division plans to achieve its 2020 mandated demand and energy goals of 16,380 kW and 28,698,000 kWh as shown in Table 1 below through residential and non-residential SOPs and MTPs. The Central Division will utilize a budget of $14,574,615 to accomplish these goals.

The North Division plans to achieve its 2020 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. The North Division will utilize a budget of $3,388,642 to accomplish these goals.

Table 1: Summary of Goals, Projected Savings (at the Meter),[2] and Budgets

	Calendar Year	Average Peak Demand at Meter (MW)	Goal Metric: 0.4% Peak Demand (MW)	Peak Demand Goal (MW)	Energy Goal (MWh)	Projected Demand Reduction (MW)	Projected Energy Savings (MWh)	Projected Budget (000's)*
Central	2020	4,095	16 38	16 38	28,698	37 69	51,921	$14,575
North	2020	1,018	4 07	4 26	7,464	5 27	10,997	$3,389
AEP Texas	2021	5,150	20 60	20 60	36,091	42 96	62,918	$17,960

* The Projected Budgets include costs associated with Evaluation, Measurement &Verification activities.

EXECUTIVE SUMMARY – ENERGY EFFICIENCY REPORT (REPORT)

The Central Division achieved demand and energy reductions of 39,698 kW and 58,398,027 kWh, respectively, in 2019. The total energy efficiency cost for achieving these savings was $14,032,803. The Central Division's achievement exceeded the 2019 mandated energy efficiency goals of 16,140 kW and 28,277,000 kWh.

The North Division achieved demand and energy reductions of 6,577 kW and 11,968,217 kWh, respectively, in 2019. The total energy efficiency cost for achieving these savings was $3,236,930. The North Division's achievement exceeded the 2019 mandated energy efficiency goals of 4,260 kW and 7,464,000 kWh.

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

[2] Average Peak Demand figures are from Tables 4 and 5; Projected Savings from Tables 6 and 7; Projected Budgets from Tables 8-10.

ENERGY EFFICIENCY PLAN

I. 2020 Programs

A. 2020 Program Portfolio

AEP Texas has implemented a variety of programs in 2020 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 the programs and targeted customer class markets for Program Year 2020. The programs listed in Table 2 are described in further detail in Subsection B. AEP Texas maintains a web site containing information on participation, forms required for project submission, and program manuals at www.AEPTexasEfficiency.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 third-party implementers. These implementers design, market and execute the applicable MTPs. 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 an AEP Texas 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.

AEP Texas monitors projects being submitted so as to not accept duplicate enrollments for the same measures in multiple programs.

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 AEP Texas 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: 2020 Energy Efficiency Program Portfolio

Program	Division	Target Market	Application
Commercial Solutions MTP	Central & North	Commercial	Retrofit & New Construction
Commercial SOP	Central & North	Commercial	Retrofit & New Construction
CoolSaver℠ A/C Tune-Up MTP	Central	Commercial & Residential	Retrofit
Hard-to-Reach SOP	Central & North	Residential Hard-to-Reach	Retrofit & New Construction
High-Performance New Homes MTP	Central	Residential	New Construction
Load Management SOP	Central & North	Commercial	Retrofit
Open MTP	Central & North	Commercial	Retrofit
Residential Pool Pump Pilot MTP	Central	Residential	Retrofit & New Construction
Residential SOP	Central & North	Residential	Retrofit & New Construction
SCORE/CitySmart MTP	Central & North	Commercial	Retrofit & New Construction
SMART Source℠ Solar PV MTP	Central & North	Commercial and Residential	Retrofit & New Construction
Targeted Low-Income Energy Efficiency Program	Central & North	Low-Income Residential	Retrofit

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 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.

CoolSaver^{SM} A/C Tune-Up Market Transformation Program (CoolSaver^{SM} MTP) (Central Division)

The CoolSaver^{SM} 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. Additional incentives are paid for early retirement of operational equipment and for "right-sizing" replacement units.

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 new and retrofit applications that result in verifiable demand and energy savings. 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) (Central Division)

The New Homes MTP targets several market participants, primarily homebuilders and consumers. The program's goal is to create conditions in which consumers demand energy-efficient homes, and homebuilders supply them. Incentives are paid to homebuilders who construct homes to strict energy-efficient building guidelines and that are at least 5% above the Texas Baseline Reference Home and meet all minimum energy code requirements. The program has a tiered design that uses a combination of mandatory, additional elective, and innovative measures to promote market transformation and drive deep energy savings. ENERGY STAR® and complete foam encapsulated homes are offered as alternative pathways to Tiers. Bonus incentives are offered for installed ENERGY STAR connected thermostats and to builders who switch from electric resistance furnaces to heat pumps. Each home results in verifiable demand and energy savings. In addition to homebuilder and consumer outreach, the New Homes MTP targets key market actors 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; but any non-residential customer that can deliver at least 50 kW of peak demand savings is eligible to participate. Incentive payments are based on measured and verified demand reduction of curtailed loads during the summer peak period. Load management events are dispatched by AEP Texas, 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 150 kW in the previous twelve 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.

Residential Standard Offer Program (RSOP)

The RSOP targets all residential customers, paying incentives to project sponsors for eligible measures installed in new and retrofit applications that result in verified demand and energy savings. Project comprehensiveness is encouraged. The following requirements must be reported in order to claim early retirement savings from residential HVAC projects:

- Photograph demonstrating functionality of the existing unit;
- The age of the existing unit;
- Photo of the existing unit nameplate;
- Model number, serial number, manufacturer and cooling capacity of the existing unit;
- The sizing of the new unit must be less than or equal to that of the existing unit; and
- Customer responses to a survey questionnaire documenting the condition of the existing unit and customer motivation for unit replacement.

Residential Pool Pump Pilot Market Transformation Program (MTP) (Central Division)

The Residential Pool Pump Pilot MTP provides incentives to pool pump distributors for the installation of high-efficiency ENERGY STAR® certified variable speed pool pumps in new and existing single-family properties. Compared to conventional pool pumps that use the same high pump speed regardless of the task assigned, a variable speed pump can significantly reduce the energy required and financial cost associated with the filtration, cleaning and circulation of

swimming pool water. Variable speed pumps also provide for greater operational flexibility, quieter operation and a significantly longer useful life.

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℠ Solar PV Market Transformation Program (PV MTP)

The PV MTP offers incentives to residential and commercial 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 low-income residential customers in the AEP Texas 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.

C. New Programs for 2020

There are no new programs for 2020.

D. Discontinued Programs

The Residential Pool Pump Pilot Market Transformation Program in the North Division was discontinued for 2020.

II. Customer Classes

The AEP Texas energy efficiency programs target its Residential and Commercial customer classes. The 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. The numbers listed are the actual number of active electric service accounts by class served for the month of January 2020. 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 the mandated demand and energy reduction goals in total. AEP Texas 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
Central	Commercial	154,215
	Residential	783,190
	Hard-to-Reach [3]	259,236
North	Commercial	36,481
	Residential	159,429
	Hard-to-Reach [3]	52,771

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

[3] According to the U.S. Census Bureau's 2018 Current Population Survey, 33.1% of Texas families fall below 200% of the poverty threshold. Applying that percentage to the Central Division's residential customer base of 783,190, the number of HTR customers is estimated to be 259,236. Applying that percentage to the North Division's residential customer base of 159,429, the number of HTR customers is estimated to be 52,771.

III. Energy Efficiency Goals and Projected Savings

Central Division 2020

The Central Division's 2020 annual demand and energy reduction goals to be achieved are 16.38 MW and 28,698 MWh. The 2020 demand reduction goal was calculated by applying four-tenths of 1% (0.004) of the summer weather-adjusted peak demand from the combined residential and commercial customers to the five year average (2014-2018) peak demand at the meter of 4,095 MW. As stated in 16 TAC § 25.181(e)(4), a utility's energy savings goal is calculated from its demand savings goal, using a 20% conservation load factor.

Table 4 presents historical annual growth in demand data for the previous five years that was used to calculate the 2020 goal for the Central Division.

North Division 2020

The North Division's 2020 annual demand and energy reduction goals to be achieved are 4.26 MW and 7,464 MWh. The 2020 demand reduction goal was calculated by applying four-tenths of 1% (0.004) of the summer weather-adjusted peak demand from the combined residential and commercial customers to the five year average (2014-2018) peak demand at the meter of 1,018 MW, resulting in a calculated goal of 4.07 MW. As stated in 16 TAC § 25.181(e)(1)(D), except as adjusted in accordance with subsection (u), a utility's demand reduction goal shall not be lower than the previous year's goal. The North Division's goal for 2019 was 4.26 which is higher than its 2020 calculated goal; therefore, the North Division's goal for 2020 is 4.26 MW. As stated in 16 TAC § 25.181(e)(4), a utility's energy savings goal is calculated from its demand savings goal, using a 20% conservation load factor.

Table 4 presents historical annual growth in demand data for the previous five years that was used to calculate the 2020 goal for the North Division.

AEP Texas 2021

AEP Texas' 2021 demand goal is calculated by applying four-tenths of 1% (0.004) to its five year average (2015-2019) summer weather-adjusted peak demand for residential and commercial customers (0.004 * 5,150 MW). This results in a calculated goal of 20.60 MW.

As stated in 16 TAC § 25.181(e)(4), a utility's energy savings goal is calculated from its demand savings goal, using a 20% conservation load factor.

Table 4: Annual Growth in Demand and Energy Consumption – Central and North Division

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 Net Opt-outs	Actual	Weather Adjusted	Actual	Weather Adjusted	Peak Demand at Meter	5 year Average Peak Demand at Meter	Goal Metric: 0.4% Peak Demand at Meter
Central													
2014	4,957	4,943	4,474	4,460	-1 02	4,459	24,759	24,657	20,020	19,918	4,040	NA	NA
2015	5,043	4,963	4,524	4,445	-7 90	4,437	25,030	24,729	19,491	20,191	4,019	NA	NA
2016	5,243	5,089	4,759	4,605	-55 50	4,550	26,147	25,727	20,653	20,233	4,122	3,934	15 73
2017	5,230	5,050	4,737	4,557	-66 50	4,491	25,975	25,685	19,961	19,671	4,068	3,958	15 83
2018	5,109	5,128	4,609	4,628	-70 9	4,557	26,111	25,883	20,285	20,057	4,224	3,998	15 99
2019	5,229	5,143	4,696	4,610	-66 1	4,544	25,882	25,573	20,235	19,926	4,212	4,034	16 13
2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,095	16 38
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,129	16 52
North													
2014	1,157	1,164	1,155	1,161	-9 1	1,152	5,600	5,526	5,465	5,392	1,020	NA	NA
2015	1,193	1,177	1,179	1,163	-15 7	1,148	5,610	5,557	5,363	5,310	1,015	NA	NA
2016	1,169	1,181	1,151	1,163	-19 4	1,144	5,457	5,497	5,138	5,178	1,012	1,002	4 01
2017	1,161	1,184	1,142	1,165	-34 4	1,130	5,578	5,649	5,112	5,182	1,001	998	3 99
2018	1,230	1,221	1,208	1,199	-37.9	1,161	5,909	5,797	5,408	5,296	1,041	1,004	4 02
2019	1,272	1,221	1,249	1,197	-40 2	1,157	6,080	5,991	5,440	5,351	1,036	1,010	4 04
2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,018	4 07
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,021	4 08

*Line losses are derived from the loss factors determined in the most recent line loss study for the Central Division and the North Division.

Table 5: Annual Growth in Demand and Energy Consumption – AEP Texas

	Peak Demand (MW) @ Source						Energy Consumption (MWh) @ Meter				Energy Efficiency Goal Calculations		
	Total System		Residential & Commercial				Total System		Residential & Commercial				
Calendar Year	Actual	Weather Adjusted	Actual	Weather Adjusted	Opt-Out	Peak Demand at Source Net Opt-outs	Actual	Weather Adjusted	Actual	Weather Adjusted*	Peak Demand at Meter	5 year Average Peak Demand at Meter	Goal Metric: 0.4% Peak Demand at Meter
2014	6,114	6,107	5,629	5,621	-10 12	5,611	30,359	30,183	25,485	25,310	5,060	NA	NA
2015	6,236	6,140	5,703	5,608	-23 60	5,584	30,640	30,286	24,855	25,501	5,034	NA	NA
2016	6,412	6,270	5,910	5,768	-74 90	5,693	31,604	31,224	25,791	25,411	5,134	4,936	NA
2017	6,391	6,234	5,879	5,722	-100 90	5,621	31,553	31,334	25,072	24,853	5,069	4,956	NA
2018	6,339	6,349	5,817	5,827	-108 80	5,718	32,020	31,680	25,693	25,353	5,265	5,002	NA
2019	6,501	6,364	5,945	5,807	-106 30	5,701	31,962	31,564	25,675	25,277	5,249	5,043	NA
2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,112	NA
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,150	20.60

*Line losses are derived from the loss factors determined in the most recent line loss study for the Central Division and the North Division.

Table 6: Projected Demand and Energy Savings by Program for Each Customer Class for 2020 (at the Meter)

2020	Projected Savings			
	Central		North	
Customer Class and Program	**kW**	**kWh**	**kW**	**kWh**
Commercial				
Commercial Solutions MTP	992	5,500,000	441	3,209,280
Commercial SOP	2,810	11,716,682	446	1,919,103
CoolSaver℠ A/C Tune-Up MTP	1,393	4,376,124	NAP	NAP
Load Management SOP	19,517	105,081	2,180	14,045
Open MTP	830	3,250,000	354	1,410,806
SCORE/CitySmart MTP	1,850	8,000,000	211	1,680,000
SMART Source℠ Solar PV MTP	489	618,735	52	168,742
Residential				
CoolSaver℠ A/C Tune-Up MTP	1,017	3,223,609	NAP	NAP
High-Performance New Homes MTP	539	1,631,874	NAP	NAP
Residential Pool Pump Pilot MTP	127	1,017,810	NAP	NAP
Residential SOP	5,327	8,203,500	974	1,568,751
SMART Source℠ Solar PV MTP	215	528,891	50	167,185
Hard-to-Reach				
Hard-to-Reach SOP	1,785	2,604,482	451	688,730
Targeted Low-Income Energy Efficiency Program	800	1,144,413	110	170,095
Total Annual Projected Savings	**37,691**	**51,921,201**	**5,270**	**10,996,737**

Table 7: Projected Demand and Energy Savings by Program for Each Customer Class for 2021 (at the Meter) – AEP Texas

2021	Projected Savings	
Customer Class and Program	**kW**	**kWh**
Commercial		
Commercial Solutions MTP	1,433	8,709,280
Commercial SOP	3,257	13,635,785
CoolSaver℠ A/C Tune-Up MTP	1,393	4,376,124
Load Management SOP	21,697	119,126
Open MTP	1,184	4,660,806
SCORE/CitySmart MTP	2,061	9,680,000
SMART Source℠ Solar PV MTP	541	787,477
Residential		
CoolSaver℠ A/C Tune-Up MTP	1,017	3,223,609
High-Performance New Homes MTP	539	1,631,874
Residential Pool Pump Pilot MTP	127	1,017,810
Residential SOP	6,301	9,772,250
SMART Source℠ Solar PV MTP	265	696,076
Hard-to-Reach		
Hard-to-Reach SOP	2,236	3,293,212
Targeted Low-Income Energy Efficiency Program	910	1,314,508
Total Annual Projected Savings	**42,961**	**62,917,939**

IV. Program Budgets

Tables 8 & 9 present total proposed budget allocations required to meet the Central Division's and North Division's projected demand and energy savings to be achieved for Program Year 2020. 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 among customer classes, and the incentive levels by customer class. The 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).

Table 10 presents total proposed budget allocations required to meet AEP Texas' projected demand and energy savings to be achieved for Program Year 2021. 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. The 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).

Table 8: Projected Annual Budget by Program for Each Customer Class for 2020 – Central Division

2020	Incentives	Admin	R&D	EM&V	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℠ Solar PV MTP	$204,000	$22,667			$226,667
Residential					
CoolSaver℠ A/C Tune-Up MTP	$675,000	$75,000			$750,000
High-Performance New Homes MTP	$765,000	$85,000			$850,000
Residential Pool Pump Pilot MTP	$150,300	$16,700			$167,000
Residential SOP	$2,786,598	$309,622			$3,096,220
SMART Source℠ Solar PV MTP	$204,000	$22,667			$226,667
Hard-to-Reach					
Hard-to-Reach SOP	$1,087,560	$120,840			$1,208,400
Targeted Low-Income Energy Efficiency Program	$1,457,155	$144,114			$1,601,269
Research and Development (R&D)					
R&D	NAP	NAP	$365,125		$365,125
Evaluation, Measurement & Verification (EM&V)					
EM&V				$183,267	$183,267
Total Budget	**$12,639,613**	**$1,386,610**	**$365,125**	**$183,267**	**$14,574,615**

Table 9: Projected Annual Budget by Program for Each Customer Class for 2020 – North Division

2020	Incentives	Admin	R&D	EM&V	Total Budget
Commercial					
Commercial Solutions MTP	$394,748	$58,985			$453,733
Commercial SOP	$250,262	$37,395			$287,657
Load Management SOP	$87,000	$13,000			$100,000
Open MTP	$419,241	$62,759			$482,000
SCORE/CitySmart MTP	$187,500	$28,110			$215,610
SMART Source^{SM} Solar PV MTP	$82,650	$12,350			$95,000
Residential					
Residential SOP	$572,700	$85,576			$658,276
SMART Source^{SM} Solar PV MTP	$102,660	$15,340			$118,000
Hard-to-Reach					
Hard-to-Reach SOP	$325,000	$36,000			$361,000
Targeted Low-Income Energy Efficiency Program	$342,004	$43,030			$385,034
Research and Development (R&D)					
R&D	NAP	NAP	$200,000		$200,000
Evaluation, Measurement & Verification (EM&V)					
EM&V				$32,332	$32,332
Total Budget	**$2,763,765**	**$392,545**	**$200,000**	**$32,332**	**$3,388,642**

Table 10: Projected Annual Budget by Program for Each Customer Class for 2021 AEP Texas

2021	Incentives	Admin	R&D	EM&V	Total Budget
Commercial					
Commercial Solutions MTP	$903,248	$115,485			$1,018,733
Commercial SOP	$2,063,762	$238,895			$2,302,657
CoolSaver℠ A/C Tune-Up MTP	$596,700	$66,300			$663,000
Load Management SOP	$737,700	$85,300			$823,000
Open MTP	$1,213,041	$150,959			$1,364,000
SCORE/CitySmart MTP	$1,134,300	$133,310			$1,267,610
SMART Source℠ Solar PV MTP	$286,650	$35,017			$321,667
Residential					
CoolSaver℠ A/C Tune-Up MTP	$675,000	$75,000			$750,000
High-Performance New Homes MTP	$765,000	$85,000			$850,000
Residential Pool Pump Pilot MTP	$150,300	$16,700			$167,000
Residential SOP	$3,359,298	$395,198			$3,754,496
SMART Source℠ Solar PV MTP	$306,660	$38,007			$344,667
Hard-to-Reach					
Hard-to-Reach SOP	$1,412,560	$156,840			$1,569,400
Targeted Low-Income Energy Efficiency Program	$1,799,159	$187,145			$1,986,304
Research and Development					
R&D			$565,125		$565,125
Evaluation, Measurement & Verification (EM&V)					
EM&V				$211,988*	$211,988*
Total Budget	**$15,403,378**	**$1,779,156**	**$565,125**	**$211,988***	**$17,959,647**

* *AEP Texas is using the actual expenses incurred in 2019 for review of the 2018 program year as an estimate of costs for the 2021 program year. The actual 2021 program year expenses may differ from those incurred in 2019 for review of the 2018 program year expenses.*

ENERGY EFFICIENCY REPORT

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

Table 11 contains the Central Division's demand and energy reduction goals and actual savings achieved for the previous five years (2015-2019) calculated in accordance with the EE Rule.

Table 11: 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)
Central				
2019	16.14	28,277	39.70**	58,398
2018	15.99	28,014	43.81	62,417
2017	15.83	27,734	45.87	64,971
2016	15.73	27,559	39.30	67,714
2015	12.93	22,653	43.78	68,482
North				
2019	4.26	7,464	6.58***	11,968
2018	4.26	7,464	8.95	12,669
2017	4.26	7,464	6.79	12,038
2016	4.26	7,464	6.38	10,817
2015	4.26	7,464	4.54	12,289

* Actual Weather Adjusted MW and MWh Goals as reported in the EEPRs filed in years 2015-2019.

** Reported savings achieved at the source are 39.70 MW ($39.70 \times \frac{1}{1-7.3\%}$) = 42.83 MW.

*** Reported savings achieved at the source are 6.58 MW ($6.58 \times \frac{1}{1-10.4\%}$) = 7.34 MW.

VI. Projected, Reported and Verified Demand and Energy Savings

Table 12: Projected versus Reported and Verified Savings for 2019 and 2018 (at the Meter) – Central Division

	Projected Savings		Reported and Verified Savings	
Customer Class and Program	**kW**	**kWh**	**kW**	**kWh**
2019				
Commercial				
Commercial Solutions MTP	992	5,500,000	998	5,469,877
Commercial SOP	3,023	16,151,031	3,147	14,268,008
CoolSaver℠ A/C Tune-Up MTP	1,393	4,376,124	2,884	5,898,609
Load Management SOP	24,100	24,100	17,612	103,072
Open MTP	830	3,250,000	862	3,482,628
SCORE/CitySmart MTP	1,850	8,000,000	1,907	6,741,698
SMART Source℠ Solar PV MTP	489	618,735	189	608,392
Residential				
CoolSaver℠ A/C Tune-Up MTP	1,017	3,223,609	1,202	3,937,486
High-Performance New Homes MTP	539	1,631,874	1,530	2,037,375
Residential Pool Pump Pilot MTP	127	1,017,810	13	99,067
Residential SOP	5,573	8,299,603	6,218	10,489,450
SMART Source℠ Solar PV MTP	215	528,891	161	571,131
Hard-to-Reach				
Hard-to-Reach SOP	1,673	2,491,684	2,106	3,340,316
Targeted Low-Income Energy Efficiency Program	729	1,084,997	869	1,350,919
Total Annual Savings	**42,550**	**56,198,458**	**39,698**	**58,398,027**
2018				
Commercial				
Commercial Solutions MTP	992	5,500,000	1,083	5,459,625
Commercial SOP	2,501	13,147,250	3,222	18,321,586
CoolSaver℠ A/C Tune-Up MTP	1,393	4,376,124	1,573	3,541,794
Load Management SOP	24,100	116,114	23,677	23,677
Open MTP	830	3,250,000	844	3,536,803
SCORE/CitySmart MTP	1,850	8,000,000	1,796	8,924,060
SMART Source℠ Solar PV MTP	218	654,460	215	699,508
Residential				
CoolSaver℠ A/C Tune-Up MTP	1,017	3,223,609	940	3,088,081
High-Performance New Homes MTP	539	1,631,874	1,035	2,842,771
Residential SOP	5,213	15,981,978	6,373	10,617,931
SMART Source℠ Solar PV MTP	133	425,489	136	459,255
Hard-to-Reach				
Hard-to-Reach SOP	1,450	3,810,810	2,113	3,592,816
Targeted Low-Income Energy Efficiency Program	852	1,492,923	805	1,308,897
Total Annual Savings	**41,088**	**61,610,631**	**43,812**	**62,416,805**

Table 13: Projected versus Reported and Verified Savings for 2019 and 2018(at the Meter) – North Division

	Projected Savings		Reported and Verified Savings	
Customer Class and Program	**kW**	**kWh**	**kW**	**kWh**
2019				
Commercial				
Commercial Solutions MTP	441	3,209,280	615	3,227,496
Commercial SOP	400	2,104,603	469	2,213,656
Load Management SOP	2,175	2,175	2,935	20,550
Open MTP	354	1,410,806	322	1,316,351
SCORE/CitySmart MTP	211	1,680,000	328	1,680,000
SMART Source^{SM} Solar PV MTP	52	168,742	49	153,060
Residential				
Residential Pool Pump Pilot MTP	33	210,663	0	0
Residential SOP	1,154	1,515,956	1,054	1,844,161
SMART Source^{SM} Solar PV MTP	50	167,185	87	318,434
Hard-to-Reach				
Hard-to-Reach SOP	542	711,750	600	994,684
Targeted Low-Income Energy Efficiency Program	114	169,771	119	199,824
Total Annual Savings	**5,526**	**11,350,931**	**6,578**	**11,968,217**
2018				
Commercial				
Commercial Solutions MTP	496	3,609,280	673	3,695,280
Commercial SOP	325	1,676,488	445	2,490,444
Load Management SOP	2,486	11,976	4,962	4,962
Open MTP	354	1,410,806	357	1,544,383
SCORE/CitySmart MTP	161	1,280,000	245	1,289,705
SMART Source^{SM} Solar PV MTP	47	151,734	52	151,314
Residential				
Residential SOP	1,061	2,240,305	1,360	2,065,028
SMART Source^{SM} Solar PV MTP	67	207,487	75	245,773
Hard-to-Reach				
Hard-to-Reach SOP	464	920,734	669	993,767
Targeted Low-Income Energy Efficiency Program	104	177,003	107	188,620
Total Annual Savings	**5,565**	**11,685,813**	**8,946**	**12,669,275**

VII. Historical Program Expenditures

This section documents the Central and North Division's incentive and administration expenditures for the previous five years (2015-2019) detailed by program for each customer class.

Table 14: Historical Program Incentive and Administrative Expenditures for 2015 through 2019 (000's) – Central Division

Central	2019		2018		2017		2016		2015	
	Incent.	Admin	Incent.	Admin	Incent.	Admin	Incent.	Admin	Incent.	Admin
Commercial										
Commercial Solutions MTP	$504.95	$47.65	$522.38	$46.59	$429.78	$41.01	$464.67	$52.42	$660.88	$62.02
Commercial SOP	$1,725.05	$194.85	$1,883.33	$220.66	$1,686.17	$216.08	$1,763.34	$194.48	$1,675.57	$178.07
CoolSaver℠ A/C Tune-Up MTP	$647.82	$53.34	$604.06	$45.81	$597.57	$41.72	$561.47	$46.54	$601.34	$45.73
Load Management SOP	$497.63	$40.06	$602.19	$73.52	$611.07	$78.27	$573.06	$50.03	$650.20	$51.71
Open MTP	$795.31	$79.08	$793.06	$67.03	$793.80	$53.07	$785.45	$61.03	$818.94	$61.45
SCORE/CitySmart MTP	$924.14	$87.11	$915.76	$78.71	$1,005.20	$74.42	$971.10	$88.69	$840.09	$73.65
SMART Source℠ Solar PV MTP	$201.04	$14.94	$194.87	$15.22	$51.80	$4.12	$182.70	$14.86	$58.56	$6.41

(Table continued on next page)

Table 14: Historical Program Incentive and Administrative Expenditures for 2015 through 2019 (000's) – Central Division (Continued)

Central	2019		2018		2017		2016		2015	
	Incent.	Admin	Incent.	Admin	Incent.	Admin	Incent.	Admin	Incent.	Admin
Residential										
CoolSaver℠ A/C Tune-Up MTP	$696.41	$57.31	$667.18	$50.61	$638.96	$44.83	$672.78	$55.82	$673.27	$51.20
Efficiency Connection Pilot MTP	NAP	NAP	NAP	NAP	NAP	NAP	$90.16	$11.20	$67.03	$4.45
High-Performance New Homes MTP	$807.36	$73.92	$750.25	$88.73	$753.15	$94.84	$636.50	$67.45	$757.64	$82.07
Reliant DR Pilot MTP	NAP	NAP	NAP	NAP	NAP	NAP	$3.88	$0.38	NAP	NAP
Residential Pool Pump Pilot MTP	$58.35	$5.64								
Residential SOP	$2,735.84	$309.59	$2,726.52	$301.63	$2,500.42	$269.54	$2,591.75	$242.54	$2,649.88	$246.42
SMART Source℠ Solar PV MTP	$200.45	$14.93	$210.42	$16.47	$206.76	$16.46	$204.81	$17.43	$207.62	$16.33
Whisker Labs* Res DR Pilot MTP	NAP	NAP	NAP	NAP	$150.00	$8.77	$123.35	$9.07	NAP	NAP
Hard-to-Reach										
Hard-to-Reach SOP	$1,087.49	$93.04	$1,086.67	$123.76	$970.66	$103.83	$1,115.74	$112.50	$922.10	$97.61
Targeted Low-Income Energy Efficiency Program	$1,468.49	$149.63	$1,276.34	$109.37	$1,403.99	$107.39	$1,265.06	$103.44	$1,270.64	$98.09
Research and Development (R&D)	$0.00	$281.18	$0.00	$185.48	$0.00	$134.25	NAP	$327.31	NAP	$332.54
Evaluation and Measurement Verification (EM&V)	$0.00	$180.20	$0.00	$176.88	$0.00	$176.88	NAP	$161.05	NAP	$246.63
Total Expenditures	**$12,350.33**	**$1,682.47**	**$12,233.03**	**$1,600. 47**	**$11,799.33**	**$1,465.50**	**$12,005.81**	**$1,616.24**	**$11,853.76**	**$1,654.36**

*Previously Earth Networks

Table 15: Historical Program Incentive and Administrative Expenditures for 2015 through 2019 (000's) – North Division

North	2019		2018		2017		2016		2015	
	Incent.	Admin	Incent.	Admin	Incent.	Admin	Incent.	Admin	Incent.	Admin
Commercial										
Commercial Solutions MTP	$395.36	$59.44	$423.86	$42.97	$365.58	$39.63	$330.00	$32.97	$410.11	$33.41
Commercial SOP	$249.43	$37.68	$260.54	$27.14	$244.35	$41.09	$187.96	$22.88	$218.53	$22.47
Load Management SOP	$87.00	$9.97	$87.00	$12.55	$87.00	$16.71	$80.58	$10.52	$31.89	$3.17
Open MTP	$400.29	$65.51	$418.74	$41.23	$418.04	$40.43	$417.06	$47.98	$461.04	$45.24
SCORE/CitySmart MTP	$187.50	$26.31	$160.18	$29.51	$158.37	$23.02	$153.27	$17.41	$185.88	$16.49
SMART Source[SM] Solar PV MTP	$83.95	$7.72	$79.89	$5.07	$69.02	$4.94	$49.81	$5.37	$60.48	$4.83

(Table continued on next page)

Table 15: Historical Program Incentive and Administrative Expenditures for 2015 through 2019 (000's) – North Division (Continued)

North	2019		2018		2017		2016		2015	
	Incent.	Admin	Incent.	Admin	Incent.	Admin	Incent.	Admin	Incent.	Admin
Residential										
Efficiency Connection Pilot MTP	NAP	NAP	NAP	NAP	NAP	NAP	$81.76	$7.59	$62.05	$10.23
Residential Pool Pump Pilot MTP	$18.35	$4.04	NAP	NAP	NAP	NAP	NAP	NAP	NAP	NAP
Residential SOP	$524.90	$54.21	$557.68	$53.77	$528.86	$69.31	$415.69	$60.11	$445.52	$61.55
SMART Source[SM] Solar PV MTP	$99.80	$9.18	$106.55	$6.76	$101.79	$7.29	$88.34	$9.52	$100.88	$8.06
Whisker Labs* Res DR Pilot MTP	NAP	NAP	NAP	NAP	$14.56	$1.06	$15.51	$1.49	NAP	NAP
Hard-to-Reach										
Hard-to-Reach SOP	$365.95	$34.67	$369.59	$36.90	$314.03	$42.42	$162.14	$25.46	$160.19	$15.79
Targeted Low-Income Energy Efficiency Program	$344.58	$33.53	$320.44	$32.60	$283.62	$40.77	$255.66	$32.68	$256.02	$27.07
Research and Development (R&D)	$0.00	$105.78	NAP	$50.28	NAP	$53.25	NAP	$82.69	NAP	$86.35
Evaluation and Measurement Verification (EM&V)	$0.00	$31.79	NAP	$31.21	NAP	$31.21	NAP	$28.41	NAP	$43.51
Total Expenditures	**$2,757.11**	**$479.82**	**$2,784.47**	**$369.99**	**$2,585.22**	**$411.12**	**$2,237.76**	**$385.08**	**$2,392.59**	**$378.19**

*Previously Earth Networks

VIII. Program Funding for Program Year 2019

Central Division

As shown in Table 16, the total projected budget for the Central Division in 2019 was $14,571,546 and the actual total funds expended were $14,032,803. This is an overall total program expenditure difference of less than 4% from the amount budgeted.

The following individual program expenditures differed from their respective proposed budgets by more than 10% as explained below.

The Load Management SOP did not fully utilize its incentive budget due to several customers underperforming (less kW reduction) during actual curtailment events compared to their projected kW reduction amount originally submitted in the LM SOP.

The Residential Pool Pump Pilot MTP was under budget due to lower than expected participation by distributors who struggled internally to engage their branch locations to support them in the program. Actions have been taken to engage the branch locations and help them recruit pool pump installers to participate in the program in 2020.

The combined 2019 expenditures for the TLIP and the HTR SOP constituted 19% of the energy efficiency budget. The 2019 expenditure for the TLIP constituted 11% of the energy efficiency budget.

North Division

As shown in Table 17, the total projected budget in 2019 was $3,388,100 and the actual total funds expended were $3,236,930. This is an overall total program expenditure difference of less than 4.5% from the amount budgeted.

The Residential Pool Pump Pilot MTP was under budget due to a lower than expected participation by distributors. It was determined that the program would not continue in 2020.

The combined 2019 expenditures for the TLIP and the HTR SOP constituted 23% of the energy efficiency budget. The 2019 expenditure for the TLIP constituted 11% of the energy efficiency budget.

Table 16: Program Funding for Program Year 2019– Central Division

	Total Projected Budget [4]	Numbers of Customers Participating	Actual Funds Expended (Incentives)	Actual Funds Expended (Admin)	Research and Development (R&D)	Evaluation and Measurement Verification (EM&V)	Total Funds Expended
Commercial							
Commercial Solutions MTP	$565,000	54	$504,949	$47,650			$552,599
Commercial SOP	$2,015,000	183	$1,725,048	$194,849			$1,919,897
CoolSaver℠ A/C Tune-Up MTP	$663,000	480	$647,821	$53,344			$701,165
Load Management SOP	$723,000	81	$497,625	$40,063			$537,688
Open MTP	$882,000	232	$795,313	$79,077			$874,390
SCORE/CitySmart MTP	$1,052,000	53	$924,136	$87,108			$1,011,244
SMART Source℠ Solar PV MTP	$226,667	11	$201,039	$14,945			$215,984
Residential							
CoolSaver℠ A/C Tune-Up MTP	$750,000	1,968	$696,411	$57,306			$753,717
High-Performance New Homes MTP	$850,000	717	807,359	$73,924			$881,283
Residential Pool Pump Pilot MTP	$167,000	36	$58,350	$5,642			$63,992
Residential SOP	$3,096,220	5,698	$2,735,844	$309,595			$3,045,439
SMART Source℠ Solar PV MTP	$226,667	32	$200,448	$14,925			$215,374
Hard-to-Reach							
Hard-to-Reach SOP	$1,208,400	1,627	$1,087,490	$93,039			$1,180,528
Targeted Low-Income Energy Efficiency	$1,601,269	359	$1,468,495	$149,630			$1,618,125
Research and Development	$365,125				$281,180		$281,180
EM&V							
Statewide EM&V Contractor	$180,198					$180,198	$180,198
Total	**$14,571,546**	**11,531**	**$12,350,327**	**$1,221,098**	**$281,180**	**$180,198**	**$14,032,803**

[4] Projected Budget from the revised EEPR filed May 2019 Project No. 49297.

Table 17: Program Funding for Program Year 2019– North Division

	Total Projected Budget [5]	Numbers of Customers Participating	Actual Funds Expended (Incentives)	Actual Funds Expended (Admin)	Research and Development (R&D)	Evaluation and Measurement Verification (EM&V)	Total Funds Expended
Commercial							
Commercial Solutions MTP	$453,733	68	$395,360	$59,443			$454,803
Commercial SOP	$287,657	27	$249,428	$37,678			$287,107
Load Management SOP	$100,000	23	$87,000	$9,973			$96,973
Open MTP	$482,000	72	$400,294	$65,512			$465,806
SCORE/CitySmart MTP	$215,610	28	$187,500	$26,306			$213,806
SMART Source^{SM} Solar PV MTP	$95,000	5	$83,946	$7,721			$91,667
Residential							
Residential Pool Pump Pilot MTP	$48,276	0	$18,350	$4,037			$22,387
Residential SOP	$610,000	561	$524,902	$54,208			$579,110
SMART Source^{SM} Solar PV MTP	$118,000	20	$99,796	$9,179			$108,975
Hard-to-Reach							
Hard-to-Reach SOP	$361,000	317	$365,953	$34,673			$400,626
Targeted Low-Income Energy Efficiency	$385,034	73	$344,576	$33,528			$378,104
Research and Development	$200,000				$105,775		$105,775
EM&V							
Statewide EM&V Contractor	$31,790					$31,790	$31,790
Total	**$3,388,100**	**1,194**	**$2,757,105**	**$342,259**	**$105,775**	**$31,790**	**$3,326,930**

[5] Projected Budget from the revised EEPR filed May 2019 Project No. 49297.

IX. Market Transformation Program Results 2019

Commercial Solutions MTP

The Commercial Solutions MTP goal for Central Division was to acquire 992 kW demand savings. A total of 998 kW was achieved by participation of 54 customers.

The Commercial Solutions MTP goal for North Division was to acquire 3,209,280 kWh of energy savings. A total of 3,227,496 kWh was achieved by participation of 68 customers.

CoolSaver℠ MTP (Central Division Only)

The CoolSaver MTP verified and reported 4,087 kW. This included participation by 2,448 residential and commercial customers.

High-Performance New Homes MTP (New Homes) (Central Division Only)

In 2019, 717 high-performance homes were constructed in the New Homes program with a savings of 1,530 kW. Through education and outreach by program account managers, several new builders were recruited and participated in the program in 2019 thus increasing the reach and number of homes and customers learning about and benefiting from energy efficient homes. The program provided continuing education courses and other training opportunities for contractors, homebuilders, home energy raters, HVAC contractors and other market actors on the advantages of High-Performance and ENERGY STAR homes and building practices. Training for HVAC market actors focused on Manual J training to re-emphasize the importance of performing load calculations for correctly sizing HVAC systems. AEP Texas continued their partnership with the Environmental Protection Agency's (EPA) ENERGY STAR program and received the ENERGY STAR Partner of the Year Sustained Execellence award.

Open MTP

The Open MTP goal for Central Division was to acquire 830 kW demand savings. A total of 862 kW was achieved with 232 small commercial customers and 10 participating contractors.

The Open MTP goal for North Division was to acquire 354 kW demand savings. A total of 322 kW was achieved with 72 small commercial customers and 10 participating contractors.

Residential Pool Pump Pilot MTP

The Residential Pool Pump Pilot MTP was projected to acquire 127 kW demand savings for Central Division. A total of 13 kW was achieved. This included participation by 36 customers.

The Residential Pool Pump Pilot MTP was projected to acquire 33 kW demand savings for North Division. No savings were achieved in this program.

SCORE/CitySmart MTP

The SCORE/CitySmart MTP was projected to acquire 1,850 kW demand savings for Central Division. A total of 1,907 kW was achieved. This included participation by 53 customers. To date, the program has benchmarked 1,256 facilities for 41 school districts, 4 higher education and 13 government customers.

The SCORE/CitySmart MTP was projected to acquire 211 kW demand savings for North Division. A total of 328 kW was achieved. This included participation by 28 customers. To date, the program has benchmarked 473 facilities for 17 school districts, 3 higher education and 8 government customers.

SMART Source^{SM} Solar PV MTP

The PV MTP projected to acquire 704 kW in demand savings and 1,147,626 kWh in energy savings from the residential and non-residential components for Central Division. A total of 43 residential and non-residential solar PV projects were completed within the program, resulting in a peak demand reduction of 350 kW and 1,179,523 kWh of energy savings.

The PV MTP projected to acquire 102 kW in demand savings and 335,927 kWh in energy savings from the residential and non-residential components for North Division. A total of 25 residential and non-residential solar PV projects were completed within the program, resulting in a peak demand reduction of 135 kW and 471,494 kWh of energy savings.

X. Administrative Costs and Research and Development

Administrative Costs

Administrative costs incurred to meet the energy efficiency goals and objectives include, but may not be limited to, energy efficiency employees' payroll, costs associated with regulatory filings, and EM&V costs outside of the actual cost associated with the EM&V contractor. Any portion of these costs which are not directly assignable to a specific program are allocated among the programs in proportion to the program incentive costs.

Program Research and Development

R&D activities are intended to help meet future energy efficiency goals by researching new technologies and program options and developing better, more efficient ways to administer current programs. The following is a summary of the R&D activities for 2019.

AEP Texas dedicated resources in 2019 to improve its program website functionality and make it easier for customers and market actors to obtain program information. In addition, AEP Texas participated with Electric Utility Marketing Managers of Texas (EUMMOT) in researching potentially new deemed savings measures for various programs.

Informational Activities

AEP Texas continues its best effort to encourage and facilitate the involvement of REPs and EESPs in the delivery of its programs to customers. The Central and North Divisions utilize local, regional and national conferences, trade shows, and other events for outreach and information exchange with participating REPs and EESPs. The Central and North Divisions also provide energy efficiency program information to the REPs and EESPs throughout the year on a timely basis via e-mail distribution.

XI. 2020 Energy Efficiency Cost Recovery Factor (EECRF)

AEP Texas' 2020 EECRF was approved by the PUCT in Docket No. 49592 and includes $8,955,636 for the Central Division and $2,201,128 for the North Division, as shown in Table 18. The adjusted factors are shown in Table 19.

Table 18: 2020 EECRF

	Central	North
2020 Projected Costs over Base Rates	$6,920,539	$1,854,717
Performance Bonus for 2018 results	$2,243,583	$482,617
Over-recovery, returned to customers with interest	-$404,302	-$171,676
EECRF proceeding expenses	$12,549	$3,137
Projected EM&V costs	$183,267	$32,332
Total EECRF	$8,955,636	$2,201,128

Table 19: 2020 EECRF Factors

	EECRF	
Customer Class	**Central**	**North**
Residential Service	$0.000500 per kWh	$0.000542 per kWh
Secondary Service (less than or equal to 10 kW)	$0.000000 per kWh	$0.000833 per kWh
Secondary Service (greater than 10 kW)	$0.000345 per kWh	$0.000549 per kWh
Primary Service	$0.000643 per kWh	$(0.000046) per kWh
Transmission Service	($0.040623 per kW)	($0.016492) per kW)

XII. 2019 EECRF Summary

Central Division

2019 Collections for Energy Efficiency

The Central Division collected $7,417,634 through its 2019 base rates, including $6,334,949 expressly included in base rates and an adjustment for load growth in the amount of $1,082,685, and $8,944,043 through its 2019 EECRF for a total of $16,361,676. A performance bonus of $2,395,662 for exceeding its 2017 energy efficiency goals and $646,367 returned to customers are reflected in the total amount collected for energy efficiency in 2019.

Energy Efficiency Program Costs Expended

The Central Division expended a total of $14,032,803 for its 2019 energy efficiency programs. The amount expended is $538,743 less than the 2019 projected budget of $14,571,546 for energy efficiency programs.

Over-Recovery of Energy Efficiency Costs

The Central Division's actual 2019 energy efficiency program costs (including EM&V costs) less municipal rate case expenses are $14,013,456. For the determination of the over/under-recovery, financially-based incentives of $18,603 were also removed from the 2019 expenses resulting in $14,013,456 in expenses. Actual energy efficiency program revenues are $14,612,382. These associated 2019 costs and revenues result in an over-recovery of energy efficiency costs of $617,529. Including interest of $27,090, the over-recovery is $644,619. This is the amount that the Central Division will request be returned to customers within its 2021 EECRF.

North Division

2019 Collections for Energy Efficiency

The North Division collected $1,492,074 through its 2019 base rates, including $1,294,430 expressly included in base rates and an adjustment for load growth in the amount of $197,644, and $2,486,524 through its 2019 EECRF for a total of $3,978,598. A performance bonus of $505,327 for exceeding its 2017 energy efficiency goals and $46,179 returned to customers are reflected in the total amount collected for energy efficiency in 2019.

Energy Efficiency Program Costs Expended

The North Division expended a total of $3,236,930 for its 2019 energy efficiency programs. The amount expended is $151,170 less than the 2019 projected budget of $3,388,100 for energy efficiency programs.

Over-Recovery of Energy Efficiency Costs

The North Division's actual 2019 energy efficiency program costs (including EM&V costs) less municipal rate case expenses are $3,232,093. For the determination of the over/under-recovery, financially-based incentives of $3,432 were also removed from the 2019 expenses resulting in $3,228,661 in expenses. Actual energy efficiency program revenues are $3,519,450. These

associated 2019 costs and revenues result in an over-recovery of energy efficiency costs of $290,788. Including interest of $12,756, the over-recovery is $303,545. This is the amount that the North Division will request be returned to customers within its 2021 EECRF.

XIII. Underserved Counties

AEP Texas has defined Underserved Counties as any county in the service territory for which no demand or energy savings were reported through any of its 2019 SOPs or MTPs. Per 16 TAC § 25.181(l)(2)(U), a list of the Underserved Counties is shown in Table 21:

Table 21: Underserved Counties

Central Division	North Division	
Caldwell	Baylor	Knox
DeWitt	Briscoe	Mason
Guadalupe	Brown	Motley
Kenedy	Coleman	Nolan
McMullen	Crane	Reagan
Wilson	Crockett	Reeves
	Edwards	Schleicher
	Gillespie	Stephens
	Hall	Stonewall
	Kent	Throckmorton
	King	Wheeler

ACRONYMS

CSOP	Commercial Standard Offer Program
CS MTP	Commercial Solutions Market Transformation Program
DR	Demand Response
DSM	Demand Side Management
EECRF	Energy Efficiency Cost Recovery Factor
EEPR	Energy Efficiency Plan and Report
EE Rule	Energy Efficiency Rule, 16 TAC §§ 25.181, 25.182 and 25.183
EESP	Energy Efficiency Service Providers
EffCon	Efficiency Connection Pilot Market Transformation Program
EPA	Environmental Protection Agency
EUMMOT	Electric Utility Marketing Managers of Texas
HTR	Hard-To-Reach
HTR SOP	Hard-to-Reach Standard Offer Program
IECC	International Energy Conservation Code
LM SOP	Load Management Standard Offer Program
MTP	Market Transformation Program
NAP	Not Applicable
New Homes	High-Performance New Home Market Transformation Program
Open MTP	Open Market Transformation Program

Acronyms (Continued)

PUC	Public Utility Commission of Texas
PURA	Public Utility Regulatory Act
PV	Photovoltaic
PV MTP	SMART Source^{SM} Solar PV Market Transformation Program
R&D	Research and Development
REP	Retail Electric Provider
RES	Residential
RSOP	Residential Standard Offer Program
SCORE	Schools Conserving Resources
SCORE/CS MTP	SCORE/CitySmart Market Transformation Program
SOP	Standard Offer Program
TCC	AEP Texas Central Company (now the Central Division of AEP Texas)
TDU	Transmission and Distribution Utility
TLIP	Targeted Low-Income Energy Efficiency Program
TRM	Texas Technical Reference Manual

APPENDIX A:

REPORTED AND VERIFIED DEMAND AND ENERGY REDUCTION BY COUNTY

Reported and Verified Demand and Energy Reduction by County: Central Division

County	Commercial Solutions MTP		Commercial SOP		CoolSaver MTP		Hard-to-Reach SOP		High-Performance New Homes MTP		Load Management SOP	
	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
Aransas			2 8	15,145	1 1	2,939	3 4	5,776	130 5	167,583	13 0	50
Atascosa	6 1	19,369	4 8	29,548	1 3	2,562	47 2	62,706				
Bee			22 6	102,150					1 1	3,078	42 0	226
Brooks			10 9	60,101	0 9	2,414						
Caldwell												
Calhoun			7 2	27,897	1 6	4,551	30 4	42,046	16 9	22,529	90 0	427
Cameron	91 3	466,035	785 5	2,978,293	419 5	925,567	255 6	371,938	3 0	6,988	2,935 0	15,182
Colorado	41 0	199,633	15 7	73,865							6 0	25
DeWitt												
Dimmitt			8 9	34,455							28 0	110
Duval	13 6	52,918					8.7	13,287				
Edwards	8 2	31,709										
Frio											55 0	226
Goliad			2 2	13,105								
Gonzales												
Guadalupe												
Hidalgo	364 6	2,020,458	511 2	2,136,165	3,308 2	7,920,726	654 9	1,076,164	64 5	137,258	4,079 0	28,813
Jackson			2 4	14,389					0 5	1,076		
Jim Hogg												
Jim Wells			251 8	919,936			40 8	59,411	1 9	2,300	14 0	173
Karnes			19 5	93,928							5 0	20
Kenedy												
Kinney												
Kleberg			13 1	89,199			35 6	56,445			105 0	508
La Salle			13 1	50,993								
Live Oak			14 3	88,868								
Matagorda	4 9	13,475	1.8	10,210	0 8	1,927	17 5	24,828				
Maverick			67 7	312,368							23 0	232
Medina											0 0	18
McMullen												
Nueces	208 2	1,131,359	748 2	3,629,190	2 3	7,848	329 3	563,167	914 5	1,120,330	1,003 0	7,330
Real	8 6	33,518										
Refugio	8 4	32,840	7.9	44,346					11 8	16,026	5 0	18
San Patricio	11 8	45,785	15 6	86,305	0 7	768	42 1	67,233	253 3	311,545	4,320 0	18,921
Starr			50.2	161,622	203 5	530,965	182 2	304,784			82 0	473
Uvalde			8 2	31,870							34 0	219
Val Verde	9 3	36,195	9 7	37,790			85 8	114,912				
Victoria	33 2	136,644	191 2	1,015,360	8 0	15,703	131 1	150,308	12 2	23,494	1,917 0	13,637
Webb	188 5	1,249,939	336 6	2,111,348	110 7	364,572	240 2	424,571	120 2	225,168	1,805 0	12,188
Wharton			6 4	14,585							26 0	176
Willacy			17 6	84,977	28 2	55,553					1,025 0	4,100
Wilson												
Zavala												
Zapata							1 4	2,740				
Total	997 6	5,469,877	3,146 8	14,268,008	4,086 7	9,836,095	2,106 0	3,340,316	1,530 2	2,037,375	17,612 0	103,072

Reported and Verified Demand and Energy Reduction by County: Central Division (Continued)

County	Open MTP		Residential Pool Pump Pilot MTP		Residential SOP		SCORE/CitySmart MTP		SMART[SM] Source Solar PV MTP		Targeted Low-Income Program	
	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
Aransas			1 6	11,608	7 5	12,013			2 8	10,404		
Atascosa	8 2	47,762			49 8	69,179			4 2	21,152		
Bee					3 3	8,402	102 1	349,135				
Brooks	1 2	5,514										
Caldwell												
Calhoun					10 0	17,593					121 9	191,451
Cameron	85 3	329,088			1,243 4	1,873,794	15 4	82,149	54 3	173,508		
Colorado												
DeWitt												
Dimmitt											43 0	64,531
Duval												
Edwards											9 4	17,401
Frio	7 7	52,932									8 0	11,262
Goliad												
Gonzales	20 9	86,919										
Guadalupe												
Hidalgo	443 7	1,737,253	0 4	2,902	2,068 0	3,572,849	364 2	1,454,339	73 7	253,924	210 8	311,103
Jackson			0 8	5,804					4 1	14,350		
Jim Hogg							175 2	562,152				
Jim Wells					31 3	54,201						
Karnes	13 6	51,814					156 0	907,802				
Kenedy												
Kinney							96 4	288,364			8 5	14,366
Kleberg					45 5	84,372			7 6	25,951		
La Salle												
Live Oak					3 8	4,741						
Matagorda					70 3	96,993					76 9	114,786
Maverick									6 2	18,641	39 7	67,767
Medina							199 3	623,115	4 2	12,920		
McMullen												
Nueces	17 4	85,618	5 2	38,488	1,484 6	2,608,875	564 0	1,534,786	12 4	45,119	3.6	6,156
Real									4 2	20,540		
Refugio			0 4	2,902	21 8	43,142						
San Patricio			1 8	13,440	311 1	587,985			5 3	19,549		
Starr	49.1	193,223			593 8	999,427			9 1	35,453	8 8	14,128
Uvalde											22 6	33,458
Val Verde					9 5	12,984	5 5	16,311			11 5	16,201
Victoria	6 9	24,979			52 7	68,208					10 2	17,524
Webb	195 8	823,751	2 8	21,246	208 0	368,169	228 4	923,545	162 2	528,012	269 4	432,302
Wharton												
Willacy	12 1	43,774			3 9	6,525						
Wilson												
Zavala											24 6	38,483
Zapata			0 3	2,677								
Total	861 7	3,482,628	13 3	99,067	6,218 2	10,489,450	1,906 5	6,741,698	350 2	1,179,523	868 9	1,350,919

Reported and Verified Demand and Energy Reduction by County: North Division

County	Commercial Solutions MTP		Commercial SOP		Hard-to-Reach SOP		Load Management SOP		Open MTP	
	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
Baylor										
Brewster					3.9	6,491				
Briscoe										
Brown										
Callahan	11.0	56,075			9.2	15,736			0.6	2,209
Childress			7.8	32,550						
Coke	7.2	27,830								
Coleman										
Concho									17.7	82,440
Cottle										
Crane										
Crockett										
Dickens										
Eastland	8.5	34,870							2 4	9,378
Edwards										
Fisher										
Foard										
Gillespie										
Hall										
Hardeman					2.6	6,974				
Haskell									7.4	40,258
Iron	8.3	32,194								
Jeff Davis										
Jones					1.7	3,655	600.0	4,158	8.8	31,743
Kent										
Kimble			8 0	51,725					18 4	85,740
King										
Knox										
Mason										
McCullouch									12.0	51,659
Menard	16 7	77,720							31.3	123,059
Motley										
Nolan										
Pecos	8 9	34,467			1.8	2,996				
Presidio			9.3	36,072						
Reagan										
Reeves										
Runnels			108.4	467,697					3.0	11,612
Schleicher										
Shackelford	2.2	10,812							1.2	4,782
Stephens										
Sterling	8.9	34,720								
Stonewall										
Sutton	7.8	30,322								
Taylor	425.9	2,271,880	121.0	508,320	179.4	263,644	2,005 0	14,394	92.4	378,906
Throckmorton										
Tom Green	110 0	616,606	214.6	1,117,292	220.0	322,042	301.0	1,827	126.5	494,565
Upton					98.3	163,908				
Wheeler										
Wilbarger					82.7	209,238	29.0	171		
Total	615 4	3,227,496	469.1	2,213,656	599.6	994,684	2,935.0	20,550	321.7	1,316,351

Reported and Verified Demand and Energy Reduction by County: North Division (Continued)

County	Residential Pool Pump Pilot MTP		Residential SOP		SCORE/CitySmart MTP		SMART[SM] Source Solar PV MTP		Targeted Low-Income Program	
	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
Baylor										
Brewster			52 4	84,021			7 8	29,115	0.7	724
Briscoe										
Brown										
Callahan			3.2	4,248					3.2	5,065
Childress										
Coke			10 2	14,179						
Coleman										
Concho					18 3	120,001				
Cottle									5.5	5,919
Crane										
Crockett										
Dickens					41.2	266,756				
Eastland			0.8	1,461	28.0	162,870	0 7	2,792	26.1	46,937
Edwards										
Fisher									0.0	134
Foard			2.1	5,594					5.2	5,501
Gillespie										
Hall										
Hardeman			2 9	5,599						
Haskell									2.0	3,620
Irion			5.3	6,851						
Jeff Davis							11.2	40,227		
Jones			0 5	872			5.1	18,324	2.3	2,532
Kent										
Kimble							21 5	67,739		
King										
Knox										
Mason										
McCullouch										
Menard										
Motley										
Nolan										
Pecos			24.6	41,779			11.0	42,759		
Presidio			30 3	55,426			1.3	5,155	8 0	14,727
Reagan										
Reeves										
Runnels			0.8	1,246			2.8	14,128		
Schleicher										
Shackelford			4.6	9,455			6.6	21,217		
Stephens										
Sterling										
Stonewall										
Sutton										
Taylor			169.4	289,628	215 8	1,000,340	24.5	84,049	9.6	14,606
Throckmorton										
Tom Green			483.5	780,364	24.8	130,033	22.3	85,214	53.2	93,962
Upton			121.4	204,644					0.9	4,173
Wheeler										
Wilbarger			141.6	338,793			20.4	60,775	1 8	1,926
Total	0 0	0	1,053.7	1,844,161	328.2	1,680,000	135.4	471,494	118.6	199,824

APPENDIX B:

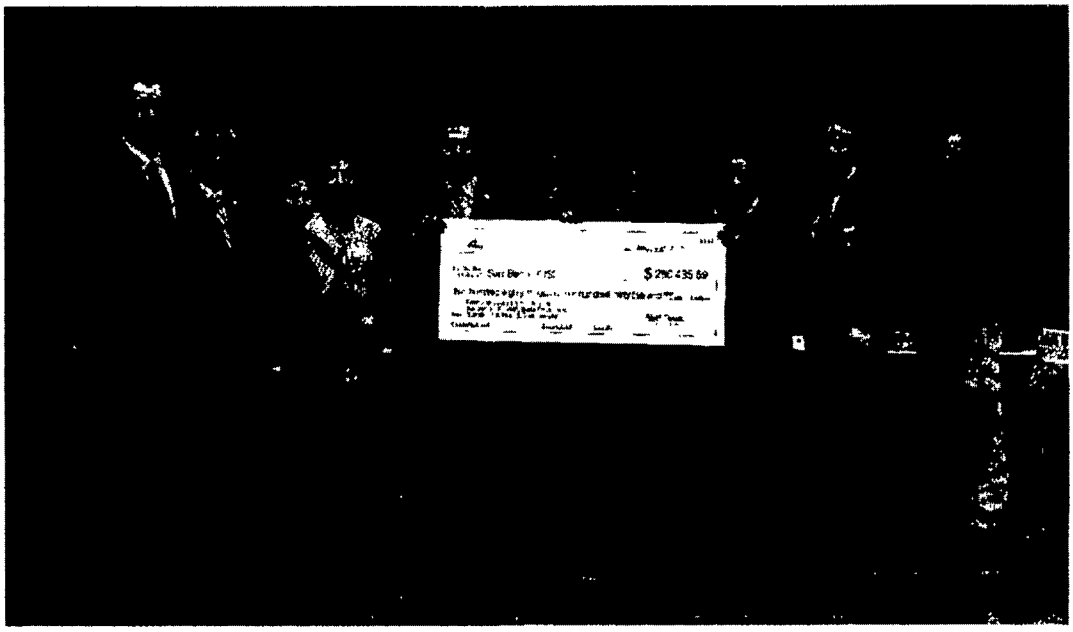
PROGRAM TEMPLATES

AEP Texas does not have any Program Templates to report this year.

APPENDIX C:

OPTIONAL SUPPORT DOCUMENTATION

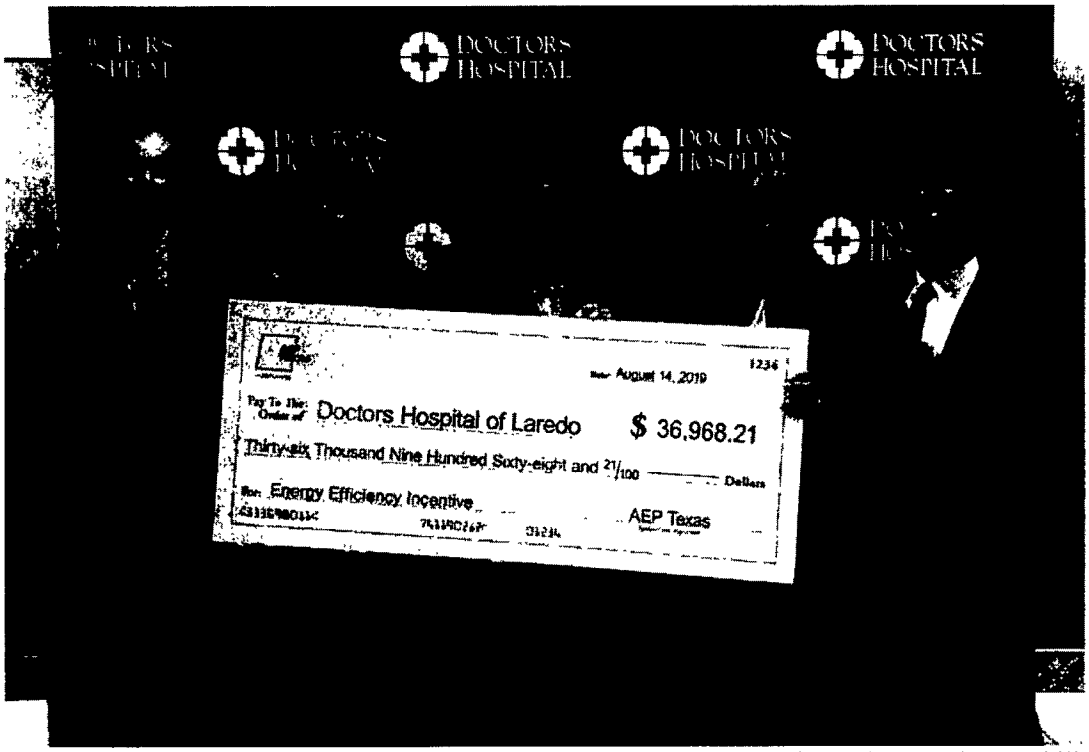
San Benito C.I.S.D. receives energy efficiency incentive check



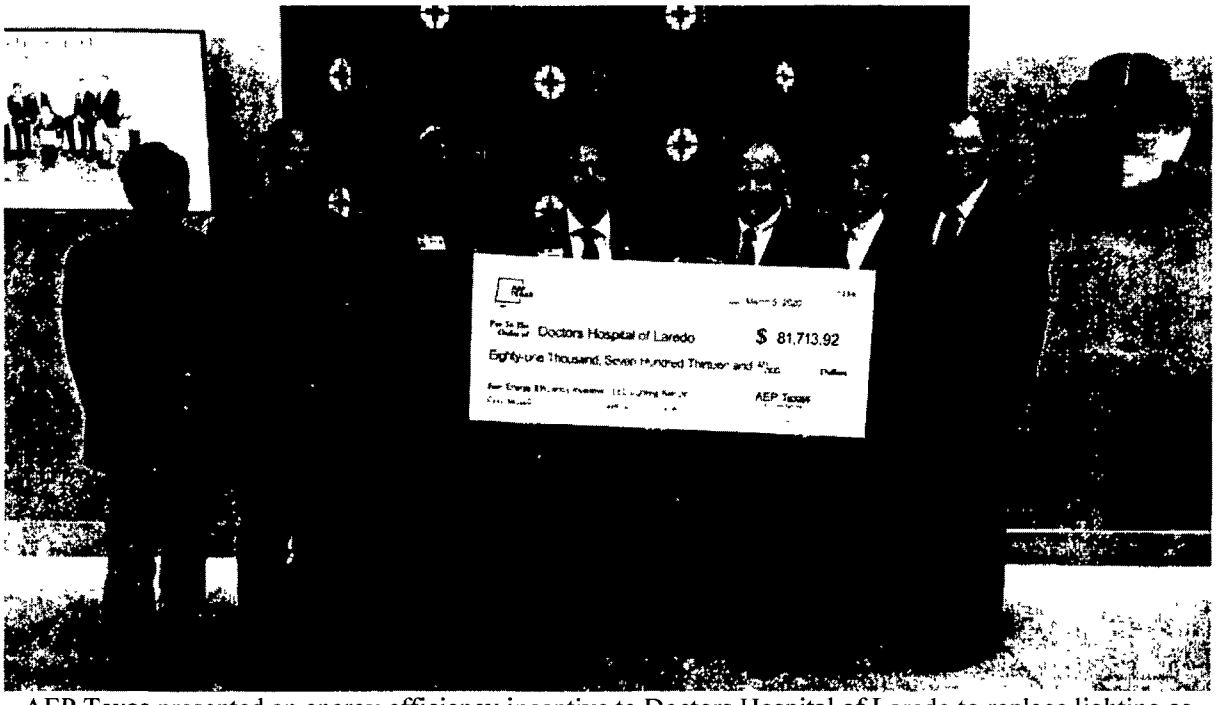
AEP Texas presented the San Benito Consolidated Independent School District with a check for $280,435 as part of the Commercial Standard Offer Program at their regular board meeting.

AEP Texas hosted its annual Residential/Hard-to-Reach program workshop to roll out the 2020 programs.

AEP Texas presented Neighborhood Works Laredo with a check for $104,700 as part of the Targeted Low-Income Program.



AEP Texas presented an energy efficiency incentive to Doctors Hospital of Laredo to replace a chiller as part of the Commercial Standard Offer Program.



AEP Texas presented an energy efficiency incentive to Doctors Hospital of Laredo to replace lighting as part of the Commercial Standard Offer Program.