Q. WHAT SCHEDULES IN THIS FILING DO YOU SPONSOR?

A. I sponsor Schedule E (Calculation of the Revised EECRF Factors), Schedule F (Updated Energy Efficiency Cost Recovery Rider), Schedule H (Development of Forecasted Billing Units) and Schedule I (Amount of Energy Efficiency Costs Recovered through Base Rates). The 2021 factors are calculated by dividing energy efficiency costs for each EECRF rate class by the forecasted 2021 billing units for each class. Energy efficiency costs include projected 2021 energy efficiency program costs, a true-up adjustment for the over-recovery of 2019 program costs including interest, and the 2019 performance bonus.

Schedule H includes the development of the forecasted kilowatt-hour (kWh) billing units for January through December 2021, the effective period for the revised EECRF factors. The 2021 kWh forecast is assigned to EECRF rate classes based on billed kWh from January through December 2019.

I also sponsor Schedule G, which includes the calculation of the 2021 cost caps, and Schedule Q which includes line losses used in the EECRF calculation. I co-sponsor page 2 of Schedules A and B and all of Schedule C (2019 Over Recovery) with witness Debra A. Miller. In addition, I cosponsor page 2 of Schedule A and B with witness Steve M. Mutiso.

III. ADJUSTED ENERGY EFFICIENCY COST RECOVERY REVENUE REQUIREMENT

Q. WHY IS SWEPCO REQUESTING APPROVAL OF REVISED EECRF FACTORS?

A. 16 TAC § 25.182(d)(8) requires a bundled utility with an EECRF to apply no later than May 1 of each year to adjust its EECRF in order to reflect changes in costs and performance bonuses and minimize any over- or under-collection in prior years' program costs. SWEPCO is currently billing its customers the 2020 EECRF factors approved in Docket No. 49499. SWEPCO is requesting that the EECRF factors be revised for 2021 to include projected 2021 energy efficiency program costs to be recovered in 2021, an over-recovery of 2019 EECRF revenue compared to actual 2019 costs including interest, actual EM&V costs for 2019, projected EM&V costs for the evaluation of 2020, SWEPCO's 2019 performance bonus for demand and energy reduction that exceeded the 2019 minimum goal, and 2019 EECRF proceeding expenses incurred in Docket No. 49499. The updated Rider EECRF with revised factors is proposed to be effective January 1, 2021.

Q. DO SWEPCO'S CURRENT BASE RATES INCLUDE ANY AMOUNT THAT IS EXPRESSLY SPECIFIED AS ENERGY EFFICIENCY COSTS?

A. No. In establishing SWEPCO's base rates, the Commission orders in Docket No. 46449, SWEPCO's most recent base rate case, and Docket No. 48233, that reduced base rates to reflect lower federal income tax rates in 2018, did not expressly include energy efficiency program costs to be recovered in base rates.

Q. WHAT IS THE REVENUE REQUIREMENT SWEPCO IS REQUESTING THROUGH THE REVISED EECRF?

A. SWEPCO is requesting $5,240,033 to be recovered in 2021 through its revised EECRF Rider pursuant to 16 TAC § 25.182(d)(1) and supported by SWEPCO witnesses Miller and Mutiso. The $5,240,033 includes $4,367,484 in projected 2021 energy efficiency program costs, a $975,673 performance bonus for 2019, Docket No. 49499 expenses of $12,989, $64,446 in projected EM&V costs (for the evaluation of PY 2020), an over-recovery of $172,971 of EECRF revenues compared to actual costs in 2019, and $7,588 in interest due to customers.

Q. HOW ARE 2021 PROGRAM COSTS ASSIGNED TO EACH EECRF RATE CLASS?

A. 2021 program costs are assigned to EECRF rate classes on a program-by-program basis following the methodology from SWEPCO's 2020 EECRF approved in Docket No. 49499. The EECRF rate classes in the EECRF tariff are: Residential, General Service, Lighting and Power, Municipal Service, Municipal Pumping, Cotton Gin, Large Lighting and Power < 69 kV, Metal Melting < 69 kV, Oil Field Large Industrial Power, and Lighting. When a program is directly associated with a specific EECRF rate class, the cost of the program is directly assigned to that class, otherwise an allocation is made to eligible rate classes.

Q. HOW ARE COSTS ALLOCATED THAT ARE NOT SPECIFICALLY ASSIGNED TO EECRF RATE CLASSES?

A. If a program is available to more than one EECRF rate class, an allocator is used to distribute costs among applicable rate classes. Residential program costs are directly assigned to the residential rate class; however, 2021 program costs for the non-residential classes are allocated to all eligible rate classes using the 2021 adjusted

production demand allocation factor. Certain research and development (R&D) costs not directly attributable to specific rate classes and projected EM&V costs are allocated to rate classes using the same allocator. EECRF 2019 proceeding expenses incurred in Docket No. 49499 are allocated using 2021 program costs less EM&V.

Q. PLEASE DESCRIBE THE 2021 ADJUSTED PRODUCTION DEMAND ALLOCATION FACTOR USED TO ALLOCATE COSTS THAT ARE NOT DIRECTLY ASSIGNED TO RATE CLASSES.

A. The production demand allocator from SWEPCO's most recent rate case in Docket No. 46449 is adjusted using 2021 projected kWh and also adjusted to remove transmission customers at or above 69 kV along with other exempt distribution industrial customers that have provided identification notice and lighting customers, all of which are not eligible for energy efficiency programs at this time. This adjustment is shown in the Schedule E workpapers.

Q. HOW IS THE 2019 TRUE-UP DETERMINED?

A. The true-up in Schedule C includes 2019 EECRF revenues by rate class compared to actual 2019 program costs including 2019 actual EM&V costs, the 2017 bonus and the 2017 under-recovery by rate class. Program costs are directly assigned to rate classes based on the participation of customers in a rate class in a given program. A portion of 2019 administrative and R&D costs as well as 2019 EM&V costs are allocated to rate classes using the 2019 program cost allocator. The 2019 true-up shows an overall over-collection of $172,971 plus $7,588 in interest.

Q. HOW IS THE 2019 PERFORMANCE BONUS ALLOCATED TO EECRF RATE CLASSES?

A. The 2019 performance bonus of $975,673 in Schedule D and included in Schedule E is allocated to EECRF rate classes using the 2019 program cost allocator, which complies with 16 TAC § 25.182(e)(6).

Q. ARE SOME RATE CLASSES EXCLUDED FROM PAYING EECRF CHARGES?

A. Yes, customers taking service at 69 kV and above are not eligible for participation in energy efficiency programs in 2021; therefore, they are not assigned or allocated 2021 projected program costs. Exempt distribution industrial customers that have provided identification notice, as discussed in the testimony of SWEPCO witnesses Miller and Mutiso, are excluded from paying EECRF charges. The Lighting class has not been assigned or allocated any 2021 costs since there are no programs currently available to lighting customers.

IV. DEVELOPMENT OF REVISED ENERGY EFFICIENCY COST RECOVERY FACTORS

Q. HOW ARE THE EECRF FACTORS DETERMINED?

A. Once the EECRF class revenue requirement is developed and assigned to rate classes, the EECRF factors are calculated by dividing the revenue requirement for each EECRF rate class by the 2021 projected billing units for each rate class. The EECRF factors will be applied to each month's billed kWh of each retail customer eligible to participate in energy efficiency programs. The 2021 EECRF factors are shown in Schedule E and the revised tariff, Rider EECRF, is contained in Schedule F.

Q. PLEASE DESCRIBE THE 2021 FORECASTED BILLING UNITS USED IN THE DEVELOPMENT OF THE EECRF RATES.

A. As part of the normal course of business, AEP projects monthly kWh sales and demand growth factors for each of its operating companies, including SWEPCO. The AEPSC Economic Forecasting Department provided monthly sales forecasts for the projected energy efficiency budget year of January through December 2021. Because the monthly kWh sales are projected on a total retail and revenue class basis, rate class forecasted kWh sales had to be established by first determining each rate class's percentage of total retail sales based on historical kWh sales data for the twelve months ending December 2019. 2021 forecasted kWh sales by rate class were then determined by multiplying total retail 2021 forecasted kWh sales by each rate class's percentage of 2019 total retail kWh sales. Adjusted annual class projected kWh sales were used to develop the adjusted 2021 EECRF factors. For allocation purposes, the adjusted forecast excludes kWh associated with industrial customers exempt from EECRF charges by providing identification notice and lighting customers to which no programs apply. Schedule H determines the projected kWh sales by class.

Q. WHAT ARE THE REVISED 2021 EECRF FACTORS?

A. The revised 2021 EECRF factors by rate class are:

EECRF Rate Class	kWh Factor
Residential	$.001228
General Service	$.000700
Lighting and Power	$.000808
Municipal Pumping	$.000225
Municipal Service	$.001837
Cotton Gin	$.000027
Large Lighting and Power < 69 kV	$.000000
Metal Melting < 69 kV	$.003685
Oil Field Large Industrial Power	$.000204
Lighting	$.000000

Q. HAVE ANY OF THE PROPOSED 2021 EECRF RATES BEEN SET TO ZERO IN THE RATE CALCULATION IN SCHEDULE E?

A. Yes. The EECRF rate for the Lighting class and the Large Lighting and Power < 69 kV class have been set to zero. The Lighting rate class has not been allocated energy efficiency costs in several years due to no energy efficiency programs for that class. Since the rate calculation for that class contains only a small true-up amount because of a kWh forecast variance from a prior period, the EECRF rate for the Lighting class has been set to zero for 2021. Both customers in the Large Lighting and Power < 69 kV class have provided identification notice applicable in 2021 so the EECRF rate has been set to zero.

Q. WHAT ARE THE EECRF COST CAP RATES FOR 2021 AS DETAILED IN 16 TAC § 25.182(d)(7)?

A. The 2021 residential cap is $.001351 and commercial cap is $.000845. The cost cap calculation is included in Schedule G.

Q. HOW HAS SWEPCO TREATED EM&V COSTS AND INTEREST ON THE OVER-RECOVERY WHEN DETERMINING WHETHER EECRF FACTORS EXCEED THE LIMITATIONS DETAILED IN 16 TAC § 25.182(d)(7)?

A. SWEPCO has not included EM&V or interest on the over-recovery in its determination of the EECRF rate limitations based on 16 TAC § 25.182(d)(7), which states that the EM&V and interest shall not count against the utility's cost caps.

Q. DO THE REVISED 2021 EECRF FACTORS EXCLUDING EM&V COSTS AND INTEREST ON THE OVER-RECOVERY EXCEED THE MAXIMUM PRICE PER

KWH FOR RESIDENTIAL AND COMMERCIAL CUSTOMERS SPECIFIED IN 16 TAC § 25.182(d)(7)?

A. No, they do not. SWEPCO's revised residential factor is $.001214 per kWh, which does not exceed the residential maximum price of $.001351 per kWh for 2021 as calculated pursuant to 16 TAC § 25.182(d)(7). The maximum commercial rate per kWh for 2021 is $.000845 per kWh as calculated pursuant to 16 TAC § 25.182(d)(7). The updated commercial class factor is $.000776 per kWh, which does not exceed the 2021 cap for the commercial class.

Q. DO ACTUAL 2019 PROGRAM COSTS EXCLUDING EM&V COSTS AND INTEREST ON THE OVER-RECOVERY EXCEED THE 2019 COST CAPS?

A. No, as shown in Schedule G, the residential rate of spending in 2019 was $.001231 per kWh, which is below the residential cap of $.001303. The commercial rate of spending in 2019 was $.000748 per kWh, which does not exceed the commercial cap of $.000815.

Q. HAVE YOU PROVIDED THE REVISED TARIFF REFLECTING UPDATED EECRF FACTORS?

A. Yes. The proposed Rider EECRF shown in Schedule F includes the changes from the current tariff. SWEPCO requests that the Commission approve an adjusted Rider EECRF containing the proposed rate class kWh factors to be effective January 1, 2021.

V. CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. SWEPCO is requesting recovery of $5,240,033 through its adjusted EECRF, which includes projected 2021 energy efficiency program costs of $4,367,484, an adjustment for the over-recovery of $172,971 in 2019 program costs plus interest of $7,588, projected EM&V costs of $64,446, SWEPCO's 2019 performance bonus of $975,673 and expenses of $12,989 for Docket No. 49499.

The adjusted energy efficiency revenue requirement has been assigned to the EECRF classes on a direct program-by-program assignment when possible; otherwise, an appropriate allocation factor is used to allocate the costs. The direct assignment and allocation of energy efficiency costs to SWEPCO's rate classes is reasonable. Recovery of the revenue requirement is based on projected 2021 kWh sales for all rate classes eligible to participate in energy efficiency programs.

Q. WHAT RELIEF IS SWEPCO REQUESTING IN THIS PROCEEDING?

A. SWEPCO is requesting that Rider EECRF contained in Schedule F be approved effective January 1, 2021.

Q. HAVE THE REQUESTED EECRF FACTORS BEEN CALCULATED IN A MANNER CONSISTENT WITH 16 TAC § 25.182 AND THE METHODOLOGY FROM DOCKET NO. 49499?

A. Yes, they have.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

SCHEDULE A

2021 Projected Energy Efficiency Costs

	2021				
Customer Class and Program	**Incentives**	**Administrative Costs**	**R&D**	**EM&V**	**Total Budget**
Commercial					
Commercial Solutions MTP	$310,000	$54,706			$364,706
Commercial SOP	$650,000	$114,706			$764,706
Load Management SOP	$250,000	$44,118			$294,118
Open MTP	$250,000	$27,778			$277,778
SCORE MTP	$310,000	$54,706			$364,706
Residential					
Residential SOP	$1,150,000	$202,941			$1,352,941
Hard-to-Reach					
Hard-to-Reach SOP	$700,000	$123,529			$823,529
Research & Development (R&D)			$125,000		$125,000
Total Program Budget	**$3,620,000**	**$622,484**	**$125,000**		**$4,367,484**

Evaluation, Measurement & Verification (EM&V)					
EM&V				**$64,446**	**$64,446**
Total Projected Energy Efficiency Costs (including EM&V)					**$4,431,930**

Sponsored by: Debra A. Miller and Steve M. Mutiso

Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

SCHEDULE A
2021 Projected Energy Efficiency Costs

Customer Class and Program	**ELIGIBILITY BY RETAIL RATE CLASS**										
Commercial	Residential	General Service	Lighting & Power	Municipal Pumping	Municipal Service	Cotton Gin	Large Lighting & Power less than 69kV	Interruptible less than 69kV	Metal Melting < 69 kV	Oil Field Large Industrial	Total
Commercial Solutions MTP		$ 58,486	$ 269,277	$ 4,745	$ 3,734	$ 485			$ 4,277	$ 23,701	$ 364,706
Commercial SOP		$ 122,633	$ 564,614	$ 9,948	$ 7,829	$ 1,018			$ 8,968	$ 49,697	$ 764,706
Load Management SOP		$ 47,166	$ 217,159	$ 3,826	$ 3,011	$ 391			$ 3,449	$ 19,114	$ 294,118
SCORE MTP		$ 65,078	$ 299,628	$ -	$ -	$ -			$ -	$ -	$ 364,706
Open MTP		$ 48,317	$ 222,457	$ 3,920	$ 3,085	$ -			$ -	$ -	$ 277,778
Total Commercial Budgets		$ 341,681	$ 1,573,135	$ 22,439	$ 17,658	$ 1,895	$ -	$ -	$ 16,694	$ 92,512	$ 2,066,014
Residential											
Residential SOP	$ 1,352,941										$ 1,352,941
Residential Pilot	$ -										$ -
Hard-to-Reach SOP	$ 823,529										$ 823,529
Total Residential Budgets	$ 2,176,470										$ 2,176,470
EM&V	$ 19,496	$ 7,475	$ 34,417	$ 469	$ 369	$ 38			$ 334	$ 1,849	$ 64,446
Research and Development (R&D)	$ 64,127	$ 10,067	$ 46,351	$ 661	$ 520	$ 56			$ 492	$ 2,726	$ 125,000
TOTAL	**$ 2,260,093**	**$ 359,223**	**$ 1,653,902**	**$ 23,569**	**$ 18,548**	**$ 1,989**	**$ -**	**$ -**	**$ 17,520**	**$ 97,087**	**$ 4,431,930**

Note 2021 projected program costs are allocated to eligible rate classes using the adjusted 2021 production demand allocation factor

Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

SCHEDULE B

2019 Actual Energy Efficiency Expenditures

2019				
	Incentives Paid	**Administrative Costs**	**EM&V**	**Total Funds Expended**
Commercial				
Commercial Solutions MTP	$294,600	$40,824		**$335,424**
Commercial SOP	$534,455	$104,323		**$638,779**
Load Management SOP	$154,480	$28,808		**$183,288**
Open MTP	$247,621	$22,317		**$269,938**
SCORE MTP	$312,070	$45,229		**$357,298**
Residential				
Residential SOP	$999,481	$160,171		**$1,159,653**
Hard-to-Reach				
Hard-to-Reach SOP	$699,001	$107,977		**$806,979**
Research & Development				
Research & Development		$145,479		**$145,479**
Evaluation, Measurement and Evaluation (EM&V)			$64,446	**$64,446**
Totals	**$3,241,709**	**$655,128**	**$64,446**	**$3,961,282**

Sponsored by: Steve M. Mutiso

Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

SCHEDULE B
2019 Actual Energy Efficiency Expenditures

Customer Class and Program	PROGRAM COSTS BY RETAIL RATE CLASS										
SWEPCO	Residential	General Service	Lighting & Power	Municipal Pumping	Municipal Service	Cotton Gin	Large Lighting & Power less than 69kV	Interruptible less than 69kV	Metal Melting < 69 kV	Oil Field Large Industrial	Total
Commercial											
Commercial Solutions MTP		$ 65,451	$ 259,410	$ -	$ 10,563				$ -		$ 335,424
Commercial SOP		$ 10,887	$ 616,341	$ -	$ -				$ 11,550		$ 638,779
Load Management SOP		$ -	$ 47,311	$ 8,875	$ 16,492				$ 110,610		$ 183,288
SCORE MTP		$ -	$ 357,298	$ -	$ -				$ -		$ 357,298
Open SBDI		$ 53,613	$ 206,389	$ -	$ 9,936				$ -		$ 269,938
Residential											
Residential SOP	$ 1,159,652										$ 1,159,652
Hard-to-Reach SOP	$ 806,978										$ 806,978
Sub-total	**$ 1,966,631**	**$ 129,951**	**$ 1,486,748**	**$ 8,875**	**$ 36,992**				**$ 122,160**	**$ -**	**$ 3,751,357**
R&D Commercial SOP	$ -	$ 1,920	$ 21,302	$ 124	$ 535				$ 1,706		25,587
R&D Load Management	$ -	$ 1,146	$ 12,715	$ 74	$ 320				$ 1,018		15,273
R&D SCORE	$ -	$ -	$ -	$ -	$ -				$ -		-
R&D Commercial Solutions	$ -	$ -	$ -	$ -	$ -				$ -		-
R&D Residential SOP	$ 30,225	$ -	$ -	$ -	$ -				$ -		30,225
R&D Hard to Reach SOP	$ 25,102	$ -	$ -	$ -	$ -				$ -		25,102
R&D Nonspecific and New/existing	$ 25,005	$ -	$ -	$ -	$ -				$ -		25,005
R&D General EE Admin	$ 12,725	$ 867	$ 9,625	$ 56	$ 242				$ 771		24,286
Sub-total	**$ 93,057**	**$ 3,933**	**$ 43,643**	**$ 254**	**$ 1,097**	**$ -**	**$ -**	**$ -**	**$ 3,495**	**$ -**	**$ 145,479**
EM&V	**$ 33,766**	**$ 2,302**	**$ 25,542**	**$ 149**	**$ 642**				**$ 2,045**	**$ -**	**$ 64,446**
Total Expenditures	**$ 2,093,454**	**$ 136,185**	**$ 1,555,933**	**$ 9,278**	**$ 38,731**	**$ -**	**$ -**	**$ -**	**$ 127,701**	**$ -**	**$ 3,961,282**

Note 2019 program costs are direct-assigned to participating rate classes and include administrative costs R&D is allocated to rate classes using the 2019 program cost allocator

SWEPCO 2021 EECRF
Schedule C 2019 Over-/Under-Calculation

SWEPCO 2019 EECRF Over- and Under-Collections by Retail Rate Class

Retail Rate Class	2019 Program Costs	2019 Financially Based Incentive Comp Removal	2019 EM&V	2017 Bonus	2017 O/U	2019 EE Costs	2019 EECRF Collections	2019 (Over)/Under-Collection	2019 Interest on O/U	2020 Interest on O/U	Total O/U Interest	Total (O)/U with Interest
	a	b	c	d	e	f=a+b+c+d+e	g	h=f-g	1 99%	2 35%		
Residential	$2,059,688	($2,560)	$33,766	$442,943	$150,715	$2,684,552	$2,753,911	($69,359)	($1,380)	($1,662)	($3,043)	($72,401)
General Service	$133,884	($135)	$2,302	$25,733	($189,495)	($27,712)	$159,602	($187,313)	($3,728)	($4,489)	($8,217)	($195,530)
Lighting & Power Secondary	$1,475,992	($1,855)	$24,643	$265,558	$116,234	$1,880,571	$1,635,290	$245,281	$4,881	$5,879	$10,760	$256,041
Lighting & Power Primary	$54,399	($73)	$899	$78,234	$7,501	$140,960	$393,633	($252,672)	($5,028)	($6,056)	($11,084)	($263,757)
Municipal Pumping	$9,129	($13)	$149	$2,147	($14,802)	($3,390)	$7,818	($11,208)	($223)	($269)	($492)	($11,700)
Municipal Service	$38,089	($45)	$642	$7,954	$28,498	$75,139	$53,197	$21,942	$437	$526	$963	$22,905
Cotton Gin	$0	$0	$0	$3	($1,777)	($1,774)	($50)	($1,724)	($34)	($41)	($76)	($1,800)
Large Lighting & Power less than 69kV	$0	$0	$0	$0	$6,010	$6,010	$0	$6,010	$120	$144	$264	$6,274
Metal Melting less than 69kV	$125,655	($184)	$2,045	$36,692	$163,498	$327,707	$212,650	$115,057	$2,290	$2,758	$5,047	$120,104
Oil Field Large Industrial Power	$0	$0	$0	$63	($34,903)	($34,840)	$3,701	($38,540)	($767)	($924)	($1,691)	($40,231)
Lighting Major Rate Class	$0	$0	$0	$0	($443)	($443)	$0	($443)	($9)	($11)	($19)	($463)
Total	$3,896,836	($4,865)	$64,446	$859,328	$231,035	$5,046,779	$5,219,750	($172,971)	($3,442)	($4,146)	($7,588)	($180,558)

Schedule D

2019 Goal Achievement and Performance Bonus Calculation

SWEPCO achieved 11,832 kW in demand savings and 16,232,989 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 $14,590,870. SWEPCO's total program costs for the 2019 program year was $4,834,144. SWEPCO's demand reduction goal (DRG) was 5,600 kW and its energy savings goal was 9,811,000 kWh. SWEPCO achieved 211% of its DRG and 165% of its energy savings goal, qualifying for a performance bonus as calculated under 16 TAC § 25.182 (e).

SWEPCO's calculated bonus is $5,428,621; however, the maximum bonus allowed is $975,673, which is 10% of the total net benefits (16 TAC § 25.182 (e) (3)).

	kW (Demand)	kWh (Energy)
2019 Goals	5,600	9,811,000
2019 Savings	11,832	16,232,989
Reported/Verified HTR	1,246	
2019 Program Costs (excluding bonus)	$3,974,816	
2019 Performance Bonus	$975,673	

Performance Bonus Calculation

211%	Percentage of Demand Reduction Goal Met (Reported kW/Goal kW)
165%	Percentage of Energy Reduction Goal Met (Reported kWh/Goal kWh)
TRUE	Met Requirements for Performance Bonus?
$14,590,870	Total Avoided Costs
$859,328	Docket No. 48297 requirement (add previous bonus to current year bonus calculation)
$4,834,144	Total Program Costs (including bonus)
$9,756,726	Net Benefits (Total Avoided Cost – Total Expenses)

Bonus Calculation

$5,428,621	Calculated Bonus [(Achieved Demand Reduction/Demand Goal - 100%) / 2 * Net Benefits]
$975,673	Maximum Bonus Allowed (10% of Net Benefits)
$975,673	*Bonus (Minimum of Calculated Bonus and Bonus Limit)*

Sponsored by: Debra A. Miller

SWEPCO 2021 EECRF
Docket No.
Schedule E

EECRF Customer Class	Rate Codes	2021 Budget a	2021 EM&V b	2019 Bonus c	2019 Outside Legal d	2019 O/U e	2019 & 2020 O/U Interest f	2021 EECRF Rev Req g=a+b+c+d+e+f	2021 Forecasted Billing Units h	2021 EECRF i=g/h	
Residential	12 15 16 19 61	$2,240,597	$19,496	$511,201	$6,663	($69,359)	($3,043)	$2,705,556	2,204,102,111	$0 001228	per kWh
General Service	200 204 205 207 208 210 212 215 218 224 281	$351,748	$7,475	$34,845	$1,046	($187,313)	($8,217)	$199,584	285,295,851	$0 000700	per kWh
Lighting & Power	60 63 66 240 243 246 249 251 277 291	$1,619,486	$34,417	$386,690	$4,816	($7,392)	($324)	$2,037,692	2,521,862,186	$0 000808	per kWh
Municipal Pumping	541 543 550 553	$23,100	$469	$2,251	$69	($11,208)	($492)	$14,189	62,998,535	$0 000225	per kWh
Municipal Service	544 548	$18,178	$369	$9,719	$54	$21,942	$963	$51,225	27,880,398	$0 001837	per kWh
Cotton Gin	253	$1,951	$38	$0	$6	($1,724)	($76)	$194	7,301,110	$0 000027	per kWh
Large Lighting & Power < 69kV	346 351	$0	$0	$0	$0	$6,010	$264	$6,274	-	$0 000000	per kWh
Metal Melting < 69kV	325 335 312	$17,186	$334	$30,967	$51	$115,057	$5,047	$168,642	45,767,989	$0 003685	per kWh
Oil Field Large Industrial Power	330 331	$95,238	$1,849	$0	$283	($38,540)	($1,691)	$57,139	279,587,389	$0 000204	per kWh
Lighting	90-143 203 521 528 529 532 534 535 538 539 739	$0	$0	$0	$0	($443)	($19)	($463)	79,446,606	$0 000000	per kWh
TOTAL		$4,367,484	$64,446	$975,673	$12,989	($172,971)	($7,588)	$5,240,033	5,514,242,175		

SOUTHWESTERN ELECTRIC POWER COMPANY

Tariff Manual - Public Utility Commission of Texas

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ENERGY EFFICIENCY COST RECOVERY RIDER

APPLICABILITY

Rider Energy Efficiency Cost Recovery Factor (EECRF) recovers the cost of energy efficiency programs not included in base rates and is applicable to the kWh of Retail Customers taking retail service from the Company. The EECRF does not apply to customers taking service at transmission voltage or exempt industrial distribution customers unless there is a true-up from a prior period. 16 Tex. Admin. Code 25.182(d)(8) provides that no later than May 1 of each year, a utility with an EECRF shall apply to adjust the EECRF in order to adjust for changes in costs and bonuses and to minimize any over- or under-collections of energy efficiency costs resulting from the use of the EECRF. The EECRF filed by May 1 of each year will be calculated in accordance with the following methodology and will be applied to the billing kWh billed by the Company.

AVAILABILITY

The following factors will be applied to the energy usage (metered or unmetered) of retail customers taking service from the Company.

MONTHLY RATE

Rate Schedule[1]	Rate Code[2]	Factor per kWh	
Residential	12,15,16,19,61	$0.001228	|I
General Service[3]	200,204,205,207,208, 210,212,215,218,224, 281	$0.000700	|R
Municipal Service	544,548	$0.001837	|R
Municipal Pumping	541,543,550,553	$0.000225	|I
Lighting and Power	60,63,66,240,243,246,249, 251,277,291	$0.000808	|I
Cotton Gin	253	$0.000027	|R
Metal Melting < 69 kV	325 335 312	$0.003685	|I
Oil Field Large Industrial Power	330 331	$0.000204	|R
Large Lighting and Power < 69 kV	346, 351	$0.000000	|R
Lighting	90-143,203,521,528,529,532,534, 535,538,739	$0.000000	

[1] Standby, Supplementary, Backup, Maintenance and As-Available Power Service are included with the Rate Schedule under which the customer takes service.

[2] Rate codes may be added or discontinued during the year. Any new rate code will be billed the EECRF rate based on the customer's applicable Rate Schedule.

[3] General Service includes Recreational Lighting.

SWEPCO 2021 EECRF
Schedule G Calculation of Cost Caps and Comparison to SWEPCO 2021 and 2019 EECRF without EM&V and Interest

2021 Cost Cap Rate Calculation	2020 Cost Cap Rate	CPI Factor	Unadjusted 2021 Cap Rate	Adj 2021 Cost Cap Rate
Classes for Cost Cap Determination	a	b	c	d=c+c*b
Residential	$ 0 001332	1 45%	$ 0 001332	$ 0 001351
Commercial	$ 0 000833	1 45%	$ 0 000833	$ 0 000845

2021 CAP STATUS	2021 SWEPCO EECRF Rev Req	EM&V and any O/U Interest in 2020/21	2021 SWEPCO EECRF Rev Req without EM&V & Interest	2021 Forecasted Billing Units	2021 SWEPCO EECRF Rate without EM&V & Interest for Cost	2021	2021 Cap Status
SWEPCO Classes for Cost Cap Comparison	Schedule E	and 2019 O/U	for Cost Cap Comparison	Schedule E	Cap Comparison	Cost Cap Rate	Over/(Under)
	e	f	g=e-f	h	i=g/h	j=d	k=i-j
Residential	$ 2,705,556	$ 29,508	$ 2,676,048	2,204,102,111	$ 0 001214	$ 0 001351	$ (0 000137)
Non-Residential	$ 2,534,477	$ 27,894	$ 2,506,584	3,230,693,458	$ 0 000776	$ 0 000845	$ (0 000069)
Total	$ 5,240,033	$ 57,402	$ 5,182,632	5,434,795,569			

2019 CAP STATUS	2019 Energy	EM&V and any O/U Interest included in col 1	2019 Costs without EM&V and	2019 Billing	2019 Energy Efficiency Spend Rate without	2019	2019 Cap Status
SWEPCO Classes for Cost Cap Comparison	Efficiency Costs	in 2019 and 2017 O/U	Interest for Cost Cap Comparison	Units	EM&V and Interest	Cost Cap Rate	Over/(Under)
	l	m	n=l-m	o	p=n/o	q	r=p-q
Residential	$ 2,684,552	$ 33,766	$ 2,650,785	2,153,629,761	$ 0.001231	$ 0 001303	$ (0 000072)
Non-Residential	$ 2,362,228	$ 30,680	$ 2,331,548	3,117,551,271	$ 0 000748	$ 0 000815	$ (0 000067)
Total	$ 5,046,779	$ 64,446	$ 4,982,333	5,271,181,032			

Note Cap rates calculated per 16 TAC §25 182 (d)(7)

Southwestern Electric Power Company
Adjusted Energy Efficiency Cost Recovery Factor Filing

Schedule H

SWEPCO 2021 EECRF
Schedule H Forecasted Billing Units

SWEPCO Texas Projected 2021 Retail kWh Sales	7,376,232,653

Development of Forecasted Billing Units

Rate Classes	2019 Historical Billing Units	Percent of Class kWh	Percent of Total kWh	2021 Forecasted Billing Unit	Unit	Customer kWh Adjustment (2021 Opt Out Forecast, Lighting & Exempt Transmission)	2021 Adjusted kWh (Excludes Opt Out, Trans , Lights)	Docket No 46449 Test Year Adjusted kWh
Total Residential Rate Class	2,153,629,761	100 00%	29 88%	2,204,102,111			2,204,102,111	2,139,784,705
Commercial Rate Class								
General Service	273,791,492	8 59%	3 80%	280,208,055	kWh	469,315	279,738,740	277,178,599
Lighting & Power Service Secondary	2,186,126,792	68 57%	30 33%	2,237,360,741	kWh	139,227,285	2,098,133,456	2,258,610,324
Lighting & Power Service Primary	626,829,029	19 66%	8 70%	641,519,360	kWh	217,790,630	423,728,730	562,525,260
Municipal Pumping Service	61,555,914	1 93%	0 85%	62,998,535	kWh		62,998,535	61,874,105
Municipal Service	27,241,957	0 85%	0 38%	27,880,398	kWh		27,880,398	26,412,301
Recreational Lighting	5,429,857	0 17%	0 08%	5,557,111	kWh		5,557,111	include in GS
Cotton Gin Service	7,133,920	0 22%	0 10%	7,301,110	kWh		7,301,110	6,505,400
Total Commercial Rate Class	3,188,108,961	100 00%	44 23%	3,262,825,310		357,487,230	2,905,338,080	3,193,105,989
Industrial Rate Class								
Large Lighting & Power Service - Pri	0	0 00%	0 00%	-	kWh		-	33,619,200
Large Lighting & Power Service - Pri Sub	166,278,463	27 58%	2 31%	170,175,356	kWh	170,175,356	-	182,979,442
Interruptible Power Service	0	0 00%	0 00%	-	kWh		-	0
Metal Melting Service Distribution	46,760,121	7 75%	0 65%	47,855,989	kWh	2,088,000	45,767,989	51,696,424
Oil Field Large Power Service	389,943,303	64 67%	5 41%	399,081,993	kWh	119,494,604	279,587,389	420,097,153
Total Industrial Rate Class	602,981,887	100 00%	8 37%	617,113,338		291,757,960	325,355,378	688,392,219
Industrial 69 kV & Above								
Metal Melting Service 69 kV & Above	300,710,768	25 38%	4 17%	307,758,209	kWh	307,758,209	-	14,908,789
Large Lighting & Power Service - 69 kV	125,507,091	10 59%	1 74%	128,448,468	kWh	128,448,468	-	140,318,481
Large Lighting & Power Service - 138 kV	656,579,377	55 41%	9 11%	671,966,936	kWh	671,966,936	-	746,364,244
Lighting & Power Service Transmission	34,681,059	2 93%	0 48%	35,493,842	kWh	35,493,842	-	31,615,085
Interruptible Power Service	67,496,000	5 70%	0 94%	69,077,833	kWh	69,077,833	-	included in non-firm
Special Contract	0	0 00%	0 00%	-	kWh	-	-	0
Total Industrial Excluding 69 kV & Above	1,184,974,295	100 00%	16 44%	1,212,745,288	kWh	1,212,745,288	-	933,206,599
Lighting Rate Class								
Total Lighting Rate Class	77,627,336	100 00%	1 08%	79,446,606	kWh	79,446,606	-	78,061,204
Total SWEPCO	7,207,322,240		100 00%	7,376,232,653		1,941,437,084	5,434,795,569	7,032,550,716

Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

Schedule I

2021 SWEPCO EECRF
Amount of Energy Efficiency Costs Recovered Through Base Rates

The amount of energy efficiency program costs recovered through SWEPCO's base rates is zero.

Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

SCHEDULE J

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 provided in Schedule J is HIGHLY SENSITIVE PROTECTED MATERIALS 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.

Sponsored by: Debra A. Miller and Steve M. Mutiso

Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

SCHEDULE K

2019 Energy Efficiency Administrative & Research & Development (R&D)
Affiliate Costs

For 2019 SWEPCO does not have any affiliate costs for energy efficiency administration or R&D.

Sponsored by: Debra A. Miller

Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

Schedule L

Bidding and Engagement Process

SWEPCO has several procedural paths through which it contracts with energy efficiency service providers (EESPs) for the purpose of implementing energy efficiency (EE) programs. The procedures and processes SWEPCO uses differ according to the program type, as shown in more detail below.

Standard Offer Program (SOP) Process

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

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

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

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

SWEPCO and the Residential Project Sponsor enter into a standard offer agreement. When the contract is fully executed , the Project Sponsor can solicit and engage customers to implement eligible EE measures.

Sponsored by: Steve M. Mutiso

Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

Schedule L

Bidding and Engagement Process

Market Transformation Program (MTP) Process

Before implementing MTP programs, SWEPCO may implement a limited pilot of the program. 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 SWEPCO deems viable, SWEPCO selects the initiating EESP to implement the program on a limited pilot basis for a period typically not longer than one year.

When a pilot program has been deemed successful by SWEPCO and a baseline study has been completed, SWEPCO implements a competitive solicitation process. A Request for Proposals (RFP) is developed and sent to EESPs who have notified SWEPCO of a desire to implement programs in the Texas market and have also posted on industry-related websites.

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

Sponsored by: Steve M. Mutiso

Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

SCHEDULE M

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*

Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

SCHEDULE M

Sector	TRM Measure	Energy Efficiency Measure	EUL (years)	*TRM Version*
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*
Commercial	2 2 6	Condenser Air Evaporative Pre-Cooling	15 0	*6 0*
Commercial	2 3.1	Comm Energy Star Roofs	15 0	*6 0*
Commercial	2 3 2	Comm Window Film	10 0	*6 0*
Commercial	2 3 3	Entrance and Exit Door Air Infiltration	11 0	*6 0*
Commercial	2 4 1	Comm High Efficiency Combination Ovens	12 0	*6 0*
Commercial	2 4 2	Comm High Efficiency Electric Convention Ovens	12 0	*6 0*
Commercial	2 4.3	Comm Energy Star Commercial Dishwashers	11 0	*6 0*
Commercial	2.4 4	Comm Hot Food Holding Cabinets	12 0	*6 0*
Commercial	2 4 5	Comm Energy Star Electric Fryers	12 0	*6 0*
Commercial	2 4 6	Comm Pre-Rinse Spray Valves	5 0	*6 0*
Commercial	2 4 7	Comm Energy Star Electric Steam Cookers	12 0	*6 0*
Commercial	2 5 1	Comm Door Heater Controls	12 0	*6 0*
Commercial	2 5 2	Comm ECM Evaporator Fan Motor	15 0	*6 0*
Commercial	2 5 3	Comm Electronic Defrost Controls	10 0	*6 0*
Commercial	2 5 4	Comm Evaporator Fan Controls	16 0	*6 0*
Commercial	2 5 5	Comm Night Covers for Open Refrigerated Display Cases	5 0	*6 0*
Commercial	2 5 6	Comm Solid and Glass Door Reach-Ins	12 0	*6 0*
Commercial	2 5 7	Comm Strip Curtains for Walk-In Refrigerated Storage	4 0	*6 0*
Commercial	2 5 8	Comm Zero Energy Doors for Refrigerated Cases	12 0	*6 0*
Commercial	2 5 9	Door Gaskets for Walk-in and Reach-in Coolers and Freezers	4 0	*6 0*
Commercial	2 6 1	Comm Vending Machine Controls	5 0	*6 0*
Commercial	2 6 2	Comm Lodging Guest Room Occupancy Sensor Controls	10 0	*6 0*
Commercial	2 6 3	Comm Pump-Off Controller	15 0	*6 0*
Commercial	2 6 4	Energy Star Pool Pumps	10 0	*6 0*
Measurement	2 1 1	M&V AC Tune-Up	5 0	*6 0*
Measurement	2 1 2	M&V Ground Source HP	15 0	*6 0*
Measurement	2 1 3	Variable Refrigerant Flow Systems	15 0	*6 0*
Measurement	2 2 1	New Homes	23 0	*6 0*
Measurement	2 3 1	Nonresidential Solar PV	30.0	*6 0*
Measurement	2 3 2	Res Solar PV	30 0	*6 0*
Measurement	2 3 3	Solar Shingles	N/A	*6 0*
Measurement	2 4 1	Behavioral Measure Overview	1 0	*6 0*
Measurement	2 4 2	Air Compressors less than 75 hp	10 0	*6 0*
Measurement	2 4 3	Commercial Retro-Commissioning	5 0	*6 0*
Measurement	2 5 1	Res Load Curtailment	1 0	*6 0*
Measurement	2 5 2	Nonresidential Load Curtailment	1 0	*6 0*

Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

Schedule N

2021 Projected Energy Efficiency Goals and Objectives

Calendar Year	Average Growth in Demand (MW)	Average Peak Demand (MW)	Goal Metric: 30% Growth (MW)	Goal Metric: 0.4 of 1% Peak Demand (MW)	Peak Demand Goal (MW) [1]	Energy Savings Goal (MWh)	Projected Demand Reduction (MW) [2]	Projected Energy Savings (MWh) [2]
2021	-0.78	1,220	-0.23	4.88	5.60	9,811	10.35	15,012

[1] SWEPCO's 2021 Demand Reduction Goal is based on 16 TAC § 25.181 (e)(1)(E) which states that, Except as adjusted in accordance with subsection (w) of this section, a utility's demand reduction goal in any year shall not be lower than its goal for the prior year.

[2] Please see p. 8-11 of SWEPCO witness Mutiso's testimony for an explanation of how the Projected Demand Reduction and Energy Savings Targets were determined.

Sponsored by: Steve M. Mutiso

Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

SCHEDULE O

2021 Projected Energy Efficiency Objectives

2021		
Customer Class and Program	**Projected Demand Reduction (MW)**	**Projected Energy Savings (MWh)**
Commercial		
Commercial Solutions MTP	0.49	2,112
Commercial SOP	0.94	4,909
Load Management SOP	5.00	65
Open MTP	0.25	1,029
SCORE MTP	0.49	2,112
Residential		
Residential SOP	2.12	3,238
Hard-to-Reach		
Hard-to-Reach SOP	1.06	1,546
Total Annual Projected Savings	**10.35**	**15,012**

Sponsored by: Steve M. Mutiso

Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

SCHEDULE P

2019 Energy Efficiency Programs' Cost - Net Benefit Ratio

2019	Savings		Costs	Benefits				Benefit-Cost Ratio
Customer Class and Program	kW	kWh	Total Program Costs	Avoided Capacity Costs	Avoided Energy Costs	Total Avoided Cost	Net Benefits	
Commercial	**8,450**	**10,479,307**	**$ 2,305,484**	**$ 2,203,542**	**$ 5,373,772**	**$ 7,577,314**	**$ 5,271,830**	**3.29**
Commercial Solutions MTP	455	2,144,146	$ 425,185	$ 375,996	$ 1,125,208	$ 1,501,204	$ 1,076,019	3.53
Commercial SOP	916	5,197,934	$ 836,251	$ 756,878	$ 2,728,455	$ 3,485,333	$ 2,649,082	4.17
Load Management SOP	6,319	57,724	$ 250,319	$ 481,088	$ 2,793	$ 483,881	$ 233,562	1.93
Open MTP	253	1,035,301	$ 341,596	$ 194,445	$ 504,210	$ 698,655	$ 357,059	2.05
SCORE MTP	506	2,044,202	$ 452,134	$ 395,135	$ 1,013,106	$ 1,408,241	$ 956,107	3 11
Residential	**2,136**	**3,774,072**	**$ 1,479,677**	**$ 2,098,479**	**$ 2,345,425**	**$ 4,443,905**	**$ 2,964,228**	**3.00**
Residential SOP	2,136	3,774,072	$ 1,479,677	$ 2,098,479	$ 2,345,425	$ 4,443,905	$ 2,964,228	3.00
Hard-to-Reach	**1,246**	**1,979,610**	**$ 1,036,001**	**$ 1,261,459**	**$ 1,308,192**	**$ 2,569,651**	**$ 1,533,650**	**2.48**
Hard-to-Reach SOP	1,246	1,979,610	$ 1,036,001	$ 1,261,459	$ 1,308,192	$ 2,569,651	$ 1,533,650	2.48
Total	**11,832**	**16,232,989**	**$ 4,821,163**	**$ 5,563,481**	**$ 9,027,389**	**$14,590,870**	**$ 9,769,707**	**3.03**

Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

Schedule Q

2021 SWEPCO EECRF
Line Losses Used in the EECRF Calculation

2016 SWEPCO Line Loss Study (using 2014 test period) from Docket 46449
Energy (kWh)

Voltage	Factor
Transmission	1.01848
Subtransmission	1.03097
Primary Sub	1.02995
Primary	1.03958
Secondary	1.07339

Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

SCHEDULE R

2021 Energy Efficiency Programs

PROGRAM	CUSTOMER CLASS	DESCRIPTION
Commercial Solutions Market Transformation Program	Commercial	Provides energy efficiency and demand reduction solutions for commercial customers identified as having a need for energy efficiency improvements but needing support from an outside source. Facilitates the identification of actual demand and energy savings, opportunities, general operating characteristics; long-range energy efficiency planning, and overall measure acceptance by the targeted customers. Incentives are paid to customer participants for certain measures installed in new or retrofit applications, which provide verifiable demand and energy savings.
Commercial Standard Offer Program	Commercial	Provides incentives for new construction and retrofit installation of measures that reduce customer energy costs, reduce peak demand and save energy in non-residential facilities. Customers have installed such eligible measures as lighting retrofits, new or replacement HVAC systems, high efficiency commercial refrigeration measures, and other similar technologies. Incentives are paid to third-party project sponsors on the basis of deemed savings or verified peak demand and energy savings using the International Performance Measurement and Verification Protocol.
Hard-to-Reach Standard Offer Program	Residential	Targets a specific subset of residential customers as defined by P.U.C. SUBST. R. §25.181(c)(27). The hard-to-reach customer has a total household income that is less than 200% of the federal poverty guidelines. Provides incentives to project sponsors for the installation of eligible measures that result in verifiable demand and energy savings. Eligible measures include replacement air conditioners, smart thermostats, wall and ceiling insulation and air distribution duct improvements in existing homes.
Load Management Standard Offer Program	Commercial	Targets commercial customers that have a minimum demand of 500 kW or more. Incentives are paid to project sponsors to reduce peak electric load on one-hour-ahead notice for load reduction periods of one to four hours duration. These payments are based on the delivery of metered demand reduction.

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Southwestern Electric Power Company
Energy Efficiency Cost Recovery Factor

SCHEDULE R

2021 Energy Efficiency Programs

Schools Conserving Resources Market Transformation Program	Commercial	The SCORE MTP provides energy efficiency and demand reduction solutions for public and private educational entities grades K-12 as well as colleges and universities. The program assists with the identification of demand and energy savings opportunities, provides detailed energy use, detailed building operational characteristics, and provides long-range energy efficiency planning. Incentives are paid to participating customers for eligible energy efficiency measures that are installed in new or retrofit applications that provide verifiable demand and energy savings.
Open MTP	Commercial	Targets small commercial customers with peak demands less than 100 kW. Designed to overcome barriers that prevent them from participating in energy efficiency programs proven to be successful for larger business owners. The program will offer a "turnkey" approach in which marketing, energy education, site-specific energy analyses, financial incentives, equipment procurement, and installation can be provided.
Residential Standard Offer Program	Residential	Provides incentives for the installation of a wide range of measures that reduce residential customer energy costs and reduce peak demand and to encourage private sector delivery of energy efficient products and services. Incentives are paid to project sponsors for eligible measures installed in new and retrofit applications on the basis of deemed savings. Eligible measures include replacement air conditioners, smart thermostats, wall and ceiling insulation and air distribution duct improvements.

Sponsored by: Steve M. Mutiso

Southwestern Electric Power Company

2020 Energy Efficiency Plan and Report

16 Tex. Admin. Code §§ 25.181, 25.182 and 25.183

Amended May 1, 2020

Project No. 50666

SOUTHWESTERN ELECTRIC POWER COMPANY

An AEP Company

BOUNDLESS ENERGY™

TABLE OF CONTENTS

INTRODUCTION

Southwestern Electric Power Company (SWEPCO or Company) presents this Energy Efficiency Plan and Report (EEPR) to comply with 16 Tex. Admin. Code §§ 25.181, 25.182 and 25.183 (TAC) (EE Rule), implementing Public Utility Regulatory Act (PURA) § 39.905. As mandated by this section of PURA, the EE Rule requires that each investor-owned electric utility achieve the following minimum goals through market-based standard offer programs (SOPs), targeted market transformation programs (MTPs) or other utility self-delivered programs. 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.

(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 electric utilities must administer their portfolio of energy efficiency programs in order to achieve their mandated annual demand reduction goals. SWEPCO's Plan enables it to meet its statutory goals through implementation of energy efficiency programs in a manner that complies with PURA §39.905 and the EE Rule. This EEPR covers the periods of time as required in the EE Rule. The following section describes the information that is contained in each of the subsequent sections and appendices.

EEPR ORGANIZATION

This EEPR consists of an Executive Summary, thirteen sections, a list of acronyms and three appendices.

Executive Summary

- Summarizes SWEPCO's plans for achieving its goals and projected energy efficiency savings for Program Years 2020 and 2021 and highlights SWEPCO's achievements for Program Year 2019.

Energy Efficiency Plan

- Section I describes SWEPCO's program portfolio. It details how each program will be implemented and presents related informational and outreach activities.
- Section II explains SWEPCO's targeted customer classes and describes the estimated size of each class and the method used in determining those class sizes.
- Section III presents SWEPCO's demand and energy goals and projected savings for the prescribed planning period detailed by program for each customer class.
- Section IV describes SWEPCO's proposed energy efficiency budgets for the prescribed planning period detailed by program for each customer class.

Energy Efficiency Report

- Section V documents SWEPCO's demand reduction goal for each of the previous five years (2015-2019) based on its weather-adjusted peak demand.
- Section VI compares SWEPCO's projected energy and demand savings to its reported and verified savings by program for calendar years 2018 and 2019.
- Section VII details SWEPCO's incentive and administration expenditures for each of the previous five years (2015-2019) detailed by program for each customer class.
- Section VIII compares SWEPCO's actual 2019 expenditures with its 2019 budget by program for each customer class. It identifies funds committed but not expended and funds remaining and not committed. It also explains any cost deviations of more than 10% from SWEPCO's overall program budget.
- Section IX describes the results from SWEPCO's MTPs.
- Section X documents SWEPCO's Research and Development activities.
- Section XI documents SWEPCO's 2020 Energy Efficiency Cost Recovery Factor (EECRF).
- Section XII provides a summary of the 2019 EECRF.
- Section XIII documents SWEPCO's Underserved Counties.

Acronyms

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

Appendices

- Appendix A – Reported and Verified Demand and Energy Reduction by County.
- Appendix B – Program Templates.
- Appendix C – Optional Supporting Documentation.

EXECUTIVE SUMMARY

The Energy Efficiency Plan (Plan) portion of this EEPR discusses how SWEPCO intends to achieve savings of at least a 30% reduction in its annual growth in demand of residential and commercial customers by December 31, 2020. SWEPCO's Plan addresses achieving the corresponding calculated energy savings goal, which is derived from its demand savings goal each year using a 20% conservation load factor [16 TAC § 25.181(e)(4)]. The goals, budgets and implementation procedures that are included in this Plan are consistent with the requirements of the EE Rule, using lessons learned from past experience and customer participation in the various historical energy efficiency programs. A summary of SWEPCO's projected annual goals and budgets is presented in Table 1.

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

Calendar Year	Average Growth in Demand (MW)	Average Peak Demand (MW)	Goal Metric: 30% Growth (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)*
2020	-1.51	1,221	-0.45	4.88	5.60	9,811	10.35	15,012	$4,432
2021	-0.78	1,220	-0.23	4.88	5.60	9,811	10.35	15,012	$4,432**

***The 2020 and 2021 Projected Budgets include costs associated with Evaluation, Measurement & Verification (EM&V) activities.**
****The 2021 projected EM&V budget matches actual EM&V expenses incurred in calendar year 2019 for review of the 2018 program year. The 2021 projected EM&V budget is only a projection and actual costs may differ.**

The Energy Efficiency Report portion demonstrates that in 2019 SWEPCO cost-effectively implemented SOPs and MTPs as provided for by PURA §39.905. SWEPCO exceeded its demand and energy reduction goals to be achieved by December 31, 2019 by procuring 11,832 kW and 16,232,989 kWh at a total cost of $3,961,282. Programs in 2019 included the Commercial Solutions MTP, Commercial SOP, Hard-to-Reach SOP, Load Management SOP, On-Line Home Energy Checkup, Residential SOP, Schools Conserving Resources MTP, and the Open MTP.

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

ENERGY EFFICIENCY PLAN

I. 2020 PROGRAMS

A. 2020 Program Portfolio

SWEPCO has implemented a variety of programs in 2020 to enable the Company 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 below summarizes SWEPCO's programs and targeted customer class markets for Program Year 2020. The programs are described in further detail in Subsection D. SWEPCO maintains a website containing all of the requirements for energy efficiency service provider (EESP) or project sponsor participation; the Energy Efficiency Evaluation, Measurement & Verification (EM&V) guidelines; and links to the program manuals in the Contractor Center at SWEPCO.com/Save. This site is the primary method of communication to provide program updates and information to customers, potential EESPs and other interested parties.

Table 2: 2020 Energy Efficiency Program Portfolio

Program	Target Market	Application	Link to Program Manual
Commercial Solutions MTP	Commercial	Retrofit/New Construction	https://swepco.com/save/residential/programs/ContractorCenter.aspx
Commercial SOP	Commercial	Retrofit/New Construction	https://swepco.com/save/residential/programs/ContractorCenter.aspx
Hard-to-Reach SOP	Low-Income Residential	Retrofit	https://swepco.com/save/residential/programs/ContractorCenter.aspx
Load Management SOP	Commercial	Retrofit	https://swepco.com/save/residential/programs/ContractorCenter.aspx
Online Energy Checkup	Residential	Education	https://swepco.com/save/residential/calculate/?state=TX
Open MTP	Commercial	Retrofit	https://swepco.com/save/residential/programs/ContractorCenter.aspx
Residential SOP	Residential	Retrofit/New Construction	https://swepco.com/save/residential/programs/ContractorCenter.aspx
SCORE MTP	Commercial	Retrofit/New Construction	https://swepco.com/save/residential/programs/ContractorCenter.aspx

B. Implementation Process

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

SOPs are administered by the utility with project sponsors providing eligible program measures. Project sponsors are usually EESPs or SWEPCO customers. A SWEPCO customer can act as an EESP if it is a commercial customer with a peak load equal to or greater than 50 kW. SWEPCO monitors projects being submitted so as to not accept duplicate enrollments.

C. Outreach Activities

Various outreach activities are conducted, depending on the targeted program. Many of these activities are the same for several programs. For this reason, SWEPCO's outreach activities are grouped together below.

- Maintain internet webpages with detailed project eligibility, end-use measures, incentives, procedures and application forms;
- Send direct emails to inform and update potential project sponsors on SWEPCO energy efficiency program opportunities;
- Participate in local, regional and industry-related outreach activities as necessary;
- Target SWEPCO customers with demand and energy savings opportunities;
- Conduct workshops, as necessary, to explain the program, project sponsor implementation, reporting requirements and incentive information;
- Contract with a third-party implementer to conduct outreach, planning activities and recruit additional subcontractors;
- Conduct specific project sponsor training sessions, as necessary, based on the energy efficiency programs being implemented; and
- Facilitate media opportunities to spotlight successful projects and/or interesting stories as applicable.

Additional outreach activities occur as the opportunity arises.

D. Description of Existing Programs

Commercial Solutions Market Transformation Program (CS MTP)

SWEPCO's CS MTP targets commercial customers (other than public schools) served by SWEPCO that do not have the in-house capability or 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. The CS MTP facilitates the identification of demand and energy savings opportunities, general operating characteristics, long-range energy efficiency planning and overall measure acceptance by the targeted customers. Incentives are paid to EESPs or 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 (other than public schools) of all sizes, providing incentives for new construction and retrofit installation of measures that reduce demand and save energy in non-residential facilities. The CSOP encourages electric energy efficiency improvements that go above and beyond the efficiency gains typically achieved in retrofit or replacement projects. Energy and demand savings will be based only on reductions that exceed current state and federal minimum efficiency standards, if such standards apply. Incentives are paid to EESPs or customers on the basis of deemed savings or verified demand and energy savings.

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

The HTR SOP targets residential customers in existing homes with total annual household incomes at or below 200% of current federal poverty guidelines and who have properly completed a Public Utility Commission of Texas (PUCT) approved income verification form, or who have been designated as HTR-eligible through another PUCT-approved verification methodology. Incentives are paid to project sponsors for eligible measures installed in retrofit applications that result in verifiable demand and energy savings. Project comprehensiveness is encouraged and customer education regarding energy conservation behavior is provided through materials distributed by project sponsors.

Load Management Standard Offer Program (LM SOP)

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

Online Home Energy Checkup (Home Energy Checkup)

The Home Energy Checkup is designed to provide a web-based, do-it-yourself home energy audit that equips residential customers with valuable information to help them manage their energy use and cost. The tool provides functionality that produces a printer-friendly report that:

- Factors in weather and local electricity prices;
- Uses the customer's actual historic energy usage in savings calculations;
- Estimates monthly and annual energy usage and costs; and
- Provides customized energy saving recommendations and potential savings for implemented measures.

At this time, it is not anticipated that SWEPCO will report savings associated with the use of this Home Energy Checkup.

Open Market Transformation Program (Open MTP)

The Open MTP has been developed to offer energy efficiency services to small commercial customers with peak demands less than 100 kW. This customer group is the segment least served by SWEPCO's SOPs or MTPs. The Open MTP is designed to overcome barriers unique to small commercial customers that prevent them from participating in energy efficiency programs proven to be successful for larger business owners. These barriers include:

- Minimal technical knowledge among small business owners;
- Concerns about performance uncertainty and hidden costs;
- Owner/tenant challenges;
- Lack of capital, expertise and staff; and
- Adequate information or the ability to research costs.

To overcome these barriers, the program offers a turnkey approach in which marketing, energy education, site-specific energy analysis, financial incentives, equipment procurement and installation can be provided.

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:

- Photos of gauges showing the existing unit in full functional status;
- The age of the existing unit;
- Photo of the existing unit nameplate;
- Model number, serial number and manufacturer 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.

Schools Conserving Resources Market Transformation Program (SCORE MTP)

The SCORE MTP provides energy efficiency and demand reduction solutions for public and private educational entities grades K-12 as well as colleges and universities. This program is designed to help educate and assist these customers in lowering their energy use by integrating energy efficiency into their short- and long-term planning, budgeting and operational practices. The program assists with the identification of demand and energy savings opportunities, and provides detailed energy use, detailed building operational characteristics and long-range energy efficiency planning. Incentives are paid to participating customers for eligible energy efficiency measures that are installed in new or retrofit applications that provide verifiable demand and energy savings.

E. New Programs for 2020

SWEPCO has no new programs for 2020.

F. Discontinued Programs

SWEPCO has no discontinued programs for 2020.

II. CUSTOMER CLASSES

SWEPCO's energy efficiency programs target residential and commercial customer classes. SWEPCO's energy efficiency programs also target customer sub-classes, including Low-Income and Schools. 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)(A). Table 3 summarizes the number of active customers in each eligible customer class at SWEPCO in the month of January 2020. It should be noted that the actual distribution of the annual goal to be achieved 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 SWEPCO's mandated demand reduction goal in total. SWEPCO offers a varied portfolio of SOPs and MTPs such that all eligible customer classes have access to energy efficiency alternatives.

Table 3: Summary of Customer Classes

Customer Class	Number of Customers
Commercial	30,149
Residential	164,264
Hard-to-Reach*[2]	54,371

* The Hard-to-Reach customer count is a subset of the Residential total.

[2] 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 SWEPCO's residential customer base of 164,264, the number of HTR customers is estimated to be 54,371.

III. ENERGY EFFICIENCY GOALS AND PROJECTED SAVINGS

As prescribed by the EE Rule, SWEPCO's annual demand reduction goal is specified as a percent of its historical, weather-normalized, five-year average growth in demand. SWEPCO's 2020 goal is calculated based upon the average annual growth in peak demand for the years 2014 through 2018, inclusive (the most recent historical load growth data available). SWEPCO's 2021 goal is calculated based upon the average annual growth in peak demand for the years 2015 through 2019, inclusive (the most recent historical load growth data available).

SWEPCO's demand reduction goal to be achieved is prescribed by the EE Rule to be at least 30% of this calculated annual growth in demand of residential and commercial customers. The corresponding annual energy savings goal is determined by applying a 20% conservation load factor to the applicable demand reduction goal for the Program Year. A utility's demand reduction goal in megawatts for any year cannot be less than the previous year's goal.

Table 4 presents the actual historical annual growth in demand for the previous five years used to calculate SWEPCO's goals.

Table 4: Annual Growth in Demand and Energy Consumption

Calendar Year	Peak Demand (MW) @ Source						Energy Consumption (GWh) @ 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	Load Growth at Meter	5 Year Average Growth at Meter	30% Growth at Meter
2014	1,511	1,626	1,328	1,442	-106	1,336	7,798	7,823	5,505	5,530	1,234	7.39	NA	NA
2015	1,607	1,579	1,428	1,399	-118.06	1,281	7,893	7,844	5,896	5,847	1,183	-50.86	NA	NA
2016	1,488	1,543	1,411	1,466	-109.12	1,357	7,076	7,067	5,302	5,294	1,253	70.15	NA	NA
2017	1,417	1,551	1,284	1,418	-102	1,316	7,142	7,191	5,280	5,329	1,216	-37.76	NA	NA
2018	1,488	1,543	1,363	1,417	-97	1,320	7,378	7,291	5,488	5,401	1,219	3.51	NA	NA
2019	1,470	1,574	1,329	1,432	-100	1,332	7,233	7,224	5,431	5,421	1,230	11.08	-12.19	-3.66
2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-1.51	-0.45
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.78	-0.23

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

Table 5 presents the projected demand reduction and energy savings, by program, for each customer class and for each of the years 2020 and 2021. Projected savings reflect the estimated demand and energy savings that SWEPCO's programs are expected to achieve with fully developed program budgets for each of the years shown.

Table 5: Projected Demand and Energy Savings by Program for Each Customer Class For 2020 and 2021 (at the Meter)

2020	Projected Savings	
Customer Class and Program	**Demand (kW)**	**Energy (kWh)**
Commercial	**7,173**	**10,228,233**
Commercial Solutions MTP	490	2,112,275
Commercial SOP	942	4,909,354
Load Management SOP	5,000	65,229
Open MTP	251	1,029,100
SCORE MTP	490	2,112,275
Residential	**2,122**	**3,237,760**
Residential SOP	2,122	3,237,760
Hard-to-Reach	**1,057**	**1,545,630**
Hard-to-Reach SOP	1,057	1,545,630
Total Annual Projected Savings	**10,352**	**15,011,623**

2021	Projected Savings	
Customer Class and Program	**Demand (kW)**	**Energy (kWh)**
Commercial	**7,173**	**10,228,233**
Commercial Solutions MTP	490	2,112,275
Commercial SOP	942	4,909,354
Load Management SOP	5,000	65,229
Open MTP	251	1,029,100
SCORE MTP	490	2,112,275
Residential	**2,122**	**3,237,760**
Residential SOP	2,122	3,237,760
Hard-to-Reach	**1,057**	**1,545,630**
Hard-to-Reach SOP	1,057	1,545,630
Total Annual Projected Savings	**10,352**	**15,011,623**

IV. PROGRAM BUDGETS

Table 6 presents total projected budget allocations required to meet SWEPCO's projected demand and energy savings to be achieved for the Program Years 2020 and 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, the allocation of demand goals among customer classes and the incentive levels by customer class. Table 6 budget allocations are detailed by customer class, program and in the following budget categories: incentive payments; administration; research and development (R&D); and evaluation, measurement and verification (EM&V).

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

2020	Incentives	Admin	R&D & EM&V	Total Budget
Commercial	**$1,770,000**	**$296,014**	**$0**	**$2,066,014**
Commercial Solutions MTP	$310,000	$54,706		$364,706
Commercial SOP	$650,000	$114,706		$764,706
Load Management SOP	$250,000	$44,118		$294,118
Open MTP	$250,000	$27,778		$277,778
SCORE MTP	$310,000	$54,706		$364,706
Residential	**$1,150,000**	**$202,941**	**$0**	**$1,352,941**
Residential SOP	$1,150,000	$202,941		$1,352,941
Hard-to-Reach	**$700,000**	**$123,529**	**$0**	**$823,529**
Hard-to-Reach SOP	$700,000	$123,529		$823,529
Research and Development (R&D)			**$125,000**	**$125,000**
TOTAL PROGRAM BUDGET	**$3,620,000**	**$622,484**	**$125,000**	**$4,367,484**
EM&V			**$64,991**	**$64,991**
TOTAL BUDGET	**$3,620,000**	**$622,484**	**$189,991**	**$4,432,475**

2021	Incentives	Admin	R&D & EM&V	Total Budget
Commercial	**$1,770,000**	**$296,014**	**$0**	**$2,066,014**
Commercial Solutions MTP	$310,000	$54,706		$364,706
Commercial SOP	$650,000	$114,706		$764,706
Load Management SOP	$250,000	$44,118		$294,118
Open MTP	$250,000	$27,778		$277,778
SCORE MTP	$310,000	$54,706		$364,706
Residential	**$1,150,000**	**$202,941**	**$0**	**$1,352,941**
Residential SOP	$1,150,000	$202,941		$1,352,941
Hard-to-Reach	**$700,000**	**$123,529**	**$0**	**$823,529**
Hard-to-Reach SOP	$700,000	$123,529		$823,529
Research and Development (R&D)			**$125,000**	**$125,000**
TOTAL PROGRAM BUDGET	**$3,620,000**	**$622,484**	**$125,000**	**$4,367,484**
EM&V			**$64,446**[3]	**$64,446**[3]
TOTAL BUDGET	**$3,620,000**	**$622,484**	**$189,446**	**$4,431,930**

[3] The projected 2021 EM&V budget shown in Table 6 above matches the actual EM&V expenses incurred in calender year 2019 for review of the 2018 program year. This projected 2021 EM&V budget is only a projection and actual costs may differ.

ENERGY EFFICIENCY REPORT

V. HISTORICAL DEMAND AND ENERGY SAVINGS GOALS FOR THE PREVIOUS FIVE YEARS

Table 7 contains SWEPCO's actual demand and energy goals, and actual savings achieved for the previous five years (2015-2019) calculated in accordance with the EE Rule.

Table 7: Historical Demand and Energy Goals* and Savings Achieved

Calendar Year	Actual Weather Adjusted Demand Goal (MW)	Actual Weather Adjusted Energy Goal (MWh)	Savings Achieved (MW)	Savings Achieved (MWh)
2015	5.6	9,811	9.86	15,262
2016	5.6	9,811	11.94	20,648
2017	5.6	9,811	13.63	18,875
2018	5.6	9,811	13.97	17,084
2019	5.6	9,811	11.83**	16,233

* Actual weather-adjusted MW and MWh goals as reported in SWEPCO's EEPRs filed in years 2015-2019.

** Reported savings achieved at the source are 11.83 MW ($11.83 \times \frac{1}{(1-7.33\%)}$) = 12.77 MW.

VI. PROJECTED, REPORTED AND VERIFIED DEMAND AND ENERGY SAVINGS

Table 8: Projected versus Reported and Verified Savings for 2019 and 2018 (at the Meter)

2019	Projected Savings		Reported and Verified Savings	
Customer Class and Program	**kW**	**kWh**	**kW**	**kWh**
Commercial	**7,064**	**9,699,879**	**8,467**	**10,605,507**
Commercial Solutions MTP	490	2,112,775	455	2,144,146
Commercial SOP	833	4,380,000	916	5,197,934
Load Management SOP	5,000	65,229	6,319	57,724
Open MTP	251	1,029,100	253	1,035,302
SCORE/CitySmart MTP	490	2,112,775	506	2,044,202
Residential	**1,818**	**2,707,636**	**2,136**	**3,774,072**
Residential SOP	1,818	2,707,636	2,136	3,774,072
Hard-to-Reach	**1,167**	**1,737,000**	**1,246**	**1,979,610**
Hard-to-Reach SOP	1,167	1,737,000	1,246	1,979,610
Total Annual Savings	**10,049**	**14,144,515**	**11,832**	**16,232,989**

2018	Projected Savings		Reported and Verified Savings	
Customer Class and Program	**kW**	**kWh**	**kW**	**kWh**
Commercial	**7,599**	**8,860,837**	**10,040**	**10,817,515**
Commercial Solutions MTP	490	2,112,775	465	2,648,555
Commercial SOP	743	3,579,086	790	4,375,933
Load Management SOP	5,625	27,101	8,033	104,797
Open MTP	251	1,029,100	253	1,055,006
SCORE/CitySmart MTP	490	2,112,775	499	2,633,224
Residential	**1,773**	**3,105,818**	**2,439**	**3,928,310**
Residential SOP	1,773	3,105,818	2,439	3,928,310
Hard-to-Reach	**1,425**	**2,496,600**	**1,480**	**2,271,566**
Hard-to-Reach SOP	1,425	2,496,600	1,480	2,271,566
Total Annual Savings	**10,797**	**14,463,255**	**13,959**	**17,017,391**

VII. HISTORICAL PROGRAM EXPENDITURES

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

Table 9: Historical Program Incentive and Administrative Expenditures for 2015 through 2019 ($000's)

	2019		2018		2017		2016		2015	
Commercial	Incent	Admin	Incent	Admin	Incent	Admin	Incent	Admin	Incent	Admin
CS MTP	$294.60	$40.82	$298.61	$32.88	$418.46	$32.17	$307.77	$43.71	$237.46	$40.72
CSOP	$534.46	$104.32	$453.71	$104.15	$622.81	$74.45	$622.51	$118.23	$329.17	$85.75
Load Management SOP	$154.48	$28.81	$191.63	$34.32	$307.79	$16.41	$187.79	$31.00	$145.26	$25.42
Open MTP	$247.62	$22.32	$249.99	$23.98	$249.24	$21.80	$249.99	$28.43	$249.67	$33.12
SCORE MTP	$312.07	$45.23	$316.21	$41.19	$220.80	$28.42	$284.58	$44.18	$209.54	$37.76
Residential										
CoolSaver^{SM} MTP	NAP	NAP	NAP	NAP	NAP	NAP	NAP	NAP	$151.03	$13.38
LED Instore Rebate	NAP	NAP	NAP	NAP	$187.25	$9.03	NAP	NAP	NAP	NAP
RSOP	$999.48	$160.17	$1,050.23	$137.43	$845.14	$117.23	$989.96	$80.52	$809.46	$85.07
Hard-to-Reach										
HTR SOP	$699.00	$107.98	$775.12	$97.17	$834.95	$100.97	$864.97	$70.95	$584.98	$65.07
R&D		$145.48	NAP	$141.22	NAP	$134.38	NAP	$174.82	NAP	$108.17
Evaluation and Measurement & Verification		$64.45	NAP	$56.24	NAP	$62.73	NAP	$57.11	NAP	$78.82
Total Expenditures	$3,241.71	$719.58	$3,335.50	$668.58	$3,686.44	$597.59	$3,507.57	$648.95	$2,716.57	$573.28

VIII. PROGRAM FUNDING FOR CALENDAR YEAR 2019

As shown in Table 10, the Total Projected Budget for 2019 was $4,019,621. Total Funds Expended for 2019 were $3,961,282. This is an overall total program expenditure difference of less than 10% from the amount budgeted.

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

Load Management SOP did not fully utilize its incentive budget due to a lower than expected participation.

Table 10: Program Funding for Calendar Year 2019

2019	Number of Participating ESI ID Accounts	Total Projected Budget	Actual Funds Expended (Incentives)	Admin	EM&V	Total funds Expended
Commercial	**113**	**$1,830,719**	**$1,543,226**	**$241,500**		**$1,784,726**
Commercial Solutions MTP	22	$364,706	$294,600	$40,824		$335,424
Commercial SOP	40	$588,235	$534,455	$104,323		$638,779
Load Management SOP	6	$235,294	$154,480	$28,808		$183,288
Open MTP	40	$277,778	$247,621	$22,317		$269,938
SCORE MTP	5	$364,706	$312,070	$45,229		$357,298
Residential	**2,121**	**$1,176,470**	**$999,481**	**$160,171**		**$1,159,653**
Residential SOP	1,329	$1,176,470	$999,481	$160,171		$1,159,653
Hard-to-Reach Residential		**$823,529**	**$699,001**	**$107,977**		**$806,979**
Hard-to-Reach SOP	792	$823,529	$699,001	$107,977		$806,979
Total Program Expenditures		**$3,830,718**	**$3,241,709**	**$509,649**		**$3,751,358**
Research & Development		$125,000		$145,479		$145,479
EM&V		$63,903			$64,446	$64,446
Total	**2,234**	**$4,019,621**	**$3,241,709**	**$655,128**	**$64,446**	**$3,961,282**

IX. MARKET TRANSFORMATION PROGRAM RESULTS

SCORE MTP

The SCORE MTP that is implemented by a third party contractor provided non-cash incentives, such as building energy analyses, technical assistance and communications support, as well as monetary incentives for the installation of documented energy efficiency measures that reduce peak demand and energy use. In 2019, SWEPCO projected to acquire 490 kW in demand savings from this program. SWEPCO has verified and reported savings of 506 kW. This included participation by 5 customers in three counties.

Commercial Solutions MTP

SWEPCO contracted with a third-party program implementer for the Commercial Solutions MTP to provide commercial facilities non-cash incentives, such as technical assistance to identify energy efficiency opportunities, education in promoting best practices and communication support services. Program participants received cash incentives for the installation of documented energy efficiency measures that reduced peak demand and energy consumption. For 2019, SWEPCO projected to acquire 490 kW of demand savings from this program. SWEPCO's verified and reported results are 455 kW. This included participation by 22 customers in nine different counties.

Open MTP

The Open MTP contractor provided small commercial customers with less than 100 kW demand non-cash incentives such as technical assistance to identify energy efficiency opportunities and education in promoting best practices. The direct install program provided a turnkey approach, providing participants cash incentives for the installation of documented energy efficiency measures that reduced peak demand and energy consumption. For 2019, SWEPCO projected 251 kW of demand savings from this program. SWEPCO's verified and reported results are 253 kW. This included participation by 40 customers in six different counties.

X. ADMINISTRATIVE AND RESEARCH AND DEVELOPMENT COSTS

Administrative Costs

Administrative costs incurred by SWEPCO to meet its energy efficiency goals and objectives include, but may not be limited to, energy efficiency employees' payroll, marketing, 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 SWEPCO meet future energy efficiency goals by researching new technologies, program options and developing better, more efficient ways to administer current programs. In 2019 SWEPCO dedicated resources to enhance electronic data collection and management system for current programs. In addition, SWEPCO participated with EUMMOT in researching potentially new deemed savings measures for various programs.

XI. 2020 Energy Efficiency Cost Recovery Factor (EECRF)

In PUCT Docket 49499, SWEPCO received approval to recover the following:

- $4,367,484 Cost of SWEPCO's Energy Efficiency programs projected for 2020
- $746,312 Performance bonus for 2018 savings achievement
- $-81,311 SWEPCO's under-recovery of its actual energy efficiency program costs for 2018
- $64,991 Projected EM&V costs

Approval was granted for a total revenue requirement of $5,097,476.

The adjusted rates, as given in Table 11, went into effect on January 1, 2020.

Table 11: 2020 EECRF

Customer Class	Factor per kWh
Residential	$ 0.001181
General Service	$ 0.000971
Lighting & Power	$ 0.000755
Municipal Pumping	$ 0.000165
Municipal Service	$ 0.002061
Cotton Gin	$ 0.000060
Large L & P<69kV	$ 0.000526
Electric Furnace/Metal Melting <69kV	$ 0.003261
Oil Field Large Industrial Power	$ 0.000258
Lighting	$ -

XII. 2019 EECRF SUMMARY

Revenue Collected Through EECRF

Table 12 below outlines a summary of SWEPCO's 2019 EECRF including costs, performance bonus, prior year's over recovery and current year's over recovery.

Table 12: Over Recovery of Energy Efficiency Costs in 2019

	Authorized per Docket No. 48334	Actual Expenses
2019 Program Costs	$ 3,955,718	$ 3,896,836
2019 EM&V costs	$ 63,903	$ 64,446
2017 (Over)/Under Recovery	$ 231,035	$ 231,035
2017 Bonus	$ 859,328	$ 859,328
2019 Total Costs & Bonus	$ 5,109,984	$ 5,051,645
2019 EECRF Revenue		$ 5,219,750
Other		$ (4,865)
2019 (Over)/Under Including Interest		$ (175,693)

XIII. UNDERSERVED COUNTIES

An underserved county is defined by SWEPCO as any county that did not report demand or energy savings through any of the 2019 SOPs or MTPs. Per 16 TAC § 25.181(I)(2)(U), a list of the 2019 Underserved Counties is as follows:

Childress	Collingsworth	Donley	Hall	Hopkins
Morris	Rains	Red River	Smith	Wheeler

ACRONYMS

A/C	Air Conditioning
CS MTP	Commercial Solutions Market Transformation Program
CSOP	Commercial Standard Offer Program
EE Rule	Energy Efficiency Rule, 16 TAC §§ 25.181, 25.182 and 25.183
EECRF	Energy Efficiency Cost Recovery Factor
EEPR	Energy Efficiency Plan and Report
EESP	Energy Efficiency Service Provider
EM&V	Evaluation, Measurement & Verification
HTR SOP	Hard-to-Reach Standard Offer Program
LM SOP	Load Management Standard Offer Program
MTP	Market Transformation Program
NAP	Not Applicable
PLAN	Energy Efficiency Plan
PUCT	Public Utility Commission of Texas
PURA	Public Utility Regulatory Act
R&D	Research and Development
RSOP	Residential Standard Offer Program
SCORE MTP	Schools Conserving Resources Market Transformation Program
SOP	Standard Offer Program
SWEPCO	Southwestern Electric Power Company

APPENDIX A:
REPORTED AND VERIFIED DEMAND AND ENERGY REDUCTION
BY COUNTY

County	Residential SOP		Hard-to-Reach SOP		Commercial Solutions MTP		Commercial SOP		Load Management SOP		SCORE/CitySmart MTP		Open MTP	
	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
BOWIE	81	198,509	16	21,113	63	266,551	286	1,759,364	1,300	9,671			95	377,632
CAMP	31	54,043			21	92,554	8	31,200	525	4,584				
CASS	1	2,588	13	20,422	1	4,045	51	208,424					31	130,551
FRANKLIN	60	114,503			23	239,069								
GREGG	1,023	1,686,136	784	1,230,280	154	791,864	373	2,066,393	5,440	38,695	489	1,934,382	45	224,314
HARRISON	401	744,914	265	426,087	16	57,641	28	132,033	600	4,774			21	91,009
MARION	13	23,967	4	5,489			6	25,234						
MORRIS	47	83,609												
PANOLA	134	249,445	110	187,248	25	98,535								
RUSK	202	356,666	30	48,085			118	758,328			14	92,001	12	47,950
SMITH	9	15,041												
TITUS	33	55,031	3	6,188	142	564,829	31	152,280						
UPSHUR	96	173,617	14	22,442							3	17,819	48	163,846
WOOD	4	14,132					8	31,508						
HALL	1	615	3	8,040										
SHELBY	0	1,256	4	4,218	10	29,058								
VAN ZANDT	0	0					3	12,695						
Total	**2,136**	**3,774,072**	**1,246**	**1,979,610**	**455**	**2,144,146**	**914**	**5,177,459**	**7,865**	**57,724**	**506**	**2,044,202**	**253**	**1,035,302**

APPENDIX B:

PROGRAM TEMPLATES

SWEPCO does not have any program templates to provide.

APPENDIX C:

OPTIONAL SUPPORTING DOCUMENTATION

SWEPCO has no Optional Supporting Documentation to provide.