

PECO Energy Company (Gas)
Fully Projected Future Test Year July 2021 to June 2022
Cost of Service Study

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PECO Energy Company (Gas)
Cost of Service Study
Summary of External Allocator Values by Class

<u>Line</u>	<u>Unit</u>	<u>Allocator Name</u>	<u>Total</u>	<u>Residential</u>	<u>GC</u>	<u>Large</u>	<u>Motor Vehicle Firm</u>	<u>Motor Vehicle Interruptible</u>	<u>Interruptible Services</u>	<u>Temperature Control</u>	<u>Transportation Firm</u>	<u>Transportation Interruptible</u>
1	#	Cust_Avg	539,593	494,391	44,450	4	15	2	2	31	459	239
2	#	Cust_Excl. Ind	538,889	494,391	44,450		15	2		31		
3	#	Cust_Res	494,391	494,391								
4	#	Cust_Comm	44,498		44,450		15	2		31		
5	#	Cust_Ind	704			4			2		459	239
6	Mcf	Gas_Deliveries	90,879,246	41,968,538	22,401,370	16,559	428,356	649	40,050	178,588	11,394,081	14,451,056
7	Mcf	Gas_Deliveries_Firm	76,208,903	41,968,538	22,401,370	16,559	428,356				11,394,081	
8	Mcf	Gas_Sales_Firm	64,814,822	41,968,538	22,401,370	16,559	428,356					
9	Mcf	Daily_Del_Excl. Dir	230,679	114,982	61,374	45	1,174	2	110	489	25,052	27,451
10	Mcf	Excess_Demand	683,737	417,874	223,292	1,317	0	0	0	0	41,255	0
11	Mcf	Peak_Sendout	846,416	550,000	293,826	1,416	1,174	0	0	0	0	0
12	Mcf	Peak_Mains	914,416	550,000	293,826	1,416	1,174	0	0	0	68,000	0
13	Mcf	Peaks_NCP	942,468	550,000	293,826	1,416	1,174	2	110	489	68,000	27,451
14	Mcf	Winter_FirmSales	9,776,460	6,488,288	3,250,000	2,231	35,941	0	0	0	0	0
15	%	Storage	100.0%	66.9%	30.9%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	1.2%
16	%	AR Over60-Day	100.0%	77.2%	19.0%	0.0%	0.1%	0.0%	0.0%	0.1%	2.3%	1.3%
17	%	WriteOff	100.0%	90.4%	9.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.2%
18	%	Account903	100.0%	88.0%	8.8%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	1.1%
19	%	Account908-916	100.0%	96.6%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.2%
20	\$000	Meter_Invest	215,514	150,533	55,257	6	204	3	6	297	5,072	4,136
21	\$000	Service_Invest	3,347,375	2,891,540	441,344	80	149	20	40	308	9,131	4,765
22	Minutes	Call Center	1,892,626	1,720,100	169,965	0	2	0	0	1	0	0
23	\$000	Deposits	12,465	4,323	7,860	0	3	0	0	5	180	94
24	\$000	Deposit_Interest	351	216	130	0	0	0	0	0	3	2
25	\$000	Advances	1,004	832	171	0	0	0	0	0	0	0
26	\$000	Forfeited Discounts	1,090	824	212	0	1	0	0	1	32	18
27	\$000	Purchased Gas Cost	201,635	150,889	49,024	70	892	9	0	750	0	0
28	\$000	Balancing Service Cost	25,075	16,191	8,642	6	164	2	0	69	0	0
29	\$000	Purchase of Receivables	63,454	45,995	17,258	0	81	1	0	118	0	0

PECO Energy Company (Gas)
Cost of Service Study
Gas Deliveries Allocator
Deliveries for All Customer Classes (Mcf)

<u>Class</u>	<u>Jul-21</u>	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Nov-21</u>	<u>Dec-21</u>	<u>Jan-22</u>	<u>Feb-22</u>	<u>Mar-22</u>	<u>Apr-22</u>	<u>May-22</u>	<u>Jun-22</u>	<u>TOTAL</u>
1 Residential	693,549	697,881	825,050	2,066,119	4,379,857	7,056,096	8,451,576	6,992,637	5,561,272	2,850,109	1,584,194	810,197	41,968,538
2 GC	552,462	551,500	605,715	1,246,626	2,165,282	3,499,391	4,168,796	3,550,914	2,865,617	1,552,565	1,027,262	615,241	22,401,370
3 Large	549	713	753	719	3,353	1,044	2,310	2,340	2,108	1,751	578	340	16,559
4 Motor Vehicles- Firm	31,257	34,823	37,144	40,052	39,491	39,264	34,650	32,832	33,468	32,964	35,221	37,189	428,356
5 Motor Vehicles- Interr	47	53	56	61	60	60	53	50	51	50	53	56	649
6 Interruptible	1,003	745	543	606	8,203	8,639	5,859	5,878	4,042	2,312	909	1,309	40,050
7 Temperature	296	11,205	2,213	1,058	7,559	20,601	25,429	29,540	28,477	24,957	14,845	12,410	178,588
8 Transport- Firm	802,093	736,727	739,596	899,192	1,015,493	1,197,550	1,185,597	1,149,067	1,144,051	937,657	809,956	777,101	11,394,081
9 Transport- Interr	1,017,290	934,388	938,026	1,140,441	1,287,944	1,518,847	1,503,687	1,457,356	1,450,994	1,189,225	1,027,264	985,594	14,451,056
10 TOTAL	<u>3,098,547</u>	<u>2,968,034</u>	<u>3,149,096</u>	<u>5,394,874</u>	<u>8,907,242</u>	<u>13,341,492</u>	<u>15,377,956</u>	<u>13,220,615</u>	<u>11,090,080</u>	<u>6,591,591</u>	<u>4,500,283</u>	<u>3,239,437</u>	<u>90,879,246</u>

PECO Energy Company (Gas)
 Cost of Service Study
 Customers Allocator
 Number of Customers in Each Rate Class

<u>Class</u>	<u>Jul-21</u>	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Nov-21</u>	<u>Dec-21</u>	<u>Jan-22</u>	<u>Feb-22</u>	<u>Mar-22</u>	<u>Apr-22</u>	<u>May-22</u>	<u>Jun-22</u>	<u>Average</u>
1 Residential	491,379	491,546	491,827	492,535	493,518	494,430	495,251	495,955	496,463	496,641	496,515	496,630	494,391
2 GC	44,127	44,085	44,095	44,254	44,438	44,574	44,643	44,701	44,742	44,673	44,573	44,498	44,450
3 Large	4	4	4	4	4	4	4	4	4	4	4	4	4
4 Motor Vehicles- Firm	15	15	15	15	15	15	15	15	15	15	15	15	15
5 Motor Vehicles- Interr	2	2	2	2	2	2	2	2	2	2	2	2	2
6 Interruptible	2	2	2	2	2	2	2	2	2	2	2	2	2
7 Temperature	31	31	31	31	31	31	31	31	31	31	31	31	31
8 Transport- Firm	462	461	462	461	461	458	456	457	457	457	457	457	459
9 Transport- Interr	241	241	241	241	241	239	238	238	238	238	238	238	239
10 TOTAL	<u>536,263</u>	<u>536,387</u>	<u>536,679</u>	<u>537,545</u>	<u>538,712</u>	<u>539,755</u>	<u>540,642</u>	<u>541,405</u>	<u>541,954</u>	<u>542,063</u>	<u>541,837</u>	<u>541,877</u>	<u>539,593</u>

PECO Energy Company (Gas)
Cost of Service Study
Demand Allocators

Class	Peak_Sendout (A)	Peak_Mains (B)	Daily_Del-Excl. Dir (C)	Peaks_NCP (D) Max of (B) or (C)	Excess Demand	Ratio of Excess	Excess Demand	Excess Demand	Average & Excess	Ratio of Average
					Allocation Basis NCP vs. Daily_Del- Excl. Dir (E) (D) - (C)	Demand Allocation Basis NCP vs. Daily_Del- Excl. Dir (F) (F) * (G)				
1 Residential	550,000	550,000	114,982	550,000	435,018	61.1%	417,874	532,856	58.3%	
2 GC	293,826	293,826	61,374	293,826	232,453	32.7%	223,292	284,665	31.1%	
3 Large	1,416	1,416	45	1,416	1,371	0.2%	1,317	1,362	0.1%	
4 Motor Vehicles- Firm	1,174	1,174	1,174	1,174	0	0.0%	0	1,174	0.1%	
5 Motor Vehicles- Interr			2	2	0	0.0%	0	2	0.0%	
6 Interruptible			110	110	0	0.0%	0	110	0.0%	
7 Temperature			489	489	0	0.0%	0	489	0.1%	
8 Transport- Firm		68,000	25,052	68,000	42,948	6.0%	41,255	66,307	7.3%	
9 Transport- Interr			27,451	27,451	0	0.0%	0	27,451	3.0%	
10 TOTAL	846,416	914,416	230,679	942,468	711,789	100%	683,737	683,737	914,416	100%

11 System Load Factor

25.23%

12 (A) & (B) Peak_Sendout and Peak_Mains: Design Day peak sendout requirements from April 30, 2020 1307 (f) filing

13 (C) Daily_Del_Excl. Dir (Average daily deliveries excluding Direct) = Daily amounts from Exhibit Page 3, with TSF & TSI totals reduced by volumes of customers with Directly Assigned Mains. Used for main deliveries portion allocation

14 (D) Peaks_NCP (estimated non-coincident peaks) = Greater of Peak_Mains (B) and Daily_Del_Excl. Dir (C)

15 (E) Excess Damand Allocation Basis = Peak_NCP (D) minus Daily_Del-Excl. Dir (C)

16 (F) Ratio of Excess Damand Allocation Basis

17 (G) Excess Demand = Peak_Mains (B) minus Daily_Del-Excl. Dir (C)

18 (H) Excess Demand by Rate Class = Ratio (F) multiple Excess Demand (G). Used for main capacity excess portion allocation

19 (I) Average and Excess Demand by Rate Class = Daily_Del-Excl. Dir (C) plus Excess Demand (H). Used for measuring and regulating station equipment allocation

20 (J) Ratio of Average & Excess Demand

21 System Load Factor = Total from (C) 230,679 / Total from (B) 914,416

PECO Energy Company (Gas)
 Cost of Service Study
 Storage Allocator

<u>Class</u>	<u>Winter_FirmSales</u> <u>(b)</u>	<u>Average</u> <u>Monthly Sales</u>	<u>Excess</u> <u>Winter_FirmSales</u>	<u>% of</u> <u>Winter_FirmSales</u>	<u>Average</u> <u>Monthly</u> <u>Deliveries</u>	<u>% of Average</u> <u>Monthly Deliveries</u>	<u>Storage</u> <u>Allocator</u>
1 Residential	6,488,288	3,497,378	2,990,910	68.4%		0.0%	66.86%
2 GC	3,250,000	1,866,781	1,383,219	31.6%		0.0%	30.92%
3 Large	2,231	1,380	851	0.0%		0.0%	0.02%
4 Motor Vehicles- Firm	35,941	35,696	245	0.0%		0.0%	0.01%
5 Motor Vehicles- Interr				0.0%		0.0%	0.00%
6 Interruptible				0.0%		0.0%	0.00%
7 Temperature				0.0%		0.0%	0.00%
8 Transport- Firm				0.0%	949,507	44.1%	0.97%
9 Transport- Interr				0.0%	1,204,255	55.9%	1.23%
10 TOTAL	<u>9,776,460</u>	<u>5,401,235</u>	<u>4,375,225</u>	<u>100.0%</u>	<u>2,153,761</u>	<u>100.0%</u>	<u>100.0%</u>
11 Storage Fraction (a)				97.80%		2.2%	
12 (a) Usage of Storage as split between Winter sales and Transportation							
13 (b) Average Sales (Mcf) from January-March and November and December							

PECO Energy Company (Gas)
 Cost of Service Study
 Mains, M&R and Meter Direct Assignments

Customer	Installed	Length (ft)	Capacity (mcf)	Cost	Depreciation Expense 7/1/19-	Accumulated Depreciation	Annual Usage (Mcf) (b)
Mains (Account 376)							
1 Customer 1							
2 Customer 2							
3 Customer 3							
4 Total Customers 1-3							
5 Customer 4							
Measuring & Regulating (Account 378 & 379)							
6 Customer 1							
7 Customer 2							
8 Customer 3							
9 Total Customers 1-3							
10 Customer 4							
Meters (Account 381)							
11 Customer 4							
Meter Installations (Account 382)							
12 Customer 4							
13							
14							
15							

PECO Energy Company (Gas)
Cost of Service Study
Service Investment Allocator

<u>Class</u>	<u>Service</u>	<u>Average Service Cost (\$)</u>	<u>Average Customer Numbers</u>	<u>Investments (\$000s)</u>	<u>Ratio</u>
1 Residential	Residential	5,849	494,391	2,891,540	86.4%
2 GC	SC&I	9,929	44,450	441,344	13.2%
3 Large	LC&I	19,903	4	80	0.0%
4 Motor Vehicles- Firm	SC&I	9,929	15	149	0.0%
5 Motor Vehicles- Interr	SC&I	9,929	2	20	0.0%
6 Interruptible	LC&I	19,903	2	40	0.0%
7 Temperature	SC&I	9,929	31	308	0.0%
8 Transport- Firm	LC&I	19,903	459	9,131	0.3%
9 Transport- Interr	LC&I	19,903	239	4,765	0.1%
10 Total			539,593	3,347,375	100%

11 Services Costs	12 Twelve Month Ended June 30	Residential			SC&I			LC&I		
		Dollars	Services	Average	Dollars	Services	Average	Dollars	Services	Average
13	2016	\$25,375,543	3,843	\$6,603	\$142,139	25	\$5,686	\$176,409	1	\$176,409
14	2017	\$26,799,674	5,147	\$5,207	\$645,812	72	\$8,970	\$21,922	6	\$3,654
15	2018	\$23,251,316	5,387	\$4,316	\$246,963	32	\$7,718	\$180,109	4	\$45,027
16	2019	\$37,675,128	6,480	\$5,814	\$398,230	22	\$18,101	\$23,934	6	\$3,989
17	2020	\$40,116,517	5,340	\$7,512	\$244,846	18	\$13,603	\$15,587	4	\$3,897
18		\$153,218,178	26,197	\$5,849	\$1,677,991	169	\$9,929	\$417,961	21	\$19,903

PECO Energy Company (Gas)
Cost of Service Study
Meter Investment Allocator
Costs of Meters for 2020

<u>Class</u>	<u>Average Cost (\$) (a)</u>	<u>Average Customers Excl. Dir (b)</u>	<u>Cost (\$000s)</u>	<u>Ratio</u>
1 Residential	304	494,391	150,533	69.8%
2 GC	1,243	44,450	55,257	25.6%
3 Large	1,399	4	6	0.0%
4 Motor Vehicles- Firm	13,577	15	204	0.1%
5 Motor Vehicles- Interr	1,572	2	3	0.0%
6 Interruptible	2,824	2	6	0.0%
7 Temperature	9,593	31	297	0.1%
8 Transport- Firm	11,080	458	5,072	2.4%
9 Transport- Interr	17,277	239	4,136	1.9%
10 Total		539,592	215,514	100.0%

11 (a) Cost includes Materials and Labor

12 (b) Average customer numbers excluding Direct in Transport-Firm

PECO Energy Company (Gas)
 Cost of Service Study
 Customer Records and Collection Expenses (Account 903) Allocator

Listed below is a listing of the activities in Account 903, and the allocation base used for each activity.

		July 2019 to June 2020										
<u>Customer Records & Collection- Account 903</u>		<u>Percentage (%)</u>	<u>Dollars (\$000s)</u>	<u>Sub-Allocator</u>								<u>Description</u>
1	Mailing Bills	11.3%	1,318	Cust_Avg								Customer Count - Average
2	Financial Call Center	6.1%	716	AR Over60-Day								Delinquencies
3	CAP Rates	7.8%	907	Cust_Res								Residential Customers
4	Customer Billing	9.5%	1,109	Cust_Avg								Customer Count - Average
5	Manage and Support Recoveries	5.2%	610	AR Over60-Day								Delinquencies
6	Call Center	24.4%	2,840	Call Center								Call Center Calls
7	Customer Payments	1.4%	161	Cust_Avg								Customer Count - Average
8	Meter Records	8.1%	944	Cust_Avg								Customer Count - Average
9	Customer Care Center	4.7%	545	Cust_Excl. Ind								Customer Count - Non Large
10	ESO Activities	2.6%	306	Cust_Ind								Customer Count - LC&I
11	Balance-C&MS & Field Vendor Activities	18.8%	2,185	Cust_Avg								Customer Count - Average
12	Account Balance	100.0%	11,642									
		<u>Amount</u>	<u>Residential</u>	<u>GC</u>	<u>Large</u>	<u>MV Firm</u>	<u>MV Interr</u>	<u>Interr</u>	<u>Temperature</u>	<u>Trans Firm</u>	<u>Trans Interr</u>	
13	Cust_Avg	5,718	5,239	471	0	0	0	0	0	5	3	
14	Call Center	2,840	2,581	255	0	3	0	0	1	0	0	
15	AR Over60-Day	1,326	1,023	252	0	1	0	0	2	30	17	
16	Cust_Res	907	907	0	0	0	0	0	0	0	0	
17	Cust_Excl. Ind	545	500	45	0	0	0	0	0	0	0	
18	Cust_Ind	306	0	0	2	0	0	1	0	199	104	
19		11,642	10,251	1,023	2	4	0	1	3	235	124	
20	Acct903 Allocator	100.0%	88.0%	8.8%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	1.1%	

PECO Energy Company (Gas)
Cost of Service Study
Accounts 908-916 Allocator

Listed below is a listing of the activities in Accounts 908-916, and the allocation base used for each activity.

		July 2019 to June 2020									
<u>Customer Service & Informational Expenses</u>		<u>Percentage (%)</u>	<u>Dollars (\$000s)</u>	<u>Sub-Allocator</u>	<u>Description</u>						
1	Residential Marketing	24.6%	865	Cust_Res	Residential Customers						
2	LIURP	42.0%	1,474	Cust_Res	Residential Customers						
3	SC&I Marketing	0.1%	4	Cust_Comm	SC&I Customers						
4	Marketing- Residential & Small C&I	4.0%	141	Cust_Excl. Ind	Non-Large Customers						
5	LC&I Marketing	0.5%	18	Cust_Ind	LC&I Customers						
6	Balance-Marketing	28.7%	1,009	Cust_Avg	Customer Count - Average						
7	Account Balance	100.0%	3,510								
		<u>Amount</u>	<u>Residential</u>	<u>GC</u>	<u>Large</u>	<u>MV Firm</u>	<u>MV Interr</u>	<u>Interr</u>	<u>Temperature</u>	<u>Trans Firm</u>	<u>Trans Interr</u>
8	Cust_Res	2,338	2,338.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	Cust_Comm	4	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	Cust_Excl. Ind	141	129.5	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Cust_Ind	18	0.0	0.0	0.1	0.0	0.0	0.1	0.0	11.7	6.1
12	Cust_Avg	1,009	924.4	83.1	0.0	0.0	0.0	0.0	0.1	0.9	0.4
13		3,510	3,392	98	0	0	0	0	0	13	7
14	Acct908-916 Allocator	100.0%	96.6%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.2%

PECO Energy Company (Gas)
 Cost of Service Study
 Accounts Receivable Over 60-Day Allocator
 Accounts Receivable Agings for July 2019 to June 2020

<u>Class</u>	<u>Average Over 2 Months (\$000)</u>	<u>Over60-Day Allocator</u>	<u>Large C&I Revenue</u>	<u>% Large C&I Revenue</u>	<u>SC&I Revenue</u>	<u>% SC&I Revenue</u>
1 Residential	2,624	77.2%				
2 GC	646	19.0%			100,579	98.85%
3 Large	0	0.0%	75	0.29%		
4 Motor Vehicles- Firm	3	0.1%			475	0.47%
5 Motor Vehicles- Interr	0	0.0%			5	0.00%
6 Interruptible	0	0.0%				
7 Temperature	4	0.1%			690	0.68%
8 Transport- Firm	78	2.3%	16,719	63.56%		
9 Transport- Interr	44	1.3%	9,509	36.15%		
10 Total	<u>3,400</u>	<u>100.0%</u>	<u>26,304</u>	<u>100.00%</u>	<u>101,748</u>	<u>100.00%</u>
11			Over 2 months	123		653

PECO Energy Company (Gas)
Cost of Service Study
Deposits, Interest, Advances and Forfeited Discounts

<u>Class</u>	Deposits (\$000s)	Interest on Deposits (\$000s)	Advances (\$000s)	Forfeited Discounts (\$000s)
1 Residential	4,323	216	832	824
2 GC	7,860	130	171	212
3 Large	0	0		0
4 Motor Vehicles- Firm	3	0		1
5 Motor Vehicles- Interr	0	0		0
6 Interruptible	0	0		0
7 Temperature	5	0		1
8 Transport- Firm	180	3		32
9 Transport- Interr	94	2		18
10 Totals	12,465	351	1,004	1,090

PECO Energy Company (Gas)
Cost of Service Study
Purchased Gas Cost (PGC)

<u>Class</u>	<u>PGC (\$000s)</u>
1 Residential	150,889
2 GC	49,024
3 Large	70
4 Motor Vehicles- Firm	892
5 Motor Vehicles- Interr	9
6 Interruptible	0
7 Temperature	750
8 Transport- Firm	0
9 Transport- Interr	0
10 Totals	201,635

PECO Energy Company (Gas)
Cost of Service Study
Balancing Service Cost (BSC)

<u>Class</u>	<u>BSC (\$000s)</u>
1 Residential	16,191
2 GC	8,642
3 Large	6
4 Motor Vehicles- Firm	164
5 Motor Vehicles- Interr	2
6 Interruptible	0
7 Temperature	69
8 Transport- Firm	0
9 Transport- Interr	0
10 Totals	<u><u>25,075</u></u>

PECO Energy Company (Gas)
Cost of Service Study
Purchase of Receivables (POR)

	<u>Class</u>	<u>POR (\$000)</u>
1	Residential	45,995
2	GC	17,258
3	Large	0
4	Motor Vehicles- Firm	81
5	Motor Vehicles- Interr	1
6	Interruptible	0
7	Temperature	118
8	Transport- Firm	0
9	Transport- Interr	0
10	Total	<u><u>63,454</u></u>