

**REDLINE
ERRATA
EE&C TABLES**

Table 2. Summary of Compliance Targets

	Compliance Target	EE&C Plan
Overall energy reductions (MWh/year)	1,443,035	1,587,984
Overall peak reductions (MW)	92	115
Low-income energy reductions (MWh/year)	79,367	93,147 ¹ (101,547 with Phase II carryover)
GNE energy reductions (MWh/year)	50,507	81,000 (94,500 with Phase II carryover) ²
Budget cap (excluding SWE costs)	\$307,500,000	\$307,479,000
Cost Effectiveness (per TRC)	1.0	1.521.44 (energy efficiency) 1.90 (demand response)

¹ The Low-income energy reductions shown here include low-income savings from the Master Metered Multifamily component of the Low-Income WRAP program. These savings are applied toward sector-level compliance targets and are shown only in Table 10.

² To avoid double counting, these values exclude 2,500 MWh/yr. that counts toward the Low Income Compliance target (From GNE Low Income WRAP Master Metered Multifamily).

Table 3. Pa PUC Table 1a - Portfolio Summary of Lifetime Costs and Benefits of Energy Efficiency Measures¹

Portfolio	Discount Rate	Total Discounted Lifetime Costs (\$1000)	Total Discounted Lifetime Benefits (\$1000)	Total Discounted Net ² Lifetime Benefits (\$1000)	TRC Ratio ⁴
Residential Sector (exclusive of Low-Income) ³	7.63%	\$169,386	\$228,678 \$266,903	\$59,292 \$97,518	1.35 1.58
Low Income	7.63%	\$47,210	\$35,608	(\$11,602)	0.75
Small C&I	7.63%	\$142,989	\$260,592	\$117,603	1.82
Large C&I	7.63%	\$101,621	\$137,160	\$35,539	1.35
GNE	7.63%	\$29,386	\$45,119	\$15,732	1.54
Total	7.63%	\$490,592	\$707,157 \$745,382	\$216,565 \$254,790	1.44 1.52

¹ Discounted common costs are included in the appropriate sector totals. See Table 96 for the allocation of common costs.

² 'Net' refers to the arithmetic difference between the previous two columns. It does not refer to net verified savings.

³ The June 11, 2015 Implementation Order disallowed the inclusion of low-income participation in standard, non-low-income-specific residential programs in the calculation of savings towards the 5.5% low-income carve-out. See June 11, 2015 Implementation Order at page 69.

⁴ TRC ratios include costs and benefits from energy efficiency only and exclude costs and benefits from demand response. TRC ratios shown in Table 8 include costs and benefits from both energy efficiency and demand response.

Table 7. Pa PUC Table 4 - Program Summary Residential

	Program Name	Program Market	Program Summary	Program Years Operated	Lifetime MWh Savings	Lifetime kW Savings	Percentage of Portfolio and Total Lifetime MWh Savings	
							Portfolio MWh Savings %	Lifetime MWh Savings %
Residential Portfolio Programs (exclusive of low-income)	Appliance Recycling	All customers (primarily residential)	Free pick up and recycling of inefficient refrigerators, freezers, room air conditioners and possibly dehumidifiers. Incentive paid for each eligible appliance.	PY8-12	525,031	70,024	4.13%	2.87% -2.73%
	Efficient Lighting	All customers (primarily residential)	Upstream retail promotion and incentives applied to eligible light emitting diode ("LED") bulbs. Other distribution channels include online, mail, directly to customers, welcome kits, etc.	PY8-12	3,714,234	677,740	16.71%	20.29% 19.32%
	Energy Efficient Home	Existing and new residential single family and multifamily homes	Offers rebates on a wide range of energy efficient measures for retrofit and new construction applications.	PY8-12	914,689	55,003	4.64%	5.00% -4.76%
	Student Energy Efficient Education	Residential customers: students and teachers	Energy efficiency education targeting primary and secondary grades, including classroom presentations, curriculum, and energy efficiency kits.	PY8-12	263,922	34,312	1.51%	1.44% -1.37%
	Home Energy Education	Residential single and multifamily	Education, online home energy surveys and Home Energy Reports comparing energy use to other customers in PPL territory, and offering energy efficiency tips.	PY8-12	1,139,691 227,938	148,168 29,634	14.35%	5.93% 1.24%
	Totals for Residential Sector					5,645,814 6,557,567	866,712 985,247	41.34%

Pa PUC Table 4 - Program Summary – Residential Low-Income

	Program Name	Program Market	Program Summary	Program Years Operated	Lifetime MWh Savings	Lifetime kW Savings	Percentage of Portfolio and Total Lifetime MWh Savings	
							Portfolio MWh Savings %	Lifetime MWh Savings %
Residential Low-Income Sector Programs	WRAP	Income-qualified single family, multifamily and manufactured homes	Offers a range of free direct install energy efficiency measures to customers whose incomes are at or below 150% of FPIG.	PY8-12	588,080 ¹	80,285	3.18%	3.21% -3.06%
	Energy Efficiency Kits and Education	All income qualified residential customers	Offers free energy efficiency kits and education to customers whose incomes are at or below 150% of FPIG.	PY8-12	310,990	44,731	2.37%	1.70% -1.62%
	Totals for Low-Income Sector					899,071	125,016	5.55%

¹ Excludes savings from master-metered multifamily buildings with low-income occupants. These savings count toward the low-income compliance target but are accounted for under the customer sector corresponding to the rate class of the building’s meter (generally Small C&I or GNE).

Pa PUC Table 4 - Program Summary – Commercial/Industrial Small

	Program Name	Program Market	Program Summary	Program Years Operated	Lifetime MWh Savings	Lifetime kW Savings	Percentage of Portfolio and Total Lifetime MWh Savings	
							Portfolio MWh Savings %	Lifetime MWh Savings %
Commercial/Industrial Small Portfolio Programs	Efficient Equipment	Small C&I	Provides rebates/incentives for a list of qualified energy efficiency measures.	PY8-12	3,476,121	718,444	15.73%	18.09% <u>18.99%</u>
	Custom	Small C&I	Provides rebates/incentives for measures not included in PPL Electric's other programs. Includes CHP, continuous energy improvement, a behavioral pilot, process upgrades, retro-commissioning, and other measures.	PY8-12	2,602,436	440,642	11.53%	13.54% <u>14.21%</u>
	Small C&I Efficient Lighting*	Small C&I	Upstream retail promotion and incentives applied to eligible LED bulbs through the Residential Efficient Lighting Program.	PY8-11	385,714	79,955	1.73%	2.01% <u>2.11%</u>
	Demand Response	Small C&I	Offers incentives to eligible customers for reducing demand when called upon to do so.	PY9-12		46,000	0.00%	0.00%
	Small C&I Low-Income WRAP Master Metered Multifamily	Small C&I	Offers a range of free direct install energy efficiency measures in the tenant units of low-income residents living in master-metered multifamily buildings in the Small C&I rate class.	PY8-12	37,500	6,349	0.16%	0.20%
	Totals for C&I Small Sector					6,501,771	1,291,389	29.15%

*To account for cross-sector sales, PPL Electric allocates a portion of costs and savings from the Efficient Lighting (Residential) program to the small commercial sector.

Pa PUC Table 4 - Program Summary – Commercial/Industrial Large

	Program Name	Program Market	Program Summary	Program Years Operated	Lifetime MWh Savings	Lifetime kW Savings	Percentage of Portfolio and Total Lifetime MWh Savings	
							Portfolio MWh Savings %	Lifetime MWh Savings %
Commercial/Industrial Large Portfolio Programs	Efficient Equipment	Large C&I	Provides rebates/incentives for a list of qualified energy efficiency measures.	PY8-12	1,831,887	247,914	8.43%	10.01% 9.53%
	Custom	Large C&I	Provides rebates/incentives for measures not included in PPL Electric’s other programs. Includes CHP, continuous energy improvement, a behavioral pilot, process upgrades, retro-commissioning, and other measures.	PY8-12	2,279,672	308,514	10.28%	11.86% 12.45%
	Demand Response	Large C&I	Offers incentives to eligible customers for reducing demand when called upon to do so.	PY9-12		230,000	0.00%	0.00%
	Totals for C&I Large Sector					4,111,560	786,428	18.70%

Pa PUC Table 4 - Program Summary – Government/Education/Nonprofit

	Program Name	Program Market	Program Summary	Program Years Operated	Lifetime MWh Savings	Lifetime kW Savings	Percentage of Portfolio and Total Lifetime MWh Savings	
							Portfolio MWh Savings %	Lifetime MWh Savings %
Governmental/Educational/Nonprofit Portfolio Programs	Efficient Equipment	Government, educational, and nonprofit customers	Provides rebates/incentives for a list of qualified energy efficiency measures.	PY8-12	480,276	86,698	2.02%	2.50% 2.62%
	Custom	Government, educational, and nonprofit customers	Provides rebates/incentives for measures not included in PPL Electric's other programs. Includes CHP, continuous energy improvement, a behavioral pilot, process upgrades, retro-commissioning, and other measures.	PY8-12	632,808	107,146	3.08%	3.29% 3.46%
	Demand Response	Government, educational, and nonprofit customers	Offers incentives to eligible customers for reducing demand when called upon to do so.	PY9-12		184,000	0.00%	0.00%
	GNE Low-Income WRAP Master Metered Multifamily	Government, educational, and nonprofit customers	Offers a range of free direct install energy efficiency measures in the tenant units of low-income residents living in master-metered multifamily buildings that qualify under GNE eligibility rules.	PY 8-12	37,500	6,349	0.16%	0.20%
	Totals for GNE Sector					1,150,584	384,194	5.26%

Table 8. TRC Costs, Cost-Effectiveness, and Savings Summary (\$1,000)

	Program Name	Total TRC Cost ^[1]	Cost Effectiveness (Benefit/Cost Ratio)	Lifetime MWh savings
Residential Sector	Appliance Recycling	\$10,135,768	2.12	525,031
	Efficient Lighting	\$70,019,692	2.17	3,714,235
	Energy Efficient Home	\$61,507,216	0.57	914,689
	Student Energy Efficient Education	\$6,020,418	1.75	263,922
	Home Energy Education	\$8,759,197	1.15 5.52	227,938 1,139,691
	Common Costs	\$12,943,432	0.00	0
	Residential Sector Total	\$169,385,723	1.35 1.58	5,645,815 6,557,568
Low-Income Sector	WRAP	\$34,877,527	0.66	588,080 ^[2]
	Energy Efficiency Kits and Education	\$5,989,288	2.10	310,990
	Common Costs	\$6,342,923	0.00	0
	Low Income Sector Total	\$47,209,738	0.75	899,071
Small C&I Sector	Small C&I Efficient Equipment	\$75,440,660	1.88	3,476,121
	Small C&I Custom	\$52,098,745	1.93	2,602,436
	Small C&I Efficient Lighting	\$6,005,176	2.73	385,714
	Demand Response	\$1,102,068	2.26	0
	Small C&I Low-Income WRAP Master Metered Multifamily	\$1,058,212	1.36	37,500
	Common Costs	\$8,386,602	0.00	0
	Small C&I Sector Total	\$144,091,463	1.83	6,501,771
Large C&I Sector	Large C&I Efficient Equipment	\$46,867,076	1.31	1,831,887
	Large C&I Custom	\$47,935,155	1.58	2,279,672
	Demand Response	\$5,510,349	1.55	0
	Common Costs	\$6,818,655	0.00	0
	Large C&I Sector Total	\$107,131,235	1.36	4,111,560
GNE Sector	GNE Efficient Equipment	\$12,412,683	1.53	480,276
	GNE Custom	\$12,999,898	1.90	632,808
	Demand Response	\$4,408,281	2.26	0
	GNE Low Income WRAP Master Metered Multifamily	\$1,058,212	1.36	37,500
	Common Costs	\$2,915,580	0.00	0
	GNE Sector Total	\$33,794,654	1.63	1,150,584

Act 129 Phase III Plan Errata Filing: PPL Electric Utilities

	Program Name	Total TRC Cost ^[1]	Cost Effectiveness (Benefit/Cost Ratio)	Lifetime MWh savings
	Portfolio Total	\$501,612,814	1.45 1.53	18,308,801 19,220,554

[1] Represents the sum of EDC and participant costs on a net present value basis.

[2] Excludes savings from master-metered multifamily buildings with low-income occupants. These savings count toward the low-income compliance target but are accounted for under the customer sector corresponding to the rate class of the building's meter (generally Small C&I or GNE).

Table 10. Summary of Costs and Savings by Program and Customer Sector

Program	Residential		Low-Income		Small C&I		Large C&I		GNE		Total Cost (\$1000)	Total MWh/yr Reduction ^{4,*}	\$/kWh ³	TRC
	Costs (\$1000)	Savings MWh/yr	Costs (\$1000)	Savings* MWh/yr	Costs (\$1000)	Savings* MWh/yr	Costs (\$1000)	Savings* MWh/yr	Costs (\$1000)	Savings* MWh/yr				
Appliance Recycling	\$11,802	65,522	\$0	0	\$0	0	\$0	0	\$0	0	\$11,802	65,522	\$0.18	2.12
Efficient Lighting	\$32,571	265,302	\$0	0	\$3,766	27,551	\$0	0	\$0	0	\$36,337	292,853	\$0.12	2.21
Energy Efficient Home	\$34,734	73,721	\$0	0	\$0	0	\$0	0	\$0	0	\$34,734	73,721	\$0.47	0.57
Student Energy Efficient Education	\$7,012	23,993	\$0	0	\$0	0	\$0	0	\$0	0	\$7,012	23,993	\$0.29	1.75
Home Energy Education	\$10,208	227,938	\$0	0	\$0	0	\$0	0	\$0	0	\$10,208	227,938	\$0.04	5.52 <u>1.15</u>
Low-income WRAP	\$0	0	\$40,306	50,546	\$1,250	2,500 ⁸	\$0	0	\$1,250	2,500 ⁸	\$42,806	55,546	\$0.77	0.70
Energy Efficiency Kits/Education	\$0	0	\$6,899	37,601	\$0	0	\$0	0	\$0	0	\$6,899	37,601	\$0.18	2.10
Efficient Equipment	\$0	0	\$0	0	\$32,215	249,720	\$16,862	133,803	\$6,252	32,018	\$55,329	415,541	\$0.13	1.65
Custom	\$0	0	\$0	0	\$23,203	183,089	\$19,025	163,197	\$6,725	48,982	\$48,953	395,268	\$0.12	1.78
Demand Response	\$0	0	\$0	0	\$1,530	0	\$7,650	0	\$6,120	0	\$15,299		N/A	1.90
Total - Direct Program Cost	\$96,327		\$47,205		\$61,964		\$43,537		\$20,346		\$269,379			
Percent of Total Direct Costs	36%		18%		23%		16%		8%		100%			
Common Cost Allocation ¹	\$14,913		\$7,308		\$9,663		\$7,856		\$3,359		\$43,100			
TOTAL ESTIMATED COST	\$111,240		\$54,513		\$71,627		\$51,393		\$23,706		\$312,479			1.44 <u>1.52</u> ⁶
Total Estimated Phase III Reduction ^{2,4}		656,476		88,147		462,861		297,000		83,500		1,587,984		
Low-income savings from master metered multifamily				5,000										
Estimated Phase II Carryover ⁵				8,400						13,500				
Total Savings (including carryover)				101,547						94,500 ⁷				
Energy Reduction Target ⁴				79,367						50,507		1,443,035		
\$/kWh (direct & common) for energy efficiency programs only ³	\$0.17		\$0.62		\$0.15		\$0.14		\$0.21				\$0.19	
Total Estimated MW Reduction for DR programs only ⁴						11		57		46		115		
MW Reduction Target*												92		

* Demand response savings are gross verified MW at the generator level (grossed up to reflect T&D line losses)

1. Includes \$5 million SWE costs that are not subject to the cost cap.

2. Savings are for measures installed and operable 6/1/16-5/31/21 and exclude Phase II carryover.

3. Program acquisition cost for energy efficiency programs equals program costs divided by first year's savings. Program acquisition cost for demand response programs equals program costs divided by (MW x 4 years) and is represented in \$/MW-year.

4. MWh/year and MW are on a verified gross basis.

5. Phase II Carryover MWh/year for low-income and GNE are estimated. Actual values will be available in the final PY7 Annual Report on 11/15/16.

Act 129 Phase III Plan Errata Filing: PPL Electric Utilities

6. TRC is 1.521.44 for energy efficiency programs, and 1.531.45 for entire portfolio of energy efficiency and demand response. These TRC ratios include common costs.
7. To avoid double counting, this number excludes 2,500 MWH/yr. that counts toward the Low Income Compliance target (From GNE Low-Income WRAP Master Metered Multifamily).
8. Master metered multifamily savings to be applied to the low income sector compliance target.

Table 36. Home Energy Education Program Cost-Effectiveness Results, TRC Test (\$1,000)

NPV Benefits	<u>\$10,113</u> \$48,338
NPV Costs	\$8,759
Net Benefits	<u>\$1,354</u> \$39,579
Benefit/Cost Ratio	<u>1.15</u> 5.52

Table 100. Pa PUC Table 7A – Gross TRC Benefits, Portfolio

Portfolio			Gross TRC Benefits by Program Per Year (\$1000)									
Program	Program Year	TRC	TRC Costs (\$1,000) ^{1, 2}	TRC Benefits (\$1,000)	Capacity (Annual)		Energy (Annual)		Load Reduction in kW		MWh Saved	
					Generation	Trans/Dist	Peak	Off Peak	Annual	Lifetime	Annual	Lifetime
Appliance Recycling	PY8		\$2,113	\$4,497	\$38	\$36	\$351	\$147	1,775	14,056	13,120	105,351
	PY9		\$2,108	\$4,595	\$76	\$35	\$327	\$137	1,725	13,654	12,734	102,261
	PY10		\$2,345	\$4,693	\$74	\$34	\$404	\$169	1,676	13,263	12,358	99,257
	PY11		\$2,431	\$4,822	\$73	\$33	\$411	\$172	1,629	12,884	11,994	96,339
	PY12		\$2,806	\$6,423	\$93	\$43	\$536	\$225	2,073	16,167	15,316	121,822
Program Total ²		2.12	\$10,136	\$21,471	\$354	\$181	\$2,030	\$850	8,880	70,024	65,522	525,031
Efficient Lighting	PY8		\$39,189	\$56,539	\$383	\$357	\$2,809	\$850	17,643	247,001	95,752	1,340,530
	PY9		\$23,101	\$56,804	\$738	\$340	\$2,575	\$778	16,859	236,021	91,454	1,280,353
	PY10		\$11,909	\$41,964	\$526	\$242	\$2,280	\$683	11,894	166,513	64,245	899,432
	PY11		\$6,238	\$28,131	\$344	\$158	\$1,543	\$454	7,726	108,159	41,402	579,632
	PY12		\$120	\$0	\$0	\$0	\$0	\$0	0	0	0	0
Program Total ²		2.21	\$76,025	\$168,104	\$1,991	\$1,097	\$9,207	\$2,764	54,121	757,694	292,853	4,099,948
Energy Efficient Home	PY8		\$8,651	\$3,615	\$14	\$13	\$189	\$102	656	7,434	7,357	88,348
	PY9		\$9,773	\$5,152	\$37	\$17	\$244	\$134	848	9,391	9,941	119,029
	PY10		\$14,371	\$8,061	\$47	\$22	\$478	\$279	1,065	11,624	14,408	176,217
	PY11		\$18,804	\$11,503	\$54	\$25	\$688	\$425	1,220	13,241	19,454	244,650
	PY12		\$21,859	\$13,794	\$56	\$26	\$815	\$523	1,253	13,312	22,561	286,445
Program Total ²		0.57	\$61,507	\$34,865	\$209	\$103	\$2,414	\$1,463	5,043	55,003	73,721	914,689
Student Energy Efficient Education	PY8		\$1,243	\$2,348	\$15	\$14	\$138	\$59	673	7,407	5,180	56,977
	PY9		\$1,271	\$2,502	\$29	\$14	\$133	\$56	673	7,407	5,180	56,977
	PY10		\$1,390	\$2,657	\$30	\$14	\$169	\$72	673	7,407	5,180	56,977
	PY11		\$1,419	\$2,766	\$30	\$14	\$178	\$75	673	7,407	5,180	56,977
	PY12		\$1,689	\$1,815	\$19	\$9	\$115	\$49	426	4,682	3,274	36,014
Program Total ²		1.75	\$6,020	\$10,537	\$123	\$64	\$732	\$311	3,119	34,312	23,993	263,922
Home Energy Education	PY8		\$1,845	\$1,743 \$8,907	\$113	\$106	\$1,070	\$454	5,219	5,219 26,095	40,144	40,144 200,720
	PY9		\$1,759	\$1,839 \$9,727	\$234	\$108	\$1,051	\$446	5,341	5,341 26,704	41,080	41,080 205,400
	PY10		\$1,952	\$2,284 \$10,506	\$239	\$110	\$1,358	\$576	5,408	5,408 27,042	41,600	41,600 208,000
	PY11		\$2,253	\$2,702 \$12,255	\$273	\$126	\$1,617	\$686	6,132	6,132 30,661	47,168	47,168 235,840
	PY12		\$2,398	\$3,386 \$15,427	\$339	\$156	\$2,030	\$862	7,533	7,533 37,667	57,946	57,946 289,731
Program Total ²		5.52 <u>1.15</u>	\$8,759	\$10,113 \$48,338	\$1,198	\$605	\$7,125	\$3,025	29,634	29,634 148,168	227,938	227,938 1,139,691
Low-Income	PY8		\$7,504	\$5,391	\$34	\$31	\$298	\$124	1,547	18,532	11,060	131,490

Act 129 Phase III Plan Errata Filing: PPL Electric Utilities

Portfolio			Gross TRC Benefits by Program Per Year (\$1000)									
Program	Program Year	TRC	TRC Costs (\$1,000) ^{1, 2}	TRC Benefits (\$1,000)	Capacity (Annual)		Energy (Annual)		Load Reduction in kW		MWh Saved	
					Generation	Trans/Dist	Peak	Off Peak	Annual	Lifetime	Annual	Lifetime
WRAP (all sectors)	PY9		\$7,367	\$5,908	\$70	\$32	\$295	\$123	1,602	19,354	11,404	136,594
	PY10		\$10,396	\$6,489	\$74	\$34	\$388	\$163	1,664	20,295	11,778	142,179
	PY11		\$10,566	\$6,773	\$75	\$34	\$409	\$171	1,672	20,391	11,835	142,973
	PY12		\$6,973	\$5,369	\$56	\$26	\$329	\$148	1,245	14,412	9,468	109,845
	Program Total ²	0.70	\$36,994	\$25,915	\$308	\$157	\$1,718	\$729	7,730	92,983	55,546	663,080
Energy Efficiency Kits and Education	PY8		\$1,262	\$2,538	\$21	\$20	\$190	\$77	988	8,857	7,074	60,368
	PY9		\$1,408	\$2,918	\$47	\$22	\$198	\$81	1,075	9,637	7,696	65,681
	PY10		\$1,500	\$3,225	\$49	\$23	\$261	\$107	1,119	10,026	8,007	68,333
	PY11		\$1,596	\$3,481	\$52	\$24	\$284	\$116	1,162	10,416	8,318	70,989
	PY12		\$1,133	\$2,341	\$37	\$17	\$223	\$98	832	5,795	6,506	45,620
Program Total ²	2.10	\$5,989	\$12,569	\$207	\$105	\$1,157	\$479	5,177	44,731	37,601	310,990	
Efficient Equipment (all C&I sectors)	PY8		\$25,932	\$41,845	\$287	\$202	\$2,112	\$693	13,228	186,349	73,625	1,028,414
	PY9		\$27,929	\$44,366	\$585	\$203	\$2,047	\$670	13,352	188,164	74,224	1,037,157
	PY10		\$35,255	\$56,660	\$723	\$251	\$3,127	\$1,017	16,335	229,327	90,602	1,261,538
	PY11		\$34,640	\$57,853	\$719	\$253	\$3,199	\$1,026	16,126	226,212	89,074	1,238,682
	PY12		\$33,042	\$59,211	\$715	\$251	\$3,227	\$1,040	15,916	223,004	88,016	1,222,493
Program Total ²	1.65	\$134,720	\$222,502	\$3,028	\$1,159	\$13,712	\$4,447	74,957	1,053,055	415,541	5,788,284	
Custom (all C&I sectors)	PY8		\$20,223	\$32,792	\$204	\$133	\$1,489	\$746	9,400	132,052	59,712	837,222
	PY9		\$21,044	\$35,741	\$430	\$134	\$1,497	\$755	9,813	136,697	62,629	871,132
	PY10		\$30,369	\$53,484	\$615	\$174	\$2,664	\$1,367	13,901	193,608	90,046	1,255,446
	PY11		\$30,777	\$56,438	\$630	\$180	\$2,812	\$1,440	14,133	196,972	91,440	1,275,558
	PY12		\$30,002	\$58,571	\$635	\$181	\$2,875	\$1,472	14,133	196,972	91,440	1,275,558
Program Total ²	1.78	\$113,034	\$201,081	\$2,514	\$802	\$11,337	\$5,780	61,380	856,302	395,268	5,514,917	
Demand Response (all C&I sectors)	PY8		\$1,192	\$0	\$0	\$0	\$0	\$0	0	0	0	0
	PY9		\$2,943	\$6,195	\$5,037	\$1,158	\$0	\$0	115,000	115,000	0	0
	PY10		\$2,943	\$6,256	\$5,087	\$1,170	\$0	\$0	115,000	115,000	0	0
	PY11		\$2,943	\$6,306	\$5,127	\$1,179	\$0	\$0	115,000	115,000	0	0
	PY12		\$2,943	\$6,355	\$5,167	\$1,188	\$0	\$0	115,000	115,000	0	0
Program Total ²	1.90	\$11,021	\$20,950	\$20,418	\$4,695	\$0	\$0	460,000	460,000	0	0	
Portfolio Total ²	1.57 1.65	\$464,206	\$728,107 \$766,332	\$30,351	\$8,968	\$49,431	\$19,847	710,041	3,453,739 3,572,274	1,587,984	18,308,800 19,220,553	

¹Annual TRC costs reported in this table are different from those reported in Table 3 (Pa PUC Table 1a, energy efficiency) and Table 4 (Pa PUC Table 1b, demand). The annual costs in this table are nominal annual values and do not include common, portfolio-level costs.

²The TRC ratio will reflect the lifetime TRC, not an annual TRC ratio, and does not include common costs. Total program costs and benefits are discounted back to PY8. Yearly cost and benefits are valued in their respective program years.

Table 101. Pa PUC Table 7B - Net Benefits, Portfolio

Portfolio			Net TRC Benefits by Program Per Year (\$1000)									
Program	Program Year	TRC	TRC Costs (\$1,000) ^{1, 2}	TRC Benefits (\$1,000)	Capacity (Annual)		Energy (Annual)		Load Reduction in kW		MWh Saved	
					Generation	Trans/Dist	Peak	Off Peak	Annual	Lifetime	Annual	Lifetime
Appliance Recycling	PY8		\$2,113	\$2,698	\$23	\$22	\$211	\$88	1,065	8,433	7,872	63,210
	PY9		\$2,108	\$2,757	\$45	\$21	\$196	\$82	1,035	8,192	7,640	61,357
	PY10		\$2,345	\$2,816	\$44	\$20	\$242	\$101	1,006	7,958	7,415	59,554
	PY11		\$2,431	\$2,893	\$44	\$20	\$247	\$103	977	7,730	7,196	57,803
	PY12		\$2,806	\$3,854	\$56	\$26	\$322	\$135	1,244	9,700	9,189	73,093
Program Total ²		1.27	\$10,136	\$12,883	\$212	\$109	\$1,218	\$510	5,328	42,014	39,313	315,018
Efficient Lighting	PY8		\$29,799	\$42,404	\$287	\$268	\$2,107	\$637	13,232	185,251	71,814	1,005,398
	PY9		\$17,697	\$42,603	\$554	\$255	\$1,931	\$584	12,644	177,015	68,590	960,265
	PY10		\$9,385	\$31,473	\$395	\$181	\$1,710	\$512	8,920	124,885	48,184	674,574
	PY11		\$5,101	\$21,099	\$258	\$119	\$1,157	\$340	5,794	81,119	31,052	434,724
	PY12		\$120	\$0	\$0	\$0	\$0	\$0	0	0	0	0
Program Total ²		2.15	\$58,524	\$126,078	\$1,494	\$823	\$6,906	\$2,073	40,591	568,271	219,640	3,074,961
Energy Efficient Home	PY8		\$6,814	\$2,350	\$9	\$9	\$123	\$66	426	4,832	4,782	57,426
	PY9		\$7,439	\$3,349	\$24	\$11	\$159	\$87	551	6,104	6,461	77,369
	PY10		\$10,586	\$5,240	\$31	\$14	\$311	\$182	693	7,556	9,365	114,541
	PY11		\$13,651	\$7,477	\$35	\$16	\$447	\$277	793	8,607	12,645	159,023
	PY12		\$15,475	\$8,966	\$37	\$17	\$530	\$340	815	8,653	14,665	186,189
Program Total ²		0.50	\$45,345	\$22,662	\$136	\$67	\$1,569	\$951	3,278	35,752	47,919	594,548
Student Energy Efficient Education (NET Single Year)	PY8		\$1,243	\$2,348	\$15	\$14	\$138	\$59	673	7,407	5,180	56,977
	PY9		\$1,271	\$2,502	\$29	\$14	\$133	\$56	673	7,407	5,180	56,977
	PY10		\$1,390	\$2,657	\$30	\$14	\$169	\$72	673	7,407	5,180	56,977
	PY11		\$1,419	\$2,766	\$30	\$14	\$178	\$75	673	7,407	5,180	56,977
	PY12		\$1,689	\$1,815	\$19	\$9	\$115	\$49	426	4,682	3,274	36,014
Program Total ²		1.75	\$6,020	\$10,537	\$123	\$64	\$732	\$311	3,119	34,312	23,993	263,922
Home Energy Education (NET Single Year)	PY8		\$1,845	\$1,743 \$8,907	\$113	\$106	\$1,070	\$454	5,219	5,219 26,095	40,144	40,144 200,720
	PY9		\$1,759	\$1,839 \$9,727	\$234	\$108	\$1,051	\$446	5,341	5,341 26,704	41,080	41,080 205,400
	PY10		\$1,952	\$2,284 \$10,506	\$239	\$110	\$1,358	\$576	5,408	5,408 27,042	41,600	41,600 208,000
	PY11		\$2,253	\$2,702 \$12,255	\$273	\$126	\$1,617	\$686	6,132	6,132 30,661	47,168	47,168 235,840
	PY12		\$2,398	\$3,386 \$15,427	\$339	\$156	\$2,030	\$862	7,533	7,533 37,667	57,946	57,946 289,731
Program Total ²		1.15 5.52	\$8,759	\$10,113 \$48,238	\$1,198	\$605	\$7,125	\$3,025	29,634	29,634 148,168	227,938	227,938 1,139,691
Low-Income	PY8		\$7,504	\$5,391	\$34	\$31	\$298	\$124	1,547	18,532	11,060	131,490

Act 129 Phase III Plan Errata Filing: PPL Electric Utilities

Portfolio			Net TRC Benefits by Program Per Year (\$1000)									
Program	Program Year	TRC	TRC Costs (\$1,000) ¹ , ²	TRC Benefits (\$1,000)	Capacity (Annual)		Energy (Annual)		Load Reduction in kW		MWh Saved	
					Generation	Trans/Dist	Peak	Off Peak	Annual	Lifetime	Annual	Lifetime
WRAP (all sectors)	PY9		\$7,367	\$5,908	\$70	\$32	\$295	\$123	1,602	19,355	11,404	136,594
	PY10		\$10,396	\$6,489	\$74	\$34	\$388	\$163	1,665	20,295	11,778	142,179
	PY11		\$10,566	\$6,773	\$75	\$34	\$409	\$171	1,672	20,391	11,835	142,973
	PY12		\$6,973	\$5,369	\$56	\$26	\$329	\$148	1,245	14,412	9,468	109,845
Program Total ²		0.70	\$36,994	\$25,915	\$308	\$157	\$1,718	\$729	7,730	92,984	55,546	663,080
Energy Efficiency Kits and Education	PY8		\$1,262	\$2,538	\$21	\$20	\$190	\$77	988	8,857	7,074	60,368
	PY9		\$1,408	\$2,918	\$47	\$22	\$198	\$81	1,075	9,637	7,696	65,681
	PY10		\$1,500	\$3,225	\$49	\$23	\$261	\$107	1,119	10,026	8,007	68,333
	PY11		\$1,596	\$3,481	\$52	\$24	\$284	\$116	1,162	10,416	8,318	70,989
Program Total ²		2.10	\$5,989	\$12,569	\$207	\$105	\$1,157	\$479	5,177	44,731	37,601	310,990
Efficient Equipment (all C&I sectors)	PY8		\$20,245	\$31,384	\$215	\$151	\$1,584	\$520	9,921	139,761	55,218	771,311
	PY9		\$21,746	\$33,274	\$439	\$152	\$1,535	\$503	10,014	141,123	55,668	777,868
	PY10		\$27,756	\$42,495	\$542	\$188	\$2,345	\$762	12,251	171,995	67,952	946,154
	PY11		\$27,279	\$43,390	\$539	\$190	\$2,399	\$770	12,095	169,659	66,806	929,011
Program Total ²		1.58	\$105,421	\$166,876	\$2,271	\$870	\$10,284	\$3,335	56,218	789,792	311,656	4,341,213
Custom (all C&I sectors)	PY8		\$11,592	\$16,396	\$102	\$67	\$745	\$373	4,700	66,026	29,856	418,611
	PY9		\$12,056	\$17,870	\$215	\$67	\$748	\$377	4,907	68,349	31,315	435,566
	PY10		\$17,553	\$26,742	\$307	\$87	\$1,332	\$684	6,951	96,804	45,023	627,723
	PY11		\$17,774	\$28,219	\$315	\$90	\$1,406	\$720	7,066	98,486	45,720	637,779
Program Total ²		1.55	\$64,869	\$100,540	\$1,257	\$401	\$5,668	\$2,890	30,690	428,151	197,634	2,757,458
Demand Response (all C&I sectors)	PY8		\$1,192	\$0	\$0	\$0	\$0	\$0	0	0	0	0
	PY9		\$2,943	\$6,195	\$5,037	\$1,158	\$0	\$0	115,000	115,000	0	0
	PY10		\$2,943	\$6,256	\$5,087	\$1,170	\$0	\$0	115,000	115,000	0	0
	PY11		\$2,943	\$6,306	\$5,127	\$1,179	\$0	\$0	115,000	115,000	0	0
Program Total ²		1.90	\$11,021	\$20,950	\$20,418	\$4,695	\$0	\$0	460,000	460,000	0	0
Portfolio Total ²		1.55 1.44	\$353,079	\$509,124 \$547,349	\$27,624	\$7,895	\$36,376	\$14,302	641,765	2,525,640 2,644,175	1,161,240	12,549,130 13,460,893

¹ Annual TRC costs reported in this table are different from those reported in Table 3 (Pa PUC Table 1a, energy efficiency) and Table 4 (Pa PUC Table 1b, demand). The annual costs in this table are nominal annual values and do not include common, portfolio-level costs.

² The TRC ratio will reflect the lifetime TRC, not an annual TRC ratio, and does not include common costs. Total program costs and benefits are discounted back to PY8. Yearly cost and benefits are valued in their respective program years. The Portfolio Total is discounted back to PY8 and excludes common costs.

Table 102. Pa PUC Table 7C - TRC Benefits, Residential and Low-Income Portfolio

Residential and Low-Income			Gross TRC Benefits by Program Per Year (\$1000)									
Program	Program Year	TRC	TRC Costs (\$1,000) ¹	TRC Benefits (\$1,000)	Capacity (Annual)		Energy (Annual)		Load Reduction in kW		MWh Saved	
					Generation	Trans/Dist	Peak	Off Peak	Annual	Lifetime	Annual	Lifetime
Appliance Recycling	PY8	2.13	\$2,113	\$4,497	\$38	\$36	\$351	\$147	1,775	14,056	13,120	105,351
	PY9	2.18	\$2,108	\$4,595	\$76	\$35	\$327	\$137	1,725	13,654	12,734	102,261
	PY10	2.00	\$2,345	\$4,693	\$74	\$34	\$404	\$169	1,676	13,263	12,358	99,257
	PY11	1.98	\$2,431	\$4,822	\$73	\$33	\$411	\$172	1,629	12,884	11,994	96,339
	PY12	2.29	\$2,806	\$6,423	\$93	\$43	\$536	\$225	2,073	16,167	15,316	121,822
Efficient Lighting	PY8	1.43	\$36,579	\$52,270	\$352	\$328	\$2,586	\$799	16,215	227,012	88,864	1,244,102
	PY9	2.45	\$21,383	\$52,316	\$676	\$311	\$2,361	\$730	15,431	216,032	84,566	1,183,925
	PY10	3.49	\$10,689	\$37,258	\$463	\$213	\$2,012	\$622	10,466	146,525	57,357	803,004
	PY11	4.38	\$5,307	\$23,256	\$281	\$129	\$1,264	\$391	6,298	88,171	34,515	483,204
	PY12	0.00	\$120	\$0	\$0	\$0	\$0	\$0	0	0	0	0
Energy Efficient Home	PY8	0.42	\$8,651	\$3,615	\$14	\$13	\$189	\$102	656	7,434	7,357	88,348
	PY9	0.53	\$9,773	\$5,152	\$37	\$17	\$244	\$134	848	9,391	9,941	119,029
	PY10	0.56	\$14,371	\$8,061	\$47	\$22	\$478	\$279	1,065	11,624	14,408	176,217
	PY11	0.61	\$18,804	\$11,503	\$54	\$25	\$688	\$425	1,220	13,241	19,454	244,650
	PY12	0.63	\$21,859	\$13,794	\$56	\$26	\$815	\$523	1,253	13,312	22,561	286,445
Student Energy Efficient Education	PY8	1.89	\$1,243	\$2,348	\$15	\$14	\$138	\$59	673	7,407	5,180	56,977
	PY9	1.97	\$1,271	\$2,502	\$29	\$14	\$133	\$56	673	7,407	5,180	56,977
	PY10	1.91	\$1,390	\$2,657	\$30	\$14	\$169	\$72	673	7,407	5,180	56,977
	PY11	1.95	\$1,419	\$2,766	\$30	\$14	\$178	\$75	673	7,407	5,180	56,977
	PY12	1.07	\$1,689	\$1,815	\$19	\$9	\$115	\$49	426	4,682	3,274	36,014
Home Energy Education	PY8	0.94 4.83	\$1,845	\$1,743 \$8,907	\$113	\$106	\$1,070	\$454	5,219	5,219 26,095	40,144	40,144 200,720
	PY9	1.05 5.53	\$1,759	\$1,839 \$9,727	\$234	\$108	\$1,051	\$446	5,341	5,341 26,704	41,080	41,080 205,400
	PY10	1.17 5.38	\$1,952	\$2,284 \$10,506	\$239	\$110	\$1,358	\$576	5,408	5,408 27,042	41,600	41,600 208,000
	PY11	1.20 5.44	\$2,253	\$2,702 \$12,255	\$273	\$126	\$1,617	\$686	6,132	6,132 30,661	47,168	47,168 235,840
	PY12	1.41	\$2,398	\$3,386	\$339	\$156	\$2,030	\$862	7,533	7,533	57,946	57,946

Act 129 Phase III Plan Errata Filing: PPL Electric Utilities

Residential and Low-Income			Gross TRC Benefits by Program Per Year (\$1000)									
Program	Program Year	TRC	TRC Costs (\$1,000) ¹	TRC Benefits (\$1,000)	Capacity (Annual)		Energy (Annual)		Load Reduction in kW		MWh Saved	
					Generation	Trans/Dist	Peak	Off Peak	Annual	Lifetime	Annual	Lifetime
		6.43		\$15,427						37,667		289,731
Low-Income WRAP	PY8	0.70	\$7,225	\$5,047	\$31	\$29	\$283	\$117	1,452	17,111	10,501	123,102
	PY9	0.77	\$6,947	\$5,365	\$64	\$29	\$273	\$113	1,460	17,221	10,564	123,994
	PY10	0.58	\$9,796	\$5,676	\$65	\$30	\$350	\$145	1,462	17,247	10,578	124,179
	PY11	0.60	\$9,966	\$5,930	\$65	\$30	\$369	\$153	1,469	17,342	10,635	124,967
	PY12	0.71	\$6,372	\$4,495	\$47	\$22	\$288	\$129	1,041	11,363	8,268	91,839
Energy Efficiency Kits and Education	PY8	2.01	\$1,262	\$2,538	\$21	\$20	\$190	\$77	988	8,857	7,074	60,368
	PY9	2.07	\$1,408	\$2,918	\$47	\$22	\$198	\$81	1,075	9,637	7,696	65,681
	PY10	2.15	\$1,500	\$3,225	\$49	\$23	\$261	\$107	1,119	10,026	8,007	68,333
	PY11	2.18	\$1,596	\$3,481	\$52	\$24	\$284	\$116	1,162	10,416	8,318	70,989
	PY12	2.07	\$1,133	\$2,341	\$37	\$17	\$223	\$98	832	5,795	6,506	45,620

¹Annual TRC costs reported in this table are different from those reported in Table 3 (Pa PUC Table 1a, energy efficiency) and Table 4 (Pa PUC Table 1b, demand). The annual costs in this table are nominal annual values and do not include common, portfolio-level costs.

Residential and Low-Income			Net TRC Benefits by Program Per Year (\$1000)									
Program	Program Year	TRC	TRC Costs (\$1,000) ¹	TRC Benefits (\$1,000)	Capacity (Annual)		Energy (Annual)		Load Reduction in kW		MWh Saved	
					Generation	Trans/Dist	Peak	Off Peak	Annual	Lifetime	Annual	Lifetime
Appliance Recycling	PY8	1.28	\$2,113	\$2,698	\$23	\$22	\$211	\$88	1,065	8,433	7,872	63,210
	PY9	1.31	\$2,108	\$2,757	\$45	\$21	\$196	\$82	1,035	8,192	7,640	61,357
	PY10	1.20	\$2,345	\$2,816	\$44	\$20	\$242	\$101	1,006	7,958	7,415	59,554
	PY11	1.19	\$2,431	\$2,893	\$44	\$20	\$247	\$103	977	7,730	7,196	57,803
	PY12	1.37	\$2,806	\$3,854	\$56	\$26	\$322	\$135	1,244	9,700	9,189	73,093
Efficient Lighting	PY8	1.41	\$27,831	\$39,202	\$264	\$246	\$1,939	\$599	12,161	170,259	66,648	933,076
	PY9	2.39	\$16,400	\$39,237	\$507	\$233	\$1,771	\$547	11,573	162,024	63,425	887,944
	PY10	3.30	\$8,457	\$27,943	\$347	\$160	\$1,509	\$466	7,850	109,894	43,018	602,253
	PY11	3.98	\$4,385	\$17,442	\$211	\$97	\$948	\$293	4,723	66,128	25,886	362,403
	PY12	0.00	\$120	\$0	\$0	\$0	\$0	\$0	0	0	0	0
Energy Efficient Home	PY8	0.34	\$6,814	\$2,350	\$9	\$9	\$123	\$66	426	4,832	4,782	57,426
	PY9	0.45	\$7,439	\$3,349	\$24	\$11	\$159	\$87	551	6,104	6,461	77,369
	PY10	0.49	\$10,586	\$5,240	\$31	\$14	\$311	\$182	693	7,556	9,365	114,541

Act 129 Phase III Plan Errata Filing: PPL Electric Utilities

Residential and Low-Income			Gross TRC Benefits by Program Per Year (\$1000)									
Program	Program Year	TRC	TRC Costs (\$1,000) ¹	TRC Benefits (\$1,000)	Capacity (Annual)		Energy (Annual)		Load Reduction in kW		MWh Saved	
					Generation	Trans/Dist	Peak	Off Peak	Annual	Lifetime	Annual	Lifetime
	PY11	0.55	\$13,651	\$7,477	\$35	\$16	\$447	\$277	793	8,607	12,645	159,023
	PY12	0.58	\$15,475	\$8,966	\$37	\$17	\$530	\$340	815	8,653	14,665	186,189
Student Energy Efficient Education	PY8	1.89	\$1,243	\$2,348	\$15	\$14	\$138	\$59	673	7,407	5,180	56,977
	PY9	1.97	\$1,271	\$2,502	\$29	\$14	\$133	\$56	673	7,407	5,180	56,977
	PY10	1.91	\$1,390	\$2,657	\$30	\$14	\$169	\$72	673	7,407	5,180	56,977
	PY11	1.95	\$1,419	\$2,766	\$30	\$14	\$178	\$75	673	7,407	5,180	56,977
	PY12	1.07	\$1,689	\$1,815	\$19	\$9	\$115	\$49	426	4,682	3,274	36,014
Home Energy Education	PY8	0.94 4.83	\$1,845	\$1,743 \$8,907	\$113	\$106	\$1,070	\$454	5,219	5,219 26,095	40,144	40,144 200,720
	PY9	1.05 5.53	\$1,759	\$1,839 \$9,727	\$234	\$108	\$1,051	\$446	5,341	5,341 26,704	41,080	41,080 205,400
	PY10	1.17 5.38	\$1,952	\$2,284 \$10,506	\$239	\$110	\$1,358	\$576	5,408	5,408 27,042	41,600	41,600 208,000
	PY11	1.20 5.44	\$2,253	\$2,702 \$12,255	\$273	\$126	\$1,617	\$686	6,132	6,132 30,661	47,168	47,168 235,840
	PY12	1.41 6.43	\$2,398	\$3,386 \$15,427	\$339	\$156	\$2,030	\$862	7,533	7,533 37,667	57,946	57,946 289,731
Low-Income WRAP	PY8	0.70	\$7,225	\$5,047	\$31	\$29	\$283	\$117	1,452	17,111	10,501	123,102
	PY9	0.77	\$6,947	\$5,365	\$64	\$29	\$273	\$113	1,460	17,221	10,564	123,994
	PY10	0.58	\$9,796	\$5,676	\$65	\$30	\$350	\$145	1,462	17,247	10,578	124,179
	PY11	0.60	\$9,966	\$5,930	\$65	\$30	\$369	\$153	1,469	17,342	10,635	124,967
	PY12	0.71	\$6,372	\$4,495	\$47	\$22	\$288	\$129	1,041	11,363	8,268	91,839
Energy Efficiency Kits and Education	PY8	2.01	\$1,262	\$2,538	\$21	\$20	\$190	\$77	988	8,857	7,074	60,368
	PY9	2.07	\$1,408	\$2,918	\$47	\$22	\$198	\$81	1,075	9,637	7,696	65,681
	PY10	2.15	\$1,500	\$3,225	\$49	\$23	\$261	\$107	1,119	10,026	8,007	68,333
	PY11	2.18	\$1,596	\$3,481	\$52	\$24	\$284	\$116	1,162	10,416	8,318	70,989
	PY12	2.07	\$1,133	\$2,341	\$37	\$17	\$223	\$98	832	5,795	6,506	45,620

¹Annual TRC costs reported in this table are different from those reported in Table 3 (Pa PUC Table 1a, energy efficiency) and Table 4 (Pa PUC Table 1b, demand). The annual costs in this table are nominal annual values and do not include common, portfolio-level costs. Yearly cost and benefits are valued in their respective program years.