

Paul E. Russell
Associate General Counsel

PPL
Two North Ninth Street
Allentown, PA 18101-1179
Tel. 610.774.4254 Fax 610.774.6726
perussell@pplweb.com



Federal Express

May 29, 2015

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, Pennsylvania 17120

RECEIVED

MAY 29 2015

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

**Re: PPL Electric Utilities Corporation
2014 Time of Use Annual Report
Docket No. M-2009-2093216**

Dear Secretary Chiavetta:

Enclosed for filing on behalf of PPL Electric Utilities Corporation ("PPL Electric") is a copy of PPL Electric's Time of Use Annual Report for calendar year 2014. This report is being filed pursuant to the provisions of 66 Pa.C.S. § 2807(f)(5).

Pursuant to 52 Pa. Code § 1.11, the enclosed document is to be deemed filed on May 29, 2015, which is the date it was deposited with an overnight delivery service. In addition, please date and time-stamp the enclosed extra copy of this letter and rerun it to me in the envelope provided.

If you have any questions regarding the enclosed report, please call me or Kimberly A. Golden, PPL Electric's Manager - Load/Data Analytics & Forecasting at (610) 774-5910.

Very truly yours,

Paul E. Russell

Enclosures

cc: Tanya J. McCloskey, Esquire
Mr. John R. Evans
J. Edward Simms, Esquire

**PPL Electric Utilities Corporation
Time-of-Use Program
Annual Report**

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MAY 29 2015

Period of Study: Year 2014

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

Overview

Pursuant to 66 Pa. C.S. § 2807(f) (5), PPL Electric Utilities Corporation ("PPL Electric" or the "Company") hereby files this Annual Report regarding its Time-of-Use ("TOU") program. This Annual Report assesses the impact of PPL Electric Utilities' Time-of-Use program offered to its residential and small commercial and industrial (Small C&I) customer classes on load shifting, energy prices and consumption.

The objective of this TOU program was to encourage customers to shift their electricity usage from the on-peak to the off-peak periods. The intent was that lower on-peak usage will ultimately lower energy and capacity prices, not just for the participants in the TOU program, but for all customers. For the purpose of this report, customer participation, shopping, and pricing were evaluated for the year 2014.

This TOU program (referred to henceforth as 'The TOU program', or 'The TOU Rate') officially concluded with the customers' December 2014 billing cycle. No new customers may sign up for this service. The customers were permitted to begin shopping to select an EGS participating in a new Pilot TOU Program (approved by the PPUC on Sept. 11, 2014) after they received their December 2014 bill.

The TOU program offered by PPL Electric Utilities was available to all residential and small C&I customers served under rate schedules RS, RTS(R), GS-1, and GH-2. The program was also available to GS-3 customers with a demand of less than 500 kW. However, only customers who had PPL Electric as their default supplier were eligible to participate in PPL's TOU Program. Customers who chose to have competitive generation supply were ineligible to participate.

Summary

There were 1,617 customers on the TOU rate billed in January 2014, and the customer counts declined steadily over the year. As shown in Table 1 below, as of December 2014, only 1,230 (0.09%) of PPL's 1.4 million customers were enrolled.

Since the summer of 2011 (pursuant to the PUC's order entered August 25, 2011 at Docket No. M-2011-2258733), customers on the TOU rates have been paying appreciably higher rates – for both on-peak and off-peak - than the fixed default service price to compare (PTC). This likely explains the continual drop in participation. The customers remaining on the program may have lacked awareness or motivation to change rates.

Table 1: TOU Participation as of December 2014

Rate Schedule	Bill Count	Monthly Billed kWh
TR1	1,109	1,449,280
TR3	52	82,430
TH2	0	0
TG1	68	40,490
TG3	1	0
TOTAL	1,230	1,572,200
Percentage Share	0.09%	0.05%

Methodology

The primary focus of this study is to measure the percentage of load shift from the on-peak to the off-peak period under the TOU program. For the scope of this study, only summer months' load shapes for customers served under rate schedules RS, RTS(R) and GS-1 rate schedules were analyzed to compare usage during on-peak and off-peak periods for each rate schedule. Peak load hours in the summer months determine the need for capacity within PJM. Reductions in on-peak usage during the summer months would reduce the capacity Peak Load Contribution (PLC) for customers on the TOU programs, which will reduce the capacity needs for all of PJM, thus reducing the cost of capacity for all customers. Summer is defined as June 1 through September 30. The on-peak and off-peak definitions are shown in Figure 1.

Figure 1

Rate schedule	Summer peak hours (June – September)
RS, RTS(R), Volunteer Fire Company served under rate schedules GS-1 and GS-3	1:00 PM to 6:00 PM
GS-1, GS-3, and GH-2	7:00 AM to 7:00 PM

Note: On-peak hours occur only during weekdays with the exception of holidays which are considered to be off-peak.

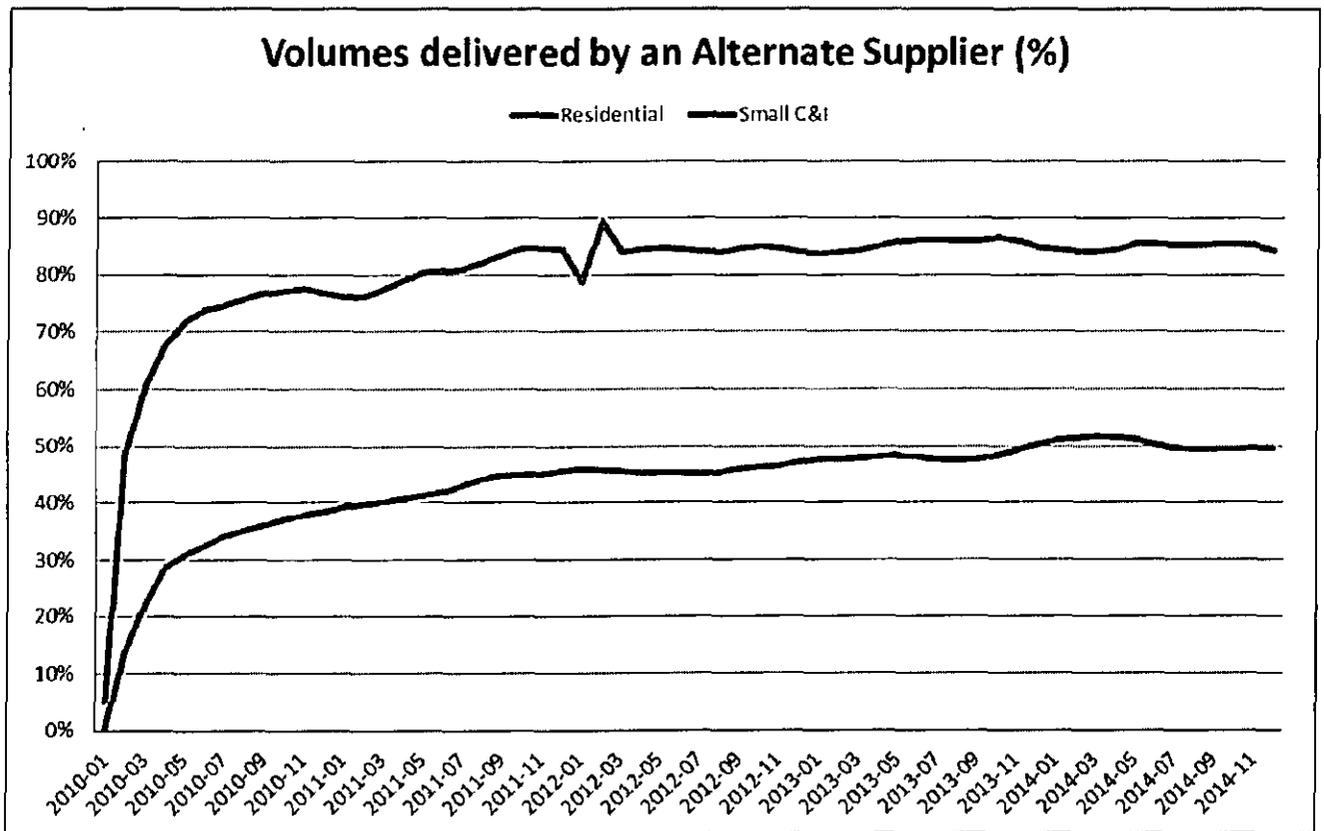
In order to measure any change or shift in consumption between the on-peak and off-peak periods, comparison was made between the control group and their corresponding TOU group. A control group is defined as the primary traditional rate group not participating in any TOU program. Monthly aggregations were used to measure the on-peak and off-peak average use.

TOU Participation versus Shopping

Participation in the TOU program was only available to customers who chose PPL Electric as their default supplier instead of an alternate/ competitive supplier.

In contrast to the TOU program's decreasing participation, shopping has been largely unchanged since the end of 2013, despite some variations throughout the year 2014, as shown in Figure 2.

Figure 2



Price Effect on TOU Participation

There has been a continuous drop in overall TOU participation during 2014, as shown in Figures 3 through Figure 5. Program prices may have prompted customers to go off the program during this time. Throughout the year, both on-peak and off-peak prices remained higher than the price-to-compare (PTC) offered to the non-TOU customers.

Figure 3

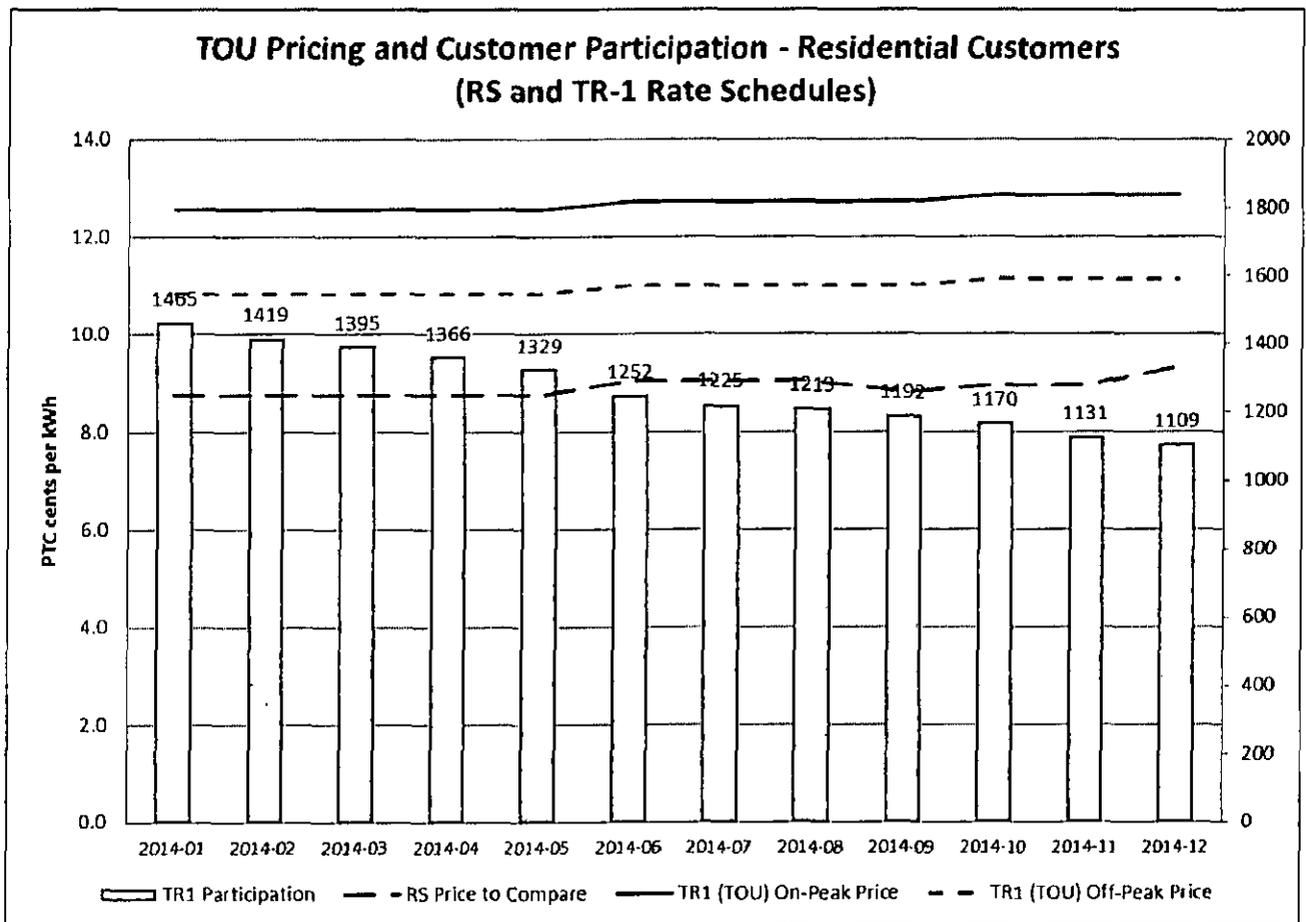
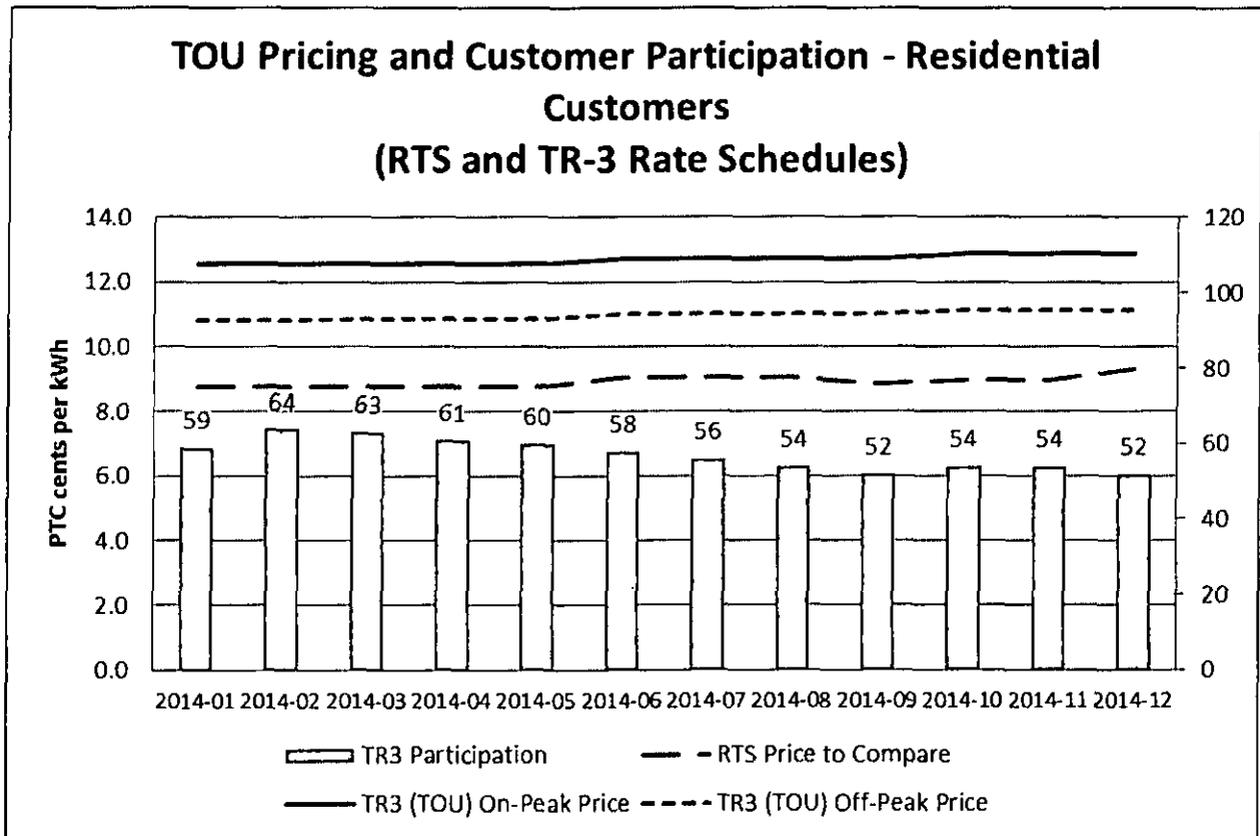
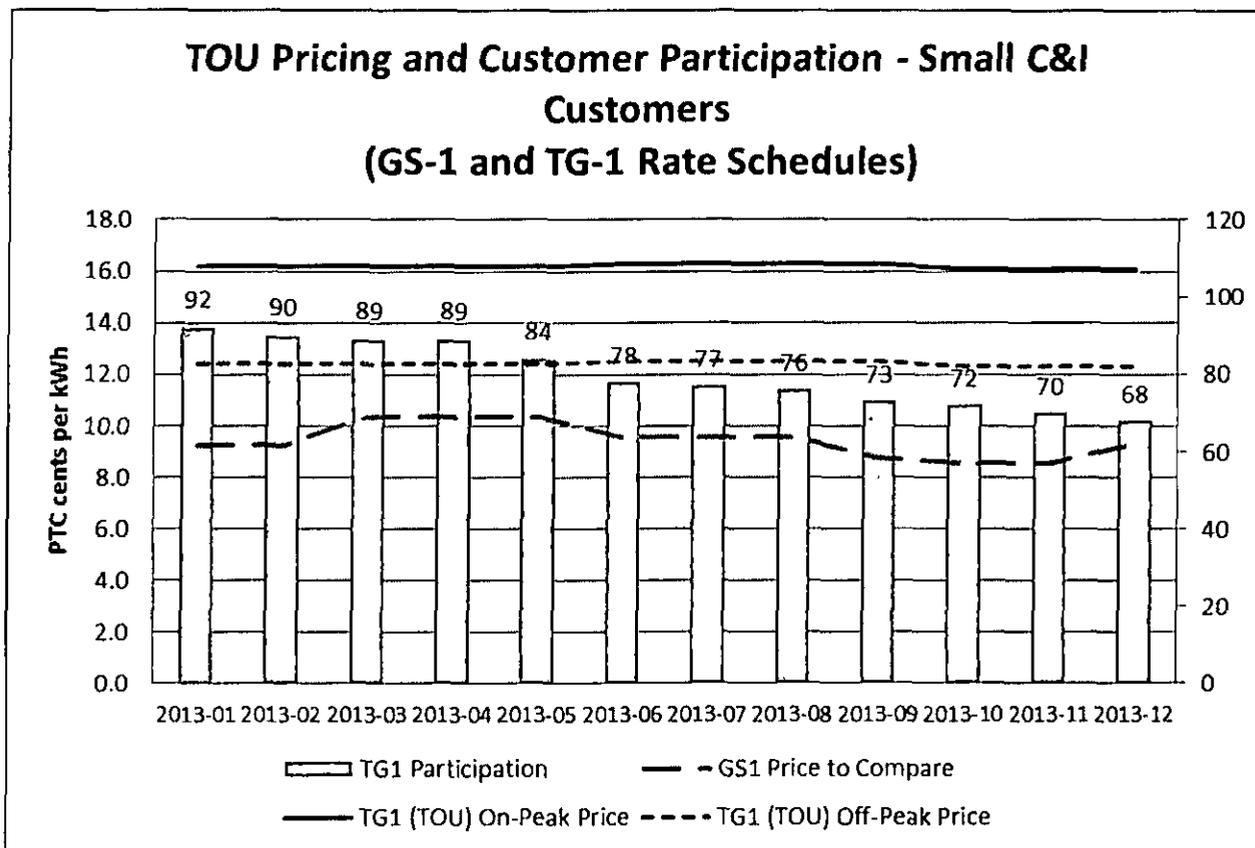


Figure 4



Both the RS and the RTS(R) TOU rates (TR1 and TR3) experienced declines in enrollment during 2014. Presumably, the customers are responding to the price signals, which are disadvantageous on TOU.

Figure 5



Participation also dropped in the Small C&I TOU rate TG-1 throughout the year. Like the Residential TOU rate, the on- and off-peak pricing for Small C&I TOU was higher than the GS-1 price-to-compare.

Analysis of Load Shift

Hourly average use during 2014 was analyzed to measure the consumption pattern between on-peak and off-peak periods during the summer months. Average use was compared between the TOU and control group for each of the three rate schedules – RS, RTS and GS1.

- **Control group to TOU - Residential**

Tables 2 and 3 compare the on-peak and off-peak usage split for both the residential rate schedules. As Table 2 shows, the difference in the splits for the RS vs. TR1 groups are minor, with the TR1 group using 0.19 percentage points more off-peak, at most, in any month. The RTS splits (Table 3) were also similar between TR3 and its control (RTS), again differing by only a small fraction of a percentage point.

Table 2: RS rate schedule – Comparison of On-Peak vs. Off-Peak Usage Splits

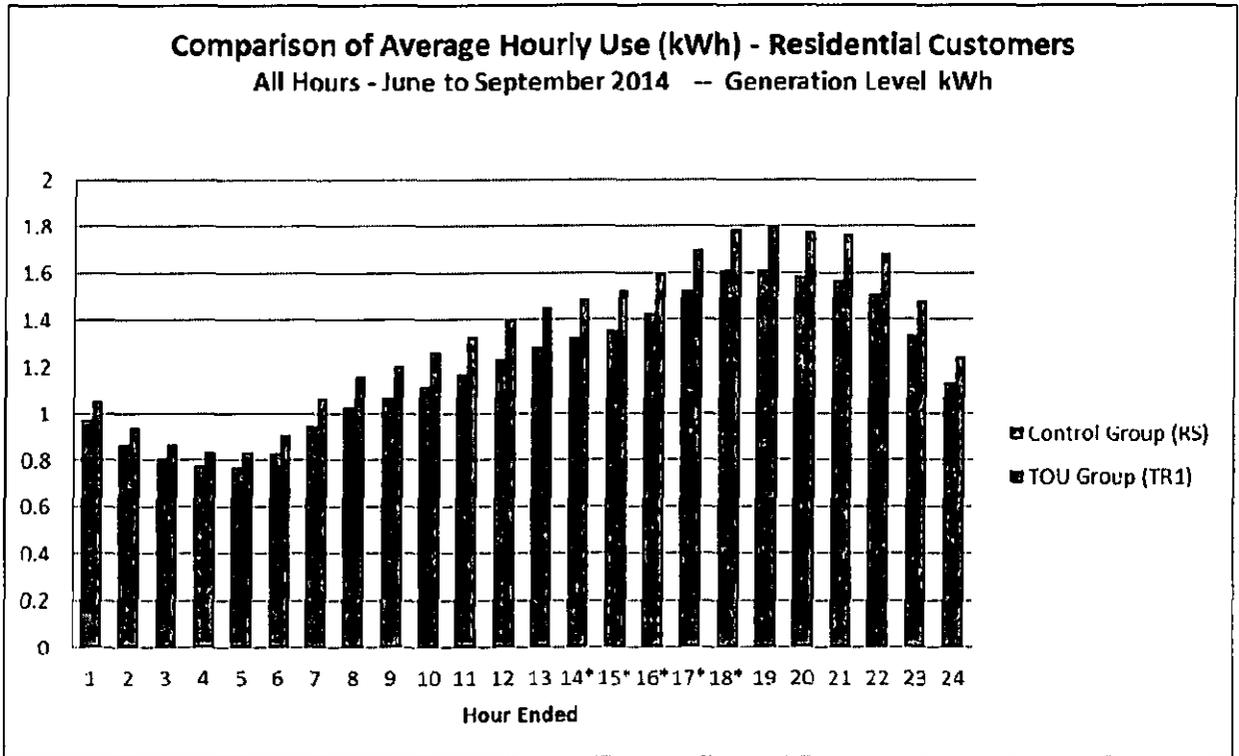
Month	Control Group (RS)		TOU Group (TR1)		Percentage point change in On-Peak
	On-Peak %	Off-Peak %	On-peak %	Off-Peak %	
June	17.50	82.50	17.31	82.69	-0.19
July	18.31	81.69	18.48	81.52	+0.17
August	16.98	83.02	17.03	82.97	+0.05
September	15.70	84.30	15.52	84.48	-0.18
Total	17.20	82.80	17.18	82.82	-0.02

Table 3: RTS rate schedule – Comparison of On-Peak vs. Off-Peak Usage Splits

Month	Control Group (RTS)		TOU Group (TR3)		Percentage point change in On-Peak
	On-Peak %	Off-Peak %	On-peak %	Off-Peak %	
June	17.31	82.68	17.29	82.71	-0.02
July	18.27	81.73	18.42	81.58	+0.15
August	16.92	83.08	17.18	82.82	+0.26
September	15.43	84.57	15.39	84.61	-0.04
Total	17.05	82.95	17.14	82.86	+0.09

Additionally, Figure 6 shows the hourly average use for RS and TR1 customers. Interestingly, while the hourly load shapes are similar, TR1's average hourly use is higher than RS across all hours.

Figure 6



* All hours are depicted. On-peak hours are weekdays, 1-6 PM (hours ending 1400-1800), excluding holidays.

- **Control group to TOU – Small C&I (GS1)**

For customers on rate GS-1, the TOU group (TG1) used a consistently higher proportion on-peak than off-peak than their GS1 control group in each summer month, by 7 to 8 percentage points. However, the kWh impact is small considering that the TOU TG1 population had a much lower hourly average use than the GS1 control group (0.56 kWh vs. 1.66) and there were only 73-78 customers on the rate.

Table 4: GS1 rate schedule – Comparison of On-Peak vs. Off-Peak Usage Splits

Month	Control Group (GS1)		TOU Group (TG1)		Percentage point change in On-Peak
	On-Peak %	Off-Peak %	On-peak %	Off-Peak %	
June	45.18	54.82	51.91	48.09	+6.73
July	45.83	54.17	53.96	46.04	+8.13
August	43.39	56.61	51.27	48.73	+7.88
September	43.61	56.39	51.25	48.75	+7.64
Total	44.50	55.50	52.15	47.85	+7.65

Impact on Energy Market Prices

Prices for energy vary by hour. The Locational Marginal Price (LMP) is determined through the wholesale market at PJM for each zone, and is a function of overall demand (which is highly dependent upon weather), generation availability, and fuel prices. In theory, lower demand during peak hours would result in a lower LMP, as higher priced generation would not be required. However, quantifying the impact on an hourly basis is difficult – there is no way of knowing what the LMP would have been absent the demand reduction. In addition, any load shifted to off-peak hours could result in higher prices in these hours, so the net impact in a TOU rate on energy prices would be the net of 1) the savings in the on-peak hours and 2) the higher cost in the off-peak hours.

Given the small number of customers on the TOU rates, and their small average use, the effect on market prices made by the general TOU population could be presumed to be minimal.

Conclusion

Less than 1 of every thousand of PPL's customers was on the TOU program in 2014. Participation continually dropped throughout 2014, reflecting the program's pricing; the TOU rate was higher than the fixed price default service rate, such that a customer consuming electricity would be paying more than the fixed price default service rate *even if* he successfully shifted 100% of his load off-peak. For the summer months analyzed, the residential TOU customers appeared to use a similar proportion of their usage off-peak as did their counterparts on the traditional rate. The Small Commercial customers on the TOU rates showed slightly more usage on-peak relative to off-peak, compared to the control group.

Many customers went on the TOU rates in early 2011, when both the on- and off-peak rates were lower than the PTC. Even after this situation ended, and prices went higher later in 2011, many customers continued on the rate. The vast majority of the 1,200 customers in the program in December 2014 had been on the TOU program for over three years.

The TOU program concluded with the customers' December 2014 billing cycle. A pilot Time-of-Use program then replaced it, with electric generation suppliers creating the on- and off-peak hours, rates and terms of contracts, along with any program specifics.

From: (610) 774-4254
Paul E Russell
PPL Corporation
2 N 9th Street

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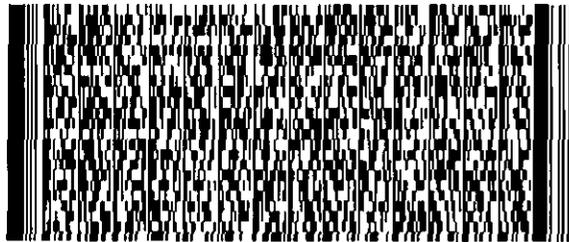


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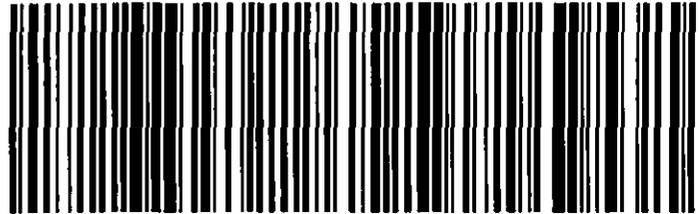
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