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March 6, 2024

Via Electronic Filing

Ms. Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, PA 17120

**Re: Duquesne Light Company – Default Service Plan IX
Time-Of-Use Pilot Program Report
Docket No. P-2020-3019522**

Dear Secretary Chiavetta:

Enclosed for filing, please find an original copy of Duquesne Light Company's ("Duquesne Light" or the "Company") June 1, 2021 through December 31, 2023 Time-Of-Use Pilot Program Report. Should you have any questions, please do not hesitate to contact me.

Respectfully,

A handwritten signature in blue ink that reads "Smaye".

Shelly-Ann Maye
Sr. Manager, Regulatory Claims

Enclosure

cc: Certificate of Service

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant):

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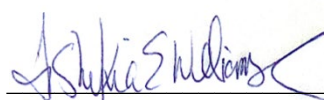
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Dated: March 6, 2024



DSP IX
EV TOU Pilot Program Report
June 1, 2021 through December 31, 2023

March 6, 2024

Background

On June 1, 2021, Duquesne Light Company (“DLC” or “Company”) launched its Electric Vehicle Time-of-Use Pilot default service supply rate program (“Pilot”) for residential, small commercial and industrial (“C&I”) and medium C&I customers with less than 200 kW¹ of demand who use default service supply. The Company’s Pilot was approved by the Pennsylvania Public Utility Commission (“Commission”) on January 14, 2021, as part of the Company’s Default Service Plan IX (“DSP IX”).²

Pursuant to the Final Order² the Company submits this EV TOU Pilot Program Report assessing the Pilot for the period June 1, 2021, through December 31, 2023.

Overview

As previously noted, the Company’s Pilot began on June 1, 2021. The Pilot is an optional time-of-use (“TOU”) default service supply rate available to eligible customers. To be eligible for the Pilot, a residential, small C&I or medium C&I customer with demand less than 200 kW must own or lease an EV or operate EV charging infrastructure at the service location. Customers who are eligible for hourly price service (“HPS”), or those who participate in the Customer Assistance Program (“CAP”), virtual meter aggregation or budget billing are not eligible for the Pilot. Participating customers may withdraw from the Pilot at any time without penalty but may not re-enroll for a period of twelve months thereafter.

¹ DLC customers with demands less than 200kW are eligible for default service under the Company’s tariffed Rider No. 8 – Default Service Supply. The Company evaluates a customer’s twelve (12) most recent months of monthly billing demand of the preceding year. If the customer’s average monthly billing demand is greater than or equal to 200 kW, the customer will become eligible for default service under Rider No. 9 – Day Ahead Hourly Price Service.

² See *Petition of Duquesne Light Company for Approval of its Default Service Plan for the Period from June 1, 2021 through May 31 2025*, Opinion and Order, Docket No. P-2020-3019522, entered Jan. 14, 2021. The Order included approval of the EV-TOU Stipulation, which required, among other things, DLC to file a report prior to its next DSP filing that includes information regarding customer enrollments, bill impacts, energy usage shifts and customer installation of separate meters for EV charging. The EV-TOU Stipulation also provided for stakeholder review and feedback on EV-TOU Pilot customer education materials and required DLC to convene a collaborative meeting around the midpoint of DSP IX to discuss the EV-TOU Pilot Program implementation, results to-date and rates for mass transit and fleet EVs.

Participating customers receive Pilot TOU service for the entire usage served by their smart meter. Customers are charged different supply rates for the Peak, Off-Peak and Super Off-Peak³ periods as follows:

Schedule	Time Period
Peak	1 p.m. – 9 p.m.
Off-Peak	6 a.m. – 1 p.m. 9 p.m. – 11 p.m.
Super Off-Peak	11 p.m. – 6 a.m.

This schedule is year-round, seven days a week, including holidays. The Company obtains default service supply for Pilot customers through the same products that provide default service supply for the respective customer classes.

The Company determines the Pilot default service supply rates for the peak, off-peak, and super off-peak periods by modifying the adjusted wholesale price for each class using rate class factors that are based in part upon hourly locational marginal prices for energy, respective energy consumption patterns and capacity requirements. The Company annually updates the rate factors as part of its tariff supplements updating Rider No. 8 - Default Service Supply rates effective June 1 of each year.

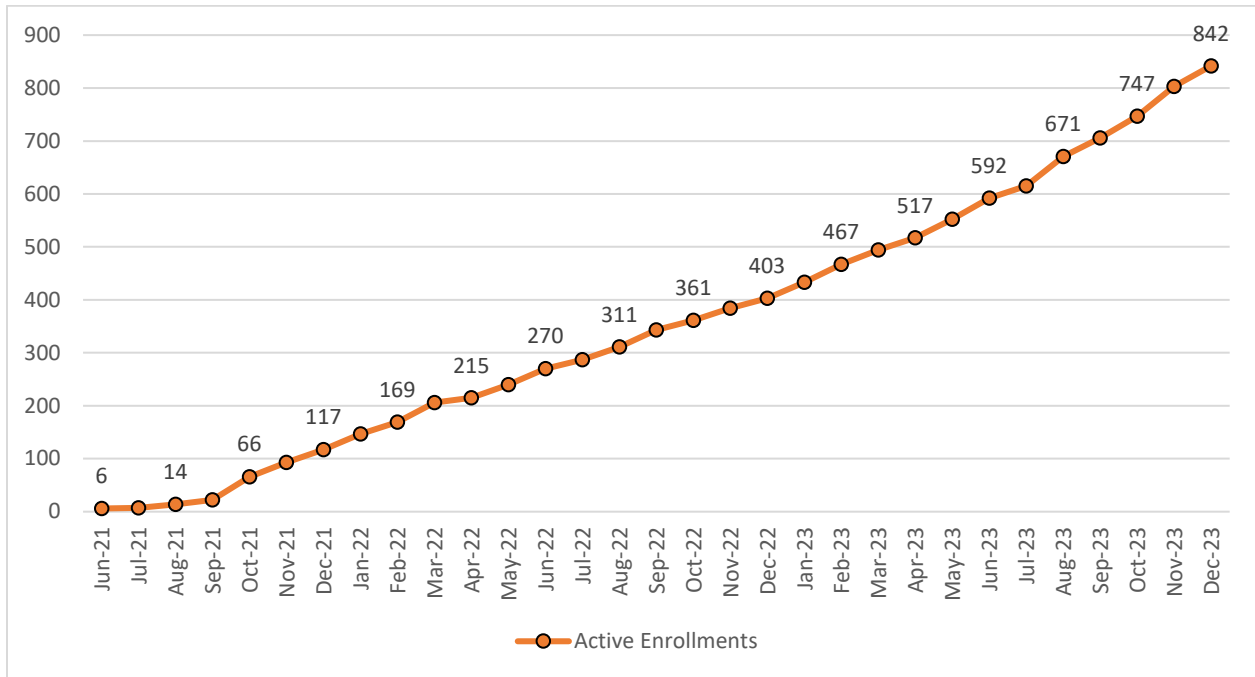
Customer Enrollment Levels

Eligible customers were able to enroll in the Pilot beginning June 1, 2021. As of December 31, 2023, 836 residential, 4 small C&I and 2 medium C&I customers were

³ DLC's initial DSP IX filing included the terms "On-Peak," "Shoulder" and "Off-Peak" for the EV-TOU time periods. In its Supplement No. 23 replacement pages, DLC amended the period names to "Peak," "Off-Peak" and "Super Off-Peak" for consistency with other utilities' terminology and customer preference. See *Duquesne Light Company – Tariff Electric – PA P.U.C. No. 25; Supplement No. 23 Replacement Pages and Request for Waiver of 60-Day Notice Period*, Docket No. P-2020-3019522, submitted Apr. 28, 2021. The Commission served, at this docket, a Secretarial Letter on May 11, 2021, approving the replacement pages.

actively enrolled, including 139 residential customers also participating in net metering. Please see Figure 1 below for a breakdown of active Pilot enrollment by month.

Figure 1: Active Pilot Enrollment by Month



In total, there were 1,005 customers that enrolled in the Pilot during this reporting period. This includes nine confirmed low-income customers and 26 customers living in multi-unit dwellings.

While there were three residential customers that expressed interest in installing a separate meter for their EV charging for the purposes of the Pilot, no customers pursued this option likely due to the costs associated with the installation and separate service charges.

Customer Outreach Summary

DLC conducts periodic customer outreach and education regarding the Pilot through various efforts, including emails and website updates. In all communications, DLC encourages customers to compare the Pilot TOU rate with the standard default service rates and with supply offerings from electric generation suppliers, including on its [residential customer webpage](#) and its [commercial customer webpage](#) for the Pilot.

In October 2021, DLC launched its [Rate Advisor Tool](#), an online tool residential customers can use to help determine if the Pilot is right for them. Using the Rate Advisor, customers can compare the Pilot TOU rates with DLC's standard default service rates and electric generation supplier rates to estimate bill impacts. The Rate Advisor was used by customers more than 10,300 times during this reporting period with 1/3 of surveyed EV driving customers reporting having used the tool.⁴

Customer Bill Impacts

The average per bill savings over DLC's standard default service rates for non-net metering residential customers enrolled in the Pilot during this report period was \$7.19 monthly and the median was \$5.91 monthly. For commercial customers, the average savings was \$3.83 monthly, and the median savings was \$3.56 monthly.

Consumption Impacts

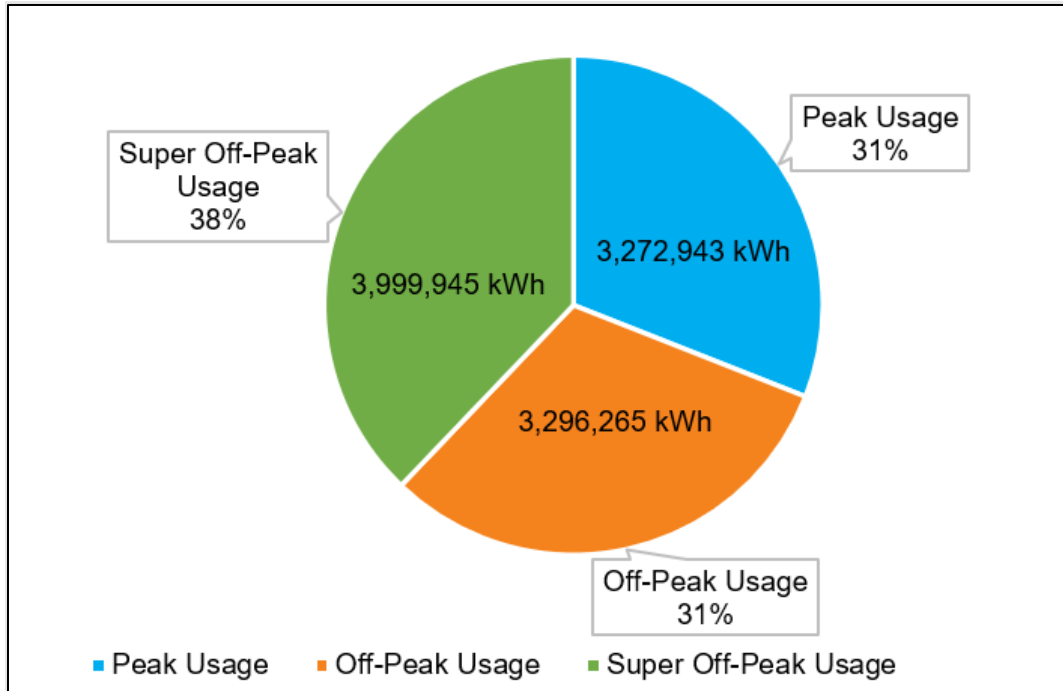
After a residential customer enrolls in the Pilot, they begin receiving behavioral load shaping (BLS) communications via email from a third-party provider, which informs them how much electricity they use during each TOU period and provides them with tips for shifting consumption away from the peak period. Additionally, enrolled residential customers have access to a unique electricity usage dashboard on the Company's website which allows them to evaluate how much electricity they use in each TOU period. In total, the Company dispatched nearly 37,000 BLS communications to residential customers enrolled in the Pilot and customers used the unique online dashboard more than 3,300 times during this report period, which positively influenced the consumption shift away from the peak period as further described below.

DLC evaluated the proportion of energy that was consumed during each Pilot TOU pricing period for non-net metering Pilot participants. During this reporting period, 69% of the Pilot participants' usage occurred during the super off-peak and off-peak periods,

⁴ Schmidt Market Research. DLC Survey of EV customers. September-October 2022.

with 38% of consumption occurring during the super off-peak period and 31% occurring during the off-peak period.

Figure 3: Pilot Customers' Energy Usage by TOU Pricing Period



DLC compared the share of utilization by TOU period by month for the non-net metering Pilot customers and EV driving customers who were not enrolled in the Pilot.⁵ As shown in Figures 4 and 5, customers enrolled in the Pilot used a much larger share of electricity during the super off-peak period, as compared to EV driving customers who were not enrolled in the Pilot. Notably, the share of energy consumed during the peak period among Pilot customers increased during the summer months likely due to increased use of air conditioning during the daytime hours. This increase was also true of non-pilot enrolled customers with EVs.

The Company also compared those Pilot participants' usage profile to that of EV owners who did not participate in the Pilot program. If the customers enrolled in the Pilot had

⁵ EV driving customers were identified from customers who had registered their EV with the Company.

used electricity at the same time period as non-enrolled EV driving customers, DLC estimates an additional 1,033,064 kWh would have been consumed during the peak period and an additional 28,460 kWh would have been consumed during the off-peak period. Instead, 1,061,524 kWh was consumed during the super off-peak period (see Figures 4 and 5 below). This demonstrates a correlation between Pilot participation and proportionally lower peak electricity consumption.

Figure 4: Share of Total Utilization by TOU Period and Month for Pilot Enrolled Customers

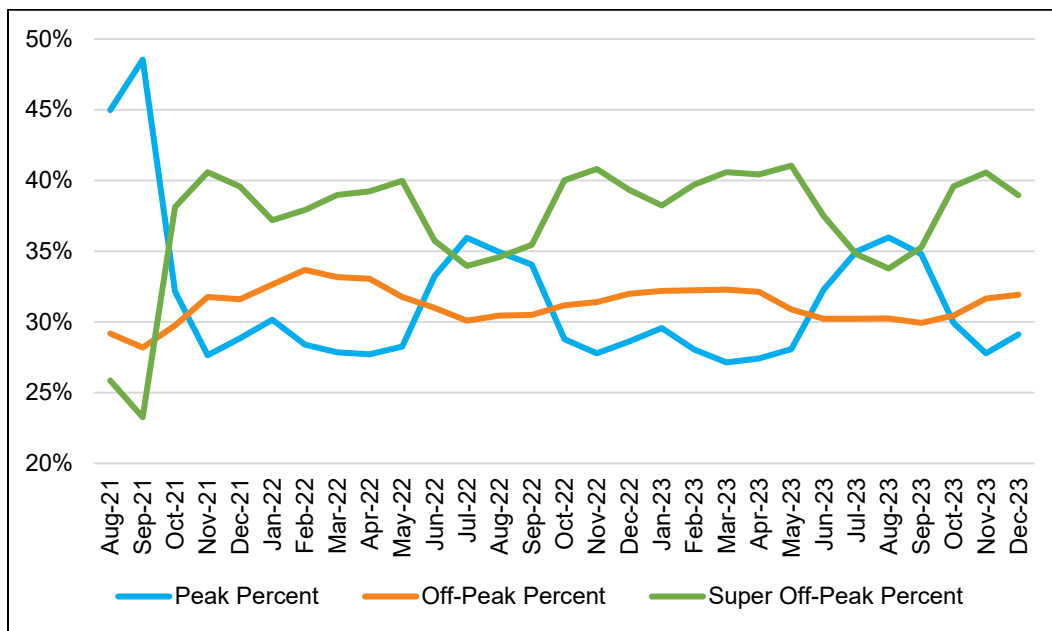
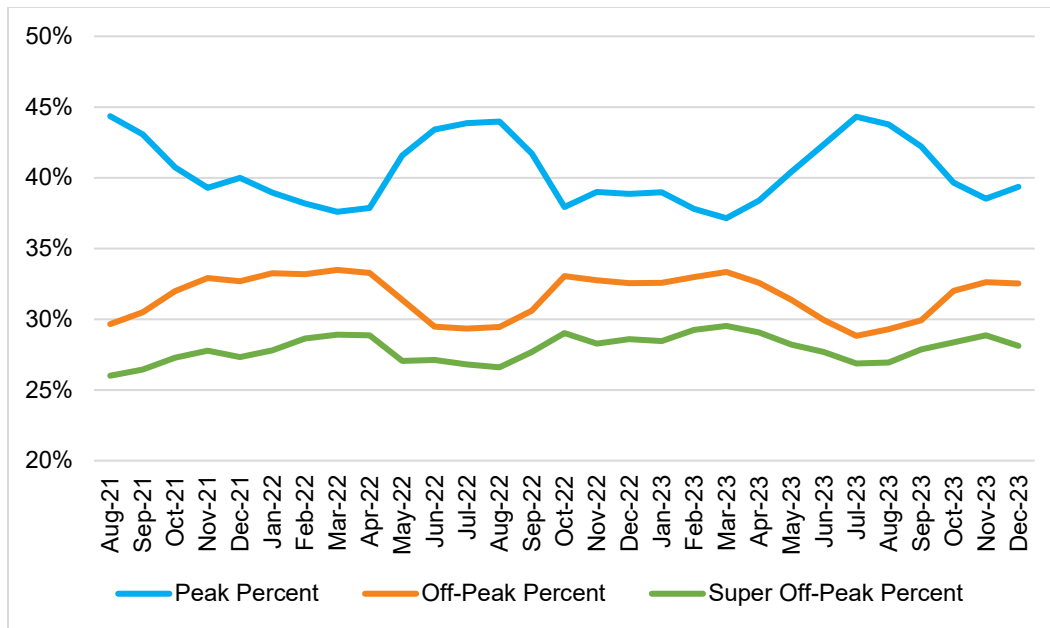


Figure 5: Share of Total Utilization by TOU Time Period and Month for Non-Pilot enrolled customers with EVs



Further, the Company conducted additional pre- and post-enrollment analysis to demonstrate a causal relationship that enrollment in the Pilot led residential customers to change their behaviors and shift their consumption away from the peak period. Since the analysis required an evaluation of customer behavior while driving electric before and after enrolling in the Pilot, customers were excluded from the analysis if they were enrolled in the Pilot for less than 180 days or if they did not drive electric for at least 180 days before enrolling in the Pilot. Due to these limitations, approximately 200 customers were included in the analysis, representing approximately 23% of total Pilot enrollment at the time of the analysis. Additionally, commercial customers were not included in this analysis due to low enrollment among commercial customers.

As shown in Figure 6 below, the analysis demonstrates that residential customers that eventually enroll in the Pilot do consume more electricity after purchasing or leasing an EV across all time periods and this total customer usage does not change significantly after enrolling in the Pilot. However, residential customers enrolled in the Pilot reduce their consumption in the peak and off-peak periods and shift it to the super off-peak period. This shift in consumption neutralizes the increase in peak period consumption associated with a residential customer driving an EV. This means a customer enrolled in the Pilot is not using any more energy during the peak period than they were prior to

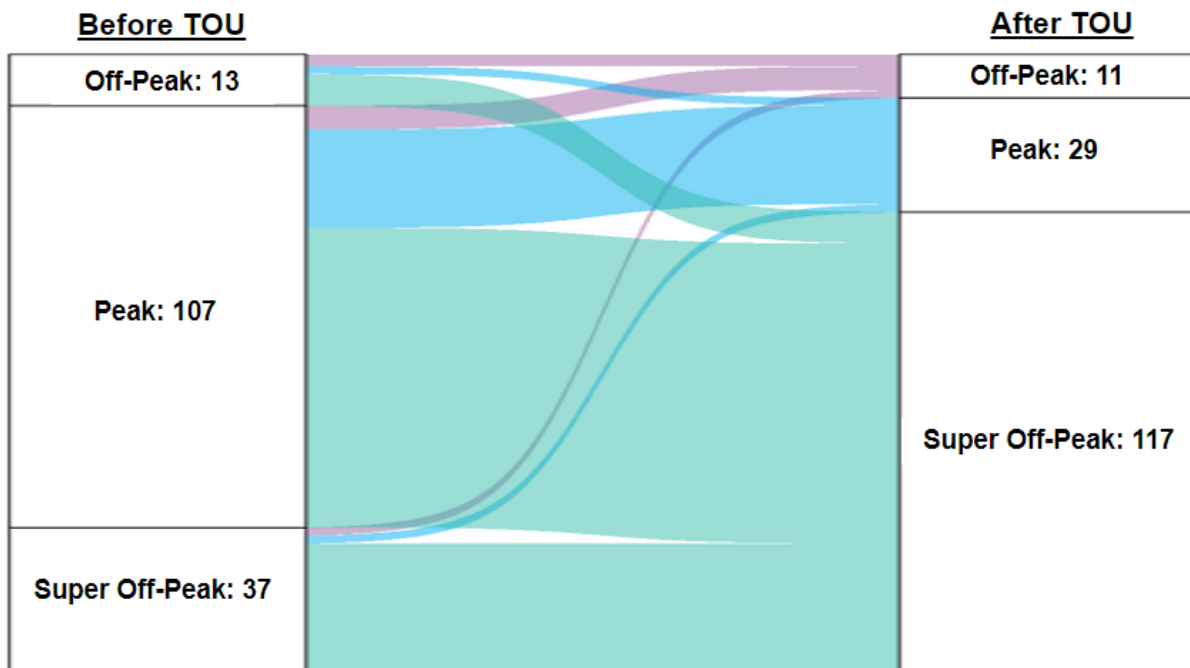
purchasing an EV and indicates the price signals are a successful motivator for altering customer behavior.

Figure 6: Average hourly change in kWh by TOU period

	Avg. Hourly Change by Time of Use		
	After EV, Before TOU (kWh)	After TOU (kWh)	Total Difference from Pre-EV (kWh)
Super Off-Peak	+0.43	+0.65	+1.08
Off-Peak	+0.27	-0.12	+0.15
Peak	+0.34	-0.35	-0.01

As shown in Figure 7 below, only 24% of standard metering residential customers used the most electricity in the super off-peak period prior to enrolling in the Pilot, but, after enrolling, 75% of customers used the most electricity in the super off-peak period.

Figure 7: Customer Count by Highest Utilization Bucket



Conclusion

Collectively, these results demonstrate the Pilot has been highly effective in shifting customer consumption to the super off-peak period that otherwise would have been largely consumed during the off-peak and peak periods.