Duquesne Light Company
EV TOU Pilot Program Overview

February 2023
For Electric Vehicle Drivers & Charging Hosts

- Only residential customers that drive electric and small & medium commercial customers (<200 kW monthly metered demand – the cap for hourly priced service) with an EV or EV charging qualify, including those with net metering.
- CAP, Budget Billing, and Virtual Meter Aggregation customers are not eligible.

Time Based Supply Rate

- Electricity supply rate changes throughout the day, and is lowest during off-peak times, such as overnight.
- The rate schedule does not change for weekends, holidays, or seasonally.

Applies to the Whole Premise

- By default, the rate applies to the entire premise, unless the EV charging is separately metered.
EV Time-of-Use (TOU) Pilot Program Background

- EV TOU customers are supplied through the same Fixed Price, Full Requirements (FPFR) products as other Default Service Plan (DSP) customers in that customer class.

- Rate Structure:
  - The EV-TOU rate applies to the entire premise load.
  - Applies 7 days-a-week, year-round.
  - Three time periods:

<table>
<thead>
<tr>
<th>Period</th>
<th>Time</th>
<th>Example Rate Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak</td>
<td>1 – 9 pm</td>
<td>1.43</td>
</tr>
<tr>
<td>Off-Peak</td>
<td>6 am – 1 pm; 9 – 11 pm</td>
<td>0.81</td>
</tr>
<tr>
<td>Super Off-Peak</td>
<td>11 pm – 6 am</td>
<td>0.59</td>
</tr>
</tbody>
</table>

- Over or under collection from EV TOU rates and costs paid to FPFR product suppliers is recovered through the respective Rider 8 reconciliation mechanism (from default service customers in the respective customer class).
EV Time-of-Use (TOU) Pilot Program Rate Factors

- Rate Factors are calculated by:
  - Calculating the hourly-load average real-time LMP for each EV TOU time period.
  - Calculating the overall capacity cost and capacity obligation.
  - Adding the capacity prices and LMPs per MWh for each given time period and expressing these values relative to the load-weighted average sum of capacity prices and LMPs per MWh across all hours.

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Peak</th>
<th>Off Peak</th>
<th>Super Off Peak</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022/2023 Capacity Price ($/MWH)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>$14.70</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$5.78</td>
</tr>
<tr>
<td>2018</td>
<td>$14.06</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$5.55</td>
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<tr>
<td>2019</td>
<td>$15.23</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$6.01</td>
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<tr>
<td>2020</td>
<td>$14.52</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$5.82</td>
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</table>

<table>
<thead>
<tr>
<th>Energy</th>
<th>Peak</th>
<th>Off Peak</th>
<th>Super Off Peak</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load-Weighted LMP ($/MWH)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>$37.62</td>
<td>$30.29</td>
<td>$22.83</td>
<td>$31.37</td>
</tr>
<tr>
<td>2018</td>
<td>$50.62</td>
<td>$40.27</td>
<td>$27.53</td>
<td>$41.24</td>
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<tr>
<td>2019</td>
<td>$33.94</td>
<td>$27.38</td>
<td>$20.73</td>
<td>$28.36</td>
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<tr>
<td>2020</td>
<td>$29.21</td>
<td>$22.63</td>
<td>$16.18</td>
<td>$23.73</td>
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<table>
<thead>
<tr>
<th>Capacity + Energy</th>
<th>Peak</th>
<th>Off Peak</th>
<th>Super Off Peak</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$/MWH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>$52.32</td>
<td>$30.29</td>
<td>$22.83</td>
<td>$37.15</td>
</tr>
<tr>
<td>2018</td>
<td>$64.68</td>
<td>$40.27</td>
<td>$27.53</td>
<td>$46.79</td>
</tr>
<tr>
<td>2019</td>
<td>$49.18</td>
<td>$27.38</td>
<td>$20.73</td>
<td>$34.36</td>
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<tr>
<td>2020</td>
<td>$43.74</td>
<td>$22.63</td>
<td>$16.18</td>
<td>$29.56</td>
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</table>

<table>
<thead>
<tr>
<th>Rate Factor</th>
<th>Peak</th>
<th>Off Peak</th>
<th>Super Off Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022/2023 Rate Factor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>1.41</td>
<td>0.82</td>
<td>0.61</td>
</tr>
<tr>
<td>2018</td>
<td>1.38</td>
<td>0.86</td>
<td>0.59</td>
</tr>
<tr>
<td>2019</td>
<td>1.43</td>
<td>0.80</td>
<td>0.60</td>
</tr>
<tr>
<td>2020</td>
<td>1.48</td>
<td>0.77</td>
<td>0.55</td>
</tr>
<tr>
<td>Average</td>
<td>1.43</td>
<td>0.81</td>
<td>0.59</td>
</tr>
</tbody>
</table>
Why EV Time-of-Use?

- Offers EV drivers an opportunity for supply savings
- Decreases proportion of higher-priced on-peak energy needed to serve DSP customers

Customer Value

- Encourages EV adoption
- Encourages greater use of existing grid assets during off-peak periods for generation and transmission.

Company Value

“Accordingly, we urge all parties participating in the upcoming DSP proceedings to consider how EV specific TOU rate offerings could be made available to consumers.”

PA PUC Secretarial Letter

Customer Education – Before Enrolling

Website

WHOLEHOME EV RATE

ELECTRIFY YOUR RIDE
THAT’S THE CHARGE

AN ELECTRICITY SUPPLY RATE
FOR EV DRIVERS

EXPLORE THE WHOLEHOME EV RATE
The Wholehome EV Rate is an electricity supply rate offered by Duquesne Light Company (DLC) through its wholesaler, a unit of Duquesne Light Company (DLC). By enrolling in the rate and utilizing your electricity consumption to offset peak times, such as overnight, you may be able to save.

HOW IT WORKS:

TIME-BASED RATE

APPLIES TO THE WHOLE HOME

OPPORTUNITY TO SAVE

TIME-BASED RATE
Your electricity supply rate will change throughout the day and will be lowest during off-peak times, such as overnight.

APPLIES TO THE WHOLE HOME
Your electricity supply rate applies to your metered home, and only to your EV charging.

OPPORTUNITY TO SAVE
If you charge your EV and utilize all of your major electric appliances for off-peak times, such as overnight, you’ll have the greatest potential to save.

DuquesneLight.com/EV

Online Rate Advisor

You can save $1,406 per year by switching to Wholehome EV Rate with a 2022 Nissan LEAF.

Monthly Rate Comparison

Current Standard Residential Service

Wholehome EV Rate

Show Rate Details

Save $111/mo

$39/mo

$210/month

$400/month

You save $111/mo by switching to Wholehome EV Rate with a 2022 Nissan LEAF.

EV.DuquesneLight.com/Rates
Customer Education – After Enrolling

Rate Coach Emails

During peak hours this month, you spent the least the week of Sep 27 - Oct 3

That’s $6 less than your most expensive week this month

Electricity is 3.5x more expensive from 1pm to 8pm

Here’s how you used electricity during the weekdays

What parts of your routine could you do at off-peak times?

Unique Databrowser Experience

Average daily cost

$6.34

Total bill cost

$190
Enrollment and Rate Effectiveness
EV TOU Enrollment Recap

465 Customers Actively Enrolled
as of December 31, 2022

Quick Facts

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<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Retention Rate</td>
<td>89%</td>
</tr>
<tr>
<td>Cumulative Residential Customers</td>
<td>519</td>
</tr>
<tr>
<td>Cumulative Commercial Customers</td>
<td>5</td>
</tr>
<tr>
<td>Net Metering Customers</td>
<td>88</td>
</tr>
</tbody>
</table>

Cumulative Enrollments vs. Cumulative Unenrollments

- Cumulative Enrollments: 524
- Cumulative Unenrollments: 59
Over the life of the program, the average TOU customer has seen a reduction in their monthly bill.

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Total TOU Program Savings</td>
<td>$22,104.02*</td>
</tr>
<tr>
<td>TOU Savings per Bill</td>
<td>$6.58*</td>
</tr>
<tr>
<td>TOU Bill Percent Reduction</td>
<td>10.3%*</td>
</tr>
</tbody>
</table>

*Data from June 2021 through November 2022. Billing data from December 2021 and July 2022 are excluded from the analysis because of data issues due to a rate change implemented at that time.
Enrolled Customers Use a Greater Share of Electricity during Off-Peak Times

EV Driving Non-TOU Customers

EV TOU Customers
Enrolled Customers Use More Electricity during Off-Peak Times

TOU customers consistently use electricity during super off-peak hours at a higher rate than non-TOU customers.
## Customer Survey Overview

### Survey Methodology

- Online survey of known EV drivers
- 189 customers completed the survey of the 1,397 invited
- Survey fielded late September to early October 2022

### Key Findings

For those aware of the rate, **33% have used the Rate Advisor Tool**, and **90% found it at least somewhat helpful**.

Top enrollment barriers: perceived **lack of savings**, uncertainty surrounding **impact on bill**, and difficulty with **switching usage to off-peak times**.

64% would be **more interested in an EV TOU rate that only applied to EV charging**, as opposed to a rate that applied to their entire home.
Questions?

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