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# Fleet EV Charging Stations & Infrastructure

## Customer Education & Awareness

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Green Drives Conference & Expo

# You know which EVs you want for your Fleet that will meet your operating requirements. What's next?

- **Key questions:**
  - How quickly will the vehicles need to be charged?
  - When do they need to be charged/can they be charged? During the work-day or overnight?
  - Where do they need to be charged?
  - Is there sufficient electrical capacity?
- **The answers to these questions impact the charging equipment you will need, associated electrical infrastructure and, of course, the cost of the project.**



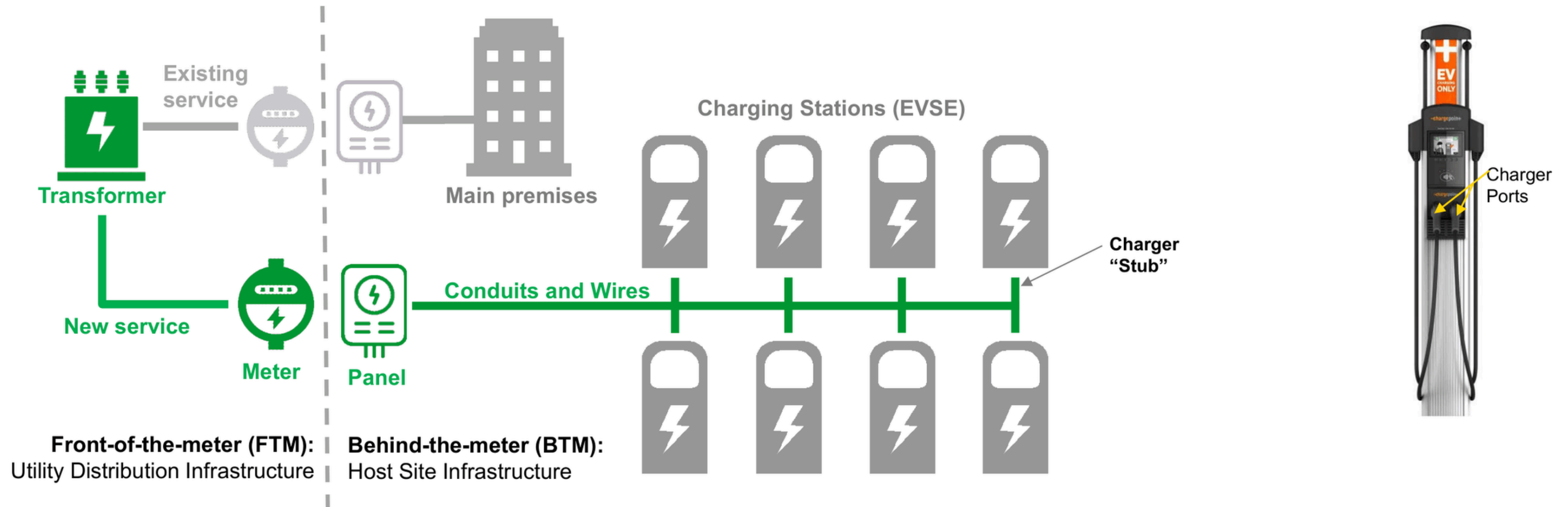
# EV Charging and Infrastructure Terminology

- **Level 2 (L2) Chargers.** Most common. They charge at a rate of 12 to 80 miles per hour, generally fast enough for most uses, while being affordable and requiring infrastructure (208V) already found in most places
- **Direct Current Fast Chargers (DCFC, aka L3).** These charge at a rate of 75 -1200 miles per hour, much faster than L2s, but much more expensive, requiring 480V.
- **Make-Ready.** Term used to describe costs associated with making a site ready for EV charging



# What is “Make-Ready” EV Charger Infrastructure?

“Make-ready” is used to refer to costs for making a site “ready” for EV charging, excluding the chargers. This could include permits, electric panel upgrades, conduit, wiring, site work, trenching and repair, required protective equipment, and associated labor. EV chargers, and mounting equipment/pedestals are not eligible for program rebates.



# Hypothetical Customer considering EV Fleet of 10 Transit Vans Driven during day, Parked & Charged Overnight (208V Service)

## Vehicle Overview

| Year | Qty | Electric Vehicle                                        | Mi/day | kWh/day | Max kW  | Hours   |
|------|-----|---------------------------------------------------------|--------|---------|---------|---------|
| 2025 | 10  | 2024 Ford E-Transit - Medium Roof, Long Length - 89 kWh | 40     | 22 kWh  | 46.0 kW | 8PM—5AM |

### Current Vehicle

Vehicle class: Class 1  
2019 Sample Gas/Diesel Class 1 - Gas - Cargo Van - 3.6L  
Operational requirements: 40miles/day avg  
Depot hours: 8PM — 5AM (overnight)  
Estimated MSRP: \$47,000

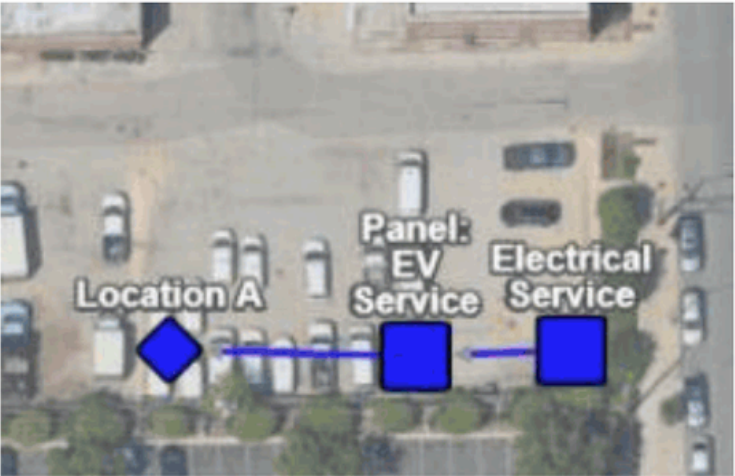
### Proposed Replacement Vehicle

Vehicle class: Class 1  
2024 Ford E-Transit - Medium Roof, Long Length - 89 kWh  
Range per charge: 159 miles  
Primary charger: 11.5 kW / 48 A / Level 2  
Carbon savings: 28.81 MT  
Estimated MSRP: \$53,000

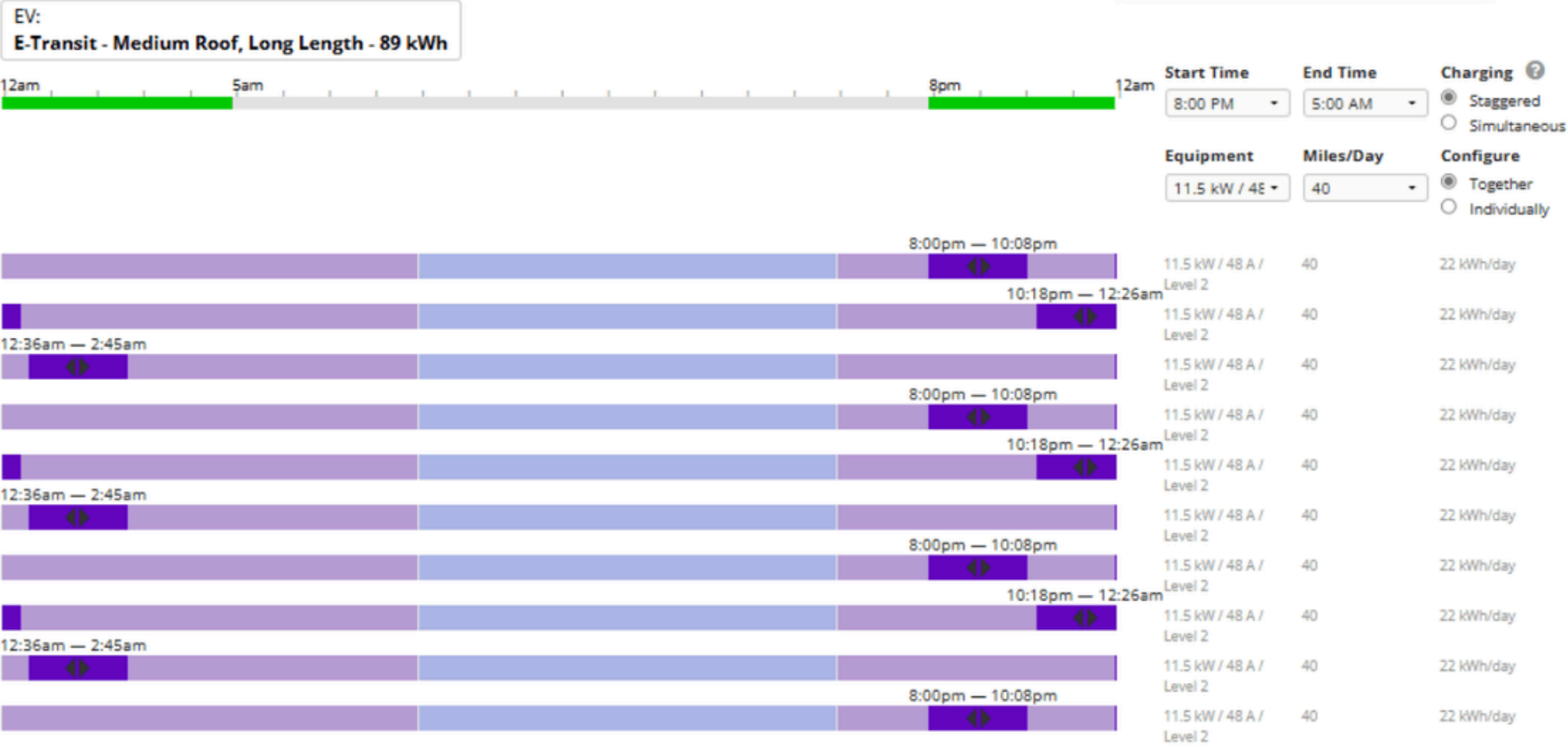


## Charging equipment overview

| Year | Qty | Description                 | Per     | Total    |
|------|-----|-----------------------------|---------|----------|
| 2025 | 10  | 11.5 kW Level 2 Charger     | \$2,738 | \$27,382 |
| 2025 |     | Panels, Transformers, Wires |         | \$65,821 |
|      |     |                             |         | \$93,203 |



- **Electrical Service:**
  - Customers can have a dedicated EV service installed and elect to take service on the Watt-hour delivery plan
  - ComEd will review transformer loading and proposed new charging load during service application review
  - New EV service and potential transformer upgrades will be covered under standard application if customer elects to go on Watt-hour delivery plan



# Hypothetical Customer considering EV Fleet of 10 Transit Vans Driven Daily & Overnight, Limited Charging Window (208V Service)

## Vehicle Overview

| Year | Qty | Electric Vehicle                                        | Mi/day | kWh/day | Max kW   | Hours      |
|------|-----|---------------------------------------------------------|--------|---------|----------|------------|
| 2025 | 10  | 2024 Ford E-Transit - Medium Roof, Long Length - 89 kWh | 100    | 56 kWh  | 500.0 kW | 2PM—3:30PM |

### Current Vehicle

Vehicle class: Class 1  
2019 Sample Gas/Diesel Class 1 - Gas - Cargo Van - 3.6L  
Operational requirements: 40miles/day avg  
Depot hours: 8PM — 5AM (overnight)  
Estimated MSRP: \$47,000

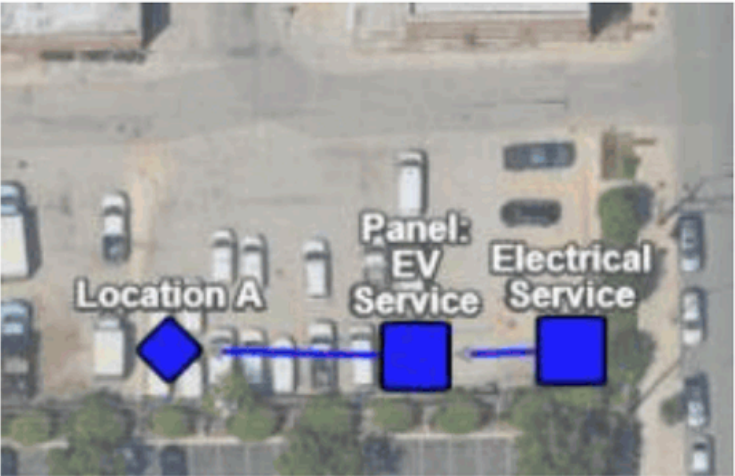
### Proposed Replacement Vehicle

Vehicle class: Class 1  
2024 Ford E-Transit - Medium Roof, Long Length - 89 kWh  
Range per charge: 159 miles  
Primary charger: 11.5 kW / 48 A / Level 2  
Carbon savings: 28.81 MT  
Estimated MSRP: \$53,000



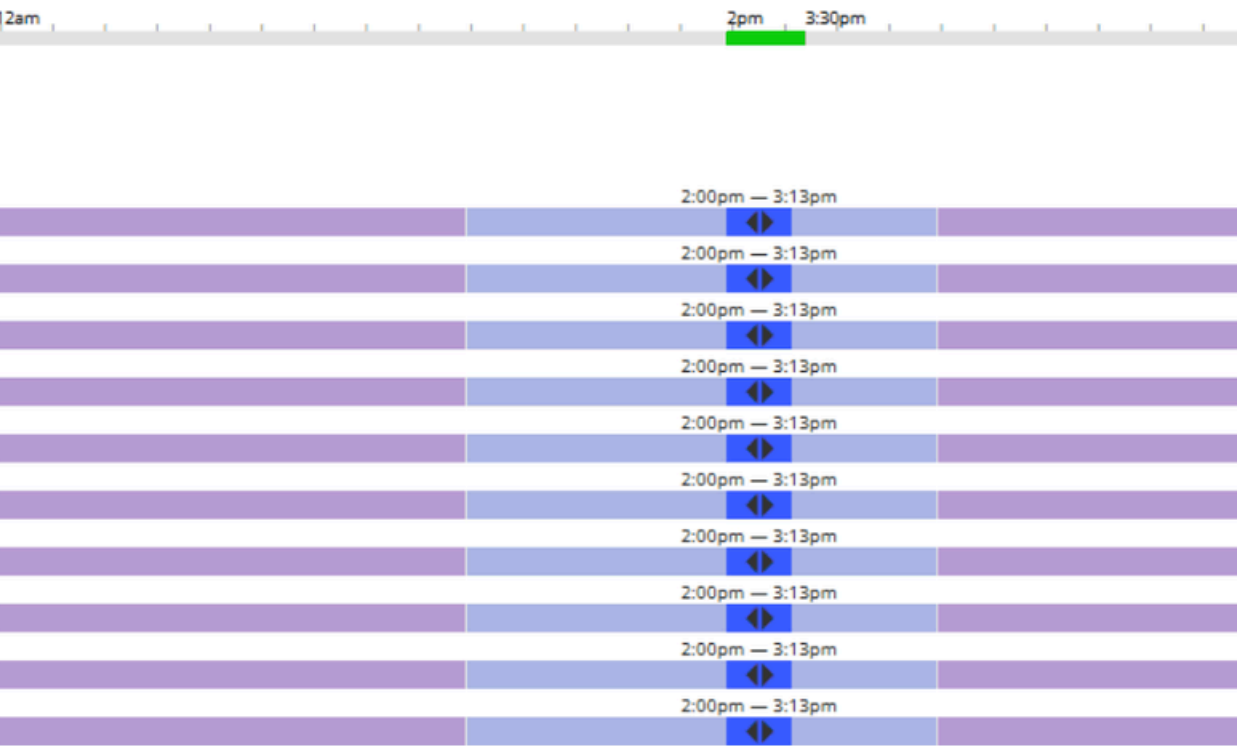
## Charging equipment overview

| Year | Qty | Description                 | Per      | Total     |
|------|-----|-----------------------------|----------|-----------|
| 2025 | 10  | 50 kW Level 3 Charger       | \$29,848 | \$298,481 |
| 2025 |     | Panels, Transformers, Wires |          | \$162,583 |
|      |     |                             |          | \$461,064 |



- Upgrade to 480V service will be needed
  - Customers can have a dedicated EV service installed and elect to take service on the Watt-hour delivery plan and avoid demand charges
  - ComEd will evaluate service upgrade and proposed new charging load during service application review
  - New EV service and transformer upgrades will be covered under standard application if customer elects to go on Watt-hour delivery plan

EV:  
E-Transit - Medium Roof, Long Length - 89 kWh



Start Time: 2:00 PM, End Time: 3:30 PM, Charging: ☒ Simultaneous, ☐ Staggered, Equipment: DCFC 50 kW, Miles/Day: 100, Configure: ☒ Together, ☐ Individually

|            |     |            |
|------------|-----|------------|
| DCFC 50 kW | 100 | 56 kWh/day |
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| DCFC 50 kW | 100 | 56 kWh/day |
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# Customer Resources for Fleet Electrification Assessments

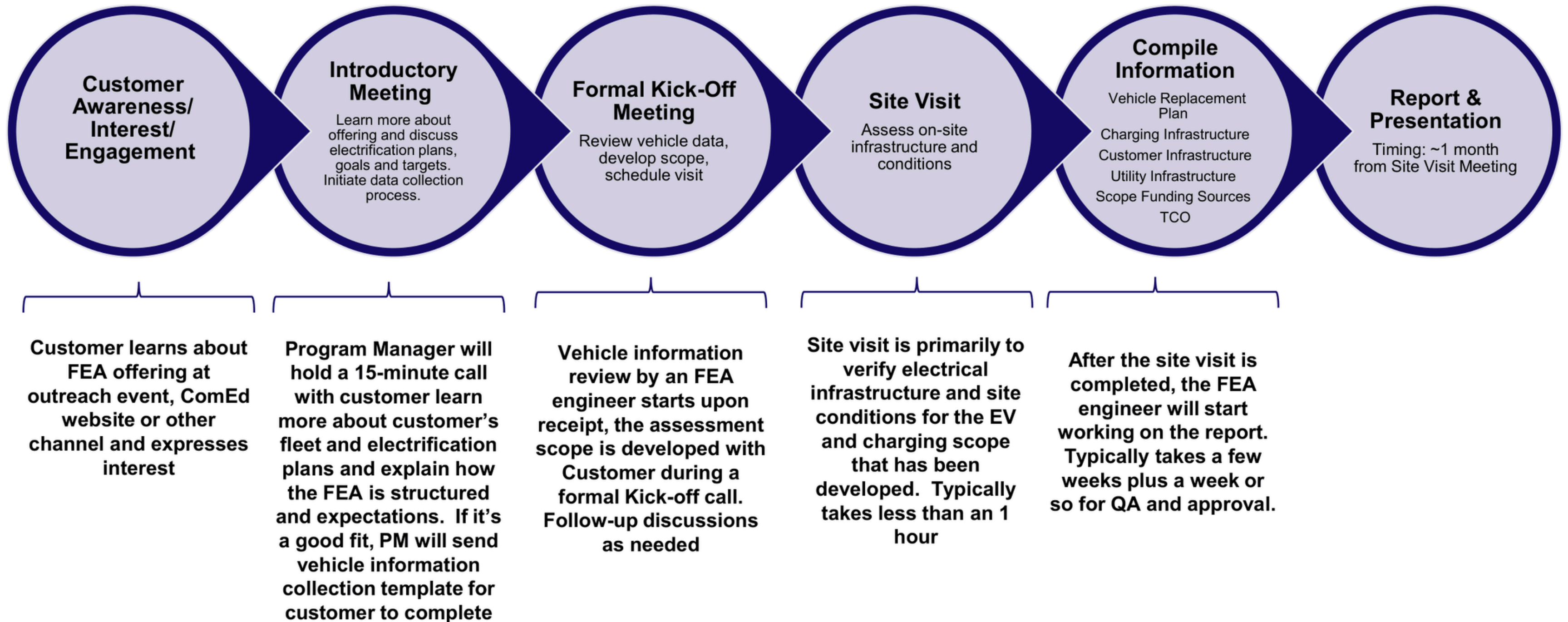
What is the Customer's Interest Level in Fleet EVs? 

Curious - What is it?      Exploring – Some interest      **Planning - High Interest**

| Service to Customer           | Curious - What is it?                    |             | Exploring – Some interest              |                   | Planning - High Interest |
|-------------------------------|------------------------------------------|-------------|----------------------------------------|-------------------|--------------------------|
|                               | Self Service – ComEd Fleet EV Calculator | Express FEA | Fleet Electrification Readiness Review | Comprehensive FEA |                          |
| Total Cost of Ownership       |                                          | √           |                                        | √ <sup>1</sup>    |                          |
| Charging Plan/Service Impact  | √                                        | √           | √                                      | √ <sup>2</sup>    |                          |
| Infrastructure Costs          |                                          |             |                                        | √ <sup>2</sup>    |                          |
| Investment Cashflow           |                                          |             |                                        | √                 |                          |
| Vehicle Model Recommendation  | √                                        | √           |                                        | √ <sup>4</sup>    |                          |
| Vehicle Model Comparison      | √                                        |             |                                        | √ <sup>4</sup>    |                          |
| Funding Sources               | √                                        | √           | √                                      | √ <sup>5</sup>    |                          |
| Environmental Impact Analysis | √                                        | √           |                                        | √                 |                          |
| Site Specific Consultation    |                                          | √           |                                        | √ <sup>6</sup>    |                          |

- Details:
- 1- Includes depreciation, financing, carbon & downtime costs above charging infrastructure, maintenance & fuel costs
  - 2- Includes conceptual layout and location of chargers, detailed expected electric service impacts
  - 3- Includes replacement plan based on current fleet models, operations and ROI.
  - 4- Includes analysis of existing customer model groups and selects best fit vehicles.
  - 5- Included in multi-year cash flow analysis.
  - 6- Verification of utility equipment & site conditions.

# Comprehensive FEA: High Level Customer Journey



# Customer Resource: Fleet EV Calculator (Self Service)

C&I /Public Sector Customers are now able to generate a customized Fuel Cost Savings and Carbon Reduction estimate when considering Fleet Electrification: [ComEd Fleet Electrification Calculator](#)

1

Select Vehicles

2

Select a Rate

3

Adjust Charging

STEP 1: Select Vehicles to Compare

Vehicle Category

Light-Duty Vehicle

Vehicle Class

All

Select Electric Vehicle

Actual

Year

2023

Make

Ford

Model

F-150 Lightning 4WD

Estimated Range

230.00 miles

Battery Capacity

98.0 kWh

Additional Details

Select Gas/Diesel Vehicle

Model

Class 1 - Gas - Pickup Truck 2.7L - (22.00 mpg)

MPG

22.00

Fuel Price/Gal

\$3.50

Est. gallons/year

1,309

Grams CO<sub>2</sub>/mile

405

Provide Operational Details

Vehicle Count

4

Miles/Day

30

Days of Operation?

SMTWTFSS

Charging Equipment

11.5 kW / 48 AMP

Charging Hint: You will only need to charge once per day, but you should plan to keep around 30% in extra capacity for adverse weather, terrain and to maintain battery health.\*

Charge Window

12am

6am

Start Time

7:00 PM

End Time

6:00 AM

NEXT STEP

STEP 2: Select an Electric Rate Plan

The following sample rates\* are designed to help you understand how different options may impact your charging costs. These rates use ComEd's Hourly Pricing rate (BESH) based on load-weighted average real-time prices and an estimated "capacity obligation."\*\*. As a starting point, please review your ComEd bill to determine what plan you are currently on, [click here](#) to see an example.

DFC Watt-Hour

Available for nonresidential customers with a separate meter for EV charging and related equipment. Replaces per kW Distribution Facilities Charge with a per kWh charge. This rate may be advantageous if you anticipate a significant amount of charging during peak hours may be required.

Small (0-100 kW) Primary Service

This rate has a low maximum kW threshold that may only be adequate for 1-10 vehicles charging with level 2 (240 V) charging. This rate will not work for most DCFC charging. Rates change periodically and have been averaged to represent estimated annual charging cost.

Small (0-100 kW) Secondary Service

If you are already on this rate, you may be able to add a substantial number of vehicles charging with level 2 (240 V) charging. This rate may support DCFC charging that generally ranges from 50kW to 350kW per charger. If you charge during On-Peak times, this charging may impact your "capacity obligation" cost that is calculated annually.

Medium (100-400 kW) Primary Service

If you are already on this rate, you may be able to add a substantial number of vehicles charging with level 2 (240 V) charging. This rate may support DCFC charging that generally ranges from 50kW to 350kW per charger. If you charge during On-Peak times, this charging may impact your "capacity obligation" cost that is calculated annually.

Medium (100-400 kW) Secondary Service

If you are already on this rate, you may be able to add a substantial number of vehicles charging with level 2 (240 V) charging. This rate may support DCFC charging that generally ranges from 50kW to 350kW per charger. If you charge during On-Peak times, this charging may impact your "capacity obligation" cost that is calculated annually.

Large (400-1,000 kW) Primary Service

If you are already on this rate, you may be able to add a substantial number of vehicles charging with level 2 (240 V) charging. This rate may support DCFC charging that generally ranges from 50kW to 350kW per charger. If you charge during On-Peak times, this charging may impact your "capacity obligation" cost that is calculated annually.

Large (400-1,000 kW) Secondary Service

If you are already on this rate, you may be able to add a substantial number of vehicles charging with level 2 (240 V) charging. This rate may support DCFC charging that generally ranges from 50kW to 350kW per charger. If you charge during On-Peak times, this charging may impact your "capacity obligation" cost that is calculated annually.

Very Large (1,000-10,000 kW) Primary Service

If you are already on this rate, you may be able to add a substantial number of vehicles charging with level 2 (240 V) charging. This rate may support DCFC charging that generally ranges from 50kW to 350kW per charger. If you charge during On-Peak times, this charging may impact your "capacity obligation" cost that is calculated annually.

Very Large (1,000-10,000 kW) Secondary Service

If you are already on this rate, you may be able to add a substantial number of vehicles charging with level 2 (240 V) charging. This rate may support DCFC charging that generally ranges from 50kW to 350kW per charger. If you charge during On-Peak times, this charging may impact your "capacity obligation" cost that is calculated annually.

Extra Large (Over 10,000 kW) Primary Service

If you are already on this rate, you may be able to add a substantial number of vehicles charging with level 2 (240 V) charging and will support substantial DCFC charging that generally ranges from 50kW to 350kW per charger. If you charge during On-Peak times, this charging may impact your "capacity obligation" cost that is calculated annually.

Extra Large (Over 10,000 kW) Secondary Service

If you are already on this rate, you may be able to add a substantial number of vehicles charging with level 2 (240 V) charging and will support substantial DCFC charging that generally ranges from 50kW to 350kW per charger. If you charge during On-Peak times, this charging may impact your "capacity obligation" cost that is calculated annually.

12am

9am

6pm

OFF PEAK

9.3520¢ /kWh

ON PEAK

11.2890¢ /kWh

OFF PEAK

9.3520¢ /kWh

kWh/mo.

3041

Cost/mo.

\$284

Est. Monthly Cost

\$304

EV:

F-150 Lightning 4WD

12am

1am

5am

12am

Start Time

1:00 AM

End Time

5:00 AM

Charging

Staggered

Equipment

DCFC 40 kW

Miles/Day

70

Configure

Together

1:00am — 1:58am

DCFC 40 kW

70

35 kWh/day

2:07am — 2:05am

DCFC 40 kW

70

35 kWh/day

3:14am — 4:12am

DCFC 40 kW

70

35 kWh/day

1:00am — 1:58am

DCFC 40 kW

70

35 kWh/day

CLOSE CHARGING PLANNER

Fuel Cost Summary

EV Annual Cost

\$3,651 /year

Gas/Diesel Annual Cost

\$10,691 /year

Annual Savings

\$7,040 /year

Calculation Details

66% Reduction

Total kWh 36,487 kWh

Max Demand 80 kW

Interested in learning more or have a question?

Please enter the following details to request more information from us. We value your privacy and your information will not be shared with any third parties. For questions about Fleet Electrification, email an EV specialist at [EVSmart@ComEd.com](#)

Your Name

Company Name

Email Address

Phone Number

Installation Address

Street Address

City

State

Zip

Fleet Configuration Title/ID

☐

Have a ComEd representative contact me to discuss fleet electrification?

☐

I am interested in having a ComEd Fleet EV Assessment

☐

Check here if you are a Fleet Owner

SAVE

comEd

## Additional Customer Resource: EV Load Capacity Map

The EV load capacity maps are a key resource to C&I/public sector customers. They provide an estimate of the remaining circuit load capacity to **help guide electric vehicle charging developers to areas where they may install the charging electric vehicle supply equipment (EVSE) with minimal needs for system reinforcement at 13kV and below sourced by a ComEd substation\***

- The map is only for C&I use, does not cover residential EV load.
- Resource available since Dec 2023

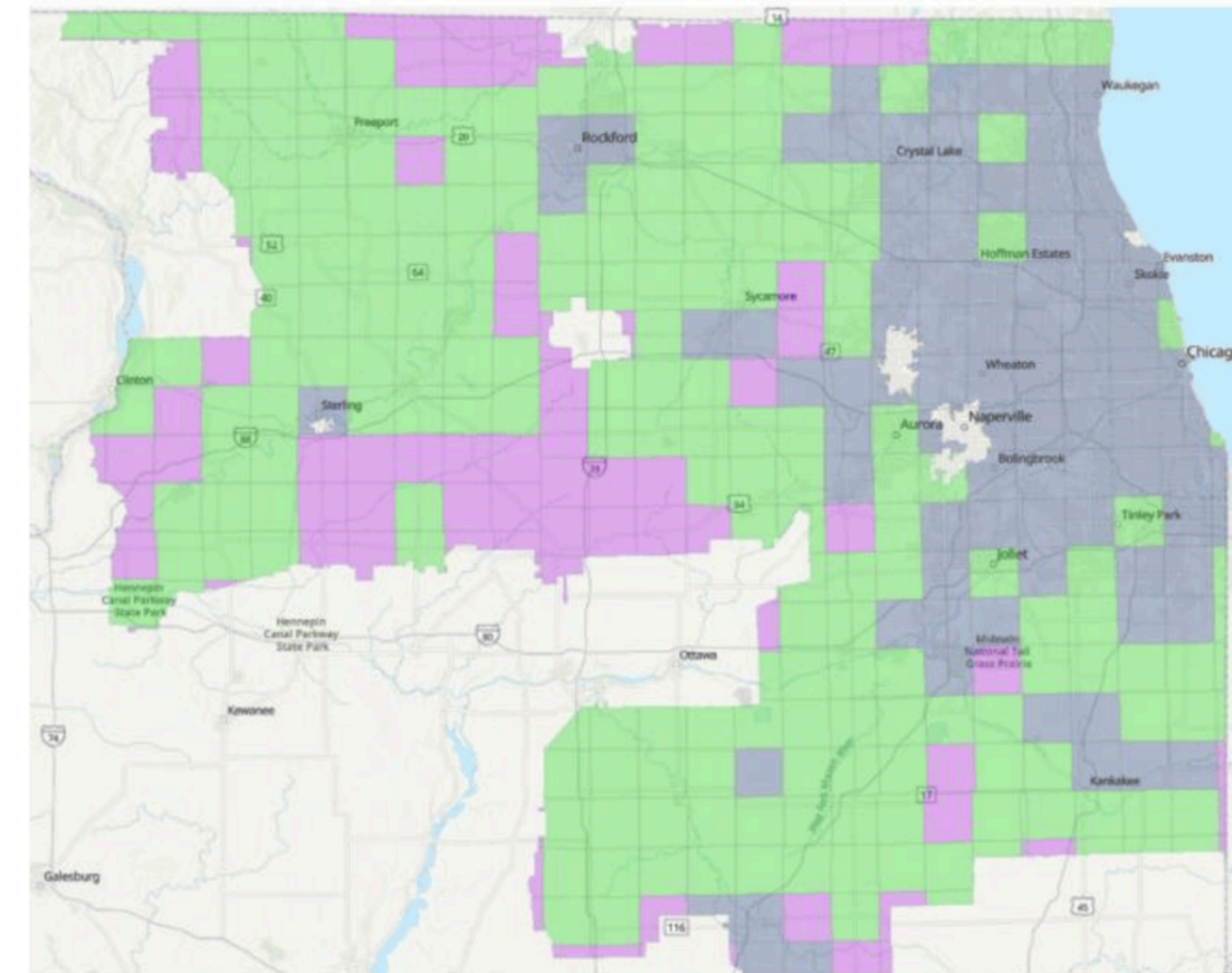
**ComEd's EV Load Capacity Maps are accessible to customers as part of our Commercial EV Toolkit**

\*Analysis conducted under current configurations and prior to any planned infrastructure upgrades such as reconductoring.

comed

## Electric Vehicle Charging Map for Ease in Fleet Electrification

This Interactive EV Load Capacity map helps identify potential sites for Electric Vehicle (EV) Charger Installation for fleet electrification, workplace charging, and public charging. Whether you are a customer, contractor, or developer, our ComEd EV Load Capacity map can help you identify potential sites for installing EV chargers on ComEd's distribution circuits (13kV and below). Capacity availability on the map can potentially shorten the timeline for charger connection. The map is intended solely for commercial customer use and is not intended for residential EV charging load. This EV load capacity data is an estimate and is provided for informational purposes only. It is not a substitute for the established application process of EV charger connection to ComEd's distribution circuits and is subject to change.



Estimated EV Load Capacity (kW)

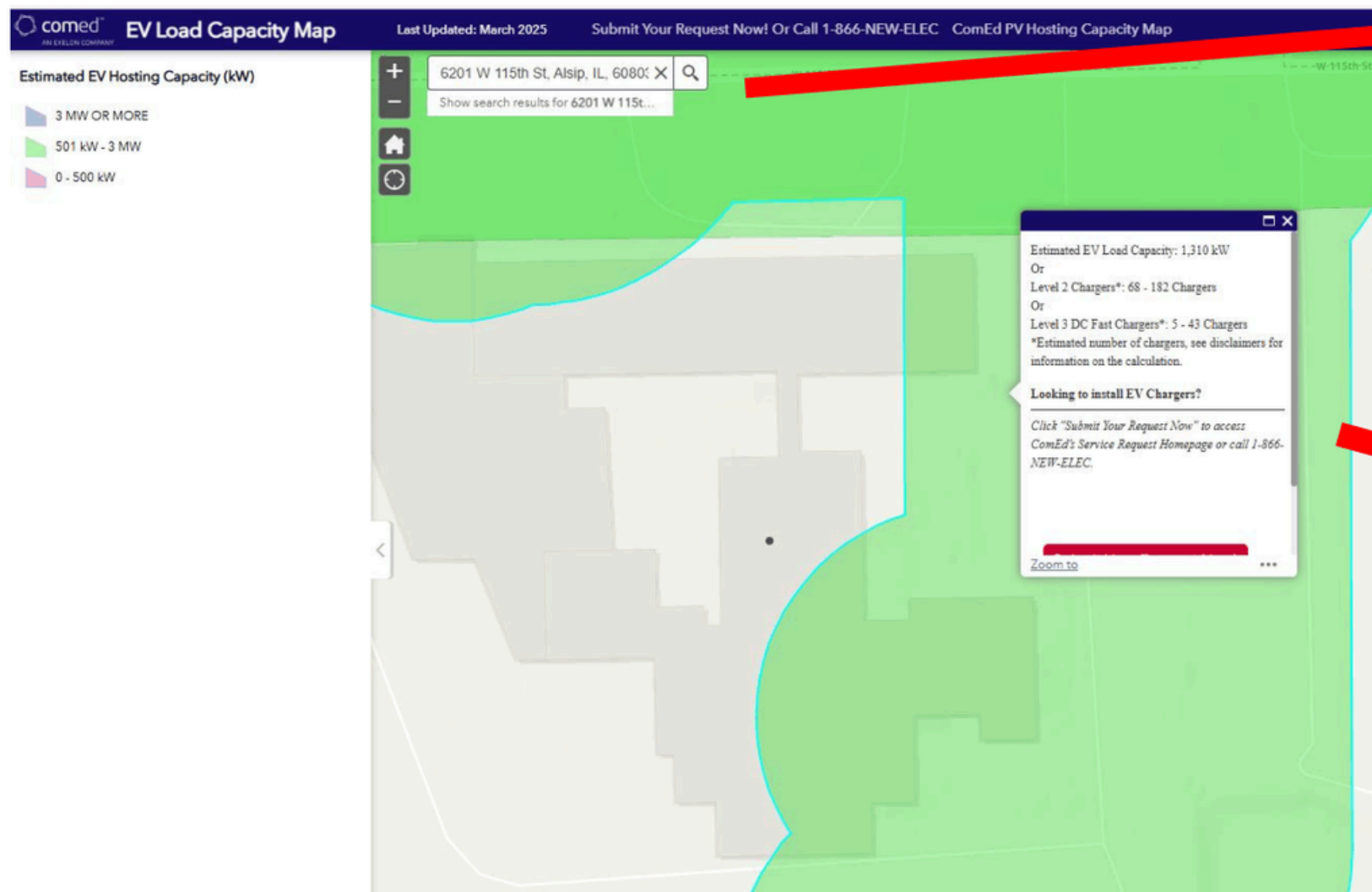
3 MW OR MORE

501 kW - 3 MW

0 - 500 kW

[Access the ComEd EV Load Capacity Map](#)

Using the EV Load Capacity Map. Simply enter the address you are interested in, then click on the shaded area to see approximate capacity in that area.



This is a zoomed-in view of the search bar and map area. The search bar contains the address "6201 W 115th St, Alsip, IL, 60803" and a search icon. Below the search bar, there is a text input field with the placeholder "Show search results for 6201 W 115t...". To the left of the search bar, there are zoom controls: a plus sign (+) for zooming in and a minus sign (-) for zooming out. A red arrow points from the search bar to a zoomed-in view of the map.

This is a zoomed-in view of the map area showing the estimated EV load capacity. The map is shaded in light green, indicating a capacity of 501 kW - 3 MW. A red arrow points from the search bar to this zoomed-in view. The map area is overlaid with a white box containing the following text:

Estimated EV Load Capacity: 1,310 kW  
Or  
Level 2 Chargers\*: 68 - 182 Chargers  
Or  
Level 3 DC Fast Chargers\*: 5 - 43 Chargers  
\*Estimated number of chargers, see disclaimers for information on the calculation.

Looking to install EV Chargers?

Click "Submit Your Request Now" to access ComEd's Service Request Homepage or call 1-866-NEW-ELEC.

Zoom to



comed<sup>SM</sup>

AN EXELON COMPANY