



# Your Roadmap to Drive **Vehicle Electrification**



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## Vehicle electrification benefits

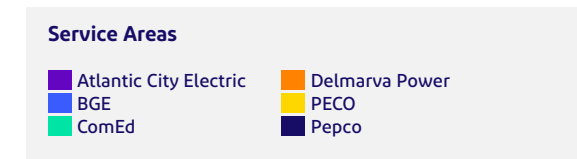
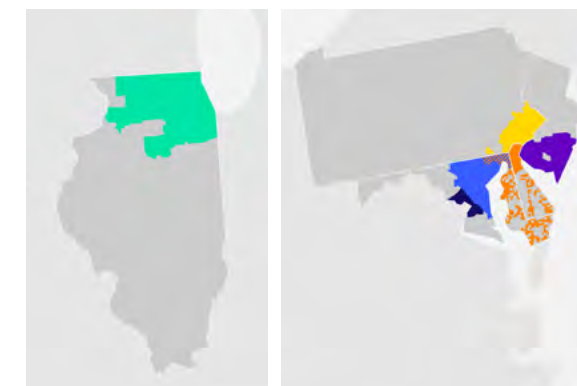
As technology in electric vehicles (EVs) continues to advance and EV infrastructure becomes increasingly visible, fleet owners and managers have become more aware of the benefits fleet electrification can provide. They're looking to partner with experienced utilities to help them build their infrastructure. Our deep expertise supports customers of all sizes for the long-term and near-term environmental and operational benefits.

We focus on our customers' needs. Our priority is to invest in and modernize our energy infrastructure for safe, reliable and resilient service, clean and affordable energy choices and more equitable communities. Exelon works with our community partners to take on shared challenges and opportunities related to climate change, economic development and improved quality of life. We harness the strength and capabilities of our six utilities serving 10 million customers across Delaware, Illinois, Maryland, New Jersey, Pennsylvania and the District of Columbia, delivering clean energy services and technology solutions that enhance our customers' lives and help our communities thrive.

One of the first steps in developing your charging infrastructure is to determine how much energy each vehicle will need over the course of an average day and the time it will take to deliver that energy. Knowing these answers will help you select the equipment you'll need to fuel your vehicles in a timely and cost-effective manner and forecast the costs of your electricity.

While each Exelon utility and jurisdiction is slightly different, this roadmap is designed to provide an overview of the electrification process at each utility. It's organized around key elements customers should know about electric companies and fleet electrification. This includes finding and acquiring the chargers and supplying the appropriate energy balance at your site or sites.

### Exelon's Utilities



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## Start your journey with Exelon

Fleet Electrification is here, and given the increased model availability, vehicle ranges and availability of charging infrastructure, there is no better time to start the fleet electrification journey. Exelon is here to support you with everything you need to electrify your fleet. This roadmap is designed to simplify the process to help you determine your needs and how best to proceed. Each utility contact can serve as your trusted advisor throughout the process and provide support and expertise you may need when identifying and designing sites, selecting and installing chargers and optimizing your charging load.

### This roadmap will provide the following information:

- Understand the benefits of electrifying your fleet
- Learn the basics of charging — both at your site and on the road
- What EV chargers are available
- Options for purchasing electricity and how to manage and optimize electricity used for charging
- Step-by-step processes for each of Exelon's utilities — ACE, BGE, ComEd, DPL, PECO, and Pepco
- Main points of contact at each utility
- Additional EV initiatives across Exelon and externally, such as available grants or incentive programs

Our roadmap is the resource where you can find everything you'll need to support your fleet electrification journey. We understand that every customer is unique, we stand ready to partner with you to help make your fleet electrification goals a reality. Our team and our resources will provide a smooth transition for your fleet electrification needs. We can't wait to support you in this important effort.



One key differentiator between EVs and Internal Combustion Engine (ICE) vehicles is the fuel. EV fleets rely on charging infrastructure, much of which is beginning to be deployed across the nation. This physical network of EV chargers that “fuels” EVs by transferring electricity from the grid into vehicles is a key element of successful fleet electrification.

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# Electric vehicle charging overview

Electricity is the “fuel” for an electric vehicle (EV) similar to how gas is the “fuel” for a gas vehicle. To charge an electric vehicle, the vehicle needs to be plugged into an electrical outlet or a charging device. EV chargers are also referred to as Electric Vehicle Supply Equipment (EVSE). The electricity flows from the grid through the charging device and into the vehicle. Given that electricity is the “fuel” for these vehicles, it’s important to familiarize yourself with terms such as kWh, kW, amps and volts. Similar to mpg on a car, EVs don’t all go the same distance on a given amount of electricity, and the distance can depend on the weather, driving habits and other factors. A vehicle’s battery size is measured in kilowatt hours (kWh) and it’s the amount of electricity a battery can hold. To charge an EV battery, the EVSE have a rate of electricity they output in kilowatts (kW). If you run a 7 kW charger for 1 hour it will deliver 7 kWh of electricity to a vehicle’s battery.









**Some of the factors that contribute to a fleet operating profile include:**

**Return to base:** Fleets may find it easier to charge their EVs at their own facilities instead of relying on public charging infrastructure.

**Fixed routes with relatively short daily mileage:** EVs currently are better suited for routes that operate within a well-defined range, with enough downtime to allow for the battery to charge.

**High utilization scenarios:** Applications with high vehicle utilization (high annual mileage) help maximize fuel costs savings to achieve a favorable total cost of ownership.

We can help your business address the increasing demand for charging accessibility. As your trusted energy advisor, let us help you prepare your facility’s electric service to support electric vehicle charging both at the depot and on route.

Vehicle Class	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	
<b>Weight</b>	6,000 lbs. or less	6,001 – 10,000 lbs.	10,001 – 14,000 lbs.	14,001 – 16,000 lbs.	16,001 – 19,500 lbs.	19,501 – 26,000 lbs.	26,001 – 33,000 lbs.	33,000 lbs. and over	
<b>Example</b>	Minivan	Full Size Pickup	Shuttle Bus	Delivery Truck	Walk-in Van	School Bus	City Transit Bus	Long Haul Freight	
									
<b>kWh/Mile</b>	0.6 kWh	→			1.0 kWh	→	2.0 kWh	→	3.6 kWh

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# Electric Vehicle Supply Equipment

Charging Stations	Level 1	Level 2	DC Fast Charge
<b>Voltage</b>	120V 1-Phase AC	208V or 240V 1-Phase AC	208V or 480V 3-Phase AC
<b>Amps</b>	12–16 Amps	12–80 Amps (Typically 32 Amps)	<125 Amps (Typically 60 Amps)
<b>Charging Loads</b>	1.4–1.9 kW	2.5–19.2 kW (Typically 7 kW)	<90 kW (Typically 50 kW)
<b>Charging Time</b>	3–5 miles of range per hour	10–20 miles of range per hour	90–200 miles of range per half hour
<b>Use</b>	Residential	Residential/ Commercial	Commercial

Find charging station locations through PlugShare\* [here](#).



## Charging options

EVSE is being installed throughout the country. There are many charging types available depending on location, including:



### Home Charging/Multifamily Residence Charging.

One primary charging option for individual drivers is charging at home.



### Workplace Charging.

Employers install Level 2 charging at their workplace for employees to charge their personal vehicles during the day while they are in the office, so they are ready for the commute home.



### Fleet Charging.

Companies are also installing fleet chargers. These chargers will often be found onsite at a facility but are meant for company vehicles, rather than employees' personal vehicles. Fleet charging can be publicly available or private to the fleet, depending on the need of the company.



### Public Charging.

Outside of the home and work, public chargers are available at stores, parks, etc. Public chargers usually consist of Level 2 or DC Fast Chargers.

\*PlugShare is a community-based tool that guides users to public charging locations throughout the world.

# Charging at your business

When considering EV charging for your business, it's important to consider three potential users of your EV chargers:

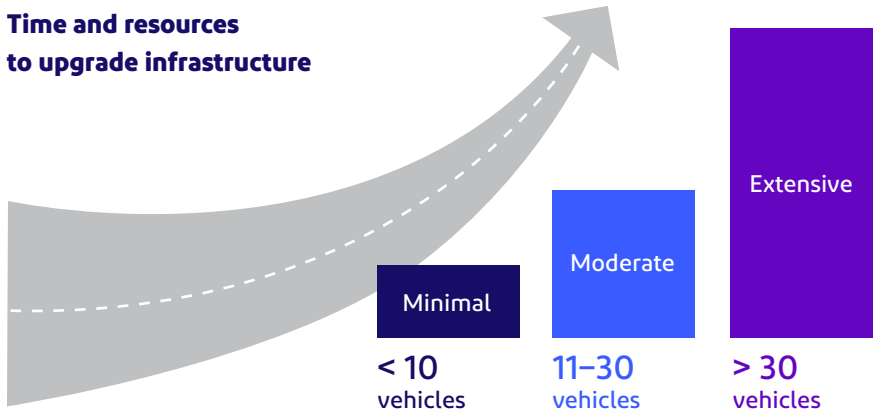


## The benefits are many:

- Businesses are providing EV charging to bring in new or additional customers.
- Workplace charging is an appealing employee motivator that can help attract and retain a cutting-edge workforce.
- Businesses that electrify their fleet can better support sustainability goals and take advantage of a lower total cost of ownership for electric vehicles.

The cost of electricity depends on your fleet operating profile, managing when the EVs charge, at what power level and for how long. The energy grid is ready for fleet electrification today, but the infrastructure needed to provide electricity to a given location is highly site-specific. This is why it is so important to engage with us early to plan the most effective strategy for your vehicle electrification. We are here to help review your goals and plans to help evaluate and implement what you need.

## Time and resources to upgrade infrastructure



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### Successfully drive your vehicle electrification process with Exelon

Implement your vehicle electrification process easily and efficiently with Exelon's EV solutions. Working as a team, we will ensure you navigate the electrification process quickly and effectively. The best way to ensure smooth implementation is to engage us in the process early. By submitting a service application with your load needs and site design, we can advise if your existing service will be able to meet your new needs or if new utility infrastructure upgrades may be necessary. We can help you review your vehicle charging requirements, EV charging equipment and potential energy needs. We can also ensure you select the ideal site, and we will install the charging infrastructure to accommodate the needs of your EV fleet. To manage the conversion and implementation, we will develop a process-driven timeline for the vehicle electrification process based on your capacity needs.

Early engagement with your Exelon utility is critical to fleet electrification success!



### Electrify your fleet simply and efficiently

**Plan your charge before your vehicle purchase.** Exelon is ready to help you start your EV journey and evaluate what is needed to be prepared for service upgrades to align with your fleet procurement.

**Know your fleet vehicle requirements.** While EVs require greater initial investment than traditional fleet vehicles, the fuel cost savings can be significant. Managing the cost of electricity will be an important factor in your total savings and total cost of ownership. Make sure that the EV equipment you are selecting is a good fit for your use.

**Your electric bill will depend on how you charge.** The cost of electricity depends on the fleet charging profile. In general, managing when the EVs charge, at what power level and for how long will lower the costs.

**Leverage available support.** The Exelon energy grid is ready for fleet electrification today, but the infrastructure needed to provide electricity to a given location is highly site-specific. The extent of service upgrades that may be needed will depend on a host of factors, including how many EVs will be charging concurrently and at what power level.

**Engage with Exelon early and often.** This process requires transparency. We will need to know about any modifications to your service so we can stand ready to help make your vehicle electrification goals a reality.

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# Fleet electrification roadmap

<p><b>Initiation</b> <span style="float: right;"><b>1</b></span></p> <ul style="list-style-type: none"> <li>• Research your charging and electrification needs.</li> <li>• Verify or establish your Exelon utility account.</li> </ul> <p> <a href="#">ACE</a>  <a href="#">BGE</a>  <a href="#">ComEd</a>  <a href="#">DPL</a>  <a href="#">PECO</a>  <a href="#">Pepco</a> </p> <div style="border: 2px solid purple; border-radius: 50%; padding: 10px; display: inline-block; background-color: purple; color: white; text-align: center; width: 40px; height: 40px; margin-left: 20px;"> <p>Contact us!</p> </div>	<p><b>Planning</b> <span style="float: right;"><b>2</b></span></p> <ul style="list-style-type: none"> <li>• Exelon reviews your service application and can advise if your existing service will be able to meet your new needs, or if new utility infrastructure upgrades may be needed.</li> <li>• Exelon performs a site visit to review existing infrastructure and to determine feasible solutions. We then develop the initial design of the utility equipment or upgrades needed.</li> <li>• Exelon will also work with you to develop a timeline for your project based on your capacity needs.</li> </ul>	<p><b>Design</b> <span style="float: right;"><b>3</b></span></p> <ul style="list-style-type: none"> <li>• Exelon completes a detailed design of your electrical installation.</li> <li>• Permit process — While Exelon applies for utility permits and arranges for all public underground location markings, you will work with your electrical contractor to obtain permits from the local municipality and arrange for any private location markings.</li> <li>• Working with your electrical contractor, you will complete the installation of EV charging infrastructure behind the meter and install your EV charging equipment and complete any municipal inspections.</li> </ul>	<p><b>Scheduling</b> <span style="float: right;"><b>4</b></span></p> <ul style="list-style-type: none"> <li>• Exelon will work to coordinate the schedule and construction of any utility infrastructure.</li> </ul>
<p><b>Construction</b> <span style="float: right;"><b>5</b></span></p> <ul style="list-style-type: none"> <li>• Exelon will perform a site inspection to ensure site readiness.</li> <li>• Exelon will construct the utility infrastructure, installation of meter equipment and connection of electrical service.</li> </ul>			
<p><b>Completion</b> <span style="float: right;"><b>6</b></span></p> <ul style="list-style-type: none"> <li>• EV Charging infrastructure is complete, and your EV Fleet is ready to roll.</li> </ul>			



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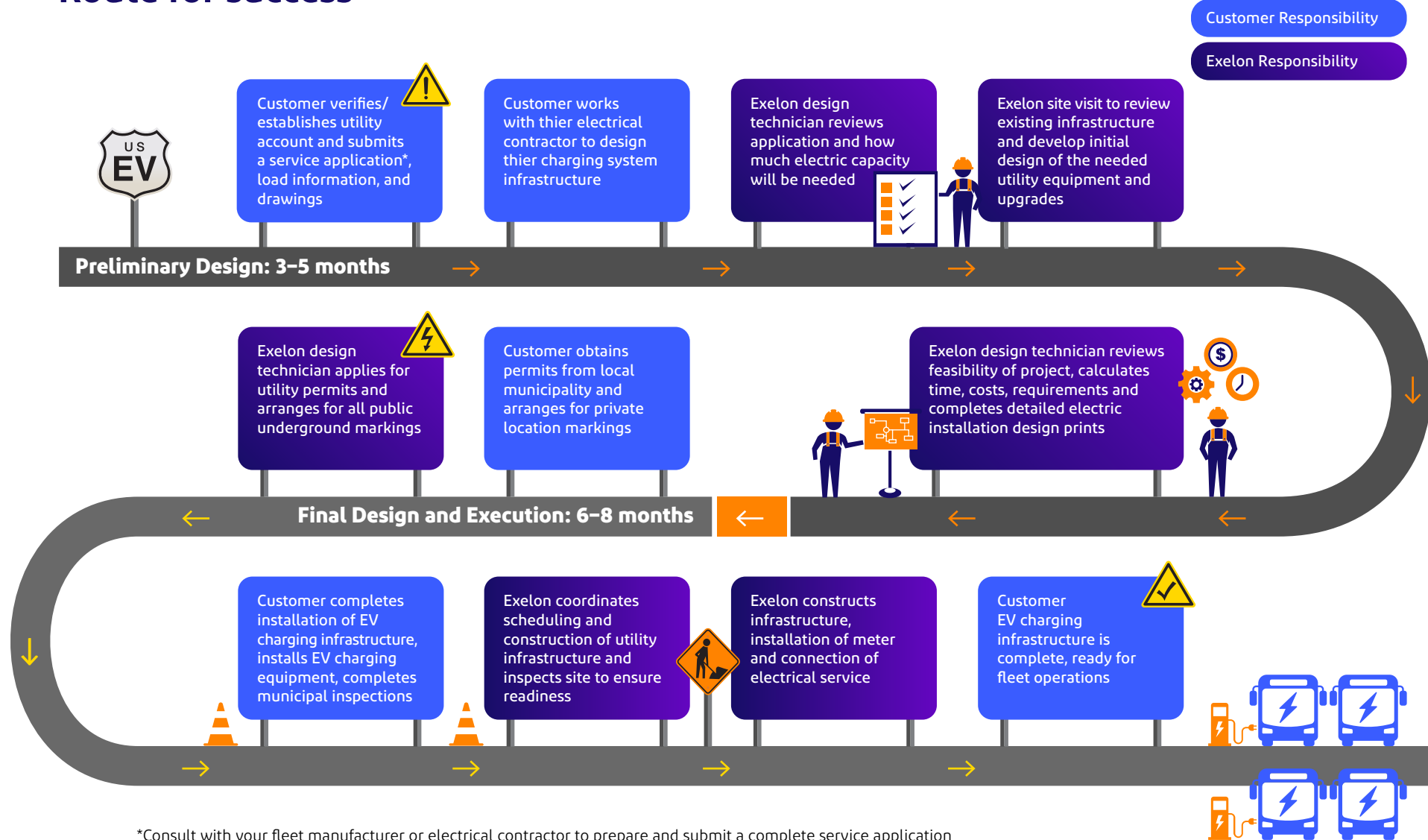
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# Transition to electricity

If your goal is to transition from conventionally fueled vehicles (gasoline and diesel) to battery EVs there are several important elements to understand. You may already be familiar with some of these issues from your existing operations but new factors that are specific to EVs can include:

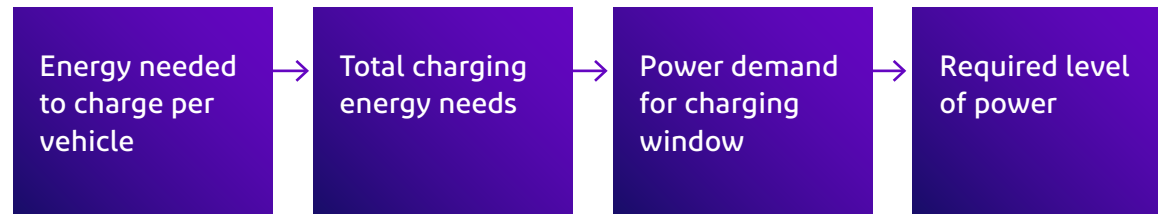
- Choosing the right infrastructure for your fleet
- Utility infrastructure for your fleet — system upgrades
- Understanding your EVSE options
- Purchasing electricity for your fleet
- Managing your EV charging costs

Reviewing these factors for EVs can help you evaluate your vehicle needs, charging equipment options and site selection criteria.

## Choosing the right infrastructure for your fleet

- How much energy will each vehicle need over the course of your daily operations?**
- How long does it take to deliver that energy to charge your vehicle?**

Starting with these initial questions will help you select EVSE that can support your fleet with charging in timely manner. Reviewing your fleet needs and charging options can also help charge your vehicles in a cost-effective manner and forecast the costs of your EV charging.



Vehicle manufacturers can help estimate the EV energy consumption for your operational needs. We are accustomed to fuel economy in gasoline and diesel, where a miles per gallon figure is better when the number is higher. Electric Vehicle fuel economy is better when the kWh per mile is lower. Gas is like bowling, and EV charging is like golf — lower scores are better! Having vehicles that draw less power for each mile traveled translates into greater savings for you.

1. Calculate how much energy will be needed per charge for each EV you purchase. This will be the EV's energy consumption rate multiplied by the miles traveled between charging events.
2. The total charging energy requirement for the fleet is simply the sum of the energy requirements for each vehicle during that charging window.
3. Determine when the vehicles are available for charging, including any in-route charging opportunities throughout the day.

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## Determine your business charging needs

Identifying the operational needs of your business such as fleet usage or customer/employee charging options is one of the first things we need to do. Finding the right charging infrastructure is dependent on how much energy your fleet will need over the course of an average day, how long the fleet vehicles are available to be charged on-site and how many may be charging at the same time.

Faster charging is typically more expensive because it requires a higher power demand on the grid. Depending on operational needs, vehicles that are only available to charge for short time periods will require faster charging speeds to deliver the same amount of energy as those vehicles that can be charged over longer periods of time.

**There are opportunities to manage and control charging in the most cost-effective manner. Some options include:**

- **Maximize available charging time.** For example, charging at a lower power over a longer duration generally will reduce electric costs.
- **More than one vehicle per charging station.**
- **Consider routes and use cases.** For example, staggering the depot return times of fleet vehicles so that charging windows begin at different times.
- **Manage charging station power.** Most EVSE vendors offer networking and cloud-based services (fees may apply). Having networked chargers allow the business to visualize and analyze charging data and activity. Such a system can be programmed so that the maximum power demand of an individual station does not exceed a certain threshold.
- **Supplement grid energy with on-site generation or energy storage.**



There's no one-size-fits-all formula for a business to determine which or how many charging stations its fleet will need. Vehicle type, vehicle routes, idle time and battery size are crucial factors in choosing the charging speed of your stations. However, we can help you optimize your charging needs while keeping your total cost of ownership in check.

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## Choose the right infrastructure

For conventionally fueled fleets, the unit price of diesel is independent of how the vehicles operate. A company that operates diesel-fueled trucks may be able to buy diesel at \$3.00 per gallon, regardless of whether the fleet has two trucks or 20 trucks and regardless of when they refuel. Fleet electrification is a new paradigm: the fuel costs (the costs of electricity) and the upfront infrastructure costs are highly dependent on the fleet operating profile, specifically when the EVs charge, at what power level and for how long.

**EV and charging equipment selection:** EVs and charging equipment (i.e., EVSEs) need to be selected to meet the fleet's operating requirements.

**Fleet operating profile:** Each EV in the fleet will have its own operating profile (miles driven per day, hours of operation, hours available to charge). The aggregate of each of the individual EV operating profiles at a given location is the overall fleet operating profile.

**Load profile:** The EV and EVSE choices and the fleet operating profile (how the EVs will charge) will together determine the load profile at the facility.

**Cost of electricity:** Fleets can apply their load profile to the electric rate options to estimate the costs of electricity.

**Cost of electric infrastructure upgrades:** Fleets can work with Exelon's utilities to evaluate the electric service needed and any applicable electric infrastructure upgrades.

**With the estimated EV fleet energy consumption from your manufacturer, you can start to develop your basic load profile.**

**Energy needed per charge:** Calculate how much energy will be needed per charge for each vehicle to be purchased.

**Total charging energy requirement:** Identify your total charging energy requirement by adding up the charging needed per vehicle for your charging window.

**Average power required to charge:** Determine the charging hours for your EV fleet vehicles. These may be at your facility or charging while en route during the day. As an example, delivery vehicles may only be available in the fleet yard from 8:00 PM to 6:00 AM, a ten-hour charging window.



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# Charging window examples

EVs that are only available for a short period of time will require faster charging speeds to deliver the same amount of energy as those EVs that can be charged over a longer period of time. The figure below illustrates the difference in power demand when EVs are charged:

■ Four-hour window — 175 kW peak power

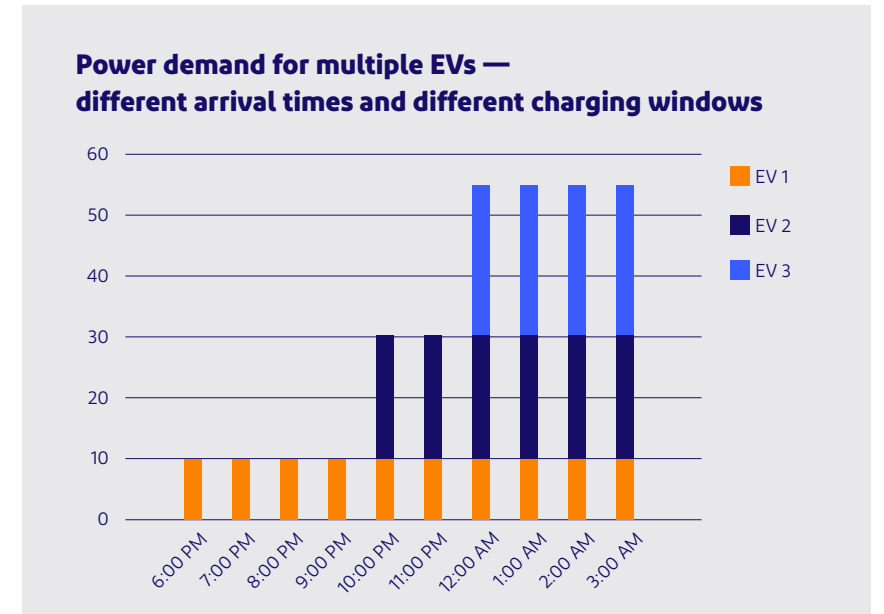
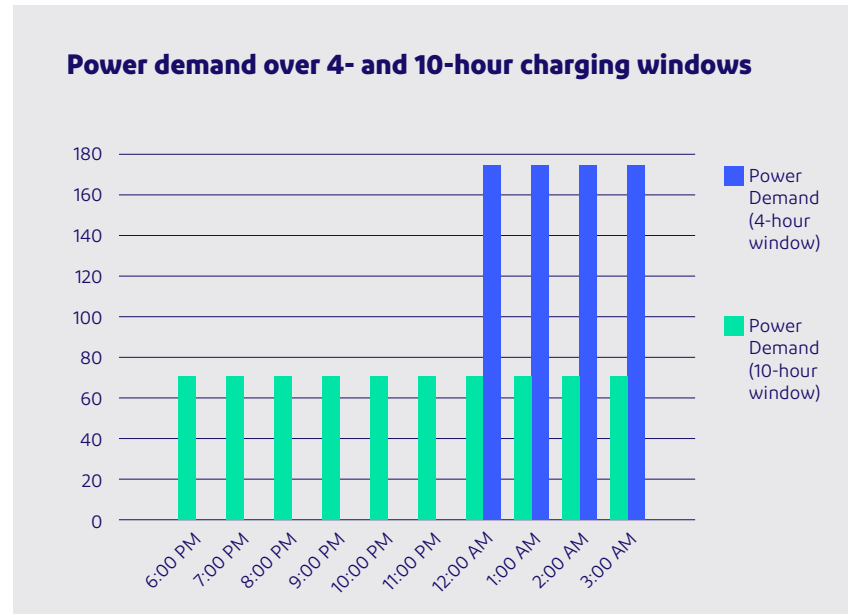
■ Ten-hour window — 75 kW peak power

Load profiles can become more complex when EVs require different charging periods over different rates. The figure below illustrates three EVs that arrive at different times, but all deploy at the same time in the morning. Fleets may have multiple charging windows per day, depending on how they are used.

■ EV 1: Ten-hour window — 10 kW peak power

■ EV 2: Six-hour window — 20 kW peak power

■ EV 3: Four-hour window — 25 kW peak power



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## Typical power requirement timelines

Power (MWs)	Equipment	Description	Timeline
125 kW	Switching/cap bank	Minimal on/off property work is needed to accommodate the capacity request	2–4 months
500 kW	Install new transformer or extend feeder	Minor on/off property work is needed to accommodate the capacity request	3–6 months
2 MW	New medium voltage feeder	New feeder extension is required to accommodate additional capacity	9–12 months
6 MW	2 new feeders (medium or high voltage)	Construct or extend multiple new feeders to customer site	12–15 months
12.5 MW	Multiple new feeders (medium or high voltage)	Depending on load, may build or extend feeders to customer site	12–18 months
25 MW	Multiple new high voltage feeders	Load will likely warrant multiple high voltage feeders and potential substation work	24+ months

Timelines are example ranges — all power delivery scenarios are specific to a location, proximity to existing feeder access, utility operating standards and available land/rights of way.

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## On-going infrastructure maintenance and support

Performing maintenance on your EVSE is generally considered simpler than maintaining gas and diesel refueling equipment. Initially, maintaining your EVSE will involve unfamiliar components and procedures, which may require training, knowledge and skills. You can significantly reduce EVSE maintenance by incorporating the following considerations into design site planning. Ask prospective EVSE vendors about:

- **Housekeeping pads:** Installing these under EVSE posts can limit exposure to heavy rain, snow and dust.
- **Screen protection:** Using protected screens that are oriented away from direct sun exposure minimizes overheating, avoiding malfunctions.
- **Collision protection:** Installing bollards and clear signage can protect the EVSE from accidental vehicle collision, particularly in poor-visibility conditions.
- **Cord length/management:** Using shorter cords and controls to securely store cords when not in use limits your EVSE cord exposure to moving vehicles and people.

Once your EVSE is up and running, best practices call for a regular maintenance schedule to help maximize your EVSE's useful life. You can enlist the help of your EVSE vendor to understand and implement these practices:

- Turn off the power to your EVSE equipment before conducting maintenance.
- Routinely inspect cords, plugs and cord storage devices for wear and tear or misuse.
- Clean plugs, including pins, with a light detergent and a nonabrasive washcloth to eliminate buildup of grit or grime, which can compromise your EVSE's efficiency.
- For DC fast chargers, inspect air conditioning or other cooling filters for clogs or buildup.
- Inspect the area surrounding the EVSE for changes that could compromise the equipment's integrity, such as cracked pavement, flooding, access barriers or compromised building structures (for wall-mounted EVSE).
- Review data reports for unusual results or other signs of error in the network or cloud-based communications platform.
- Compare EVSE data with your utility bills to confirm that the equipment is functioning as intended.

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# Path to Clean

## Exelon Path to Clean

- **Cut operations-driven greenhouse gas emissions in half by 2030**
- **Achieve net-zero operations by 2050**
- **Support customers and communities in reaching their clean energy and emissions reductions goals**

Exelon works with community partners to take on shared challenges and opportunities related to climate change, economic development and improved quality of life. We harness the strength and capabilities of our six utilities, delivering clean energy services and technology solutions that enhance our customers' lives and help our communities thrive.

## Our goal

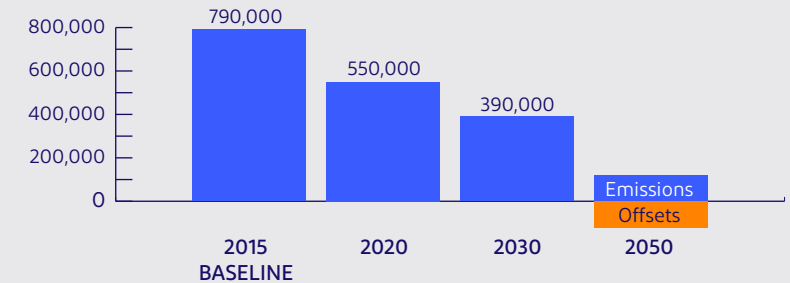
Our new goal focuses first on how we can lead by example by continuing to reduce our own greenhouse (GHG) emissions, and also reinforces our commitment to support our customers and communities in achieving their decarbonization ambitions through access to clean and affordable energy solutions. This net-zero goal builds on our longstanding commitment to tackle climate change, reduce local air pollution and power a healthy, sustainable future for our customers and communities.

Our decarbonization actions look to increase safety and reliability, and keep accessibility, affordability and equity top of mind. Our efforts will help to solve hard problems, such as electrifying our own fleet vehicles and seeking clean electricity for our own use, will help us learn and evolve our operations and expand our programs to better support the needs and ambitions of our customers and communities through 2050 and beyond.

*Path to Clean* is a program covering operations-driven emissions associated with our regulated utilities business: Atlantic City Electric, BGE, ComEd, DPL, PECO and Pepco. For additional details on our GHG emissions profile, please see our [Corporate Sustainability Report](#).

## Exelon scope 1 & 2 operations-driven emissions

metric tons GHG emissions





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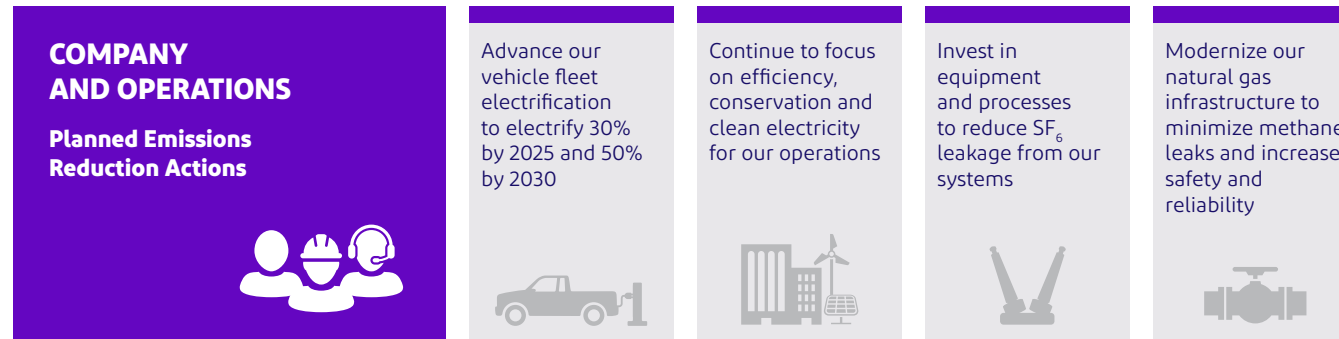
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# Path to Clean

## The path to meeting our operational emissions goal

Our plan starts with a tangible 2030 milestone that aligns to net-zero operations by mid-century. Operations-driven emissions are those that can be directly impacted by our daily employee operations, processes and procedures. These emissions sources include buildings' energy use, our fleet vehicles, and Sulfur hexafluoride (SF<sub>6</sub>) insulating gas used in our breakers and our gas delivery infrastructure. We target these sources where we can effect change as our focus areas for action. Near-term actions to get us to our 2030 milestones are highlighted below. We are also laying a foundation during this decade for advanced technology and solutions in each area through collaboration, pilots and partnerships.



Find out more about our [Path to Clean goal here.](#)



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## Opportunities to influence emissions beyond our operations (scope 3)

Economy-wide transformation requires unprecedented levels of action by all stakeholders, from supply to customers. Timely, meaningful and effective policy measures are imperative and we are pursuing such policy priorities to make a positive climate impact. Meanwhile, technological advancement, development, and scaling will be required to deploy and develop commercially viable mitigation options; therefore we are actively pursuing and partnering on R&D and piloting opportunities across our utilities and in partnership with others. We may not have all the answers today, but we know we must persevere even as the path gets harder — and we know that collaboration with our communities, local small businesses, national labs and research institutions, and other stakeholders will be key.

<p><b>EMPOWERING CUSTOMERS</b></p> <p>Areas for Innovation and Technology Advancement</p> 	<p>Explore efficient grid management and grid modernization technologies to minimize system losses</p> 	<p>Explore leak detection technologies to reduce natural gas lifecycle emissions and increase safety</p> 	<p>Advance transportation electrification and efficiency as well as conservation programs for our customers</p> 	<p>Explore alternative fuels to reduce natural gas lifecycle emissions</p> 
<p><b>COMMUNITY SUPPORT</b></p> <p>Areas for Engagement and Advocacy</p> 	<p>Partner with communities to develop and implement clean infrastructure solutions that are accessible to all customers</p> 	<p>Support jurisdictions to meet their climate and clean energy goals</p> 	<p>Invest in and support small businesses that are tackling climate problems in our communities</p> 	<p>Harness digital solutions to integrate clean technologies</p> 

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## Energy glossary

**Producing and delivering the energy that powers our homes and businesses often involves introducing new terms. We've listed and defined many of those to help you navigate the energy process along with us.**

**Amperage:** a measure of the flow of electrical charge.

**Average power:** the average amount of power that your fleet requires at any given time while charging.

**BEV — battery electric vehicle:** a vehicle that gets all its power from its batteries and electric motors. Batteries are charged by plugging into an electric power source.

**Charge rate:** the rate at which a battery can charge, measured in kilowatts (kW).

**Charging window:** the period of time in your fleet's duty cycle when vehicles can be charging, measured in hours.

**DCFC — direct current fast charge:** usually stated as DC fast charge.

**Demand:** the level at which electricity is delivered to users at a given point in time. Electric demand is measured in kilowatts.

**Distribution:** the process of transforming high voltage electricity to lower voltages and then physically delivering it to the electricity users.

**Distribution system:** the substations, wires and lines that convey electricity from high-powered transmission lines to ultimate consumers.

**Duty cycle:** the hours or proportion of time that a vehicle is operated per day.

**Electricity:** a fundamental form of energy observable in positive and negative forms that is produced (as in a generator) and that is expressed in terms of the movement and interactions of electrons.

**EV — electric vehicle:** a vehicle that operates with electric power and electric motors. Batteries are charged by plugging into an electric power source.

**EV demand:** the amount of power (kW) supplied to EVs during charging.

**EVSE — electric vehicle supply equipment:** used to charge electric vehicles, oftentimes referred to as EV chargers.

**Generation:** the process of producing electricity from a fuel or other energy source.

**GHG — greenhouse gases:** a gas that contributes to the greenhouse effect by absorbing infrared radiation, i.e., carbon dioxide.

**kW:** a unit of power, equal to 1000 watts, billed by the utility for electric delivery charges.

**kWh — kilowatt hour:** the unit of measure for electrical energy, billed by the supplier for delivery charges.

**Load profile:** the amount of power that your fleet requires on an hourly basis during your daily operations.

**LDV — light duty vehicles**

**MDV — medium duty vehicles**

**HDV — heavy duty vehicles**

**HEV — hybrid electric vehicles**

**PHEV — plug-in hybrid electric vehicle:** a vehicle that uses an electric motor and gas engine to operate. The gas-powered motor can work together with the electric motor, or separately on its own. Its electric motor uses batteries that are recharged by plugging in to an electric power source.

**ICE — internal combustion engine**

**Meter:** a device that records the amount of power flowing through a circuit.

**Net Zero:** achieving an overall balance between GHG produced and GHG taken out of the atmosphere.

**Substation:** a set of electric equipment that reduces high voltage power to a voltage suitable for customer use.

**Supply:** the generation of electricity can come from burning coal, nuclear reaction, natural gas, or through renewable methods such as solar, wind and more.

**Transformer:** an electric device that changes electricity from one level of voltage to another.

**Transmission:** the process of moving power in large quantities across long distances.

**Voltage:** electrical pressure created by a difference in electrical potential.

**Watt:** the absolute meter-kilogram-second unit of power equal to the work done at the rate of one joule per second or to the power produced by a current of one ampere across a potential difference of one volt.