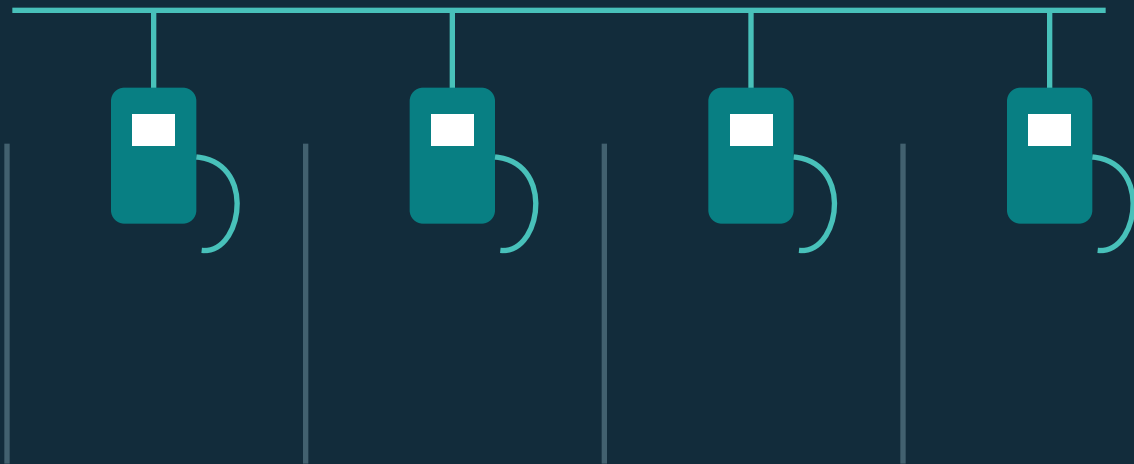


PRACTICAL GUIDE FOR COMMERCIAL OWNERS

Commercial EV Charging Planning Guide

From property feasibility and utility coordination to construction, fleet readiness, and long-term operations.

PLAN THE INFRASTRUCTURE. THEN SELECT THE EQUIPMENT.



For developers, property owners, businesses, municipalities, and fleet operators.

A practical resource from Broad Reach Construction Management.

North Carolina focus, with planning principles applicable across commercial markets.

Free resource • No registration required

01 / START WITH THE BUSINESS NEED

Define what charging must accomplish

A sound project begins with users, vehicles, and operations - before charger counts or equipment orders.

Charging can be an amenity, an operating requirement, or a paid service. Establish which purpose matters most at your property. Potential customer, employee, and tenant benefits should be evaluated against actual demand; they are not guaranteed increases in sales, retention, or property value.

Match the installation to the property

- **Offices and workplaces:** Estimate employee demand, parking duration, access rules, and how spaces will be shared.
- **Hotels, retail, and mixed-use properties:** Match charging availability to customer visits, overnight stays, circulation, and parking policies.
- **Warehouses and fleet depots:** Start with vehicle assignments, return times, energy needs, and departure readiness.
- **Multifamily and municipal sites:** Establish who can use charging, when it is available, and who pays to operate it.

Write a one-sentence project brief

We need charging for [users / vehicles] at [property], with [parking or charging window], an initial scope of [ports], and provision for [future need].

Inside this guide

02 Equipment choices • 03 Site feasibility • 04 Fleet planning • 05 Construction delivery • 06 Costs and ownership • 07 Funding • 08 Owner checklist • 09 Sources and next steps

02 / EQUIPMENT CHOICES

Level 2 or DC fast charging?

Parking duration and vehicle requirements should guide the choice.

Level 2 supplies AC power, converted by the vehicle's onboard charger. Commercial systems commonly use 208- or 240-volt service. DC fast charging supplies DC power to the battery and can deliver more energy during a shorter stop. Actual charging speed depends on the vehicle, charger, battery state, and temperature. [1]

Level 2: longer parking windows

Consider Level 2 for workplaces, hotels, resident parking, and fleets that have sufficient time between assignments. Multiple ports still require an assessment of the combined electrical load; a Level 2 installation is not automatically a minor electrical project.

DC fast charging: shorter turnaround

Evaluate DC fast charging where vehicles need more energy in a limited window. Have the engineer and utility confirm the electrical service and proposed load. Plan space for associated electrical equipment and maintenance access as well as the chargers.

Questions for equipment suppliers

- Which vehicles and connectors must the equipment support?
- What output can those vehicles actually accept?
- What networking, payment, access, and connectivity features are required?
- Who provides support, spare parts, warranty service, and software updates?

Decision checkpoint

Compare suitable equipment with your engineer, utility, and operator before purchasing. Connector compatibility and a high advertised output alone do not establish suitability.

03 / SITE FEASIBILITY

Resolve power and site conditions early

The shortest route on a drawing may not be the simplest route to construct.

Electrical and utility review

Provide the serving utility with the property address, account details, preliminary load, and intended charging use. The design team should review existing service information, available capacity, distribution equipment, metering, and possible load management. Ask which information is needed to assess a service upgrade and what milestones govern utility delivery.

Civil work and property access

- Locate existing underground infrastructure and review available records before excavation planning.
- Evaluate trench routes, pavement cuts, equipment foundations, drainage, and restoration.
- Coordinate parking, delivery access, pedestrian routes, and work areas at occupied properties.
- Have the design team resolve applicable accessibility requirements, charger reach, cable placement, and clearances.

Plan for expansion deliberately

Consider spare conduit, equipment space, and future load allowances where justified. Document what the initial design actually supports. An empty conduit does not guarantee future electrical capacity.

Before authorizing detailed construction pricing

Obtain a preliminary layout, an electrical concept, utility feedback, and a list of unresolved conditions. Identify who will verify each assumption and when.

04 / FLEET PLANNING

Build around vehicle readiness

A fleet installation succeeds when vehicles can perform their next assignment.

Do not begin with the assumption that every vehicle needs a dedicated fast charger. Establish the daily energy requirement and available charging window for each vehicle group. Fleet schedules and future vehicle specifications should inform the design.

Prepare the operating profile

- **Vehicles:** Current and planned models, connectors, battery capacity, and charging limits.
- **Duty cycles:** Daily routes, seasonal changes, payload effects, and operational reserve.
- **Parking windows:** Return times, departure times, staggered shifts, and charger sharing.
- **Site logistics:** Bay assignments, turning space, cable protection, loading docks, and maintenance access.
- **Continuity:** A plan for failed chargers, utility outages, and vehicles that return late.

Coordinate charging with the utility rate

Ask the utility and design team to evaluate the rate structure and options for scheduling or managing charging. Energy charges and demand charges are distinct: one relates to electricity consumed, while the other can relate to peak power demand under the applicable tariff. Confirm the actual rate for the site. [2]

Define success before turnover

Specify how the team will verify charging sessions, vehicle compatibility, operating schedules, and staff procedures before the fleet relies on the installation.

05 / PROJECT DELIVERY

From feasibility to operational turnover

Assign responsibilities at every stage; equipment installation is only one milestone.

1. Establish scope and feasibility

Define users, charging needs, site constraints, electrical assumptions, and initial budget. Record the owner's operating priorities.

2. Coordinate design and approvals

Develop the site and electrical design. Confirm the permitting authority, applicable reviews, utility responsibilities, and any funding conditions.

3. Plan procurement and construction

Confirm equipment specifications and lead times, contractor scope, shutdowns, access arrangements, inspection stages, and restoration requirements.

4. Manage site and electrical work

Coordinate trades, safety, quality, schedule updates, changes, and communication. Track utility work separately where it is outside the contractor's control.

5. Test, commission, and turn over

Confirm inspection completion, energization, equipment startup, network activation, payment or access setup, and owner training as applicable.

Broad Reach's role

Broad Reach coordinates owners, design professionals, utilities, equipment suppliers, and qualified trade contractors. The agreed scope defines each party's responsibility for design, installation, commissioning, and operations.

06 / BUDGET AND OWNERSHIP

Evaluate the full cost of ownership

Compare proposals using the same scope and operating assumptions.

Construction budget

Request separate allowances or prices for engineering, permits, equipment, utility work, electrical distribution, trenching, conduit, foundations, restoration, accessibility improvements, protective barriers, signage, testing, and turnover. Identify exclusions and contingency needs. Avoid relying on a generic per-charger price before the site has been evaluated.

Operating budget

Include electricity, applicable demand charges, networking subscriptions, payment processing, maintenance, repairs, warranties, and administration. Specify who monitors faults, answers driver calls, and arranges repairs. Ask for response-time and repair expectations in service agreements. [2]

Choose the ownership arrangement

- **Owner-operated amenity:** The owner funds and manages charging as a property service.
- **Paid charging:** Revenue helps recover costs, but profitability depends on utilization, pricing, and expenses.
- **Third-party ownership or hosting:** A provider may own or operate equipment under contract; review control, fees, access rights, and end-of-term obligations.

A useful financial check

Estimate annual net operating cash flow as charging receipts minus electricity, network/payment fees, maintenance, and other recurring costs. Evaluate capital recovery separately and test lower-use scenarios. This is a planning framework, not a return guarantee.

07 / NORTH CAROLINA FUNDING

Check eligibility before relying on funding

Program information reviewed October 31, 2026. Recheck official terms before committing money.

Federal Section 30C credit: deadline passed

Under current law, the alternative fuel vehicle refueling property credit does not apply to property placed in service after June 30, 2026. Do not budget this credit for a new installation placed in service after that date. Owners evaluating an earlier installation should consult their tax adviser about eligibility and documentation. Future legislation could change the rules; no extension is assumed here. [3]

Utility support

Ask your serving utility about current commercial make-ready or charging programs. Duke Energy has published a North Carolina Charger Prep Credit program supporting eligible infrastructure work. Its published description distinguishes electrical preparation from charger hardware and software; confirm current commercial terms, service-territory eligibility, application timing, and available support directly. Historical program announcements do not establish today's eligibility. [4]

State and corridor funding

Review NC DEQ charging infrastructure announcements and NCDOT NEVI opportunities. Prior awards or program descriptions do not mean applications are currently open. Public-access, location, equipment, procurement, and operating obligations may affect whether a project fits. [5, 6]

Funding checklist

Confirm application status, eligible applicant and location, qualifying costs, approval timing, cost share, payment schedule, and restrictions on combining funds. Keep a budget scenario that does not depend on an unawarded incentive.

08 / OWNER WORKSHEET

Bring these details to the first meeting

Use this checklist to turn an initial idea into a useful feasibility discussion.

Property and authority

Property address; owner and site contact; lease or site-control arrangements; available site plans; property-use restrictions.

Users and vehicles

Employee, customer, resident, public, or fleet use; vehicle types; estimated demand; parking duration; hours of access.

Power and layout

Serving utility; account and service details; available electrical drawings; preferred charger locations; known underground utilities; future expansion plans.

Budget and delivery

Target operating date; initial budget range; funding assumptions; occupied-site constraints; shutdown windows; decision-makers and approval steps.

Operations

Intended owner/operator; payment or access policy; network/connectivity needs; maintenance responsibilities; driver support; reporting needs.

Documents to request at turnover

Approved/as-built records as applicable; inspection and test records; equipment and warranty details; commissioning results; network administrator access; operating instructions; training records; emergency and service contacts.

For phased projects, record what has been installed now, what is reserved for later, and which future upgrades remain necessary.

09 / SOURCES AND NEXT STEPS

Plan your commercial EV charging project

A resource from Broad Reach Construction Management.

Broad Reach helps commercial owners coordinate infrastructure planning, design interfaces, budgets, procurement, construction, and turnover. Discuss your site before selecting equipment or beginning field work.

North Carolina consultations: 984-332-3927

[Explore our North Carolina commercial EV charging services](#)

Official references

1. U.S. DOE Alternative Fuels Data Center

Charging types, service voltages, and charging-time factors

[Open official resource](#)

2. U.S. DOE Alternative Fuels Data Center

Operations, electricity costs, pricing, and maintenance

[Open official resource](#)

3. Internal Revenue Service

Alternative Fuel Vehicle Refueling Property Credit

[Open official resource](#)

4. Duke Energy

North Carolina Charger Prep Credit program announcement; confirm current terms with the utility

[Open official resource](#)

5. NC Department of Environmental Quality

Volkswagen Settlement: EV Charging Infrastructure

[Open official resource](#)

6. NC Department of Transportation

NEVI Program Information and official opportunity links

[Open official resource](#)

Educational planning guidance. Site-specific engineering, code review, utility approval, and tax or legal advice must come from the appropriate professionals. No funding award, financial return, permit approval, or completion date is guaranteed.