EV CHARGING INFRASTRUCTURE · 50–65 MIN

EV Charging Infrastructure: Designing the Whole Site

A controlled technical paper on the complete charging service, from vehicle schedules and grid capacity to managed demand, software, civil works, safety, economics, acceptance and the Philippine project pathway.

ORIGINAL METRO POWER PAPER

Second edition · 30 August 2026 · Review before project use

PUBLICATION CONTROL

A traceable educational edition.

This record separates publication authority from project approval. It identifies what was researched, what remains limited and when the source base must be reviewed again.

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NEXT SOURCE REVIEW

30 August 2027 or earlier if a controlling issuance changes

Earlier if a controlling issuance changes

ABSTRACT

What this paper examines.

This paper explains EV charging as a grid-to-vehicle service. It links fleet departure requirements to energy, charger and vehicle limits, transformer headroom, managed charging, site engineering, software interoperability, Philippine regulatory pathways, business economics and integrated acceptance.

IN SCOPE

- AC and DC charging for fleets, destinations and public sites
- Electrical, civil, digital and operating architecture
- Whole-site feasibility, procurement and acceptance

LIMITATIONS

- Does not confirm site capacity, permits, tariffs, interoperability or vehicle compatibility
- Equipment nameplate power is not a guaranteed session rate
- The responsible utility, licensed professionals and authorities determine the project-specific path

PHILIPPINE APPLICABILITY AND SOURCE AUTHORITY

Guidance, drafts and controlling authorities are not interchangeable.

AUTHORITY · Republic of the Philippines

INSTRUMENT ·

Republic Act No. 11697 and its implementing rules

STATUS · Philippine primary law and implementing framework

USE ·

Industry roles and EVCS policy foundation

AUTHORITY · Department of Energy

INSTRUMENT ·

2024 EVCS provider obligations, requirements, specifications and interconnectivity guidelines

STATUS · Philippine primary implementing guidance

USE ·

Provider obligations, EVCS requirements and interconnectivity

AUTHORITY · Open Charge Alliance

INSTRUMENT ·

OCPP specifications and certification program

STATUS · Current protocol authority

USE ·

Version, functional-profile and certification verification

AUTHORITY · National Privacy Commission

INSTRUMENT ·

Republic Act No. 10173 and implementing resources

STATUS · Philippine primary authority

USE ·

Account, payment, location and charging-session data controls

ACRONYMS AND WORKING TERMS

Use the same language at every decision gate.

CSMS	Charging Station Management System
EVIDA	Electric Vehicle Industry Development Act
EVCS	Electric Vehicle Charging Station
OCPP	Open Charge Point Protocol
SOC	State of Charge
EVSE	Electric Vehicle Supply Equipment

REVISION HISTORY

What changed and when.

1.0	28 August 2026	Initial public web edition
2.0	30 August 2026	Research, technical-writing and editorial-control upgrade

SUGGESTED CITATION

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LEARNING OBJECTIVES

What you should be able to explain after reading.

01 Distinguish charger power, vehicle acceptance and delivered energy

02 Trace the complete grid-to-vehicle power path

03 Model simultaneity, dwell time and managed demand

04 Identify whole-site CAPEX, operating and Philippine compliance questions

FLAGSHIP TECHNICAL EDITION

EV charging is a transport service built on an electrical system

This paper follows energy from the distribution connection to the vehicle, then connects charger selection to fleet schedules, site capacity, managed demand, software, safety, economics and acceptance evidence.

11 chapters | **14 original figures** | **4 worked cases** | **50–65 minute study**

BEGIN WITH THE DEPARTURE, NOT THE CHARGER

At 6:00 a.m., ten vehicles must

leave. The real question is whether the site delivered the energy they needed.

A depot purchases ten 60 kW chargers. On paper, the installation appears to offer 600 kW. But the property has only 350 kW of spare capacity. The vehicles return at different times and states of charge. Some accept less than 60 kW, especially as their batteries fill. The site’s other loads rise in the evening. One charger loses communications. A driver parks in the wrong bay. The fleet manager does not need ten impressive nameplates. The manager needs ten vehicles ready for service.

This is why an EV charging project cannot be evaluated from charger price alone. It is a coordinated system of vehicles, people, utility service, transformer, protection, cables, civil works, communications, charging equipment, software and operating rules. Each layer can limit the service. A world-class design makes those limits visible before procurement.

> Charging infrastructure succeeds when it delivers the required mobility outcome safely, predictably and at a controlled cost. The charger is one component of that outcome.

01

THE OPERATING QUESTION

Define the service before selecting equipment.

Public charging, workplace charging, residential charging and fleet-depot charging solve different problems. A public site may prioritize discoverability, payment, queuing and broad vehicle compatibility. A workplace may prioritize long dwell times and equitable sharing. A fleet depot may care almost entirely about departure readiness, route reliability and operating cost. The same charger can be suitable in one context and wasteful in another.

Start with the vehicle-day. For every meaningful vehicle group, record battery capacity, energy consumed per route, arrival time, arrival state of charge, minimum departure state of charge, dwell window, vehicle inlet and maximum AC or DC acceptance. Add seasonal variation, exceptional routes and future fleet growth. This converts an equipment conversation into an energy-and-time problem.

FIGURE 1

The charging requirement begins with mobility

01 **Route and duty**

02 **Arrival energy**

03 **Dwell window**

04 **Required departure**

05 **Charging schedule**

06 **Equipment mix**

How to read this figure. Read left to right. Route energy and the time available between arrival and departure create the charging requirement. Charger power is selected only after that requirement is understood.

DISCOVERY GATE

Can the project state how many kilowatt-hours each vehicle group needs, by what time, and with what operational margin? If not, charger selection is premature.

02

POWER, ENERGY AND TIME

kW describes rate. kWh describes the work delivered.

Power, measured in kilowatts, is the instantaneous rate of energy transfer. **Energy**, measured in kilowatt-hours, accumulates over time. A charger delivering 60 kW continuously for one hour would transfer 60 kWh at its output. Real sessions include conversion losses, auxiliary consumption, vehicle-imposed limits, interruptions and charge taper, so nameplate power multiplied by elapsed time is only an upper-bound estimate.

The vehicle controls how much power it accepts. With AC charging, the vehicle's onboard charger converts AC to DC and may be the limiting component. With DC charging, conversion occurs in the external charger, but the vehicle still negotiates voltage and current and reduces power as battery temperature or state of charge requires. "A 60 kW charger charges every vehicle at 60 kW" is therefore false.

FIGURE 2

Three limits determine actual charging power

Site limit

Available electrical capacity and management rule

Charger limit

Rated output across its voltage/current envelope

Vehicle limit

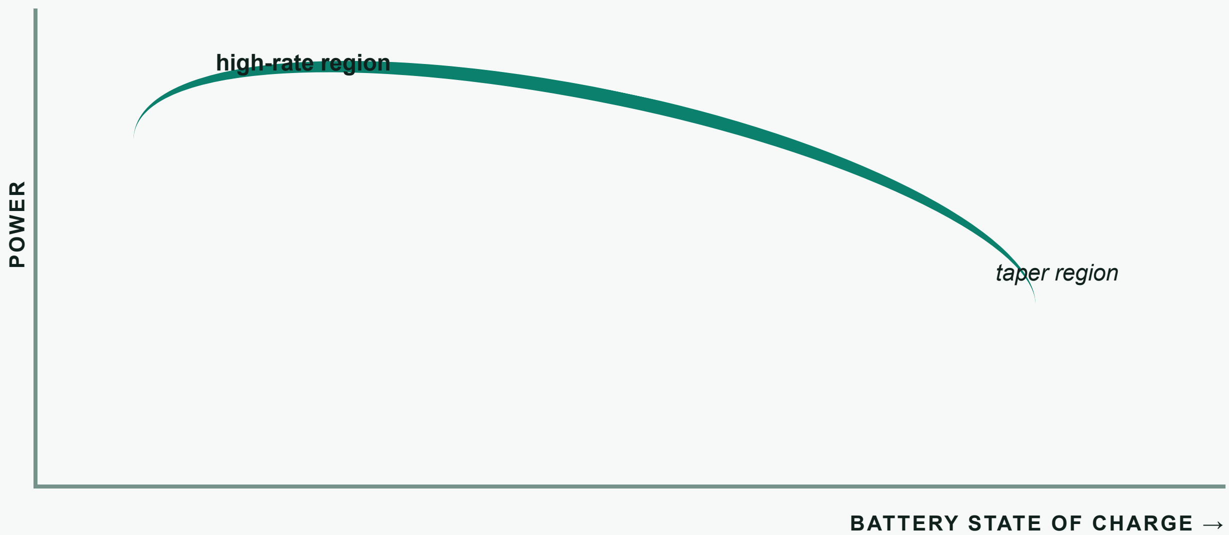
Acceptance, temperature and state-of-charge behavior

Actual power = lowest active limit

How to read this figure. The delivered rate at any moment cannot exceed the smallest applicable limit. Site controls can impose a lower ceiling even when charger and vehicle are capable of more.

FIGURE 3

Charging power normally tapers as the battery fills



How to read this figure. Illustrative only. The exact curve belongs to the vehicle and conditions. A high charger rating may shorten the early session without sustaining that rate near full charge.

A useful first calculation is required average power: energy needed divided by the charging window. A vehicle needing 90 kWh over a six-hour dwell requires an average of 15 kW at the vehicle, before allowances for losses and operational margin. This does not mean a 15 kW charger is automatically correct. It means the service requirement has been quantified and can be tested against schedules, peak periods and exceptions.

03

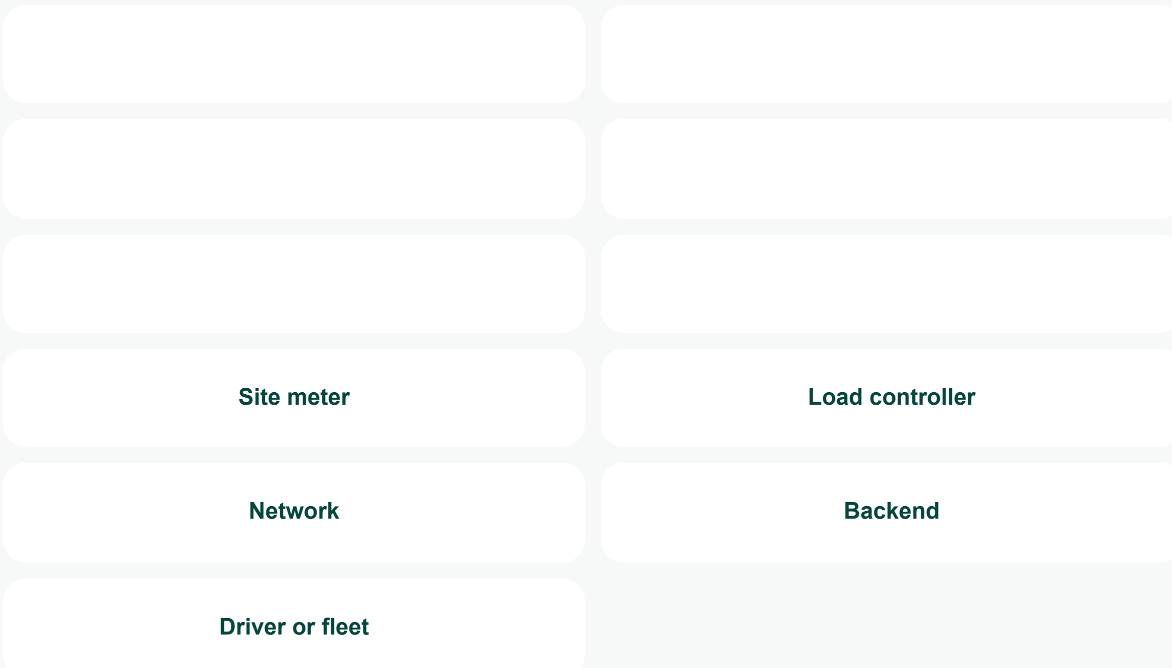
GRID-TO-VEHICLE ARCHITECTURE

Trace every boundary between the utility and the battery.

The energy path may include the distribution utility service, service transformer, main switchgear, revenue and submetering, branch protection, distribution panels, conductors, isolation or emergency devices, charger power electronics, connector and vehicle. Communications may link meters, chargers and a charging-management platform through local networking and the internet. Civil works keep these assets physically supported, accessible and protected.

FIGURE 4

A charging site is an integrated electrical and digital architecture



How to read this figure. The upper path carries power. The lower path carries authorization, limits, status and records. Safe operation requires both paths plus defined fallback behavior when communications fail.

Interface ownership matters. Who confirms available utility capacity? Who performs the protection study? Who supplies the cellular service? Who owns charger credentials? Who tests backend compatibility? Who restores service after a communications failure? A responsibility matrix should assign design, supply, configuration, testing, acceptance and continuing support for every boundary.

FIGURE 5

Interface failures are project failures

Boundary	Question	Evidence	Owner
Utility–site	What import and fault levels apply?	Utility confirmation and studies	Project/utility
Panel–charger	Are ratings, protection and cable coordinated?	Approved design and tests	Electrical designer
Charger–vehicle	Which combinations are proven?	Compatibility test set	Supplier/operator
Charger–backend	Which functions work end to end?	Integrated protocol tests	Platform integrator

How to read this figure. An equipment warranty may cover a component while leaving the customer exposed at the boundary between packages. Procurement should name the evidence and responsible party for each interface.

04

SITE CAPACITY

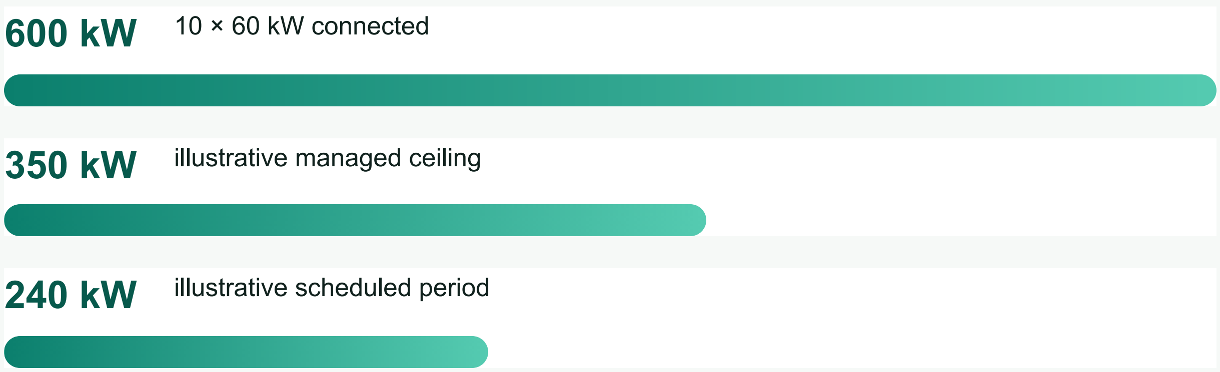
Transformer nameplate is not available headroom.

An existing 750 kVA transformer does not offer 750 kW for new chargers. It already serves building loads, has a real loading profile, operates at a power factor, experiences ambient and thermal conditions, and connects to equipment with defined ratings and fault duties. Capacity assessment should use measured interval demand, known coincident loads, transformer and switchgear ratings, voltage behavior, protection coordination, future expansion and utility requirements.

Ten 60 kW chargers create 600 kW of connected charging capacity. If the site has 350 kW of verified charging headroom, the unconstrained design is not acceptable merely because average utilization may be low. The project must either increase capacity, reduce equipment, or implement a controlled demand limit that still meets vehicle schedules.

FIGURE 6

Connected load and managed demand are different quantities



How to read this figure. The 600 kW connected capacity remains physically installed. The controller can hold aggregate charging below 350 kW, but only if metering, communications, control logic and fallback limits are dependable.

WORKED CASE 01

Ten 60 kW chargers at a constrained depot

Ten buses each require 120 kWh after returning between 7:00 p.m. and 9:00 p.m. All must depart by 5:00 a.m. The site can allocate 350 kW to charging.

01 Total vehicle energy is 1,200 kWh before charging losses and margin.

02 The common 9:00 p.m.–5:00 a.m. window is eight hours, so the ideal minimum average is 150 kW.

03 At 90% illustrative grid-to-battery efficiency, approximately 1,333 kWh must enter the charging system, averaging 167 kW.

04 The 350 kW ceiling appears adequate for the normal schedule, but late arrivals, high-energy routes, unavailable chargers and site-load variation need scenario tests.

CONCLUSION

The 600 kW nameplate does not require 600 kW simultaneous demand if managed charging is proven. It also does not prove readiness. The fleet schedule, abnormal cases, controller fallback and measured site headroom decide feasibility.

05

MANAGED CHARGING

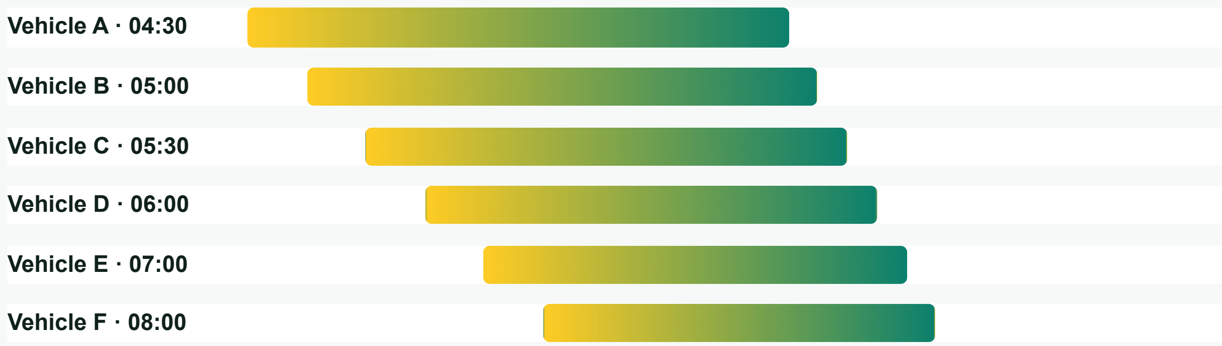
Allocate scarce power according to operational priority.

A static limit caps charging at a fixed value. A dynamic limit can respond to the site’s real-time load and use capacity that would otherwise remain idle. Within that envelope, the controller may share power equally, prioritize earliest departure, protect minimum state of charge, or optimize around tariffs and demand peaks. The correct policy depends on the operating outcome.

Managed charging is not magic capacity. It depends on accurate site measurement, reliable charger communications, current vehicle or schedule information and safe fallback behavior. If the site meter becomes stale, should chargers hold the last allocation, fall to a conservative limit, or stop? If the backend is unavailable, can local control preserve essential charging? These are design requirements, not afterthoughts.

FIGURE 7

A departure-aware schedule shifts power without sacrificing service



How to read this figure. Illustrative six-vehicle night. Urgent vehicles receive earlier allocation; flexible vehicles charge later. The aggregate stays below the site ceiling while all required energy is targeted before departure.

CONTROL GATE

State the aggregate limit, allocation policy, measurement source, update interval, communications-loss behavior, manual override authority and audit record. “Supports load management” is not an acceptance criterion.

CHARGERS, CONNECTORS AND SOFTWARE

Compatibility is an end-to-end behavior, not a logo.

Equipment selection includes input supply, output voltage and current envelope, connector, environmental rating, cable management, accessibility, impact protection, metering, display, emergency functions, communications hardware and service access. The vehicle population determines which connector and power envelope are useful. A charger that reaches its headline rating only at voltages above the fleet's battery voltage may deliver less than expected.

OCPP, maintained by the Open Charge Alliance, defines communication between charging stations and management systems. Version support alone does not prove that every profile, smart-charging behavior, security feature or vendor combination works. Procurement should identify required messages and use cases, certification status where applicable, backend version, tested configuration and evidence from integrated acceptance.

FIGURE 8

Protocol support must be translated into operating journeys

Authorize

Identity → backend → charger permission

Charge

Vehicle negotiation → power delivery → meter records

Manage

Site limit → allocation → charger setpoint

Recover

Fault → alarm → diagnosis → restoration

Settle

Session record → price rule → payment or fleet account

How to read this figure. Each customer-visible outcome crosses several systems. Test the complete journey instead of accepting a general interoperability statement.

Data ownership and vendor exit deserve explicit treatment. Who owns session and diagnostic records? Can data be exported in a usable format? Can chargers move to another backend? Who controls certificates, SIMs, keys and administrator accounts? How long are security and firmware updates provided? A low initial platform price can create a costly operational dependency.

PHYSICAL SITE AND SAFETY

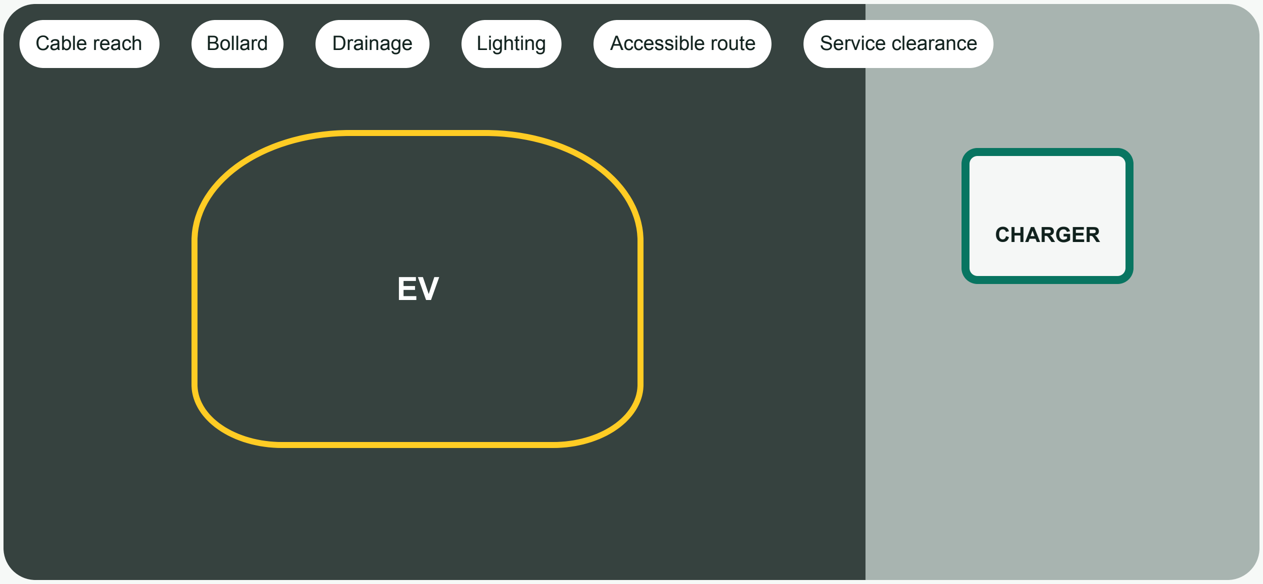
The parking bay is part of the engineered system.

A charger requires more than a foundation and cable. Site design should consider vehicle movement, swept paths, accessible use, cable reach, trip hazards, drainage, flood exposure, sunlight, ventilation where relevant, impact protection, lighting, security, signage, emergency access and maintenance clearance. Trenching and reinstatement can dominate disruption and cost at an existing facility.

Electrical design by qualified professionals should address conductor sizing and voltage drop, grounding and bonding, isolation, overcurrent and residual-current protection as applicable, surge protection, short-circuit duty, selectivity, emergency disconnection, labeling and inspection. Exact requirements depend on the controlling Philippine rules, utility conditions, equipment instructions and site classification.

FIGURE 9

A usable bay protects people, equipment and operations



How to read this figure. This planning view is not a construction drawing. It shows the disciplines that must be coordinated around the charger.

SAFETY BOUNDARY

This paper supports project discovery, not final electrical or civil design. Licensed professionals and the authorities having jurisdiction must confirm the controlling requirements and approve the project-specific design.

PHILIPPINE PROJECT PATHWAY

Map the responsible entity and approvals before selling the solution.

The Electric Vehicle Industry Development Act and current Department of Energy issuances establish the national EV framework. Project obligations can depend on whether the site is private or commercially accessible, who operates the charging service, what equipment is installed and which local and distribution-utility processes apply. Electrical, building, fire, product conformity, business and local permitting questions should be verified for the actual site and current rules.

A regulatory pathway is a dependency map. It should name the question, responsible party, authority, controlling issuance, required evidence, timing and status. It should distinguish a verified requirement from an assumption or an item awaiting authority confirmation. Metro Power should not promise approval, compliance or energization from a generic checklist.

FIGURE 10

Approvals form a sequence, not a single permit

1. **Project role and site class**
2. **Utility capacity and interconnection**
3. **Engineering and product evidence**
4. **National and local approvals**
5. **Construction and inspection**
6. **Energization and continuing duties**

How to read this figure. The exact pathway varies. Verify current requirements and dependencies early so equipment, construction and energization do not arrive out of order.

ECONOMICS AND BUSINESS MODEL

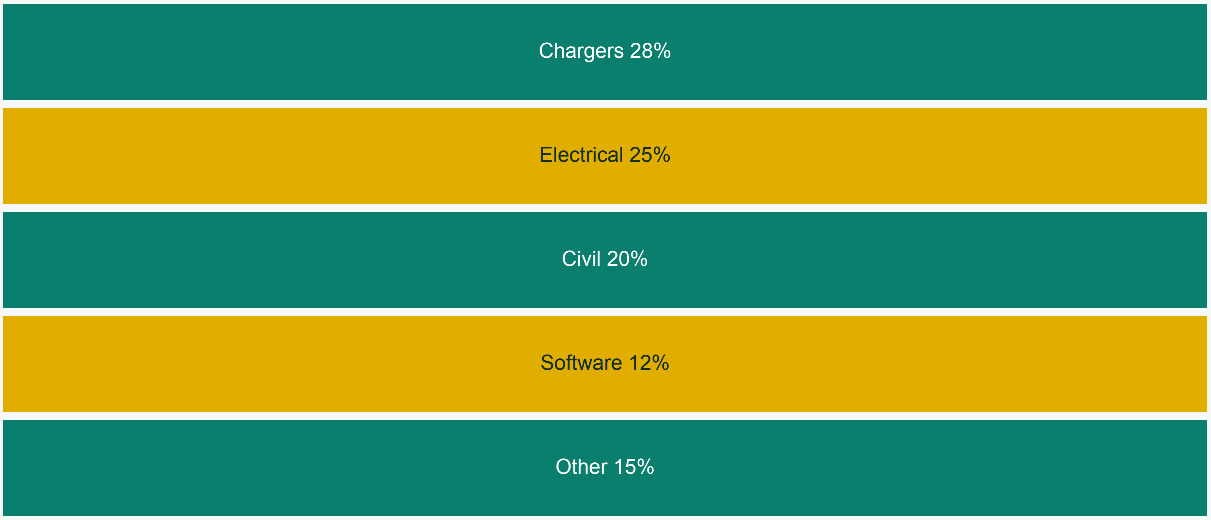
Model the whole site, then test the downside.

Whole-site capital cost may include chargers, transformer or service upgrade, switchgear, protection, panels, conductors, trenching, foundations, bollards, network equipment, design, permits, testing, commissioning, training, initial spares, tax, freight and contingency. Operating cost may include purchased energy, demand charges, software, connectivity, payment fees, rent or revenue share, preventive maintenance, corrective maintenance, customer support, insurance and financing.

Public charging revenue depends on sessions, energy per session, price, uptime and payment collection. Fleet value may come from avoided fuel and maintenance cost, route availability, controlled demand and operational resilience rather than retail charging revenue. The commercial model should be aligned with the site’s real purpose.

FIGURE 11

The charger can be a minority of enabled project cost



How to read this figure. Illustrative composition only. Site-specific quotations and verified scope are required. Upstream electrical and civil work can materially outweigh the charging hardware.

WORKED CASE 02

Why utilization changes a public site’s economics

An illustrative site has annual fixed operating costs of ₱900,000 and earns ₱6 contribution per delivered kWh after energy and variable transaction costs.

01 Break-even energy before capital recovery is 900,000 ÷ 6 = 150,000 kWh per year.

02 That is about 411 kWh per day.

03 At 30 kWh per average session, the site needs roughly 14 paid sessions per day before covering those illustrative fixed operating costs.

04 Capital recovery, financing, downtime and tax would increase the required volume.

CONCLUSION

A compelling charger price cannot rescue weak demand. Test utilization, contribution, uptime and cost sensitivities independently, and never substitute illustrative values for the client’s verified tariff and commercial assumptions.

FIGURE 12

Every forecast should show downside, base and upside

DOWNSIDE

slow adoption · lower uptime · higher enabling cost

BASE

evidence-backed operating assumptions

UPSIDE

strong utilization · stable margin · controlled demand

How to read this figure. A decision brief should reveal which assumptions control the outcome. Utilization, energy margin, demand cost, uptime and infrastructure CAPEX usually deserve sensitivity testing.

Acceptance should prove the service, not only energization.

A pilot should answer uncertainties that matter to scale: vehicle compatibility, delivered energy, site demand, charge scheduling, communications reliability, user behavior, payment flow, alarm response, maintenance effort and data quality. It needs a baseline, defined test population, pass criteria, observation period, issue log and decision gate.

Commissioning should verify identity and ratings, installation, protection, grounding, electrical tests, charger functions, emergency behavior, load-management limits, communications-loss fallback, authorization, transaction records, payment where applicable, reporting, fault recovery and the agreed vehicle set. Handover should include as-builts, settings, credentials, warranties, training, maintenance plan, support escalation and spare strategy.

FIGURE 13

Acceptance evidence moves from component to operating service

01 **Factory evidence**

02 **Installation inspection**

03 **Electrical commissioning**

04 **Vehicle compatibility**

05 **Backend and load control**

06 **Operational observation**

How to read this figure. A charger can pass a local power test while the service fails authorization, managed charging or reporting. Each gate proves a wider system boundary.

WORKED CASE 03

A communications failure during managed charging

The site controller normally limits aggregate charging to 300 kW. Its connection to the charger network is interrupted.

01 If chargers hold their last setpoints indefinitely, changing building load may push the site beyond its demand or capacity limit.

02 If every charger stops, the fleet may miss departure readiness.

03 A documented local fallback can apply a conservative aggregate or per-charger limit while raising an alarm.

04 Acceptance should interrupt communications intentionally and verify the defined behavior, restoration and audit record.

CONCLUSION

Resilience is an engineered state transition. The fallback must be specified, implemented and witnessed.

PROCUREMENT AND DECISION CONTROL

Buy a verified operating outcome.

A controlled specification separates mandatory requirements, evaluated preferences and future options. It states the use case, service level, electrical ratings, vehicle and connector scope, environmental conditions, communications, software functions, cybersecurity expectations, data ownership, warranty, spares, training, documentation, tests and continuing support. Every claim should resolve to exact product evidence and an acceptance method.

Before a commitment, classify the facts. Verified facts have a traceable source. Assumptions are visible and sensitivity-tested. Missing data has an owner and deadline. Manufacturer confirmation identifies the exact model, firmware and configuration. Management approval covers commercial exposure and residual risk. This discipline prevents the charger quotation from becoming an accidental promise for the entire site.

FIGURE 14

A five-part evidence ledger keeps the decision honest

VERIFIED FACTS

Measured demand, vehicle data, exact certificates

ASSUMPTIONS

Utilization, growth, losses, behavior

MISSING DATA

Drawings, tariffs, routes, site conditions

PRINCIPAL CONFIRMATION

Model, firmware, protocols, warranty

MANAGEMENT APPROVAL

Budget, terms, risk and decision gate

How to read this figure. Do not allow an assumption to appear as a product fact or an unresolved authority question to appear as an approval.

WORKED CASE 04

The bid/no-bid question

A client requests ten 60 kW chargers but provides no interval load, single-line diagram, vehicle schedule or civil survey. Submission is due in five days.

01 The equipment offer can be technically screened, but whole-site feasibility is unverified.

02 Issue clarification questions and state exclusions, assumptions and provisional allowances visibly.

03 Do not guarantee transformer adequacy, charging time, permits, savings or completion dates without controlling evidence.

04 Management decides whether the remaining uncertainty is commercially acceptable and what conditions must precede award or mobilization.

DECISION

Proceed only as a conditional, evidence-controlled offer if the commercial strategy allows it. A fast quotation should never conceal an undefined infrastructure obligation.

APPLY THE PAPER

Questions to take into a real EV charging discussion.

01 What mobility outcome and departure readiness must the site deliver?

02 How much energy does each vehicle group need, and when?

03 What measured site headroom and utility conditions are verified?

04 What limits actual power: site, charger, vehicle or control policy?

05 What happens when metering, communications or the backend fails?

06 Which vehicle, connector and backend combinations will acceptance test?

07 Who owns every electrical, digital, civil and regulatory interface?

08 What whole-site costs and downside assumptions control the decision?

SOURCE REGISTER

Primary references for continued study.

This is an original Metro Power synthesis. References support the learning framework but do not replace current Philippine laws, project specifications, professional design or authority confirmation.

01

Republic Act No. 11697: Electric Vehicle Industry Development Act

Official Gazette of the Republic of the Philippines

National policy and institutional framework for the Philippine EV industry.

Open source ↗

02

EVCS Provider Obligations and EVCS Requirements, Specifications and Interconnectivity

Philippine Department of Energy

Primary Philippine EV charging implementation context; verify current effect and applicability.

Open source ↗

03

Electric Vehicle Charging Infrastructure Trends

US Department of Energy, Alternative Fuels Data Center

Official background on charging infrastructure and station characteristics.

Open source ↗

04

Electric Vehicles for Fleets

US Department of Energy, Alternative Fuels Data Center

Fleet assessment, infrastructure, operations and training considerations.

Open source ↗

05

Open Charge Point Protocol

Open Charge Alliance

Official protocol versions, functions and certification context.

Open source ↗

06

Electric vehicle conductive charging system, IEC 61851 series

International Electrotechnical Commission

International standards catalogue; confirm the exact applicable part and edition.

Open source ↗

SECOND-EDITION TECHNICAL REVIEW

Second-edition evidence review: mobility outcome, managed demand and Philippine operating path

The charging service is successful when the required vehicles depart with enough energy while the site remains inside electrical, operating and commercial limits.

01

Route energy, arrival state of charge, departure time and vehicle acceptance determine the service. Charger count and nameplate power follow that duty model.

02

The sum of charger ratings is an upper equipment quantity. Site demand depends on allocation rules, vehicle behavior, other loads, fallback mode and the enforceable aggregate limit.

03

An OCPP version statement does not prove every optional profile, security function, charger-backend combination or load-management use case.

A grid-to-vehicle acceptance plan tests power and information together.

Layer
Vehicle duty

Question
How many kWh must each vehicle receive by departure?

Evidence
Routes, consumption, arrivals, departures and reserve

Failure consequence
Vehicles miss service

Layer
Utility service

Question
What import limit is available under real site load?

Evidence
Load study, service data and utility confirmation

Failure consequence
Overload or delayed connection

Layer
Distribution

Question

Can transformer, switchgear, cable and protection carry the controlled duty?

Evidence

Approved design, settings and commissioning

Failure consequence

Unsafe or unreliable energization

Layer

Charger and vehicle

Question

Which voltage, connector and charge curve are supported?

Evidence

Exact model and representative-vehicle tests

Failure consequence

Slower or failed sessions

Layer

CSMS and control

Question

How are limits allocated and what happens offline?

Evidence

OCPP profile evidence and fallback test

Failure consequence

Demand limit exceeded or sessions stranded

WORKED EVIDENCE CASE

Ten 60 kW chargers on a 350 kW site limit

Ten vehicles each need 42 kWh before a shared eight-hour departure. The site can allocate 350 kW to charging after other loads, but no individual vehicle accepts more than 60 kW.

Fleet energy required is 10 × 42 kWh = 420 kWh.

Average charging power over eight hours is 420 ÷ 8 = 52.5 kW before losses, far below the connected 600 kW.

Apply verified conversion and auxiliary losses, arrival windows and charging taper.

Set an enforceable aggregate limit no higher than validated site headroom.

Prioritize vehicles by departure, energy deficit and operational criticality.

Test the loss-of-communications fallback so chargers do not all revert to uncontrolled maximum power.

DECISION LESSON

The site may meet the mobility requirement without a 600 kW simultaneous peak, but only if schedules, vehicles, control and fallback behavior are real and enforceable.

FAILURE-MODE REVIEW

What to challenge before commitment.

Turnaround time is overstated

Evidence: Vehicle compatibility and charge-curve test

Existing demand and thermal duty are ignored

Evidence: Interval load and engineering study

Required smart charging or security behavior may be absent

Evidence: Official certificate and integrated use-case test

Registration, operating and customer obligations may be missed

Evidence: DOE and authority pathway record

VERIFIED CONTEXT

- Republic Act No. 11697 establishes the EVIDA framework
- DOE has issued implementing guidance on EVCS provider obligations, requirements, specifications and interconnectivity

VERIFY FOR THE PROJECT

- Whether the planned owner or operator is an EVCS provider under the current rules
- Distribution-utility service and upgrade requirements
- Electrical, building, fire, civil, accessibility, business and local permits
- Current OCPP certificate scope for the exact charger and firmware

PROJECT GATE

Do not commit the charger quantity, energization date or public operating model until the mobility duty, utility service, site design, provider classification and approval path are controlled.