PARKONOMICS

A Series on the Business of Parking

Plugging In Wisely:

What Every Parking Operator, Property Owner, and Municipal Manager Needs to Know Before Partnering with an EV Charging Company

Andrew Sachs, PTMP

President, Gateway Parking Services | Owner, Harbor Park Garage, Baltimore

Parkonomics Series | 2026

EXECUTIVE SUMMARY

Before You Sign Anything

The electric vehicle revolution is reshaping the parking industry — not in some distant future, but right now, in every market across the country. EV sales now represent nearly 10% of new light-duty vehicle purchases in the United States, and that share is only going to grow. For parking operators, commercial property owners, and municipal managers, EV charging has become both a competitive necessity and a genuine business opportunity.

But this paper is not a cheerleading piece for EV charging. It is a due diligence guide, written by an asset owner, operator and consultant who learned many of these lessons firsthand, at real cost, in a real facility. The message is simple: before you sign a contract with an EV charging company, you need to understand what you are actually buying.

The central thesis of this paper is that EV charging is a software business masquerading as a hardware purchase. Operators who evaluate vendors on equipment specs and upfront costs are looking at the wrong scorecard. The platform — the software that controls pricing, access, load management, data, and integrations — is where the value lives, and where the risks hide.

This paper covers the certifications you must require, the integration capabilities that will define your operational flexibility, the total cost picture most vendors don’t volunteer, the regulatory landscape governing how you can price and bill for charging, and the monetization strategies that go far beyond simple energy arbitrage. It closes with a vendor evaluation checklist you can use before signing anything.

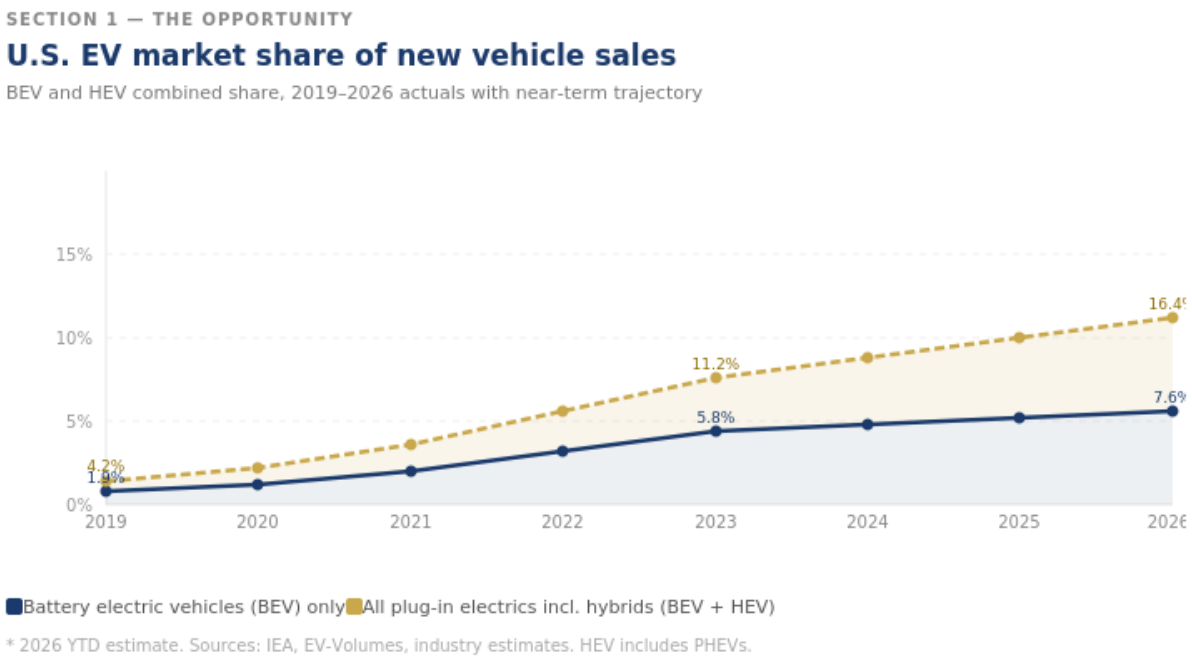
> **KEY TAKEAWAY**
>
> *The parking operator who approaches EV charging as a software investment — not a hardware purchase — will out-maneuver, out-serve, and out-earn the operator who does not. Every decision you make about a charging partner will either expand or constrain your ability to compete as the EV market matures.*

The Opportunity — And Why It Is Bigger Than You Think

EV Adoption Is a Structural Shift, Not a Trend

Electric vehicle adoption has experienced month-to-month fluctuations in response to policy changes, the expiration of tax credits, and economic headwinds. PEV sales growth slowed in 2024 and 2025, and policy signals from Washington have created short-term uncertainty. But the structural shift is not in question. Don't let the headlines mislead you; the consensus of virtually all automotive and climate analysts is that a substantial portion of the U.S. auto fleet will go electric. The only genuine debates are about timing and pace.

Battery technology improvements, declining vehicle costs, and the expanding charging network are making EVs progressively more compelling to mainstream buyers. Battery electric vehicles (BEVs) account for approximately 7.6% of new vehicle sales year-to-date in 2025, while hybrid electric vehicles (HEVs) are up 28% year-over-year as buyers navigate the transition. The trajectory is clear.



For parking operators, this transition matters in a specific and practical way: the customers who choose to park at your facility increasingly own EVs, and they are choosing where to park, in part, based on whether reliable, convenient charging is available. This is a demand signal that will only intensify.

The Competitive Differentiator Most Operators Are Still Sleeping On

Harbor Park Garage in Baltimore's Inner Harbor began exploring EV charging in 2015 and 2016, when electric vehicles were still a novelty in the region. While competitors tucked chargers into back corners and charged premium rates, Harbor Park took a deliberately different approach: make chargers highly visible, accessible, and initially free. The strategy worked. By making the chargers easy to find online and positioning them as a genuine amenity rather than an afterthought, Harbor Park drove meaningful new customer acquisition and contributed to substantial revenue growth as part of a broader modernization effort over several years.

That early-mover story illustrates a principle that still holds today: most parking facilities are not differentiating on charging. They are either doing the minimum required or doing nothing at all. The operator who installs a reliable, well-managed, well-marketed charging program today is still capturing a competitive advantage in most markets.

> **THE HARBOR PARK LESSON**
>
> *Early EV charging adoption, combined with strategic visibility and customer-first placement, was one meaningful component of a broader modernization effort that drove substantial revenue growth. The electricity cost was minimal. The competitive and customer acquisition value was real.*

The Core Thesis: This Is a Software Business

Here is the insight that separates sophisticated EV charging programs from naive ones: the hardware is largely commoditized. A Level 2 charger from vendor A and a Level 2 charger from vendor B both plug in, both deliver electrons, and both look roughly the same on a wall. What is not commoditized is the software platform behind the charger — the network that controls pricing, access, reporting, load management, and integrations with your other systems.

When you sign a contract with an EV charging company, you are not primarily buying a piece of equipment. You are entering a software and data relationship that will govern how you manage, monetize, and grow your charging program for years. The hardware will need to be replaced in seven to ten years. The platform relationship — and the lock-in that comes with the wrong one — may outlast it.

The remainder of this paper unpacks what that means in practice, section by section.

SECTION 2

Certifications and Standards — The Non-Negotiables

Why Certifications Are a Business Issue, Not Just a Technical One

EV charging certifications are not bureaucratic checkboxes. They are the technical foundation for everything you care about as an operator: the ability to switch vendors without replacing hardware, the legal authority to bill customers accurately, the ability to integrate with other systems, and the protection of your customer data. A vendor who cannot demonstrate certification status on the standards below is a vendor you cannot afford to bet your program on.

Standard	What It Governs	Why It Matters	Red Flag If…
OCPP 2.0.1	Open protocol between charger hardware and network platform	Allows switching network providers without replacing hardware	Vendor uses proprietary protocol or OCPP 1.6 only, or cannot confirm administrative access
CTEP	California Type Evaluation Program — state billing accuracy certification	Required for any public charging in California; governs kWh metering accuracy	No CTEP certification for California deployments
NTEP	Emerging NIST-backed federal metering standard	Sets national baseline for billing accuracy; expanding to more states	Vendor is unaware of NTEP or dismisses its relevance
ISO 15118	Vehicle-to-grid communication; enables Plug & Charge auto-authentication	Future-proofs for seamless EV auth without apps or RFID cards	No ISO 15118 roadmap in place
OpenADR 2.0b	Automated demand response — utility grid signals adjust charging loads	Critical for demand response programs; avoids peak demand surcharges	Software cannot accept utility demand response signals
OCPI 2.2.1	Enables roaming between charging networks via participating apps	Customers from other networks can use your chargers — with caveats	Closed network with no roaming path of any kind
SOC 2 Type II	Independent audit of data security, availability, and confidentiality	Protects customer and billing data; required by many enterprise clients	No third-party security audit; verify encryption standards as alternative

OCPP: The Single Most Important Standard — And the Most Misunderstood

The Open Charge Point Protocol (OCPP) is the communication standard between a charger (the hardware) and a charging management network (the software platform). In theory, OCPP certification means your hardware can communicate with any compliant network, giving you the freedom to switch providers without replacing equipment. In practice, it is not that simple.

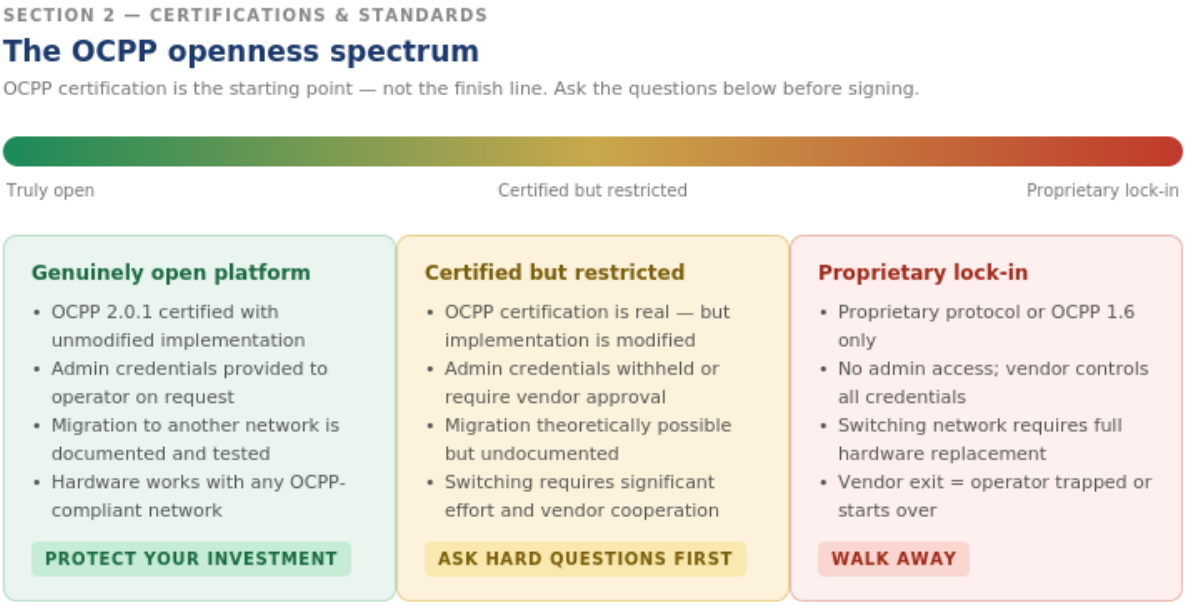
Many charging network operators claim OCPP compliance while implementing it in ways that functionally recreate the lock-in it was designed to prevent. Think of it the way early mobile carriers handled handsets: technically standard hardware, but locked at the firmware level so it only worked on their network. Some charging vendors modify the standard OCPP implementation, restrict administrative access, or withhold the credentials needed to connect your chargers to a different platform. The certification is real. The openness is not.

The consequences become painfully visible when a network operator exits the market or discontinues service. Operators who believed their OCPP-certified hardware guaranteed portability have found themselves trapped — their chargers stranded on a shutting-down platform, with the departing vendor steering them toward a replacement network of the vendor's choosing, sometimes at additional cost, with no competitive evaluation and no leverage.

To protect yourself, OCPP certification is the starting point — not the finish line. Ask every vendor these specific questions before signing: What are the administrative credentials to access my chargers directly? If I wanted to migrate to a different network tomorrow, walk me through exactly how that works. Do you use the hardware manufacturer's standard OCPP implementation, or have modifications been made? What modifications, and why? A vendor with nothing to hide will answer these questions without hesitation. Evasion, deflection, or inability to answer is a red flag that the OCPP badge is providing comfort, not protection.

OCPP 2.0.1 is the current standard and meaningfully more robust than the still-common 1.6, particularly in its security architecture. Require 2.0.1 certification — and then do the follow-up work above to confirm it means what it should.

> **OCPP AND THE BROKEN CLIP PROBLEM**
>
> *Harbor Park's original charging vendor required full charger replacement — at $5,000 per unit — when a small plastic clip broke on a connector. A properly OCPP-certified program on a genuinely open platform would have allowed swapping to a better vendor without replacing the hardware. Open standards are your exit strategy — but only if the vendor hasn't quietly locked them down.*



CTEP and NTEP: Billing Accuracy and Legal Compliance

The California Type Evaluation Program (CTEP) governs billing accuracy for public EV charging in California. It requires that chargers delivering energy to customers meet specific metering accuracy standards, similar to the requirements applied to gas pumps. If you operate in California — or if your charging company sells into California markets — CTEP certification is not optional; it is a legal requirement.

The National Type Evaluation Program (NTEP) is the emerging federal-level equivalent, backed by NIST and designed to establish national standards for EV charging meter accuracy and consumer protection. As of 2026, NTEP is still developing, but the direction is clear: federal billing accuracy standards for EV charging are coming. A vendor who is unaware of NTEP or dismisses its relevance is not a vendor planning for your future.

Beyond certification, billing compliance intersects with an important regulatory reality: many states have already regulated how EV charging can be priced. California, Washington, and a growing number of states require public charging to be priced by the kWh — the same measure used on your electric bill — rather than by the minute or by the session. This matters not only for legal compliance but for customer perception; per-kWh pricing is more transparent and more defensible.

SECTION 3

Platform Transparency — Software, Branding, and Money

Three questions that rarely appear on standard due diligence checklists reveal more about a charging partner's true operating model than almost any other line of inquiry: How do customers interact with your platform? Where does the money go? And whose brand are customers actually experiencing? The answers have significant implications for your customer relationships, your cash flow, and your competitive position.

Mobile App vs. Web App: Who Owns the Customer Relationship?

How a driver initiates a charging session may seem like a minor UX detail. It is not. It is a question of who owns the customer relationship — and the answer is embedded in the platform's authentication architecture.

Many EV charging platforms require drivers to download a branded mobile app, create an account, and log in before initiating a session. On its surface, this is a convenience feature. In practice, it is a proprietary membership system. Every customer who registers through that app becomes a customer of the charging network — not of your facility. The network has their contact information, their session history, their payment credentials, and the ability to market to them directly. You have a transaction.

More significantly, a mandatory mobile app requirement is a form of soft lock-in that compounds the hardware and software lock-in discussed elsewhere in this paper. When your customers are registered members of a charging network's app ecosystem, switching platforms means disrupting the experience of every EV driver who has come to rely on that app to use your chargers. The switching cost is not just operational — it is a customer experience disruption you will have to manage.

The alternative — web-based session initiation, tap-to-charge via NFC, or Plug & Charge via ISO 15118 — keeps the transaction frictionless without requiring customer enrollment in a third-party platform. These approaches also leave the customer relationship where it belongs: with you. Ask every vendor: Does a customer have to download your app and create an account to use my chargers? What contactless or web-based alternatives do you offer? The answer tells you whose customers they really are.

> **THE CUSTOMER OWNERSHIP QUESTION**
>
> *Every time a driver downloads a charging network's app to use your chargers, they are enrolling in that network's ecosystem — not yours. Over time, that network accumulates customer data, session history, and marketing reach that should be building your business, not theirs.*

Whose Brand Is on the Interface?

When a driver uses your EV chargers, what brand do they see? On the app. On the screen. In the confirmation email. If the answer is the charging network's brand rather than yours — or rather than a neutral, facility-branded experience — you have made a significant strategic concession without necessarily realizing it.

Consider the competitive dynamics. If your facility and the competitor two blocks away both use the same charging platform, both are presenting the same branded app, the same interface, and the same user experience to every EV driver in your market. The differentiating factors — your service quality, your amenities, your pricing strategy — are invisible inside a shared branded ecosystem. Convenience and proximity become the only decision variables. You have commoditized yourself.

The brand problem is compounded by reputation spillover. A charging network that operates hundreds or thousands of sites will inevitably have locations with reliability problems, customer service failures, and negative reviews. Drivers who have had a bad experience at another location with the same platform brand may avoid your chargers based on that association — even if your program is flawlessly operated. You carry the network's reputation whether you choose to or not.

White-label capability — the ability to present a neutral or facility-branded charging experience rather than the vendor's brand — is not universally available, but it exists and should be treated as a meaningful selection criterion. Ask directly: Can my chargers and app experience be presented under my brand or a neutral interface? What does that customization cost, and what does it include?

The Flow of Money: Where Do Charging Revenues Actually Go?

This is among the most consequential and least-discussed due diligence questions in EV charging partnerships. When a driver pays for a charging session at your facility, where does that money go first, and how long does it take to reach you?

In many charging platform structures, payment flows to the network operator first. The network collects the driver's payment, deducts its fees and revenue share, and remits the remainder to the site operator on a periodic billing cycle — weekly, bi-weekly, or monthly. This structure creates several risks that operators frequently underestimate.

The first is counterparty risk. If the charging network encounters financial distress — and the EV charging industry has seen significant consolidation, exits, and failures — the funds they are holding that belong to you are at risk. Your chargers continue generating revenue right up until the moment the network stops operating, and those funds may be difficult or impossible to recover.

The second is cash flow timing. A network that remits monthly means you are effectively extending 30 days of unsecured credit to your charging vendor with every billing cycle. For a high-volume facility, that float is real money.

The third is ownership of customer data and payment relationships. When the network processes a payment, they have the customer's payment credentials, transaction history, and contact information. You have a revenue share. This is a meaningful asymmetry in any future negotiation about contract terms, pricing, or exit.

The preferred structure — and the one you should require if at all possible — is direct merchant account processing: customer payments flow directly into your merchant account, and the network's fees are deducted or invoiced separately. This eliminates counterparty risk, gives you real-time revenue visibility, and keeps the payment relationship where it belongs. Ask every vendor explicitly: Do customer payments go directly into my merchant account, or do they flow through your platform first? If the answer is the latter, ask what happens to those funds if you cease operations.

FOLLOW THE MONEY

The question of where charging revenue flows first is not an accounting detail — it is a risk management question. Direct merchant account processing is the standard you should require. Anything else is a concession that warrants explicit negotiation.

SECTION 3 — PLATFORM TRANSPARENCY

Where does your charging revenue go first?

The payment flow structure determines your counterparty risk, cash timing, and customer data ownership.

Direct merchant account Customer pays → your account	Platform-mediated flow Customer pays → vendor holds → remits later
STEP 1 Driver initiates charging session and pays	STEP 1 Driver initiates charging session and pays
↓	↓
STEP 2 Payment processes directly into **your merchant account**	STEP 2 Payment flows into **vendor's account**. Vendor holds all funds.
↓	↓
STEP 3 Platform deducts its fee via separate invoice or ACH debit	STEP 3 Vendor deducts fees, then remits remainder to you — weekly, bi-weekly, or monthly
↓	↓
RESULT Revenue in your account same day. You hold the funds.	RESULT You wait days or weeks. Vendor holds your revenue float.
WHY THIS MATTERS No counterparty risk. Real-time revenue visibility. Customer payment relationship stays with you.	**THE RISKS** If vendor fails, your funds are at risk. 30-day float = unsecured credit to your vendor. Customer data lives in their system.

SECTION 4

Open API Networking and Integration

Why ‘Open API’ Deserves More Scrutiny Than It Gets

An open API (Application Programming Interface) means that your charging platform can, in principle, communicate with other software systems in your operation such as your parking access and revenue control (PARC) system, your fleet management software, your property management platform, and your accounting system. A closed system cannot, or can only do so at significant additional cost, through proprietary integrations the vendor controls.

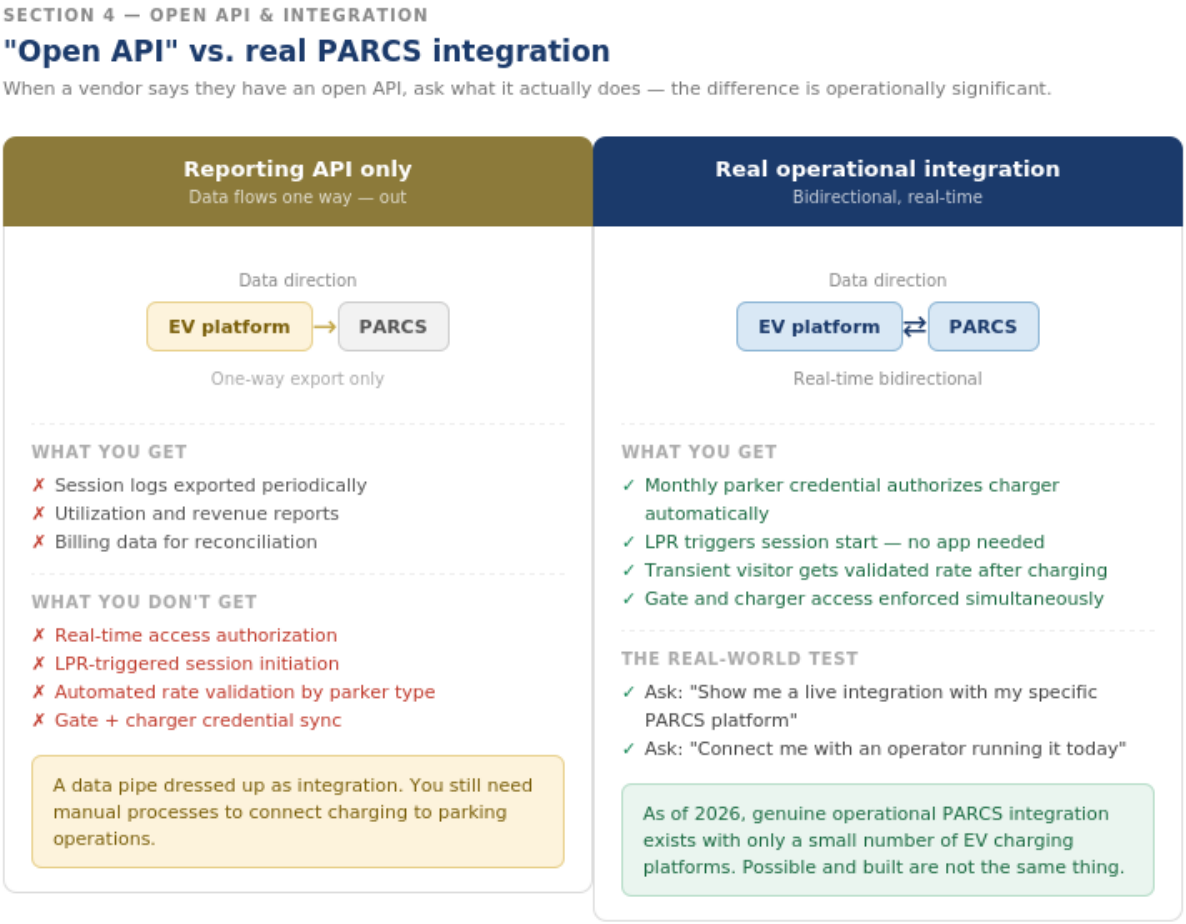
But ‘open API’ has become another phrase that deserves scrutiny before you accept it at face value. When pressed, many charging network operators will confirm they have an open API — and what they mean is that data flows out of their platform for reporting purposes: session logs, utilization reports, billing exports. That is not the same thing as integration. It is a one-way data pipe dressed up in technical language.

Real PARCS integration — the kind that actually changes how your parking operation functions — is a different level of engineering entirely. It means the charging platform and your PARCS system are talking to each other in real time: a monthly parker swipes in, the gate system confirms their access tier, the charging platform automatically authorizes their session at the correct rate. A corporate credential authenticates at the gate and at the charger simultaneously. A transient visitor who paid for charging gets a validated parking rate applied without staff intervention. These are not data reporting functions. They require deep, bidirectional integration built specifically for how each PARCS system works — and every major PARCS platform is architecturally different.

The practical reality is that very few EV charging platforms have done this work. As of this writing, genuine operational integration with the major commercial PARCS providers exists with only a small number of charging network operators, and additional integrations are still in active development across the industry. Many others will tell you they have an open API and that integration is possible. Possible and built are not the same thing.

When a vendor tells you they have an open API or that they can integrate with your PARCS system, ask specifically: Have you completed a live integration with my specific PARCS platform? Can I speak with an operator who is running that integration today? What does the integration actually do — is it reporting, or is it real-time operational control? If the answer is that integration is available or in development, ask for a timeline, a contractual commitment, and references from operators already using it. If none exist, you are being sold a roadmap, not a product.

The use cases that make PARCS integration genuinely valuable — tiered access control, credential-linked charging authorization, automated rate validation — are operationally complex. An open API is a prerequisite. It is not a solution.



TNC and Fleet Integration: The B2B Revenue Multiplier

Transportation network companies (TNCs) — rideshare fleets, autonomous vehicle operators, and corporate shuttle services — need to charge their vehicles and do so in a managed, accountable way. This is a growing commercial opportunity for parking operators who have the right infrastructure.

Fleet and corporate account management requires: dedicated charging access tied to specific vehicles or credentials, automated billing that can invoice a corporate account rather than an individual driver, real-time reporting on fleet energy consumption and charging sessions, and the ability to create custom access rules for reserved spots.

Harbor Park Garage demonstrated the financial power of this capability directly. By using the platform's authentication and access control tools to create a dedicated charging spot for a corporate client's

electric fleet vehicle, Harbor Park secured a 50-vehicle, five-year parking agreement. One software configuration — one access credential assigned to one reserved charging spot — generated a multi-year, multi-vehicle revenue contract. That is the indirect ROI of open, flexible charging software.

The Autonomous Vehicle Horizon

Autonomous vehicles are not a hypothetical future consideration for the parking industry. They are an operational planning reality. Robotaxis, from multiple vendors, operating at scale, are expected in many American cities by 2030. Level 4 autonomous vehicles, which can park and retrieve themselves within defined geofenced areas, are projected to be available in high-end private vehicles by the late 2020s with meaningful market penetration by the mid-2030s.

What does this mean for charging? AV fleets will need to charge at designated facilities, and they will do so programmatically — through software interfaces rather than human interaction. The charging platform that will capture the AV fleet business is an open-API platform with fleet management capabilities. Operators who have built their charging program on a closed, proprietary system will find themselves unable to serve this market without starting over.

SECTION 5

Load Management and Electrical Infrastructure

Understanding Your Electrical Reality Before You Commit

One of the most expensive mistakes a parking operator can make is committing to a charging deployment plan before conducting a thorough electrical assessment. The capacity of your facility's existing electrical service — the size of the transformer, the amperage available at the panel, the load already consumed by lighting, HVAC, elevators, and other systems — is the hard ceiling on what your charging program can deliver without significant infrastructure investment.

The National Electrical Code (NEC) requires a dedicated branch circuit from the breaker panel to each individual charger. This is not a guideline — it is a code requirement, and it has direct implications for how you plan and cost a multi-charger deployment. The conduit, wiring, and panel capacity needed to serve ten chargers is not simply ten times the cost of serving one; it is a function of distance, panel configuration, available amperage, and how the facility was originally built. In structured parking facilities — particularly concrete deck structures where conduit runs are labor-intensive and disruptive — electrical infrastructure can represent the majority of total deployment cost.

The right question to ask at the planning stage is not just 'how many chargers do we want now?' but 'what does the electrical architecture need to look like to serve the facility we expect to operate in ten years — and what is the most cost-effective way to build toward that future without overcommitting capital today?' There are meaningful differences in how operators can approach this problem, and the right solution is site-specific. A qualified electrical engineer familiar with EV charging infrastructure and local regulatory requirements — not just the charging vendor's installer — should be part of that conversation from the beginning.

Right-Speeding: Matching Charger Power to Actual Need

The National Renewable Energy Laboratory (NREL) has identified 'right-speeding' as one of the most important principles for cost-effective charging deployment: selecting the kilowatt output of each charger based on the typical parking duration and driving needs of users at that specific facility, rather than the maximum possible output.

The math is straightforward: a modern battery-electric vehicle gains approximately 3.1 miles of range per kWh of charge. A typical American driver travels about 37 miles per day. An office worker parking for 8 hours needs enough power to add roughly 40–60 miles of range, which a 3.6 kW port can deliver in 8 hours. Installing 11.5 kW ports for that same user wastes capital, overloads the electrical service, and generates no additional customer value.

Conversely, an overnight hotel guest arriving with a depleted battery who needs 200 miles of range by morning genuinely needs a 7.2 kW port. An airport long-term parker staying for three days needs almost nothing — 3.8 kW will charge a fully depleted battery multiple times over a 72-hour stay.

Right-speeding is not only about the right kW per port — it is about the right number of ports. Providing excessive charging infrastructure ahead of demand forces capital investment that cannot generate returns for years, may never match the technology available when the chargers are eventually needed, and risks building resentment among ICE-driving customers who find rows of empty EV-reserved spaces displacing their parking options.

> *The Parking Consultants Council (PCC) is currently developing a dedicated white paper on right-speeding EV charging infrastructure, with specific recommendations for urban planners and municipal policymakers on how to craft legislation that encourages EV adoption without imposing disproportionate costs on property owners and developers for uncertain future demand. Visit **Parkonomics.co** periodically for updates as that work progresses.*

Level	Max Power	Typical Setting	Miles/ Hour	Installed Cost	Best For
AC Level 1 (L1)	Up to 1.92 kW	Residential (120V outlet)	2–5 miles/hr	$500–$1,500/ port	Employee amenity only
AC Level 2 (L2)	Up to 19.2 kW	Commercial / parking facilities	10–20 miles/hr	$2,000–$10,000/port	Destination, daily, overnight parking
DC Fast (DCFC)	Up to 400 kW	Highway / high-turnover commercial	>100 miles/hr	$40,000–$450,000/port	High-turnover, fleet, highway stops

SECTION 5 — LOAD MANAGEMENT & INFRASTRUCTURE

Right-speeding matrix: match charger power to actual need

Selecting kW output based on dwell time and daily driving needs avoids wasted capital and over-sized electrical infrastructure.

Facility type	Typical dwell	Avg. daily range needed	Recommended kW	Rationale
Office / workplace	7–9 hours	30–50 miles	3.3–7.2 kW	Full shift provides ample time; high-kW ports waste infrastructure spend
Destination retail / dining	1–3 hours	20–40 miles	7.2–11.5 kW	Shorter dwell needs faster delivery; L2 is still sufficient
Hotel overnight	8–12 hours	100–200 miles	7.2–11.5 kW	Guest may arrive depleted and need full charge by departure
Airport long-term	2–7 days	37 miles/day avg.	3.3–7.2 kW	Extended dwell means even the lowest L2 delivers multiple full charges
Urban transient / hourly	30 min–2 hours	10–30 miles	7.2–19.2 kW	Short dwell requires higher kW to deliver meaningful range per visit
Fleet / corporate depot	8–16 hours	Vehicle-specific	7.2–19.2 kW	Overnight depot charging; size to fleet energy needs plus load management
Highway / high-turnover	15–45 min	Varies widely	50–350 kW DCFC	Range anxiety stop; speed is the product; infrastructure cost is highest

Source: NREL Right-Speeding guidance. kW recommendations are per port. Always pair with ALMS for multi-port deployments.

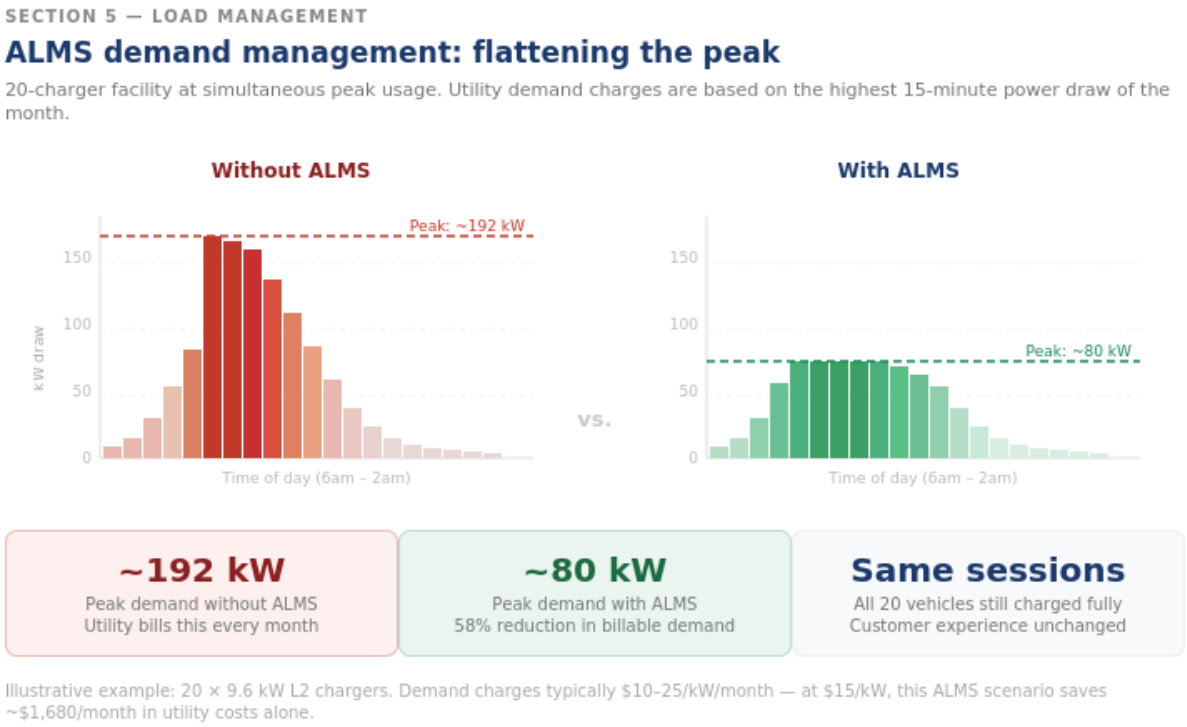
Smart Load Management: The Hidden Advantage

Automated Load Management Systems (ALMS) — also called Energy Management Systems (EMS) in the National Electrical Code — are the software layer that intelligently distributes available electrical capacity across multiple chargers based on demand, time of day, utility pricing signals, and building load. This is not a luxury feature; it is a fundamental cost management tool.

Without ALMS, every charger draws its maximum rated power whenever a vehicle is plugged in. In a facility with 20 chargers and simultaneous peak usage, this creates an electrical demand spike that can be reflected in your utility bill as a demand charge — a monthly fee based on your peak 15-minute power draw. Demand charges can easily exceed the revenue generated by the charging sessions that caused them.

With ALMS, the system dynamically throttles charging rates: when 10 vehicles are plugged in simultaneously, each receives a proportional share of available capacity. When only two are charging,

each receives the full rated power. The customer experience is preserved, the electrical infrastructure is optimized, and the utility bill is managed. Require this capability in any platform you evaluate.



Additionally, consider future functionality that would allow drivers to pay a premium for faster charging. If all twenty available charging stations are in use, a customer in a hurry could opt for a higher per-kWh rate to charge at the maximum allowable speed. The ALMS would then prioritize that vehicle by increasing its charging speed and commensurately slowing the charge of the other vehicles until the premium vehicle is finished or unplugged. While this feature is actively discussed in the industry, we are not aware of any current ALMS offerings that include it as of the date of this publication. Ask specifically about each vendor's product roadmap on this capability.

Energy Management: The Forward-Looking Question

Load management as it exists today — ALMS distributing available capacity across simultaneous sessions — is the current baseline. But the energy management question that will define the next decade of commercial EV charging is considerably broader: how will your platform manage energy as the grid evolves, as vehicle-to-grid (V2G) technology matures, as time-of-use utility rates become more dynamic, and as demand response programs become more financially significant?

Vehicle-to-grid technology — which allows EV batteries to discharge power back to the building or grid during peak demand periods — is not yet commercially mainstream but is advancing rapidly. A parking

facility with 50 EVs plugged in simultaneously represents a meaningful distributed energy resource. The platforms that will capture this value are those built with bidirectional energy flow in mind, not those retrofitting V2G as an afterthought.

When evaluating vendors, ask not just about current ALMS capability but about the energy management roadmap: What is your current integration with utility demand response programs? How does your platform handle time-of-use rate optimization? What is your V2G development timeline? The vendor who has clear, specific answers is building a platform for the grid of the future.

Working With Your Utility: The Partnership Most Operators Miss

Your utility is not just your electricity supplier in a charging deployment — it is a stakeholder, a potential funding source, and a technical partner. Many utilities offer rebate programs specifically for commercial EV charging installation, sometimes covering a substantial portion of infrastructure costs. Some utilities offer time-of-use rate structures that reward off-peak charging with lower energy prices, which your ALMS can exploit automatically.

A good EV charging partner will facilitate introductions to your utility's commercial EV programs, help you navigate the interconnection process, and ensure your load management software is configured to take advantage of available rate incentives. A vendor who does not engage with this process is leaving money on the table — yours.

> **THE INFRASTRUCTURE PLANNING PRINCIPLE**
>
> *For every dollar invested in charging hardware, plan for an equal or greater investment in electrical infrastructure — conduit, wiring, panel upgrades, transformer capacity. The operators who are surprised by infrastructure costs are the ones who got an equipment quote without an electrical assessment.*

SECTION 6

Uptime, Reliability, and Service Standards

The Reputational Stakes of a Dead Charger

A dead charger is not a minor operational inconvenience. For the EV driver who planned their day around charging at your facility, it is a broken promise — one that will be shared on PlugShare, Google Reviews, and EV community forums. The reputational cost of chronic unreliability exceeds any maintenance savings from choosing a cheaper vendor.

Harbor Park's original EV charging program began to erode its reputation for customer service precisely because of this dynamic. Equipment failures became increasingly frequent. Simple repairs became months-long ordeals. Customers arrived expecting to charge and found the equipment non-functional. The facility that had differentiated itself through EV charging was now being damaged by it.

This is not an abstract risk. It is the lived experience of operators across the country — and the pattern is consistent enough to name directly: the overwhelming majority of EV charging failures are hardware problems, not software problems. Plugs, cables, connectors, and the physical components that absorb daily handling by real customers in real weather conditions are where reliability breaks down. High-touch mechanical components wear out, get damaged, and fail. The question is never whether this will happen — it is how quickly and easily the problem can be diagnosed and resolved when it does.

This is why the software platform you choose matters so much for reliability, even though the failures are physical: a mature platform with strong remote diagnostics can identify a hardware fault, classify it, and initiate a service response without operator involvement. A weak platform leaves you dependent on a customer complaint to even know that something is wrong.

But the platform is only part of the answer. The hardware supplier behind the charger is equally important — and this is a question most operators never think to ask. EV charging network operators do not all manufacture their own hardware; most source from third-party equipment manufacturers, and the quality, reliability, and serviceability of those manufacturers varies considerably. Some hardware suppliers with significant market share have well-documented reliability problems or service ecosystems that make repairs slow and expensive.

Ask every charging platform vendor directly: Which hardware manufacturers do you work with, and which will you not work with — and why? What are the trade-offs between the options you offer? When a connector cable fails, what is the repair or replacement process, and who bears the cost? A vendor who can answer these questions with specificity and candor is a vendor who has thought seriously about the operational reality their customers will face.

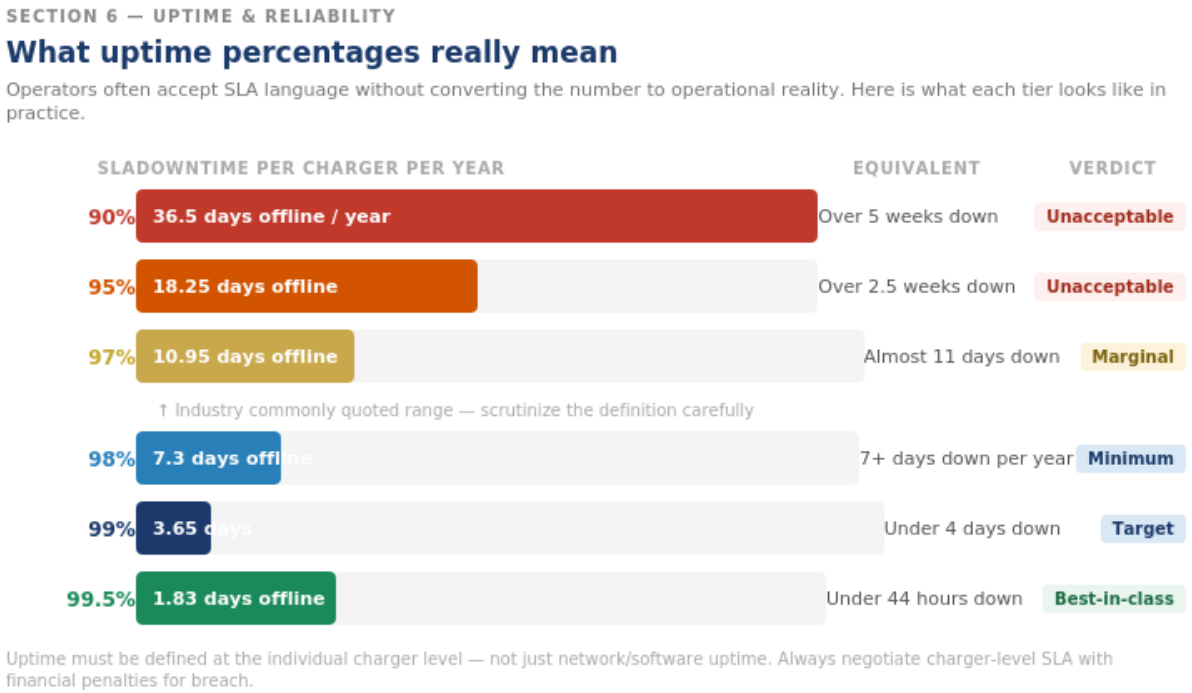
Harbor Park's current program runs without issue. That outcome was not accidental. It resulted from selecting a platform whose hardware and software quality control were both held to a higher standard. Reliability is not an assumption. It is a selection criterion, and it requires asking the right questions before you sign.

What Uptime Guarantees Should Look Like

The industry standard uptime target for networked commercial EV chargers is 97–99%. This sounds like a high bar, but consider: a 97% uptime charger is down for approximately 11 days per year. In a facility where customers have come to rely on charging availability, that is a meaningful and visible failure rate.

When evaluating vendors, require contractual uptime SLAs with financial penalties for non-performance. Understand the definition: is uptime measured at the network level (the software is running) or at the charger level (this specific unit is charging customers)? These can diverge dramatically. A network that is technically 'up' but has 30% of individual chargers offline is not meeting a 99% uptime standard from an operator's perspective.

Also require clarity on response times: how quickly does the vendor's system detect a charger failure? How quickly is it reported to you? What is the resolution path — remote diagnostics first, then truck roll if needed? Who bears the cost of service calls? These are contract terms, and they need to be negotiated before you sign, not after.



Remote Diagnostics, Service Structure, and Who Actually Shows Up

When a charger goes down, the speed and cost of resolution depend on two things: how much the platform can diagnose and fix remotely, and what the service structure looks like when a physical repair is actually required.

The best platforms resolve a meaningful portion of charger faults remotely — through software resets, firmware updates, and configuration changes — without requiring anyone to touch the equipment. Ask every vendor what percentage of faults are resolved remotely and demand a data-backed answer, not a marketing claim. A vendor who cannot answer this question with specificity does not have mature remote management capabilities.

For faults that do require physical intervention, the service structure behind that response is a critical and frequently overlooked due diligence question. Most EV charging network operators do not employ their own field technicians — they contract service out through third-party networks of varying quality, coverage, and response time. Who actually shows up when your charger needs a hardware repair? What is their geographic coverage in your market? What are the contracted response time commitments, and what happens when they are not met? Who pays for the service call — the vendor, or you?

These are contract terms, and they need to be negotiated and committed to in writing before you sign. The gap between what a vendor implies about their service capability during the sales process and what is actually contractually enforceable is often significant. Service plan structures in this industry are complex enough that they warrant a dedicated conversation with any vendor you are seriously evaluating — and a careful read of the contract language before you commit.

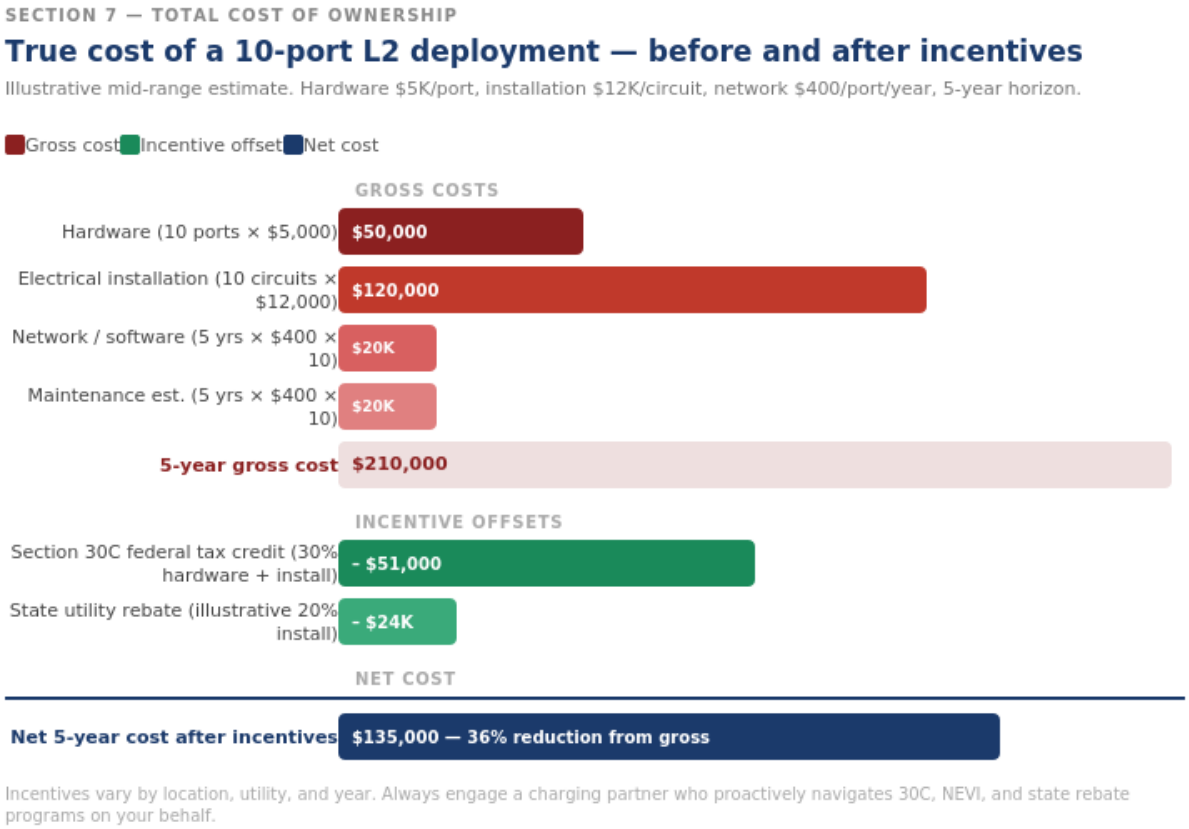
SECTION 7

Total Cost of Ownership

The Full Picture Most Vendors Don’t Show You

EV charging sales are often framed around hardware costs and payback period. The actual economics of a charging program are considerably more complex — and more favorable when the full picture is properly understood and managed.

Cost Category	Typical Range	Notes
Hardware (L2 per port)	$2,000–$10,000	Dual-port units lower per-port cost
Installation / electrical	$3,000–$30,000+ per circuit	Trenching, panel upgrades, permits vary widely
Network / software subscription	$200–$600/port/year	Confirm what’s included vs. metered separately
Maintenance & repairs	$200–$800/port/year (est.)	Highly variable by vendor reliability and SLA terms
Demand charges (utility)	Highly site-specific	Can be the #1 surprise cost; model this upfront
30C Federal Tax Credit offset	30% of costs, up to $100K/port	Dramatically improves Year 1 economics
State utility rebates / NEVI grants	Varies by state and utility	Some states cover 50–80% of installation costs



Incentives and Grants: The Economics Changer

Federal, state, and utility incentive programs can dramatically alter the economics of a charging deployment and a good EV charging partner will proactively help you access them. The Section 30C federal Alternative Fuel Vehicle Refueling Property Tax Credit covers 30% of qualified EV charging installation costs, up to $100,000 per charger. For a typical multi-charger commercial deployment, this alone can offset a substantial portion of Year 1 capital costs.

Beyond the federal credit, the National Electric Vehicle Infrastructure (NEVI) program has directed over $5 billion in federal funding to states for EV charging infrastructure. State utility rebate programs, municipal grant programs, and utility-specific commercial incentives add additional layers of potential offset. In some markets, a well-structured application process can cover 50–80% of installation costs.

Make incentive navigation an explicit criterion in your vendor selection. A partner who proactively helps you identify and claim available incentives is worth meaningfully more than one who simply shipped you equipment. Harbor Park's experience is instructive: its charging partner helped navigate tax incentives for state and federal programs and coordinated with the electrician, eliminating the burden of independent research and administration. That service has real dollar value.

Vendor Lock-In and Exit Costs: The Hidden Long-Term Risk

The most significant hidden cost in a charging partnership is the cost of exiting if the partnership goes wrong. Proprietary hardware that only works with one network means hardware replacement at exit. Multi-year auto-renewal contracts with penalty clauses expose you to financial risk even if the vendor is underperforming. Data that lives in the vendor's system and cannot be exported means losing the customer and session history you built.

Before signing any charging contract, demand clarity on four questions: Who owns the hardware? Who owns the session data, and can you export it? What are the exit provisions? When can you terminate and at what cost? Will your hardware work with another network platform if you switch?

If your chargers are OCPP-certified on a genuinely open platform, the answer to the last question is yes. If they are not — or if the vendor has implemented OCPP in a restricted way — hardware replacement is a switching cost that makes every other aspect of vendor selection more consequential.

Equipment Lifecycle and Replacement Planning

Today's EV chargers have an expected useful life of seven to ten years. They may become functionally obsolete before that — not because they stop working, but because vehicle standards evolve (the transition from CCS to NACS connectors is a current example) or because customers expect capabilities the older hardware cannot deliver.

Build this into your financial model. A charger installed today at $5,000 per port, fully installed, will need replacement by 2032–2034. Budget for it. More importantly, choose a platform whose software can support upgraded hardware without requiring a complete infrastructure overhaul, and whose contracts do not penalize you for equipment refresh.

SECTION 8

Pricing, Regulation, and Billing Compliance

The Regulatory Landscape Is Evolving — Fast

How you can price EV charging is not entirely up to you. An expanding set of states has enacted or is developing regulations governing EV charging billing practices, with a particular focus on ensuring that public charging pricing is transparent and comparable to other energy prices. For parking operators, these regulations have direct implications for vendor selection.

California and Washington have already established requirements that public EV charging be priced on a per-kWh basis — the same unit consumers use to understand their home electricity bills. This makes sense from a consumer protection standpoint: a per-minute pricing model penalizes efficient chargers and rewards slow ones, which is neither fair nor transparent. Several other states are moving in the same direction. Georgia, Montana, and Oklahoma have created de facto per-kWh mandates through excise tax structures.

For operators in these jurisdictions, the charging platform you select must support kWh-based metering and billing and be certified to do so accurately (see Section 2 on CTEP and NTEP). A platform that only supports per-minute or per-session billing is a compliance liability in an expanding number of markets.

Idle Fees: Policy Design and Operational Implications

Idle fees — charges applied to EV drivers who leave their vehicle plugged in after charging is complete — are both a customer management tool and an operational necessity. In a parking facility where charging spaces are in high demand, a vehicle that finished charging three hours ago and is still occupying a stall prevents other customers from charging. Idle fees create a financial incentive to move.

But idle fee policies need careful design. A fee structure that activates too quickly or charges too aggressively will generate customer complaints. A fee structure with too little enforcement has no practical effect. The right policy is site-specific and should be adjustable without requiring vendor intervention. Your charging management software should allow you — not the vendor — to set and adjust idle fee policies, define the grace period after charging completes, and communicate the policy clearly to customers. Demand this capability.

Who Controls Pricing — You or the Platform?

This question deserves direct attention because the answer varies dramatically across vendors, and the wrong answer creates ongoing operational and financial friction. Some platforms give operators full control over pricing — you set the rate per kWh, the idle fee schedule, the access tiers, and the

promotional pricing. Other platforms maintain pricing control at the network level, limiting operator customization.

Full operator control over pricing is not just a convenience; it is a revenue management capability. The ability to price charging differently for monthly parkers vs. transient visitors, to bundle charging into parking packages at a custom rate, to create time-of-day pricing that shifts demand off-peak, and to run promotional rates for new customers — these are the pricing levers that turn a charging program into a genuine revenue center. Demand them.

SECTION 9

Monetization — It Is Not All About Arbitrage

Beyond the Energy Margin

The naive version of EV charging monetization is arbitrage: buy electricity at a commercial rate, sell it to drivers at a retail rate, and keep the margin. This model is not wrong — it works, and it is a legitimate component of charging program economics. But it is the narrowest way to think about the value of EV charging to your operation, and operators who focus only on the energy margin are dramatically undervaluing their investment.

The electricity cost to charge a typical EV for a parking session is $2–5 at commercial rates. The revenue from that charging session at a reasonable retail rate is $8–20. The margin is real. But the parking revenue from the customer who came to your facility specifically because you offer charging — that is the multiplier. As Harbor Park's Andrew Sachs noted early in the program: 'It was costing me at most $2 for the electricity, and I could get $28 a day in parking.'

The real return on EV charging investment is not just the revenue from charging. It is the customer acquisition, retention, and loyalty value — amplified by the premium parking revenue that comes with it.

SECTION 9 — MONETIZATION

Arbitrage vs. amenity: two ways to think about EV charging revenue

The arbitrage model captures only the energy margin. The amenity model captures the full business value of a well-designed charging program.

Arbitrage model only Buy low, sell high — and stop there		Amenity model Charging as a full business development tool	
PER SESSION ECONOMICS		PER SESSION ECONOMICS	
Electricity cost to operator	$2–4	Electricity cost to operator	$2–4
Revenue charged to driver	$8–18	Revenue charged to driver	$8–18
Energy margin per session	$6–14	Energy margin per session	$6–14
WHAT THIS MODEL MISSES		ADDITIONAL VALUE LAYERS	
Incremental parking revenue from EV-driven visits	$0 counted	Parking revenue from EV customers who chose this facility to charge	+ $20–50/visit
Monthly parker upgrades driven by charging benefit	$0 counted	Monthly parker upgrade revenue from charging as loyalty incentive	+ $30–80/mo
Corporate fleet contracts enabled by dedicated access	$0 counted	Corporate fleet contracts made possible by dedicated access authentication	+ Multi-year ARR
Customer retention value of complimentary charging	$0 counted	Retention of premium monthly parkers via complimentary charging benefit	Reduced churn
Value captured	Energy margin only	Value captured	Energy margin + parking multiplier

"It was costing me at most $2 for the electricity, and I could get $28 a day in parking." — Andrew Sachs, Harbor Park Garage

EV Charging as an Amenity: The Customer Experience Lens

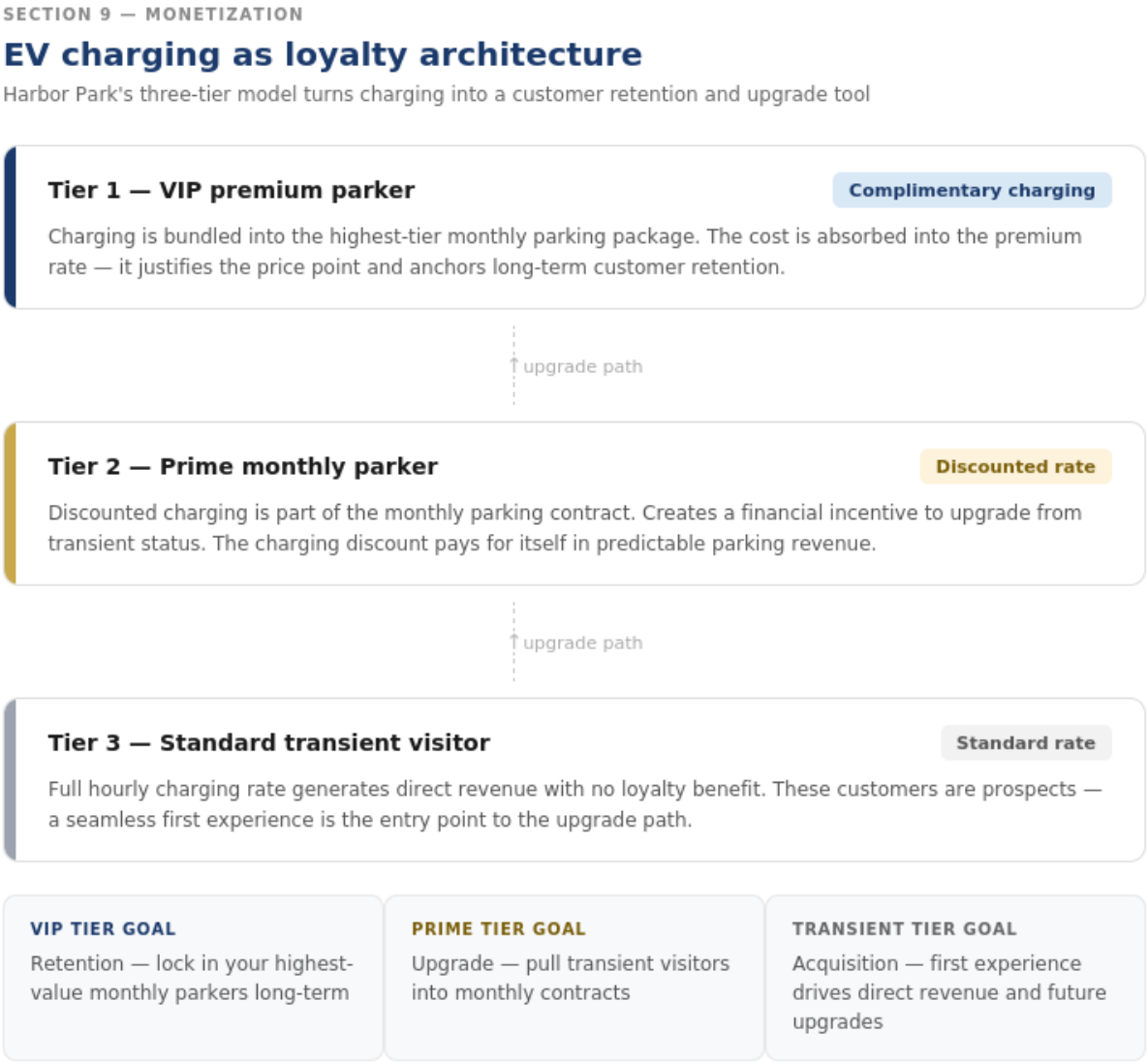
The parking facilities that are winning with EV charging are treating it as an amenity — a service offering that enhances the customer experience and reinforces the facility's brand — rather than as a utility. This framing changes everything about how charging is positioned, priced, and managed.

An amenity-first approach means: chargers are prominently located and highly visible, not hidden in the back corner of Level 3. Signage is clear and welcoming. The customer experience — from finding the charger online to initiating a session to receiving a receipt — is frictionless. The facility's charging program is actively marketed as a differentiator rather than treated as a compliance checkbox.

The Tiered Access Model: Loyalty Architecture in Practice

Harbor Park's tiered charging model illustrates what amenity-first monetization looks like in practice. Rather than a flat rate for all customers, the program offers three distinct tiers:

- VIP Premium Parkers receive complimentary charging as part of their highest-tier monthly parking package. The charging cost — typically a few dollars per session — is absorbed into the premium pricing, which helps justify it. Free charging is a meaningful differentiator that makes the premium package clearly worth the price.
- Prime Parker Mid-Tier customers receive discounted charging rates. This creates a tangible financial incentive for regular customers to upgrade from the cheapest Choice tier to Prime parker status. The charging discount pays for itself in increased parking revenue from the upgrade.
- Choice and Standard Transient Visitors pay the full hourly charging rate. This generates direct revenue while maintaining accessibility for all EV drivers. These customers are also prospects: a first-time visitor who has a seamless charging experience will be more likely to return to the facility or even become a monthly parker.



Corporate Accounts and Fleet Deals: The B2B Multiplier

Perhaps the most underappreciated monetization opportunity in commercial EV charging is the corporate account. Companies with electric vehicle fleets need reliable, accountable charging infrastructure. They will pay a premium for dedicated access, consolidated billing, and real-time reporting. And they tend to come with parking contracts attached.

The Harbor Park case study is definitive here. A single dedicated charging credential for a corporate client's electric fleet vehicle — a five-minute software configuration — secured a 50-vehicle, five-year parking contract. The EV charging capability was not an add-on to the parking deal; it was the reason for the deal. Without that platform capability, the contract would have gone to a competitor.

Employee Benefits: The Low-Cost, High-Value Perk

Providing free or subsidized EV charging for employees is one of the highest-return, lowest-cost benefits a parking facility can provide. The electricity cost for an employee's daily charge is $2–4. The perceived value to an employee choosing between purchasing a gas-powered or electric vehicle is the entire avoided cost of fuel, potentially $100–200 per month.

When one of Harbor Park's employees was debating between a traditional internal combustion vehicle and an EV, Andrew Sachs made the case simply: 'How much are you paying for gas every month? $100, $200? How much do we charge employees for EV charging? Nothing.' The math was clear. The benefit influenced a significant personal financial decision at almost no cost to the business. In a labor market where parking operators compete for reliable staff, free EV charging is a quietly powerful retention and recruitment tool.

Letting the Market Guide Capacity Investment

One of the most financially sound principles in EV charging investment is also one of the simplest: let usage data guide expansion. Do not over-invest ahead of demand. Install enough capacity to serve current demand reliably, monitor utilization through your platform's reporting tools, and add capacity when the data tells you the market is ready.

Harbor Park's philosophy is exactly this: 'The marketplace will tell me when we need more.' With a platform that makes capacity addition operationally simple, the cost of underinvesting initially is low. The cost of over-investing — stranded capital in unused chargers, excess electrical infrastructure carrying ongoing costs — is real.

SECTION 10

Insurance, Liability, and Safety

Who Bears the Risk?

EV charging equipment involves high-voltage electrical systems in environments where customers are present. The liability question — who is responsible when something goes wrong — needs to be resolved before you deploy, not after.

Equipment Warranties and Replacement Obligations

Charger warranties typically cover defects in materials and workmanship for two to five years. But warranty coverage and your actual operational protection are not the same thing. A warranty that covers defects but excludes normal wear, connector damage from customer misuse, or software failures may leave you paying out of pocket for the repairs you actually encounter.

Negotiate warranty terms as part of the vendor contract. Specifically, understand: what failure modes are covered and excluded? Who bears shipping and installation costs for warranty replacements? What is the replacement timeline, and what is the vendor's obligation if a replacement takes 30, 60, or 90 days? The broken connector story from Harbor Park's original vendor — months to receive a replacement cable at considerable expense — represents warranty terms that failed the operator in practice.

Installation, Electrical Safety, and Insurance

Licensed electricians must perform EV charger installation in compliance with the National Electrical Code (NEC), local building codes, and the manufacturer's installation requirements. UL listing on the charger equipment is a baseline safety requirement. Equipment that is not UL-listed is a liability exposure and may not be covered by your property insurance.

Consult your property insurance broker before deploying EV charging. Many commercial property policies do not explicitly cover EV charging equipment or the liability associated with EV charging operations, and adding this coverage may require a rider. Discuss coverage for electrical incidents, customer property damage, and charger vandalism or theft. Ensure the contract clearly delineates who is liable for equipment failures that cause customer loss — and get it in writing.

SECTION 11

Vendor Due Diligence — The Partnership Evaluation Framework

Questions to Ask Before You Sign

The following questions should be asked of every EV charging company you evaluate — before you see their equipment and before you discuss pricing. How a vendor answers these questions tells you more about the quality of the partnership than any equipment specification sheet.

On Platform, Certification, and Customer Interface:

- Are your chargers OCPP 2.0.1 certified? Can you provide documentation? What are the administrative credentials to access my chargers, and what is the migration process if I want to switch networks?
- Do you use the hardware manufacturer's standard OCPP implementation, or have modifications been made? What modifications, and why?
- Are your chargers CTEP-certified for California deployments? What is your NTEP compliance roadmap?
- Does a customer have to download your branded app to use my chargers? What web-based, NFC, or Plug & Charge alternatives do you offer?
- Can my chargers and customer interface be presented under my brand or a neutral interface? What does that customization cost?
- Do customer payments flow directly into my merchant account, or through your platform first? If through your platform, what happens to those funds if you cease operations?

On Integration and Data:

- Do you have a documented, public API? Can I see it?
- Have you completed a live operational integration with my specific PARCS platform — not just a reporting API, but real-time access control and session authorization? Can I speak with an operator running that integration today?
- Who owns the session data generated by my chargers? Can I export it at any time and in what format?
- What happens to my data if I end the contract?

On Operations, Reliability, and Service:

- Which hardware manufacturers do you work with, and which will you not work with — and why?
- What percentage of charger faults are resolved remotely without a technician visit? Can you provide data?
- Who actually provides field service — your own technicians or a third-party network? What is their coverage in my market?
- What is your contractual uptime SLA, how is uptime defined, and what are the financial penalties for breach?
- Who bears the cost of service calls — the operator or the vendor?

On Business Terms and Commercial Structure:

- Do I have full control over pricing, access tiers, and idle fee policies?
- Can you support tiered pricing and corporate/fleet account management?
- What are the contract term, auto-renewal, and early termination provisions?
- Will you proactively assist in identifying and applying for federal and state incentives?
- What happens to my hardware if I want to switch network providers? Is there a cost or timeline impact?
- What does your hardware refresh program look like as technology evolves?
- Can you provide three operator references from facilities comparable to mine?

The Vendor Evaluation Scorecard

Use the scorecard below to structure your evaluation process. Require a clear Pass on the critical items before advancing to contract negotiation.

Evaluation Criterion	Pass	Partial	Fail / Concern
OCPP 2.0.1 Certified — with confirmed administrative access and clean migration path	☐	☐	☐
CTEP / NTEP billing accuracy certification	☐	☐	☐
Open API with documented, public endpoints	☐	☐	☐
Live PARCS integration (not just reporting API) — confirmed with references	☐	☐	☐
TNC / fleet account management capability	☐	☐	☐
Smart load management (ALMS) built-in	☐	☐	☐
Uptime SLA ≥ 98% with financial penalties	☐	☐	☐
Remote diagnostics — data-backed fault resolution rate	☐	☐	☐
Tiered access and pricing control by operator	☐	☐	☐
Revenue flows directly to operator merchant account	☐	☐	☐
White-label or operator-branded UI available	☐	☐	☐
Mobile app is NOT the only customer interface (web/tap-to-charge supported)	☐	☐	☐
You own your session data and can export at any time	☐	☐	☐
No auto-renewal lock-in; clean exit provisions documented	☐	☐	☐
Active federal / state incentive navigation support	☐	☐	☐
SOC 2 Type II or documented equivalent encryption/data standards	☐	☐	☐
ISO 15118 roadmap (Plug & Charge)	☐	☐	☐
Positive operator references (3+ comparable sites)	☐	☐	☐

Reference Check: What to Ask Operators Already on the Platform

No vendor evaluation is complete without direct conversations with operators already running the platform in comparable facilities. Ask the questions the vendor's sales team might not answer honestly:

- How does actual uptime compare to the contracted SLA?
- When things go wrong, how responsive is support — and who bears the cost?
- Have you been able to exercise the pricing control and customization the vendor promised?
- Have you integrated the platform with your PARCS system — and how difficult was it?
- Does revenue flow directly to your merchant account? Has that ever been an issue?
- Knowing what you know now, would you sign with this vendor again?

The answers to these questions are worth more than any RFP response or sales presentation.

CONCLUSION

A Strategic Asset, Not a Utility

The EV charging programs that are winning — generating revenue, driving customer loyalty, securing corporate contracts, and differentiating their facilities — share a common characteristic. They are operated by people who understand that they are not in the electricity resale business. They are in the customer service business, and EV charging is a tool for delivering a better customer experience than their competitors can match.

Harbor Park Garage's journey illustrates both the opportunity and the risk. Early adoption, customer-first placement, and visible commitment to the EV driver created a genuine competitive advantage and contributed to meaningful revenue growth. Vendor failure — manifested as chronic unreliability, inflexibility, and inadequate support — threatened to undermine everything that had been built. A deliberate partner evaluation process, focused on software capability and platform quality rather than hardware specs, restored the program and opened new revenue opportunities that had not been visible before.

The principles that guided Harbor Park's recovery are the same ones this paper has argued throughout: choose the platform, not just the charger. Require open standards so you are never trapped. Demand genuine PARCS integration, not just an API promise. Understand where your money goes and whose brand your customers see. Know the full cost picture, including the incentives that can reshape your Year 1 economics. Price charging as a business tool, not just a utility. And treat your EV charging partner as exactly that — a partner, with accountability, not just a vendor who sold you some hardware and walked away.

The marketplace is telling every parking operator, property owner, and municipal manager that EV charging matters. The question is not whether to offer it. The question is whether you will build it on a foundation that serves you for the next decade — or whether you will find yourself, a few years from now, unable to switch vendors without starting over.

Choose the platform. Protect your optionality. Let the market tell you when to grow. And make sure the partner you choose is worthy of the word.

> **FINAL PRINCIPLE**
>
> *The operator who treats EV charging as a software investment — demanding open standards, integration capability, operator control, and genuine partnership — will build a program that compounds in value year after year. The operator who treats it as a hardware purchase will be renegotiating a difficult contract or replacing expensive equipment far sooner than expected.*

APPENDIX

Glossary of Key Terms

ALMS / EMS — Automated Load Management System / Energy Management System: software that dynamically distributes available electrical capacity across multiple chargers to avoid peak demand spikes.

BEV — Battery Electric Vehicle: a vehicle that runs exclusively on electric power stored in an onboard battery; has no internal combustion engine.

CTEP — California Type Evaluation Program: California's certification program for EV charging billing accuracy, governing kWh metering precision.

CCS / SAE J1772 Combo — Combined Charging System: the legacy fast-charging connector standard for non-Tesla EVs in North America.

DCFC — DC Fast Charger: a high-power (up to 400 kW) charger that delivers direct current to the vehicle battery, enabling very rapid charging.

EVSE — Electric Vehicle Supply Equipment: the complete charging system, from transformer through connector, that transfers power from premises wiring to the vehicle.

ISO 15118 — International standard governing vehicle-to-grid communication, enabling automatic authentication (Plug & Charge) and bidirectional energy flow.

kW — Kilowatt: the unit of power; indicates the rate at which energy is delivered to the vehicle.

kWh — Kilowatt-hour: the unit of energy consumed over time; the standard basis for utility billing and per-kWh charging pricing.

NACS — North American Charging Standard: the connector standard originally developed by Tesla and now adopted by most new EV manufacturers; rapidly becoming the dominant U.S. standard.

NEVI — National Electric Vehicle Infrastructure: a $5 billion federal program directing funding to states for EV charging infrastructure buildout.

NTEP — National Type Evaluation Program: the emerging NIST-backed federal metering accuracy standard for EV charging.

OCPI — Open Charge Point Interface: the standard enabling roaming between different charging networks.

OCPP — Open Charge Point Protocol: the open communication standard between EV chargers and network management platforms; the key to avoiding vendor lock-in — when implemented genuinely.

OpenADR — Open Automated Demand Response: a standard enabling utilities to send automated signals to charging systems to reduce load during peak demand periods.

PARCS — Parking Access and Revenue Control System: the hardware and software infrastructure managing access, payment, and operations at a parking facility.

PEV — Plug-in Electric Vehicle: the umbrella category including both BEVs and PHEVs.

PHEV — Plug-in Hybrid Electric Vehicle: a vehicle with both an electric motor/battery and an internal combustion engine.

Right-Speeding — NREL's concept of matching charger power output to the actual driving and parking patterns of users at a specific facility.

Section 30C — The federal Alternative Fuel Vehicle Refueling Property Tax Credit, covering 30% of qualified EV charging installation costs up to $100,000 per charger.

SOC 2 Type II — An independent audit standard for data security, availability, and confidentiality.

TNC — Transportation Network Company: companies operating rideshare or fleet transportation services.

V2G — Vehicle-to-Grid: technology enabling EV batteries to discharge power back to the building or electrical grid, creating distributed energy resources.

White-Label — A product or service produced by one company that another company presents under its own brand. In EV charging, white-label platforms allow operators to present a facility-branded charging experience rather than the vendor's brand.

ABOUT THE AUTHOR

Andrew Sachs, PTMP, is the president of Gateway Parking Services, a national parking consulting firm, and an owner and operator of Harbor Park Garage in Baltimore's Inner Harbor. He serves in an editorial and leadership capacity with the Parking Consultants Council (PCC) of the National Parking Association (NPA), including as editor of the forthcoming 6th edition of *Dimensions of Parking*. He is the creator and author of the Parkonomics series, exploring the intersection of parking operations, real estate strategy, and urban policy.

The views expressed in this paper are those of the author and reflect his experience as both an operator and a consultant. References to Harbor Park Garage's EV charging program are based on firsthand operational knowledge.