Panasonic

Fleet Decarbonization

A Strategic Guide

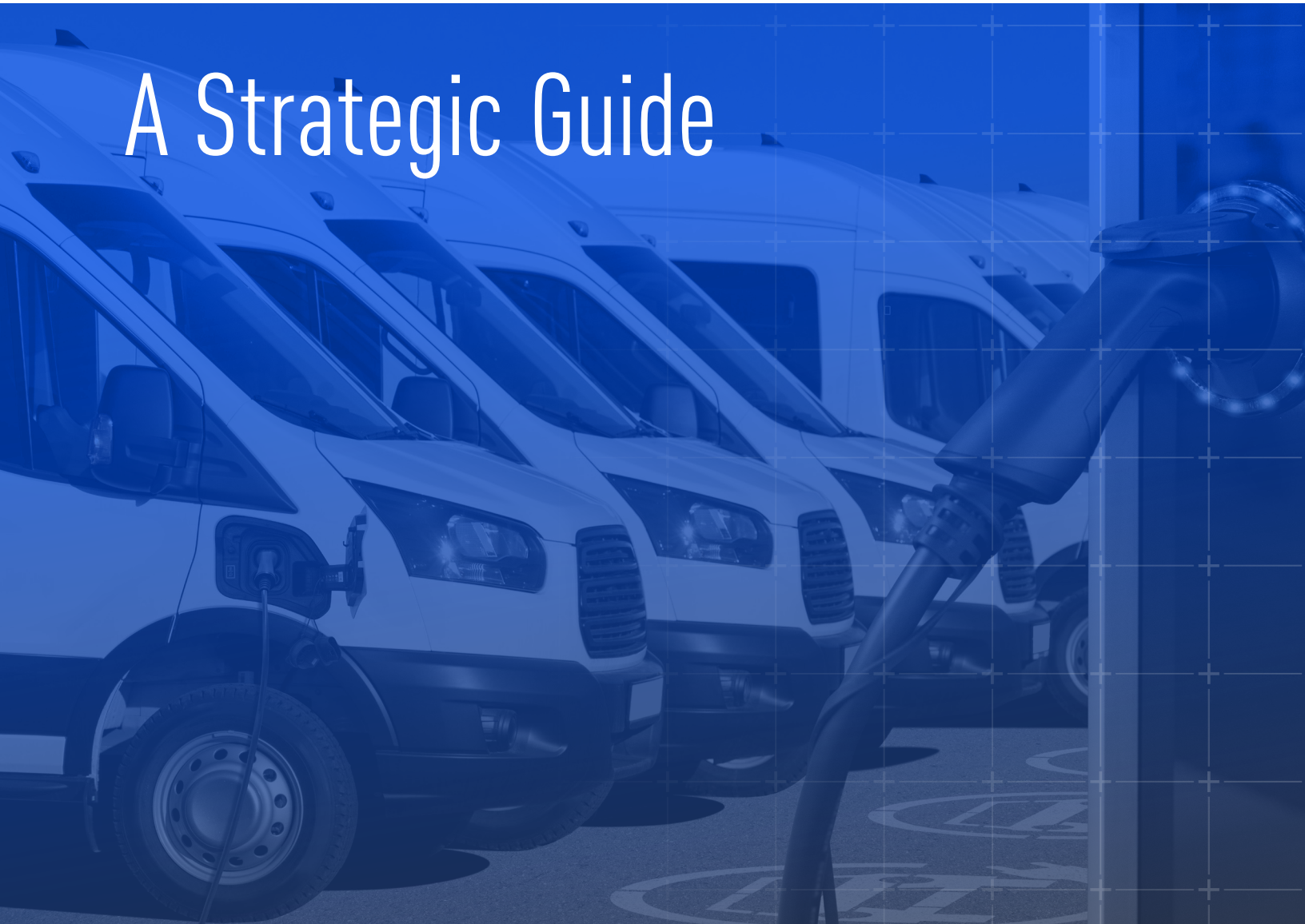

Table of Contents

Fleet electrification isn't just about sustainability,

it's about unlocking serious financial value. For enterprise fleets, the shift to electric vehicles (EVs) represents one of the most powerful cost-saving opportunities in recent years. With EVs delivering an increasingly lower total cost of ownership for light commercial vehicles, and fuel and maintenance savings compounding over time, the economics are increasingly hard to ignore.

Add a surge in available funding, federal, state, and utility incentives, plus OEM rebates and tax credits, and the business case becomes even stronger. Infrastructure is catching up, technology is maturing, and the market is moving fast.

For C-suite leaders and fleet managers, the question is no longer "if" but "how." The **Panasonic** Smart Mobility Office offers a strategic, scalable roadmap to help enterprise fleets navigate this transformation, and turn ambition into action.

What's Holding **Fleets** Back?

Despite the growing benefits, many organizations are struggling to move from pilot to scale. Regulatory complexity, fragmented supplier ecosystems, and long infrastructure lead times are common blockers. Internally, change fatigue and limited electrification expertise can stall momentum.

In our work with various fleets, we see **three common problem areas**:

Finding financing

Fleet electrification often starts with sticker shock. EVs, charging infrastructure, and energy upgrades require upfront investment, and many fleets struggle to secure capital or navigate the complex landscape of incentives.

The solution? Don't wait for full funding to begin. Pilot programs and phased rollouts allow you to start small, demonstrate ROI, and build internal momentum, making it easier to unlock future investment.

Selecting the right assets

With a growing array of EV models, fuel types (electric, hydrogen, hybrid), and duty cycles, selecting the right vehicles can feel overwhelming. Fleet managers understandably worry about range, reliability, and long-term value.

One answer: Run a pilot with 3–5 vehicles to validate assumptions. Include driver training, depot readiness, and performance monitoring. Real-world data can help refine your strategy and build confidence across departments.

Charge management

Charging infrastructure is often the biggest unknown. Where will you charge? How much power do you need? Will the grid support it? Fragmented suppliers and unclear utility coordination can derail even the best-laid plans.

Agnostic charge management systems (CMS) offer real-time visibility and control across chargers and vendors. They simplify operations, improve uptime, and prepare your fleet for future integration with telematics and energy systems.

The upshot is that although these challenges are real, they're also solvable with the right **strategy** and **support**.

Five Pillars for Scalable EV Fleet Conversion

Panasonic's Smart Fleet Transition Solutions is designed to meet these challenges head-on. It's a modular, multi-energy, solution that adapts to your fleet's size, geography, and operational needs. Whether you're electrifying a regional delivery fleet or a national logistics network, the framework provides end-to-end support—from planning and funding to infrastructure and systems integration.

What sets this solution apart is its flexibility. The solution is comprehensive enough to cover the full lifecycle of fleet decarbonization, yet customizable enough to align with your unique goals and constraints.

At the heart of **Panasonic** Smart Fleet Transition Solutions are five strategic pillars that ensure a successful, scalable rollout.

01 Strategy As a foundational step, strategy starts with aligning sustainability, finance, and operations to define what success looks like. Simulate real-world scenarios, allowing you to model trade-offs and identify no-regret moves. This data-driven approach transforms planning from guesswork into precision.

02 Funding Here is a linchpin to the entire decarbonization process. Funding solutions must include navigating and stacking federal, state, and utility incentives, while also exploring leasing, tax credits, and OEM rebates. The goal is to improve the total cost of ownership and preserve capital through zero-upfront financing options.

03 Infrastructure This is where many fleets stumble. You must work with utilities early in the process to avoid stranded assets and ensure infrastructure is phased in sync with vehicle rollout. The result is a charging network that's built for uptime, scalability, and grid-smart integration.

04 Vehicles Fleet assets must be selected for availability and operational fit. Evaluate and model range, payload, terrain, and lifecycle value. From securing OEM build slots to planning for residual value, the focus is on vehicles that deliver performance and financial return.

05 Systems Integrating everything is the final piece. EVs introduce new data streams and operational workflows. Panasonic's platform connects telematics, charge management, energy systems, and ERP tools to automate reporting, optimize performance, and enable predictive maintenance.

Make Your First **Strategic Move**

The best way to begin is with a strategic readiness assessment or a pilot plan. This allows you to align on funding deadlines, regulatory milestones, and internal priorities. From there, you can define scope, assemble your delivery team, and move forward with confidence.

To empower fleets to take immediate action, **Panasonic** developed quick-start packages organized into three tracks. Each package is designed to be delivered in 30 to 90 days, providing meaningful progress aligned with long-term transition objectives. Within each track, customers can leverage one or more offerings as applicable.

CASE STUDY

Pilot Program Deployment

GOAL	Proof-of-concept pilot for an edge solution for fleet to manage charging load with minimal latency
CHALLENGE	Fleet needed proof-of-concept for automated versus client-initiated charging reconnection after network interruptions
SOLUTION	+ Developed and tested an integrated edge solution at two charging sites + Integrated utility back-end systems (DERMS) to allow for remote charge management
OUTCOMES	+ Fully automated communication between Operation Control Center and Plant Controller + Able to curtail the maximum load consumption to meet system capacity constraints

The Clarity Track:

The Clarity track is for fleets evaluating whether decarbonization makes sense. Support includes readiness assessments, infrastructure feasibility studies, and total cost of ownership modeling to provide insight before larger commitments.

+ **The Fleet Readiness Assessment** provides a baseline emissions profile, electrification feasibility score, and opportunity map.
+ **The Infrastructure Feasibility Study** offers site assessments, grid capacity analysis, charger layout, and budget roadmap.
+ **Total Cost of Ownership (TCO) Modeling** compares ICE, EV, and hydrogen options with emissions savings and scenario modeling to support C-suite decisions.

CASE STUDY

Smart Charge Management

GOAL	Advisory and expert smart charge management in utility enabled decentralization (DER)
CHALLENGE	Lack of interoperability between varied charger brands and CMS created an EV "graveyard" with 90% of vehicles inoperable
SOLUTION	+ Managed optimized fleet charging + Monitored and managed five chargers/vendors + Researched and documented vehicle battery issues
OUTCOMES	+ Operations improved from only 10% of total transit vehicles running to 100% operational for vehicles with viable batteries + One dashboard simplifies monitoring and managing all EVSEs regardless of vendor

The Momentum Track:

The Momentum track is for fleets that have decided to move forward and need a funded roadmap. This includes funding optimization, pilot program deployment, system integration planning, and vendor evaluation and selection. Additional services can include solutions engineering, integration, and RFP management.

+ **The Funding Optimization Package** provides a custom incentive stack, eligibility review, and filing plan.
+ **The Pilot Program Deployment** program launches a 3–5 vehicle pilot with vehicle sourcing, depot readiness, driver training, and performance dashboards.
+ **System Integration Blueprinting** manages inventory and architecture planning for telematics, FMS, CMS, and charging platforms to unify your technology stack.
+ **Vendor Evaluation and Selection** identifies, assesses, and recommends the technology and service providers to enhance interoperability, reliability, and long-term value across vehicles, chargers, and software platforms.

CASE STUDY

System Integration Blueprint

GOAL	Blueprint for decentralization of distributed energy resources
CHALLENGE	Utility needed a launch plan and blueprint for complex three-stage, multi-vendor decarbonization effort
SOLUTION	+ Aligned multiple vendors and partners + Load modeling and forecasting plan with hourly load profiles + Time of Use (TOU) tariff alignment plan + DERMS compatibility study with applicable framework
OUTCOMES	+ Holistic launch plan effectively communicated strategy to all stakeholders + Blueprint to guide fleet and vendors through a fully integrated FY2025 decarb initiative

The Continuity Track:

The Continuity track is for fleets scaling operations and seeking reliability over the long term. Smart charge management and mobile charging deployment minimize operational interruptions while permanent infrastructure is established.

+ **Smart Charge Management** facilitates rapid onboarding of chargers with centralized visibility and control via Panasonic's cloud-based CMS.
+ **Mobile Charging Deployment** launches immediate charging capacity via mobile units, which is ideal for pilots or remote depots.

CASE STUDY

Funding Optimization

GOAL	Funding an 80% fleet emissions reduction by 2030 for 50-vehicle fleet
CHALLENGE	With decreased public sector support, finding funding has become increasingly difficult
SOLUTION	+ Integrated and streamlined fleet charge management + Identified suitable funding options and supported grant pursuit + Set tech standards for future EV and charger purchases
OUTCOMES	+ Secured $11.7M in grant funding + Projected up to $800K annual charging cost savings + Enabled cross-department billing via existing systems

Panasonic also develops custom solutions tailored to client needs, ensuring flexibility as strategies evolve.

Fleet electrification at scale is complex, but it doesn't have to be chaotic. With the right framework, the right technology, and the right partner, you can turn ambition into action. **Panasonic**'s Smart Fleet Transition Solutions can guide your strategy every step of the way from pilots to full deployment, transforming complexity into clarity.

Learn more about
Panasonic Smart Fleet Transition Solutions

email **DL_SMO_Sales@us.panasonic.com**
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