A US PAYMENTS FORUM WHITE PAPER

Fleet Payments – A Fleet Manager's Guide to Electric Vehicles

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About the U.S. Payments Forum

The U.S. Payments Forum is a cross-industry body that brings stakeholders together on neutral ground to enable efficient, timely and effective implementation of emerging and existing payment technologies. This is achieved through education, guidance and alternative paths to adoption. The Forum is the only non-profit organization whose membership includes the whole payments ecosystem, ensuring that all stakeholders have the opportunity to coordinate, cooperate on and have a voice in the future of the U.S. payments industry. The organization operates within the Secure Technology Alliance, an association that encompasses all aspects of secure digital technologies.

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Executive Summary

As the electric vehicle (EV) charging infrastructure and payment needs grow, so do the questions for fleets on how their drivers will charge their vehicles while on the road, and for EV networks on how to accommodate fleet payments at their charging stations. The intent of this paper is to provide information for fleet companies (from managers to drivers) and EV networks on the existing payment challenges for the fleet industry. The U.S. Payments Forum continues to provide EV payments education to explain the various payment options today and the work being done in the industry to make fleet payments consistent, regardless of vehicle.

1. Enabling Fleet Cards at the Contactless Electric Vehicle Charging Point of Sale

Using fleet cards for electric vehicle (EV) charging transactions at many public EV charging stations is still in the early stages of adoption. To keep a fleet informed about potential challenges, several considerations are essential to understand.

1.1 Supported Card Technology

Most importantly, the fleet card itself must be issued with the most current payment technology.

Historically, many fleet cards were magnetic-stripe-only or used older chip technology that did not meet EMV® specifications. To function and help provide a smoother cardholder experience at EV charging stations, the fleet card should ideally include an EMV chip and contactless capability, allowing the card to be tapped at a reader. In practice, fleet issuers are now transitioning to EMV-compliant cards. For more information about migrating fleet cards to EMV, see Appendix A.

- Some fleet issuers are achieving this by co-branding cards with major open payment networks.
- Other closed-loop issuers continue to work with the EV networks for contactless fleet acceptance. In either case, the move to EMV and contactless is a foundational step. It not only improves security (preventing card cloning, which was a risk with magnetic stripe technology) and improves the cardholder experience, but also opens the door for fleet card acceptance on standard payment terminals that adhere to EMV specifications.
- Options are also available for a fleet to use an EV-network-branded radio frequency identification (RFID) card tied to a fleet card for EV charging payment. The most common way to initiate a charging session today is with an RFID card. A fleet card could be registered as the payment method for an EV-network RFID card. Check with the fleet card issuer to inquire if an RFID solution is available.

For more information about migrating fleet cards to EMV, see Appendix A: Transition of Fleet Cards to EMV and Contactless.

1.2 Terminal and Network Readiness

For EV charging, the payment terminal software must be configured to recognize and process the fleet card. If the fleet card is co-branded on an open payment network, the transaction can be processed like a regular credit card transaction without requiring fleet.

However, if the transaction uses a closed-loop fleet network (not through a major open payment network), the terminal or acquirer needs to determine how to route that transaction. The charging network's payment processor may need to support additional routing logic or obtain certification with the fleet card network. In some instances, charging operators may need to collaborate with their terminal vendors to add accepted Application IDs (AIDs) for the fleet card's chip application or to include bank identification number (BIN) ranges that accommodate those card numbers.

Integration testing is required similar to adding a new card type to any point-of-sale (POS) system.

1.3 Addressing Fleet Prompts in a Card Transaction

In all payment industries, specification standards allow for consistent payments for a cardholder. For EV payments, the EV networks and some hardware/software vendors are not prepared or aligned with these specification standards for fleet payments. For example, most (if not all) EV chargers do not prompt the driver for odometer or other data. Instead, the transaction may allow the driver to proceed without those prompts. The resulting fleet card statement would have an EV charge with missing data.

Educating the EV networks on the importance of incorporating more data into the transaction flow or backend system, as defined in the fleet specification standards, is critical for the industry. Ideally, from a driver perspective, the driver would have the same transaction experience for providing identification and odometer information, regardless of whether the transaction occurs at the fuel dispenser or EV station. Fleet issuers and charge point operators (CPOs) are collaborating to determine interim measures that can allow smooth authorizations. The absence of fuel-like prompts remains a workflow change that fleets will likely adapt to, either through policy (where drivers report mileage separately) or through technological integration (where auto-sharing data from vehicles to fleet systems is implemented).

2. Integrating Fleet Cards into EV Charging Apps and Platforms

Another solution for fleet cards is to enable them as a payment option within EV network software ecosystems.

2.1 In-App or Account Billing

An option for a fleet manager is to ask the fleet card issuer whether the card can be registered on an EV network's mobile app. When drivers use that network (either authenticated via the app or with an RFID fob), the charges are billed directly to the fleet card on file. This method is emerging through partnerships; for example, a major fleet card provider might strike an agreement with a large EV charging network, allowing its customers to link their fleet card to that network's account . Drivers can then use the familiar EV network app or card to initiate charging sessions, and the fleet manager does not need to manage separate invoicing; the fleet card is charged for each session and transactions appear on fleet card statements. Additional transaction information may also be available within the EV network's portal (e.g., outlining energy savings or providing more information).

This approach effectively uses the fleet card in the background in a card-not-present mode. It leverages the existing EV network user experience while consolidating payment through the fleet program.

2.2 Single Sign-On and Aggregators

Some industry players are developing aggregator platforms that connect multiple charging networks and enable fleets to maintain a single centralized account. The benefit of using an aggregator app is that it assists drivers in identifying where their fleet card can be used for a charging transaction, regardless of the EV network. In such cases, the fleet could link their payment method (fleet card or otherwise) to the aggregator, allowing drivers to access participating networks seamlessly.

The collaborations required for this scenario involve CPOs agreeing to accept a third-party facilitator for payments and data. While this approach does not strictly function as a fleet card at a POS, the same outcome is achieved: the fleet manager receives one bill and unified data, while the driver enjoys access to a wide range of options without juggling multiple accounts.

Payment providers often support these aggregator solutions, bridging gaps between networks and fleet systems.

3. Transaction Data: Level 3 Data vs. Telematics in EV Charging

Beyond the act of paying and capturing data in transactions, conventional fuel purchases and EV charging sessions have a critical difference. Fleet managers rely on detailed data (Level 3 data) from transactions for auditing, tax, and efficiency purposes. However, EV charging transactions today provide limited data through payment channels.

3.1 Level 3 Data in Fuel Transactions

Fleet fuel card transactions often include Level 3 data fields, meaning the transaction includes more than just the amount and the merchant. Data may include product codes (e.g., fuel type), quantity (e.g., 12.7 gallons), price per unit, and additional metadata such as vehicle ID or driver ID that is entered at the pump.

This rich data is transmitted through the payment network into fleet management systems, providing managers with near-real-time visibility into the specifics of each fueling event. For example, a fleet manager can observe that a truck fueled 100 gallons of diesel at a particular station and reconcile that with the vehicle's mileage to calculate miles per gallon. Level 3 data serves as a powerful feature for fleet optimization and is a staple of legacy fleet payment programs.

3.2 Data in EV Charging Transactions

In comparison to a fleet card transaction, a typical EV charging session processed with a credit card (or even a fleet card treated like a retail credit card) yields far less detail on the transaction statement.

The payment record will show the total dollar amount, date/time, and the merchant (charging network name/location). It usually will not explicitly state the energy dispensed (kWh) or the vehicle's identification.

The charging station and its network do measure the kWh and session duration internally, but this information is not standardized or passed through the financial transaction in current systems. In other words, today's EV payment networks are not generally carrying "line item" data like "50 kWh @ $0.20/kWh" as part of the authorization and settlement records. No widely adopted equivalent of a fuel product code or unit quantity in credit card transactions is available for EV charges. The lack of this data is largely because EV charging has been implemented as a time-based service or utility: the meter (charger) tracks kWh for billing, but the card networks only see the final charge amount.

Figure 1 shows an example of how an EV transaction might appear on a fleet statement. Note that some data may vary based on issuer.

Card Number	Transaction Date/Time	Ven ID	Transaction Location/Description	Invoice Number	Fraud Credit	Msg CD	Prod CD	Quantity	Transaction Amount	Exempted Taxes
Total for Card: xxxx								**6.49**	**30.00**	**1.19**
	11-29 08:07	CP	800 SOUTH VICTORIA AVE VENTURA CA	019N32UI		5	ELC2	29.67	12.13	0.00
	11-29 17:00	CP	1911 WILLIAMS DR OXNARD, CA	019OPP8I		5	ELC2	16.3	5.22	0.00
	11-30 13:01	CP	800 SOUTH VICTORIA AVE VENTURA CA	019OE4IV		5	ELC2	29.03	19.31	0.00
	12-01 10:07	CP	800 SOUTH VICTORIA AVE VENTURA CA	019PSDYI		5	ELC2	4.01	13.29	0.00

Figure 1. Example EV Transaction on Fleet Card Statement

3.3 Fleet Management and Telematics

The new trend for EV fleets is to rely on telematics and charging management software for detailed data. Modern EVs, especially in fleet use, are often equipped with telematics units or are inherently connected (many EV manufacturers provide application programming interfaces (APIs) or platforms for fleet telematics).

These systems can report vehicle battery state, energy consumption, GPS location, and even the date, time, and location for the vehicle that is charging. By cross-referencing telematics data with charging session records from the charging network, a fleet manager can piece together the details: e.g., Vehicle 12 charged from 20% to 80% battery at Station X, consuming 40 kWh in that session. Some EV charging networks offer fleet-specific dashboards or data feeds that provide session summaries (including kWh, start/end time), which the fleet manager can download separately from the issuer's billing statements. Each charging network typically has its own portal for managing and viewing transactions since no single unified clearinghouse for EV charging data across networks exists yet.

For a fleet using multiple charging providers, fleet managers must log into multiple systems to gather all the information for their fleet – a noted inconvenience compared to the one-stop data provided by a single fleet card program for all fuel.

3.4 Challenges with the Lack of Prompts

Fleets are finding workarounds to the lack of prompts, such as instructing drivers to manually report odometer readings periodically or use the vehicle's connected data. With telematics, these systems can automatically log odometer readings whenever the vehicle is on, with the data pulled into fleet databases to replace manual entry.

This data reporting is occurring outside of the payment transaction. A parallel data system is used, which means software integration efforts are needed for fleets to correlate charging costs (from payment data) with operational metrics (from telematics).

3.5 Security and Validation of Data

An interesting aspect of additional information in the transaction message is that it helps prevent fraud (e.g., buying unauthorized goods on a fuel card is harder when each line item is visible).

In EV charging, since the purchase is just energy and a variety of goods is not purchased, the risk of inappropriate spending is lower (i.e., the driver cannot charge any purchases other than vehicle charging).

However, unauthorized use is still a risk (e.g., someone charging a personal EV on a company account). Without driver IDs or vehicle IDs being captured at the charger, fleets must rely on other controls, such as the merchant category code (MCC) or product code restrictions. This risk is another reason fleet managers are eager for more integrated solutions – they want the same level of oversight on EV charging that they had on fueling.

In summary, the limited use of Level 3 data in EV charging transactions means that fleets currently do not automatically get the detailed expense data they are accustomed to from fuel cards. Instead, they must use supplemental systems (i.e., vehicle telematics, separate network portals, and software integration) to gather and interpret that information.

This situation may be transitional. As EV charging and payment systems evolve, opportunities to standardize data reporting may exist. Fleet payment industry groups are working together to better define new transaction data fields for kWh or to enable EV chargers to send extra data in a receipt that fleet systems can ingest. Until then, fleets and CPOs are working in tandem to ensure that even if the data in the payment transaction is lean, the necessary data can be exchanged through other means (e.g., APIs, data feeds).

4. Conclusion

The electrification of vehicle fleets presents a transformative opportunity for the payments and charging industries to collaborate and co-evolve. As detailed in this white paper, clear challenges today hinder fleet operators from fully realizing the benefits of EVs – ranging from on-the-go charging payment friction to insufficient data capture. Yet, these challenges are surmountable. By learning from the lessons of traditional fleet fueling and embracing new technologies and standards, the industry can deliver a seamless, secure, and standardized payment experience for EV charging.

Key to this effort is recognizing that no stakeholder operates in isolation. Merchants, networks, acquirers, fleet managers, and solution providers each hold a piece of the puzzle, and only through collaboration can a complete picture emerge. Encouragingly, the momentum is already building: industry alliances and committees are tackling open payments at EV stations; major payment networks are updating requirements to include EV-specific data; and companies are launching integrated fleet payment solutions that bridge fueling and charging. These developments underscore a shared understanding that interoperability and openness are the way forward.

In the near term, stakeholders can benefit by reviewing the best practices in U.S. Payments Forum white papers – upgrading hardware for contactless acceptance, linking telematics with payment systems, piloting the ISO 15118 Plug and Charge standard, and using open data standards. These steps will help mitigate the immediate pain points for EV fleet drivers and managers by making public charging easier and ensuring fleet programs have the data they need. In parallel, stakeholders are encouraged to engage in strategic planning for the future, anticipating a landscape where perhaps every EV charge is an intelligent transaction: authenticated by the vehicle, authorized in real time against fleet policies, seamlessly billed with rich data, and potentially interacting with the electric grid in sophisticated ways.

The U.S. Payments Forum and its members are committed to fostering dialogue and development required to reach this future state. Fleet electrification will only accelerate in coming years. By adopting standardized payment solutions and collaborating across sectors, EV charging will provide fleets with more flexible payments. Instead, paying for a charge will become a straightforward, trusted process – one that supports the operational needs of fleets and the innovation goals of the industry. Together, the payments and EV charging industries can enable a world where fleet drivers charge up and drive on, with confidence that the payment just works in the background, efficiently and invisibly.

In conclusion, the challenges of EV fleet payments are significant but addressable. The opportunities – from improved driver experience to richer data analytics and new services – far outweigh the hurdles. The road ahead is one of collaboration and standardization, leading to a robust infrastructure that will serve the transportation needs of the future. Now is the time to act, ensuring that as electric vehicles become the norm, the payments infrastructure is ready to support them, every mile of the way.

Appendix A: Transition of Fleet Cards to EMV and Contactless

The migration of fleet cards to EMV chip technology deserves special attention because it is the foundation for many of the efforts mentioned earlier in the white paper. The shift from magnetic stripe to EMV chip to contactless for fleet cards is well underway. However, fleet cards pose unique challenges for EMV migration, leading to some "partial" EMV implementations. For more information on fleet cards migrating to EMV, please refer to the U.S. Payments Forum's white paper Migrating Fleet Cards to EMV.

5. Legal Notice

This document is provided solely as a convenience to its readers, as a high-level overview of considerations for fleet companies, EV networks, and payments industry stakeholders interested in understanding current alternatives for processing electric vehicle (EV) charging payment transactions and preparing for the future. While great effort has been made to ensure that the information provided in this document is accurate and current, this document does not constitute legal or technical advice and should not be relied upon for any legal or technical purpose; accordingly, all warranties of any kind, whether express or implied, relating to this document, the information herein, or the use thereof are expressly disclaimed, including but not limited to warranties as to the accuracy, completeness or adequacy of such information, all implied warranties of merchantability and fitness for a particular purpose, and all warranties regarding title or non-infringement. Any person that uses or otherwise relies on the information set forth herein does so at his or her sole risk. Without limiting the foregoing, note that this document provides only a high-level description of the subject matter, and is not exhaustive. Readers interested implementing alternatives for processing electric vehicle (EV) charging payment transactions are accordingly encouraged to consult with their respective subject matter experts, as well as relevant payments industry stakeholders, such as payment networks, issuers, acquirers, and others, prior to any implementation decisions.