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Power to the people: How convenience stores are filling the EV charging void

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The future of fuel retail

Source: IHS Markit

The presence of electric-vehicle (EV) charging stations at convenience stores is becoming a key factor for consumers, according to Gilbarco Veeder-Root. As the demand for EVs continues to grow, consumers are more likely to consider convenience stores with EV charging stations as their preferred choice. This trend highlights the importance for convenience store owners to adapt to the changing needs of their customers and invest in EV charging infrastructure.

Gilbarco Veeder-Root, a global supplier of fuel dispensers and payment systems, has recently launched Konect, an EV charging ecosystem tailored for fuel retailers. Konect assists in areas such as site selection, funding options and point-of-sale equipment. To learn more about the future of fuel retailing, we spoke to Om Shankar, vice president and general manager at Konect.

The following is an edited transcript of the conversation.

S&P Global Mobility: Why is Gilbarco Veeder-Root getting into the business of EV charging?

Om Shankar: Gilbarco Veeder-Root (GVR) is a well-established supplier in the fuel retail sector. GVR's parent company, Vontier, has developed the Konect ecosystem, which combines software and hardware infrastructure to create a comprehensive EV charging solution tailored for the convenience store (C-store) industry.

How can electric EV charging create new revenue streams for petrol retailers?

We believe that the business model for EV charging goes beyond simply selling electrons through a charger. It involves a 'watt-to-wheels' approach that encompasses the entire electron journey, from the energy source to battery storage, and from the battery to the charger and vehicle. It includes engaging the consumer within the fuel retail convenience store.

According to the National Association of Convenience Stores (NACS), non-food sales accounted for 32.7% of C-store revenue but 61.4% of profit in 2023, indicating a growing trend in consumer engagement.

To stay competitive, fuel retailers need to adapt their business models. Boston Consulting Group predicts that 80% of fuel retailing sites will become unprofitable by 2035 if they do not make changes.

Where will the majority of EV charging infrastructure be focused in the future?

Drivers want EV charging to be as easy as filling with fuel – but that often isn't the reality today. So, we're building something specifically for the C-store, as we believe that's where the future of EV charging will take place. Fuel retailers have the right location and amenities to attract customers and cover dwell time.

Fuel retailers have the advantage of prime locations and amenities that can attract customers and provide a comfortable dwell time. Current charging experiences may not meet user expectations, with locations lacking proper lighting, visibility and additional amenities such as refreshments or toilets. McKinsey's research revealed that EV drivers are willing to pay a premium to charge near highways to avoid detours.

Fuel forecourts can address these issues and solutions like ours can help them to deploy reliable charging stations that integrate with other services.

What challenges do fuel retailers face in convincing EV drivers to charge at petrol stations?

We don't think they need to be convinced. Drivers expect charging to be as easy and convenient as filling with fuel, but that isn't always happening. Satisfaction ratings for major charging point operators are generally poor, and we think it's well within fuel retailers' capabilities to help solve that.

Forecourts and C-stores are uniquely well-positioned to craft the perfect EV charging experience, with locations close to major routes and the amenities drivers want while they are plugged in. Those are two important elements that traditional charging networks are yet to solve.

You can see that in the United States, where 68% of National Electric Vehicle Infrastructure (NEVI) funding applications are being won by fuel retailers — and we're confident that will increase in 2024 and 2025.

What are the main challenges fuel retailers face with the transition to electric mobility?

The charging experience today is improving but could be a lot better. You don't have the same challenges in the fuel retail industry. You go to a petrol station, there's going to be petrol or diesel flowing through the dispenser.

But EV charging is a big change for fuel retailers, who risk losing the charging customer base to other sectors, such as restaurants, shopping malls or faster-moving rivals, if they don't move quickly enough.

Becoming a charging point operator (CPO) can be challenging unless you're a major international fuel retailer. Our goal is to take that uncertainty and throw it out of the equation.

How does the rise of EVs affect the traditional revenue model of fuel retailers?

We see an opportunity to reimagine the fuel retail industry and expand the concept beyond selling electrons. In addition to revenue from charging, there are other potential income streams, such as carbon credits, supplying energy back to the grid, upselling services, and capitalizing on longer dwell times by attracting customers to the convenience store.

Our goal is not to be known solely for selling chargers. We aim to offer a business model that focuses on making EV charging profitable for the convenience store industry by considering the overall experience.

What kind of ROI can a fuel retailer expect on EV charging?

We believe that fuel retailers need to achieve double-digit utilization rates on EV chargers to break even. This requires maximizing uptime, including 24/7 availability during peak periods.

What is being done to solve the issue of charger downtime?

Charger reliability is a major concern that can hinder the adoption of EVs. Regulations, such as the UK public charge point regulations and NEVI in the US, demand near-100% uptime for chargers. We believe that achieving this level of reliability is possible with the right technology and support.

CPOs can enhance uptime and profitability by leveraging intelligent analytics and rapid technical assistance. For instance, Konect's charge management software uses advanced artificial intelligence and self-healing technology to address 80% of EV charger error codes. In cases where technician intervention is required, faults are typically resolved within hours, minimizing downtime.

By improving uptime, CPOs can mitigate reputational damage and ensure a positive charging experience for EV users.

What role does government legislation and incentives play in the transition to electric mobility for fuel retailers?

Government support in countries like Norway, Sweden, and Denmark has demonstrated the positive impact it can have on the development of EV charging infrastructure. These countries have transformed their forecourts and convenience stores into smart mobility hubs, offering food and refreshments to create attractive destinations for consumers. This trend is likely to spread to other regions in the future.

In the US, the NEVI fund provides $5 billion in financial support for new EV charging infrastructure, with 68% of successful awards going to the convenience store industry.

As manufacturers continue to produce mass-market EVs at lower costs, government funding is expected to lead to the establishment of extensive charging corridors across North America and Europe. This will alleviate concerns about range anxiety and pricing, making EV adoption more accessible.

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