

TEI Blogs and Insights:

Higher Gas Prices Are Unlikely to Turbocharge the EV Transition

What the data shows... and why the impact is real,
but weaker and slower than headlines suggest

Summary

- Gasoline prices do influence electrified vehicle adoption, especially BEV adoption, but less than commonly assumed: the effect is typically moderate and highly dependent on market conditions.
- The impact is concentrated among buyers already in the market which, with vehicle replacement cycles of 8–12 years, only corresponds to ~10 to 15% of consumers, limiting the short-term effect.
- BEVs benefit more than hybrids from rising fuel prices: when BEVs are viable alternatives, more consumers tend to skip hybrids altogether.
- Short-term gasoline price spikes primarily drive interest and consideration, while sustained increases (6–18 months) are required to meaningfully influence vehicle purchase decisions.
- Implication: visible but limited near-term effects. The current 2026 fuel price shock is likely to increase EV consideration and modestly shift sales mix but will not materially accelerate adoption without supportive factors such as vehicle affordability, charging availability, and policy stability.
- While this analysis focused on gasoline, similar mechanisms apply to diesel. With diesel demand in North America more concentrated among high-mileage and commercial users, the effects of higher prices are mixed, but the impact on EV adoption is expected to be weaker than for gasoline.

Analysis

Given the increase in retail gasoline prices in early 2026 and the corresponding media attention (e.g., Wall Street Journal on April 11, 2026: “high gas prices just helped drive 12% jump in used-EV sales”), the TEI Electric Vehicle Council (EVC) sought to investigate whether consumers increase their purchase of hybrid electric vehicles (HEV) or battery electric vehicles (BEV) in response to fuel prices increases.

To shed light on this question, TEI conducted a two-pronged analysis: comparing historical regular gasoline prices in the United States with concurrent HEV and BEV sales, complemented by a historical macro review of the main studies having considered this question. As a starting point, TEI focused this analysis on the gasoline market, though similar mechanisms are at play in the diesel market, where a few structural differences also need to be considered.

For its proprietary analysis, TEI leveraged two main data sources: OPIS to track average retail gasoline fuel prices on a weekly basis since January 2006 and Omdia (formerly Wards Intelligence) to track annual and monthly vehicle sales since 2012 and 2022, respectively. Plotting this data, with weekly retail gasoline prices on the left axis and annual HEV (purple) and BEV (green) sales on the right axis (Chart 1), what is most striking is the upwards acceleration of electrified vehicle sales into a typical new technology adoption S-curve rather than any apparent synchronised trends between retail gasoline prices and annual sales. Similarly, considering annual instead of weekly gasoline prices (Chart 2) did not reveal any clearer correlation.

Chart 1

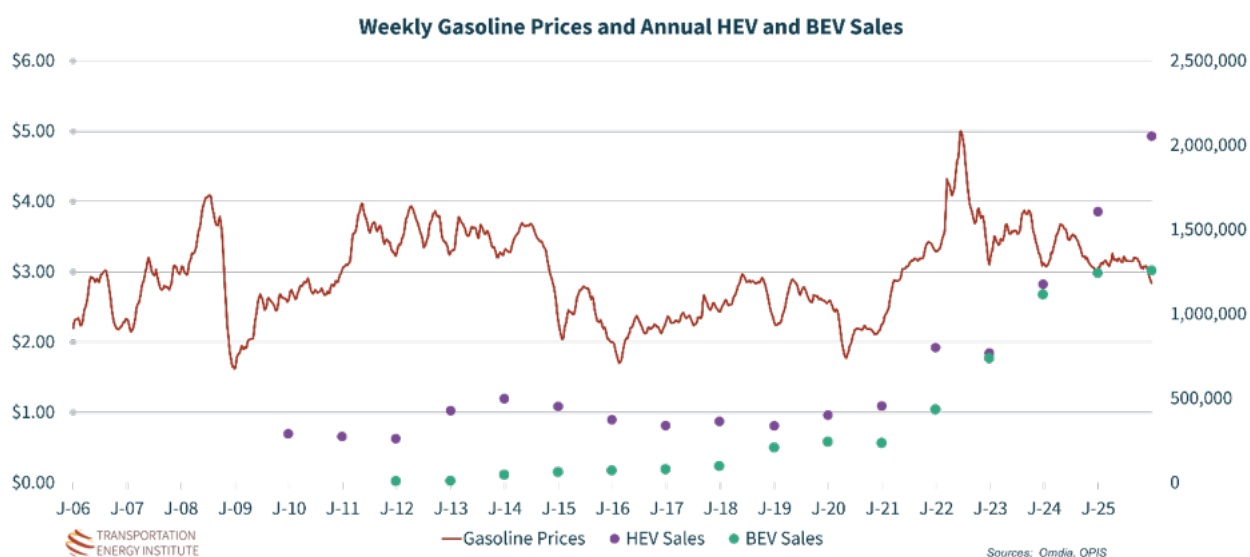
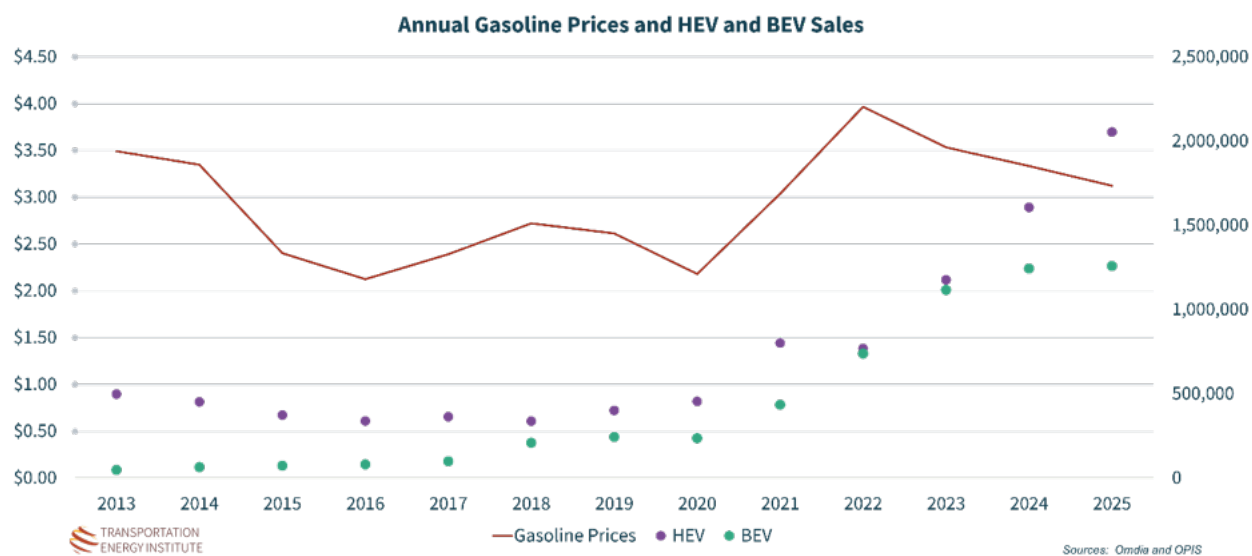


Chart 2



TEI then ran a correlation analysis between annual average retail gasoline prices and annual HEV and BEV sales. This analysis revealed correlation coefficients of 0.46 for HEVs and 0.53 for BEVs (Charts 3 and 4). This indicates a moderate correlation relationship but is insufficient to establish causality or to rule out that other factors may be more influential in driving consumer EV purchases.

Chart 3

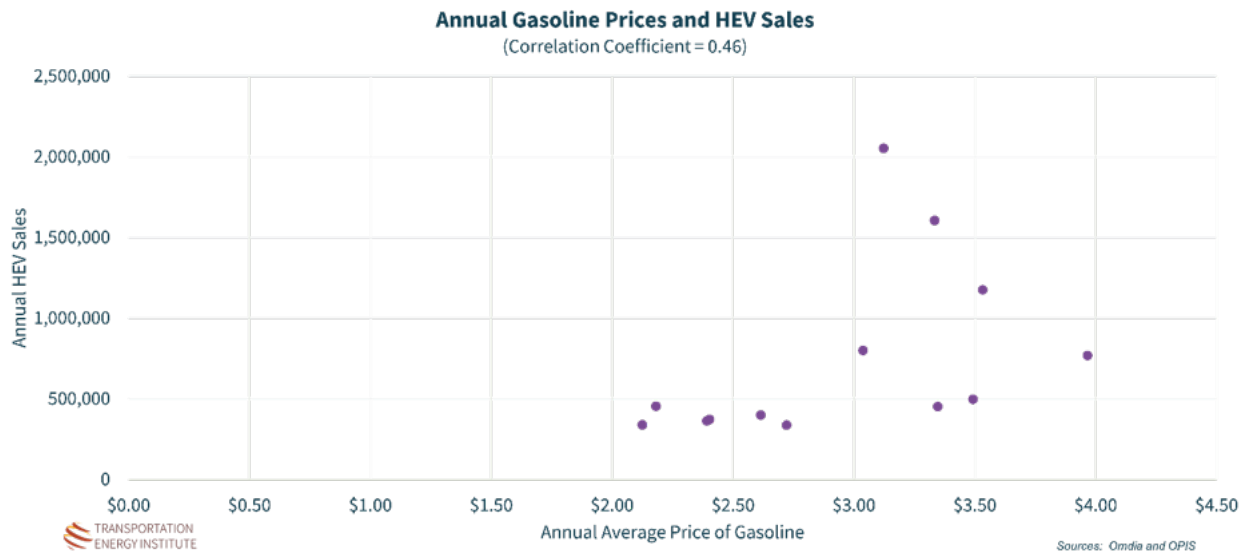
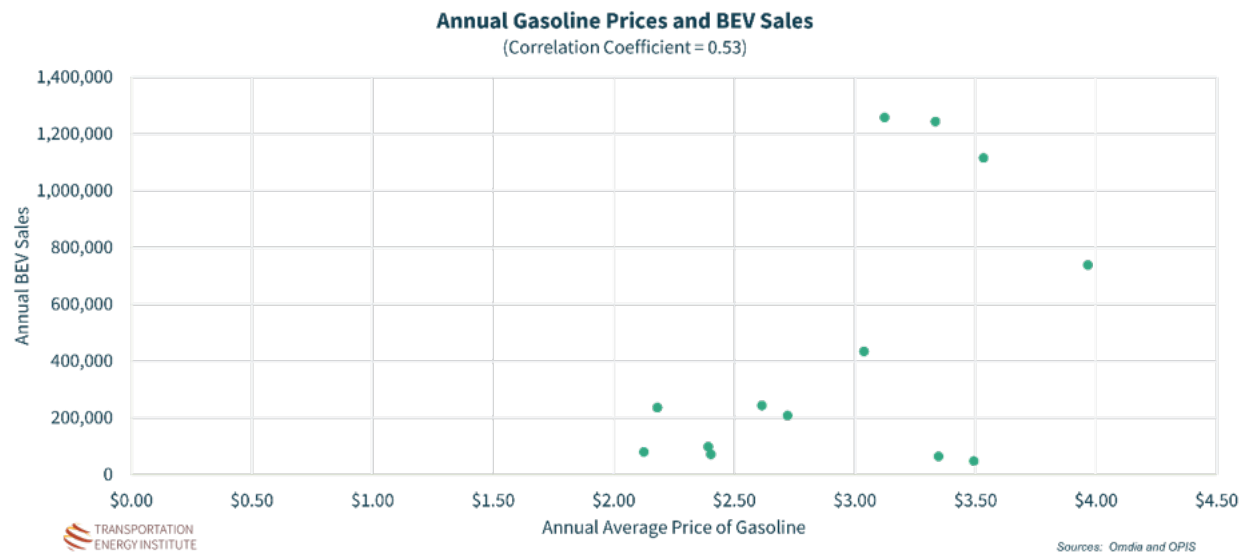


Chart 4



Recognizing that annualized data can overlook temporary changes in consumer behavior, TEI also ran a correlation analysis on monthly data (Chart 5), revealing correlation coefficients of -0.66 and -0.45 for HEVs and BEVs respectively (Charts 6 and 7). TEI also considered a possible response delay in consumer behaviour and ran a correlation analysis using gasoline prices the month prior and two months prior to vehicle sales, but the correlation coefficient was not significantly different when introducing these lags.

According to this monthly analysis, as retail fuel prices increase, there appears to be a moderate corresponding decrease in HEV and BEV sales. This negative correlation, however, is counterintuitive and should be interpreted with caution. Observing a positive correlation on an annual basis but a negative one on monthly data reinforces the hypothesis that factors other than gasoline price may have a stronger influence on sales of HEVs and BEVs (such as vehicle affordability, charging availability, and policy).

Chart 5

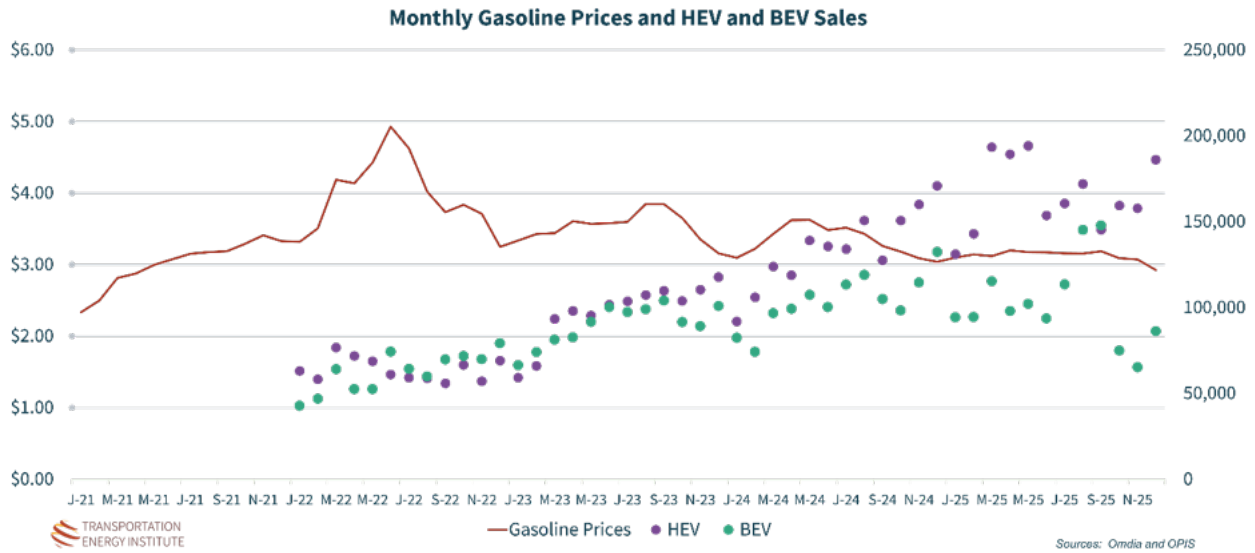


Chart 6

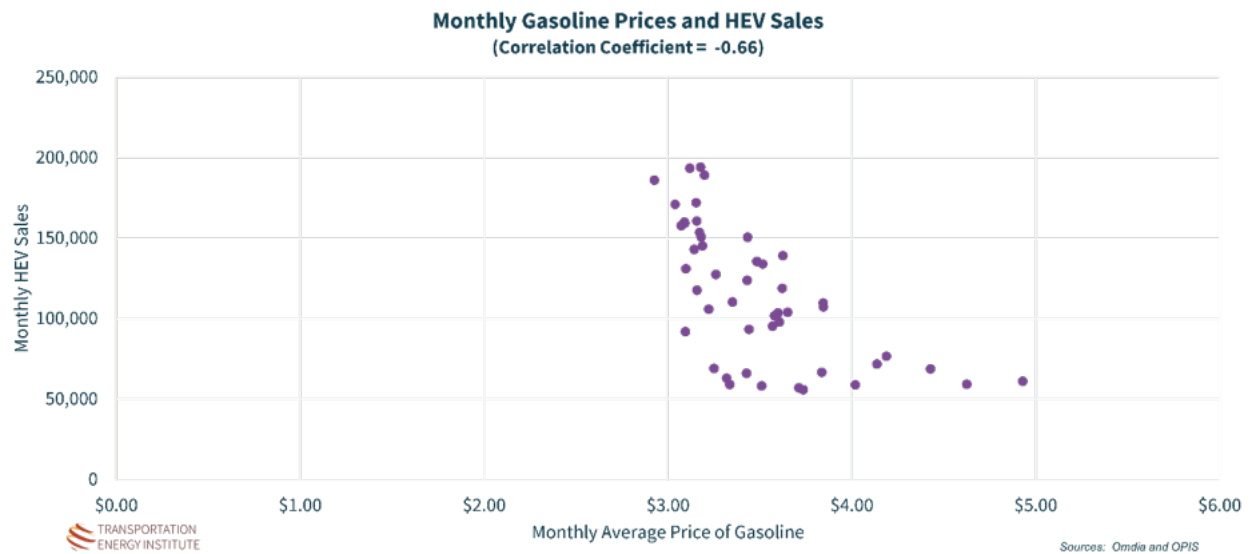
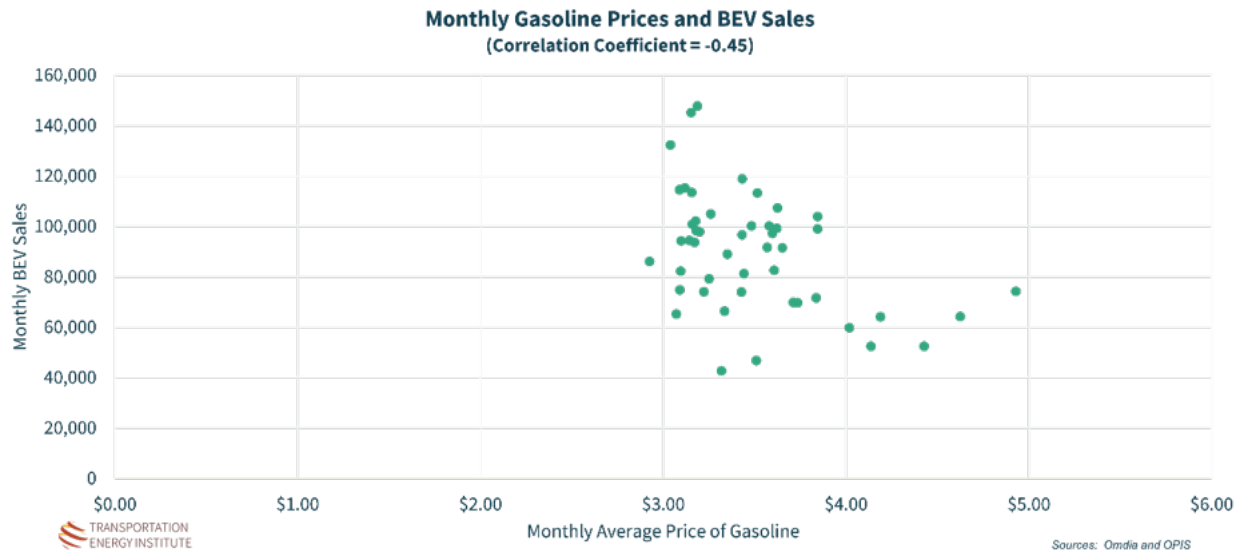


Chart 7



So, what are we missing?

At first glance, the mixed signals on correlation may be perplexing. In reality, this reflects the limitations of simple time-series comparisons and the importance of isolating causal effects from the many factors that influence HEV or BEV purchase, such as vehicle availability and price, infrastructure readiness, incentives and other factors.

Thankfully, we can turn to several studies that have sought, over the last 5 years, to isolate the effect of fuel price (and other factors) on EV adoption in the United States, European countries and Canada. Several other precursor studies had focused on hybrid vehicles over the 2008-2011 period.

Across these studies, higher gasoline prices are associated with higher EV adoption. The relationship appears robust across countries, and there isn't much doubt left on the causality. The effect, however, is usually moderate. Studies generally find BEV demand elasticities to gasoline prices in the range of ~0.5 to ~0.9. Demand elasticity measures how sensitive EV sales are to changes in gasoline prices. In this context, it asks: If gasoline prices rise by 1%, by what percentage do EV sales change? It is calculated as: $\text{Elasticity} = (\% \text{ change in EV sales}) / (\% \text{ change in gasoline prices})$. A 20% increase in gasoline prices, therefore, is associated with roughly a 10–18% increase in BEV sales, all else equal. For HEV, elasticity estimates appear lower or negative, leading to combined aggregate elasticity estimates closer to 0.3 to 0.5 for BEVs and HEVs combined.

While gasoline prices can influence EV sales, their effect is secondary and conditional to market readiness. When vehicle models are available, the price gap is manageable and charging is readily accessible, higher gasoline prices can accelerate adoption. Otherwise, consumers tend to delay purchase or shift within internal combustion engine options (e.g., more efficient models).

When the price shock is short-lived, the effect is also smaller than many people assume. First, because vehicle replacement cycles typically last 8 to 12 years, such that only ~10 to 15% of consumers are “in the market” annually. But also, because the persistence of price changes matters, spikes shorter than 6 months primarily drive awareness, search behavior and declared intent. Only when price increases are sustained over 6-18 months do they tend to lead to more important shifts in purchase behaviors.

Three interesting additional insights come through the review of those studies. One is that when BEVs are credible substitutes, customers tend to skip the purchase of an HEV and jump directly to a BEV. The effect of gasoline price increases on BEV is therefore stronger than the effect on HEV sales, which can even be negative. Another insight is that fuel-price shocks tend to favor value-oriented, lower-priced, EVs. Finally, as might be intuitive from the fact that market and infrastructure readiness matters most, there are important differences between urban and high-income areas with dense charging accessibility and rural, lower-income and more dispersed areas.

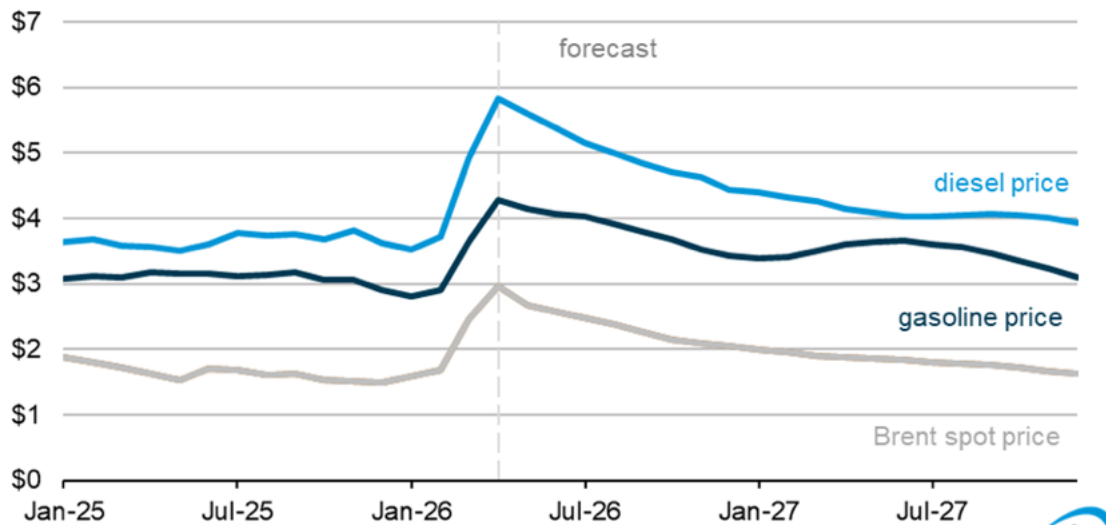
What does this mean for us, right now?

As of this writing, the ongoing early-2026 energy shock is real, material, and proving longer than many had hoped for. While not a perfect analogue, the current situation aligns with prior major shocks (1970s oil crises, 2008 spike, 2022 Russia/Ukraine shock) in its system-level impact: prolonged supply uncertainty, rising logistics and transportation costs, price volatility, and uncertainty sufficient to influence consumer and capital allocation decisions.

Given the current market volatility, it is not entirely clear how sustained the crisis will be. For U.S. retail fuel, the April 7, 2026 U.S. Energy Information Administration’s Short-Term Energy Outlook forecasts the average gasoline price to reach nearly \$4.30/gal in April, then average \$3.70/gal in 2026 and \$3.46/gal in 2027, up from \$3.10/gal in 2025 (Chart 8). But in the current context, it already feels dated, so stay tuned for the May 12 update. This national perspective also masks important differences across regions. In California, in part due to other regional supply disruptions, the average price per gallon was about \$5.88 as of April 14, according to the American Automobile Association (AAA).

Chart 8

U.S. retail gasoline and distillate prices compared with Brent crude oil price
dollars per gallon



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, April 2026



In the next few months, the main effect should be increased EV search, dealership traffic and consideration, especially among shoppers already planning to replace a vehicle in 2026. The most primed buyers might be tipped into taking the EV plunge, creating a noticeable bump up front. Because replacement cycles are long, the realized sales effect should taper out and prove smaller than anecdotic media headlines might suggest.

Over the summer and into the fall, the effect will depend largely on the persistence of the price shock. If prices stay elevated over that period, as many are starting to think might be the case, the literature suggests a more meaningful effect, especially for lower-priced BEVs. That said, fuel price increases are hitting a market with weaker policy support than before. According to Omdia data, U.S. BEV sales fell sharply after federal EV incentives expired, with market share dropping from a September peak of 12% to below 6% in each of the remaining months of 2025.

Longer term, the effect is expected to be supportive, but how transformative it will be will depend on whether and how rapidly the crisis will subside. The current episode should leave lasting memories but its effect on EV penetration will be largely conditioned by vehicle affordability, incentives, charging roll-out, and policy clarity.

While this analysis focused on gasoline, similar mechanisms apply to diesel, but diesel demand in North America is more concentrated among high-mileage and commercial users. The replacement cycle is quicker and the impact of fuel costs on operating expenses is greater for these segments. However, compared to light-vehicle consumers, they tend to face greater model limitations and infrastructure constraints. They also have a broader array of other adjustments levers at their disposal (e.g., routes optimization, idle time, load factors, delayed

capex). As a result, the effects of higher diesel prices are mixed, but the impact on EV adoption is expected to be weaker than for gasoline.

Bottom line: higher gasoline prices consistently increase EV adoption, but the effect is moderate, highly dependent on market readiness and skewed to more affordable BEVs. While short-term spikes change consumer intent, sustained price increases are necessary to influence actual purchases, and they do so through a narrow window: the subset of consumers near replacement.

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