How quickly can the fuels market change? Is the remarkable reception of the Tesla Model 3 an indication that the market is going to transform at a pace never before witnessed? Should fuel retailers begin swapping their storage tanks for DC fast chargers?

The media hype around new automotive technologies and events, such as the unveiling of Elon Musk’s latest offering, might have you thinking that the future has already been determined, but the reality might be quite different.

Yes, electric vehicles get a lot of attention and consumers seem to be gravitating toward them. In its first 24 hours, the Model 3 generated 150,000 orders. Within days, orders totaled nearly 300,000. By comparison, in 2015 the United States sold 70,823 EVs across 14 models manufactured by 13 companies. It is easy to believe that change like an avalanche. But all is not as it seems.

Last year, vehicles that operate exclusively on liquid fuels represented 97.15% of all light-duty vehicles sold. When you include hybrid vehicles, which do not plug into the grid and use battery power only to assist the internal combustion engine, that number was 99.32%. For those without a calculator handy, that totals almost all of the cars sold last year.

U.S. Electric Vehicle Sales, 2015

(Source: WardsAuto)
Despite the limited market share so far for EVs, the auto industry is motivated to produce them to comply with regulations. Federal fuel efficiency standards require fleets to average 54.5 miles per gallon in 2025, and 10 states have implemented zero emissions vehicle requirements. With that pressure, the next nine years should bring significant change in the market—but perhaps not as pronounced as many believe.

Navigant Research, on behalf of the Fuels Institute, is looking at the vehicles market through 2025 to better understand how it might evolve. (This report is scheduled for release in summer 2016.) In Navigant’s aggressive case projections (which assume higher oil prices, which benefit alternative fuel vehicles), EVs could capture as much as 4.84% of new light-duty vehicle sales in 2025.

While indicative of the direction things might be heading, the numbers can also be misleading and create exaggerated concern. It takes time for new vehicles to affect the market—the U.S. vehicle fleet is estimated to turn over once every 17 years. So Navigant is providing the Fuels Institute with its projections for registered vehicles too. In the same aggressive case, EVs will represent only 1.78% of vehicles on the road. While this is a 13-fold increase over today, it remains a very small share of the overall market. Liquid fuel-dominant vehicles continue would to represent 96.6%.

This is not to say that things are not changing—quite clearly they are. Consumer behavior and interests are evolving in such a way that new vehicle technology will be quite popular. EVs are overcoming the market hurdles that have constrained their growth—range anxiety, recharge time and price. All of these are coming closer to consumer expectations—200 miles and more per charge, nearly full recharge in less than an hour (perhaps in as little as 15 minutes), and a purchase price in the low $30,000s.

If we look further into the future, how long will it take before EVs represent one out of every 10 cars on the road? From a directional standpoint, it is not inconceivable to believe that these cars, which might capture 5% of new sales in 2025, could in fact take over one-third of the market by 2035.

I have sometimes compared the fuels and vehicles market to the Titanic—a huge vessel unable to turn quickly. This necessitates that we keep a close eye on the horizon to spot icebergs—so we can make adjustments to strategic plans—long before they pose a threat to the business.

For more information about the Fuels Institute or to get involved, contact John Eichberger, executive director, at (703) 518-7971 or email him at jeichberger@fuelsinstitute.org.