

PUBLICATION

Soothing Range Anxiety: Tips for EV Manufacturers and Sellers

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The long-predicted transition from internal combustion-powered vehicles to electric vehicles (EVs) is now truly underway, with manufacturing plans and government incentives aligned to speed that transition along. Although there are many challenges to the widespread adoption and use of EVs, including infrastructure and supply bottlenecks, one of the major factors inhibiting the growth of the consumer EV market is "range anxiety." Range anxiety is the concern that an electric vehicle lacks sufficient battery capacity to travel reasonable distances between charges, feeding the fear of drivers being stranded in locations without ready access to charging facilities. Notably, range anxiety is less rooted in a reality of limited performance than it is in the psychological *belief* that there exists a significant distance limitation, as the Federal Highway Administration has estimated since 2016 that battery-electric vehicles with a range of at least 120 miles would be sufficient to cover 99 percent of all household vehicle trips.

Manufacturers, of course, know about this range anxiety and have every incentive to comfort drivers with the knowledge that the range of their current and future EVs will be more than sufficient to meet the needs of the vast majority of drivers. This urge to comfort drivers about EV range, however, could create downstream complications for manufacturers because of past legal cases involving the advertising of fuel economy and the range of vehicles equipped with internal combustion engines. These potential issues have their roots in the statutory origins of the Environmental Protection Agency's (EPA) fuel economy estimates, as well as the Federal Trade Commission's (FTC) regulations governing the disclosure of fuel economy estimates and their use in advertising.

Regulatory Background

The testing and disclosure of estimated fuel economy for new vehicles sold in the United States are governed by a comprehensive federal regulatory scheme – developed by Congress through the Energy Policy and Conservation Act of 1975 (EPCA) – administered by the EPA, and the FTC. [Under that regulatory scheme](#), every new vehicle below 8,500 GVWR sold in the United States must be equipped with a "Monroney" label – or window sticker – that sets forth the fuel economy estimates derived, and required to be disclosed, under EPA regulations. The EPA refers to the figures on a Monroney label as fuel economy "estimates" because they are, and are intended to be just that: approximate figures, generated for the purpose of enabling comparisons between different vehicles based on a common certification process.¹

Methods for calculating city and highway fuel economy have been in place since the 1970s, and EPA estimates have appeared on the window stickers of new automobiles sold in the U.S. since the latter part of that decade.² Although the methods for estimating fuel economy for internal combustion engines and electric vehicles are distinct, the purpose of the estimates is the same. EPA fuel economy estimates are not, and have never been, guarantees of real-world fuel economy performance, whether for internal combustion vehicles or electric vehicles. As the [EPA itself has stressed](#), its fuel economy "ratings are a useful tool for comparing the fuel economies of different vehicles but may not accurately predict the average [miles per gallon] *you* will get." Indeed, a vehicle's [fuel economy will vary](#).³ For this reason, when designing the Monroney label, regulators required that it contain a "statement . . . informing the buyer that the values on the label are not guaranteed[.]"⁴

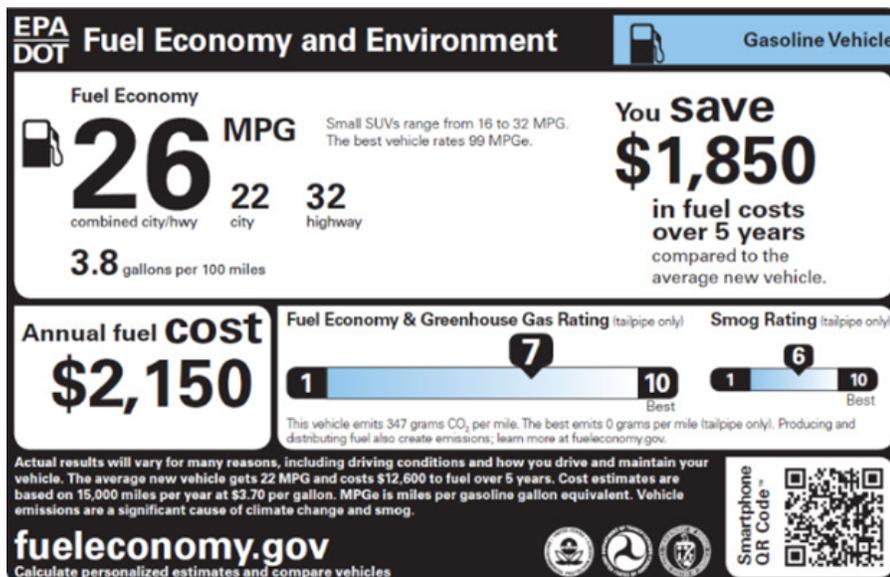
And as the EPA has long acknowledged, its required fuel economy estimates are not – and can never be – "perfect" figures that can predict the performance of each vehicle for each driver under all conditions:

It is important to emphasize that fuel economy varies from driver to driver for a wide variety of reasons, such as different driving styles, climates, traffic patterns, use of accessories, loads, weather, and vehicle maintenance. Even different drivers of the same vehicle will experience different fuel economy as these and other factors vary. Therefore, it is impossible to design a "perfect" fuel economy test that will provide accurate, real-world fuel economy estimates for every consumer. With any estimate, there will always be consumers that get better or worse actual fuel economy. The EPA estimates are meant to be a general guideline for consumers, particularly to compare the relative fuel economy of one vehicle to another.⁵

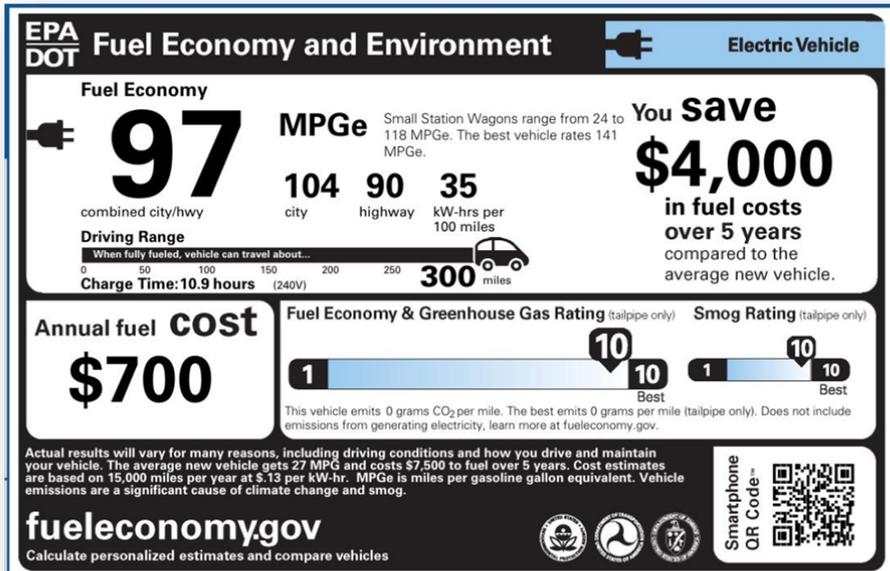
While acknowledging no single test can produce a prediction of fuel economy for all drivers, the EPA has still recognized a need for consumers to have some quantifiable information about fuel economy, so that comparisons can be made between vehicles.⁶ This is why the EPA requires manufacturers to use fuel economy estimates derived from the complex testing regime described above. At the same time, the EPA has openly cautioned that using different procedures, such as on-road testing, will often yield different results than those obtained under the EPA's testing process.⁷ Even in the lab, the EPA recognizes different test equipment can lead to different results.⁸

In addition to requiring that manufacturers determine fuel economy estimates pursuant to its detailed testing procedures and calculations, the EPA also requires that manufacturers post those estimates on Monroney labels. The precise form and content of that label are fixed in exacting detail by federal law and EPA regulation.⁹ These labels clearly state, in federally mandated language, that "[a]ctual results will vary for many reasons, including driving conditions and how you drive and maintain your vehicle." 40 C.F.R. 600.302-12(b)(4). That language was carefully selected by the EPA following an extensive rulemaking process that included public comment and focus group testing of alternative language.¹⁰ During that process, the EPA acknowledged "[a]ll factors that impact fuel economy cannot be listed on the fuel economy label because they are too numerous."¹¹

The fuel economy disclosures on the Monroney label are slightly different between internal combustion and electric vehicles. Significantly, the internal combustion label references combined city and highway fuel economy values, derived from the mandatory EPA testing procedure – but the internal combustion label does *not* include any explicit statement about vehicle range:¹²



The label for an electric vehicle is similar but modified in several significant respects owing to the difference in how the vehicles are powered. The full electric EV label¹³ includes "MPGe" values for combined, city, and highway driving. MPGe is "miles per gasoline gallon equivalent," and is used to allow for performance comparisons between internal combustion vehicles and electric vehicles applying a metric that is familiar to consumers. Importantly for purposes of navigating potential legal issues associated with referencing electric vehicle range, the Monroney label for electric vehicles *does* include an explicit driving range disclosure, stating "when fully fueled, the vehicle can travel about . . ." X miles:



In furtherance of the federal government's objective to provide consistent fuel economy information to consumers, the FTC regulates the advertising of fuel economy estimates by manufacturers and sellers. The FTC states "[i]t is deceptive to misrepresent, directly or by implication, the fuel economy or *driving range* of an automobile."¹⁴ "Because it is highly unlikely that advertisers can substantiate all reasonable interpretations of these [fuel economy claims], advertisers making general fuel economy claims should disclose the advertised vehicle's EPA fuel economy estimate *in the form of the EPA MPG rating*."¹⁵ Accordingly, any advertisement that references "EPA estimates" or "equivalent language that informs consumers that they will not necessarily achieve the stated MPG rating *or driving range*" is sufficient to satisfy FTC requirements.¹⁶ To that end, the FTC also requires the estimates be "clear and prominent . . . in close proximity to [a] qualified claim."¹⁷ The FTC warns that "[f]ailure to comply with [its] guides may result in corrective action by the Commission under applicable statutory provisions."¹⁸

History of Lawsuits Based on Fuel Economy Claims

There have been several lawsuits filed through the years relating to fuel economy claims. Those lawsuits have generally been unsuccessful to the extent that the claims directly challenged the accuracy of EPA label values. Historically the leading case is *Paduano v. American Honda Motor Co., Inc.*,¹⁹ where the consumer complained that his 2004 Civic Hybrid's fuel economy performance was half his EPA estimated values. The trial court found that claim to be preempted by federal law, and the appellate court agreed that the plaintiff "may not directly challenge the accuracy of the EPA estimates by way of state law causes of action."²⁰ The appellate court further held that a statement about fuel economy based on the EPA estimates, whether on the Monroney label or in an advertisement, "does not constitute an independent warranty that [plaintiff's] vehicle would achieve the EPA fuel economy estimates or a similar level of fuel economy."²¹

But *Paduano* also held that consumer protection claims that challenged fuel economy could proceed to the extent the claim went "beyond the label" and included suggestions by the manufacturer or seller that the EPA estimates were achievable in the ordinary use of the vehicle.²² The court said such claims were actionable where the manufacturer "has voluntarily made additional assertions, beyond the disclosure of the mileage estimates, that are untrue or misleading, and the federal law does not require, or even address, these additional assertions."²³

Many other cases followed the guidance of *Paduano*, dismissing claims where they directly challenged the EPA label values,²⁴ and permitting claims to proceed where the claims involved what the courts characterized as "beyond the label" representations or statements.²⁵

EV Vehicle Range Claims: Pitfalls and Protections

Based on the foregoing regulatory and legal background, advertising and marketing intended to reassure consumers about the range of EVs needs to be carefully crafted. Representations about real-world performance are highly likely to be viewed by courts as beyond the protection of the FTC guidance, and thus potentially actionable. When vehicle range is discussed, it is important to make clear to the reader that the range addressed in the advertisement or marketing statement is the *EPA-estimated* range, and to include the disclaimer that actual mileage and performance will vary.

EVs do have one major advantage over internal combustion vehicles in terms of discussion of vehicle range. EVs have vehicle range incorporated as an explicit element of their mandatory disclosures, whereas internal combustion vehicles do not. Thus, EV manufacturers and sellers are better positioned to argue that references to EV vehicle range are "on the label" disclosures that are entitled to the same protection as the use of EPA-estimated miles per gallon statements under *Paduano*, *Gray*, and the many other cases finding repeating of EPA estimates as non-actionable. Superimposing range estimates – even EPA-approved range estimates – on maps or other similar graphic representations of distance should probably be discouraged so as not to be construed as an implied representation of achievability in the real world.

EVs represent a significant and growing segment of the automotive market and addressing range anxiety is an important element of speeding their adoption by consumers. But prudent manufacturers who wish to avoid later claims from disappointed consumer expectations of vehicle range should be diligent in supporting their advertising and public-facing statements of vehicle range with references to EPA estimates. Staying "on the label" will help those manufacturers and sellers reduce the risk of individual or consumer class actions claims on fuel economy or range representations.

¹ See 71 Fed. Reg. 77872, 77874 (Dec. 27, 2006) ("We believe the new fuel economy estimates will provide car buyers with useful information when comparing the fuel economy of different vehicles."); see also 76 Fed. Reg. 39478, 39505 (Jul. 6, 2011) (adopting a redesigned fuel economy label but continuing a tradition of having a statement on the label informing the buyer that the values on the label are not guaranteed).

² See 71 Fed. Reg. at 77873–74.

- ³ *Id.*
- ⁴ 76 Fed. Reg. at 39505.
- ⁵ 71 Fed. Reg. at 77874; see also 76 Fed. Reg. at 39505 (emphasizing "tradition" of ensuring consumers know estimates do not reflect real-world economy).
- ⁶ See 71 Fed. Reg. at 77874.
- ⁷ *Id.* at 77874, 77879.
- ⁸ See 79 Fed. Reg. 23537(Apr. 28, 2014) (fuel economy variability between two-and four-wheel dynamometer for certification testing).
- ⁹ See 49 U.S.C. § 32908(a); 40 C.F.R. § 600.302-12.
- ¹⁰ See 76 Fed. Reg. at 39482; see also 71 Fed. Reg. at 77903.
- ¹¹ 71 Fed. Reg. at 77903.
- ¹² While the internal combustion Monroney label does not include a range statement, it does cross-reference fueleconomy.gov – the EPA's consumer-facing website for vehicle fuel economy information – that *does* provide a vehicle range via simple multiplication of the vehicle tank size by combined EPA mileage rating.
- ¹³ There are different labels for plug-in hybrid vehicles, that utilize both electric motors and gasoline motors.
- ¹⁴ 16 C.F.R. §259.4(a) (emphasis added).
- ¹⁵ *Id.* at §259.4(b) (emphasis added).
- ¹⁶ *Id.* at §259.4(d), (e) (emphasis added).
- ¹⁷ *Id.*
- ¹⁸ *Id.* at §1.5
- ¹⁹ 169 Cal. App. 4th 1453 (Cal. App. 2009).
- ²⁰ *Id.* at 1468 n.9.
- ²¹ *Id.* at 1467.
- ²² *Id.* at 1477.
- ²³ *Id.*
- ²⁴ See *Gray v. Toyota Motor Sales, U.S.A, Inc.*, 2012 WL 313703, at * 5 (C.D. Cal. Jan. 23, 2012), *aff'd*, 554 F. App'x 608 (9th Cir. 2014) ("[T]he claims must fail as they rely solely on advertisements that merely repeat the approved EPA mileage estimates, without any additional representations as to, for example, a consumer's ability to achieve those figures under normal driving conditions."); *Jarvis v. BMW of North America*, 2015 WL

2201690 (M.D. Fla. May 11, 2015) (dismissing complaint challenging advertisements that repeated EPA label values); *In re Ford Fusion & C-MAX Fuel Economy Litigation*, 2015 WL 7018369, at *21, 30 (S.D.N.Y. Nov. 12, 2015) (rejection direct challenges to EPA label values as preempted or within primary jurisdiction of EPA); *In re Ford Motor Co. F-150 & Ranger Truck Fuel Economy Marketing & Sales Prac. Litig.*, 65 F.4th 851 (6th Cir. 2023) (finding direct challenges to Monroney sticker and EPA values impliedly preempted); *Espinosa v. Hyundai Motor America*, 2012 U.S. Dist. LEXIS 191088, at * 5 (C.D. Cal. Apr. 23, 2012) ("To the extent that Plaintiff's claims rest on Defendant's mere use of the EPA estimates and all of the federally-mandated disclosures in their advertising and marketing materials, such claims are preempted.").

²⁵ See *In re Ford Fusion & C-MAX Fuel Economy Litig.*, 2015 WL 7018369, at *33 (allowing "beyond the label" claims "to the extent that Plaintiffs have referenced **specific ads** that made **specific promises** as to the real-world performance of the Vehicles") (emphasis in original); *Espinosa v. Hyundai Motor America*, 2012 U.S. Dist. LEXIS 191088, at * 6–7 (C.D. Cal. Apr. 23, 2012) ("[T]o the extent that Plaintiff's claims rest on allegations that Hyundai voluntarily made additional assertions, beyond the disclosure of mileage estimates, that are untrue or misleading, and that federal law does not require, or even address, these additional assertions, Plaintiff's claims are not preempted.") (internal quotations omitted); *Kim v. General Motors, LLC*, 99 F. Supp. 3d 1096 (C.D. Cal. 2015) (court permitting claims "because [the advertisement] implies that a consumer will be able to actually achieve the EPA fuel economy figures when driving in the real world," and noting the use of "a real world map to emphasize the point" as part of the basis for its ruling).