

The National Highway Traffic Safety Administration recently published a [proposed rule](#) that would require hybrid and electric vehicles to make a minimum amount of sound while being operated at speeds slower than 18 miles per hour. Because they use an electric motor, hybrid and electric vehicles generate less noise than other vehicles that are reliant upon internal combustion engines (ICEs), and legislators and regulators alike are concerned that pedestrians could be injured by a vehicle they can't hear coming.

The proposed standard would require hybrid and electric cars, trucks, vans, buses, and motorcycles to produce a noise that is both detectable by pedestrians from a safe distance and recognizable in a range of ambient environments. The noise must be loud enough for a pedestrian to detect from a distance of two meters, and the noise should increase at the same rate as the vehicle's speed increases to mimic the internal combustion engine sounds to which pedestrians are accustomed. In fact, in some noise environments, the new sound standards would render electric cars and hybrids [louder](#) than their internal combustion engine counterparts.

According to Agency data, hybrid vehicle crashes are 40% more likely than ICE vehicle crashes to involve a pedestrian, especially at low speeds when some hybrid cars' noisy internal combustion engines aren't in use. Interestingly, however, the biggest crash differential between a hybrid and its ICE counterpart was between the Civic hybrid and the Civic ICE, despite the fact that the Civic hybrid's internal combustion engine does not shut off even at idle, and the two cars create a similar level of noise. Nevertheless, NHTSA estimates that 35 pedestrian lives would be saved as a result of this rule, at a cost of \$830,000 - \$990,000 per life. The total cost estimated for this proposal is about \$25 million, adding about \$30 in cost to the production of each sound-enhanced hybrid or electric vehicle.

Given that NHTSA concedes that there are currently "no studies [that] have linked the increase in the detectability of a sound to a reduction in the risk of crashes between [electric vehicles] and [hybrid vehicles] and pedestrians," these benefits may be overstated. Further, NHTSA does not appear to have considered the [negative health effects](#) of noisy vehicles. According to EPA:

Noise pollution adversely affects the lives of millions of people. Studies have shown that there are direct links between noise and health. Problems related to noise include stress related illnesses, high blood pressure, speech interference, hearing loss, sleep disruption, and lost productivity. Noise Induced Hearing Loss (NIHL) is the most common and often discussed health effect, but research has shown that exposure to constant or high levels of noise can cause countless adverse health effects.



Both FAA and EPA have regulated [noise pollution](#) in the past. In fact, some of the noise standards in this regulation are so loud that they would actually meet FAA's threshold for regulatory noise-remediation efforts if implemented.

Regardless of the net effects, NHTSA must act to implement the 2010 Pedestrian Safety Enhancement Act, which instructs the Agency to conduct a safety standard rulemaking to establish an "alert sound" for hybrid and electric vehicles. The Act requires that the noise made by a hybrid or electric vehicle could allow a pedestrian, especially a sight-impaired pedestrian, to identify the direction of the vehicle. NHTSA is also operating under the National Traffic and Motor Vehicle Safety Act, which requires NHTSA safety standards to "be performance-oriented, practicable, and objective and meet the need for safety. In addition, in developing and issuing a standard, NHTSA must consider whether the standard is reasonable, practicable, and appropriate for each type of motor vehicle covered by the standard."

Interested parties and concerned citizens have the opportunity to submit [public comments](#) on this proposal before March 15<sup>th</sup>.

