

Background

The use of liquefied natural gas (LNG) as a transportation fuel provides important public policy benefits. Compared to diesel fuel, LNG use produces significantly lower levels of harmful emissions, including carbon dioxide, nitrogen oxide and sulfur dioxide. And, since the vast majority of natural gas used in the U.S. is produced in the U.S., using more LNG in vehicles helps reduce America's dependence on foreign oil, which helps improve our balance of trade and promotes jobs here rather than overseas.

Because there currently is (and is expected to continue to be) a significant gap between the pump price of LNG and diesel fuel, heavy-duty fleet owners/operators have been showing significant interest in buying new trucks that operate on LNG. However, because of an inequity in how the federal highway excise tax is calculated, the tax on LNG is significantly greater than the comparable tax on diesel fuel. This tax inequity raises the cost of LNG versus diesel fuel, and that is artificially reducing some of LNG's natural economic advantage and slowing the adoption of LNG as a vehicle fuel among heavy-duty truckers.

The Tax Penalty

LNG competes with diesel fuel as a transportation fuel for use in heavy duty trucks. The federal highway excise tax on both diesel and LNG is set at 24.3 cents *per gallon*. However, LNG has less energy *per gallon* than diesel fuel. In fact, it takes about 1.7 gallons of LNG to equal the same energy content as one gallon of diesel fuel. Since the excise tax is based on volume, not energy content, LNG is taxed at 170% of the rate of diesel on an energy equivalent basis.¹ This disparity creates a significant disincentive for the use of LNG.²

Example

A diesel truck traveling 100,000 miles per year at 5 miles per gallon consumes 20,000 gallons of diesel fuel. An identical LNG truck would require 34,000 gallons of LNG to travel the same distance. The LNG truck would pay an additional \$3,402 per year in taxes for using LNG.

¹ The situation is quite different for compressed natural gas (CNG) when compared to gasoline, with which CNG primarily competes. When establishing the federal highway excise tax for CNG, Congress ensured that the tax on CNG is assessed on an energy equivalent basis. See 26 USC 4041.

² This tax penalty is further magnified by the fact that many states emulate the federal government and, therefore, also tax LNG based on volume rather than energy content.

Fuel Type	Annual Mileage	Gallons Per Year	Excise Tax Rate/Gallon	Total Tax
Diesel	100,000	20,000	24.3 cents	\$4,860
LNG	100,000	34,000	24.3 cents	\$8,262

Combined with the higher up-front cost of a LNG truck, in some cases as high as \$60,000, and the fact that most of these trucks drive over 1 million miles during their lifetime, this higher federal highway excise tax is a critical barrier to the adoption of lower-emission LNG trucks.

Proposal

Legislation introduced in the House by Rep Mac Thornberry (R-TX) and John Larson (D-CT) (HR. 2202) and in the Senate by Senators Michael Bennet (D-CO) and Richard Burr (R-NC) (S. 1103) proposes to change the way the tax on LNG is imposed -- from a volume (gallon) basis to an energy equivalent basis (diesel gallon equivalent).