

11th World Bioenergy Congress and Expo

July 02-04, 2018 | Berlin, Germany

Ethanol level in gasoline: Impact on the fuel economy and economic implications on the blending fuels in Mexico

Jorge Perez-Munguía

Instituto Mexicano del Petróleo, Mexico

The study investigated the impact of ethanol level in gasoline upon fuel economy factor. A further analysis included the economic implications of the ethanol level in gasoline on the Price of the blending fuel. The fuel economy factor (FEF) was performed over the Federal Test Procedure (FTP) driving cycle using a chassis dynamometer for fourteen vehicles. We found that FEF diminishes as the ethanol level in gasoline increases, involving an additional cost that drivers should pay at the refilling station. In the case of E10, the additional cost was around 0.23 USD/100 km compared to the Regular gasoline sold in México. The replacement of methyl tert-butyl ether (MTBE) by ethanol as additive in gasoline has also an economic impact on the price of the blending fuel. We found that the introduction of E10 gasoline could represent an additional profit of 3.90 USD/b for gasoline sellers. We concluded that the E10 gasoline has not only environmental implications but also the economic aspect is highly attractive for the new entrepreneurs in the energy sector in México.

jperez@imp.mx