



## 2016 Top Markets Report **Renewable Fuels** Country Case Study

### Mexico

Although the Government of Mexico established the legal framework for the commercial use of biofuels in 2008, the state-run oil company, Petróleos Mexicanos (PEMEX), did not have a successful bid for domestically produced biofuels until March 2015. A relatively small but steady supply of undenatured U.S. fuel ethanol has been shipped to Mexico for the past several years. With recent energy reforms, PEMEX’s competitors have been contemplating entering the fuels market or importing gasoline by 2017. However, Mexican regulations adopted in 2016 dealt a major setback for nationwide blending by banning ethanol use in the three most populated metropolitan areas. U.S. exporters should consider focusing in the short term on reaching customers in the areas that are allowed up to 5.8 percent blend.

Ethanol Rank

Wood Pellet Rank

6

N/A

Despite its proximity and the ease of trade with the United States as a NAFTA country, Mexico has not been a large market for U.S. ethanol because as of yet it has not implemented a nationwide fuel ethanol program. The situation is made more complex by sugar trade regulations between the two countries and the monopoly by state-run oil company PEMEX, which is required to favor domestic ethanol. However, it is only recently that PEMEX has taken any serious steps to implement ethanol blending.

Exporters were bullish on prospects for a massive increase in trade with Mexico after the government released a draft regulation that allows for the blending of up to 5.8 percent ethanol in fuel supply nationwide. However, the government sharply reversed course and banned blending ethanol in the metropolitan regions of Mexico City, Guadalajara and Monterrey, which combined account for

approximately one-fourth to one-third of the total Mexican population.

U.S. producers who are interested in increasing their market share in Mexico can still provide an affordable option for either PEMEX or its competitors in the non-restricted areas. However, without the demand from the major cities it will take time for the upgrades in supply chain infrastructure to attract investment.

#### Market Overview

Mexico produces non-fuel ethanol as a sub-product of sugarcane milling. The few operational ethanol distilleries in Mexico have been supplying ethanol for alcoholic beverages and pharmaceutical industries. Sugarcane producers are aware that increasing the ethanol blend could help reduce the country’s mounting sugar surplus.<sup>i</sup>

In an attempt to stimulate domestic production of fuel ethanol, the Government of Mexico launched a pilot program in December 2011 to introduce ethanol into the market. It set dates and minimum volumes for blending ethanol with gasoline, gradually increasing until 2016. However, these goals were very modest, with a maximum of only 230 million liters per year<sup>ii</sup> in a market that annually uses 45 billion liters of gasoline per year.

In March 2015, PEMEX announced that it will begin selling E6 (5.8 percent) ethanol-blended gasoline in selected cities in the Mexican states of Tamaulipas, San Luis Potosi and Veracruz. It awarded four 10-year contracts to Mexican companies that will supply PEMEX with as much as 123 million liters of ethanol per year. PEMEX will invest about \$58 million to build the necessary infrastructure. The pilot program is expected to begin in January 2017.

The energy reforms enacted in 2014 likely put pressure on PEMEX to finally implement its blending program, after many years of uncertainty and failed bids. Beginning in 2017, as part of these reforms, gasoline prices will be liberalized and companies that operate new stations not affiliated with PEMEX will likely import gasoline. This is also seen as an opportunity for ethanol imports, as the locally produced ethanol is being purchased by PEMEX.

In July 2016, the Government of Mexico released the draft Norma Oficial Mexicana (Official Mexican Standard) NOM-016-CRE-2016 regarding the specifications for oil quality including a proposed 5.8 percent nationwide ethanol blend. However, the final regulation passed by CRE prohibited ethanol blending and sales in the three largest major metropolitan areas (Mexico City, Guadalajara and Monterrey), which represent one-third of Mexico's population. The regulation, which took effect October 31, does not mandate ethanol blending in the rest of the country but will allow a maximum of 5.8 percent. The regulation is likely to be reviewed after one year.

### **Challenges and Barriers**

National policies that have been unsuccessful in effectively building demand for fuel ethanol have hampered efforts to increase exports to Mexico. PEMEX was accused by domestic suppliers of setting the price of the bids too low for sugarcane based

ethanol, which costs more to produce than corn-based ethanol.<sup>iii</sup>

Energy sector reforms and renewed commitment to curb carbon emissions attracted new interest for ethanol. However, Mexico's continued use of MTBE for octane boosting, among the highest in the world, remains an obstacle. There appear to be entrenched interests in the MTBE industry that would benefit from the prohibition on blending ethanol in the major cities. This was a particularly disappointing outcome for the U.S. ethanol associations who proactively stepped up their educational outreach efforts to Mexican Government officials over the past year. Also, even before the Government's reversal of its stance on ethanol blending, the lack of tank storage infrastructure to handle ethanol imports was noted by industry experts.<sup>iv</sup>

### **Opportunities for U.S. Companies**

Based on U.S. Census Data that separately identifies non-beverage ethanol used as fuel beginning in 2012, fuel ethanol shipped to Mexico remained between 80 and 116 million liters (mostly undenatured) from 2012-15. Imports of undenatured ethanol from the U.S. increased 25 percent in 2015.<sup>v</sup> U.S. exporters captured 85 percent of Mexico's overall ethanol imports in 2015, totaling 134 million liters.

Industry observers continue to be cautiously optimistic that the launch of PEMEX's program, although ostensibly awarded to domestic suppliers, could create more opportunities for U.S. ethanol suppliers due the lack of economically efficient, large scale fuel ethanol processing in Mexico.<sup>vi</sup> If the E6 gasoline target was implemented nationwide, demand for ethanol could rise to 790 million gallons (23 billion liters) of ethanol annually.<sup>vii</sup> Regardless of government regulation, PEMEX may be setting a precedent that will be adopted nationwide eventually by all retailers of gasoline.

Even with the restrictions on the large metropolitan areas, U.S. corn ethanol suppliers are expected to remain highly price competitive with Brazilian, Peruvian and other suppliers of sugar cane ethanol and are thus well positioned to capture much – if not most – of any expansion in the Mexican fuel ethanol market. The next two years are critical for U.S.

exporters to establish business relationships in Mexico.

---

<sup>i</sup> Sapp, Meghan. (2013, August). Boosting ethanol production in Mexico would ease sugar surplus. *Biofuels Digest*. Retrieved from <http://www.biofuelsdigest.com/bdigest/2013/08/05/boosting-ethanol-production-in-mexico-would-ease-sugar-surplus/>

<sup>ii</sup> Chavez, Luis. (2012, July 2). *Uncertainty on the Future of Mexican Biofuels*. *Biofuels Annual*. [http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual\\_Mexico%20City\\_Mexico\\_7-11-2012.pdf](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual_Mexico%20City_Mexico_7-11-2012.pdf) .

<sup>iii</sup> Ibid.

<sup>iv</sup> Pedrick, Josh. (2016, August 4). Ethanol blend in Mexico to support domestic industry: Grains Council. *Platts News and Analysis*. Retrieved from <https://www.platts.com/latest-news/agriculture/houston/ethanol-blend-in-mexico-to-support-domestic-industry-21173426> .

<sup>v</sup> Ibid.

<sup>vi</sup> Ibid.

<sup>vii</sup> Oil Price Information Service. (2016, October 27). Mexico Opens Its Doors to Ethanol, but Obstacles Remain. OPIS Biofuels Update.