
U.S. Equity Builds Out Mexico's New Competitive Infrastructure

Investment frenzy at risk if trade relations sour.

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Data Sources Used in this Publication

- ▶ PEMEX
- ▶ U.S. Energy Information Administration

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Energy Reform

Mexico is three years into liberalizing energy reforms begun in 2013 and designed to kick start the nation's hydrocarbon production and liberalize its downstream market—ending state oil company Pemex's monopoly. The prospect of access to Mexico's domestic market has generated a frenzy of infrastructure development—much of it backed by U.S. equity capital. After granting import licenses to outside companies in 2016 with little effect due to domestic price controls and taxes, the government accelerated an end to price controls in January 2017 and initiated open seasons for access to Pemex storage and pipelines in two northern states to help importers deliver product inland.

Price liberalization resulted in 20% gasoline price hikes and widespread popular protest that could yet threaten the future of energy reform. The Government hopes outside infrastructure investment will reduce distribution costs and temper the impact of market prices. All of this could be threatened by the Trump administration's plans for a 20% border tax on imports.

This note highlights ongoing infrastructure projects designed to expose Mexico's refined products distribution system to competition.

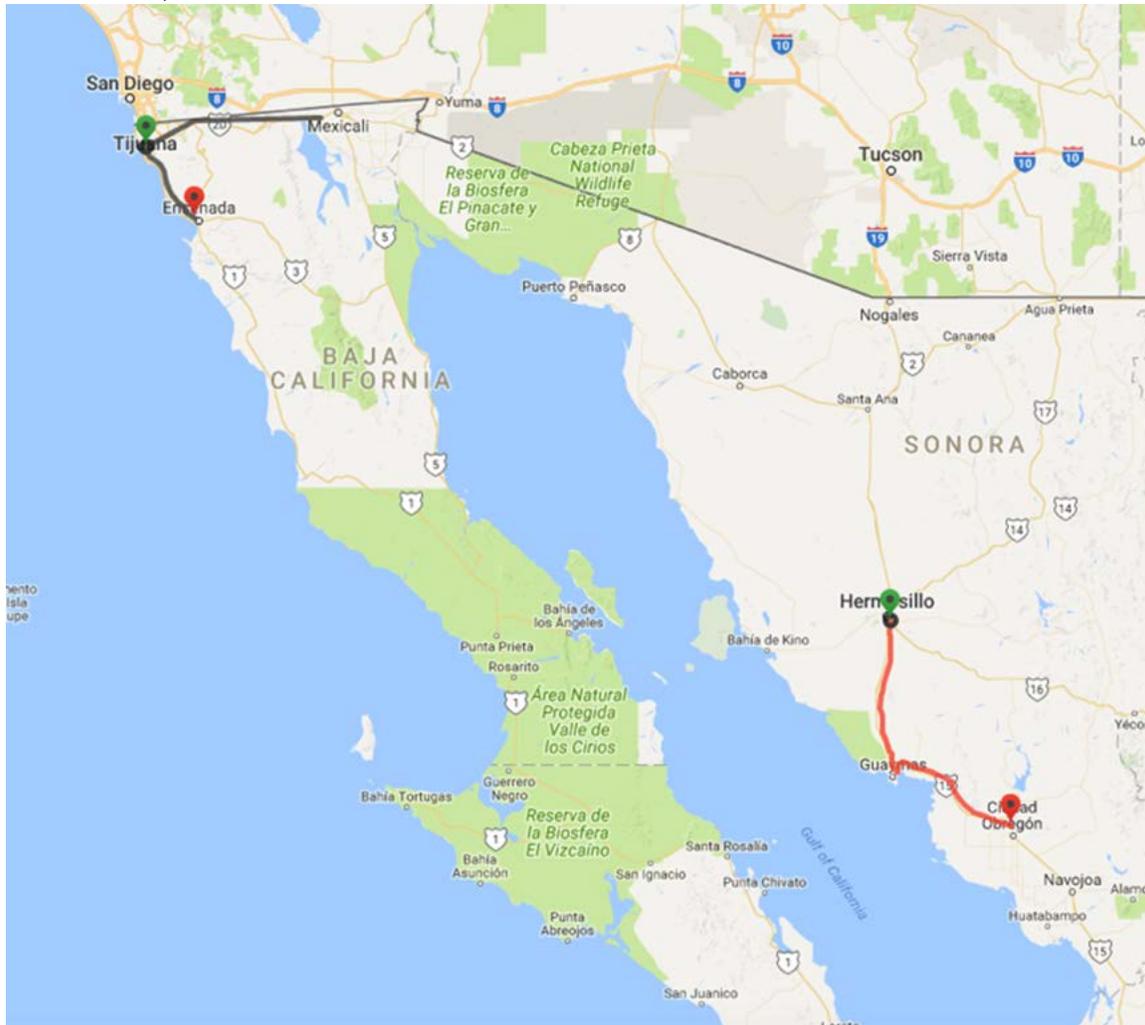
According to Pemex statistics, Mexico's net gasoline imports (imports minus exports) grew by 47% from 292 thousand barrels/day, or mb/d, in 2013 to 431 mb/d in 2016 (through October). Diesel imports grew 64% to 175 mb/d over the same period. As detailed in our November 2016 Note (see [Sailing Round The Wall? U.S. Refined Product Exports to Mexico](#)), most of these imports come from U.S. Gulf Coast refineries. Mexico is importing more refined product in response to failing output from its six domestic refineries. The thriving trade has helped U.S. refiners find a home for output from record processing in the past two years. Under the Pemex monopoly, refined product import flows were controlled by a tender process. Mexico's energy market reforms present an opportunity for outside suppliers to increase their penetration of the domestic market. Infrastructure to facilitate this process is being developed on a number of fronts that we discuss below.

Pemex Open Access

Following price liberalization, the Mexican energy regulator CRE is rolling out open access for competitor suppliers to select Pemex refined product storage and pipeline assets. A Pemex Logistics Open Season started in January 2017 is offering 15% (161 thousand barrels) of the Rosarito storage system in the northwestern state of Baha as well as partial access to two refined product pipelines. In the larger state of Sonora, the open season features 217 thousand barrels of storage at various terminals in the

Guaymas system and access to the Guaymas-Hermosillo and Guaymas-Ciudad Obregon pipeline systems (Exhibit 1). Capacity will be awarded for these initial assets on February 15th and further open seasons for the rest of the country will take place gradually throughout the year, in tandem with fuel price deregulation.

Exhibit 1 Pemex Open Season Infrastructure



Source: Pemex Logistics

Rail Terminals

Railroad infrastructure already exists across the U.S. Mexico border and the Kansas City Southern, or KCS, network connects the U.S. Gulf Coast and much of Mexico. Moving refined products by rail is more expensive than pipeline but cheaper than using trucks. The big advantage of rail is that the network is already in place and investment is limited to load and unload terminals. Dedicated “unit” trains can ship large volumes if needed. A host of companies are developing terminals on either side of the border as follows:

- ▶ Howard Energy Partners operated San Jose Iturbide terminal, located about 160 miles northwest of Mexico City. Owned by Mexican trucking conglomerate Grupo Simsa, the terminal has gasoline and diesel storage capacity. Pemex made a test shipment of 60 thousand barrels of diesel on Jan. 7, 2017 from Port Arthur to San Jose Iturbide, and other shipments, including gasoline, are expected to follow on a weekly basis.
- ▶ A joint venture between KCS, Watco and WTC Industrial to construct a unit-train terminal and 300 Mbbl of storage at the WTC Industrial Park in San Luis Potosi, in central Mexico.
- ▶ South Texas energy products system (STEPS) being developed by Rangeland Energy on the KCS railroad in Corpus Christi, Texas and expected online in second-quarter 2017. The terminal will handle refined products as well as liquefied petroleum gas, or LPG – a mixture of propane and butane.
- ▶ Operator Zenith Energy (backed by Warburg Pincus) is partnering with Mexican cement producer Cemex to develop LPG and refined products distribution terminals at several sites throughout Mexico.
- ▶ Transportation and storage company Bulkmatic de Mexico is holding an open season in February for a 600 thousand barrel storage terminal in Tula and will launch another open season in March for a 720 thousand barrel terminal near Monterrey and is considering a third terminal near Hermosillo, in the northern state of Sonora, in 2018-2019. These terminals will be served by the KCS railroad.

TexMex Refinery

A variation on using rail to deliver refined products across the border into Mexico from Gulf Coast refineries is the plan announced by Houston-based Raven Petroleum in November 2016 to build a 50 mb/d \$500 million refinery close to the Mexican border in Duval county, Texas that would process local Eagle Ford shale crude and export refined product to Mexico. The project plan includes a large rail load/unload terminal connected to KCS to ship product into Mexico. Although Raven has purchased land and said construction is scheduled to start in 2017, the company has so far not attracted private equity finance and has not received environmental permits.

Fixing Pemex Refineries

An alternative to encouraging imports through infrastructure is investing in Pemex's failing refinery fleet to increase domestic production of refined products. To that end, Pemex hired Bank of America in November to help find joint venture partners to reconfigure its Tula, Salamanca and Salina Cruz refineries, in particular, to process more of Mexico's domestic heavy crude grades. Investment in Pemex refineries is questionable however, because they are unlikely to produce fuels as cheaply as Gulf Coast importers once the market is liberalized. Successful projects so far have included a JV deal with First Reserve Corp to acquire an ultralow sulfur gasoline facility at the Madero refinery to lease back to Pemex.

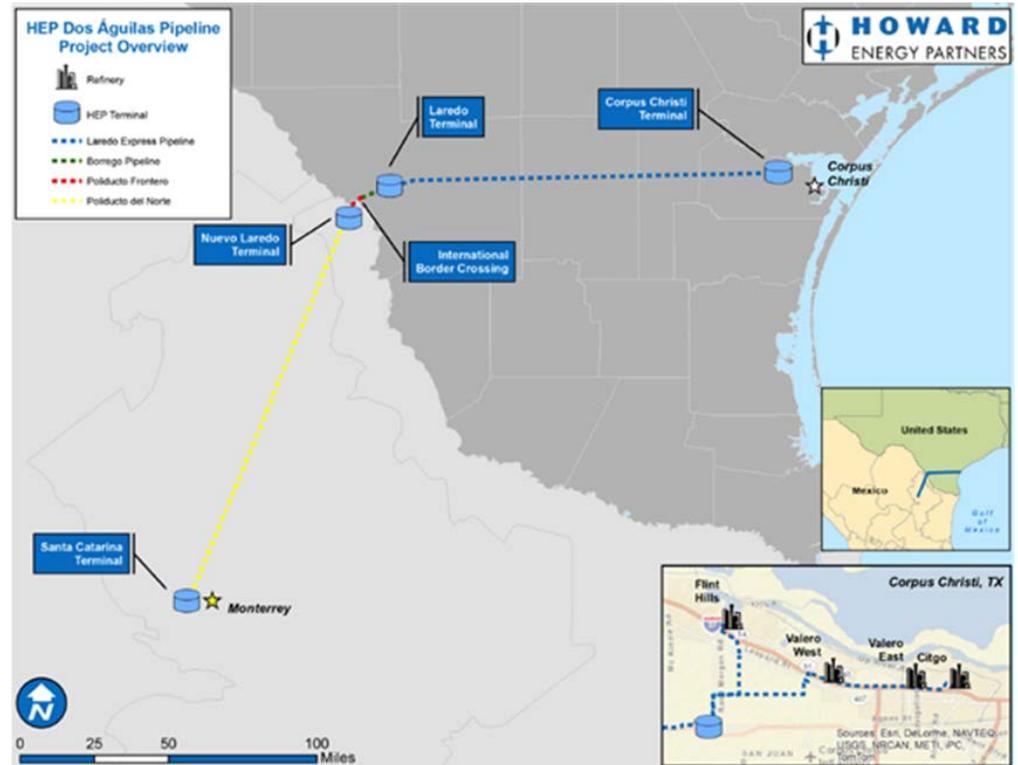
Cross-Border Pipelines

Pipelines are the cheapest way to transport refined products to inland Mexico, but cost more and take longer to develop than rail terminals. Two routes are favored by midstream project developers: across the U.S./Mexico border and inland from Mexico's Gulf Coast. The first of these routes is constrained by the requirement for a U.S. Presidential permit for liquids pipelines crossing the border—a rule that does not apply to natural gas incidentally. There is at least one legacy liquids bi-directional pipeline operating

today, owned by Pemex, that moves refined product to and from TransMontaigne’s Brownsville, Texas terminal and a Pemex terminal in Reynosa and refinery in Cadereyta in northeast Mexico. TransMontaigne (owned by Arlight Capital) has teamed with Magellan Midstream Partners to assess a 150 mb/d refined products, condensate and LPG pipeline from Magellan’s Corpus dock to the TransMontaigne Brownsville terminal (South Texas Refined Products Pipeline) that would come online by the end of 2018 if built.

Two new cross-border pipelines have been proposed. The first is Howard Energy Partners’ Dos Aguilas refined product storage terminal and pipeline project linking refineries in Corpus Christi, Texas to northern Mexico markets. The approximately 80 mb/d pipeline includes four segments and three terminals in Laredo, Texas, Nuevo Laredo, Tamaulipas state, and Santa Catarina, in Nuevo León state, near Mexico's third-largest city of Monterrey (Exhibit 2). The terminals will have a combined 1.2 million barrels of storage and the pipeline will ship gasoline, ultralow sulfur diesel, and jet fuel from Corpus by pipeline as well as into the Laredo terminal by truck and rail. The project is expected online by first-half 2018.

Exhibit 2 Dos Aguilas Pipeline



Source: Howard Energy Partners

The second cross-border project is the New Burgos pipeline, a joint venture between Pemex and U.S. midstream partner NuStar Energy now scheduled online in 2018 after some delay. This pipeline will run parallel to an existing gas pipeline connecting NuStar’s Edinburg, Texas terminal and Pemex’s Burgos

gas plant near Reynosa, Tamaulipas. Subject to Presidential approval, the new pipeline will transport up to 108 mb/d of refined products and natural gas liquids. NuStar can deliver refined product to Edinburg from Corpus Christi refineries via the Valley pipeline. NuStar already owns crude and refined product terminal, storage and marine dock assets in Corpus including those acquired from Martin Midstream.

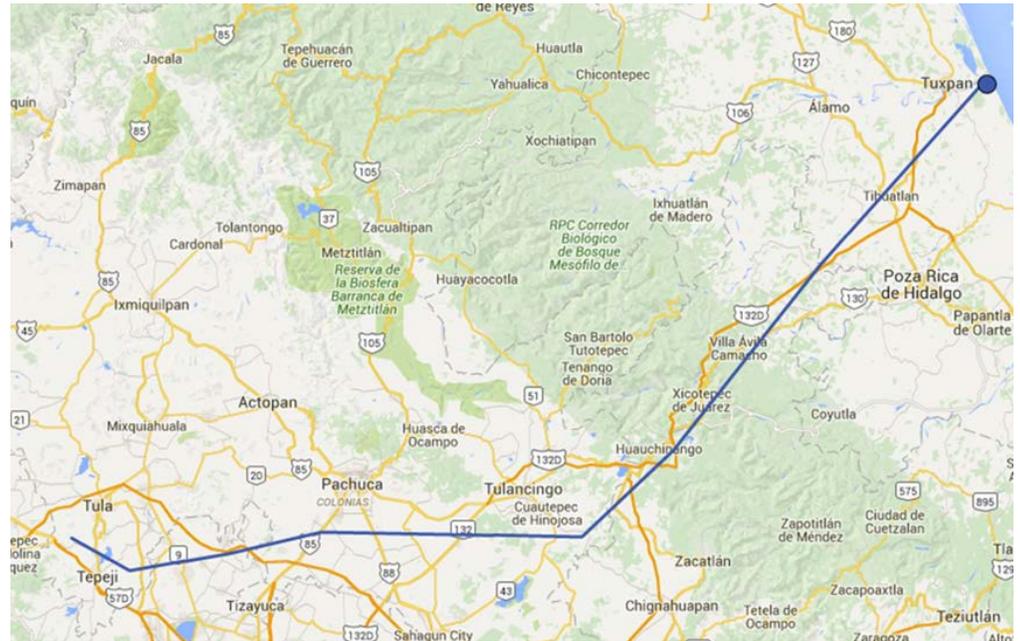
Gulf Coast to Central Valley

No less than four separate pipeline projects are proposed to deliver refined products from the Mexican Gulf Coast port at Tuxpan, Veracruz, to the central Mexico Valley area (although it is unclear if these are all needed) as follows:

- ▶ The Golfo-Centro project, part of a broader Pemex program to expand its distribution network with 700 kilometers of new pipelines in five central states: Veracruz, Hidalgo, Puebla, México and Michoacán, and Mexico's federal district. The Golfo-Centro project includes storage and two new receipt docks at Tuxpan and will be financed by U.S. hedge fund BlackRock.
- ▶ The 140 mb/d Tajín pipeline project operated by InI4, backed by Invex Infrastructure, from a marine dock in Tuxpan to Tula in the Mexico Valley area.
- ▶ The 100 mb/d Tuxpan to Tula Monterra del centro pipeline project (Exhibit 3) owned by Monterra Energy backed by Mexican gas station consortium G500. Monterra is an independent Houston based midstream company backed by KKR.

A 100 mb/d pipeline planned by a joint venture between TransCanada (50%), Sierra Oil and Gas (owned by Encap Midstream and Riverstone – 40%) and Grupo TMM (10%). The project consists of a marine terminal at Tuxpan due online in third-quarter 2018 together with the Tuxpan to Tula pipeline and central hub in first-quarter 2019. The pipeline will run parallel to TransCanada's natural gas pipeline from Tuxpan to Tula that is currently under construction.

Exhibit 3 Monterra del Centro Tuxpan to Tula Pipeline



Source: Monterra

Port Terminals

The Mexican government agreed in January to expand the Yucatan port of Progreso to handle refined product tankers.

The List Goes On

As pointed out in our November Note (see [Sailing Round The Wall](#)) Mexican energy regulator CRE issued several hundred import permits last year—helping to fuel the flurry of infrastructure projects. A new proposal in December 2016, requires fuel distributors to have a minimum supply reserve of 15 days by 2025—further expanding demand for storage. As we have seen, all this activity has piqued the interest of major U.S. equity investment houses and midstream companies. The feeding frenzy has also attracted major oil companies Chevron and Shell that are looking to license their brands at retail Mexican gas stations. Trading companies such as Trafigura (through subsidiary Puma Energy), Koch and smaller player Novum Energy, headed by former PMI trader Alfredo Vilas are also keen to participate.

Trade War

The future of all these millions of dollars of infrastructure investment—much of it backed by U.S. equity capital—are now overshadowed by the prospect of worsening relations between Mexico and the U.S. The Trump Administration’s floating of a border adjustment tax would penalize U.S. imports from Mexico—including 0.5 million b/d of crude oil. In the circumstances, it would seem naïve not to expect retaliation against U.S. exports of refined products. Meantime, the peso has weakened against the U.S. dollar since the election - making refined product imports into Mexico more expensive. Given domestic resistance to the relaxing of price controls, the Mexican government could delay or abandon the energy market reforms. ■■

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