Limetree Bay Restart to Help East Coast Product Balance
Prospects for St. Croix refinery.

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Data Sources for This Publication
EIA
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To discover more about the data sources used, click here.

Well Positioned

Limetree Bay Refining plans to restart a former Hovensa plant in St. Croix, U.S. Virgin Islands, at the end of 2019. The refinery's initial processing capacity of 200 thousand barrels/day represents a significant addition to the North American stack, helping to replace the loss this year of Carlyle's 335 mb/d Philadelphia Energy Solutions plant in Pennsylvania. The Virgin Islands' exemption from the Jones Act provides a crucial advantage for Limetree Bay in replacing lost PES refined product in the U.S. East Coast market. The refinery is also well positioned to take advantage of new International Maritime Organization sulfur regulations coming into force in January 2020. Yet this refurbished plant is disadvantaged by its high fuel costs and competition from some of the world's most sophisticated refineries on the Gulf Coast. In this second of two notes on Limetree Bay, we continue our analysis of the operation, potential product market, and commercial prospects for the refinery.

Previously

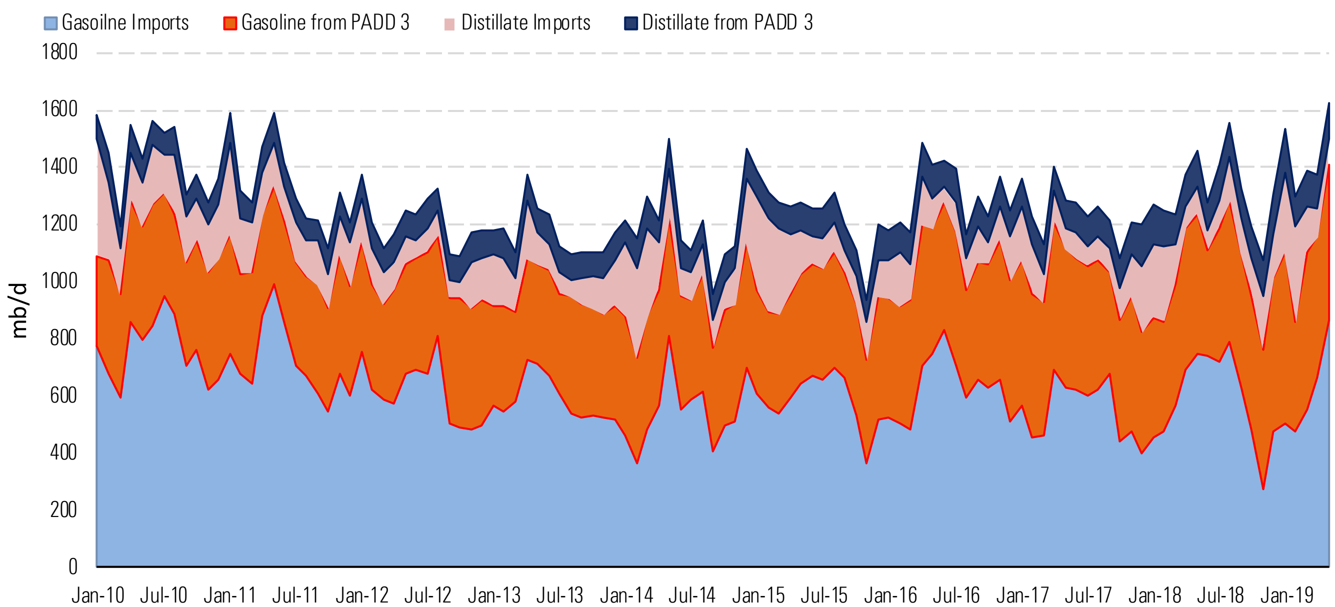
In our recent first note in the series (see Market Timing Great for Limetree Bay Restart), we described the history of the former Hovensa refinery in St. Croix, which was at one time the world's largest refinery. New owner Limetree Bay—owned by a consortium of private equity groups led by ArcLight Capital and trader Freepoint Commodities—aims to restart the plant with 200 mb/d capacity by the end of 2019. The refinery is ideally situated to fill the void in the Caribbean refining market left by the meltdown of Venezuelan national oil company PDVSA, which is now producing less than 25% of its output in 2000. Subject since the start of the year to U.S. sanctions, PDVSA no longer supplies crude and product to its neighbors, leaving the Caribbean market reliant on U.S imports. Limetree can also hope to exploit Central and South American markets currently supplied by exports from U.S. Gulf refineries. Limetree has reduced its exposure to market risk by entering into a long-term processing agreement with BP Trading, in which the latter supplies crude and offtakes product for a fixed margin. In this second note, we look at the refinery's prospects in the U.S. East Coast market and opportunities created by the IMO 2020 regulations.

East Coast United States

The Limetree Bay refinery represents a possible new source of refined product supply into the U.S. Atlantic Coast market, defined by the Department of Energy as Petroleum Administration for Defense District 1. As we detailed in an April note (see February Shutdown Threatens PADD 1 Product Supply), this region is net short of refined product due to poor refining margins closing several plants in the past decade, the latest being the 335 mb/d Philadelphia Energy Solutions refinery (see our July note Central Atlantic Region Most Impacted by PES Closure). That closure exacerbated a supply position that saw

PADD 1 importing an average 146 mb/d of distillate and 585 mb/d of gasoline in 2018, according to the Energy Information Administration, as well as shipping in another 119 mb/d of distillate and 460 mb/d of gasoline by barge and tanker from the Gulf Coast (Exhibit 1). Together, these net imports to the Atlantic Coast represent over 1 million barrels/day of gasoline and 265 mb/d of distillate.

Exhibit 1 Refined Product Imports and Shipments From the Gulf Coast into PADD 1



Source: EIA.

Jones Act

The Limetree Bay refinery has an implicit advantage over Gulf Coast refiners in waterborne supply to PADD 1. That's because the Virgin Islands aren't subject to Jones Act regulations prohibiting goods moving between U.S. ports unless using U.S. registered, owned, and manned vessels. Such vessels can cost as much as 3 times more to operate than non-U.S. flagged tankers. Not having to be Jones Act compliant makes Limetree Bay shipments competitive with Gulf Coast shippers moving refined product to PADD 1 using costlier U.S. flag vessels. Although effectively a legal loophole, this advantage was an important element of the legacy Hovensa refinery market and could benefit East Coast consumers in light of the PES closure this year. Limetree Bay's access to this market is also helped by parent ArcLight's ownership of TransMontaigne Partners, which has 51 refined product terminals throughout the Eastern U.S., including several along the Atlantic and Florida seaboards offering storage and distribution access to PADD 1. ArcLight also owns Gulf Oil, which has a retail distribution network in the Northeast U.S.

IMO 2020

Limetree's public statements regarding the resumption of refining in St. Croix specifically detailed the opportunity to supply marine bunkers to the Caribbean market in 2020. That's because the IMO has mandated new regulations requiring vessels to use fuel with very low maximum sulfur content of 0.1%, compared with the current international standard outside coastal regions of 3.5%. As we have previously discussed (see our March note IMO 2020 Scrubber Payout Extended by Narrow Sulfur Spreads), the new regulations are expected to significantly affect markets for ship bunker fuel as well as demand for low-sulfur distillates that will be used to blend heavier fuels to meet the new specification. The result will be high demand for low-sulfur fuels. The Caribbean is among the world's most active seaways, sitting between the Atlantic and Pacific oceans. Local demand for bunker fuels is robust. Southern Caribbean bunker supplier Ventrin estimated regional bunker demand at 290 mb/d in November 2015. Replacing those supplies with low-sulfur alternatives will challenge existing local refineries, which don't have tertiary processing capacity to break down heavy fuel oil to lighter, low-sulfur products. The Limetree refinery coker unit is designed for just that purpose. Limetree will also produce low-sulfur diesel for blending with heavier oils or sale as an alternative marine fuel to high-sulfur bunkers.

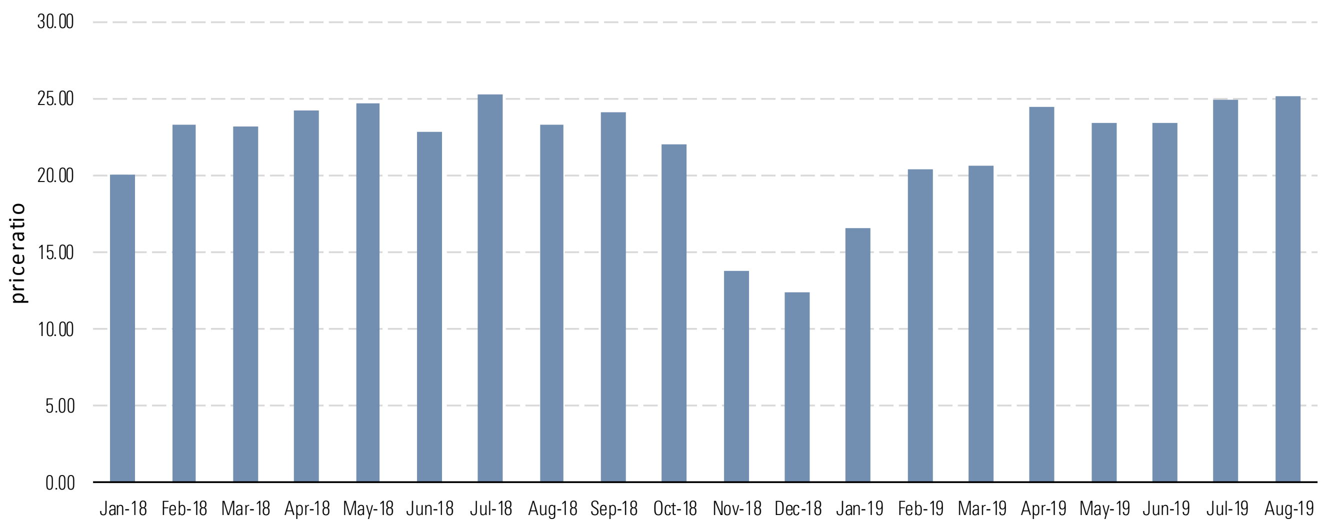
Limetree is able to leverage its parent's connections to supply the Caribbean bunker market—this time through Freepoint subsidiary Caribbean Bunkers. That company signed an agreement with Aegean Marine Petroleum (now renamed Minerva Bunkering and part of Swiss trader Mercuria) in August 2017 to cooperate on bunker operations in the Caribbean. That connection could be leveraged into a larger supply arrangement across the Caribbean from the Limetree refinery.

Headwinds

Fuel Cost

As we have noted, the Limetree Bay refinery has an extensive opportunity as a new entrant into the Caribbean and Central American markets. Once started, however, the refinery will compete directly with the world's largest refining complex along the Gulf Coast, which boasts 56 refineries with nearly 10 mmb/d processing capacity and is among the most efficient and complex plants operating today. The Limetree refinery is also complex but suffers a major disadvantage to its rivals to the north because of its relatively high fuel cost. The refinery burns fuel oil or refinery gases as well as using expensively generated electricity to provide the heat needed for refinery processes. In an October 2018 note, we described how U.S. refineries rely on natural gas fuel (see Pipeline Explosion Exposes Refinery Vulnerability). Exhibit 2 shows the monthly average crude/natural gas price ratio (West Texas Intermediate crude delivered to Cushing, Oklahoma, in $/barrel divided by Henry Hub, Louisiana natural gas in $/million Btu), which averaged 22 between January 2018 and August 2019. Because the energy content ratio of crude to natural gas is about 6, that means WTI is 22 divided by 6, or 3.67 times the energy cost of natural gas. That lower energy cost probably translates into at least a $1-$2/barrel difference in refining margins. Resulting narrower margins mean that Limetree may struggle to compete head to head against larger Gulf Coast rivals in Mexico or other large South American markets. The refinery might do better operating "under the radar" in the Caribbean region, where competition is less fierce.

Exhibit 2 U.S. Crude/Gas Ratio



Source: CME Group, Morningstar Commodities.

Sooner or later, Limetree has to address the fuel cost issue to remain competitive. Opportunities to do that may already be available. The refinery's power generators are dual-fuel units that can run on natural gas as well as oil. The challenge is sourcing a reliable supply of gas to St. Croix. The best hope is liquefied natural gas transported at very low temperatures and then regasified by a floating unit. LNG can be supplied from one of the many developing plants along the Gulf Coast. If Limetree can harness LNG fuel priced at a differential to U.S. benchmark Henry Hub prices, the refinery will be better equipped to compete with Gulf Coast rivals in the long term.

Sulfur Spreads

Limetree's investment is in part a bet that a refinery equipped with a coker can profit from expected lower prices for heavy crude and high prices for low-sulfur distillate arising from the IMO 2020 transition. Nevertheless, there is some chance that the sulfur spread may end up narrower than expected after an initial spike during 2020. Bunker fuel markets may settle down, and demand for low-sulfur distillate and fuel oil could be reduced by vessel owners installing scrubber equipment that cleans the exhaust produced by high-sulfur fuel. A narrower sulfur spread reduces Limetree's potential margins by making its crude supply more expensive and reducing the value of refined products.

Location

While Limetree Bay's location in the Caribbean provides a geographic advantage because of easy access to U.S. and Latin American markets, the Virgin Islands are prone to hurricane damage. Hurricane Maria flattened St. Croix in September 2017, and similar storms threaten power supplies as well as vessel access. Although Gulf Coast refiners face similar storm risks in the hurricane season, they have access to better power recovery resources and a skilled labor market to repair damage quickly. One advantage of Limetree's location is the 20 million-barrel crude and product storage capacity that is part of the adjacent terminal. When U.S. or international oil markets are oversupplied, near-term prices are lower than further-out deliveries—a market condition called contango. In a contango market, storage becomes profitable because prices are higher further out in the future. Increased returns from the storage market in that circumstance will help Limetree Bay offset periods of low refining margins by increasing storage revenue.

Conclusion

The new Limetree Bay refinery is due on line by December, at an opportune time for its investors with Venezuela pushed out of the local market and IMO 2020 requiring a restructuring of bunker and distillate flows. The shutdown of the PES refinery also presents a good opportunity to supply the U.S. East Coast. These factors give the plant a head start in establishing market share. The tolling contract with BP reduces refinery exposure to prices but (depending on its size) won't insulate the plant entirely from market forces in the shape of strong competition from Gulf Coast refiners. The refinery's best bet is rapid integration into local downstream markets by leveraging distribution networks such as BP's and connections through affiliates of Limetree's parent investors. Once the refinery is making a return, the owners need to invest in access to lower-cost fuel to compete longer term.

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