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It Won't Be Like This for Long — New Export Terminals Could Remake Permian Pipeline Flows

With Four Offshore Projects Under Development, Volumes to Key Hubs Could Shift



- Permian pipeline constraints loom as basin's crude output grows
- Crude oil flows to Corpus Christi, top export hub, already near limit
- Deepwater port could bolster Houston's status as major oil hub
- Nederland
 and Beaumont
 turn focus to NGLs
 as changes near

1. Introduction

For a few years now, crude oil shippers out of the Permian — the nation's leading crude oil play — have enjoyed a surplus in pipeline takeaway capacity thanks to a slew of new pipes that came online just as COVID crushed demand, prices and production. But Permian production has recovered, and the takeaway situation is changing for some routes. For example, the pipelines from West Texas to Corpus Christi are running close to full, and if a new offshore export terminal gets built, Permian-to-Gulf-Coast takeaway dynamics would get far more complicated — and fast.

U.S. crude oil production growth has largely steered pipeline development. Initially, new takeaway capacity targeted Gulf Coast refinery demand, but once that demand got saturated, attention turned to exports. Since the crude export ban to countries other than Canada was lifted in December 2015, shipments from Texas and Louisiana terminals have soared, averaging just under 4 MMb/d in the first half of this year.

That boom was made possible by the massive (not to mention expensive) infrastructure buildout from the Permian and across the Gulf Coast — pipelines, storage and export facilities — and some upgrades to existing assets too.

With business, cost efficiency is king, and the winners (so far) in crude exports have been facilities like the Enbridge Ingleside Energy Center (EIEC) and Gibson Energy's South Texas Gateway (STG; also in Ingleside, TX) that can dock and partially load a 2-MMbbl Very Large Crude Carrier (VLCC). These tankers enable huge quantities of crude to be shipped at the lowest cost per barrel and are the preferred means of transporting crude to Asia. The two-thirds-full VLCCs out of EIEC and STG are then topped off with only a single round of reverse lightering in the Gulf of Mexico.

To draw incremental export barrels — and get a leg up on EIEC and STG — some of the biggest names in the oil industry have been working to advance their proposals for deepwater export terminals off the Texas coast that could *fully load* VLCCs at their facilities. That means *no reverse lightering*. Currently, only one facility — the Louisiana Offshore Oil Port (LOOP), an oil import terminal revamped a few years ago to handle crude exports as well — can fully load a VLCC, but its access to the light-sweet Permian barrels that drive the export market is limited.

The four deepwater projects under development are: Enterprise Products Partners' Sea Port Oil Terminal (SPOT); Energy Transfer's (ET) Blue Marlin; Sentinel Midstream's Texas GulfLink; and Phillips 66 (P66) and Trafigura's Bluewater Texas. The most advanced of them is SPOT, which received its deepwater port license from the U.S. Department of Transportation's Maritime Administration (MARAD) on April 9. If one or more of the offshore export proposals crosses the finish line there would be major shifts in pipeline flows between West Texas and the Gulf Coast, and identifying and understanding the various scenarios is critically important for a wide range of industry players, including producers, shippers, midstream companies and exporters.

Our new Drill Down Report gives shape to the major issues at hand. In **Section 2**, we explain that the Permian has a history of having either too much or too little crude oil takeaway capacity, especially to the Gulf Coast, the preferred outlet for shippers. For example, in 2018-19, a sharp run-up in crude production left shippers scrambling to find pipeline space. That problem was largely solved by the addition of three new Permian-to-Corpus pipes in the second half of 2019. Then COVID hit, demand cratered, and what had been needed Permian takeaway capacity quickly became excess.

Permian crude oil production rebounded as the pandemic abated, of course, and that has driven up pipeline utilization. But the relative pull from the Gulf Coast's major oil hubs — Corpus Christi, Houston and Nederland/Beaumont — varies, and that's largely tied to their unique dynamics. Generally speaking, Corpus's focus is on crude exports, while Houston has substantial refining capacity as well as exports. Nederland/Beaumont, in turn, is mostly a refining center.

In **Section 3**, the report explains that pipelines that deliver Permian oil to the crude-export-oriented Corpus Christi/Ingleside market now run almost at capacity. Enbridge plans to add 120 Mb/d to its Gray Oak system, but that won't be fully available until early 2026.

In **Section 4**, we examine how volumes on Houston-bound pipes have increased over the last few months. Some may still have space but that depends on which network, as the biggest pull comes from refining and exports via Enterprise's Hydrocarbon Terminal (EHT).

Permian pipes connected to the Energy Transfer-dominated Nederland/Beaumont hub, the focus of **Section 5** of the report, currently have the most room for additional oil volume compared to other Gulf Coast hubs, and utilization appears to be ramping up.

Most important, in each of the hub-focused sections in the Drill Down Report we also discuss how their export facilities — and the pipelines flowing into them — would likely be impacted if one or more of the proposed deepwater export terminals are completed. To state the obvious, any one of these projects would be a magnet for incremental Permian production and redirect flows between West Texas and the Gulf Coast.



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