

A Review of 2017 LPG Prices Through OPIS' Real-Time Lens

What Market Volatility So Far This Year Means For You Going Forward



an IHS Markit company

Introduction: 20/20 Hindsight was costly in Q1 2017

2017 started with a bang in the U.S. LPG Markets:

Cargo cancellations and deferrals piled up as Mont Belvieu propane prices soared.

Normal butane prices rocketed higher, with suggestions price increases are still to come.

Ethane appeared on track toward a supply shortage, threatening to broadside major chemical companies, experts said.



Those who didn't notice the swift market shifts left money on the table. Let's take a look back through OPIS' real-time pricing perspectives...

Soaring Mont Belvieu Propane Slams Shut Global Arbs

Contract lifters from the major Gulf Coast terminals rapidly cancelled or deferred U.S. propane export cargoes in February 2017.

Cargo traffic stalls: OPIS confirmed at least seven VLGC-size (550,000 bbl) cargoes scheduled to load in February and early March from the Enterprise, Targa or Nederland terminals were not lifted – with higher unconfirmed numbers reported.

Costly cancels: Many of those cargoes were said to have been deferred or rolled forward to the next month, but some were outright cancellations – in which a hefty fee is paid to terminal operators.

Direct result of a U.S. spot price hike: Mont Belvieu non-TET (Enterprise) propane anys skyrocketed some 14cts/gal over a business week, jumping 10pts against crude to 74% and overtaking OPIS European CIF ARA values to reverse the arbitrage, according to OPIS' real-time pricing.

“We estimate a record 1.1-million-b/d of propane was exported from U.S. export terminals and this record level simply can't be supported at current export spreads.”

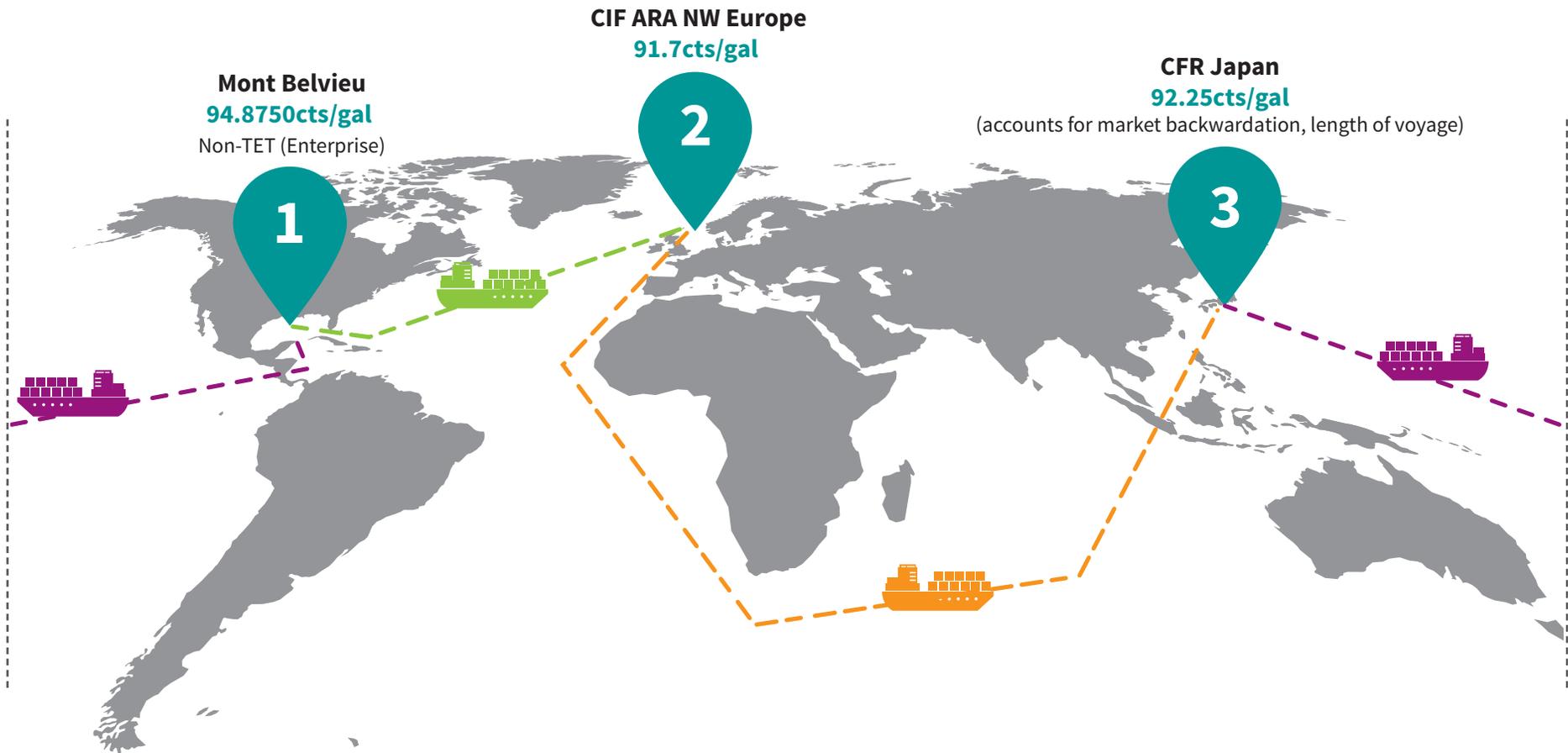
-Envantage, Weekly Energy Report

Backwardation woes: Starkly cheaper forward pricing in the Asian CFR market meant U.S. cargoes would arrive in a market where they were at risk of being unprofitable.

Stock draws helped boost values: The U.S. price surge accelerated when the government reported another strong propane stock draw at 5.6 million-bbl for the week ended Jan. 27, reducing days-of-supply to 39.5 compared to 44.8 last year, according to OPIS Alerts.

Price Swings Rock Propane Arbs

Further cancellations are widely anticipated. The record-high U.S. export rates in January, which drove the large inventory draws, are seen as unsustainable. *This early-February snapshot of OPIS market values shows how the Mont Belvieu price rally upset arbs.*



Feb. '17: Mont Belvieu Normal Butane Whiplashes Higher

Over one week, February NC4 anys rose almost 27%.

The dramatic price increase gathered steam after government figures showed the latest U.S. butane and butylene exports just shy a new monthly record and monthly stocks declining by the highest volume in recent tallies, OPIS reported.

Days-of-Supply Trending Below Average: Data compiled by Dr. Walt Hart, Vice President of NGL research at OPIS parent IHS Markit, shows U.S. butane days-of-supply for January 2017 trending lower than the five-year average.

Petchem Appetites: The phenomenon of petrochemical plants using LPG as feedstock in place of naphtha is helping support LPG price overall. Meanwhile, butadiene prices in Europe have posted robust increases – directly supporting butane.

One-off Logistical Problems: Conway, Kan. normal butane spiked above its Belvieu counterpart in January, thought by some to have created a potential rush to deliver barrels to that market, leaving Mont Belvieu “starved.”

Going Forward: Dr. Hart sees Belvieu normal butane prices remaining lower than prices in international markets, supporting healthy U.S. exports. He also sees butane prices strengthening versus crude oil by the early 2020s.

“These growing consumer markets serve to tighten the international butane markets, and set a premium of butane to propane”

-- Dr. Walt Hart, VP NGL Research, IHS Markit



Rising Global LPG Demand Supports U.S. Butane Exports

Spotlight: India

MONTHLY LPG CONSUMPTION (mt) (in millions)

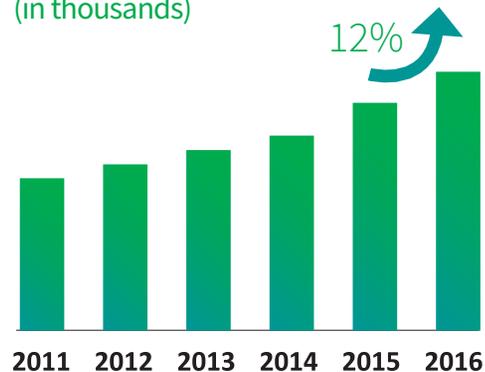
January



February



NUMBER OF DISTRIBUTORS (in thousands)



65k mt

DAILY LPG CONSUMPTION
FEBRUARY '17

↑1k mt

RISE IN DAILY LPG CONSUMPTION ON MONTH

RISE IN DAILY LPG CONSUMPTION ON YEAR

11%

OPIS Continues Coverage of Ethane Shortage Expectations

OPIS reported U.S. chemical producers face “significant earnings headwinds” because of an expected shortfall of ethane available for chemical production and sharply higher prices by 2019, according to investment bank Cowen & Company.

Despite crude oil prices having recovered from levels of a year ago, this will not incentivize enough new NGL production out of E&P companies to fulfill chemical needs, the report noted.

Price fallout: Cowen’s report says an ethane price in excess of 55cts/gal by 2019 – compared with today’s 20-25cts/gal – is a strong possibility.

Capacity expansion: It was noted that U.S. ethylene capacity would rise 45.6% from 62.36 billion lbs. in 2016 to 90.78 billion lbs. by 2021. Along with the ethane supply crunch Cowen forecasted, this could see the ethane price fly well past 55cts/gal – even approaching 60cts/gal.

Domino effect: Cowen also expects new chemical capacity to depress chemical prices, which also would compress margins and damage company earnings.

Opposing views: There are some projections, however, that have ethane prices not reaching these projected elevated levels. OPIS forward market data charted ethane prices into the first half of 2019, with the highest price point in those curves at 32.25cts/gal.



OPIS Captured 2017's Price Story As It Unfolded

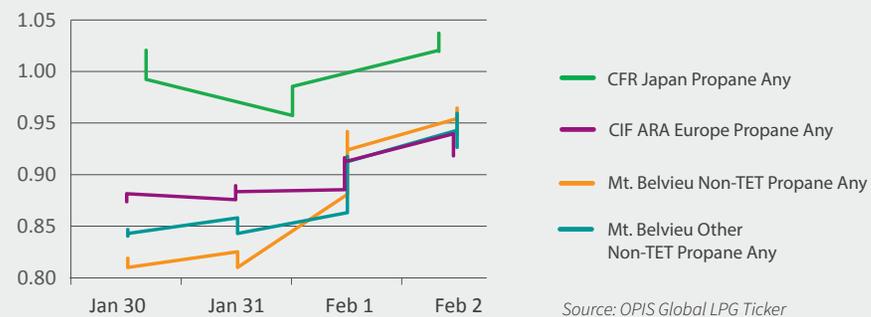
As the arb spreads blew out, as butane spiked and as ethane news developed, the OPIS Global LPG Ticker showcased 2017's volatility in real time and explained what prices meant to corporate bottom lines.

Propane arb squeeze: OPIS editors confirmed the surge in the U.S. market as it happened. At the same time, OPIS editors in Europe and Asia pinpointed prices in their local markets to instantly display the connection between the world's global benchmarks and the contraction of critical arbitrage windows. As the trends became clear, OPIS analysis gave readers a clear understanding of why the moves were taking place and what was in store.

Butane spike: The second prices started to climb, OPIS editors confirmed deals as they transacted, exploring every angle of the rally and giving readers a complete map of the price landscape.

Ethane rumblings: OPIS editors immediately identified the importance of this story and blasted it to the market. OPIS also tapped into the depth of its forward market coverage to offer opposing perspectives. If ethane is indeed on a course for 60cts/gal, the OPIS Global LPG Ticker's ethane coverage is the only service ready to show price moves in real time.

Global Propane Arbs



Mont Belvieu Normal Butane





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Oil Price Information Service (OPIS), an IHS Markit company, is one of the world's most comprehensive sources for petroleum pricing and news information. OPIS's LPG and refinery feedstocks prices are also considered a preferred benchmark by many U.S. and international traders. OPIS is comprised of more than 50 information specialists, including the most experienced editors in the business, combining over 200 years of industry experience. Our editors not only cover the market, and report breaking stories -- but also provide inside analysis on what the trends mean and how they could affect prices and purchasing decisions.



Global LPG Ticker The real-time, web-based ticker provides all-day values for worldwide spot propane, butane and ethane. OPIS's expert editorial team of editors throughout the U.S., Europe, and Asia tap into an unrivaled pool of sources to bring you an essential market tool – closing the price reporting gap between Mont Belvieu and the rest of the world.

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