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Argus NGL volume-weighted averages: every deal matters

The US NGL market is more robust and more critically important to companies' profitability than just a few years ago. The shale revolution has brought new liquidity, new arbitrages and new participants. Information and pricing that reflect the full market is now critical.

Argus has covered North American LPG spot prices since 1992, and was the first service to publish daily Canadian spot LPG prices. We are the most widely used pricing service in international waterborne LPG markets, giving us the perspective to show how global market fundamentals are shaping North American values. Argus is dedicated to reporting markets as they trade, and we see capturing the broad range of daily trade as the best means to assess value accurately in a liquid market.

Mature markets choose volume-weighted average pricing

In the last decade, natural gas, crude oil and many refined products markets have adopted volume-weighted average price indices. These indices are set by all the deals done throughout the day rather than by two deals – a high and a low – or by deals done in a short window of time. The key LPG markets at Mont Belvieu and other hubs have sufficient liquidity to support volume-weighted average indices, lending increased transparency and broader participation in price formation.

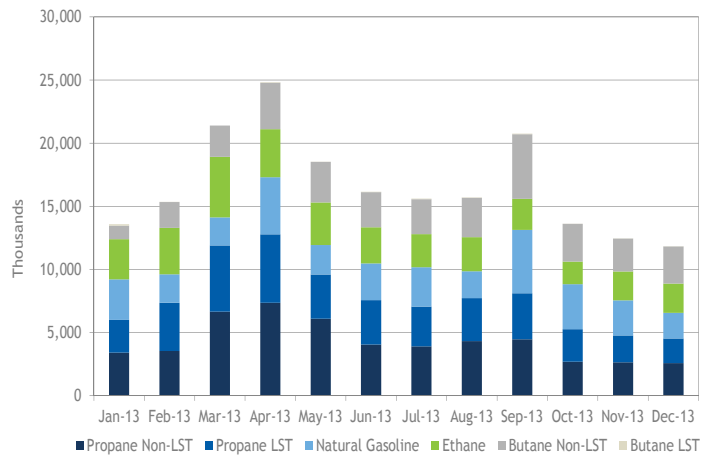
In crude markets, Argus volume-weighted averages are used in pricing about 90pc of index-based domestic crude trades and more than 2mn b/d of imported crude. On natural gas, FERC requires that price indices be based on volume-weighted averages. With more participants in the NGL marketplace, the case for using a volume-weighted average price index is compelling: Why let two deals determine the entire day's price? Why ignore the rest of the liquidity?

Argus is a mirror of the market

While it is impossible to know how many deals are done, the index that reflects the broadest sample of deals by definition best reflects the overall value of the market. The more deals are

reported, the more accurate the index. Argus currently receives deals data from traders, brokers, producers, end users and midstream companies. Argus volume-weighted indices ensure that deals done in abnormal market conditions or at an illiquid moment are averaged into the whole market and have a reduced impact on the assessed value of the market for the day. Histories of Argus LPG price indices are available upon request.

ARGUS CAPTURES SIGNIFICANT AND ROBUST VOLUMES AT MONT BELVIEU



Volume-weighted average methodology

Argus publishes current month volume-weighted averages of deals done at Mont Belvieu and Conway. These are volume-weighted averages of the current month deals done throughout the entire trading day. These averages are published as a single price, not as a range. In order to allow the average to be accurate in illiquid markets, a minimum aggregate volume of trade must occur in a given trade day for the weighted average to be calculated (see table below). Should this aggregate volume not be achieved, the weighted average will represent an assessment of market value based on bids, offers, and trades in the market.

Market Reporting

Consultancy

Events

LPG/NGL

illuminating the markets

AVERAGE MONTHLY MONT BELVIEU VOLUMES CAPTURED IN 2013 (IN BARRELS)

Ethane	2,992,004
Propane (LST and non-LST)	7,726,361
LST	3,409,731
non-LST	4,316,630
Butane (LST and non-LST)	2,930,784
LST	33,268
non-LST	2,897,516
Natural gasoline	3,005,800

More than just the high/low

As illustrated above, Argus captures on average 7.7mn bl of propane volumes traded each month across the LST and non-LST terminals. In the non-LST market specifically, monthly average volumes totaled 4.3mn bl/month, inferring a rough average of 205,000 bl of volumes captured each day. This dwarfs the 20,000 bl represented by a high/low assessment. Argus' methodology is thorough and reflects the most representative price on a daily basis.

The high/low methodology works to the benefit of a subset of the marketplace, and leaves many companies without any influence on the value of markets in which they participate regularly. The volume-weighted average approach puts all players on a level playing field.

Producers of y-grade should be looking to align the volume-weighted methodologies they use in gas and crude with their NGL output as well.

Argus is a global leader

Swap volumes traded involving the Argus cif ARA in northwest Europe and the Argus Far East Index are estimated at 51mn t/yr. Argus is the index of choice in Europe and Asia, and Latin American countries are adopting Argus-based pricing for LPG imports.

NGL spot deals					
Timing	€/USG	'000bl	Timing	€/USG	'000bl
E/P mix non-LST/non-LST ethane			Propane non-LST (cont.)		
Apr	0.000	10	Apr	112.750	10
			Apr	112.750	10
Purity ethane non-LST			Apr	113.000	10
Apr	28.875	10	Apr	113.000	50
Apr	29.000	10	Apr	113.250	10
Apr	29.125	10	Apr	113.250	30
Apr	29.250	10	Apr	113.500	10
Apr	29.250	10			
Apr	29.375	10	Normal butane non-LST		
Apr	29.375	15	Apr	129.375	10
Apr	29.375	20	Apr	129.500	10
Apr	29.500	15	Apr	129.500	10
Apr	29.625	10	Apr	129.500	10
Apr	29.625	20	Apr	129.500	10
Apr	29.625	5	Apr	129.625	10
Apr	29.750	10	Apr	129.625	25
Apr	29.875	10	Apr	129.750	10
Apr	29.875	15	Apr	129.875	5
Apr	29.875	10	Apr	130.000	10
Apr	29.875	15	Apr	130.000	10
Apr	30.000	10	Apr	130.250	10
Apr	30.000	15	Apr	130.500	10
Apr	30.000	5	Apr/May	0.000	50
Apr	30.000	5	Apr/May	0.000	35
Apr	30.125	20			
Apr	30.125	5	Isobutane non-LST		
Apr	30.250	10	Apr	132.000	10
Apr	30.250	25			
2H Cal Year	30.000	60	Natural gasoline non-LST		
3Q/4Q	0.250	150	Apr	227.125	10
May/3Q	0.000	10	Apr	227.125	15
			Apr	227.750	15
Propane LST			Apr	228.500	15
Apr	112.625	10	Apr	228.500	10
Apr	112.625	5	Apr	229.000	10
Apr	112.750	10	Apr	229.000	10
Apr	112.750	5	Apr	230.250	10
Apr	113.000	10	3Q	212.750	15
Apr	113.000	15	3Q/1Q	-8.000	75
Apr	113.000	10			
Apr	113.000	10	Conway E/P mix		
Apr	113.000	10	Apr	24.750	5
Apr	113.000	10	Apr	25.000	5
Apr	113.000	10	Apr	25.000	5
Apr	113.250	10	Apr	25.000	5
May	112.750	32	Apr	25.250	5
Jun	112.750	10	Apr	25.500	5
Sep	115.000	25	Apr	25.500	5
Cal Year	108.250	60			
Apr/May	0.000	150	Conway propane		
			Apr	112.125	5
Propane LST/non-LST propane			Apr	112.500	5
Apr	0.000	10	Apr	112.750	5
Apr	0.000	10	Apr	112.750	5
Apr	0.000	10	Apr	112.750	10
			Apr	112.875	5
Propane non-LST			Apr	112.875	10
Apr	112.625	10	Apr	112.875	5
Apr	112.750	10	Apr	113.000	10

Compliance and transparency are more important than ever

In the current regulatory environment, exchanges clearing swaps must ensure that the physical indices used to settle swaps use robust methodologies. Volume-weighted price indices have generally been accepted to be transparent and robust in the crude oil and natural gas market.

Argus provides tools to minimize price risk and takes this role seriously. The Argus corporate ethics policies and reporting guidelines are publicly available in their entirety. In addition to regular internal audits, Argus has completed an external assurance review of its oil price benchmarks, including those for LPG markets. The review, which was conducted by PwC, is required annually to satisfy Iosco's Principles for Oil Price Reporting Agencies.

Our price reporting methodologies are entirely public and available at argusmedia.com/methodology.

Why ignore liquidity?

Argus invites you to examine our volume-weighted average methodology. We also invite you to examine Argus and our methods of reflecting market value. We are happy to provide historical price data for your evaluation and discuss our methodology and reporting procedures face-to-face.

Who is Argus?

Argus is a leading provider of price assessments, business intelligence and market data for the global crude oil, petroleum products, gas, LPG/NGL, power, coal, electricity, natural gas/LNG, biofuels, biomass, emissions, transportation, fertilizers, petrochemicals and metals industries. It is headquartered in London, and has offices in Moscow, Washington, Houston, Calgary, Singapore, Tokyo, Beijing, New York, Kiev, Sydney, Astana, Portland, Johannesburg and Dubai as well as employees in other key locations including Germany, France, Nigeria, Venezuela, Argentina and Chile. Argus was founded in 1970 and is a privately held UK-registered company, owned by its employees and the family of its founder.

Argus publications focusing on LPG and NGL markets:

Argus NGL Americas Natural gas liquids spot prices for Mont Belvieu, Conway, and Canada. Includes volume-weighted averages, forward market prices and comprehensive deals done tables. Extensive market commentary covering North America and Latin America. Contains analytical market spreads, processing margins, and inventory data.

Argus International LPG Daily reporting of all the key industry benchmarks such as the Argus Far East Index™, the Argus North Sea Index™ (ANSI) and the cif ARA large cargo quotations for propane and butane.

Argus LPG World Fortnightly round-up of news and commentary on LPG trading, industry developments, company news, shipping and prices for international butane, naphtha and propane.

Argus Сжиженный газ и конденсат (Argus Russian LPG and Condensate) Weekly Russian language market report including contract and border prices in the FSU and eastern Europe for LPG and condensate, news and analysis, and market coverage of other regions.



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