

Argus White Paper: Yuzhny ammonia exporters navigate bearish market



Heading into the second half of 2019, there are few signs that the ammonia market will come out of a prolonged period of price weakness. With Yuzhny prices long-considered to be the key indicator of market sentiment, Argus takes a closer look at logistics around the Ukrainian port

Spot prices for Russian ammonia exported through the Ukrainian port of Yuzhny have been under pressure since late 2018, and are currently hovering just above the cost of production. The region exports around 2mn t/yr and is home to the world's largest ammonia producer and swing supplier TogliattiAzot (ToAz).

The current downturn, driven by several new capacity additions, has pushed the global market into oversupply. But Yuzhny has been slow to remove any supply from the export market, with current production still being absorbed at a rate that has kept the region operating above the estimated cost of production.

Year-to-date exports 8pc higher on the year

Exports through Yuzhny from Russian producers increased to more than 1.4mn t in the first seven months of this year, with average volumes consistently reaching around 200,000 t/month. Over a third of the total – or 505,000t – was shipped to Morocco, with Turkey taking around 300,000t, Belgium receiving 240,000t, and the remainder split between contract shipments to India (160,000t), Tunisia (100,000t) and Bulgaria (100,000t).

Only two producers are currently active in the Yuzhny export market – ToAz and Rossosh. The former has seven ammonia plants with capacity of 3mn t/yr, while Rossosh operates two 450,000 t/yr plants. Ukrainian producer Odessa Port Plant (OPZ) is the third company that exports through Yuzhny, but OPZ's production facilities have been idle since 2018 because of gas supply issues.

ToAz has been producing around 160,000-180,000 t/month this year, while Rossosh has been producing around 50,000-56,000

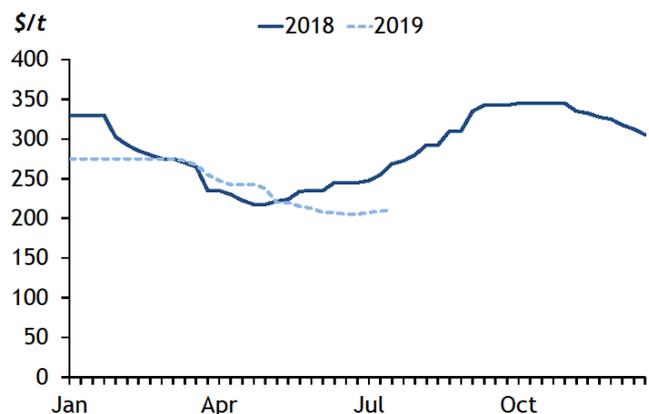
t/month, according to data taken from the [Argus Ammonia service](#). ToAz has been supplying up to 10pc of this total to the Ukrainian domestic market and exporting the remaining 150,000-170,000 t/month, while Rossosh exports around 50,000 t/month, selling only small amounts domestically.

ToAz has been operating either five or six of its seven ammonia plants continuously throughout the year, while Rossosh has been operating both its plants, but undertook a month's maintenance period in July. This has resulted in a relatively steady monthly line-up from Yuzhny, averaging 205,000 t/month over the first seven months of this year. The highest was in January at 237,400t, with the lowest in July at 192,019t.

ToAz yet to take production off line

Ammonia producers in north Africa and the Middle East have brought forward maintenance periods in the face of low prices.

Yuzhny fob ammonia price



YUZHNY SUPPLY OUTLOOK



ing, and Trinidad and Tobago producers have reduced plant operating rates. But ToAz is yet to announce any cutbacks in production and is now starting to sell ammonia at slightly higher prices for July and August. We report on the cost of production for ToAz in [Argus Ammonia](#), and estimate it to be around \$197/t fob — the lowest the spot price went was \$205/t fob in late June.

One of the reasons Yuzhny prices have remained above this level is largely because the consistent export rates from ToAz and Rossosh of around 200,000 t/month have largely fed contractual requirements, particularly in Morocco and Europe. Availability for any fresh spot demand has been limited, which has subsequently kept prices from deteriorating rapidly. Steady near-term demand from Turkey and Bulgaria has also soaked up much of the excess supply on offer when prices were at their weakest. Both producers have also made regular shipments to the domestic market, which have kept stock levels at the lower end of the range, and supported steady pumping rates down the pipeline.

Cheaper ammonia and long-haul shipments pose threat

Ammonia from Trinidad and Tobago — the world’s largest exporting country, with loadings of around 5mn t/yr — is often priced at a discount to Yuzhny, because of more favourable feedstock costs. The latest contract price between Yara and Mosaic for Tampa shipments in August, agreed at \$215/t cfr, equates to fob prices in the Caribbean of below \$175/t, steeply

undercutting loading prices from Yuzhny, the Middle East and southeast Asia.

As a result, shipments from Trinidad across the Atlantic have picked up noticeably in the past few months as the arbitrage has opened, with traders shipping material more regularly from Point Lisas to northwest Europe, Morocco and Turkey.

This poses a threat to traditional suppliers in Russia and north Africa if the trade route continues to develop. But this trend is at the mercy of freight costs, which are expected to escalate in the year ahead owing to the IMO’s introduction of its tighter sulphur restrictions on marine fuels from 1 January 2020. The potential arbitrage for cross-Atlantic shipments could be

Yuzhny exports 2019		t
Month	Volume	
January	237,400	
February	203,100	
March	199,000	
April	200,419	
May	209,235	
June	196,470	
July	192,007	
January-July 2018	1,376,700	
January-July 2019	1,437,606	
± year on year	60,906	
±% year on year	8.2	

reduced and is unlikely to offer a reliable solution for traders to move consistent volumes on long-haul shipments from Trinidad and Tobago.

Another threat to Yuzhny exporters is the new Russian export project at Kingisepp, which is exporting through Baltic ports and will be able to service a share of European demand going forward, while also offering another option for any fresh Moroccan spot demand that may appear.

Morocco demand crucial

Global demand for ammonia is steady this year, but it appears that it is not growing at the same pace as supply, with many of the largest buyers such as India, South Korea, China and Belgium expected to buy similar volumes in 2019 compared with last year.

The main country where buying is expected to show steep year-on-year increases is Morocco, where imports could grow to over 1.8mn t this year from 1.4mn t in 2018. All of this supply is imported by phosphates producer OCP, which takes half of its annual requirement from Yuzhny and the other half from Trinidad and Tobago.

OCP is expected to keep ramping up its import requirement, which could reach as high as 3mn t by 2022. As Yuzhny's largest buyer, OCP's import strategy going forward is likely to be key to Yuzhny's relevance as a leading export region and global price indicator.

Could the market floor be tested in 2019?

The last time that significant capacity was taken off line in Yuzhny in response to low pricing was in mid-2017, when

Yuzhny Data and Downloads

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Yuzhny ammonia supply outlook

Discover production levels and pumping rates from Russian producers, scheduled maintenance, stock levels, domestic deliveries to the Ukrainian market and latest line up data from Yuzhny.

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Yuzhny ammonia vessel line-up

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Fertilizers

illuminating the markets

Togliatti-Odesa pipeline pumping rates				t/hr
	ToAz	Rossosh	Total	Yuzhny stocks t
w/c 7 January	195	120	315	50,000
w/c 14 January	195	120	315	54,000
w/c 21 January	200	120	320	45,000
w/c 28 January	265	50	315	40,000
w/c 4 February	265	55	320	40,000
w/c 11 February	200	120	320	35,000
w/c 18 February	195	120	315	30,000
w/c 25 February	215	100	315	25,000
w/c 4 March	215	100	315	30,000
w/c 11 March	270	40	310	25,000
w/c 18 March	215	100	315	30,000
w/c 25 March	270	40	310	25,000
w/c 1 April	255	60	315	23,000
w/c 8 April	230	70	300	30,000
w/c 15 April	240	75	315	25,000
w/c 22 April	240	75	315	35,000
w/c 29 April	240	80	320	10,000
w/c 6 May	195	120	315	25,000
w/c 13 May	260	55	315	30,000
w/c 20 May	260	60	320	20,000
w/c 27 May	160	15	175	36,000
w/c 3 June	215	100	315	30,700
w/c 10 June	220	90	310	27,000
w/c 17 June	190	90	280	45,000
w/c 24 June	195	120	315	40,000
w/c 1 July	160	0	160	20,000
w/c 8 July	165	50	215	36,000
w/c 15 July	205	40	245	30,000
w/c 22 July	265	50	315	10,000
w/c 29 July	285	0	285	20,000

spot prices fell to \$190/t fob Yuzhny and \$190/t cfr Tampa. Prices subsequently recovered quickly, rising by more than \$160/t over the next five months. But the 2019 trade balance suggests that this pattern is unlikely to be repeated, largely because of the significant new capacity additions in markets east and west of Suez over the past two years.

Factors that kept the ammonia market in balance throughout much of last year, such as high European gas costs, lengthy commissioning periods at new plants and gas curtailments in the Caribbean, are all now largely resolved. Global supply availability has been growing steadily over the first half of 2019. Indonesia's PAU plant is operating consistently at capacity, Russia's Kingisepp plant is producing export ammonia, and the US Freeport joint venture between Yara and BASF is now fully on line, creating three new significant

Yuzhny deliveries to the domestic market			£
Month	ToAz	Rossosh	Total
January	12,000	0	12,000
February	10,000	3,000	13,000
March	10,740	0	10,740
April	15,400	8,500	23,900
May	2,500	0	2,500
June	12,300	0	12,300
July	7,600	0	7,600
August	0	5,000	5,000

The view from the Argus Analytics team:

The market situation is expected to remain dynamic over the medium term, according to Argus' analytics team. As part of our analysis of this sector, we take keen interest in the merchant ammonia market, where trade takes place between third parties and is distinct from gross ammonia.

Argus Ammonia Analytics is the only service in the industry to comprehensively consider the outlook for merchant ammonia supply and demand. We estimate the market for merchant ammonia globally was 39.1mn t in 2018, around double the volume of country-to-country trade.

Ammonia prices are currently cyclically weak, when we benchmark them against the values of other nitrogen products, such as urea. We can think about this relationship by calculating the urea-ammonia upgrading margin (UM), deducting the product of the ammonia price and a urea plant's ammonia consumption rate — assumed to be 575 kg/t — from the urea price.

The historical average of the UM is around \$90/t, a value that needs to cover the conversion costs on a urea plant and incentivise the operator to produce and sell urea rather than

export projects to feed ammonia demand. In addition to this, gas supply in Trinidad and Tobago is becoming more reliable, while gas costs in Europe have plummeted to under \$3.50/mn Btu from \$10/mn Btu last year, which in both cases is bolstering ammonia production.

Yuzhny prices to remain under pressure

Prices are showing some slight upside at the moment, with several plants carrying out maintenance, but overall the market is still in a much weaker position than last year. The fob Yuzhny price is currently around \$60/t lower than at the same time in 2018, and is unlikely to show a sharp upward movement until significant capacity is removed or redirected to other downstream markets.

At current levels, Yuzhny exports could reach as high as 2.4mn t of ammonia this year, but prices are expected to come under further pressure in the fourth quarter once most maintenance schedules have been completed.

The logistics data from Yuzhny suggest that the market situation is finely balanced, and at current export rates of 200,000 t/month, the price floor is unlikely to be tested. But at the same time, this delicate balancing act from producers means that the market may not experience similar price volatility to that seen in previous years, and that the second half of this year may be equally as cautious as the first half has been.

ammonia. At the \$90/t price, a marginal plant can comfortably cover costs of \$50-60/t.

The merchant ammonia market has been in a decisive oversupply in the past two years, following significant investment in ammonia export and import replacing capacity, and the UM has been well in excess of the historical average. At this level, there is a clear incentive for ammonia sellers to consider development of downstream urea capacity.

Several producers are looking to make such investments, notably a cluster of projects in Russia, where significant transportation costs associated with moving ammonia from relatively remote plants located inland to export terminals make the decision more attractive.

Other producers in the US are likely to be looking more seriously at downstream investment following the closure of the Magellan ammonia pipeline, which will leave 700,000-800,000 t/yr of ammonia stranded in the southern US states.

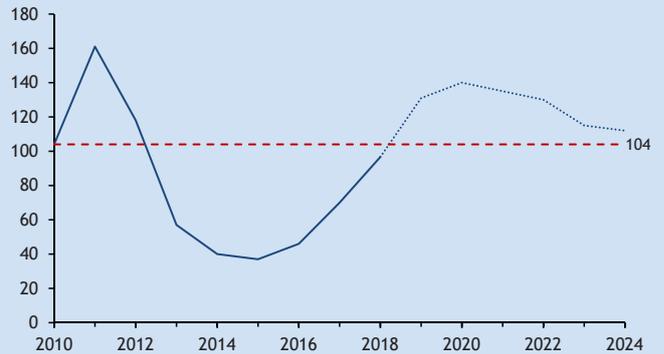
Upgrading downstream capacity is likely to be required in order to see a more balanced ammonia market. Significant

free ammonia capacity additions are scheduled in the next few years, although on a smaller scale than the rates seen in recent years.

Balanced against this, ammonia demand is expected to rise, notably in Morocco where OCP continues to expand its presence in processed phosphates capacity, and the rate of ammonia demand growth is sizeable enough that we expect to gradually see a smaller ammonia supply surplus. This means the upgrading margin will gradually reduce, although we expect it to remain above the historical average.

Urea-ammonia upgrading margin forecast

\$/t



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