

## OVERVIEW

Asia-Pacific: Prices extended gains with swaps

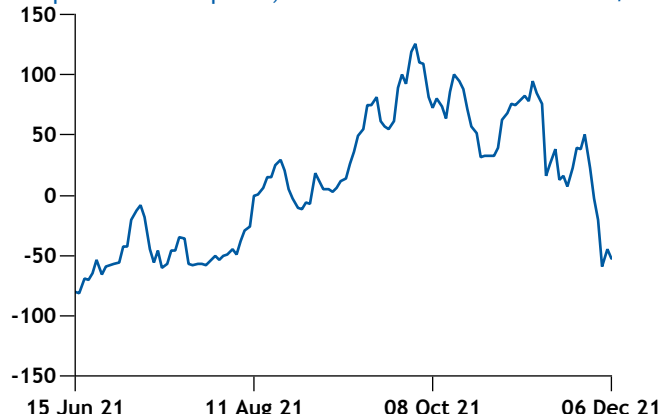
Europe: Prices gained.

North America: Propane's midpoint weakens.

Propane: Mt Belvieu non-LST diff to cif ARA \$/t



Propane diff to naphtha, cif ARA \$/t



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## PRICES

Key prices					\$/t	
					Mid	±
Propane cif ARA (large cargoes)					621.00	+4.50
Butane cif ARA (large cargoes)					676.50	+13.00
daf Brest propane					710.000	-10.000
daf Brest propane-butane mix					600.000	-8.000
Propane Argus Middle East Index					657.00	+24.00
Butane Argus Middle East Index					651.00	+24.00
Propane Argus Far East Index™ (AFEI™)					671.00	+23.00
AFEI™ diff to Propane M1					-1.00	+1.00
Butane Argus Far East Index™ (AFEI™)					665.00	+23.00
AFEI™ propane calculated netback USGC					534.95	+22.00
Propane Argus Ningbo Index					674.50	+27.50
Butane Argus Ningbo Index					668.50	+27.50
Propane Argus South China Index					679.50	+27.50
Butane Argus South China Index					673.50	+27.50
Pearl River Delta Index (Yn/t)					5,469	-250
Americas: Propane Mont Belvieu pipeline fob					¢/USG	
					VWA	±
					Low	High
						±
Enterprise	99.875	-0.375	98.500	-	101.500	-0.625
LST	100.237	-0.500	99.000	-	101.750	-0.625
fob USGC, diff to Mont Belvieu			+4.750		-	+5.250
USGC export fob \$/t		+9.77	553.56	-	556.17	+9.77
US propane del Japan (AUSJ) \$/t		+9.5	664.5	-	667.0	+9.5
US propane del ARA (AUSE) \$/t		+9.5	609.5	-	612.0	+9.5
International comparisons (Dec 21)						\$/t
					Propane	Butane
Argus North Sea Index™ (ANSI™)					707.00	695.00
Sonatrach fob Bethioua					730.00	715.00
Saudi Aramco					795.00	750.00
KPC (Kuwait)					795.00	750.00
Propane AFEI™ Far East to Mideast Gulf netback					612.50	606.50
Regional assessments						\$/t
Propane	Mt Belvieu		NW Europe		AFEI	
Physical spot	521.00		621.00		671.00	
Dec 21	521.00		621.00		678.00	
Jan 22	526.25		615.00		675.00	
Feb 22	521.75		607.00		660.00	
Argus arbitrage						\$/t
Propane	NWE diff to Mt Bel	AFEI	diff to Mt Bel	AFEI diff to NWE		
Physical spot	-100.00		-150.00	-50.00		
Dec 21	-100.00		-157.00	-57.00		
Jan 22	-88.75		-148.75	-60.00		
Feb 22	-85.25		-138.25	-53.00		
Naphtha						\$/t
		±	Bid	Ask	±	
cif northwest Europe		+13.00	673.50	-	674.50	+13.00
cif Mediterranean		+13.00	665.25	-	666.25	+13.00
cfr Japan		-7.00	658.50	-	666.75	-6.75
fob Mideast Gulf		-6.40	633.60	-	641.85	-6.15
LPG freight						\$/t
VLGC Mideast Gulf-Japan					58.50	
VLGC Houston-Chiba					111.00	
VLGC Houston-Flushing					56.00	
4,000t Tees-Mohammedia butane					80.00	
1,800t Tees-Lisbon butane					97.00	
1,800t Tees-ARA					46.00	

## NORTHWEST EUROPE

### Large cargo

With LPG Week underway in Dubai there was minimal fanfare given in the northwest European spot market with both private and public trade absent.

Large cargo propane discussion has been off-stage only since last Wednesday as volatility and the lack of any urgent needs to cover positions caps activity. Despite recent steep falls in the flat price, no additional buying has emerged for December as most needs are already met. Also, while propane-naphtha spread have oscillated sharply from propane premiums as steep as \$50.75/t on 23 November to a discount of \$53/t on Monday, it is far too soon with crude, naphtha and the regional propane markets still in flux to see petrochemical buyers reshuffling feedstock choices and adding significantly to the buy-side. Large cargo value is assessed at flat to December cif ARA swaps, equal to \$621/t outright and a \$4.50/t gain versus Friday's close.

Large cargo butane trading was also muted on Monday. Relative value of butane versus naphtha has dropped significantly recently, shedding around nine percentage point since early November. But a floor seems to have been hit for now and value was assessed unmoved in a relative sense at just under 100.50pc of naphtha.

### Coasters

Northwest European fob propane coaster pricing surged higher on Monday as demand appears to be increasing in the region. One spot deal was recorded as Equinor emerged as a buyer seeking 1,700t of Portuguese specification propane with maximum 10pc olefins, loading between 13-15 December Elisabeth or Epic St Croix or Eco Dream or a substitute. The first and only bid was placed at \$710/t fob Le Havre-ARA range, including UK, less \$3/t if Antwerp, less \$4/t if Immingham and less \$8/t if Stanlow, which was booked by SHV on an Antwerp basis, and is worth \$707/t due to the port cost.

Fob propane pricing gained \$10.50/t on Monday, which strengthened its premium to large cargo by \$6/t to \$86/t.

On the butane side, supply appeared to be limited and muted public activity made value hard to gauge. Fob butane discussions were heard between 102-104pc of physical naphtha, rising from just under 101pc on Friday, while cif coasters were also heard slightly higher, between 105.5-108pc of naphtha, from 105pc on Friday.

### ARA

Propane railcars pricing saw gains on the first trading day of the week as demand across northwest Europe appeared to

Northwest Europe and Mediterranean				\$/t
	±	Bid	Ask	±
Propane				
cif ARA (large cargoes)	+4.50	618.00	- 624.00	+4.50
fob northwest Europe (small)	+10.50	704.00	- 710.00	+10.50
cif ARA (small)	+10.50	750.00	- 756.00	+10.50
fob ARA (barge)	+15.00	897.00	- 903.00	+15.00
fca ARA (rail)	+15.00	907.00	- 913.00	+15.00
cif Mediterranean (large)	+4.50	631.00	- 637.00	+4.50
fob Mediterranean (small)	+4.50	726.00	- 732.00	+4.50
fca Mediterranean (rail)		772.00	- 778.00	
Propane averages (Dec 21)				Price ±
cif ARA (large cargo)			618.125	+0.958
fob ARA barge			895.000	+12.857
Butane				
cif ARA (large cargoes)	+13.00	673.50	- 679.50	+13.00
fob northwest Europe (small)	+22.50	684.50	- 690.50	+22.50
cif ARA (small)	+20.50	711.50	- 717.50	+20.50
fob ARA (barge)	+13.50	683.00	- 689.00	+13.50
fca ARA (rail)	+13.50	698.00	- 704.00	+13.50
cif Mediterranean (large)	+13.00	654.50	- 660.50	+13.00
fob Mediterranean (small)	+13.00	792.00	- 798.00	+13.00
Butane averages (Dec 21)				Price ±
cif ARA (large cargo)			665.188	+3.771
fob ARA barge			683.083	+11.571
Ice Brent futures settlement				
Feb 22			73.08	+3.20
Mar 22			72.69	+3.18
Apr 22			72.32	+3.12
Competing fuels (2 Dec)				Bid Ask ± 25 Nov
NWE small-scale LNG €/MWh		95.85	96.25	
NWE small-scale LNG \$/t propane equivalent		1,519.28	1,525.62	

pick up. Some 300t of propane was heard changing hands at \$935/t fca ARA for delivery later in the week. Sellers are confident that more deals will be concluded over the coming days as freezing temperatures around mainland Europe have boosted demand.

The price of butane barges was steady as a ratio to the vale of physical naphtha as discussions were muted on Monday.

### Reported done (\$/t)

935 fca ARA (propane railcars, 300t, loading 9-11 December)  
707 fob Antwerp (propane coasters, 1,700t, loading 13-15 December)

### Assessment rationale

Propane ARA large cargo (PA0000400) was assessed on the

basis of transactions, bids and offers, as and when these are identified in the market commentary, and other market data, in accordance with the methodology.

Butane ARA/UK large cargo (PA0000360) was assessed on the basis of transactions, bids and offers, as and when these are identified in the market commentary, and other market data, in accordance with the methodology.

## MEDITERRANEAN

Public discussions were muted for both grades in the Mediterranean region on Monday as market volatility deterred buyers and sellers from any spot action. Propane and butane values saw gains as prices across the broader markets were on an upward trend on Monday. Demand for butane is largely steady as temperatures are within seasonal levels.

## FSU

The daf Brest assessment for propane-butane mix moved down reflecting nine deals with a total volume of 1,800t. The deals were initiated on the Argus Open Markets (AOM) platform at \$598-602/t. Prices for propane also decreased with lower bids and offers. The highest bid on the AOM was at \$680/t, while a seller outside the AOM reported a bid at \$740/t.

Black Sea assessments for LPG mix, propane and butane remained unchanged in the absence of fresh indications.

The daf Ukraine prices ticked higher after two deals were concluded at \$660/t and \$700/t outside the AOM.

## INTERNATIONAL SWAPS

Paper trading was thin on Monday with no bids, offers, or trades for December cif ARA swaps seen during the assessment period. The relatively quiet market translated to minimal price moves with small gains recorded across the board. Swap values benefited from partial crude oil rebound due to diminished prospects of an imminent rise in Iranian oil exports, and following positive news that the impact of the Omicron coronavirus variant may be less severe than first thought. The December cif ARA value saw another day of gains, rising by \$6/t to \$621/t but failed to make up for the \$80/t loss it suffered in the previous five days. There was a bid-offer range of \$615-618/t for January Cif ARA in place between 16:15-16:30, with the December-January spread put at \$6/t in line with feedback from market participants. Similarly, Naphtha moved up by \$6.75/t to

FSU/eastern Europe				\$/t
	±	Bid	Ask	±
<b>Daily</b>				
fob Black Sea propane-butane mix		740.00	- 750.00	
fob Black Sea propane		755.00	- 765.00	
fob Black Sea butane		730.00	- 740.00	
daf Brest propane-butane mix	-3.00	598.00	- 602.00	-13.00
daf Brest propane-butane mix €/t	-3.00	529.00	- 533.00	-11.00
daf Brest propane-butane mix floating premium		0.00		
daf Brest propane-butane mix floating premium €/t		0.00		
daf Brest propane	-10.00	680.00	- 740.00	-10.00
daf Brest propane €/t	-8.00	602.00	- 655.00	-8.00
daf Brest differential to cif ARA (large)		+89.00		-14.50
daf Ukraine propane-butane mix	-5.00	660.00	- 700.00	+15.00
fot Burgas (Lukoil posted) propane-butane mix		950.0		-1.0
Argus Polish Domestic Index (APDI)		715		-11
<b>Weekly (1 Dec)</b>				
daf Bekabad propane-butane mix	-20.0	640.0	- 680.0	-55.0
daf Ukrainian-Romanian border propane-butane mix	-105.0	640.0	- 650.0	-100.0

\$658/t, which kept the spread between rival stocks largely unchanged at -\$37/t.

December AFEI swaps increased by \$7/t to \$678/t, which nudged the east-west spread up by \$1/t to \$57/t. January CP swaps also followed the general trajectory, moving up by \$5/t to \$659/t.

## Reported done (\$/t)

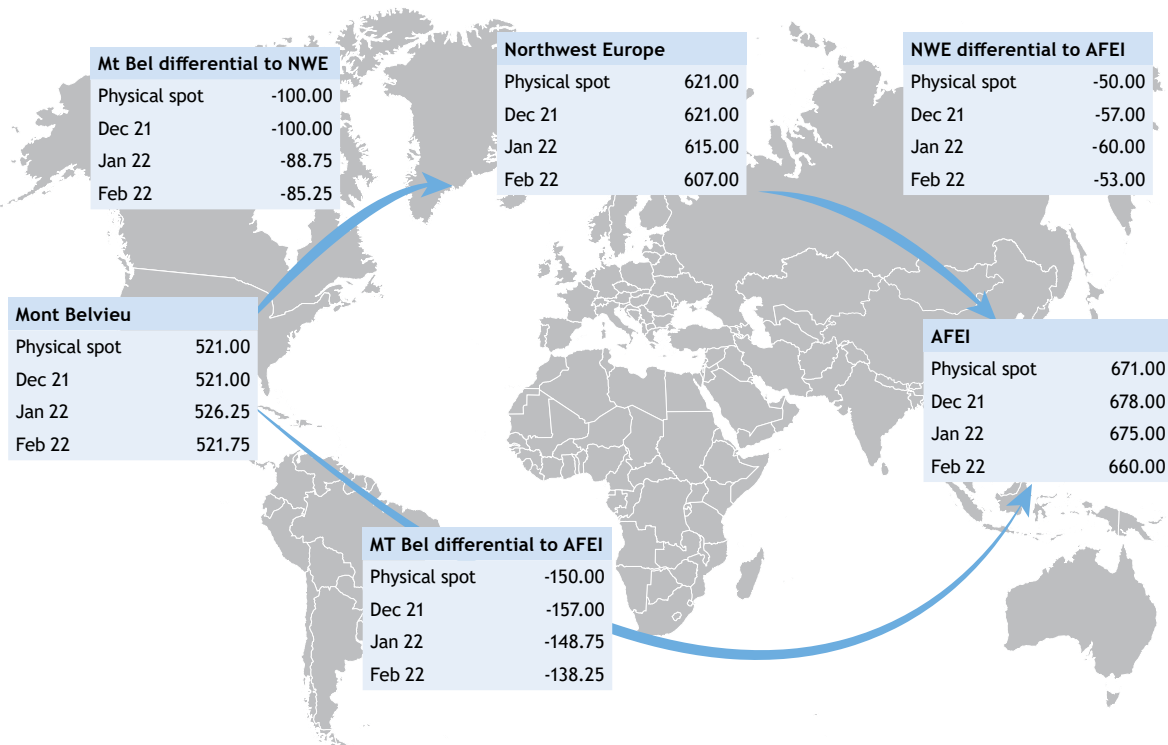
615(2kt) Jan cif ARA  
 607(1kt) Feb cif ARA (16:14)  
 534(1kt) Q3 cif ARA  
 538.5(1kt) Q4 cif ARA  
 662(4kt), 660(2kt), 669(2kt) Jan CP  
 13.5(2kt) Jan-Feb CP  
 54(3kt) Q2-Q3 CP  
 99(2kt) Q1-Q4 CP  
 673(2kt), 675(3kt) Dec AFEI  
 674(5kt), 673(1kt) Jan AFEI  
 2(2kt) Dec-Jan AFEI  
 16(5kt) Jan-Feb AFEI  
 106(10kt) Jan-Jun AFEI  
 -6.5(5kt) Jul-Dec AFEI  
 60(10kt) Jan AFEI-cif ARA  
 54(10kt), 53(2kt) Feb AFEI-cif ARA  
 55(5kt) Q1 AFEI-cif ARA  
 46(5kt) Q2 AFEI-cif ARA  
 17(4kt), 14(5kt) Jan AFEI-CP  
 14(3kt) Feb AFEI-CP  
 34(8kt) Oct AFEI-cif ARA

## FREIGHT

The cost of freight for a VLGC loading from Ras Tanura to

## LPG arbitrage

\$/t



## International swap prices (4:30pm London)

\$/t

	Propane cif ARA	Naphtha northwest Europe	Propane CP	Propane Argus Far East Index (AFEI) <sup>TM</sup>	Propane Mont Belvieu LST (\$/USG)	Propane less naphtha	AFEI <sup>TM</sup> less propane cif ARA	Mont Belvieu less Propane cif ARA	propane Mont Belvieu less AFEI <sup>TM</sup>	AFEI <sup>TM</sup> less propane CP
M1 differential to physical	+0.00	+16.00	-	-7.00	-					
Dec 21	621.00	658.00	na	678.00	100.750	-37.00	+57.00	-96.09	-153.09	na
Jan 22	615.00	645.00	659.00	675.00	100.750	-30.00	+60.00	-90.09	-150.09	+16.00
Feb 22	607.00	633.00	644.50	660.00	99.875	-26.00	+53.00	-86.65	-139.65	+15.50
Mar 22	580.00	623.50	613.50	629.50	95.250	-43.50	+49.50	-83.75	-133.25	+16.00
Apr 22	553.00	614.75	582.50	599.50	90.750	-61.75	+46.50	-80.19	-126.69	+17.00
May 22	540.00	606.50	555.50	582.50	88.750	-66.50	+42.50	-77.61	-120.11	+27.00
Jun 22	535.00	599.00	539.50	572.50	87.625	-64.00	+37.50	-78.47	-115.97	+33.00
Jul 22	534.00	592.25	535.50	572.50	87.375	-58.25	+38.50	-78.78	-117.28	+37.00
Aug 22	536.00	586.50	534.50	573.50	87.375	-50.50	+37.50	-80.78	-118.28	+39.00
Sep 22	538.00	582.00	535.50	575.00	87.375	-44.00	+37.00	-82.78	-119.78	+39.50
Oct 22	541.00	578.00	537.50	576.50	87.375	-37.00	+35.50	-85.78	-121.28	+39.00
Nov 22	543.00	573.75	538.00	578.00	87.375	-30.75	+35.00	-87.78	-122.78	+40.00
Dec 22	544.00	569.50	539.00	579.00	87.375	-25.50	+35.00	-88.78	-123.78	+40.00
1Q22	600.75	633.750	639.00	654.75	98.625	-33.00	+54.00	-86.91	-140.91	+15.75
2Q22	542.75	606.750	559.25	584.75	89.042	-64.00	+42.00	-78.84	-120.84	+25.50
3Q22	536.00	587.00	535.25	573.75	87.375	-51.00	+37.75	-80.78	-118.53	+38.50
4Q22	542.75	na	538.25	577.75	87.375	na	+35.00	-87.53	-122.53	+39.50
2022	555.00	600.00	566.00	597.00	90.600	-45.00	+42.00	-82.97	-124.97	+31.00

Calculated LPG freight rates		
Route	Size (t)	\$/t
<b>VLGC</b>		
Houston-Mohammedia	46,200	55.39
Marcus Hook-Flushing	46,200	49.10
Houston-Suape	46,200	50.40
Houston-Quintero	46,200	65.67
Ras Tanura-New Mangalore	46,200	22.72
Ras Tanura-New Mangalore + Haldia	46,200	43.24
<b>MGC</b>		
Marcus Hook-Flushing	21,700	47.30
Houston-Flushing	21,700	64.30
Houston-Suape	21,700	57.89
Ras Tanura-New Mangalore	22,000	26.63
Houston-Callao	21,700	61.02
Houston-Lagos	22,300	90.05
Houston-Lagos propane diff	21,700	92.54
Rotterdam-Lagos	22,300	70.11
Rotterdam-Lagos propane diff	21,700	72.05

Middle East and Asia-Pacific averages		\$/t
	Price	±
<b>Middle East (Jan 22)</b>		
Propane	-5.000	
Butane	-5.000	
<b>Argus Middle East Index (Dec 21)</b>		
Propane	648.000	+3.000
Butane	641.250	+3.250
<b>Argus Far East Index™ (Dec 21)</b>		
Propane	659.250	+3.917
diff to M1	-2.500	+0.500
Butane	652.500	+4.167
11+11 propane-butane mix (Dec 21)	655.875	+4.042
<b>Argus Ningbo Index (Dec 21)</b>		
Propane	661.625	+4.292
Butane	654.875	+4.542
<b>Argus South China Index (Dec 21)</b>		
Propane	666.750	+4.250
Butane	660.000	+4.500
Pearl River Delta Index (Yn/t)	5,665	-65
South Africa LPG Index MTD	772.25	+3.11

Chiba fell by \$1.50/t on the day to close at \$58.50/t, as the rate dipped below \$60/t for the first time since 10 November.

Time charter equivalent (TCE) earnings on the Ras Tanura to Chiba voyage slipped to just under \$39,000/day on Monday, down from around \$40,500/day on Friday and around \$48,000/day last Monday. The TCE earnings on the Ras Tanura to Chiba route have fallen harder than the earnings on the Houston to Chiba voyage, and as a result the premium held by the latter has widened, reaching just under \$14,000/day on Friday.

There were at least two bookings recorded on the day from the Mideast Gulf, one of which was for delivery into India and the other east Asia.

Trade Vitol booked the vessel Dorset to load a cargo from the Mideast Gulf to east Asia from 24 December at around the high-\$50's/t on a Ras Tanura to Chiba basis.

While Indian state controlled firm IOC finalised its tender, placing the vessel Gas Al Mubarakiah to load a cargo from Ruwais to east and west coast India from 20-21 December at \$60/t on a Ras Tanura to Chiba basis, but voyages to India usually command a premium.

The position list is almost finalised for December loadings in the Mideast Gulf, with the potential for two more Indian tenders, but that should be it, a market participant said.

Activity in the US Gulf was quiet to start the week with

reportedly two cargoes quoted on the day for loading from 1-10 January.

While delays at the Panama Canal continued to ease over the weekend. The Canal authority estimated a two-day wait for northbound Neopanamax vessels, down from six-days on Friday and seven-days last Monday. And waiting times for southbound Neopanamax vessels fell to eight-days, down from nine on Friday, but up from seven-days a week earlier.

On the northwest European coaster market, pockets of demand were recorded on the day as the region continued to tighten.

Portugal's Sacor placed the vessel Eco Lucidity to load a 1,700t propane cargo from Sines to Leixoes from 10-11 December.

While in the product window, trader SHV sold a 1,700t propane cargo to Norway's Equinor on a fob Antwerp basis, loading from 13-15 December. Equinor will use one of their own vessels for the cargo.

The cost of freight for a 1,800t coaster loading from Tees to ARA held flat at \$46/t on Monday.

Activity in the Mediterranean continues to hold firm with few vessels available for prompt loadings, a market participant said.

At least two cargoes were heard on the day for delivery into the Mediterranean. The vessel Westminster was placed

Argus African LPG Indexes								
	South Africa	±	West Africa Propane	±	West Africa Butane	±	East Africa	±
Index \$/t	781.56	+24.05	648.78	+10.20	648.09	+10.31	686.23	+23.96
MTD average \$/t	772.25	+3.11	637.21	+3.86	637.95	+3.38	676.62	+3.20
Index local currency/kg	1,249.14 ZARc	+37.71	266.44 NGN	+4.41	266.16 NGN	+4.45	77.41 KES	+2.77
<b>Calculation</b>								
Underlying price \$/t	654.60	+24.00	554.87	+9.77	558.04	+9.91	652	+3.60
Freight + logistics \$/t	126.96	+0.05	92.54	+0.41	90.05	+0.40	34.33	-0.04



on subjects to load a 4,000t butane cargo from ARA to the region from 17 December, but the charterer for this cargo was not confirmed. And another charterer was heard seeking a vessel to load a 4,000t butane cargo from Lavera to Morocco.

The cost of freight for a coaster between Tees and Mohammedia held flat at \$80/t on Monday. While the price for a 4,000t coaster travelling from Lavera to Morocco was heard around \$55/t, around \$5/t higher week on week.

## MIDDLE EAST

Spot discounts for propane and butane cargoes loading 1-10 January from the Mideast Gulf remained unchanged at -\$5/t against the January CP amid limited trade discussions.

The Argus Middle East Index (AMEI) assessments for propane and butane were assessed at \$657/t and \$651/t respectively.

January propane CP swaps rose by \$24/t day-on-day to settle at \$662/t at Asian timestamp while its butane counterpart was assessed \$6/t lower at \$656/t.

## ASIA -PACIFIC

### Refrigerated

Asian prices extended gains with swaps value despite weak crude benchmarks. January Argus Far East Index (AFEI) propane swaps rose by \$22/t on the day to close at \$672/t at Asian. The front-month Brent futures edged lower by \$0.72/bl. The front-month January AFEI/CP spread narrowed to +\$10/t from +\$12/t during the last trading session.

Activity on the open window dwindled but focused remained on first-half and second-half January arrival cargoes. Itochu returned to bid for a 23,000t propane cargo arriving in first-half January at January AFEI -\$3/t, without counteroffers heard. Glencore continued to bid for a 23,000t propane cargo for second-half January arrival at January AFEI -\$2/t. No deals were heard to be concluded.

11,500t+11,500t cargoes arriving 31 December were assessed at \$668/t, reflecting the average of propane and butane AFEI for second-half December arrival. 11,500t+11,500t cargoes arriving 1-15 January were assessed at \$668/t, reflecting the average of propane and butane AFEI for first-half January arrival. The Argus Mixed Index spanning 31 December-15 January averaged \$668/t.

The Argus cfr Ningbo propane Index for cargoes arriving 31 December were assessed at December AFEI +\$0.5/t or \$674.5/t, as trading in the prompt period had largely concluded. Cfr propane cargoes arriving 1-15 January were valued at January AFEI +\$2.5/t or \$674.5/t, in consideration

Asia-Pacific						\$/t
	CP basis	Timing	±	Bid	Ask	±
Propane						
Gulf CP fob	Jan 22	Jan 22	-10.00	-	+0.00	
Argus Middle East Index					657.00	+24.00
Japan CP cfr	Dec 22	1H Jan	+23.00	-126.00	-	-122.00 +23.00
Japan cfr			+23.00	669.00	-	673.00 +23.00
India CP cfr	Jan 22	Jan 22	-1.02	+36.24	-	+40.24 -1.02
India cfr					700.243	
Argus Far East Index™ (AFEI™)					671.00	+23.00
AFEI™ diff to M1					-1.00	+1.00
Butane						
Gulf CP fob	Jan 22	Jan 22	-10.00	-	+0.00	
Argus Middle East Index					651.00	+24.00
Japan CP cfr	Dec 22	1H Jan	+23.00	-87.00	-	-83.00 +23.00
Japan cfr			+23.00	663.00	-	667.00 +23.00
India CP cfr	Jan 22	Jan 22	-1.02	+36.24	-	+40.24 -1.02
India cfr					694.243	
Argus Far East Index™ (AFEI™)					665.00	+23.00
11+11 propane-butane mix						
Japan cfr			+23.00	666.00	-	670.00 +23.00
Argus Mixed Index					668.00	+23.00
Propane pressurised						
South China CP fob	Dec 21	Dec 21	+28	-	+38	
South China fob		Dec 21		823	-	833
South China CP cfr	Dec 21	Dec 21	+58	-	+68	
South China cfr		Dec 21		853	-	863
Vietnam CP cfr	Dec 21	Dec 21	+78	-	+88	
Butane pressurised						
South China CP fob	Dec 21	Dec 21	+28	-	+38	
South China fob		Dec 21		778	-	788
South China CP cfr	Dec 21	Dec 21	+58	-	+68	
South China cfr		Dec 21		808	-	818
Vietnam CP cfr	Dec 21	Dec 21	+78	-	+88	
Propane swaps (5pm Singapore)						\$/t
CP swaps			AFEI™ swaps			
Jan 22	662.00	Dec 21			674.00	
Feb 22	649.00	Jan 22			672.00	
Mar 22	619.00	Feb 22			656.00	
Butane swaps (5pm Singapore)						\$/t
CP swaps			Propane/Butane CP swaps Differential			
Jan 22	656.00	Jan 22			+6.0	

of private discussions. The Argus propane Ningbo Index spanning 31 December-15 January averaged \$674.5/t.

The Argus cfr Ningbo butane Index for cargoes arriving 31 December were assessed at \$668.5/t, reflecting January propane-butane CP differentials assessed at +\$6/t today. Cfr butane cargoes arriving 1-15 January were assessed at \$668.5/t, reflecting the same flat structure as cfr Ningbo Index for propane. The Argus butane Ningbo Index spanning

31 December-15 January averaged \$668.5/t.

The Argus South China propane Index for cargoes arriving 31 December were assessed at December AFEI +\$5.5/t or \$679.5/t, as trading in the prompt period had largely concluded. Cfr propane cargoes 1-15 January were assessed January AFEI +\$7.5/t at \$679.5/t, in consideration of private discussions. The Argus south China propane Index spanning 31 December-15 January averaged \$679.5/t.

The Argus south China butane Index for cargoes arriving 31 December were assessed at \$673.5/t, reflecting January propane-butane CP differentials assessed at +\$6/t today. Cfr butane cargoes arriving 1-15 January were assessed at \$673.5/t, reflecting the same flat structure as the south China Index for propane. The Argus South China butane Index spanning 31 December-15 January averaged \$673.5/t.

### Assessment rationale

Propane Argus Far East Index (AFEI) (PA0000403) was assessed based on bids and other market data.

The January AFEI and CP propane swaps were valued at \$672/t and \$662/t respectively.

Cfr propane cargoes arriving 1-15 January were valued at January AFEI -\$1/t or \$671/t in consideration of the window best bid at January AFEI -\$3/t and private discussions. Cargoes arriving 31 December were valued at parity to first-half January values, at December AFEI -\$3/t, or \$671/t, as trading in the prompt period had largely concluded. The propane AFEI spanning 31 December-15 January averaged \$671/t.

The propane AFEI rose by \$23/t from the previous session.

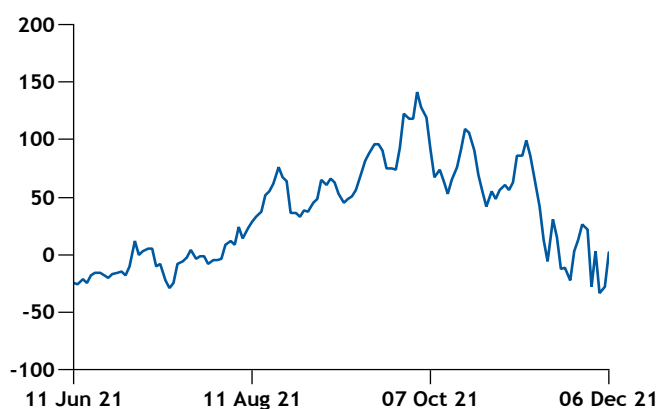
Butane Argus Far East Index (AFEI) (PA0000361) was assessed on the basis of other market data.

Cfr butane cargoes arriving 31 December were assessed at \$665/t, reflecting January propane-butane CP differentials assessed at +\$6/t today. Cargoes arriving 1-15 January were assessed at \$665/t, to reflect the same flat structure as

China wholesale propane/butane mix					yuan/t
	±	Bid	Ask	±	
South China					
Ex terminal					
Dongguan	-270	5,450	- 5,490	-260	
Zhuhai	-220	5,450	- 5,490	-220	
Shenzhen	-280	5,450	- 5,490	-280	
Raoping	-250	5,530	- 5,570	-250	
Nansha	-280	5,450	- 5,490	-260	
Shantou	-250	5,530	- 5,570	-250	
Yangjiang	-250	5,330	- 5,370	-250	
Pearl River Delta Index			5,469	-250	
Ex refinery					
Maoming	-150	5,300	- 5,350	-150	
Guangzhou	-80	5,390	- 5,440	-80	
East China					
Ex terminal					
Ningbo		5,200	- 5,300		
Wenzhou		5,200	- 5,300		
Taicang	-100	5,400	- 5,500	-100	
Shanghai	-100	5,050	- 5,150	-100	
Zhangjiagang	-100	5,400	- 5,500	-100	
Fujian		5,550	- 5,600		
Ex refinery					
Shanghai	-150	4,800	- 4,850	-150	
Zhenhai	-150	4,850	- 4,900	-150	
Yangzi		5,080	- 5,120		
Fujian		5,480	- 5,520	-30	
Gaoqiao	-150	4,800	- 4,850	-150	
Qingdao		5,150	- 5,200		
Northeast China ex refinery					
Daqing	-100	4,900	- 5,000	-100	
Dalian		4,750	- 4,850		
Northwest China ex refinery					
Urumqi		3,550	- 3,600		
Inland China ex refinery					
Lanzhou		0	- 0		
Yan-An	-180	4,520	- 4,525	-185	

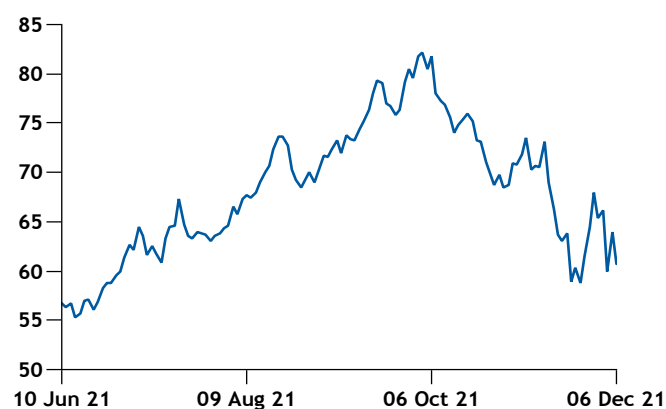
Japan: Butane diff to naphtha

\$/t



Propane LST ratio to Nymex WTI

%



propane AFEI. The butane AFEI spanning 31 December-15 January averaged \$665/t.

The butane AFEI rose by \$23/t from the previous session.

### Pressurised

Offers in south China were maintained at December CP +\$33/t on a fob south China basis. Spot demand was muted in view of the wide backwardation on December and January CP.

In north Vietnam, offers for December shipments were steady at December CP +\$83/t basis cfr Haiphong.

China's domestic wholesale prices weakened on Monday amid rising supplies. Refineries in east China lowered prices in a bid to reduce stockpiles while terminals in south China also dropped prices to boost demand in anticipation of fresh imports.

The Pearl River Delta index (PRD) was assessed lower by 250yuan/t at Yn5,469/t from the last trading session. Three VLGCs were discharging in the region and discounts were being offered. Jovo Dongguan prices fell by Yn265/t to Yn5,470/t based on Yn5,475/t spot prices and Yn5,455/t short-term prices. China Gas Guangzhou and Sinobenny Shenzhen prices fell to Yn5,470/t, down Yn270/t and Yn280/t respectively from last Friday. Zhuhai terminal prices dropped sharply by Yn220/t to Yn5,475/t as a VLGC was discharging there today. Prices at Siamgas slumped by Yn220/t to Yn5,500/t. Prices at New Ocean fell by Yn240/t to Yn5,480/t while CNOOC Gaolan prices fell by Yn200/t to Yn5,400/t.

Raoping and Shantou terminal prices slipped by Yn250/t to Yn5,550/t, tracking prices in the PRD region. Yangjiang prices also fell by Yn250/t to Yn5,350/t owing to ample supply and limited demand.

In south China, refinery prices at Maoming and Guangzhou were lowered by Yn150/t and Yn80/t respectively in a bid to ease inventory pressure. Guangzhou refinery is likely to increase supply later this week following the completion of partial maintenance.

In east China, refinery prices fell further amid increased output. Gaoqiao refinery is scheduled to restart soon while Zhenhai refinery increased production of LPG to prepare for the start-up of its new 1.2mnt/yr ethylene cracker later this month. Import terminals also cut prices to spur demand.

In northeast China, Dalian refinery prices saw no changes while Daqing prices moved down by Yn100/t owing to tepid demand. Urumqi prices in northwest China held steady from last Friday.

In inland China, Yan'an refinery prices fell by between Yn180-185/t today amid increased supply and weak demand.

## US GULF EXPORTS

Bids and offers for spot propane cargoes for January loading remained far apart, and no spot transactions were reported. A Gulf coast terminal operator re-entered the market to repurchase January loadings at levels below 5¢/USG, but selling interest remained above that level Monday.

The wider discussions came as the arbitrage to Asia improved on paper. The January LST/FEI propane spread widened to \$151-153/t on paper during the morning.

The Panama Canal Authority estimated a shorter two-day and eight-day wait northbound and southbound, respectively, for unbooked vessels Monday.

Pemex's posted LPG prices to distributors, including IVA taxes, fell more than Ps0.4/kg at several locations the week of 6 to 12 December.

## US

### Mont Belvieu light NGLs

Mont Belvieu, Texas, LST propane opened higher and pared gains, valued at a weaker 60.7pc of Nymex WTI.

December LST propane opened 0.75¢/USG higher at 101.75¢/USG and fell as low as 99¢/USG during the morning before activity grew quiet in the afternoon. Market participants continue to wait for a clearer direction following recent declines in both crude and natural gas prices, and the volatility is leaving many would-be buyers on the sidelines. January LST propane was offered between 101.25¢/USG and 102¢/USG throughout the day, but bids were sparse.

December EPC propane opened 0.875¢/USG higher at 101.375¢/USG and traded between 98.5-101.5¢/USG. A December LST/EPC spread priced EPC propane at a 0.5¢/USG discount.

December EPC ethane opened 2.125¢/USG lower at 33.5¢/USG and traded between 33-34¢/USG in the morning before falling to 32.5¢/USG in the afternoon. Intraday prices hit the lowest levels seen since August, following extended declines in natural gas. January ethane was discussed between 30.75¢/USG and 33¢/USG during the afternoon.

January Nymex light sweet crude futures rose by \$3.23/bl to settle at \$69.49/bl.

### Mont Belvieu heavy NGLs

Mont Belvieu, Texas, EPC butane lagged gains in gasoline, valued at a lower 58.5pc of Nymex RBOB.

December EPC butane opened 0.875¢/USG stronger at 120¢/USG and fell to 119¢/USG before climbing to a high



of 120.125¢/USG. January butane was discussed between 118.875-119¢/USG, and a December/January spread priced the months at parity. A December spread with ratable Oneok barrels priced the products at parity. December EPC/Con-way spreads valued EPC butane between a 5.75-6.5¢/USG discount.

EPC isobutane opened in line with the previous session at 119¢/USG and rose to 119.625¢/USG thereafter. Spreads priced EPC isobutane at a 0.5¢/USG premium versus Targa isobutane and between parity with a 0.5¢/USG discount versus EPC normal butane.

December EPC natural gasoline rose with crude, opening 1.5¢/USG stronger at 162¢/USG and trading between 160.375-167.25¢/USG. Natural gasoline was valued at 99.4pc of Nymex WTI. A December/January spread traded at a 1¢/USG backwardation.

Targa natural gasoline opened at 163.75¢/USG and was bid and offered as high 164.75¢/USG and 167.25¢/USG, respectively, in the afternoon.

December LST natural gasoline was quiet through the session with offers as low as 167.75¢/USG in the afternoon. First quarter ratable barrels traded at a 1¢/USG premium against EPC natural gasoline.

## INDUSTRY NEWS

### Borouge awards Abu Dhabi petchem construction

Abu Dhabi-based joint venture Borouge has awarded \$6.2bn worth of contracts for engineering, procurement and construction at the latest expansion of its growing petrochemical complex at Ruwais.

Five contracts were signed on 4 December, according to Borouge that is a joint venture of Abu Dhabi's state-owned Adnoc and Vienna-based Borealis. The largest was awarded to France's Technip Energies, which will build a 1.5mn t/yr ethane cracker, the fourth at the Borouge complex.

Italian engineering firm Tecnimont was awarded three contracts covering the construction of two new polyethylene

## ANNOUNCEMENTS

### Changing LatAm, TCE LPG freight rates

Following consultation, effective 13 December Argus is discontinuing one LPG freight rate in Latin America and changing calculation assumptions for two others.

Argus is discontinuing its Houston-Callao MGC assessment (PA00032879) and replacing it with a two-port discharge Houston-Pisco+Callao MGC assessment.

Argus is also decreasing the discharge time for VLGCs from three days at Suape and two-and-a-half days at Quintero, to two days for both the Houston-Suape and Houston-Quintero routes. The combined assumed loading and discharge times for the routes will equal four days of total laytime.

Finally, Argus is removing time charter commission and allowance for bunkering time from the formula calculating VLGC rates from LPG calculated time charter equivalent (TCE) rates. These changes will not affect the VLGC rates calculated from LPG TCE rates.

For a completed list of affected pricing database (PA) codes, please contact [datahelp@argusmedia.com](mailto:datahelp@argusmedia.com).

For more details, please contact the Argus Freight team by email at [freight@argusmedia.com](mailto:freight@argusmedia.com) or by phone at +1 646 376 6132.

(PE) plants, each with 700,000 t/yr capacity and a hexane-1 plant.

The complex will also produce 100,000 t/yr of cross-linked PE when it is commissioned at the end of 2025.

Two other contracts covered civil works such as site preparation, non-production buildings, roads and infrastructure.

Borouge's first phase was launched in 2001, producing 450,000 t/yr of PE. Borouge's second and third phases took capacity to 2mn t/yr and 4.5mn t/yr of PE and polypropyl-

## ANNOUNCEMENT

### Argus successfully completes annual losco assurance review

Argus has completed the ninth external assurance review of its price benchmarks covering crude oil, products, LPG, petrochemicals, biofuels, thermal coal, coking coal, iron ore, steel, natural gas and biomass benchmarks. The review was carried out by professional services firm PwC. Annual independent, external reviews of oil benchmarks are required by international regulatory group losco's Principles for Oil Price Reporting Agencies, and losco encourages extension of the reviews to non-oil benchmarks. For more information and to download the review visit our website <https://www.argusmedia.com/en/about-us/governance-compliance>

ene in 2010 and 2014 respectively. The latest addition will take total capacity to 6.4mn t/yr.

By Adal Mirza

### S. African LPG firm denies gas-cloud risk

South African LPG firm Avedia Energy has denied that a gas cloud that appeared at its 2,000t storage facility in Saldanha Bay last week posed any safety risk.

Rival firm Sunrise Energy, whose 220,000 t/yr LPG import terminal is located nearby, raised the alarm after it observed gas vapour emanating from Avedia's plant on 1 December at around 07:40 local time.

Avedia said the vapour was caused by a controlled product release through a pressure relief valve, in line with the correct operation of the plant's safety systems.

But Sunrise warned that a relief valve is the last safety measure on an LPG plant. It seems Avedia's storage bullets were being pressurised beyond their design capacity, which

US Gulf coast LPG			
	Low	High	Mean
<b>Propane</b>			
fob USGC, diff to Mont Belvieu €/USG	+4.750	+5.250	+5.000
fob USGC €/USG	106.25	106.75	106.50
fob USGC \$/t	553.56	556.17	554.87
del Japan (AUSJ) \$/t	664.5	667.0	
del ARA (AUSE) \$/t	609.5	612.0	
AFEI™ propane calculated netback USGC \$/t			534.95
<b>Butane</b>			
fob USGC €/USG	122.94	123.44	123.19
fob USGC \$/t	556.91	559.17	558.04
<b>LPG freight</b>			
			Price
Handysize Houston EC Mexico \$/t			23.25
VLGC Houston-Chiba \$/t			111.00
VLGC Houston-Flushing \$/t			56.00

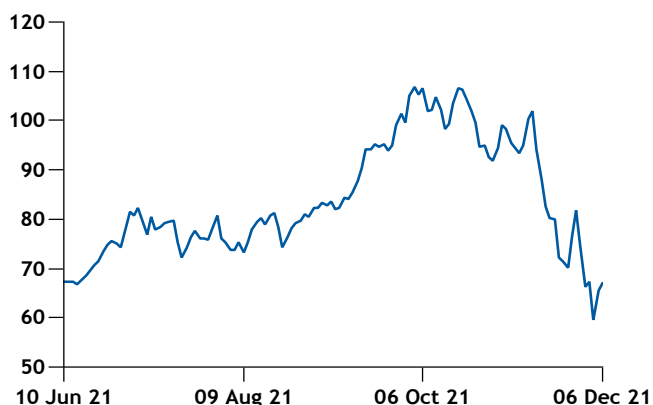
Americas: Mont Belvieu pipeline fob (Dec 21)					€/USG
	VWA	±	Low	High	±
<b>Enterprise</b>					
Propane	99.875	-0.375	98.500	- 101.500	-0.625
Propane equivalent \$/t		-1.954	513.185	- 528.815	-3.256
Butane	119.515	+1.375	119.000	- 120.125	-0.375
Butane equivalent \$/t		+6.229	539.070	- 544.166	-1.699
Purity ethane	33.106	-2.500	32.500	- 34.000	-2.125
Purity ethane equivalent \$/t		-18.450	239.847	- 250.917	-15.682
Ethane-propane mix	31.250	-2.375	31.000	- 31.500	-2.375
Isobutane	119.281	+1.625	119.000	- 119.625	-0.875
Natural gasoline	162.786	+3.375	160.375	- 167.250	+3.250
<b>LST</b>					
Propane	100.237	-0.500	99.000	- 101.750	-0.625
Butane	123.250	+0.500	123.000	- 123.500	+0.500
<b>Targa</b>					
Propane	100.250	-0.750	99.500	- 101.000	+0.250
Ethane	33.250	-2.375	33.000	- 33.500	-2.375

US Enterprise averages		€/USG
Month to date		±
Propane (Dec 21)	99.281	+0.239
Butane (Dec 21)	119.328	+0.078

US forward market					€/USG
	±	Low	High		±
<b>Mont Belvieu propane</b>					
Dec 21	+0.250	99.500	- 100.000	+0.250	
Jan 22	+1.250	100.500	- 101.000	+1.250	
Feb 22	+1.625	99.625	- 100.125	+1.625	
Mar 22	+2.500	95.625	- 96.125	+2.500	
1Q22	+1.875	98.625	- 99.125	+1.875	
<b>Mont Belvieu butane</b>					
Dec 21	+2.500	119.875	- 120.375	+2.500	
Jan 22	+2.250	118.625	- 119.125	+2.250	
Feb 22	+2.375	115.125	- 115.625	+2.375	
Mar 22	+2.750	109.750	- 110.250	+2.750	
1Q22	+2.500	114.500	- 115.000	+2.500	

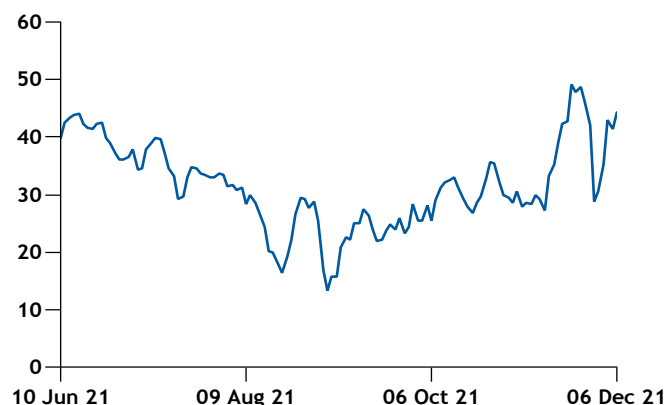
Propane LST diff to ethane non-LST

€/USG



MtB: Nat gasoline diff to butane non-LST

€/USG



## AMERICAS DEALS

Mont Belvieu spot deals			
	Timing	€/USG	bl
Butane EPC	Dec	118.750	5,000
	Dec	119.000	10,000
	Dec	119.000	10,000
	Dec	119.000	5,000
	Dec	119.250	10,000
	Dec	119.750	10,000
	Dec	119.750	5,000
	Dec	120.000	10,000
	Dec	120.000	10,000
	Dec	120.125	10,000
	Dec/Jan	1.000	25,000
Ethane EPC	Dec	32.500	10,000
	Dec	32.750	20,000
	Dec	32.750	10,000
	Dec	32.875	10,000
	Dec	33.000	100,000
	Dec	33.000	10,000
	Dec	33.000	10,000
	Dec	33.125	10,000
	Dec	33.125	10,000
	Dec	33.250	10,000
	Dec	33.250	10,000
	Dec	33.375	10,000
	Dec	33.375	10,000
	Dec	33.500	10,000
	Dec	33.500	10,000
	Dec	33.750	10,000
	Dec	34.000	10,000
Isobutane EPC	Dec	119.000	10,000
	Dec	119.000	10,000
	Dec	119.500	10,000
	Dec	119.625	10,000

caused a pressure valve to release vapour into the atmosphere, Sunrise said.

“Such a release results in a highly explosive vapour cloud that endangers the surrounding community, the adjacent Transnet iron ore export facilities,” as well as its own facility, Sunrise said.

This is a “reportable incident” to the relevant authorities, it said. The firm has written to the National Energy Regulator of South Africa and the Department of Labour to ask them to investigate the incident as a matter of urgency.

“Even though the risk, today, appears to be under control, no facility can be allowed to routinely release dangerous vapours into the atmosphere which pose such a danger to the local community,” Sunrise said.

But Avedia said no risk was posed to the Saldanha area

Mont Belvieu spot deals			
	Timing	€/USG	bl
Isobutane EPC/Butane EPC	Dec	-0.500	10,000
	Dec	-0.250	10,000
	Dec	0.000	10,000
Isobutane EPC/Isobutane Targa	Dec	0.500	10,000
Natgasco EPC	Dec	160.375	25,000
	Dec	160.500	10,000
	Dec	160.500	10,000
	Dec	160.875	10,000
	Dec	161.000	10,000
	Dec	161.000	10,000
	Dec	161.000	10,000
	Dec	161.250	10,000
	Dec	161.500	10,000
	Dec	161.875	10,000
	Dec	162.000	10,000
	Dec	162.000	10,000
	Dec	162.000	10,000
	Dec	162.250	10,000
	Dec	162.500	10,000
	Dec	162.625	5,000
	Dec	162.750	10,000
	Dec	162.750	10,000
	Dec	162.875	10,000
	Dec	163.000	10,000
	Dec	163.000	10,000
	Dec	163.000	10,000
	Dec	163.000	5,000
	Dec	163.375	5,000
	Dec	163.750	10,000
	Dec	163.875	10,000
	Dec	164.000	10,000
	Dec	164.000	10,000
	Dec	164.125	5,000
	Dec	164.250	10,000
	Dec	164.250	10,000
	Dec	164.625	5,000
	Dec	164.750	10,000
	Dec	165.000	10,000
	Dec	165.000	10,000
	Dec	166.750	10,000
	Dec	167.250	10,000
	Dec/Jan	1.000	25,000
Natgasco LST/EPC	Jan rate/Mar	1.000	150,000
Natgasco Targa	Dec	163.750	10,000
Propane EPC	Dec	98.500	10,000
	Dec	99.000	10,000
	Dec	99.000	10,000
	Dec	99.125	10,000
	Dec	99.125	10,000
	Dec	99.250	10,000
	Dec	99.500	10,000
	Dec	99.750	10,000

— and that such a release has happened only around twice since the facility was first commissioned in 2017.

Avedia's terminal had been shut since February 2019, when state-owned Transnet National Ports Authority (TNPA) ordered the firm to halt its quayside unloading at Saldanha.

Before being recommissioned in May, its storage terminal underwent mechanical and electrical safety inspections and had its tanks revalidated.

In September 2020, the Port Regulator of South Africa **overturned TNPA's order** by ruling that Avedia was entitled to ship to truck transfers at the port to its storage facility until a link to a pipeline owned by its competitor Sunrise was completed.

The firm has not yet resumed LPG imports, but companies such as Afrox and Easigas, South Africa's two largest LPG distributors, are using its facility to store product.

Avedia is under business rescue and is in the process of being restructured, but plans to restart LPG imports in the first quarter of 2022.

*By Elaine Mills*

### Alberta propane output rose in October

Propane output in Alberta rose by 7.8pc in October as steady exports and higher commodity prices continued to support production.

Propane production rose to 180,000 b/d, up from 167,000 b/d in October 2020, according to data from the Alberta Energy Regulator.

Propane sales within Alberta fell in October to 42,000 b/d from 52,000 b/d a year earlier amid weak seasonal heating demand. Sales to other provinces rose to 64,000 b/d from 38,000 b/d in October last year.

Butane output in Alberta fell to 113,000 b/d in October from 114,000 b/d in October 2020. Butane consumption within Alberta rose to 94,000 b/d from 73,000 b/d in October 2020 amid higher diluent demand.

*By Yulia Golub*

### Canadian National reopens BC rail line

Canadian National (CN) has restarted service on its Kamloops-Vancouver, British Columbia (BC), rail line which had been damaged by mid-November storms.

CN reopened the line on 5 December. Railroad crews will monitor the rail infrastructure and surrounding terrain in the upcoming weeks to make sure no problems appear.

CN and rival Canadian Pacific (CP) experienced damage on their Kamloops-Vancouver rail lines from **flooding during the week of 14 November**. CP made repairs quicker and allowed CN to use that line while the carrier made its own repairs.

## AMERICAS DEALS

Mont Belvieu spot deals			
	Timing	€/USG	bl
	Dec	100.000	10,000
	Dec	100.125	10,000
	Dec	100.500	10,000
	Dec	100.875	5,000
	Dec	101.000	10,000
	Dec	101.375	10,000
	Dec	101.500	10,000
Propane LST	Dec	99.000	19,000
	Dec	99.750	10,000
	Dec	100.000	10,000
	Dec	100.000	10,000
	Dec	100.250	10,000
	Dec	100.500	5,000
	Dec	101.000	10,000
	Dec	101.125	10,000
	Dec	101.750	10,000
Propane LST/Propane EPC	Dec	0.500	10,000
Propane Targa	Dec	101.000	10,000

The province remains under a state of emergency order that took effect on 17 November and continues until 14 December. The order came from British Columbia minister of public safety and solicitor general Mike Farnworth.

*By Abby Caplan*

### Mexico's retail LPG price caps hit new low

Mexico's retail LPG price ceilings continued to decrease this week and reached the lowest average level since the government capped rates in August, even below market-set rates at that time.

The average maximum retail price for LPG fell by 3pc, to Ps12.27/l (\$2.34/USG), based on the 5-11 December ceilings set by the energy regulatory commission (CRE). The price cap average is now 13pc below the market-set average retail price of close to Ps13.88/l on 31 July, a day before the new policy was imposed.

The highest maximum price allowed of Ps14.03/l was in effect for several cities in the state of Zacatecas in central-western Mexico, where logistics make deliveries more difficult.

The lowest of the caps, Ps10.35/l, was for the first time in several cities of the state of Hidalgo, in the central region.

Capping retail LPG prices and creating a state-owned distribution company have helped Mexico counter earlier steep international price increases, President Andres Manuel Lopez Obrador said last week.

## INDUSTRY NEWS

Prices for waterborne propane imports to Mexico's east coast, including freight, fell by 19pc to \$1.05/USG on 3 December, from 24 November, the most suitable weekly comparison as Argus did not publish assessments on 25 and 26 November because of Thanksgiving holiday in the US.

By Sergio Meana

### Chile's LPG market in political crosshairs

Chile's energy ministry is drafting legislation to foment LPG market competition as local mayors mount a politically charged campaign to challenge the dominance of three Chilean distributors: Copec subsidiary Abastible, Gasco and Lipigas.

The initiative by outgoing president Sebastian Piñera's administration follows a 29 November comptroller's office ruling that threw cold water on the local push to distribute LPG as a way to lower residential prices, asserting that municipalities are not authorized to handle and market the flammable product.

Ahead of a 19 December [run-off presidential election](#), Chilean candidate Gabriel Boric espoused the municipal "fair price" cause during a 5 December visit to the southern region of Bío Bío where he is looking to drum up votes. Boric accused the LPG companies of "collusion" for allegedly tripling the price of the product sold by Chile's state-owned Enap, which has its largest refinery in the region.

LPG is used by around 80pc of Chilean households as a cooking and heating fuel owing to limited natural gas pipeline networks.

Enap supplies part of the local market from its refining system, but private-sector imports meet the bulk of demand. In response to requests to expand its market role, Enap says it is studying the possibility of opening more bottling stations to supplement its Maipú, Linares and San Fernando hubs.

Valparaíso mayor and far-left Boric ally Jorge Sharp is among the local leaders vowing to collectively market not just LPG but also motor fuel, visualizing a "network of fair price service stations in all of Chile."

Boric's conservative rival José Antonio Kast has not directly referred to LPG. His platform calls for smaller and more efficient government with tighter regulation.

Chile consumed 176,000 tonnes of LPG in July, up by 11.2pc from a year earlier when the Covid-19 pandemic was in full swing, the latest data from the National Energy Commission (CNE) shows.

In Santiago, a 15kg canister is selling for around 27,500 Chilean pesos (\$32.83), up by about 35pc from a year earlier,

reflecting not only higher international oil prices but also the depreciation of the peso to the dollar, which makes imports more expensive. Chile has no direct LPG subsidies.

### Price premium

### Subscriber notice: Christmas and new year publishing

Please note the following publishing schedule for Argus International LPG for 24 December-3 January:

- 24 December - Asia-Pacific and Middle East assessments will close at the earlier time of 12:30pm Singapore time and European and Mediterranean assessments at the earlier time of 12:30pm London time. FSU/eastern Europe assessments will be published as usual. There will be no Americas assessments.
- 27 December - There will be no Asia-Pacific, Middle East, European, Mediterranean and FSU/eastern Europe assessments. Americas assessments will be published as usual.
- 28 December - There will be no European, Mediterranean and FSU/eastern Europe assessments. Asia-Pacific, Middle East and Americas assessments will be published as usual.
- 29-30 December - All assessments will be published as usual.
- 31 December - Asia-Pacific and Middle East assessments will close at the earlier time of 12:30pm Singapore time and European and Mediterranean assessments at the earlier time of 12:30pm London time. There will be no FSU/eastern Europe and Americas assessments.
- 3 January - There will be no European, Mediterranean and FSU/eastern Europe assessments. Asia-Pacific, Middle East and Americas assessments will be published as usual.

Open and close times for Argus Open Markets (AOM) platforms covering Asia-Pacific Cargoes, European LPG Cargoes, Butane cif Morocco Large and Small, European Coasters and European LPG Barges will be brought forward to reflect the earlier assessment close times on 24 and 31 December.



## INDUSTRY NEWS

In an October report, Chile's national economic prosecutor (FNE) determined that Chileans overpaid for LPG by \$181mn in 2010-20 because of limited market competition, translating into a 15pc price premium as Abastible, Lipigas and Gasco did not fully pass on lower costs to consumers.

The FNE highlighted the risk of price collusion and recommended the trio withdraw from direct and indirect retail distribution.

As part of an anti-trust agreement, Gasco and Coppec earlier this year sold LPG importer Gasmar to US private equity firm Arroyo Energy Group for \$422.5mn.

Gasmar imports LPG mainly from the US through its Quintero terminal on Chile's central Pacific coast and its Mejillones terminal in the north. Chile also imports some LPG by tanker truck from Argentina.

In recent years, Abastible, Gasco and Lipigas have looked to [grow in other South American countries](#), notably in Colombia and Ecuador.

By Patricia Garip

### Portugal butane demand at record lows in Oct

Demand for butane in Portugal dropped to its lowest on record in October, as high regional prices ruled out its use as olefins cracker feedstock and heating demand fell sharply during mild weather.

Butane demand probably partly recovered in Novem-

ber as temperatures moved back to more seasonal levels, although LPG price premiums to competing olefins cracker feedstock naphtha probably kept consumption of butane and propane by the petrochemical sector minimal.

Demand for butane fell by 11pc on the month and by 31pc on the year to 355 t/d in October, 21pc below pre-pandemic October 2019 and its lowest in at least 16 years, according to directorate of energy DGEG.

Propane consumption fell by 1pc on the month and 21pc on the year to 1,613 t/d in October and was 17pc below pre-pandemic October 2019.

Butane is largely used for residential and small business heating in Portugal and was probably affected by higher temperatures in October than a year earlier.

Propane tends to be the cheaper LPG in Portugal and consequently serves most of the LPG demand from integrated Repsol's 410,000 t/yr ethylene cracker in Sines, but the firm can crack butane if prices and availability allow.

Repsol appeared to have cracked mostly naphtha in October, after its consumption by the petrochemicals sector climbed by 23pc to 2,151 t/d in October from September and by 37pc from 2019.

Naphtha demand was at a 16-month high in October while propane demand was a 16-month low — propane last traded at a premium to naphtha in the second quarter of 2020.

Total LPG demand, including 97 t/d of autogas, was 2,065 t/d in October, 5pc lower on the month, 22pc lower on the year and 17pc below 2019.

DGEG estimates that demand for LPG as a heating fuel and autogas increased by 2pc to 1,158 t/d in October from September, but was down by 6pc on the year.

By Jonathan Gleave

### AOM notice: EU sanctions on Belarus

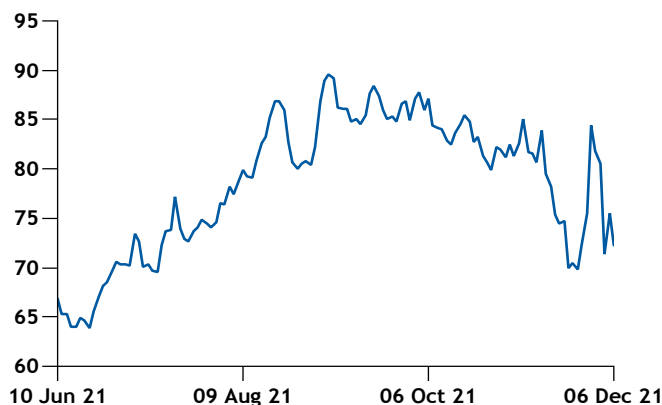
In light of the sanctions imposed by the EU on Belarus, and in particular, the application of the sanctions in relation to petroleum products of Belarus origin, please note that Argus requires all bids and asks posted on the Argus Open Markets (AOM) platform to include country(ies) of origin; this should be explicitly stated in the "notes" field.

Argus will not be able to take into account in its assessment of the daf Brest market any Deals (including bids or asks) that are not accompanied by an express statement of origin specification. Argus also take this opportunity to remind all participants of their ongoing obligations as set out in the AOM Terms of access, including the obligation to satisfy themselves that any transaction or counterparty to a Deal is not restricted or subject to any applicable sanctions regime or other legal prohibition.

If you have any questions related to this, please contact [aomoversight@argusmedia.com](mailto:aomoversight@argusmedia.com)

Butane: Mt Belvieu non-LST ratio to WTI

€/US\$



## INDUSTRY NEWS

### US light vehicle sales edge lower in Nov

US sales of light vehicles edged lower in November, led by slower sales of light trucks and SUVs, according to data from the Bureau of Economic Analysis.

Seasonally adjusted sales of light vehicles, which consist of light trucks and automobiles, decreased to a 12.9mn annual pace in November from a 13mn unit rate in October. Year-over-year sales were down from a 15.9mn unit rate in November 2020.

The November pace of sales was the second lowest of the year, after a 12.3mn rate in September, as production has been hampered by a shortage of semiconductors and other spare parts caused by Covid-19 factory shutdowns in southeast Asia and snarled supply chains as demand recovers after last year's slump. The price of new vehicles rose by an average 9.8pc in October from a year earlier, according to the latest government inflation report, which is deterring purchases.

Sales of light trucks and SUVs decreased to a 10.3mn unit rate in November from a 10.4mn unit pace sold in October, but increased compared with the previous November total of 12.1mn unit rate.

Sales of automobiles increased to a 2.58mn rate from a 2.55mn pace the prior month, but remained down from the 3.74mn units sold during November of last year.

October auto production reached 119,200 units, an increase from 84,300 units made in September, but down from an output of 189,800 vehicles in October of last year. Auto production is reported with a one-month lag. Figures in December should be lower than October and November, as several auto makers said last month they would have [holiday-related shutdowns at their US plants](#).

*By Jason Metko*

### Mexico auto output plummets again in Nov

Mexican light vehicle production fell again last month on an annual basis, recording the fifth straight month of declines as the global semiconductor shortage continues to plague the industry.

Production plummeted to 248,960 vehicles, a 20pc drop from the 312,184 units produced in November 2020, as the chip shortage caused temporary factory shutdowns.

It was the lowest production number for November since 2011. Output was also well below 2019 levels, when the country produced 307,756 units.

Mexican vehicle exports declined by 16pc in November to 240,341 units, according to the country's statistics agency (Inegi). That was the lowest number of exports for the month of November since 2015.

The auto industry has seen a production about-face in the second half of 2021, after the first half of the year saw gains against weak 2020 production that was affected by Covid-19-related factory shutdowns.

Production in the first 11 months of this year was 3pc higher than in 2020, when the pandemic sharply cut output, but was 21pc lower than the same period in 2019.

Mexico's domestic auto sales also fell, declining by 13pc to 82,829 units in November compared with the prior year.

The shortage of global semiconductors continues to take a greater toll on the auto industry than previously expected, as automakers from Nissan to General Motors have announced temporary shutdowns.

GM in particular reported poor production performance in November, with its output falling by 44pc to 40,534 units from 72,012 units in November 2020. GM is the largest producer of vehicles in Mexico so far this year, but lagged both Stellantis and Nissan in November.

The auto report comes as a key measure of Mexican manufacturing activity also declined in November, and the body that calculates the index said the country's economic recovery was losing steam.

GDP grew by 4.5pc in the third quarter compared to the prior year but contracted by 0.4pc compared with the second quarter, as industrial activity and services were weaker than expected.

Private bank economists expect the economy to grow by 6pc this year, which would not offset a contraction of more than 8pc in 2020.

*By Jens Erik Gould*

### Brazil vehicle output tumbles to 6-year low

Brazil's vehicle output fell in November to the lowest in about six years amid continuing shortages of semiconductors, according to vehicle association Anfavea.

Output in November fell to 206,000 vehicles, down by 14pc from a year earlier and 9.4pc less than the same month of 2019, before the Covid-19 pandemic. November vehicle production was the lowest since [the country's recession in 2015](#), according to Anfavea.

Demand is historically heated in November, but production this year has been hampered by problems with raw material deliveries. The vehicle association expects semiconductor supplies will gradually improve next year, although the shortage is not expected to be resolved fully until the end of 2022, Anfavea president Luiz Carlos Moraes said.

Production of automobiles and light vehicles fell in November to 190,079 units, down by 16pc from a year earlier. Truck output increased from a year earlier by 25pc to 14,400

## New ANSI freight for 2021-2022

Following consultation with the shipping industry the freight rate used to calculate the Argus North Sea Index (ANSI) for October 2021-September 2022 will be set at \$21.50/t – up by \$0.50/t compared with October 2020-September 2021. The freight rate is based on average time charter rates for a 20,000t cargo one load/two port discharge basis for routes Braefoot Bay, Karsto, or Mongstad terminals to Antwerp, Flushing, or Terneuzen.

## Argus Assessment Rationale Database

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Other subscribers may request access [here](#) or contact us by email at [sales@argusmedia.com](mailto:sales@argusmedia.com).

units, supported by agribusiness, the construction sector and mining, while bus production fell by 7.2pc to 1,600 vehicles.

Vehicle registrations fell to 172,964 units, down by 23pc from a year earlier and the lowest level in 16 years. Of the total registrations, 82pc were for flex-fuel vehicles that run on gasoline or E100, 14pc were for diesel vehicles, 2pc were for vehicles that run on gasoline and 2.2pc were for electric vehicles.

Exports declined by 36pc to 28,018 vehicles, including

25,733 automobiles, 1,800 trucks and 485 buses.

Vehicle inventories ended the month at 103,800 units.

"We have many incomplete vehicles in the factory yards, waiting for electronic components," Moraes said. "We hope to complete production this month, easing queues at the turn of the year."

*By Gisele Augusto*



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