

MARKET COMMENTARY

Atlantic Basin Industrial: Spot climbs

The Argus cif northwest Europe (NWE) index for industrial wood pellets delivered in the next 90 days rose by \$6.19/t to \$136.84/t on the week, an eight-month high. A weaker US dollar, strong European heating demand and renewed spot market interest supported the week's gains.

Spot market liquidity and pricing gained momentum in the week with one spot deal nearing conclusion. Spot discussions were reported at around €125/t on a cif NWE basis, equivalent to around the low-\$150s/t.

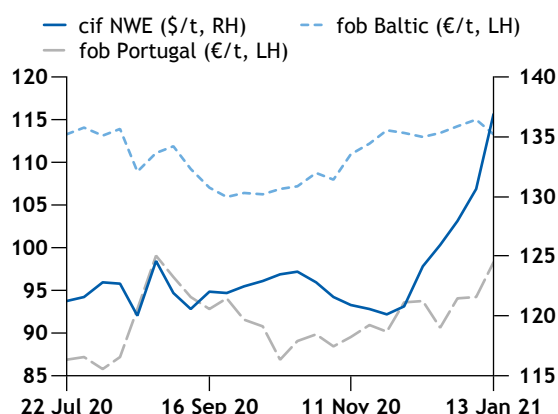
Spot handysize offers below €115/t cif NWE were scant in the week, traders said. There remained some lower-priced wood pellets available from Russia, but at limited volumes, a trader added.

Plentiful wood pellet inventories remained at most European biomass-fired utilities in the week but stored supply was decreasing and if strong winter demand continues, an increase in buying interest is likely, a trader said.

Potential spot buyers were limited to negotiating with European suppliers, as prices remained too low to interest most north American producers, enabling higher euro-denominated offers.

Cold weather across Europe could trigger increased wood pellet consumption further in the coming weeks. Average temperatures in Copenhagen were 1.56°C in the past week, almost 1°C lower than the ten-year norm. Night-time temperatures fell to freezing or just below,

Argus industrial wood pellet index



EUROPEAN INDUSTRIAL WOOD PELLETS

Wood pellets - within 90 days (spot)					
	Week index		Month index		
	Price	±	Dec	Nov	Oct
cif NWE \$/t	136.84	+6.19	124.71	120.82	123.24
fob Baltic €/t	113.22	-1.71	113.54	111.25	107.23
fob Portugal €/t	98.33	+4.16	93.02	89.74	89.13

Wood pellets - within 90 days (spot)		
	Price	±
cif NWE \$/MWh	28.98	+1.31
fob Baltic €/MWh	23.98	-0.36
fob Portugal €/MWh	20.82	+0.88

Wood pellets - forward prices			
	Bid	Ask	±
cif NWE \$/t			
1Q21	133.50	139.50	+6.00
2Q21	134.50	140.50	+5.25
3Q21	135.50	141.50	+4.00
4Q21	143.00	149.00	+2.50
2022	159.50	165.50	nc
2023	171.25	177.25	nc
2024	175.50	181.50	nc
fob Baltic €/t			
1Q21	110.00	116.00	-1.75
2Q21	115.25	121.25	-0.75
3Q21	115.00	121.00	-0.75
4Q21	124.25	130.25	-0.75
2022	137.25	143.25	nc
2023	144.50	150.50	nc
2024	148.25	154.25	nc
fob Portugal €/t			
1Q21	95.00	101.00	+4.00
2Q21	97.00	103.00	nc
3Q21	99.00	105.00	nc
4Q21	109.00	115.00	nc
2022	119.00	125.00	nc
2023	128.00	134.00	nc
2024	131.25	137.25	nc

Contents

Atlantic Basin Industrial wood pellet comment and prices	1
European Industrial wood chip prices	3
European Premium wood pellet comment and prices	4
Asian Industrial wood pellet and PKS comment and prices	5
Wood pellet freight rates	6
Weather	7
Market news	8
Break-even Generation Costs	13

Speedwell Weather data show. Parts of southern Europe also experienced a dramatic cold snap in the week (see comment, p.4).

UK power prices climbed in the week to highs not seen since November 2016. The UK OTC baseload day-ahead price averaged £103.55/MWh in the week to Wednesday, a 27.3pc increase on the week. Dutch power prices also strengthened on the week, supporting wood pellet burn.

RWE's two Dutch biomass co-fired power plants ran at or near full capacity in the week to Wednesday.

UK utility Drax reported two unplanned outages in the week totalling 11 days – one at its 645MW baseload unit 3 started on 10 January and is set to end on 14 January. And Drax's 645MW peak-load unit 4 was switched off on 8 January and is due back on line on 15 January. As a result, UK biomass generation decreased to 0.37TWh from an average of 2.22GW of capacity in the week to Wednesday, down from 0.50TWh and 2.96GW last week, data from Drax and Imperial College London show. While in Denmark, Orsted's 548MW Avedore 2 was taken off line from 8-12 January.

Further along the curve, interest in second quarter deliveries continued in the week and bids rose closer to tentative offer levels, a trader said. A bid for southeast US wood pellets was reported around \$115/t fob for May delivery. And discussions were heard for first and fourth quarter 2021 volumes out of Russia. Volumes were discussed at around €110/t cif NWE for first quarter delivery, while the buyer and seller remained far apart on negotiations for the fourth quarter, a trader said.

Very close ice, thin ice and new ice was reported at the Russian port of St Petersburg. And there was thin ice and new ice at the Estonian port of Pärnu, Finnish Meteorological Institute data show. There were no issues reported with contracted shipments out of the Baltics owing to the ice this week, traders said.

The fob Baltic index fell by €1.71/t on the week to close at €113.22/t on Wednesday.

Residential Baltic heating demand strengthened in the week, increasing wood pellet burn. But an extended period of cold weather in Europe is required for demand to rise in line with supply, participants said.

An offer for 15,000t of wood pellets was heard at around €114-115/t fob Baltic in the week but no firm interest was attached.

Baltic wood pellet producers were considering production curtailments in an effort to "balance the market," one producer said. While wood pellet stocks were dwindling in the week, many producers still harboured some leftover wood pellets volumes they had previously planned to sell to the spot market and few Baltic producers intend to "produce

NORTH AMERICAN INDUSTRIAL WOOD PELLETS

US fob export price (industrial wood pellets)					\$/t
Origin	Delivery period	Mid	Bid	Ask	±
fob southeast US	Spot		109.50	112.50	+5.75
fob southwest Canada	Spot		112.25	115.25	+5.75
fob northeast US	Spot	112.05			+5.90

US fob export price (industrial wood pellets)					\$/MWh
Origin	Delivery period	Mid	Bid	Ask	±
fob southeast US	Spot		23.19	23.82	+1.22
fob southwest Canada	Spot		23.77	24.41	+1.22
fob northeast US	Spot	23.73			+1.25

Wood pellets - forward prices					\$/t
	Mid	Bid	Ask		±
fob southeast US					
1Q21		109.25	112.25		+5.75
2Q21		110.25	113.25		+5.00
3Q21		111.25	114.25		+3.75
4Q21		118.75	121.75		+2.25
2022		135.25	138.25		-0.25
2023		147.00	150.00		-0.25
2024		151.25	154.25		-0.25
fob southwest Canada					
1Q21		112.00	115.00		+5.75
2Q21		113.00	116.00		+5.00
3Q21		114.00	117.00		+3.75
4Q21		121.50	124.50		+2.25
2022		138.00	141.00		-0.25
2023		149.75	152.75		-0.25
2024		154.00	157.00		-0.25
fob northeast US					
1Q21	111.70				+5.70
2Q21	112.70				+4.95
3Q21	113.70				+3.70
4Q21	121.20				+2.20
2022	137.70				-0.30
2023	149.45				-0.30
2024	153.70				-0.30

at full speed" in 2021, he added.

Baltic producers were eyeing offers in the mid-€120s/t fob Baltic for the second half of 2021.

In Portugal, the fob index rose by €4.16/t on the week to close at €98.33/t on Wednesday. Heating demand from neighbour Spain rose in the week, increasing export activity in Portugal, a trader said.

Spot offers remained at around €100-105/t on a fob basis in the week, but no firm industrial interest was heard. In Spain, industrial grade wood pellets were heard offered around €135/t on an ex-works basis.

Some wood pellet production curtailments may also occur in Portugal throughout 2021, particularly after several long-term contracts expire in the second quarter of 2021, a trader said.

European wood chips: Spot moves up

The spot price for industrial wood chips delivered to northwest Europe (NWE) in the next 90 days was assessed 10¢/GJ higher on the week to €6/GJ on Wednesday, as heating demand and freight costs rose.

High coaster rates lifted the cost of spot wood chips delivered to European ports. The majority of sellers were unlikely to accept bids below €6/GJ cif NWE given the increase in logistical costs, a trader said. And stronger heating demand increased the likelihood of emerging spot demand in the coming weeks. The price for wood chips delivered in the first quarter 2021 also rose by 10¢/GJ on the week to €6/GJ cif NWE.

European heating demand remained robust in the second week of January. Temperatures in Stockholm declined to minus 0.52°C in the week to Wednesday – 0.19°C lower than the ten-year seasonal norm, encouraging strong wood chip consumption for heating.

But the spot market remained largely illiquid and there were no firm bids or discussions confirmed in the week.

Danish utility Høfor's wood chip-fired 150MW Amager 4 combined heat and power (CHP) unit operated uninterrupted in the week, supporting a potential increase in spot demand.

Wood chip prices remained much lower on the year. The Argus-assessed spot price averaged €6.80/GJ cif NWE in January 2020. A steep increase in German supply owing to its bark beetle infestation resulted in high stock levels, weighing on prices.

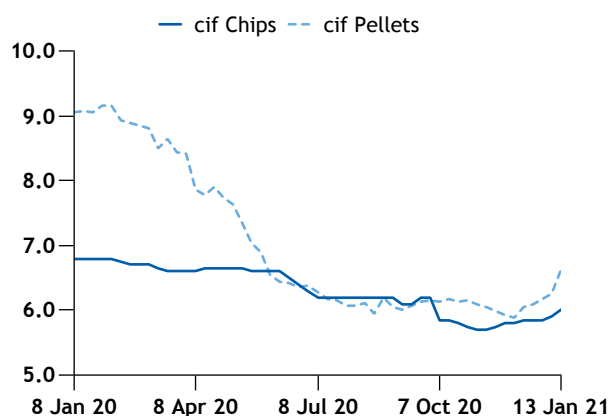
INDUSTRIAL WOOD CHIPS

NWE wood chips - within 90 days (spot)					€/GJ
	Week index		Month index		
	Price	±	Dec	Nov	Oct
cif NWE	6.00	+0.10	5.84	5.74	5.81

Wood chips cif NWE - forward prices				€/GJ
	Bid	Ask		±
1Q21	5.90	6.10		+0.10
2Q21	6.00	6.40		nc
3Q21	6.05	6.25		nc
4Q21	6.55	6.75		nc
2022	7.10	7.40		nc
2023	7.40	7.80		nc
2024	7.50	7.90		nc

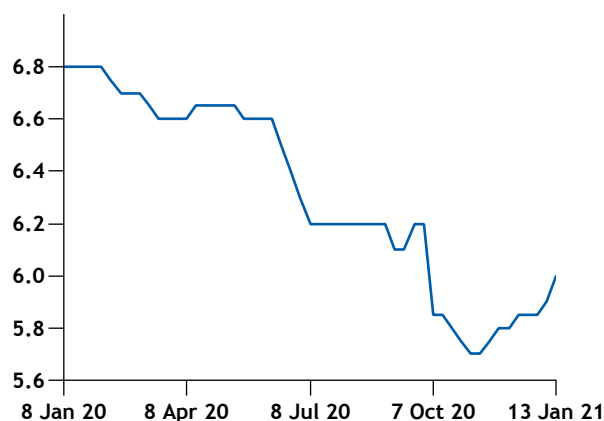
Spot wood chips vs pellets cif NWE

€/GJ



Spot wood chip cif NWE

€/GJ



European Premium Biomass: Bulk down on deal

A spot deal for 6,000t of bulk wood pellets delivered into Italy was concluded in the week to Wednesday. And across Europe, heating demand continued to ramp up in the week, with snowfall across large areas of southern Europe. Average temperatures held significantly below long-term seasonal norms in the week, increasing wood pellet consumption.

A bulk spot deal for 6,000t of Russian wood pellets on a cif northern Italy basis was concluded at €145/t in the week. The Argus-assessed bulk EN plus A1 pellet price decreased by €1/t on the week to €145/t delivered northern Italy, in line with the deal value. While the price for bagged EN plus-certified A1 grade wood pellets held flat for the second consecutive week at €199/t delivered northern Italy on Wednesday.

Despite increased heating demand, stock levels will need to decrease before buying activity on the bagged market increases, participants said.

The arrival of lower temperatures and has lifted bulk and bagged consumption more in line with average levels for the heating season, a market participant said.

Prices for bagged premium pellets were heard at around €215-220/t delivered southern Italy and €225-235/t on a delivered basis to Italian islands. Those regions typically hold a premium over prices in northern Italy.

Temperatures in northern Italy fell in the week. Temperatures in Milan averaged 1.42°C – 2.3°C below the ten-year average for the period and 1.58°C lower on the week. Milan's night-time temperatures averaged minus 2.27°C in the week, compared to 0.58°C last week. Looking ahead, the temperature in Milan is forecast to rise to 3.65°C over the next fortnight – 1.51°C higher than the ten-year norm, Speedwell Weather data show.

Elsewhere in Europe, there were some issues restarting wood pellet production in France owing to some ice in sawdust feedstocks, but this is not expected to increase

Argus Cif NWE monthly figures		\$/t
Balance of January		133.75
February		133.75
March		134.25
April		134.25

The figures above are an average survey result value for each month contained in the 90-day spot period. They are shown for indicative purposes, to better illustrate the composition of the market-survey component of the spot cif NWE index. The spot index value can be found on page 1 of the report.

EUROPEAN PREMIUM WOOD PELLETS

Wood pellets - within 45 days (spot)					€/t
Delivered northern Italy	Mid	Low	High	±	
Bulk	145.00	142.00	148.00	-1.00	
Bagged	199.00	194.00	204.00	nc	

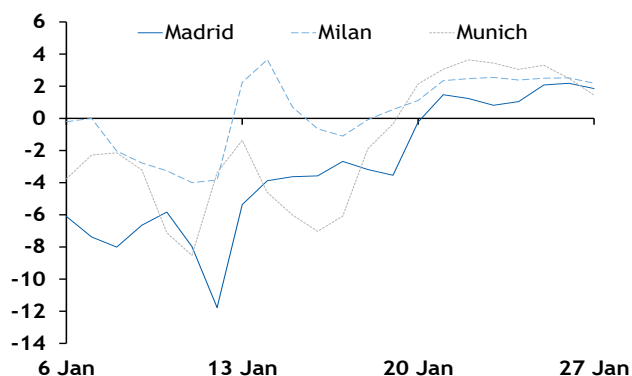
Premium wood pellets				€/t
Delivered northern Italy	Month index			
	Dec	Nov	Oct	
Bulk	146.00	145.70	145.00	
Bagged	198.25	196.50	196.05	

spot prices for at least the next two weeks, a trader said.

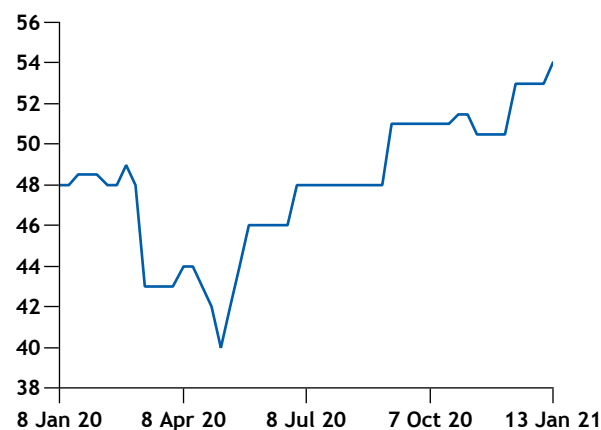
In Austria and Germany, bulk pellets were heard offered around €175/t on an ex-works basis.

And in Spain, heating demand ramped up significantly in part of northern and central Spain, with snow blanketing the capital Madrid. In Madrid, temperatures averaged minus 1.52°C in the week – 7.67°C below the 10-year norm. And night-time temperatures fell as low as minus 12.3°C in the week to Wednesday, with the average holding 6.67°C below the long-term seasonal norm. The decline in temperature lifted prices in the country. Spot values for bagged EN plus A1 wood pellets were heard at around €185/t on an ex-works basis, €5/t higher on the week.

European temps, departure from 10-year average °C



Italian premium prices: bagged and bulk €/t



Asian Industrial Biomass: Cfr Gwangyang climbs

Container freight availability remained tight in the week, firming rates and lifting the spot price for industrial wood pellets delivered to Gwangyang, South Korea by \$2.64/t on the week, to \$112.50/t on Wednesday.

Meanwhile the spot price for industrial Vietnamese wood pellets loading in the next 90 days declined by 34¢/t over the week to \$93.94/t on Wednesday as demand remained lacklustre. Vietnamese suppliers have lowered their price expectations as the restricted availability of containers to ship pellets to South Korea has curbed spot liquidity. The respective movements saw the spread between fob Vietnam and cfr Gwangyang, South Korea, prices increase for the tenth consecutive week to its widest since Argus began assessing the latter in November 2018.

South Korean state-controlled utility Korea South East Power (Koen) finalised its emergency tender for 1 February-6 March delivery in the week. The utility purchased just 4,000t of imported wood pellets out of 45,000t that it originally sought, likely because the offers it received were above its price expectations. The winning price was reported to be W180,000/t (\$164.10/t) on a delivered duty paid basis, but the origin of the cargo has not yet been disclosed. Some wood pellet traders expect the utility to reissue a tender for the remaining volume.

South Korean state-controlled utility Korean Western Power (Kowepo) reissued its tender on 8 January to buy 15,000t of imported wood pellets or woody biomass solid-recovered fuel pellets for February-June delivery to co-fire at its 4GW Taejan power plant. The tender closes on 15 January.

South Korea's renewable energy credit (REC) values firmed on the week to W39,000/REC (\$35.56/REC) on 12 January, up from W38,000/REC on 5 January, Korea Power Exchange data show. REC values remained 12pc below the January 2020 average spot price of W43,422/REC.

The system marginal price (SMP) for inland South Korean power – which does not include the SMP price for the country's largest island, Jeju – was at W73.15/kWh (6.67¢/kWh) on 13 January, slightly up from W72.07/kWh on 6 January, but 13pc lower than last year's W84.26/kWh January average for inland South Korea, Korea Power Exchange data show.

In other markets, the fob east coast Sumatra PKS spot price firmed by 28¢/t on the week to \$97.28/t, as PKS procurement prices at mills increased amid the low season for fresh fruit bunches.

The fresh fruit bunch harvest has slowed, reducing fresh fruit bunch collections in some areas in Sumatra, Indonesian suppliers said.

Malaysian PKS supply availability has decreased owing to recent wet weather and flooding in peninsular Malaysia, particularly in the states of Johor and Pahang. Malaysian suppliers must travel further to collect PKS, lifting prices, Malaysian suppliers said. PKS offers on a fob peninsular Malaysia basis were reported in a wide \$90-110/t range.

ASIAN INDUSTRIAL WOOD PELLETS

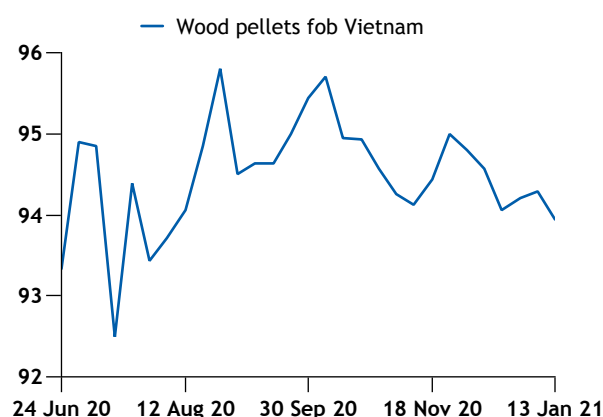
Wood pellets - 90 days (spot)					\$/t
	Week index		Month index		
	Price	±	Dec	Nov	Oct
fob Vietnam	93.94	-0.34	94.41	94.46	95.04
cfr Gwangyang	112.50	+2.64	104.07	99.98	98.76

ASIAN PALM KERNEL SHELLS

Palm kernel shell (spot)					\$/t
	Week index		Month index		
	Price	±	Dec	Nov	Oct
fob east coast Sumatra	97.28	0.28	96.36	98.22	104.53

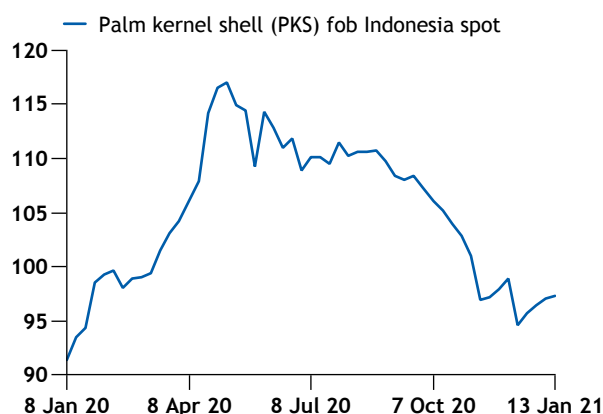
Fob Vietnam industrial pellet spot price

\$/t

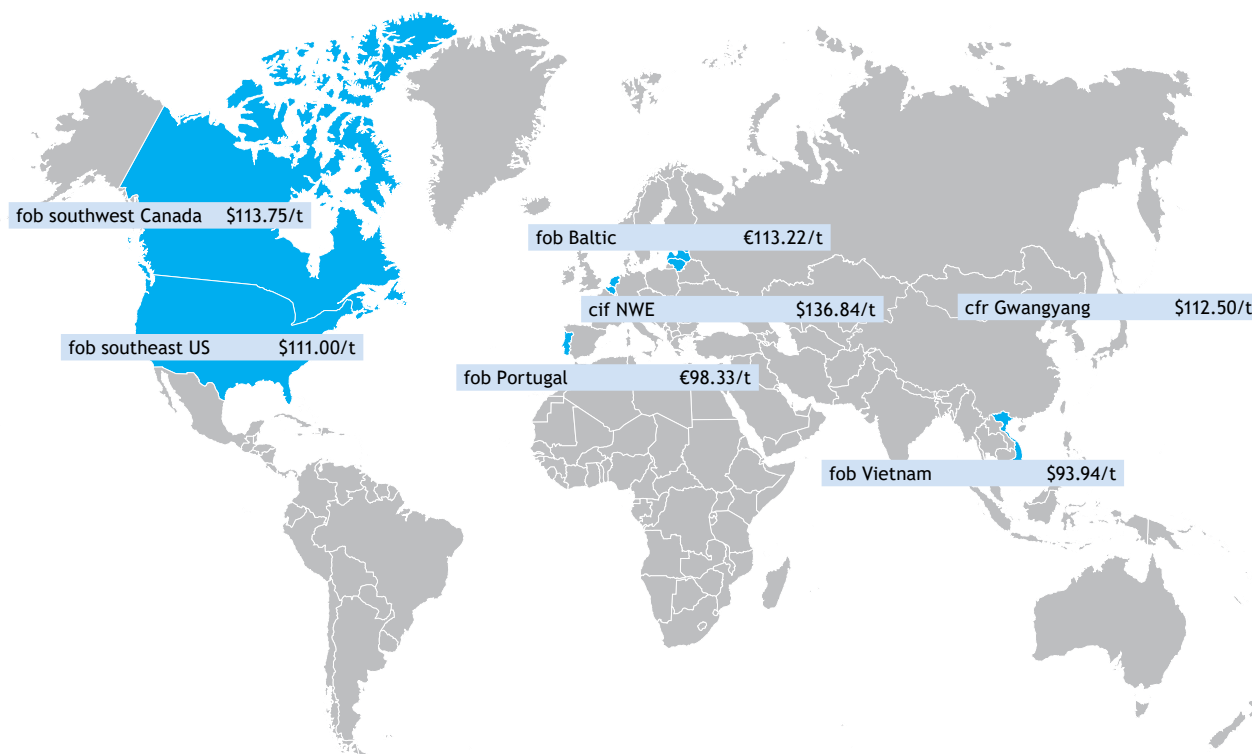


Fob Indonesia PKS spot price

\$/t



INDUSTRIAL WOOD PELLET SPOT PRICES AT A GLANCE



COMPETING FUELS

Argus competing fuel assessments			
	Units	Delivery	Price
Europe			
Coal cif ARA	\$/t	90 days	
Gasoil heating oil German cif NWE	\$/t	prompt	
Gasoil heating oil French cif NWE	\$/t	prompt	461.25
Natural gas NBP	€/MWh	February	30.07
US			
Coal Central Appalachian Nymex spec	\$/st		
Fuel oil 1% New York Harbor	\$/bl	prompt	57
Natural gas Nymex	\$/mn Btu	February	2.75
European Emissions			
CO2 EU ETS	€/t CO2e	Dec 2021	34.70
CO2 CDM CER	€/t CO2e	Dec 2021	0.36
UK Rocs auction price	£/MWh	prompt	

WOOD PELLET FREIGHT RATES

Argus wood pellet freight indications, spot cargo				
Route	Tonnage	Units	Rate	±
Aveiro-ARA	3,500	€/t	19.75	nc
Aveiro-Copenhagen	3,500	€/t	21.75	nc
Aveiro-Hull (UK)	3,500	€/t	19.75	nc
Riga-ARA	5,000	€/t	25.75	nc
Riga-Copenhagen	5,000	€/t	20.50	nc
Riga-Stockholm	5,000	€/t	20.00	nc
St Petersburg-ARA	3,500	€/t	27.75	nc
St Petersburg-Copenhagen	3,500	€/t	25.25	+1.00
St Petersburg-Stockholm	3,500	€/t	23.25	nc
Mobile-ARA	25,000	\$/t	28.30	+0.30
Mobile-ARA	45,000	\$/t	23.50	+0.15
Savannah-ARA	25,000	\$/t	25.80	+0.30
Savannah-ARA	45,000	\$/t	20.25	+0.15
Vancouver-ARA	45,000	\$/t	23.00	+0.25

WEATHER

European weather - Departure from normal temperatures												°C
Location	14 Jan		15 Jan		16 Jan		17 Jan		18 Jan		Precipitation (mm)	
	Avg	± normal*	Avg	± normal*	Avg	± normal*	Avg	± normal*	Avg	± normal*	5-day	15-day
UK – London Heathrow	6.2	0.5	2.8	-2.8	5.9	0.3	5.0	-0.6	5.3	-0.3	23.2	54.3
Norway – Bergen Florida	-8.5	-10.7	-8.4	-10.6	-3.1	-5.3	1.0	-1.1	2.6	0.5	16.1	39.7
Norway – Oslo Blindern	-7.3	-5.0	-9.5	-7.1	-9.7	-7.3	-6.1	-3.6	-5.2	-2.7	4.7	30.4
France – Paris Orly	8.1	3.4	2.4	-2.3	2.6	-2.0	5.9	1.3	6.1	1.5	18.1	59.8
The Netherlands – Amsterdam Schiphol	0.7	-3.0	-0.5	-4.2	0.6	-3.0	3.5	-0.1	4.2	0.6	12.0	48.6
Germany – Essen	-0.5	-3.3	-1.3	-4.1	-0.3	-3.0	1.8	-0.9	3.7	1.1	11.4	56.2
Germany – Berlin Tempelhof	1.0	0.1	-0.3	-1.1	-2.1	-2.8	-2.1	-2.7	0.3	-0.2	4.2	32.3
Poland – Warsaw Okęcie	-2.1	-0.3	-5.6	-3.7	-7.9	-5.9	-8.7	-6.6	-7.3	-5.1	3.2	23.5
Czech Republic – Prague Ruzyně	-2.1	-1.3	-3.1	-2.2	-5.8	-4.8	-6.5	-5.4	-3.8	-2.7	6.7	30.0
Hungary – Budapest Lörinc	-0.8	-1.4	-1.7	-2.3	-3.2	-3.8	-5.9	-6.5	-5.9	-6.5	2.2	24.6
Serbia – Belgrade Surcin	-2.8	-4.4	-4.0	-5.6	-7.2	-8.8	-9.6	-11.1	-8.5	-10.0	3.4	22.0
Romania – Bucharest Imh	-5.0	-4.4	-2.8	-2.2	-4.7	-4.0	-8.6	-7.9	-8.8	-8.1	1.4	11.1
Spain – Madrid Barajas	1.8	-3.9	3.0	-2.7	2.6	-3.1	3.2	-2.5	2.7	-3.0	0.2	19.7

*normal means cleaned 10-year average (2004-2013 inclusive)

– Ensemble forecasts (12.00 GMT) provided by Speedwell Weather



Ensemble averages and cleaned weather data all supplied by Speedwell Weather Limited (12:00 GMT).
For more information visit: www.speedwellweather.com

Argus European Emissions Markets

This daily service provides readers with an insight into the key drivers in the EU emissions trading scheme, as well as wider context on the future direction of the scheme.

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NEWS

Japan proposes 120MW biomass power tender for 2021-22

Japan is likely to look for 120MW of biomass power generation capacity through next fiscal year's tender under the country's feed-in-tariff (FiT) scheme, despite limited bidding interest in the previous three tenders.

The FiT pricing committee under the trade and industry ministry yesterday proposed that the country's fourth biomass power tender held in the April 2021-March 2022 fiscal year will seek 120MW of capacity, maintaining the same volume as the 2020-21 tender.

Tender volumes should be enough to attract a large-scale biomass power project, given the past tenders saw a business plan for a 112MW project, the committee said.

The 2021-22 tender, which could be held once a year, is proposed for October, with submission of pre-tender documents for September. The committee is targeting to finalise the tender result on 5 November.

The country's 2020-21 tender was **completed** late last month, with one 1.92MW project, whose fuel is unspecified, awarded at ¥18.50/kWh. The tender was for a project related to woody biomass, palm kernel shells, palm oil and palm trunk. Bidders were obligated to offer capacity of more than 10MW for a solid biomass plant, with no such rules set for palm oil.

Japan is planning to use a **feed-in-premium (FiP) scheme** from the 2022-23 biomass power tender, which would be also applied for more than 10MW for solid biomass and more than 50KW for liquid biomass.

The FiP system is set to target biomass power projects

with more than 10MW capacity from 1 April 2022, before expanding the coverage to projects of more than 1MW as soon as possible after 2023. The country plans to continue supporting projects with less than 10MW of capacity through the FiT programme for now.

By Motoko Hasegawa

Pinnacle extends wood pellet supply contract to Japan

Canadian wood pellet producer Pinnacle has extended its long-term take-or-pay contract with Japanese trading firm Mitsubishi. Under the extension Pinnacle will supply 80,000-90,000 t/yr of industrial wood pellets to a Japanese biomass-fired power plant beginning in the first quarter of 2023.

Japan imported 551,000t of wood pellets from Canada in 2020, a 7pc decrease from 2019, as Vietnam increased its shipments to Japan and displaced some demand for Canadian supply. Vietnam, Japan's **primary** wood pellet supplier, accounted for 57pc of its wood pellet imports in 2020.

Canada holds several long-term wood pellet contracts with Japanese buyers totalling around 1.5mn t, the majority of which are due to commence in 2021 and 2022.

The latest contract extension will bring Pinnacle's portion of Canada's contracted supply to Japan to around 83pc.

"We have developed a special relationship with Japan and we share their strong commitment to decarbonisation and their replacement of fossil fuels with sustainable wood pellets," Pinnacle chief executive Duncan Davies said.

By Gabriella Twining

Argus launches biomass guarantee of origin price assessments

Argus has launched daily price assessments for guarantee of origin certificates generated from biomass-fired power, covering the previous year, current year and up to three years ahead. Prices, deals and market commentary are published in the **Argus European Electricity report**.

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Swiss pellet prices hit 14-year lows in 2020

Switzerland's premium retail wood pellet price rose for the fifth consecutive month in December, as prices continued to recover, but the average 2020 price still fell to a 14-year low, Swiss Federal Statistical Office data show.

The price for premium grade wood pellets averaged 348.47 Swiss francs/t (\$394.18/t) in 2020, 2.1pc lower than an average price of SFr356/t recorded in 2019, and 7.8pc below the 10-year average of SFr377.90/t.

Swiss premium prices hit a **171-month low in June** last year, following a **14-year low recorded in May** after a steep monthly fall.

Switzerland's premium pellet market is driven primarily by residential heating demand – prices typically peak in February, before bottoming out in May or June. And while pellet prices usually drop as higher temperatures arrive, seasonality was exacerbated in 2020 by lacklustre winter demand and strong supply. In Zurich, heating demand fell to 2150.60 heating degree days (HDDs) in winter 2019-20, down by 5.6pc on the year and 9.3pc on the 10-year winter average. A mild winter 2019-20 dampened demand and left plentiful stocks at the end of the season.

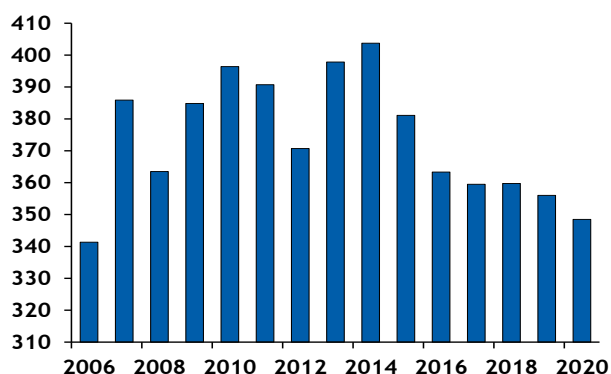
Conversely, low temperatures increased wood pellet demand consumption in the fourth quarter of 2020. Zurich's heat demand rose by 10.6pc on the year and 3.3pc on the 10-year average to 1,096.25 HDDs in the fourth quarter of 2020. And the average temperature in Zurich fell on the month and year to 2.14°C in December – 0.58°C lower than the 10-year average.

As a result, the average price for premium-grade wood pellets in the country rose by 0.9pc on the month to SFr352.12/t in December, but remained down by 3pc on the year.

Neighbouring countries **Austria** and **Germany** also recorded a rise in premium pellet prices on the month in December, but like in Switzerland, prices held significantly

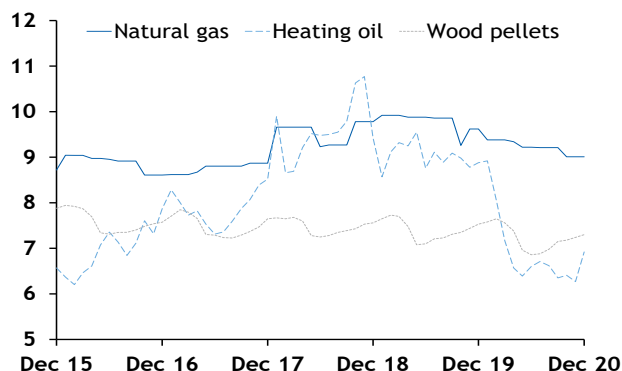
Swiss premium wood pellet prices

SFr/t



Swiss competing heating fuel costs

Rp/kWh



lower on the year.

In Italy, the world's largest importer of residential-grade wood pellets, prices recorded a marginal rise in December. The average *Argus*-assessed prices for EN plus-certified A1 bulk and bagged wood pellets delivered to northern Italy rose by 0.2pc and 1pc on the month to €146/t (\$179.13/t) and €198.38/t, respectively, in December.

Wood pellets end year costlier than heating oil

Swiss heating oil prices fell faster than those for wood pellets in 2020, giving the former a 5.2pc cost advantage in 2020, a reversal of the typical trend.

The cost of heating with wood pellets fell by 2.7pc from January 2020 to SFr0.73/kWh on an energy-equivalent basis in December. While the cost of heating oil sank by 22.5pc over the same period to SFr0.69/kWh in December, despite a rise of 9.5pc on the month.

The cost of heating using natural gas held flat for the third consecutive month at SFr0.90/kWh in December, down by 4.3pc from January.

By Jamie Aldridge

Brazilian pellet exports rise in 2020

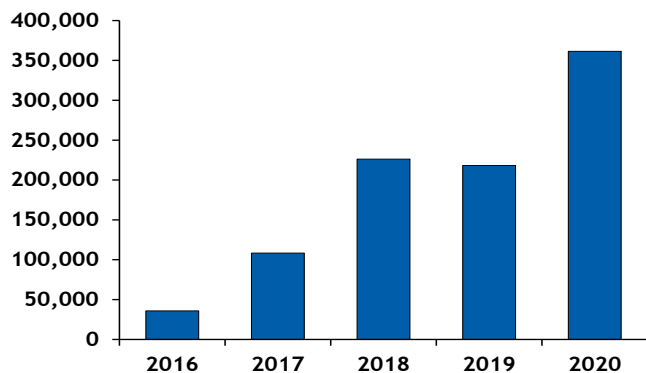
Brazilian wood pellet exports hit new highs in 2020, as deliveries to the UK nearly trebled and the number of export destinations rose.

Brazil exported 361,000t of wood pellets in 2020, up by 65.6pc on 2019. Fourth-quarter exports more than doubled on the year to 114,000t, and were up by 14pc on July-September. December exports totalled 25,000t, up by 8.7pc on the year.

Exports hit fresh highs for three of four quarters, with only **April-June deliveries** weaker on the year.

Export growth was underpinned by a rise in deliveries to the UK, following a sharp fall in 2019. Shipments to the UK

Brazilian wood pellet exports



rose to 187,000t in 2020, up from 64,000t a year earlier.

Brazilian producer **Tanac** operates a 400,000 t/yr facility in the south of the country and began delivering under a contract with UK utility Drax in October 2017, although these exports have never reached the full contracted volume.

Italy, the world's largest importer of residential-grade wood pellets, was the second-largest recipient of Brazilian cargoes in 2020. Fourth-quarter exports to Italy rose by 22.6pc on the year to 65,000t, while full-year 2020 exports grew by 11pc to 171,000t, as Brazil increased its premium wood pellet production capacity.

There were 13 operational EN plus pellet production facilities in Brazil at the end of 2020, up from 10 at the end of 2019. And Brazil widened its export portfolio, shipping pellets to 15 countries in 2020, compared with just eight in 2019.

Rio Grande was Brazil's busiest wood pellet export port in 2020, with throughputs of 192,000t, against 68,000t in 2019. The majority of exports from Rio Grande were destined for the UK.

Throughputs at Brazil's second-busiest pellet port, Sao Francisco do Sul, fell by 10.9pc to 114,000t.

Wood pellet handling at the port of Itajai in the state of Santa Catarina rose to 52,000t in 2020, up from just 9,000t in 2019.

The average fob Brazil wood pellet price fell by 5.3pc on the year to \$154.86/t in 2020, and by 7.6pc on the year to \$155.26 in the fourth quarter, as growth in industrial grade exports outpaced that of typically higher-priced EN plus material.

By *Jamie Aldridge*

Announcement

The holiday calendar showing which Argus reports are not published on which days is now available online <http://www.argusmedia.com/Methodology-and-Reference/Publishing-Schedule>

South Korea's Kowepo reissues biomass tender

South Korean state-controlled utility Korea Western Power (Kowepo) has reissued a tender to buy 15,000t of wood pellets or woody biomass solid-recovered fuel pellets to co-fire at its 4GW Taean thermal power plant.

The utility is seeking 150-400 t/d of the fuel for delivery in 1 February-30 June. The latest tender is a reissue of Kowepo's previous tender that closed on 31 December. The utility cancelled the previous tender after receiving offers that it considered above its ceiling price.

Bidders must supply only pellets made from wood fibre, without any chemically treated biomass. The pellets must also have a minimum net calorific value of 4,000 kcal/kg, slightly higher than South Korea's new wood pellet standard of 16.5 GJ/t or 3,943.6 kcal/kg. The ash, sulphur and nitrogen content for the tender are capped at 3pc, 0.05pc and 0.7pc, respectively.

The tender is open to international bidders offering a minimum of 5,000t up to the total tender volume on a delivered duty paid basis. It closes at 10:00 Korean Standard Time (01:00 GMT) on 15 January.

By *Sam Hong*

Australia cargoes boost Japan's November pellet imports

Japanese wood pellet imports reached a record high in November, with receipts boosted by increased supplies from Australia.

Japan imported 239,000t of wood pellets in November, an 82pc increase on its receipts of 131,000t in the same month last year and up by 42pc from October's 169,000t, according to data from Japan's finance ministry. Japan's second-highest monthly volume for wood pellet imports was set in August 2020 when receipts reached 208,000t.

Vietnam was the biggest supplier to Japan in November at 108,000t, an 8pc increase on a year earlier and a 55pc increase from the previous month.

Canada was the second-largest pellet supplier to Japan in November at 59,000t, almost double that of a year earlier but down by 12pc from the previous month.

Australia supplied 50,000t of wood pellets to Japan in November, up from zero a year earlier and in October. Japan is expected to see regular supplies from Australia in the future, as French utility Engie has a 280,000 t/yr wood pellet supply **contract for 15 years** starting in 2021 with Japanese trading firm Mitsui. Engie plans to supply 75pc of wood pellets from Australian suppliers and the rest from North America and southeast Asia.

Malaysia supplied 20,000t in November against 900t in November 2019 but unchanged from October.

PKS receipts

Japan imported 182,000t of palm kernel shells (PKS) in November, down by 5pc from the same month last year. But the country received 24pc more PKS than the previous month on strong PKS collections with the peak season for collecting fresh fruit bunches in Indonesia in November. Total PKS import figures may be even higher as importers occasionally use an alternative customs code when bringing PKS into Japan.

Indonesia was the primary PKS supplier to Japan in November, accounting for 139,000t or 77pc of the total volume. Imports from Indonesia in November fell by 11pc from a year earlier but increased by 17pc against the previous month.

Malaysia supplied 42,000t of PKS to Japan in November, up by 27pc from a year earlier and up by 17pc from October.
By Sam Hong

Veolia UK boosts wood recycling, processing capacity

French waste management and energy services company Veolia has begun operations at a new wood recycling facility in Runcorn, northern England, that will increase its UK wood recycling and processing capacity by 50,000 t/yr.

The facility will expand Veolia's UK wood recycling and processing capacity by 12pc to 460,000 t/yr. The new plant will treat wood waste from the neighbouring metropolitan county of Merseyside. Around 80pc of the wood processed will be recycled into furniture and other particle board applications.

Lower-grade wood is sent to Veolia's biomass energy sites, which produce electricity and heat used by the commercial and residential sectors, including an estimated 8,000 residents connected to a carbon zero district heating scheme.

"We are continually developing our recycling and renewable energy services, and the opening of this new

site highlights our commitment to boost sustainability and cut the financial and environmental costs of wasting these materials," Veolia UK and Ireland executive vice-president Gavin Graveson said.

Veolia's renewable biomass UK operations have saved an estimated 500,000t of CO2 emissions since 2017.

By Gabriella Twining

Malaysia declares state of emergency to curb Covid-19

Malaysia has declared a national emergency until 1 August to battle rising Covid-19 cases, dealing another blow to the country's economic recovery.

The announcement comes just a day after the government reinstated a movement control order (MCO) in Kuala Lumpur and the five states of Selangor, Johor, Malacca, Penang and Sabah for 13-26 January.

The resource-rich nation now has 28,554 active coronavirus cases and 555 deaths, up from 1,780 active cases and 105 deaths in [May 2020](#) when it reopened its economy after the first MCO.

"The civil government will continue to function throughout the emergency period. This is not a military coup and no curfews will be enforced," prime minister Muhyiddin Yassin said. There will be no parliamentary sittings or elections during this period, he said.

The country's first MCO, imposed last March, led to disruptions across commodity sectors, from [bitumen](#) to [biomass](#).

Malaysia is the world's second-biggest [palm oil](#) producer and fourth-largest LNG exporter.

'Politically motivated'

The state of emergency threatens to add to political uncertainty in Malaysia. Former prime minister Najib Razak claims the move to declare a national emergency is politically motivated and will be viewed as an attempt by the Perikatan Nasional government to stay in power.

"Many will also perceive that the Perikatan Nasional government deliberately eased nearly all restrictions, including lifting the ban on interstate travel, to allow the Covid-19 situation to worsen so that it can seek an emergency declaration again after its first attempt last October failed," he said. "An MCO 2.0 would be sufficient."

Muhyiddin's administration is at risk of losing its slim majority after a United Malays National Organisation lawmaker Ahmad Jazlan Yaakub announced he was withdrawing support for the Perikatan Nasional government on 9 January, just days after resigning as chairman of the Malaysian palm oil board.

"The rising spread of Covid-19 in the country shows that the Perikatan Nasional government has failed to come

Argus successfully completes annual Iosco 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 Iosco's Principles for Oil Price Reporting Agencies, and Iosco 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>

up with a plan to deal with this problem,” Ahmad Jazlan said. “Singapore has started its vaccination programme and Indonesia has announced that it will start the programme on 13 January. But in Malaysia there is no announcement of vaccination programmes being held.”

Covid-19 measures intensify

The Malaysian restrictions add to Covid-19 containment measures imposed elsewhere in Asia to stem rising infections, although case counts in the region – with the exception of India – remain well below levels in Europe and the US.

Japan last week declared a [second state of emergency](#) in Tokyo and the three neighbouring prefectures of Kanagawa, Chiba and Saitama from 8 January to 7 February to rein in new coronavirus cases. China’s worst outbreak for at least five months has led to authorities in Hebei imposing travel restrictions to and from the province, potentially worsening [coal shortages](#) and [limiting steel-producing operations](#).

By Reena Nathan

Japan’s Air Water launches 30MW Ako No.2 biomass plant

Japanese industrial gas supplier Air Water has started commercial operations at the 30MW No.2 biomass power unit at its Ako power plant in the western Hyogo prefecture.

It will consume [235,000 t/yr of woody biomass](#), including 60pc palm kernel shells (PKS) and 40pc unused woody material collected from Japan’s western and Kyushu areas.

The company has ensured that the plant can use a variety of biomass fuels on the back of increasing competition for domestic wood material. Air Water plans to sell the electricity generated at the plant.

The Ako No.2 biomass unit is Air Water’s third biomass power generation plant. The company has been operating the 112MW Hofu biomass and coal-fired power plant since [July 2019](#) and the 16.53MW Ako No.1 biomass power plant since April 2015.

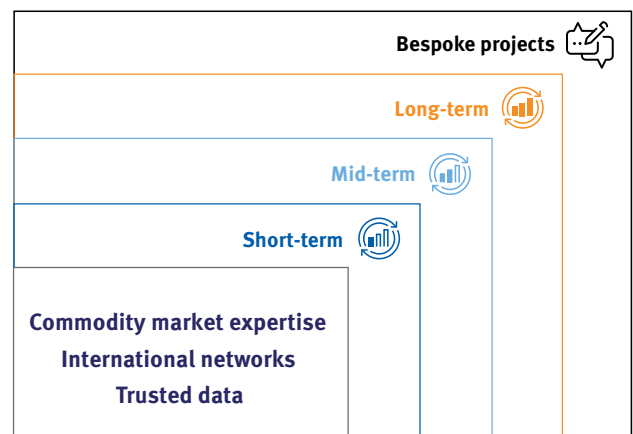
Air Water is also building a [50MW biomass power plant](#) at Kanda in Fukuoka prefecture and a 75MW biomass power plant at Onahama in Fukushima prefecture, targeting to begin commercial operations by October 2023 and by April

this year, respectively.

Japan’s PKS imports rose by 37.2pc on the year to 2mn t during January-November 2020, according to the finance ministry.

By Nanami Oki

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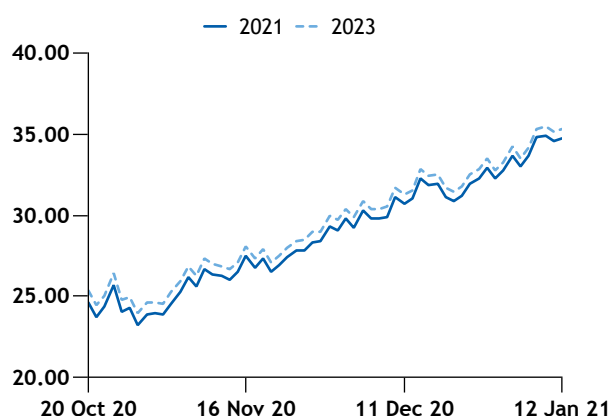
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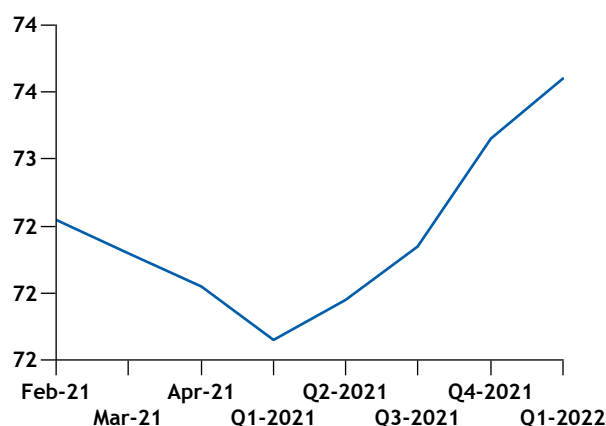
BREAK-EVEN GENERATION COSTS

cif NWE wood pellet break-even				cif ARA coal break-even			
13 Jan	February	2Q21	Week average	February	2Q21		
Pellet cost \$/t	136.84	136.50					
Plant efficiency	Unit	Break Even		Plant efficiency	Unit	Break Even	
36%	\$/MWh	80.50	80.30	36%	\$/MWh	38.51	39.10
	€/MWh	66.08	65.83		€/MWh	31.61	32.05
38%	\$/MWh	76.26	76.08	38%	\$/MWh	37.10	37.66
	€/MWh	62.60	62.36		€/MWh	30.46	30.87
40%	\$/MWh	72.45	72.27	40%	\$/MWh	35.84	36.37
	€/MWh	59.47	59.24		€/MWh	29.42	29.81
41%	\$/MWh	70.68	70.51	41%	\$/MWh	35.25	35.77
	€/MWh	58.02	57.80		€/MWh	28.93	29.32

*Breakeven generation costs represent the calculated costs of generating power with wood pellets and/or coal based on Argus assessed spot prices. For a plant to break even, the combined price of power and subsidy amount (if applicable) would need to be equal to the calculated breakeven generation cost.

EU ETS December 2014 and 2015 allowances \$/t CO₂e

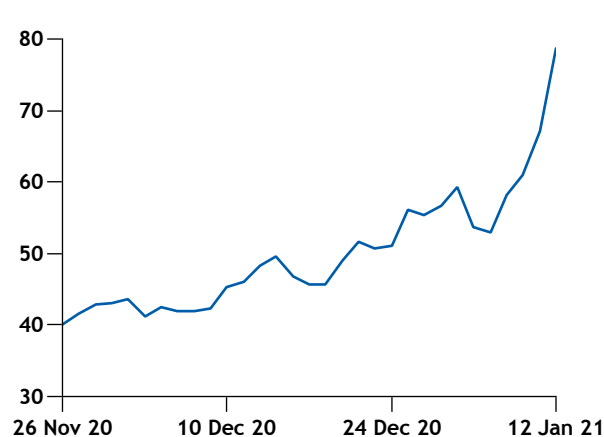
Coal Rotterdam swaps forward curve \$/t



Wood Pellet 90 cif ARA index premium to Coal API2 \$/t



NBP front-month gas p/th

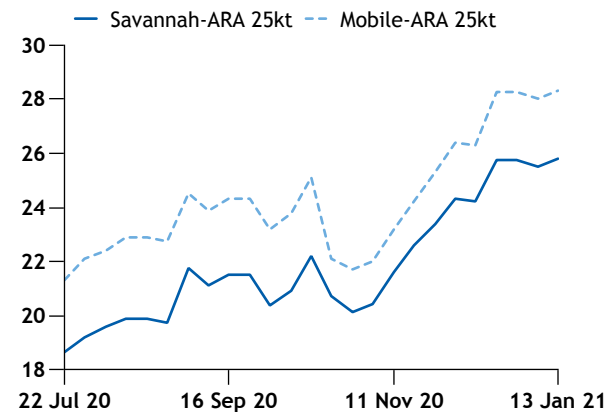
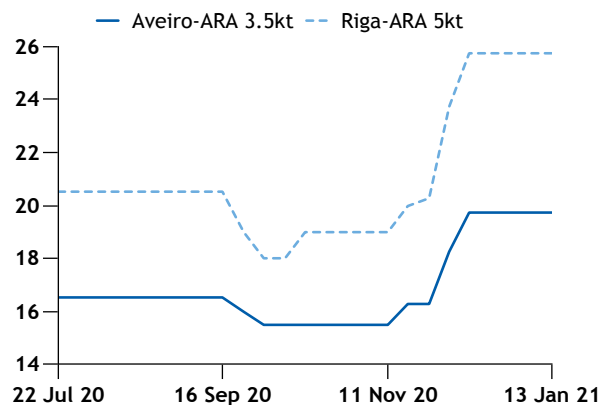


Wood Pellet Freight

€/t

North America wood pellet freight 25,000t

€/t

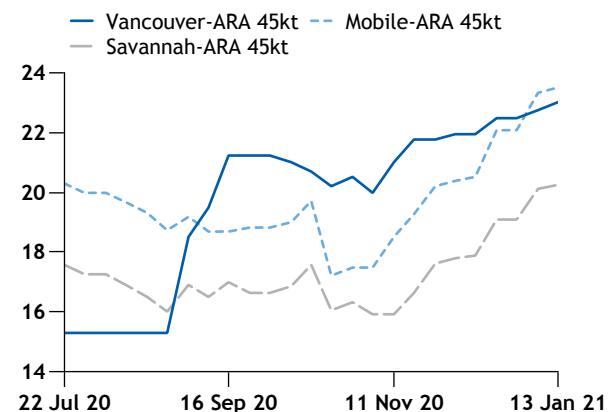


\$:€ exchange rate



Wood Pellet freight 45kt

\$/t



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