

MARKET COMMENTARY

Atlantic basin: May spot trades

The spot price of industrial wood pellets for deliveries to northwest Europe (NWE) continued dropping on the week, with a deal for May delivery concluded.

The 90-days industrial wood pellet price fell by \$2.81/t to \$163.07/t cif NWE on Wednesday.

A deal concluded for 30,000t of industrial wood pellets for May delivery at \$163/t cif NWE. More volumes were heard being on offer within the spot window, particularly as utilities try to re-sell cargoes that cannot be delayed or stocked in the spot market. Although overall buying interest remained limited.

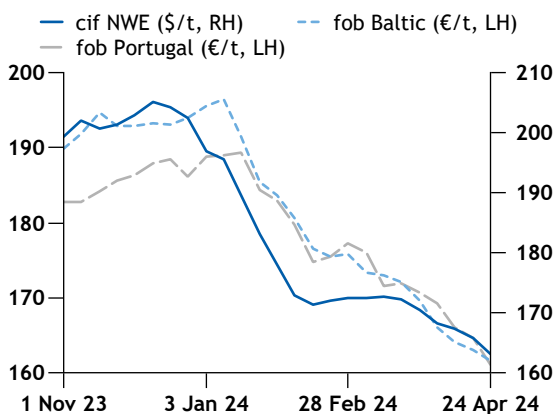
There was an incentive for producers to front-load term cargoes whenever there was contractual flexibility to do so, which was also adding to the supply available.

At least a few cargoes were delayed by a few weeks to provide utilities with the time to absorb the supply. While there was still an effort to find additional storage space, particularly as the widening spread between the prices for deliveries this season and the winter 2024-25 season provided a strong incentive to stock.

Trade talks for spot and winter deliveries were ongoing at the Argus Biomass Conference, held in London on 23-25 April, with more deals expected to conclude in the coming weeks.

Colder than usual weather will likely support pellet burn for power. In London, overnight minimum temperatures

Argus industrial wood pellet index



EUROPEAN INDUSTRIAL WOOD PELLETS

	Week index		Month index		
	Price	±	Apr	Mar	Feb
cif NWE \$/t	163.07	-2.81	166.18	171.90	172.20
fob Baltic €/t	161.65	-1.29	163.69	172.00	177.09
fob Portugal €/t	161.11	-3.59	165.25	172.55	176.85

Wood pellets - within 90 days (spot)		Price	±
cif NWE \$/MWh		34.53	-0.60
fob Baltic €/MWh		34.23	-0.28
fob Portugal €/MWh		34.12	-0.76

Wood pellets - forward prices			
	Bid	Ask	±
cif NWE \$/t			
2Q24	160.00	166.00	-2.50
3Q24	160.00	166.00	-4.50
4Q24	197.00	203.00	nc
1Q25	200.00	206.00	nc
2025	204.00	210.00	nc
2026	205.50	211.50	nc
2027	205.50	211.50	nc
fob Baltic €/t			
2Q24	158.50	164.50	-1.25
3Q24	158.50	164.50	-1.50
4Q24	187.00	193.00	nc
1Q25	192.50	198.50	nc
2025	194.00	200.00	nc
2026	195.00	201.00	nc
2027	195.00	201.00	nc
fob Portugal €/t			
2Q24	158.00	164.00	-3.75
3Q24	158.00	164.00	-3.75
4Q24	187.00	193.00	nc
1Q25	192.50	198.50	nc
2025	193.50	199.50	nc
2026	194.00	200.00	nc
2027	194.00	200.00	nc

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were forecast at 6.7°C in the coming two weeks and 9°C in the 45 days to 7 June, or 1.2°C and 0.1°C below norms, respectively, Speedwell Weather data show. And maximum temperatures for the coming fortnight were forecast at 15.9°C, or 1.1°C below seasonal norms.

On the UK power sector, biomass-fired generation rose to 2.5GW on an average hourly basis in the week to 16 April, from 1.8GW a week earlier, national grid data show. This was mostly owing to a significant increase in output at all four Drax-operated 645MW units. MGT Teeside’s 285MW unit 1 underwent an unplanned outage on 17 April-18 April.

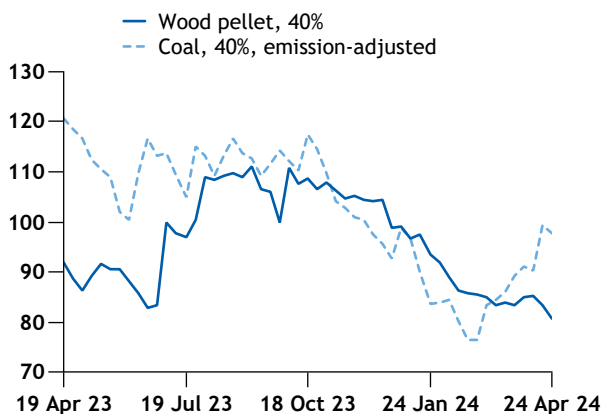
On the freight market, demand for tonnage remained strong in the week, although time-charter (TC) rates were heard lower in the \$11,000-13,000/day range for trips from the US East Coast to the European continent, from \$22,000-23,000/day last week.

Many Baltic producers are considering or were already reducing their operation rates, particularly through the summer season, unable to make a profit by selling on the spot market. Some were planning to extend outages, others to halt production until the market environment improved in their favour. A drop in overall production in the region could offer some relief to the raw material prices as well later in the year.

Meanwhile, limited storage space at Nordic end users’ sites - currently looking to secure Baltic supplies to meet additional consumption from the colder weather and for the next season - resulted in delayed contract negotiations.

Elsewhere, the fob Portugal price dropped by €3.59/t on the week to €161.11/t fob Portugal. Demand for Portuguese supplies remains weak, particularly as high freight rates for trips to northern Europe rendered the origin less attractive compared with Baltic pellets. Most suppliers in Portugal remain focused in delivering long term contracts.

Break-even generation cost, cif NWE front quarter €/MWh



NORTH AMERICAN INDUSTRIAL WOOD PELLETS

Wood pellets NWE to N America netbacks - spot						\$/t
Netback	Delivery period	Mid	Bid	Ask	±	
NWE to southeast US	Spot		136.32	139.32	-3.06	
NWE to southwest Canada	Spot		115.32	118.32	-3.06	
NWE to northeast US	Spot	138.80			-3.10	

Wood pellets NWE to N America netbacks - spot						\$/MWh
Netback	Delivery period	Mid	Bid	Ask	±	
NWE to southeast US	Spot		28.87	29.50	-0.65	
NWE to southwest Canada	Spot		24.42	25.06	-0.65	
NWE to northeast US	Spot	29.39			-0.66	

Wood pellets NWE to N America netbacks - forward						\$/t
		Mid	Bid	Ask	±	
NWE to southeast US						
2Q24		136.25		139.25	-2.75	
3Q24		136.25		139.25	-4.75	
4Q24		173.25		176.25	-0.25	
1Q25		176.25		179.25	-0.25	
2025		180.25		183.25	-0.25	
2026		181.75		184.75	-0.25	
2027		181.75		184.75	-0.25	
NWE to southwest Canada						
2Q24		115.25		118.25	-2.75	
3Q24		115.25		118.25	-4.75	
4Q24		152.25		155.25	-0.25	
1Q25		155.25		158.25	-0.25	
2025		159.25		162.25	-0.25	
2026		160.75		163.75	-0.25	
2027		160.75		163.75	-0.25	
NWE to northeast US						
2Q24	138.75				-2.75	
3Q24	138.75				-4.75	
4Q24	175.75				-0.25	
1Q25	178.75				-0.25	
2025	182.75				-0.25	
2026	184.25				-0.25	
2027	184.25				-0.25	

Argus successfully completes annual losco assurance review

Argus has completed the 12th external assurance review of its price benchmarks covering crude oil, oil products, LPG, chemicals, thermal and coking coal, natural gas, biofuels, biomass, metals, fertilizers and agricultural markets. 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>

European wood chips: Spot holds

The spot price of industrial wood chips for deliveries to northwest Europe (NWE) held in the week, as most trade talks have shifted towards the back of the curve.

The 90-days industrial wood chip price held flat at €9.25/GJ cif NWE on Wednesday.

Buyers remained well stocked for the rest of the heating season and were focused on discussing prices for the next heating season. Talks were underway in the €10.25-11/GJ cif NWE range for the 2024-25 season, although deals were yet to conclude, as sellers waited for more certainty over raw material prices.

And while inventories at end user sites were thought to have dropped to more typical levels for this time of year from the highs previous in the year, there fresh demand for spot volumes remained limited with most end users continuing to receive term deliveries.

At least some buyers were interested in replenishing stocks for summer, with a deals heard done in the mid-€6s/GJ and offers stood in the mid-to-high €6s/GJ fob Baltic for prompt deliveries. Some participants said suppliers looking to sell older stock to make space for new production for the next heating season were likely selling at these price levels.

Cold weather in the Nordics was expected to continue to bolster consumption, while in northwest Europe buying appetite was pared by the approaching summer months. Overnight temperatures in Oslo, Norway, were forecast to average 5 °C in the next two weeks, or 0.1 °C above seasonal norms. And, in the 45 days to 7 June, average minimum temperatures were expected to be 8.3 °C, or 1.3 °C above the 10-year average for the period, Speedwell Weather data show.

Raw material availability is expected to tighten towards the end of 2024 in the Nordics and Baltics, owing to harvesting restrictions in place, which could see countries such as Sweden importing more chips.

Elsewhere, offers stood in a wide range of €6.50-8/GJ fob Iberian Peninsula for the next heating season, depending on the quality and the region the feedstock came from. Raw material availability was ample here, and was expected to hold similarly until later in the year, a producer from the region said.

On the power generating segment, a gas explosion at Metsa Fibre Kemi's 250MW plant in Finland at the evaporation unit on 21 March led to an extended outage until 30 May, from the latest 30 March. The plant has been shut since 19 September 2023 for expansion works.

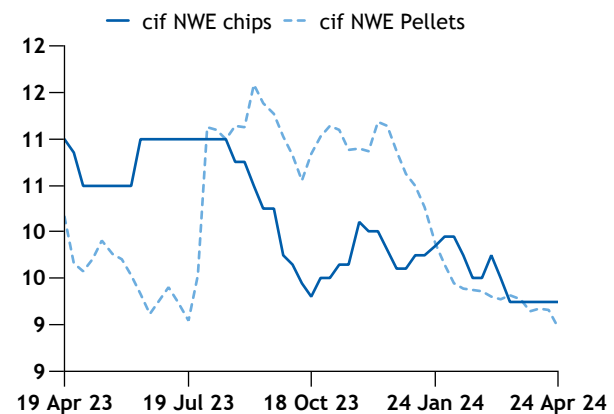
INDUSTRIAL WOOD CHIPS

NWE wood chips - within 90 days (spot)					€/GJ
	Week index		Month index		
	Price	±	Apr	Mar	Feb
cif NWE	9.25	nc	9.25	9.44	9.68

Wood chips cif NWE - forward prices				€/GJ
	Bid	Ask	±	
2Q24	8.75	9.75	nc	
3Q24	8.45	9.45	nc	
4Q24	10.25	11.25	nc	
1Q25	10.25	11.25	nc	
2025	8.95	10.95	nc	
2026	8.95	10.95	nc	
2027	8.95	10.95	nc	

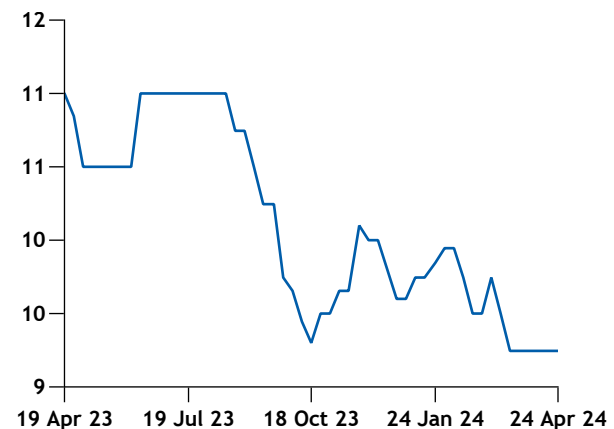
Spot wood chips vs pellets cif NWE

€/GJ



Spot wood chips, cif NEW

€/GJ



European premium: French users source in Germany

The 45-day spot price for ENplus-certified A1-grade pellets delivered to northern Italy held steady on the week, as demand only emerged from small Italian operators looking to take advantage of the competitive offers, and French buyers were also drawing on low offers from Germany to start their pre-season campaign.

The traded range for spot bagged and bulk premium pellets were assessed in the €200-220/t and €180-190/t ranges, delivered northern Italy, respectively, on Wednesday.

Several Italian buyers were requesting their distributors to postpone payments over the upcoming cargoes because of cashflow constraints.

Many end users were yet to close their positions for the next heating season, creating large stocks at suppliers' sites. Higher than average temperatures throughout the 2023-2024 heating season had already resulted in above average inventories at the larger operators' warehouses. All of these combined were expected to pare Italy's imports demand.

But longer periods of storing could firm costs for suppliers, a participant said.

Small pockets of demand emerged from smaller distributors in Italy, who were taking advantage of the competitive offers to restock for the next heating season. Separately, trade talks between suppliers and Italian do-it-yourself (DIY) operators were only starting up.

Spot sales remained weak despite the colder weather in Italy and across Europe. In Milan, overnight temperatures were forecast at 7.9°C in the coming two weeks and 10.6°C in the 45 days to 7 June, or 0.7°C below norms and 0.2°C above norms, respectively, Speedwell Weather data show. Maximum temperatures for the coming fortnight were also forecast at 19.2°C, or 1°C below seasonal norms.

Offers for Brazilian supplies remained competitive despite a recent firming of container transportation costs from congestions at Brazilian ports. Costs rose by around \$75-100/ container or €2-3/t, leaving Brazilian bagged pellets still priced competitively in the €167-168/t fob Brazil range.

In the Baltics, lower temperatures and snow over the past week had also resumed consumption of pellets for heating needs, resulting in a pickup in prompt demand. Some buying interest for bulk volumes also rose from the local Baltic market.

Bulk supplies were offered around €165-175/t fob Baltic. But these were considered uncompetitive by distributors to the Italian market, when adding around €50 for bagging costs and approximately €60-70/t for trucking costs to northern Italy. While German and Croatian bagged pellets were offered at €230/t and €210/t delivered northern Italy, respectively.

Best offer for bagged supplies of German origin was heard

Argus Cif NWE monthly figures		\$/t
Balance of April		163.07
May		163.07
June		163.07
July		163.07

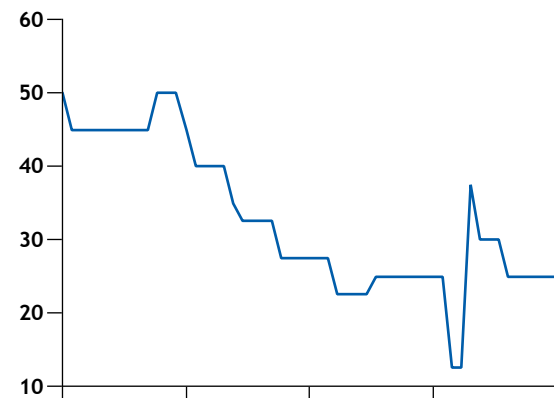
The figures above are an average survey result value for each month contained in the 90-day spot period. They are shown for indicative purposes, to better illustrate the composition of the market-survey component of the spot cif NWE index. The spot index value can be found on page 1 of the report.

EUROPEAN PREMIUM WOOD PELLETS

Wood pellets - within 45 days (spot)					€/t
Delivered northern Italy	Mid	Low	High	±	
	Bulk	185.00	180.00	190.00	nc
Bagged	210.00	200.00	220.00	nc	

Premium wood pellets				€/t
Delivered northern Italy	Month index			
	Apr	Mar	Feb	
Bulk	185.00	187.50	210.00	
Bagged	210.00	215.00	233.13	

Italian premium prices: bagged vs bulk



at €155/t ex works Germany in the week. But such prices were only achieved by distributors purchasing large volumes. These supplies were mostly being sent to France, where local prices held higher, spurring French buyers to import their residential pellets rather than sourcing locally. Locally produced pellets were being offered around €255/t delivered France and Belgium.

Austrian bagged pellets were offered lower, between €200-220/t delivered northern Italy. And there were expectations for further €10-15/t drops in May as producers looked to reduce their inventories, one participant said.

Some producers were bypassing distributors to reduce costs, but this could result in supply-chain issues in the future, as large traders might be reluctant to engage in deals with these producers in the future, a participant said.

Asian industrial: fob Vietnam prices steady

The 90-day spot price for Vietnamese industrial-grade wood pellets typically sold to South Korea edged higher on stable demand from utilities, while the cfr Gwangyang price fell.

The spot fob Vietnam to South Korea pellet price rose by 73¢/t on the week to \$108.67/t, while the cfr Gwangyang price fell by \$1.40/t to \$121.60/t.

Freight rates came off slightly on signs that tensions in the Middle-East are easing. But vessels sailing between Asia and Europe continue to be diverted away from the Red Sea, adding to fuel costs.

South Korean demand is stable, supported by utility tenders. State-owned Korea South-East Power (Koen) might seek 90,000t of pellets this week on a ddp basis for delivery in July-August. Separately, a South Korean independent power producer (IPP) closed a tender this week for an unspecified volume for May-June delivery. It was not immediately clear if the tender was awarded – the utility is still weighing up its requirements ahead of maintenance between the end of May and mid-June.

Cargoes shipped from the US to Japan were being diverted to South Korea, underscoring the current demand trend, although utilities' price ideas remain range-bound. South Korean demand might increase next month and a number of utilities might seek June-August delivery cargoes to cater for summer demand, a market participant said. Some of these diverted cargoes were offered at around \$100/t cif, according to a market participant.

South Korea's renewable energy credit (REC), which usually indicates demand from independent IPPs when firm, rose to 76,100 won/REC (\$55.50/REC) on 23 April, up from W75,500/REC a week earlier, Korea Power Exchange data show. This was in line with an increase in the system marginal price (SMP) for inland South Korean power – excluding Jeju island. The SMP – the price at which IPPs sell power to state-owned Kepco – rose to W140.39/kWh on 23 April from W133.54/kWh a week earlier.

Elsewhere, interest in Vietnamese pellets that meet Japan's feed-in tariff (FIT) requirements was limited. Fob Vietnam prices for pellets complying with Japan's FIT requirements increased by \$1.86/t on the week to \$127.50/t. Bulk freight rates for vessels on the Vietnam-Japan route dipped, possibly reflecting a slowdown in trade and shipping activity in the region.

Indonesia's palm kernel shell (PKS) market was little changed. The east coast Sumatra price for PKS that complies with Japan's FIT requirements increased by 6¢/t on the week to \$129.75/t, while the spot Indonesian price for PKS that does not meet Japan's FIT requirement was assessed at \$104.80/t.

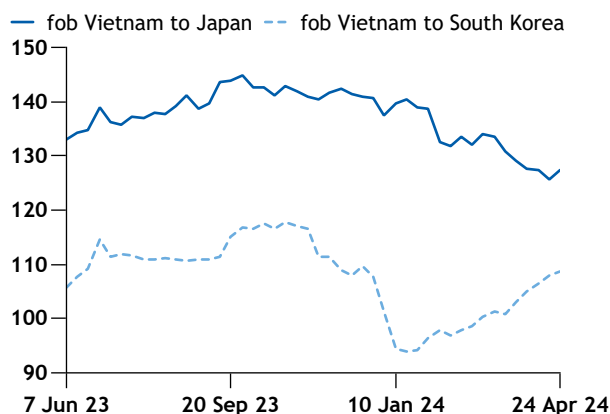
ASIAN INDUSTRIAL WOOD PELLETS

Wood pellets - 90 days (spot)	Week index		Month index		
	Price	±	Apr	Mar	Feb
	fob Vietnam to S Korea	108.67	+0.73	107.03	101.42
fob Vietnam to Japan FIT	127.50	+1.86	127.02	131.86	132.44
cfr Gwangyang	121.60	-1.40	120.26	114.90	104.09

ASIAN PALM KERNEL SHELLS

Palm kernel shell (spot)	Week index		Month index		
	Price	±	Apr	Mar	Feb
	Excl. to Japan FIT				
fob east coast Sumatra	104.80	+0.01	104.08	103.88	103.54
fob peninsular Malaysia	92.50	-2.50	93.43	92.56	94.81
To Japan FIT					
fob east coast Sumatra	129.75	+0.06	129.38	132.77	133.01
fob peninsular Malaysia	122.38	-1.17	123.70	124.69	124.76

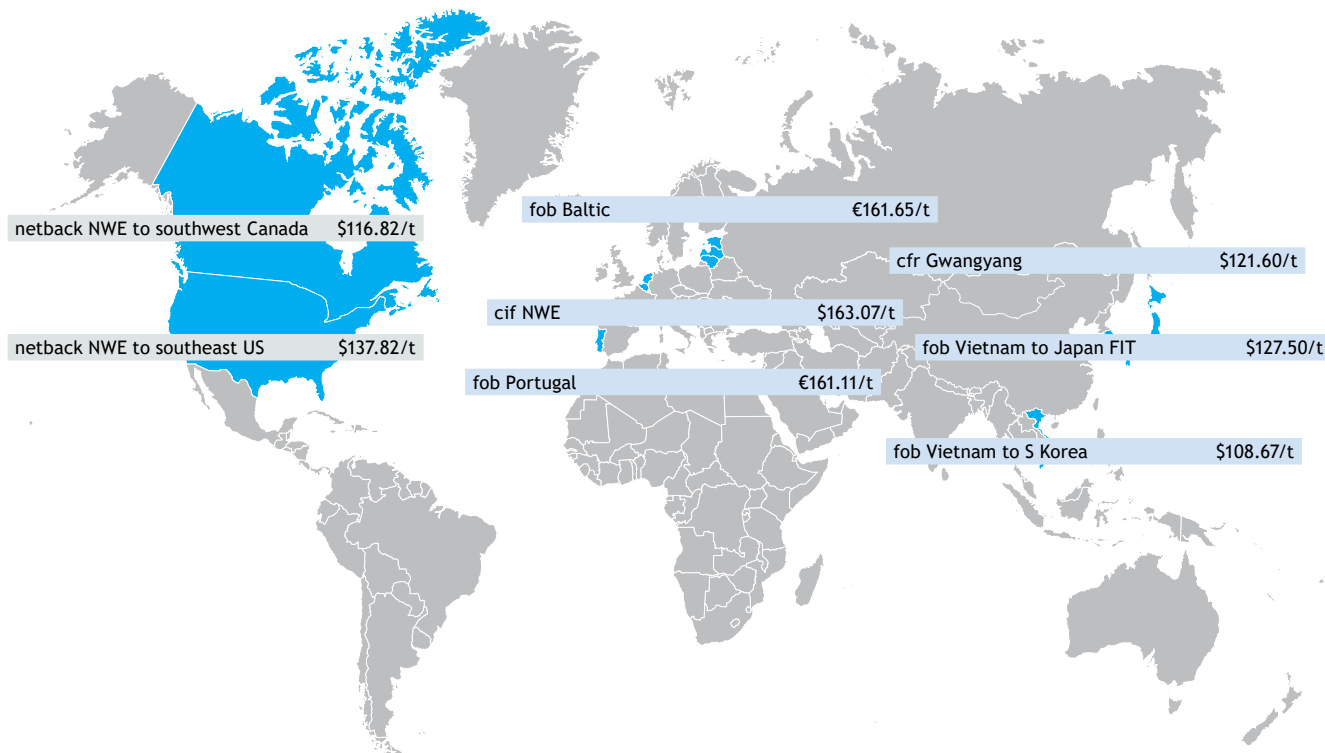
Fob Vietnam industrial pellet spot prices \$/t



Malaysian PKS prices fell, with fob peninsular Malaysia prices for PKS that complies with Japan's FIT requirements down by \$1.18/t to \$122.38/t, while prices for material that does not meet Japan's FIT specifications fell by \$2.50/t to \$92.50/t fob Malaysia.

The sales tax on crude palm oil and PKS could have weighed on prices in Malaysia. With Japan heading into the Golden Week holiday, feedstock demand from utilities is likely to have fallen, with many power plants taking the opportunity to conduct maintenance.

INDUSTRIAL WOOD PELLET SPOT PRICES AT A GLANCE



COMPETING FUELS

Argus competing fuel assessments			
	Units	Delivery	Price
Europe			
Gasoil heating oil French cif NWE	\$/t	prompt	771.250
Natural gas NBP	€/MWh	May	28.2970
US			
Fuel oil 1% New York Harbor	\$/bl	prompt	89.410
Natural gas Nymex	\$/mnBtu	May	1.791
European Emissions			
CO2 EU ETS	€/t	2025	66.080

WOOD PELLET FREIGHT RATES

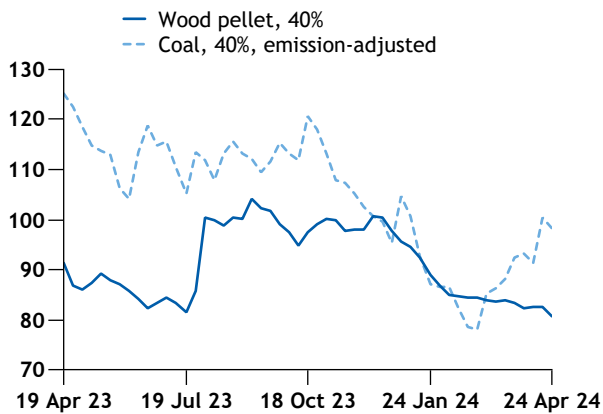
Argus wood pellet freight indications, spot cargo				
Route	Tonnage	Units	Rate	±
Aveiro-ARA	3500	€/t	29.00	+3.00
Aveiro-Copenhagen	3500	€/t	33.00	+3.00
Aveiro-Hull (UK)	3500	€/t	29.00	+3.00
Riga-ARA	5000	€/t	26.50	+0.50
Riga-Copenhagen	5000	€/t	21.50	+0.50
Riga-Stockholm	5000	€/t	21.50	+0.50
St Petersburg-ARA	3500	€/t	na	nc
St Petersburg-Copenhagen	3500	€/t	na	nc
St Petersburg-Stockholm	3500	€/t	na	nc
Mobile-ARA	25000	\$/t	24.75	+0.25
Mobile-ARA	45000	\$/t	21.25	+0.25
Savannah-ARA	25000	\$/t	25.25	+0.25
Savannah-ARA	45000	\$/t	22.25	+0.25
Vancouver-ARA	45000	\$/t	46.25	+0.25

BREAK-EVEN GENERATION COSTS

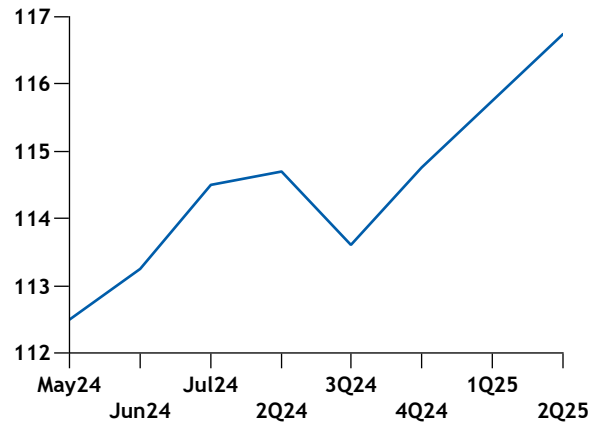
cif NWE wood pellet break-even			cif ARA coal break-even			Natural gas TTF break even			24 Apr
Plant efficiency	Spot	3Q24	Plant efficiency	Spot	3Q24	Plant efficiency	Spot	3Q24	
\$/MWh									
36%	95.93	95.89	36%	116.65	116.00	49.13%	96.42	97.63	
38%	90.88	90.84	38%	110.51	109.89	55%	86.13	87.21	
40%	86.34	86.30	40%	104.98	104.40	58%	81.67	82.70	
41%	84.23	84.20	41%	102.42	101.85	60%	78.95	79.94	
€/MWh									
36%	89.77	89.73	36%	109.16	108.55	49.13%	90.23	91.36	
38%	85.05	85.01	38%	103.41	102.84	55%	80.60	81.61	
40%	80.80	80.76	40%	98.24	97.70	58%	76.43	77.39	
41%	78.83	78.79	41%	95.85	95.31	60%	73.88	74.81	

*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.

Break-even generation cost, cif NWE spot €/MWh



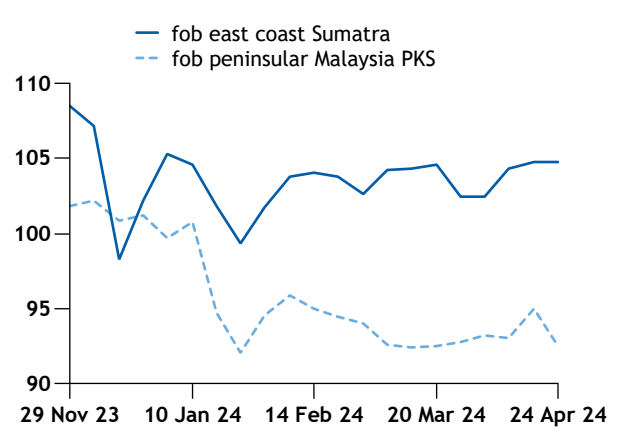
cif ARA coal swaps forward curve \$/t



Wood pellet, cif NWE spot premium to coal, cif ARA \$/t



PKS spot prices \$/t



WEATHER

European weather - Departure from normal temperatures												°C	
Location	25 Apr		26 Apr		27 Apr		28 Apr		29 Apr		Precipitation (mm)		
	Avg	± normal*	Avg	± normal*	Avg	± normal*	Avg	± normal*	Avg	± normal*	5-day	15-day	
UK – London Heathrow	7.8	-4.1	8.6	-3.4	10.5	-1.6	11.3	-0.9	11.0	-1.3	24.0	42.7	
Norway – Bergen Florida	6.0	-2.9	7.0	-2.1	7.4	-1.8	9.1	-0.2	11.6	2.2	14.1	42.1	
Norway – Oslo Blindern	5.6	-3.2	5.7	-3.3	6.8	-2.4	8.3	-1.1	10.7	1.2	14.8	39.9	
France – Paris Orly	6.6	-6.3	9.9	-3.1	12.7	-0.4	13.2	0.0	12.4	-0.9	13.3	37.4	
The Netherlands – Amsterdam Schiphol	5.6	-5.9	6.4	-5.2	10.1	-1.7	13.0	1.1	11.8	-0.2	12.3	33.5	
Germany – Essen	5.5	-6.5	7.9	-4.2	11.9	-0.3	14.7	2.4	14.3	1.9	8.4	39.4	
Germany – Berlin Tempelhof	5.0	-7.1	7.8	-4.5	11.4	-1.0	15.8	3.2	17.3	4.6	3.4	23.4	
Italy – Milano Malpensa	9.1	-6.7	10.0	-6.0	11.0	-5.1	12.6	-3.7	14.8	-1.6	61.9	133.2	
Italy – Rome Fiumicino	10.7	-4.3	12.0	-4.1	14.5	-1.1	16.5	1.8	17.6	2.4	4.4	29.3	
Poland – Warsaw Okecie	7.2	-4.0	7.3	-4.1	11.4	-0.2	15.1	3.3	18.3	6.4	4.0	19.9	
Czech Republic – Prague Ruzyně	5.3	-6.0	7.3	-4.1	11.1	-0.5	14.8	3.1	17.2	5.4	1.8	24.8	
Hungary – Budapest Lorinc	8.4	-6.2	9.2	-5.6	12.3	-2.6	15.9	0.8	17.7	2.5	0.6	25.8	
Serbia – Belgrade Surcin	9.3	-5.6	10.0	-5.1	13.8	-1.5	17.9	2.5	19.2	3.6	0.9	26.6	
Romania – Bucharest Imh	12.9	-0.5	11.7	-1.8	12.7	-1.0	14.1	0.2	15.3	1.2	11.5	36.1	
Spain – Madrid Barajas	12.7	-1.4	12.0	-2.3	11.4	-3.0	11.0	-3.5	11.7	-3.0	11.7	31.8	

*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

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NEWS

RWE to boost biomass use at Dutch power plants

German utility RWE plans to switch to full biomass firing at its 631MW Amer 9 plant and to 50pc co-firing at its 1.6GW Eemshaven power plant, both in the Netherlands, by 2025.

“RWE is committed to become carbon neutral by 2030 and biomass is important to reach carbon neutrality and phase out coal,” the firm’s biofuels logistics and sustainability operator, Tim Brink, said at the *Argus Biomass Conference* in London on Tuesday.

Amer 9 currently co-fires biomass at 80pc with hard coal, while the share of wood pellets in Eemshaven’s fuel mix is currently 30pc.

RWE said in its [annual results in March](#) that it was aiming to retrofit its Amer and Eemshaven co-fired plants to run fully on biomass by late 2024 and late 2029, respectively, or “will shut them down”.

Marta Imarisio

Enea plans to up biomass burn from 2026

Poland’s second-largest power generator, Enea, plans to increase its wood pellet burn by approximately 800,000 t/yr from 2026, it said at an industry event last week.

The state-controlled company is nearing a decision on the upgrade of five of its coal units at its Polaniec power plant – which has a combined capacity of 1.2GW – to increase biomass in its fuel mix and reduce each unit’s CO₂ emissions below the 550g CO₂/kWh cap, so it can continue to receive payments under the capacity market mechanism beyond 2026.

Enea – Poland’s second-largest consumer of biomass – is planning a partial conversion, with the biomass share in co-firing set to rise to 40-42pc, it said at the Pellet Congress held in Lodz. These units already co-fire biomass but at much smaller volumes.

The utility envisages the upgraded units’ total output at 3 TWh/yr, and expects to operate them until 2034. It aims to mostly burn wood pellets with at a calorific value of at least 3,900kcal, but said it would also consider using rice husk and palm kernel shells. The company wants to prioritise local wood pellets but said it may have to import them if local supply falls short of its requirements.

Logistics is a key challenge for Enea to be able to import 2.5mn t/yr of biomass to Polaniec, where it already operates a 225MW dedicated biomass-fired unit. The Polaniec plant is located deep inland in southern Poland, about 600km from Polish ports.

Should they materialise, Enea’s and other utilities’ plans to co-fire more may bolster Poland’s biomass imports as

local supply is expected to be insufficient to meet all needs.

Stronger biomass burn in 2023

Enea burned 2.1mn t of biomass in 2023, up from nearly 1.9mn t a year earlier, mainly driven by higher power generation at its Polaniec unit, which rose to 1.5TWh from 1.1TWh over the same period. But biomass co-firing fell to 252GWh, from 309GWh.

Poland’s other leading biomass-using utility and the country’s largest electricity producer, PGE, also reported a strong increase in biomass burn in 2023 to 763,000t, from 481,000t in 2022. Most of the growth came from stronger burn at its dedicated 76MW biomass-fired Szczecin plant.

By Tomasz Stepień

Drax closes carbon removals deal with C-Zero

UK utility Drax has signed a deal for carbon removal (CDR) credits with environmental consultancy C-Zero, following an initial agreement between the two parties in [May 2023](#).

C-Zero will purchase CDR credits from Drax representing 2,000t of permanently stored carbon under the terms of the deal, Drax said on 18 April. The deal is indicative of the “maturing carbon market’s growing appetite for high-quality carbon removals” and another “concrete step” towards Drax’s delivering of bioenergy with carbon capture and storage (Beccs) in the US, the firm said.

The deal with C-Zero comes a few weeks after Drax signed a five-year [agreement with Karbon-X](#) for CDR credits representing 25,000t of permanently stored carbon.

Drax intends to remove at least 6mn t/y of CO₂ from the atmosphere through its [US Beccs projects](#).

Drax aims to remove and store 8mn t/yr of CO₂ from its UK Beccs projects, which are currently awaiting a [consultation](#) by the UK government to be finalised.

By Marta Imarisio

Austrian pellet output to reach 2.7mn t/yr in 2024

Austria’s wood pellet production capacity is estimated to reach around 2.7mn t/yr in 2024, proPellets Austria told *Argus*.

Tilly Holzindustrie’s 134,000 t/yr plant in Althofen started up earlier this year, which is estimated to have bolstered the total capacity to 2.7mn t/yr. This brings the total newly commissioned capacity for 2022-24 to 717,000 t/yr.

Nawaro’s under-construction 50,000 t/yr facility in Altheittra is expected to begin operations in early 2026.

Pellet production in Austria rose to 1.7mn t in 2023,

from 1.6mn t a year earlier. The vast majority of Austrian production - 1.6mn t/yr - was ENplus-certified A1-grade pellets in 2023. The country is the key supplier of premium pellets to the Italian market, where it exported 660,000t of wood pellets – or 86pc of its total exports – in 2023.

Austrian pellets consumption for 2023 was estimated largely flat on the year at around 1.3mn t, part of which was met from imports that totalled 266,000t in the same year.

Pellet-fired boiler sales reached a record high in 2022, but they failed to result in additional pellet consumption in 2023 mostly as unusually milder weather during the heating season pared overall demand.

Boiler sales then plunged to 7,000 units in 2023, owing to declining consumer confidence and volatile pricing from the second quarter of the year, proPellets Austria said. This was before new funding for pellet-fired appliances by the Austrian government bolstered sales this year. Under the new support scheme, customers can be paid back up to €18,000 (\$19,160) towards the boiler price – around 75pc of the total cost of the appliance.

Installed new pellet-fired boilers rose to around 20,000 units in [January-March 2024 alone](#), which could support pellet consumption during the winter 2024-25 season.

By *Marta Imarisio*

NWE wood chip prices maintain premium to pellets

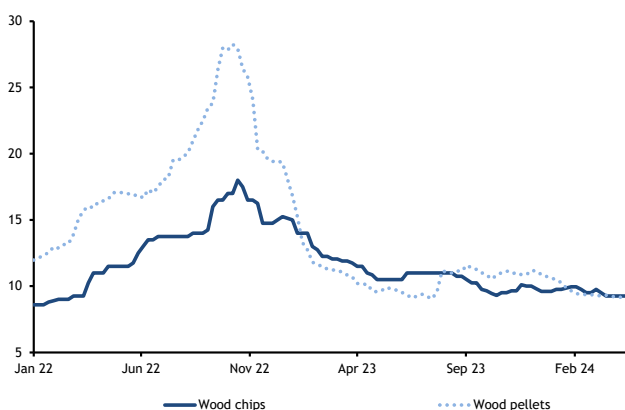
Spot industrial wood chips have consistently priced above wood pellets for deliveries to northwest Europe (NWE) for most weeks since the end of January.

Spot prices for both commodities declined steadily over the first quarter, as high stocks throughout the supply chain combined with weaker demand from the power sector owing to milder, windier weather to limit demand for spot supplies.

But while pellet prices dropped sharply, those for wood chips have been more resilient (*see chart*).

Wood pellets vs wood chips

€/GJ



Spells of colder than average weather in the Nordic region throughout the first quarter supported spot demand for wood chips, particularly from smaller wood chip-fired combined heat and power generators, which replenish inventories more frequently owing to limited storage capacity.

Some buying interest was also reported from the southern UK in January.

Lower raw material availability in the Baltic states and Sweden, mostly owing to harvesting restrictions, in addition to sanctions restricting Russian supplies, combined with disruption to seaborne trade because of bad weather, further supporting delivered wood chip prices in northern Europe. Thick layers of ice forming in the Baltic Sea basin during winter made it harder for suppliers to deliver cargoes, slowing down operations.

In contrast, wood pellet prices fell sharply, as a relatively weak power market throughout the winter pared consumption, weighing on demand for fresh spot volumes. Power plant outages, high inventories and ample supply availability, particularly from the US, put further pressure on prices.

The abundance of supply in NWE was further enhanced by utilities returning to the spot market – as they did for much of the first half of 2023 – to attempt to re-sell term volumes, whenever they were unable to postpone deliveries or secure additional storage capacity.

By *Hannah Adler*

Spain closer to new CHP payment scheme

The Spanish government has set long-delayed payments to combined heat and power (CHP) plants for running in July-December 2023 and proposed a new methodology for future payments.

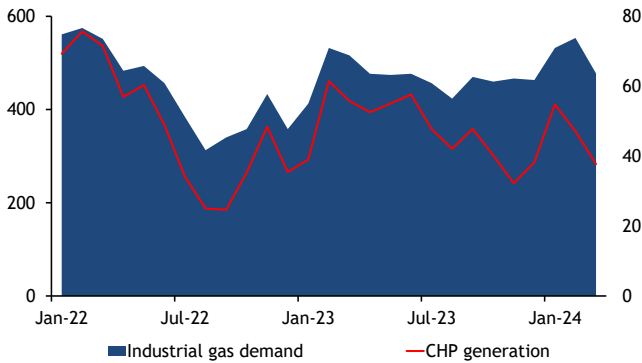
Most of Spain's roughly 600 CHPs burn gas to generate heat and power for domestic industries and rely on regulated payments to cover their operating costs, namely fuel.

Spanish CHP association Acogen said remuneration for the second half of last year would have "positive effects" and welcomed the government's proposed pay package for January-March this year as well as its proposed methodology for payments over the following two years.

Spain's state council is scheduled to decide whether to give final approval to those proposals over the next two weeks, Acogen said.

"This new framework for operating in the cogeneration and biomass sectors, which will come into force in May or June, will mark the future of the sector in the coming years," the group said.

Spanish CHP output vs industrial demand GWh/d of gas demand, GWh/d of power generation



But Acogen said it was still waiting for an update on auctions covering up to 1.2GW of generation capacity – originally announced in 2021 – that could allow industries to invest in upgrading and cutting carbon emissions from their CHP plants.

Before this announcement, Spanish CHPs had only received regulated payments for operations up to June last year, as the government had not decided how to remunerate them beyond that point.

Like Spanish industrial gas demand, electricity output from CHPs plummeted after European wholesale gas and power prices spiked in 2022. CHP output began recovering in the final months of 2023, but slumped in February and March this year, as plant operators awaited payment (see graph).

CHPs generated 42 GWh/d of electricity on 1 January-23 April this year, down from 51 GWh/d, 69 GWh/d and 72 GWh/d during that same period in 2023, 2022 and 2021, respectively, data from Spanish power grid operator Red Elctrica show.

By Jeff Kuntz

French union calls for coal-to-biomass project

French industry union FNME-CGT on Wednesday urged domestic utility EdF to proceed “immediately” with the Ecomcombust project aimed at converting the Cordemais coal-fired plant to biomass.

Members of the union gathered near the Cordemais plant on Wednesday and are planning to meet with EdF on 6 May.

The project was launched in 2015, temporarily abandoned in 2021 partly due to high costs before discussions restarted in January 2022. On its side, EdF is calling for “a definition of regulatory arrangements” for the conversion and has already held several working meetings with a goal to reach a decision on the project by this

summer, the utility’s representatives told Argus.

The French government in 2022 launched a call for the expression of interest for projects transforming coal-fired plants into biomass sites. The country is planning to convert its two coal-fired power plants with a combined capacity of 1.8GW to biomass by 2027, French president Emmanuel Macron announced last year.

By Tatiana Serova

Erex reduces biomass-fired output in March

Japanese renewable power developer Erex reduced its biomass-powered output in March compared with a year earlier, with output mixed at two of its four key plants.

The Japanese utility’s combined biomass-fired output across the Tosa, Saiki, Buzen and Nakagusuku plants fell by 15pc from the previous year to 92.1GWh in March, company data show. Power generation fell at Tosa and Buzen, while output at Saiki and Nakagusuku increased. Tosa has suspended output since 6 March “due to fuel constraints” and Buzen paused operations over 10-24 March for equipment checks, Erex said.

The 149MW co-fired Itoigawa plant ceased output in March as it suspended operations for more than a month because of scheduled maintenance.

Erex operates a total of 269MW power capacity burning wood pellet and palm kernel shell feedstocks. Its total capacity is likely to increase following the utility’s announcement that two biomass power generation projects in Vietnam are selected for financing support under the Joint Crediting Mechanism (JCM). The Yen Bai-1 and Tuyen Quang projects will be burning residual woody biomass as feedstocks.

Japan’s environment ministry is financing JCM projects that contribute to cutting greenhouse gas related emissions.

Erex projects selected for financing		
Name	Yen Bai-1 Biomass Power Plant	Tuyen Quang Biomass Power Plant
Planned construction site	Yen Bai province, Vietnam	Tuyen Quang province, Vietnam
Ownership	Erex 100%	Erex 100%
Power sales unit price	8.47€/kWh (under the FiT system in Vietnam)	8.47€/kWh (under the FiT system in Vietnam)
Power generation output	50MW	50MW
Fuel	Woody residue (approx 500,000 t/yr)	Woody residue (approx 500,000 t/yr)
Source: Erex		

Erex installed capacity		Capacity (MW)	Start of operations
Itoigawa	Coal, biomass*	149	Jul '01
Saiki	Biomass	50	Nov '16
Tosa	Biomass	20	Nov '16
Buzen	Biomass	75	Jan '20
Ofunato	Biomass	75	Jan '20
Nakagusuku	Biomass	49	Jul '21
Fujiyoshida	Hydrogen	0	Apr '22
Sakaide Hayashida	Biomass	75	2025
Niigata Mega Bio	Biomass	300	2029

Source: Erex

The programme works with 25 other countries, including Vietnam, to financially support projects that harness the use of decarbonisation technology, infrastructure or systems. The programme is not limited to financing only biomass-related projects.

By Jun Bin Phua

Takuma invests in Yonezawa biomass project

Japanese engineering firm Takuma has decided to invest in a planned woody biomass-fired power generation project in Japan's northwestern Yamagata prefecture, as part of its strategy to expand into the renewable energy space.

Takuma has agreed with domestic construction firm Iwahori to set up joint venture firm Yonezawa Bio Energy to continue building a 7.1MW biomass power plant in Yonezawa city. Takuma has been building the plant since July 2022.

Takuma has a 35pc stake in the joint venture firm and Iwahori owns the remaining 65pc. Takuma has declined to reveal the investment amount.

The plant is designed to burn 85,000 t/yr of wood chips made of unused woody material from the Yonezawa area. The partners aim to start operations in December 2025.

The project is financed by the country's feed-in-tariff scheme, with electricity produced at the site to be sold at a fixed price of ¥32/kWh (\$207/MWh) for 20 years after it is commissioned.

Takuma has so far built more than 600 biomass power plants and handled their maintenance. It is also [building a 7.1MW biomass power plant](#) in Yamagata's Shinjo city, targeting to begin commercial operations in mid-October 2026.

By Takeshi Maeda

Japan turns to renewables for carbon credit demand

Japan is accelerating the roll-out of renewable power

generation to cut the country's greenhouse gas (GHG) emissions. But this effort is no longer limited to direct emissions reduction, with it also necessary to generate carbon credits to meet growing demand for renewable-based offsetting.

Trading of carbon credits derived from renewable electricity has been dominant in the [carbon credit market on the Tokyo Stock Exchange](#) (TSE). The TSE traded 227,121t of carbon dioxide (CO2) credits over 11 October 2023-19 April 2024, of which credits from renewable power accounted for 64.6pc with deal prices ranging from ¥1,500-3,900/t (\$9.70-25.20/t).

The renewable share can be compared with the 35.3pc ratio of energy saving at 80,252t and marginal transaction of 64t from forest sinks and 52t of J-VER, a credit from not yet transferred forest sinks.

Credits from renewable electricity were traded the most, partly because there is a robust demand for this type of credit, according to a ministry of trade and industry (Meti) official that spoke to *Argus*, with its "liquidity secured to some extent", giving comfortable transactions for market participants. Credits from forest sinks tends to be traded by direct negotiations by sellers and buyers, according to the official, without going through an intermediate market like the TSE.

But robust demand for renewable power credits could also be linked to growing investment in sustainable assets such as environmental, social and governance (ESG). Credits from renewable electricity are eligible for reporting to international carbon disclosure platforms, including CDP that measures GHG emissions and scores an individual company's efforts on decarbonisation. ESG investors refer to the CDP scores for their investments, with Japanese buyers tempted to purchase these credits to appeal to investors in raising funds.

The credits can also be utilised as a certificate for renewable energy at RE100, another international initiative that aims to achieve electricity generation entirely by renewable energy sources by 2050. There are 85 Japanese firms participating at RE100, which is also referred to by ESG investors.

The TSE currently trades government-certified J-credits on its platform. Japan has certified 9.36mn t of J-credits from 1,081 projects by January 2024 since the scheme was introduced in the April 2013-March 2014 fiscal year, achieving 62.4pc of its certification target of 15mn t by 2030. J-credits derived from solar power projects accounted for 52.4pc, followed by the second-largest share of 15.8pc based on woody biomass use for boilers, stoves and power generation.

Credit boost

Japan's GHG emissions, including absorption by the environment, totalled 1.085bn t of CO₂ in 2022-23, down by 2.3pc from a year earlier. This was a 23pc fall against a 2013-14 baseline, meaning Japan will have to boost efforts to achieve its target of a 46pc reduction in GHGs by 2030-31.

Leveraging carbon credits could be crucial for Japan to achieve its net zero emissions goal by 2050. The country, which has few natural resources and geographical constraints, will have to cling on to fossil fuels to maintain its energy security and stable economic growth. The growing carbon offsetting pressure has also encouraged Tokyo to introduce a voluntary carbon market besides TSE's carbon trading.

Japan launched in 2023-24 a voluntary carbon credit trading scheme among companies that support the government's green transformation (GX) league – a cross-industry collaboration to achieve carbon neutrality. The GX emission trading scheme trades credits generated by members companies, along with J-Credits and credits through the Joint Crediting Mechanism that reflect reduction and absorption after 2021. A total of 568 firms participated in the GX league as of January, with their direct GHG emissions accounting for more than 50pc of Japan's total emissions, Meti said.

By Motoko Hasegawa, Yusuke Maekawa

New carbon registry issues first removal credits

Carbon registry Isometric launched today, issuing just under 2,500 carbon removal credits.

Almost 2,200 of those credits have been delivered to buyers from the Frontier consortium, a group of carbon credits buyers including e-commerce platform Shopify, payment processor Stripe and Facebook parent Meta. The credits were generated by a biomass project which captures organic waste and stores it in geological formations.

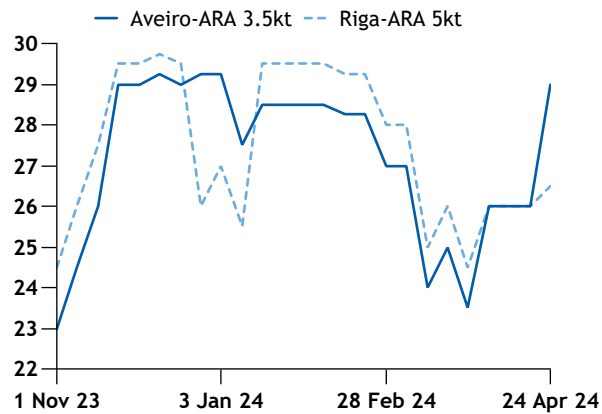
Isometric's founder and chief executive Eamon Jubbawy said Isometric differs from other carbon registries in the voluntary carbon market because of the level of rigour involved in its project verification process and the quality of the credits it produces as a result. Credits issued by Isometric are checked against a standard formed by more than 12 carbon removal scientists and peer-reviewed by a network of over 200 climate experts, he added.

Jubbawy also noted that the verification and issuance of credits on the Isometric registry is paid for by the buyer on a flat fee basis rather than per credit, which he said guards against overissuance and minimises conflicts of interest to assure the market of the integrity and transparency of the platform.

By Felix Todd

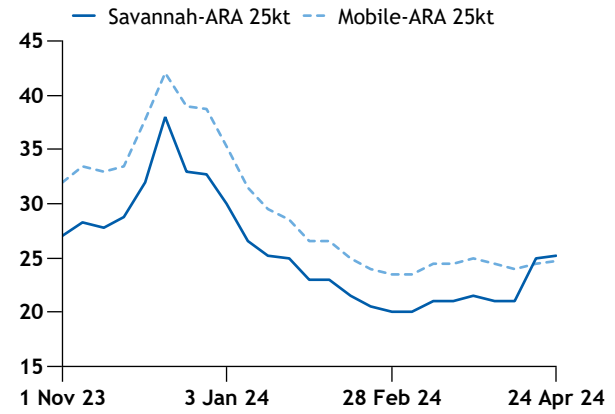
Wood pellet freight, coaster size

€/t

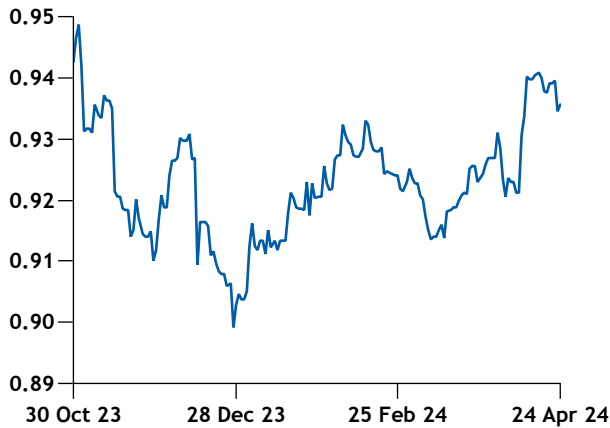


Trans-Atlantic wood pellet freight rates 25,000t

\$/t

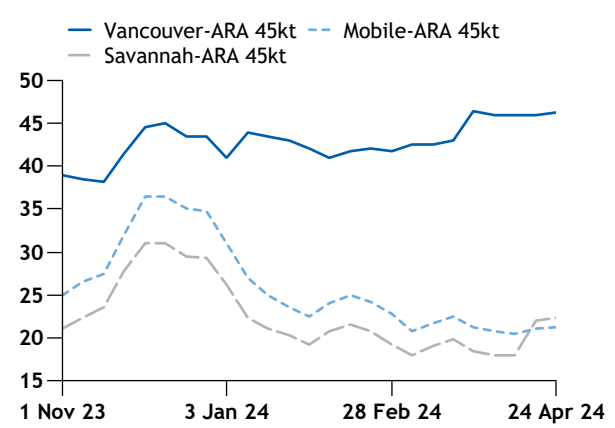


\$/€ exchange rate



Trans-Atlantic wood pellet freight rates 45,000t

\$/t



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