

EDITORIAL: PRSE 2024 took place in Amsterdam last week, with many of last year's debates still front-of-mind

PRSE: Brighter notes, familiar chords

In our editorial following last year's PRSE trade fair, we discussed short-term concerns and long-term optimism for the industry. This year's show – held last week in Amsterdam – featured some brighter notes, but conversations also struck many familiar chords of pessimism about the near term.

On the plus side, last year's main reason for long-term optimism – increasingly supportive legislation in Europe – remains on track. The EU Packaging and Packaging Waste Regulations (PPWR) mandating recycled content across almost all plastic packaging by the end of the decade appear set for confirmation in the near future – welcome news for polyolefin recyclers in particular. And the PE films market appears less nervous about PPWR's strict reuse quotas for industrial packaging than it was in spring, with much optimism that future delegated acts will address industry concerns. Importantly for chemical recyclers, the European Commission has continued to support fuel use-exempt mass balance accounting, with member states [reportedly largely in line](#).

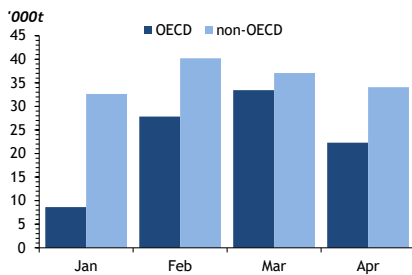
For PET recyclers, mandatory recycled content requirements are even closer, with the 25pc minimum for PET beverage bottles kicking in from next year. The weather has not generally supported a strong season for on-the-go beverage consumption in much of Europe this year, limiting the emergence of a peak season for rPET pellet consumption. And there is a feeling that the supply chain is more adequately stocked ahead of next year than it otherwise would have been, even as a reduction in the competitiveness of imports from Asia – the result of higher freight costs – theoretically supports demand for European recyclates. But PET recyclers were quietly confident about future demand prospects because of the upcoming regulation.

Demand for premium blow-moulding grade rHDPE was another bright spot discussed at the fair, with many recyclers operating in that market noting increasing buying interest. This is an encouraging sign, one said, that brand owners are still looking to make as much progress as possible towards their 2025 targets for recycled content in packaging, after a slowdown in new projects last year, despite recent data showing that [many are not on track to fully meet them](#).

But for all the upbeat sentiment, many of the same concerns were raised again at this year's gathering. Polyolefin recyclers complained of low or even negative margins on commodity cost-saving products, such as low-end rPP grades and rHDPE pipe, with virgin PE and PP prices having declined in recent months and underlying demand still slow. There was still a feeling that a challenging period lies ahead, and that this could lead to further consolidation in the industry. And progress towards EU legislation supporting demand for recyclates outside of the packaging industry has been comparatively slow since the previous PRSE – save for a [proposal from the commission](#) to mandate 25pc recycled content in automotive plastics.

Aside from concerns about sales volumes and margins, challenges with feedstock sourcing have come tgo the fore again in 2024, particularly in the flexible PE market. Flexible PE bale prices have risen through the second quarter because of reduced production of waste from commercial sites and, more recently, strong demand for exports to southeast Asia. Recyclers have struggled to pass on increases to their pellet customers, resulting in a squeeze on their margins.

EU-27 LDPE waste exports

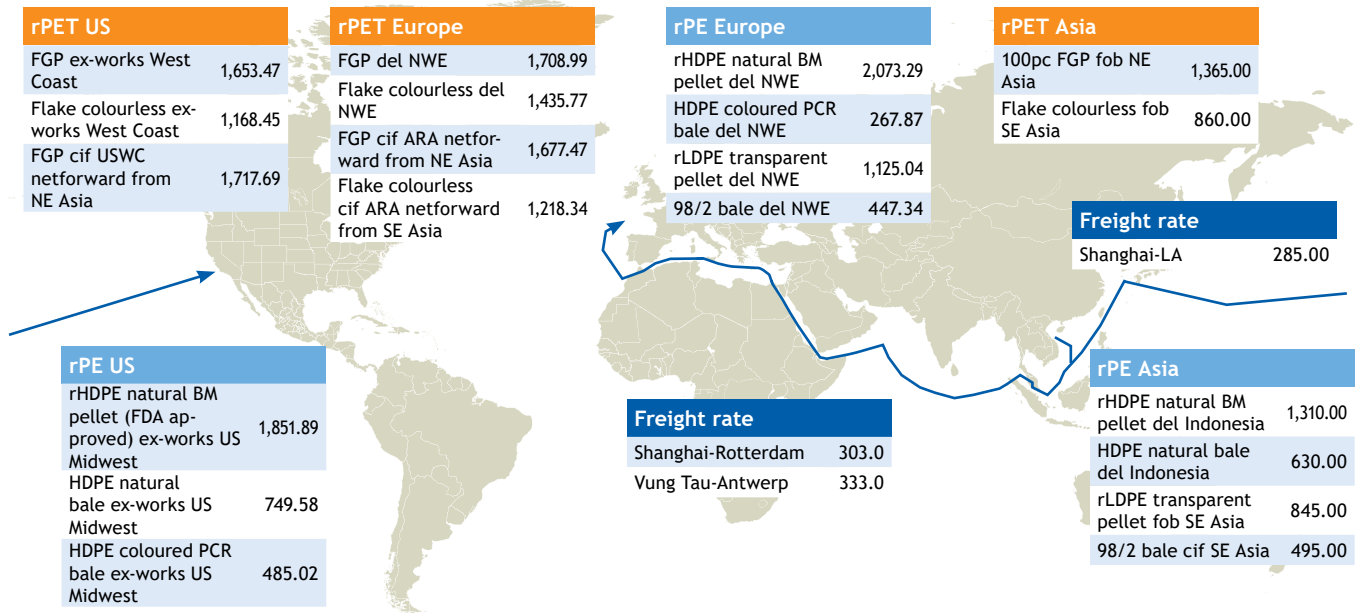


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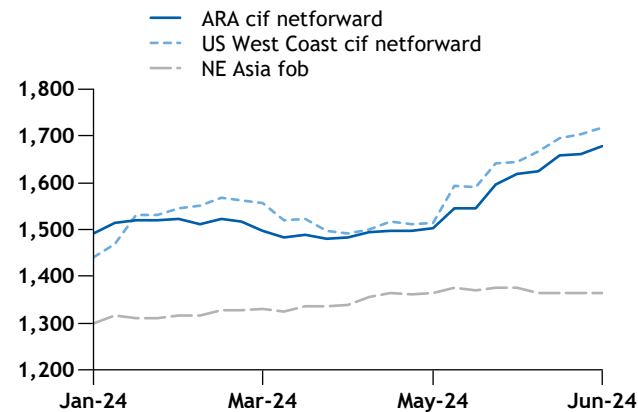
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GLOBAL PRICES

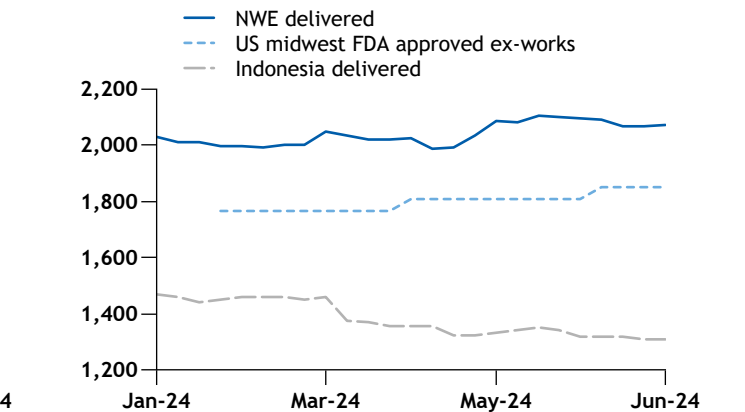
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Global rPET FGP netforwards (basis NE Asia)



Global rHDPE natural prices



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MARKETS UPDATE – rPET – EUROPE

rPET Europe: Market hopeful for July

The European rPET market looks steady as we approach the end of the month, with demand stable and import volumes curtailed by high freight costs. Static demand in recent months has put pressure on some parts of the value chain, but market participants still say this year is proving brighter than last year in terms of volumes and market activity – if below expectations.

Bale prices in north and west Europe are stable, with supply and demand balanced. Central and eastern bale prices are reported to be edging up, with spot prices in Romania still around €450/t and prices in Poland and the rest of the region higher at €550-630/t. Some offers were reported at up to €650/t – the top end of the range. Market participants in the central and eastern region say availability is slightly below average for the time of year, but sufficient to meet current demand, with fundamentals unlikely to be supportive of further price increases.

Spanish bale auction prices for the third quarter increased by around €35/t from April-June, but remain in line with the rest of the region at €332-500/t. The majority of these volumes are expected to be processed in Spain, so the supply-demand balance should stay relatively stable.

UK bale prices slipped slightly this week, with more material being released to market as some recyclers prepare for maintenance turnarounds. Export opportunities to Europe remain limited at current price and demand levels.

Across the region, warmer weather is expected to increase beverage consumption and the amount of waste available for collection should rise as a result, leading to the usual seasonal upswing in bale supply.

Flake prices are reported to be stable this week and are expected to remain so into July. Recyclers say June was a little underwhelming in terms of volumes, but July orders appear slightly healthier as market participants prepare for the summer holiday and maintenance seasons and seek to secure volumes in July to cover August.

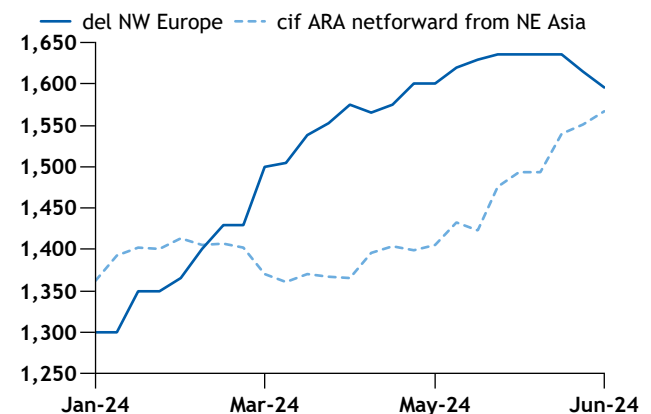
Food-grade pellet prices fell slightly at the end of this month, reflecting flat demand and a few offers heard below market value to incentivise buying and shift volumes. These offers are understood to be mostly from small to mid-sized market participants that are holding too much material and want to boost cash flow. Offers were heard below €1,450/t in some instances. These are not seen as representative of the overall market position as volumes are reported to be limited and offers are for opportunistic one-off deals.

Both the rPET and virgin PET resin markets in Europe continue to be supported by the lack of imports from Asia

Recycled PET Europe market prices						€/t
	Timing	Low	High	Midpoint	Δ	
Bale prices						
PET bottle colourless, del W Europe	28-Jun	450.00	550.00	500.00	nc	
PET bottle colourless, del N Europe	28-Jun	450.00	550.00	500.00	nc	
PET bottle colourless, del UK £/t	28-Jun	380.00	430.00	405.00	-20.00	
PET bottle colourless, del CEE	28-Jun	450.00	630.00	540.00	+10.00	
PET bottle colourless, yellow container, del Spain	3Q24	332.00	500.00	416.00	nc	
PET bottle colourless, municipal collection, del Spain	3Q24	331.00	333.00	332.00	nc	
Flake prices						
Bottle flake colourless, del NWE	28-Jun	1,270.00	1,410.00	1,340.00	nc	
Bottle flake colourless, del S Europe	28-Jun	1,270.00	1,410.00	1,340.00	nc	
Bottle flake colourless, del CEE	28-Jun	1,270.00	1,410.00	1,340.00	nc	
Bottle flake colourless, del UK £/t	28-Jun	930.00	990.00	960.00	nc	
Food grade pellet						
del NWE	28-Jun	1,530.00	1,660.00	1,595.00	-20.00	
del S Europe	28-Jun	1,530.00	1,660.00	1,595.00	-20.00	
del CEE	28-Jun	1,530.00	1,660.00	1,595.00	-20.00	

in the face of high freight rates. European virgin PET spot prices are at €1,170-1,230/t delivered. Import offers of flake and food-grade material from Asia continue to be uncompetitive and lead times are too long for European buyers. Imports from Turkey and north Africa are still competitive in Europe, hovering at the low end of domestic price ranges.

rPET food grade pellet Europe vs netforward €/t



MARKETS UPDATE – rPET – AMERICAS

rPET US: Bale prices steady

PET bale prices were mostly steady this week, led by strong demand for US bales from Latin America and this year’s slow-growing bottle collection volumes.

PET bale prices typically fall at the start of summer because of increased use of bottles by consumers in hot weather, and pressure on the market is likely in the coming months as summer activities get into full swing. But participants have told Argus that, while collection volumes have started to rise in California, it has not been enough to significantly impact pricing. West coast A grade PET bale prices were flat this week at 22.5¢/lb, having held mostly steady since March because of persistent demand for bales from Mexico.

East coast PET bales fell by 1¢ this week to 17¢/lb, led by increasing collection volumes of PET bales in northern and southeastern US states.

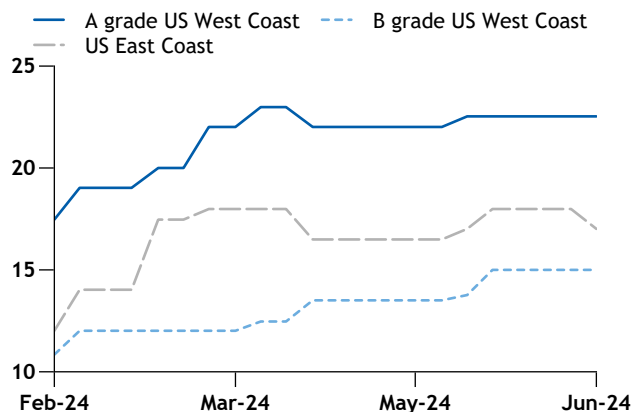
Sharp rises in freight costs from Asia to the US have become a serious inconvenience to rPET importers, undermining the arbitrage between the regions. The reduction in Asian prices’ discount to US rPET flake and pellet should support US recyclers to some extent, as imports have provided strong competition this year and many bottlers have looked to Asian material to reduce feedstock costs.

But expectations are mostly downbeat for the coming months, with recyclers citing pressure from low virgin PET prices and fast-moving consumer goods companies tightening their belts in the face of reduced demand.

Recycled PET US weekly market prices						ex-works
	Timing	Currency	Low	High	Midpoint	Δ
Weekly						
PET bottle bale						
A grade US west coast	28-Jun	¢/lb	21.00	24.00	22.50	nc
		\$/t	462.97	529.11	496.04	nc
PET bottle bale						
B grade US west coast	28-Jun	¢/lb	14.00	16.00	15.00	nc
		\$/t	308.65	352.74	330.70	nc
PET bottle bale						
US east coast	28-Jun	¢/lb	16.00	18.00	17.00	-1.00
		\$/t	352.74	396.83	374.79	-22.05

Recycled PET US monthly market prices						ex-works
	Timing	Currency	Low	High	Midpoint	Δ
Monthly						
rPET flake						
colourless US west coast	Jun 24	¢/lb	51.00	55.00	53.00	nc
		\$/t	1,124.36	1,212.54	1,168.45	nc
rPET pellet US west coast	Jun 24	¢/lb	74.00	76.00	75.00	-2.00
		\$/t	1,631.42	1,675.51	1,653.47	-44.09

PET bottle bale ex-works prices ¢/lb



MARKETS UPDATE – rPET – ASIA-PACIFIC

rPET Asia: Freight costs weigh on market

Higher freight rates, driven by high demand for shipping and port congestion, have challenged Asia-Pacific PET recyclers in the past two weeks. The rise in container costs curtailed demand for northeast Asian exports, leading southeast Asian sellers to reduce their export prices to remain competitive.

In northeast Asia, market activity was subdued as major buyers stayed on the sidelines. Mainland Chinese producers offered 100pc rPET pellet exports at \$1,300-1,370/t fob and concluded a handful of small deals at \$1,260-1,340/t fob

during the week. Sellers said high ocean freight rates were throttling demand and capping discussion levels. 25pc rPET pellet prices held steady in the fob China market because of stable virgin PET resin prices.

Taiwanese producers maintained export offers for 100pc rPET pellet at \$1,430-1,500/t fob. But both domestic and overseas buyers took a wait-and-see stance. Notional negotiation levels held steady at \$1,400-1,470/t fob.

In the Chinese domestic market, rPET pellet demand picked up, with a few cosmetics and non-food contact pack-

MARKETS UPDATE – rPET – ASIA-PACIFIC

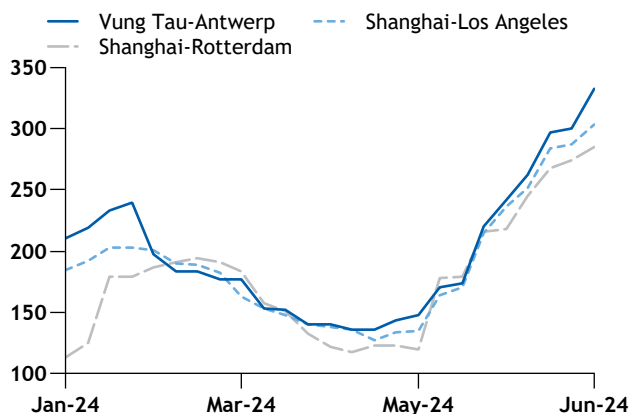
aging companies made purchases. Producers offered 100pc rPET pellet at 11,000-11,200 yuan/t and deals were concluded at Yn10,800-10,900/t – about Yn50/t down on early June. Some rPET fibre consumers also returned to buy rPET flake in the Chinese market. But increasing supply capped prices for premium rPET flakes at below Yn7,200/t, and some producers said negotiation levels for large volumes were at Yn7,050-7,100/t during the week.

Southeast Asian rPET flake export prices fell further this week, with a major Indonesian PET recycler saying recyclers had to lower their fob-basis offers to offset the increase in freight rates. Colourless rPET flake and mixed-colour flake were assessed \$40/t lower at \$840-880/t and \$790-835/t, respectively, despite solid demand and an increase in feed-stock prices.

The Indonesian bale market tightened this week as a result of increased competition between established recyclers and newer entrants. Colourless and mixed-colour bale were assessed 300 rupiah/kg higher at IDR 8,700-9,300 /kg and IDR 8,500-8,700/kg, respectively.

rPET pellet export prices were stable this week, at \$1,250-1,400/t fob southeast Asia, although recyclers noted that demand for pellets had dropped. This might reflect the fact that elevated freight rates are making exports less competitive in long-haul destinations, such as Europe and the US.

Container freight rates



Recycled PET Asia-Pacific market prices						
	Timing	Currency	Low	High	Midpoint	Δ
North East Asia rPET						
rPET food grade pellets 25pc fob NE Asia	28-Jun	\$/t	960.00	1,000.00	980.00	nc
rPET food grade pellets 100pc fob NE Asia	28-Jun	\$/t	1,260.00	1,470.00	1,365.00	nc
rPET flakes domestic China	28-Jun	Yuan/t	7,050.00	7,200.00	7,125.00	nc
South East Asia rPET						
PET bottle bale colourless domestic Indonesia	28-Jun	IDR/kg	8,600.00	9,300.00	8,950.00	+300.00
		\$/t	530.00	570.00	550.00	+25.00
PET bottle bale mixed colour domestic Indonesia	28-Jun	IDR/kg	8,500.00	8,700.00	8,600.00	+650.00
		\$/t	520.00	530.00	525.00	+40.00
rPET food grade flakes colourless fob southeast Asia	28-Jun	\$/t	840.00	880.00	860.00	-40.00
rPET food grade flakes colourless fob southeast Asia	28-Jun	\$/t	790.00	835.00	812.50	-40.00
rPET pellets fob southeast Asia	28-Jun	\$/t	1,250.00	1,400.00	1,325.00	nc

Calculated rPET netforwards					
	Timing	Low	High	Midpoint	Δ
rPET food grade pellet cif USWC - netforward from NE Asia \$/t (20t/FEU)	28-Jun	1,601.55	1,833.83	1,717.69	+13.61
rPET food grade pellet cif ARA - netforward from NE Asia \$/t (24t/FEU)	28-Jun	1,560.09	1,794.84	1,677.47	+16.50
€/t	28-Jun	1,457.28	1,676.56	1,566.92	+16.90
rPET flake cif ARA - netforward from SE Asia \$/t (23t/FEU)	28-Jun	1,172.51	1,264.16	1,218.34	-4.49
€/t	28-Jun	1,095.24	1,180.85	1,138.05	-3.09

Container freight rates				
Route	Low	High	Midpoint	Source
Shanghai-Los Angeles	276.00	294.00	285.00	Freightos
Shanghai-Rotterdam	291	315	303.0	Freightos
Vung Tau-Antwerp	309	357	333.0	Freightos

*Freight rates used in net forward calculations are adjusted for the specified shipment size per FEU



Argus freight rates are as of the day of publication. Rates derived from Freightos data are of the previous day. Selected polymer spot freight rates are calculated by Argus methodology, based on underlying data from the online freight marketplace, Freightos. Visit www.freightos.com for complete lists of \$/FEU rates in the wider spot container market.

MARKETS UPDATE – RPE/RPP – EUROPE

rPO Europe: Flexible PE bales up again

Exhibitors at last week's PRSE trade fair in Amsterdam reported solid demand for flexible PE bales and rHDPE packaging grade recyclates, although the outlook for other products is less reassuring.

Prices for transparent flexible PE bales have continued to rise over the past two weeks, driven by reduced production from commercial premises and solid demand from Indonesia. The 98/2 bale price rose to €400-440/t delivered northwest Europe this week, up from €380-435/t two weeks ago, with aggregating firms increasing their bids above €400/t in many cases to secure material. Prices for shrink-hood bales have risen above €700/t.

The rise in feedstock prices has squeezed recyclers' margins, as a concurrent slide in the virgin LDPE market has made it challenging to pass on the increases to their pellet customers, although LDPE spot prices did rise slightly this week. The low end of low-MFI collation shrink-pellet prices rose by €30/t, driven up by the cost of shrink-hood bales, but prices at the high end did not increase to the same extent. One seller at the higher end reported managing €100/t increases in the past two months with contracted customers, but this was an outlier, with the majority of the market still at €1,220-1,350/t. Prices for other rLDPE/LLDPE grades rolled over from June into July. Recyclers will hope to see some relief for feedstock costs as European recycling plants begin to shut down for summer holidays and maintenance in the coming weeks.

In the rigid PE/PP market, demand for rHDPE BM natural and white grades from the consumer packaging industry remains solid. Recyclers operating in those markets reported a steady stream of new enquiries to their stands at PRSE – commensurate with brands continuing to strive towards their packaging sustainability goals. Prices for high-end packaging grade rHDPE and rPP remain at a substantial premium to virgin material, supported by this solid demand, but recyclers did not see any scope to lift prices heading into the third quarter.

Demand at the lower end of the HDPE and PP markets was much lower, with a number of recyclers and buyers reporting pressure from oversupply in the rPP black market in particular. We moved our price range for rPP black and plant pot/bucket grades down by €20/t last week. Post-consumer PP bale prices fell in Germany, with at least one supplier reducing offers to increase its sales volumes, although feedstock prices in neighbouring northwest European countries were stable. We widened the range of PP bale prices on a delivered northwest Europe basis to €100-220/t to take ac-

Europe recycled polyolefins					
	Timing	Low	High	Midpoint	Δ
Bales del NWE (€/t)					
HDPE rigid bale (D329 or equivalent)	28-Jun	190.00	310.00	250.00	nc
PP rigid bale PCR (D324 or equivalent)	28-Jun	100.00	220.00	160.00	-25.00
Mixed polyolefin bale, PCR	28-Jun	60.00	80.00	70.00	nc
Shrink hood flexible PE bale	28-Jun	690.00	730.00	710.00	+10.00
98/2 flexible PE bale post-commercial	28-Jun	400.00	435.00	417.50	+2.50
80/20 flexible PE bale post-commercial	28-Jun	220.00	240.00	230.00	nc
Mixed colour flexible PE bale post-commercial	28-Jun	170.00	180.00	175.00	nc
Mixed plastic waste (D350 fraction) del German incinerator*	7-Jun	-170.00	-150.00	-160.00	nc
Bales del UK (£/t)					
HDPE natural PCR bale	28-Jun	540.00	650.00	595.00	-15.00
HDPE coloured PCR bale	28-Jun	350.00	420.00	385.00	nc
PP PCR bale	28-Jun	330.00	400.00	365.00	nc
98/2 flexible PE bale post-commercial	28-Jun	410.00	460.00	435.00	nc
Regranulate prices del NWE (€/t)					
rHDPE BM white, from PCR, deodorised	28-Jun	1,630.00	1,900.00	1,765.00	nc
rHDPE BM natural from PCR deodorised del NWE	28-Jun	1,770.00	2,100.00	1,935.00	nc
rHDPE IM black	28-Jun	670.00	845.00	757.50	nc
rHDPE pipe dark/black	28-Jun	720.00	895.00	807.50	nc
rPP light, packaging, deodorised	28-Jun	1,600.00	1,850.00	1,725.00	nc
rPP grey, high MFI, plant pot and bucket	28-Jun	750.00	900.00	825.00	nc
rPP IM black	28-Jun	680.00	850.00	765.00	nc
rLDPE/LLDPE IM dark/black	28-Jun	400.00	600.00	500.00	nc
rLDPE/LLDPE shrink film transparent	28-Jun	1,220.00	1,350.00	1,285.00	+20.00
rLDPE/LLDPE stretch film transparent	28-Jun	1,100.00	1,215.00	1,157.50	nc
rLDPE/LLDPE standard film transparent	28-Jun	1,000.00	1,100.00	1,050.00	nc
rLDPE/LLDPE standard film dark/black	28-Jun	660.00	780.00	720.00	nc

*Prices are negative when payment is made to the incinerator to take the material

count of this. HDPE bale prices were stable.

The UK rigid bale market lengthened this week, with an HDPE/PP recycling plant in northeast England going into semi-permanent shutdown and suppliers offering extra volumes. A drop in the PRN price has also made exports more challenging. We have kept prices for HDPE mixed colour and PP stable, but heard more deals in the lower half of the range for PP in particular. The HDPE natural market is under pressure, with some suppliers cutting prices to spur demand. We dropped the low end of our assessment by £30/t.

MARKETS UPDATE – RPE/RPP – AMERICAS

rPO US: Bale prices stable to lower

Slow demand for consumer products and the impact of high interest rates on construction output continue to subdue the US recycled polyolefins market.

HDPE natural bale prices fell by 1.5¢ to 34¢/lb this week, after a rise driven by some supply tightness from MRFs in the Midwest that has now dissipated. PP bale values were flat this week at 10¢/lb.

Demand for FDA-grade rPP and rPE is still weak, although brands are continuing to show more interest in sampling material. A similar pattern was seen in the European market, with more projects to use recycled material in packaging beginning at the start of this year, which are now starting to lead to stronger demand for rHDPE BM grades in particular. US recyclers will hope the sampling interest converts into much higher volumes in their own market too.

Construction-grade recycled pellet and flake is still widely available, buyers said. Some buyers said they had stepped out of the market as they have a surplus of material from prior months.

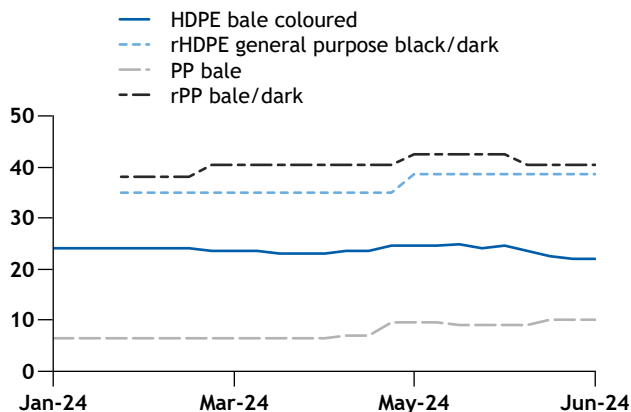
Residential housing starts fell by 19.3pc on the year in May, according to the US Census Bureau. High interest rates have put the brakes on home buying in the US, and transactions will be unlikely to recover until 2025.

Even after inflation cooled in May and June, there is not much chance that the US Federal Reserve will cut interest rates. Just this week, Fed governor Michelle Bowman said she expects no rate cuts in 2024.

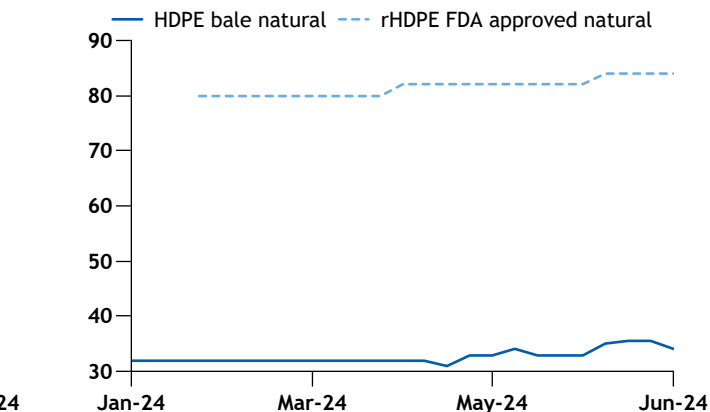
Virgin PP prices are on the rise again, reflecting plant shutdowns and rising PGP prices, but recyclers are not expecting this to result in rPP prices rising any time soon.

Recycled polyolefins US Midwest weekly market prices						
	Timing	Currency	Low	High	Midpoint	Δ
Weekly						
HDPE natural PCR bottle bale	28-Jun	¢/lb	33.00	35.00	34.00	-1.50
		\$/t	727.53	771.62	749.58	-33.07
HDPE coloured PCR bottle bale	28-Jun	¢/lb	20.00	24.00	22.00	nc
		\$/t	440.92	529.11	485.02	nc
PP PCR bale	28-Jun	¢/lb	9.00	11.00	10.00	nc
		\$/t	198.42	242.51	220.47	nc
Recycled polyolefins US Midwest monthly market prices						
	Timing	Currency	Low	High	Midpoint	Δ
Monthly						
rHDPE BM natural, FDA approved	Jun 24	¢/lb	82.00	86.00	84.00	+2.00
		\$/t	1,807.79	1,895.98	1,851.89	+44.10
rHDPE BM light grey, non-FDA approved	Jun 24	¢/lb	63.00	67.00	65.00	+0.50
		\$/t	1,388.91	1,477.10	1,433.01	+11.02
rHDPE dark/black general purpose	Jun 24	¢/lb	36.00	41.00	38.50	nc
		\$/t	793.66	903.90	848.78	nc
rPP light grey, FDA approved	Jun 24	¢/lb	75.00	80.00	77.50	-7.50
		\$/t	1,653.47	1,763.70	1,708.59	-165.34
rPP light grey, non-FDA approved	Jun 24	¢/lb	56.00	61.00	58.50	-2.50
		\$/t	1,234.59	1,344.82	1,289.71	-55.11
rPP dark/black, general purpose IM	Jun 24	¢/lb	38.00	43.00	40.50	-2.00
		\$/t	837.76	947.99	892.88	-44.09

HDPE, PP bale, regranulate US Midwest



¢/lb HDPE bale, rHDPE regranulate US Midwest



MARKETS UPDATE – RPE/RPP – ASIA-PACIFIC

rPE Asia: 98/2 import prices rise

Southeast Asian 98/2 flexible PE bale prices were assessed \$20/t higher at the upper end of the range, with export prices from Europe rising on tight availability. Purchasing bales within the region is challenging.

The assessment took account of buyer and seller indications. European sellers reported prices of \$530-550/t or more for premium material in the past two weeks, although some buyers and traders said they did not to pay above \$500-510/t. Material from some other sources traded lower.

rLD/LLDPE pellet prices were stable, reflecting low downstream demand. Virgin LDPE prices have risen by \$170-190/t in southeast Asia and by just over \$150/t in China in the past three months, with LLDPE butene prices rising by \$30-50/t. But higher virgin prices do not seem to be buoying demand for recycled pellets yet, recyclers said. rLD/LLDPE pellet prices were stable at \$815-875/t fob southeast Asia.

Spot activity was limited in the Indonesian domestic rHDPE market this week. Weak demand persisted as consumers prepared for the new school year. rHDPE local prices were unchanged at IDR 22,500-23,100/kg. Indonesian domestic HDPE bale prices remained at IDR 11,200-12,000/kg.

rHDPE trade was thin in the fob China market and prices held steady. Producers offered food-contact rHDPE BM grade

Recycled polyolefins Asia Pacific market prices						
	Timing	Currency	Low	High	Midpoint	Δ
South East Asia rPE						
HDPE rigid bale PCR domestic Indonesia	28-Jun	IDR/kg	10,000.00	10,600.00	10,300.00	nc
		\$/t	610.00	650.00	630.00	+5.00
98/2 flexible PE bale, post commercial cif SE Asia	28-Jun	\$/t	460.00	530.00	495.00	+10.00
rHDPE natural, from PCR, domestic Indonesia	28-Jun	IDR/kg	21,200.00	21,800.00	21,500.00	nc
		\$/t	1,290.00	1,330.00	1,310.00	nc
rLDPE/LLDPE standard film, transparent, fob southeast Asia	28-Jun	\$/t	815.00	875.00	845.00	nc

at \$1,400-1,450/t fob, but most buyers were on the sidelines. Tight container space and high ocean freight curtailed negotiations. Only a handful of small deals were concluded at \$1,320-1,380/t fob. Discussion levels in the Chinese domestic market dipped marginally to Yn11,000-11,500/t.

SUSTAINABLE FEEDSTOCKS

Sustainable feedstocks: PPO steady

Plastic-derived pyrolysis oil (PPO) prices were assessed stable this week, with no new transactions reported and no significant changes in neighbouring or connected markets, such as electricity and plastic waste.

European supply is reportedly increasing gradually, including rising throughputs at a commercial-scale plant in the Netherlands that began commissioning in late 2023. Several other small-medium commercial-scale plants are still expected to start up before the end of this year.

Another producer, Denmark's WPU, said in mid-June that it had completed work to streamline its production process and had processed 80t of mixed plastic waste. The firm said it had been forced to deal with higher-than-expected water levels in some of the plastic waste feedstock that it received, leading to an "undesirable" high water content in the pyrolysis oil produced. It mitigated this by reprocessing the oil, it said, demonstrating the "flexibility and robustness" of its technology, although in its first quarter financial results it noted that this had also impacted efficiency.

Advanced Recycling/Bio-feedstocks						
	Timing	Currency	Low	High	Midpoint	Δ
Europe						
Pyrolysis oil plastic-derived refinery grade fca Europe	28-Jun	€/t	1,000.00	1,250.00	1,125.00	nc
Pyrolysis oil plastic-derived cracker grade fca Europe	28-Jun	€/t	1,350.00	1,550.00	1,450.00	nc
Bionaphtha fob ARA	Jun 24	\$/t	1,650.00	1,660.00	1,655.00	-75.00
Asia-Pacific						
Bionaphtha cfr Northeast Asia	Jun 24	\$/t	1,770.00	1,790.00	1,780.00	-35.00

In bionaphtha, the used cooking oil (UCO)-based fob ARA range outright price was supported by gains in the fossil market, but values continued to be reported around or slightly below the \$1,000/t premium mark, with lower levels indicated for co-processed material.

In Asia, conventional Japanese naphtha prices rose to a

two-month high on 28 June, driven partly by increased demand from Chinese and South Korean petrochemical producers as naphtha became a more attractive cracker feedstock than propane. This also pushed the bionaphtha cfr northeast Asia assessment to its highest level in two months – \$1,805/t – with at least some traders continuing to peg the bio-based product at a \$1,100/t premium to regular naphtha. But no

new spot demand or trade emerged in the Asian market over the last fortnight.

Price indications remained in a wide range in the fca ARA UCO-based biopropane market, with some offers still heard above the \$1,300/t premium mark. Interest was lower as a result of slow demand in sectors outside transport, where there are no obligations to use a certain share of renewables.

PETROCHEMICAL MARKETS

Europe

European PE and PP markets strengthened this week, with higher crude and naphtha prices reducing buyers' expectation of another price drop in July, and higher global container freight rates making imports to Europe less attractive.

In PE, the low end of spot prices rose by €25-50/t, in line with an increase in the cost of imports from the US. Freight rates on the US-Europe route have not been greatly affected by the squeeze on tonnage and port congestion that has pushed up rates for exports from east Asia, but demand for US material in Latin America has risen because Asia-Pacific deliveries to that region have become less attractive. In PP, Europe is more exposed to imports from east of Suez, which have become all but unworkable owing to the higher cost of freight, pushing the lower end of spot prices higher.

Northwest European July contract prices for PE/PP feedstocks ethylene and propylene were agreed on Friday at a rollover from June, tracking largely stable feedstocks.

The European PET resin spot market was heard to have risen to €1,170-1,230/t delivered this week, reflecting reduced availability from domestic production and a lack of imports. There are reports that problems securing spot PTA are reducing PET resin production.

Americas

US domestic PE demand was stable in June, although there could be a short-term rise as buyers stock up ahead of any hurricanes that land during the third quarter. Export prices were also stable this week, although US traders said they have seen stronger demand in Latin America as a result of higher Asian freight prices. Traders were undecided as to whether prices will increase further in July.

In the US PP market, another increase in the price of feedstock polymer-grade propylene (PGP) – the result of operational problems at propane dehydrogenation (PDH) units – pushed domestic price expectations higher in June. Export demand benefited from the same dynamics as seen with PE.

Olefin monthly contracts & Polymer spot			
	Timing	Midpoint	Δ
Ethylene contract			
del NWE €/t	Jul 24	1,220.00	nc
cfr Taiwan \$/t	Apr 24	995.00	+29.00
Pipeline USGC €/lb	May 24	29.25	+0.25
Polymer grade propylene (PGP) contract			
del Europe €/t	Jul 24	1,105.00	nc
del Taiwan \$/t	Apr 24	898.00	-5.00
fob US €/lb	Jun 24	48.00	+2.00
HDPE IM spot			
del NWE \$/t	28-Jun	1,205.50	+17.00
cfr China \$/t*	28-Jun	915.00	nc
fas Houston bagged \$/t	28-Jun	893.00	-11.00
Polypropylene spot			
homopolymer del NWE \$/t	28-Jun	1,299.0	+17.0
raffia cfr China \$/t	28-Jun	925.00	nc
LLDPE butene-1 spot			
del NWE \$/t	28-Jun	1,192.0	+16.5
fas Houston \$/t	28-Jun	1,047.000	+22.000
cfr China \$/t	28-Jun	985.0	-10.0

*Main origin

Asia-Pacific

The Chinese PE market softened slightly this week, although reduced stocks and the high cost of imports supported prices. In southeast Asia, the LDPE market remains tight, with local producers still processing a backlog of orders, although the tightness is expected to ease during July.

The trend in PP was similar, with Chinese prices stable at a time of slow demand and limited import supply. Southeast Asian prices were also steady, with buyers cautious about fixing imports in expectation that supply will increase in the coming months.

Chinese PET resin producers saw a slight increase in sales to domestic and export markets this week, supporting operating rates at 88-90pc.

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Since the last PRSE, the confirmation of [EU waste shipment regulations](#) (WSR), which will ban plastic waste exports to non-OECD countries from November 2026, will reassure recyclers concerned about feedstock supply. WSR might turn out to have a similar or even greater impact on the flexible PE recycling market than the more-publicised PPWR. The 27 EU countries exported 33,000 t/month of flexible PE waste to non-OECD countries – mainly in southeast Asia – in the first four months of this year, according to data from Global Trade Tracker. This is equivalent to 15-20pc of the volume of post-consumer PE film waste that is recycled in Europe, according to the latest Plastic Recyclers Europe data. Keeping this material in the European market would naturally be expected to increase feedstock availability for European recyclers.

But it would be an oversimplification to say that cheaper input costs for recyclers will be the only result. European capacity will also need to adapt to accepting more export-quality bales, which are typically seen as lower-specification 98/2 or less transparent fractions. And demand for feedstock in Europe is also likely to increase, including through companies currently involved in exporting bales – many of which are already recyclers or affiliates of recyclers – that are building or expanding European recycling capacity.

It was clear at the last PRSE that the myriad challenges facing the European recycling industry were not going to have evaporated by the time this year's show came around. The mood overall felt more positive than last year, but the hatches remain battened for many recyclers, with a challenging few months or even years still expected ahead.

NEWS AND ANALYSIS

Borealis remains committed to its sustainability targets and is keeping its options open regarding new recycling projects, vice president of circular economy Mirjam Mayer told George Barsted

Borealis to keep pyrolysis options open

Austrian chemical company Borealis continues to weigh up the technology pathways for expanding pyrolysis chemical recycling capacity. A plan to build a plant in Stenungsund, Sweden, was put on hold earlier this year, and the company might opt for a different location altogether.

The Stenungsund project has yet to get past the feasibility stage as it had “not yet met the performance requirements expected”. The company said [earlier this year](#) that it was evaluating different technology options for the site, including the Blue Alp pyrolysis process in use at its majority-owned Renasci plant in Ostende, Belgium, and parent company OMV's ReOil technology, which is to be deployed at small commercial scale in Schwechat, Austria, this year.

Borealis vice-president of circular economy Mirjam Mayer told *Argus* at PRSE that the chemical recycling investment environment has become more challenging: “A lot of projects across the industry have been delayed... with capital expenditure increases seen recently.”

But she said Borealis remained committed to adding chemical recycling capacity and was looking at investment options. These could include new technologies or different locations, Mayer said, noting that there was “greater flexibility for chemical recycling scope in the Nordic area”.

Stenungsund was initially due to start up this year, providing recycled feedstock to count towards Borealis' target of producing 600,000 t/yr of recycled and bio-based polymers by 2025. Mayer said the company is still committed to its goal, but acknowledged it could be challenging in current market conditions.

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In the last few years Borealis has [acquired both chemical and mechanical recyclers](#) and Mayer said Borealis was “still open to mergers and acquisition opportunities, as long as they made sense, but a starting point going forward would be to expand on opportunities from recently bought companies, including Rialti, Renasci and Integra Plastics”.

“We have made some good progress, especially with acquisitions in the last year or so, and there seems to have been a real step change in the last year... with current capacity of around 200,000 t/yr [for these products],” Mayer added.

Rising costs, including new projects’ capital expenditure requirements and energy prices, have checked progress in recent years, Mayer said, as has competition from cheap virgin material.

Mayer also said EU Packaging and Packaging Waste (PPWR) regulations have bought “clarity and security” to the industry for 2030, but that volatile energy costs might contribute to weak market conditions in the short term. “Regulatory support, like PPWR is something we need to make progress and make these targets a reality,” she said.

Some companies have announced closures or [strategic reviews](#) of European petrochemical assets in recent months, highlighting the challenge facing the industry, but Mayer said Borealis feels it is in a better position in Europe as it covers “a specialty segment which is valued by customers and sells products that actively support the energy transition”. This includes its focus on building a portfolio of sustainable products, including its Borcycle-M mechanically recycled polymer range and Borcycle-C chemically-recycled product line, she said. Borealis recently achieved US Food and Drug Administration approval for some [Borcycle-M grades](#), which Mayer called a “very important step” in being able to take recyclates to a wide variety of consumer applications, including cosmetic, personal care and dry food packaging applications.

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A rise in freight rates out of east Asia is reducing the competitiveness of recycle imports into the US, writes Zach Kløver

Rising freight costs could support US recyclers

High freight costs from Asia are narrowing the cost gap between imported recycled pellet and domestic recycled pellet in the US market, potentially supporting local recyclers but squeezing importers.

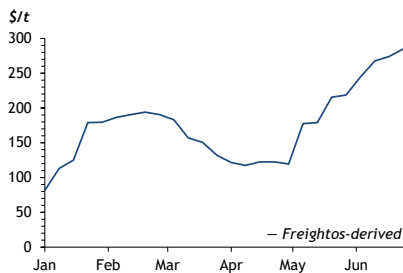
Discussions about resin imports have grown louder on US recycled polymers markets since 2023 – particularly from countries with lower feedstock and recycling costs that provide recyclers and traders an arbitrage opportunity to resell into the US. The growth in demand for international pellet has frustrated US-based recyclers, particularly in the competitive rPE and rPET packaging markets, where participants had hoped to benefit more from brands’ commitments to use more post-consumer resins in their products.

Southeast Asia is one of the major sources of recycled polymer imports. But rising freight costs in and around Asia have significantly eroded the price difference between domestic and international pellets, and reduced the competitiveness of imports as a result.

Container freight rates out of Asia have risen drastically since May. The increases have been underpinned by robust demand for containers out of China and port congestion, including in the important transshipment port of Singapore. This has been exacerbated by ongoing disruption to shipping routes, with many carriers continuing to avoid the Suez Canal because of the attacks on vessels in the

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East Asia-US container freight



Red Sea in late 2023 and early 2024. The frequency of attacks has slowed, but the risk remains front-of-mind, with Houthi militants striking a Greek cargo carrier as it passed Yemen on its way to Egypt just this week.

On the Shanghai-Los Angeles shipping route, which follows similar dynamics to southeast Asia-US routes, costs have risen by 130pc since 2 May. According to Argus' Freightos-derived price index for polymers, the current rate is at \$285/t, or 13¢/lb. On June 2023, the price was just \$58.50/t, or 2.6¢/lb.

In a webinar this week, Peter Sand from freight analytics platform Xeneta said that the jury is out on how high container rates will climb, but that he expects them to rise further in July. The result for the US recycled polymers market has been that the price gap between imported and domestically-produced rPET pellet has narrowed to 3-5¢/lb, in from 10-15¢/lb earlier this year.

Importers told Argus that while the arbitrage has become far less lucrative recently, shipping from Asia will still be viable this year. But it remains to be seen whether demand for long-haul pellet purchases remains high at these lower differentials, given the increased risk of delays and logistical difficulties when importing over long distances.

The narrowing of the discount for Asian material is unlikely to create a sudden turnaround in the US recycling market, which has been quiet this year from local recyclers' perspectives. Buyers also have other import options, such as taking material from Latin American – freight costs from here have increased, but not nearly as much as on routes from Asia. And underlying demand is still growing at a slower pace than many recyclers would prefer because of weakened consumer demand for fast-moving consumer goods, particularly premium branded products that are more likely to incorporate recycled content in their packaging.

Rising freight costs will be a pinch point for importers this year, as global supply chains have come under pressure. The cost benefit for buying from Asia has narrowed, which could support local recyclers, but underlying demand still remains a concern.

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Mechanical recycling

Dow to buy flexible plastics recycler Circulus

US-based chemical producer Dow has agreed to acquire Oklahoma-based flexible plastics recycler Circulus, part of Dow's efforts to expand its recycled polymer offerings.

Circulus has mechanical recycling facilities in Ardmore, Oklahoma, and Arab, Alabama, with a combined input capacity of 50,000 metric tons/yr (110mn lb/yr) of flexible polyethylene.

The deal is expected to close in the third quarter, Dow said. Financial details were not disclosed.

The acquisition marks Dow's first purchase of a recycling facility as the company seeks to produce 3mn t/yr of circular and renewable plastic by 2030. Dow said the purchase of Circulus will help enhance its offerings in applications such as shrink packaging, stretch film, and food packaging.

Dow has previously been active in recycled polymers markets, partnering with WM in 2022 to collect [residential film in a pilot program](#), and partnering with Closed Loop Partners to [create a circular plastics fund](#).

By Zach Kluver

Cirrec aims for 250,000 t/yr PET tray recycling by 2025

Netherlands-based PET tray-to-tray recycler Cirrec hopes to reach 250,000 t/yr of input capacity by 2025 with new sites in Denmark and Germany anticipated to come online in the next year.

Cirrec is owned by the Faerch Group and is one of the largest PET tray-to-tray recyclers in Europe. The company is looking at further sites for expansion after 2025, including in the UK, according to recycling director Aron Damen, in a presentation made at PRSE in Amsterdam.

Cirrec has an input capacity of 60,000 t/yr with a site in the Netherlands that opened in 2024.

Damen said that action to beat challenges to the PET tray-to-tray recycling market included expanding knowledge in sorting centres to help identify and sort PET tray waste. PET tray waste has more variable levels of PET compared with bottle bales, Damen added. A sentiment shared with PETCORE Thermoforming technical manager Jose-Antonio Alarcon in a recent [Q&A with Argus](#). The average PET tray bale contains 50-80pc of PET compared with a less variable 70-75pc PET for bottle bales. Issues with collection and supply can lead to a loss in terms of feedstock for tray-to-tray recyclers. If the industry wants to achieve full circularity, action needs to be taken across the value chain from consumers to recyclers and eventually end users, Damen added.

"In order to achieve full circularity, the tray-to-tray

industry needs to stop stealing from the bottle industry," said Damen, highlighting the need for greater sorting and variations in consumer behaviour when it came to recycling PET trays as opposed to bottles.

Capacity for PET tray-to-tray recycling is largely driven by feedstock availability, which is likely to limit production in the next few years unless there is more competition on the market, which would incentivise the sale of feedstock, Damen said.

By George Barsted

Chemical recycling

Toyo, SCG enhance waste plastics recycling partnership

Japanese engineering firm Toyo Engineering and Thai petrochemical producer SCG Chemicals plan to enhance their partnership in the chemical recycling of waste plastics, aiming to launch an upgraded demonstration plant in Thailand by early 2025.

The agreement to co-operate on the future commercialisation of the chemical recycling technology of SCG subsidiary Circular Plas (CirPlas) and the development of a licensing business is a follow-up to the companies' [initial deal](#) to study the feasibility of chemical recycling in Thailand in January 2022. CirPlas is 60pc owned by SCG and has developed chemical recycling technology turning mixed plastic wastes into naphtha and then plastic resins.

Toyo and SCG plan to add a new unit to the operating pilot plant in south Thailand's Rayong province. The companies are still examining the output capacity of the enhanced pilot plant and future commercial operation. They are unsure when they will start operations of the commercial venture.

The circular economy has been a major topic in Japan's petrochemical industry on the back of the country's 2050 decarbonisation goal. Petrochemical producer Mitsui Chemicals in March began [using pyrolysis oil](#), generated from waste plastics, to manufacture petrochemical products at its Osaka naphtha-fed cracker. Sumitomo Chemical plans to begin [recycling polymethyl methacrylate](#) in 2025.

By Nanami Oki

Carbios, Zhink agree rPET site in China

French technology provider Carbios has agreed a long-term chemical recycling agreement with Chinese PET company Zhink Group, including building a new site in China to recycle PET with a minimum input capacity of 50,000 t/yr.

Zhink Group and Carbios signed a letter of intent to build the plant in China, licensing Carbios technology.

Carbios said it currently has 28 titles in force in China for

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PET bio-recycling, covering the enzymes used and the industrial process. The plant to be built will also have “potential to expand capacities, to serve regional and global packaging and textile markets,” Carbios said. A timeline for construction or more details on location for the site were not given.

Zhink said the initial agreement would allow them to increase recycled PET capacities with the Carbios enzymatic recycling method allowing them to recycle “hard-to-recycle” waste such as opaque and coloured bottles, multilayer food trays and textile waste”.

Carbios is [currently building a 50,000 t/yr recycling site](#) in Longlaville, France which is due to come online in 2025 and will use the same enzymatic recycling technology.

By George Barsted

Legislation/associations

US FDA clears Nova rLLDPE for food contact

The US Food and Drug Administration has cleared post-consumer recycled linear-low density polyethylene (rLLDPE) from Nova Chemicals' Connersville, Indiana, recycling plant for use in food packaging.

The EPA provided Canada-based Novawith a No Objection Letter (NOL), allowing the recycled plastic to be used in food contact applications. This makes Nova the fourth company to receive food contact permission for rLLDPE in the US.

The company received approval for usage of its material with all food types, with acceptable conditions of use including refrigerated, frozen and hot filled food storage.

Nova previously received a NOL for its rHDPE from the same facility in 2023.

Nova said that high interest from converters, retailers and brand owners motivated its push into FDA-grade rLLDPE, as well as a report from consultant McKinsey that forecast rising demand for recycled plastic.

By Zach Kløver

EU member states support mass balance approach: EC

EU member states are largely in line to support the mass balance accounting fuel-use excluded definition for defining recycled content percentage, and are likely to support these definitions going forwards, according to the team leader on plastics at the European Commission, Werner Bosmans.

Bosmans, speaking at the Plastics Recycling Show Europe (PRSE) in Amsterdam, said there will be a public consultation on the definition of mass balance accounting soon, probably in the summer. The definition for mass balance was approved by the EU parliament in April when ministers overturned an objection from the EU environment commit-

tee. Most EU member states are now broadly in favour of the definition with third-party verification, Bosmans added. A defined approach for mass balance accounting would help to lend transparency to policy for recyclers.

Further investment in the recycling sector was needed, Bosmans said, in order to increase capacity and he said that the commission viewed “mechanical recycling as better than chemical recycling and chemical recycling as better than incineration”. While there may be a focus on different types of recycling technology, Bosmans said that focus should be “not about how much of the cake is a certain technology, but the size of the cake overall”, when discussing supply in Europe for recycled content. The EC reasoning for this view was that mechanical recycling caused less environmental damage than other methods, Bosmans added.

Bosmans said it appeared likely that EU member states would hit 2025 targets set out in the Single Use Plastics Directive (SUPD) legislation for all PET bottles produced to contain 25pc of recycled content, and 2030 targets of 30pc recycled content for PET bottles. Bosmans also spoke of figures that plastic recycling was 13 times more likely to happen when separate collections of waste at a consumer level were implemented, highlighting the importance of collection for the value chain.

By George Barsted

Q&A: Corporate reporting and certification schemes

Corporate reporting standards and obligations are becoming more granular and falling under greater scrutiny across the EU, after new rules came into force at the start of 2024. Argus spoke to net zero adviser Nils Holta at environmental solutions provider Ecohz to review changes to EU legislation and consider their impact on wholesale energy attribute certificates markets. Edited highlights follow:

Let's start by decoding the acronyms and taking stock of changes to reporting standards this year. What do the principles of the CSRD and ESRS look like? How do these align with the EU Taxonomy?

These are all thematically related pieces of legislation, that are not formally linked to each other.

The Corporate Sustainability Reporting Directive (CSRD) and the EU Sustainable Investment Taxonomy are two of the angles of a sustainability transparency triangle completed by the Green Claims Directive (GCD). Through these policy mechanisms, the EU seeks to cover sustainability reporting, sustainability criteria for investments, and marketing information to consumers. Essentially, the EU is trying to add sustainability as a new dimension of the single market, alongside standardised comparisons on quality and price.

The CSRD relates more to the finance side. Through the annex with the European Sustainability Reporting Standards (ESRS), it details how companies should report on their sustainability impact, their sustainability-related risks, and

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any financial opportunities that arrive as a result of sustainability matters. It has been developed as an addition to European financial disclosure requirements, and in Norway, for instance, it has been transposed through amendments to the “accounting law” (Regnskapsloven). For financial undertakings, the Sustainable Finance Disclosure Regulation (SFDR) plays much the same role, albeit at a higher level of granularity.

On the consumer-facing side, companies will soon be required to adhere to the GCD when promoting their products’ environmental profiles to final consumers in what the EU calls “explicit environmental claims”. While not quite the same as sustainability reporting, it fits in a market dynamic where the EU expects economic actors to be more transparent about the environmental qualities of their products – like we are used to for price and quality.

Finally, we have the EU Taxonomy for sustainable activities, or just the Taxonomy. The Taxonomy is a list of economic activities with clear criteria on how they can be performed sustainably, and, in some cases, how they can be considered a transitional activity to more sustainable options. The Taxonomy also mandates that large undertakings and financial actors disclose the percentage of their Capex [capital expenditure], Opex [operating expenditure], and turnover that is invested in, finances, or derives from activities that are considered sustainable under the Taxonomy.

Here is the link to the CSRD (ESRS), GCD and SFDR. If you are required to report on the percentage of your investments or turnover that is associated with sustainable activities, you need to know how all the companies you invest in are performing. And through the CSRD they are required to share this information in a transparent and streamlined manner. If, as a company, you want to make a claim about a product’s environmental profile, you are now also required to possess and sort the information necessary to found that claim through the same directive.

So here we have the triangle – the Taxonomy and SFDR push investors towards sustainable investments. The GCD provides consumers with a choice to consume sustainably, and the CSRD and ESRS ensure that companies have the information necessary for the other two to work.

So the EU wants you to base Taxonomy reporting or environmental claims on the information published in your CSRD reporting?

Not quite. I should stress at this point that EU law does not require companies to use the same methodologies for their CSRD reporting as for explicit environmental claims under the GCD or for showing criteria alignment with the Taxonomy. The simple reason is that communication to different audiences – shareholders, financial sector institutions, consumers – might require different approaches. It is, however, very simple to base claims under the Taxonomy or GCD on information gathered for CSRD reporting, and I have seen

companies rely on CSRD reporting for claims of Taxonomy-alignment in their annual reports.

How are things changing within the CSRD in terms of how industrial and corporate (I&C) companies will need to document energy – power and gas – consumption throughout their supply chains? What does it mean in terms of scope 2 and 3 emissions?

This is a good place to clarify terminology. The CSRD is an EU directive that mandates sustainability reporting, sets out how member states are responsible for making sure companies report, and details which categories of companies need to report. All in all, we are taking about at least 50,000 EU-based companies and maybe another 10,000 non-EU companies with operations in the EU, as a rough assessment. The ESRS are the technical standards, outlining – over some 300 pages – how companies can assess what information they need to report and how this can be reported.

The ESRS go into detail regarding how questions about energy consumption and climate transition plans or supply chains are asked and framed.

Thank you for the clarification, and now back to the market-based vs location-based reporting?

In general, the ESRS move towards market-based reporting. Emissions are to be reported by scope – 1, 2 and 3 – separately and using both market-based and location-based methodologies for Scope 2. They are also to be reported against total turnover, so investors can see the greenhouse gas intensity of their investments’ turnover.

At the same time, the ESRS clearly state that energy consumption must be reported using the market-based methodology in the case of Scope 2, and that it “can” be market-based in Scope 1, which for most companies would primarily relate to gas. The latter is highly technical and is tied to the EU emissions trading system monitoring and reporting requirements.

Disclosing companies must report Scope 3 as it was reported to them. There is no option to not report on Scope 3 emissions outside of Europe, which means that these 60,000 or so companies will push their own reporting requirements through their entire value chain. It also means that oil and gas companies will finally need to include emissions from combustion of their own products in their sustainability reporting.

Considering that changes to the CSRD will lead to greater focus on Scope 3 emissions, how is this likely to impact the energy attribute certificates (EAC) markets? Are you already seeing changing approaches to EAC procurement? How do biomethane and hydrogen fit into the picture, and is there a role for carbon offsets?

What we are seeing is a greater corporate interest in understanding their own value chain and getting their suppliers to cover Scope 2 consumption with EACs. They can even use the divergence between location and market-based report-

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ing to stress how much they actually achieve by sourcing renewable energy. The result is quite literally the difference between the two numbers.

The ESRS do not open for carbon offsets as a way of reducing total emissions. Any offsets must be reported separately.

Biomethane and hydrogen would both serve to decarbonise your gas combustion, so mainly Scope 1. However, the requirements for credible claims to consumption are tied to a bundled model, so we expect less focus on certificate trade and more focus on efficient value chains to deliver the product as a whole. There are a lot of open questions here tied to member state transposition of the Renewable Energy Directive (RED) III – and in some cases RED II – and to the coming Union Database for renewable fuels.

How will the GCD impact consumer disclosure requirements and how does it tangentially relate to the Taxonomy? Do you expect this to also drive more granular purchases in EAC markets? When procuring EACs, will additional specifications such as eco labels become more prominent in the market?

There is no specific link between the GCD and the Taxonomy, but Taxonomy-alignment would definitely be one of the things that can be communicated and substantiated in a way that is aligned with the GCD.

Using an eco-label is a way to distinguish your product among several who all use renewable electricity. However, it is difficult to assess exactly how companies and consumers will react to this information in the long term. In the near future, we expect the GCD to lead to a reduction in environmental performance claims overall, at least until companies have a decent understanding of what and how they should communicate. The fine is up to 10pc of total turnover.

There are often questions around how nuclear power is viewed in the EU Taxonomy – can you clarify that? And how do you see nuclear power – through scope 2/3 – playing a role in I&C companies documenting carbon neutrality through disclosure mechanisms? There has been a growing trend of energy suppliers offering carbon-neutral tariffs as opposed to renewable owing to the greater

cost of documenting renewables through EACs, on top of already higher outright power and gas prices. Do you see I&C customers taking a similar route?

Under the Taxonomy, nuclear is not considered renewable. It is, however, acknowledged as carbon-neutral, and we see several EU initiatives targeted at promoting “low-carbon” rather than renewable solutions. There is also an addendum to the Taxonomy, where nuclear and gas-fired power plants can be considered Taxonomy-aligned under certain circumstances. For gas, this relates to replacing coal and being time-limited in nature; while for nuclear, it is tied to a series of environmental and waste-treatment requirements. As long as the market recognises a qualitative difference between renewable and nuclear, EACs for each will be priced differently.

Pledges and targets

Trex cuts rPE usage by 22pc last year

Composite wood producer Trex, one of the largest US consumers of recycled polyethylene (rPE), cuts its usage of waste PE film last year by 22pc.

The company used 328mn lb of waste PE film in 2023, down from 421mn lb in 2022, Trex said Thursday in its latest sustainability report.

Trex accounted for nearly 30pc of the 1.1bn lb of flexible plastic recycled in 2022, according to data from plastics research group Stina and the Association of Plastics Recyclers.

The company did not specify why its waste PE buying slowed in 2023, but its net sales ticked down in 2023 to \$1.09bn amid a challenging construction market.

In addition to purchasing post-commercial film, Trex has begun a pilot program to reclaim composite wood, and is currently trialing the process with decking scraps from large-scale construction projects.

The company over its lifetime has used 5bn pounds of waste PE film and reclaimed wood for its composite wood.

By Trajan Greenwell and Zach Kløver

NEWS IN BRIEF

INEOS Olefins & Polymers Europe has commissioned a new pilot line at its research and development centre in Brussels, Belgium, that it use with customers to co-develop recyclable flexible packaging films, including "simpler" films with fewer layers that have similar properties to multi-layer, multi-material products. This will allow companies to carry out tests without losing production time on their own lines, Ineos said.

Food and beverage manufacturer **Pepsico** released its environmental social and governance (ESG) report for 2023. The company said that it had increased the recycled content of its plastic packaging to 10pc, from 7pc in 2022. Based on this, the firm is not on track to hit the 25pc recycled content target that it lodged with the Ellen MacArthur Foundation Global Commitment in 2018, although it reported that it is focussing on a target to increase recycled content to 50pc by 2030.

The company also highlighted that it sold products in

100pc rPET packaging in 30 global markets. Although it said that business growth in markets that do not or have only recently allowed rPET usage for food contact applications had hampered its efforts to cut absolute virgin plastic in packaging. Its total virgin plastic use rose to 6pc below a 2020 baseline, up from 11pc below in 2022.

Specialty materials producer **Arkema** introduced a resin coating powder made of 40pc post-consumer rPET in place of virgin-produced terephthalic acid.

Keurig Dr Pepper said in its latest corporate responsibility report that it has reduced its usage of virgin plastic by 15pc and incorporated 27pc post-consumer resin in its packaging portfolio, including 100pc rPET bottles.

Automotive safety company **Autoliv** introduced an airbag cushion made of 100pc recycled polyester.



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