

*The UK recycling industry's near-term growth prospects depend on consolidation of its current capabilities as much as innovative new technologies*

## Recoup round-up: Existing tech support key

Innovation is important for the UK recycling industry, but focusing on supporting current recycling capacity and scaling up existing technologies is critical in the near term, UK firm Biffa Polymers managing director James McLeary told the Recoup UK recycling conference in Peterborough on 25 September.

There is no doubt that the UK recycling industry is in deep trouble, McLeary said. He pointed to recent losses of mechanical recycling capacity, including Biffa's own washing and grinding plant in Washington, County Durham, which was mothballed in June 2024 and permanently closed in early 2025 for profitability reasons. Other recent closures in the UK include Viridor Polymers' Avonmouth recycling facility and Rochester plastic recovery facility (PRF), and film recycling plants operated by Duclou, YS Reclamation and Berry (now Amcor).

Others struck a more optimistic note, reminding delegates that the UK's packaging EPR (pEPR) scheme and tax on virgin plastic in packaging put it ahead of most other regions of the world in terms of legislative framework to support the recycling industry. But, prior to their comments, a brief survey of the room had also revealed that delegates' confidence that progress would be made in the 12 months following the conference was lower than it had been the previous year, reflecting the general malaise in the sector.

### Work with what you have

McLeary did not suggest that he is against innovation, saying that new technologies will come. But his message was to focus on the here-and-now on building the business case to roll out existing technologies to tackle plastic waste in the UK.

New mechanical recycling plants only take 18-24 months to build, McLeary said, and the UK needs to put them on the ground more quickly to be able to recycle waste that is currently exported. This more pragmatic view may mean that some products are not able to be fully "circular" – such as packaging being recycled back into packaging products – and some may inevitably be downcycled into lower-value applications, he said. But rather than "sitting and waiting" for new recycling technologies to reach commercial scale, more should be done to get material that can go into mechanical recycling plants out into the market quickly, he added.


## CONTENTS

Recoup round-up	1&11
Regional market commentaries	2-10
Analysis: UK PRN volatility	11
US tariffs hit Asia rPET	
News	14-16
Mechanical recycling	14
Chemical recycling	14
Pledges & targets	16
Bioplastics	16
News in brief	18

### Innovation still important

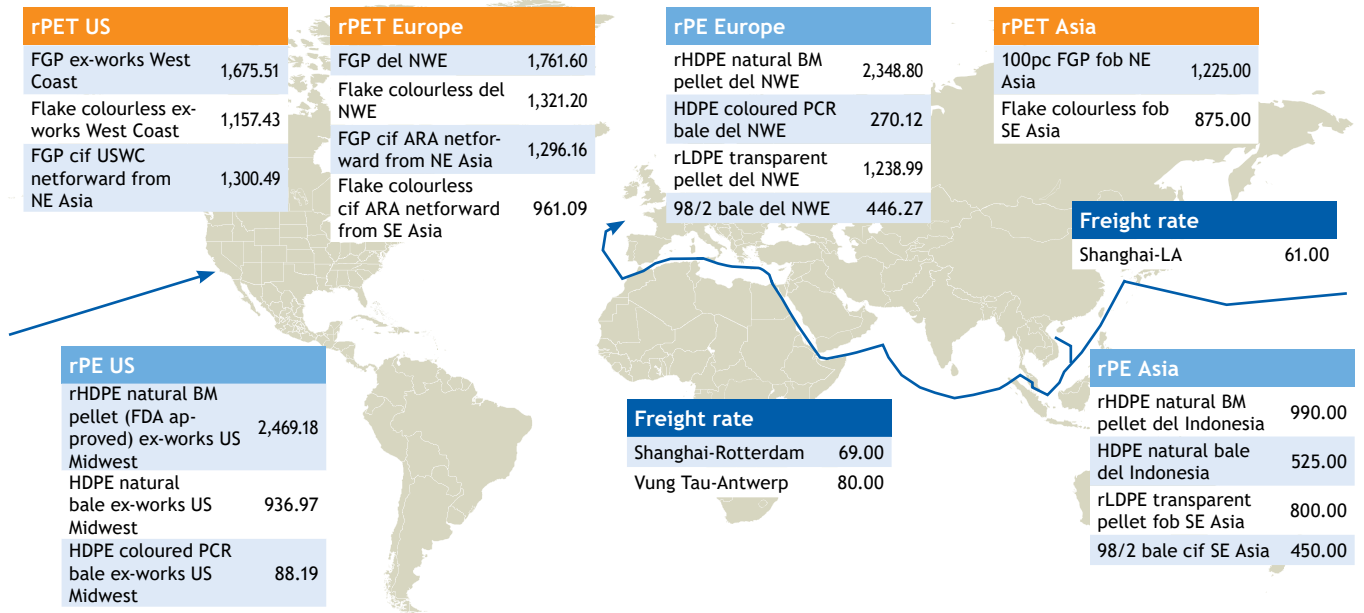
This is not to say that discussion about innovation was absent from the conference. Other participants discussed the benefits provided by new technologies in processing difficult-to-recycle waste streams, particularly household flexible packaging waste, which is currently collected and recycled at lower rates in the UK than in much of Europe.

Chemical producer Dow's global director of green and circular feedstocks, Mary-Jane Hogg, and food company Nestle's head of packaging, Alison Bramfitt, both mentioned the role that pyrolysis – and by association clear rules around mass balance attribution of recycled content – can play in the sector. And Carlos Ludlow-Palafox from pyrolysis company Greenback Recycling Technologies gave details of the firm's newly established modular pyrolysis line at Amcor's flexible PE recycling plant in Heanor, Derbyshire. The companies announced the start of

see p11 

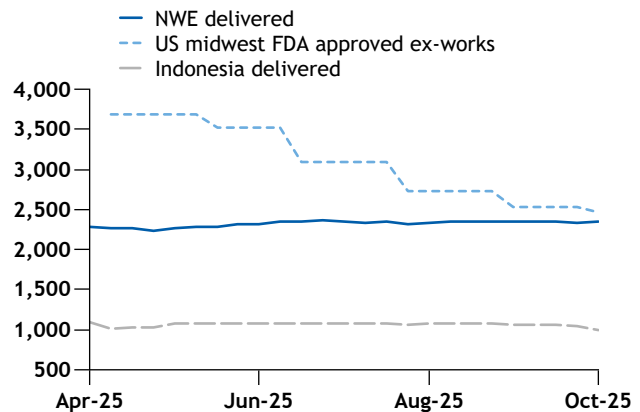
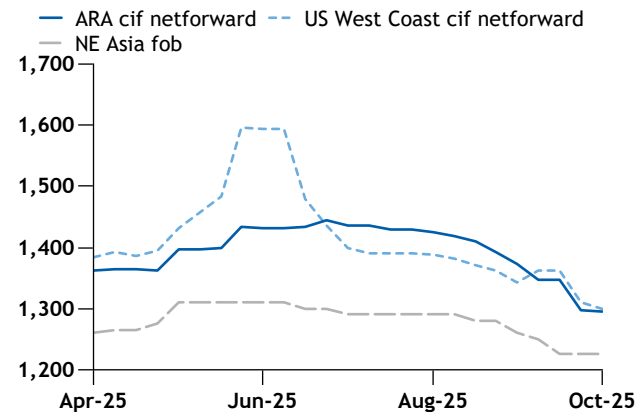
GLOBAL PRICES

\$/t



Global rPET FGP netforwards (basis NE Asia)

Global rHDPE natural prices



COMMENTARY HEADLINES

NEWS HEADLINES

- rPET Europe: European rPET prices continue to drop
- rPET US: Prices slip despite new import tariffs
- rPET Asia: China holidays stifle NE Asia market
- rPE/rPP Europe: PRN volatility hits UK bale prices
- rPE/rPP US: Midwest natural rHDPE prices hold steady
- rPE Asia: SE Asia market remains quiet
- rPVC Europe: UK prices decline
- Petchems still favouring biobased feeds
- Petrochemical markets

- 3 China's Chengdu Environment to start up rPET plant 14
- 4 Exxon pauses EU chemical recycling investments 14
- 4 Chem recycler Resynergi plans to leave California 14
- 6 Carbios expects to restart Longlaville build in 2025 15
- 7 BASF, Porsche pilot ELV chemical recycling 15
- 8 Ineos Styrolution receives rSM at Antwerp site 15
- 8 Australia's Woolworths uses more recycled plastic bags 16
- 9 Avantium, Tereos, LVMH to expand PEF in Europe 16
- 9

## MARKETS UPDATE – rPET – EUROPE

### European rPET prices continue to drop

The European rPET market remains bearish at the start of October, with initial indications and expectations suggesting prices could soften further throughout the month. Demand is weak and buying could be even lower in October than the lacklustre amount seen in September. Inventories are quite full across the whole chain and market activity is limited.

PET bale prices fell throughout September and at the start of October, with flake and food grade prices being dragged down as recyclers accepted lower bids to move stock. Flake and food grade buyers are aware of feedstock cost declines over the past couple of months and conscious of the declining trend across the value chain. Many buyers are hesitant to purchase at present, in hope that prices will continue to fall. Recyclers with high stocks of previously purchased bale material are seeing their margins squeezed, as they are having to make lower offers to incentivise sales, some recyclers said. Recyclers with lower feedstock inventories are able to process material purchased at current lower prices, so think PET prices could decline further. This may lead to even wider price ranges in the coming weeks.

Bale prices edged down across the value chain this week. Italian auction bale prices fell below €400/t (\$470/t) ex works. UK bale prices rose early in the week, supported by a surge in UK Packaging Recovery Note (PRN) prices. But as PRN prices retracted over the week, UK bale prices fell back down because of low demand. Many UK market participants capitalised on the higher PRN prices last week so the market was quiet and is expected to remain subdued across the month.

As European rPET flake and food grade prices decline, the premium over virgin material is reducing – which is necessary for continued growth of the recycled industry, some market participants said. European virgin PET prices are anticipated to be close to reaching a floor, with prices currently at €850-890/t delivered. Premiums for flake over virgin PET declined to around €250/t on average this week, the lowest since early February. Food grade pellets are still at a significant premium, averaging €625/t, which is blocking any increase in demand and uptake of recycled content.

European offers for flake are coming closer to import offers. Current import offers for flake into Europe are at around €1,000-1,100/t delivered. European recyclers are hopeful that this may stimulate more local demand through to the end of the year and in the first quarter of next year.

### Tray pricing

The rPET tray market was largely quiet in September and start of October, with a slow return to activity after the

Recycled PET Europe bottle market prices					€/t
	Timing	Low	High	Midpoint	Δ
<b>Bale prices</b>					
PET bottle colourless, del W Europe	3-Oct	380.00	450.00	415.00	-10.00
PET bottle colourless, del N Europe	3-Oct	380.00	450.00	415.00	-10.00
PET bottle colourless, del UK £/t	3-Oct	230.00	330.00	280.00	-20.00
PET bottle colourless, del central Europe	3-Oct	430.00	500.00	465.00	-10.00
PET bottle colourless, del eastern Europe	3-Oct	400.00	480.00	440.00	-15.00
PET bottle colourless, yellow container, del Spain	4Q25	156.00	388.00	272.00	nc
<b>Flake prices</b>					
Bottle flake colourless, del NWE	3-Oct	1,100.00	1,150.00	1,125.00	-85.00
Bottle flake colourless, del S Europe	3-Oct	1,100.00	1,150.00	1,125.00	-80.00
Bottle flake colourless, del CEE	3-Oct	1,100.00	1,150.00	1,125.00	-85.00
Bottle flake colourless, del UK £/t	3-Oct	900.00	950.00	925.00	-15.00
<b>Food grade pellet</b>					
del NWE	3-Oct	1,450.00	1,550.00	1,500.00	-75.00
del S Europe	3-Oct	1,450.00	1,550.00	1,500.00	-75.00
del CEE	3-Oct	1,450.00	1,550.00	1,500.00	-75.00

Recycled PET Europe tray market prices					€/t
	Timing	Low	High	Midpoint	Δ
<b>Bale prices</b>					
Monolayer colourless, del W Europe	26-Sep	0.00	80.00	40.00	nc
Multilayer colourless, del W Europe	26-Sep	-220.00	-100.00	-160.00	nc
<b>Flake price</b>					
Colourless, del W Europe	26-Sep	1,050.00	1,150.00	1,100.00	nc

summer and general low demand across the rPET market. Argus has assessed both monolayer PET tray bales and multilayer PET tray bales at price rollovers for September. Higher gate fees – often the result of internal auctions and tenders between organisations – continue to be heard but are not representative of freely negotiated prices.

In September, the [French government announced changes in extender producer responsibility \(EPR\) bonuses](#) that are set to come into force in 2028. Bonuses of €1,000/t for difficult-to-recycle applications will likely help the business case for recycling PET trays in France. Currently, the EPR bonus for PET tray-to-tray recycling into household packaging is just €400/t.

Falling bottle flake prices have not put much pressure on tray flake prices in recent weeks, but recyclers are cautious about the short-term outlook. More recyclers are expected to start dealing with tray flake in the coming months.

MARKETS UPDATE – rPET – AMERICAS

Prices slip despite new import tariffs

Prices for rPET bales on the West coast held steady this week, with A-grade bales still at around 11.5¢/lb and B-grade bales at around 3.25¢/lb. Price are starting to stabilise following steep declines since late May, which have taken around 21¢/lb out of the A-grade bale market. Prices may have reached a short-term floor, as prices typically start to rise towards the end of the year as supplies start to tighten.

East coast rPET bale prices were also largely stable this week, at around 7.5¢/lb. There was talk of some very low prices, such as 2¢/lb, but these were likely for lower-quality material and rPET that is outside of preferred specifications.

The volume of bales produced in the US typically drops by half in the winter due to a seasonal slowdown in on-the-go beverage consumption, with one source noting that the drop can be as much as 50pc compared with the peak summer months. West coast A grade bale prices rose by 5¢/lb during the fourth quarter last year, or around 23pc, but similar rises are less likely this year because of slow demand, the source said.

Flake and pellet prices for rPET on the west coast were largely steady for October, although market participants expect prices will begin to rise in the near term, as new import tariffs are increasing the cost of imported virgin and recycled material.

The new tariffs went into effect in early September and have essentially cut off some markets, such as India, which currently has a tariff rate of 50pc. For other markets, tariffs are between 15-20pc. While prices are still workable with

Recycled PET US weekly market prices						ex-works
	Timing	Currency	Low	High	Midpoint	Δ
Weekly						
PET bottle bale						
A grade US west coast	3-Oct	¢/lb	10.00	13.00	11.50	nc
		\$/t	220.46	286.60	253.53	nc
PET bottle bale						
B grade US west coast	3-Oct	¢/lb	2.50	4.00	3.25	nc
		\$/t	55.12	88.18	71.65	nc
PET bottle bale						
US east coast	3-Oct	¢/lb	6.00	9.00	7.50	nc
		\$/t	132.28	198.42	165.35	nc

Recycled PET US monthly market prices						ex-works
	Timing	Currency	Low	High	Midpoint	Δ
Monthly						
rPET flake colourless US west coast	Oct 2025	¢/lb	50.00	55.00	52.50	nc
		\$/t	1,102.31	1,212.54	1,157.43	nc
rPET pellet US west coast	Oct 2025	¢/lb	73.00	79.00	76.00	nc
		\$/t	1,609.37	1,741.65	1,675.51	nc

tariffs at these levels, they are much less competitive. This is allowing US producers of both virgin and recycled PET to raise their prices in the short term.

Domestic virgin PET producers are raising their prices by as much as 6¢/lb, according to market participants. While rPET prices are also expected to rise, the increase may not be by as much, which could help rPET gain some market share back from both imports and virgin resin, sources said.

MARKETS UPDATE – rPET – ASIA-PACIFIC

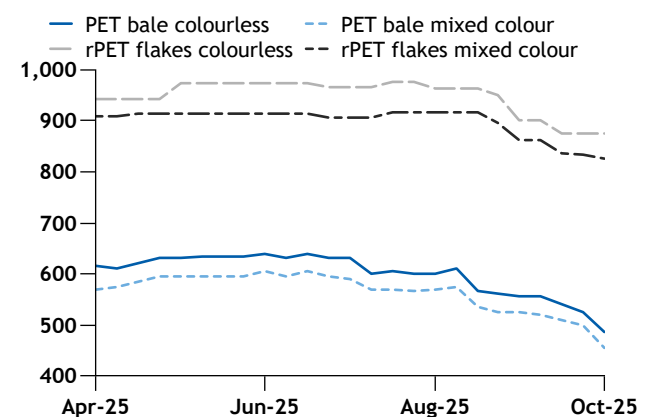
China holidays stifle NE Asia market

The northeast Asian rPET market was quiet this week with many Chinese participants absent for the National Day holiday which runs from 1-8 October.

No firm offers were available fob China, and notional discussion levels for 100pc rPET pellet were unchanged at \$1,150-1,200/t fob. Prices for 25pc rPET pellet also held steady at \$840-860/t fob over the only two trading sessions of 29-30 September.

Taiwanese recyclers sought export opportunities because their talks with US buyers paused. The two sides are still negotiating a plan to share the additional tariffs resulting from the removal of PET and rPET from the US's exempt list for import tariffs in early September. Notional discussion levels

PET bale and rPET flake prices Indonesia ¢/lb



MARKETS UPDATE – rPET – ASIA-PACIFIC

were around \$1,200-1,300/t fob Taiwan.

rPET flake prices held steady in the Chinese domestic market, but trades were thin. Filament consumers were cautious and only purchased small volumes for immediate production requirements, recyclers said. Premium-grade rPET flakes traded at Yn5,700-5,850/t over 29-30 September.

PET bale prices were also stable in the south and east China markets, with limited deals at Yn4,100-4,200/t.

Prices also fell in southeast Asia, which has been similarly challenged by the new costs on exports to the US. Domestic colourless and mixed colour prices were down at 7,700-8,400 rupiah/kg and 7,200-7,900 rupiah/kg this week, down from 8,700-8,900 rupiah/kg and 8,300-8,500 rupiah/kg last week,

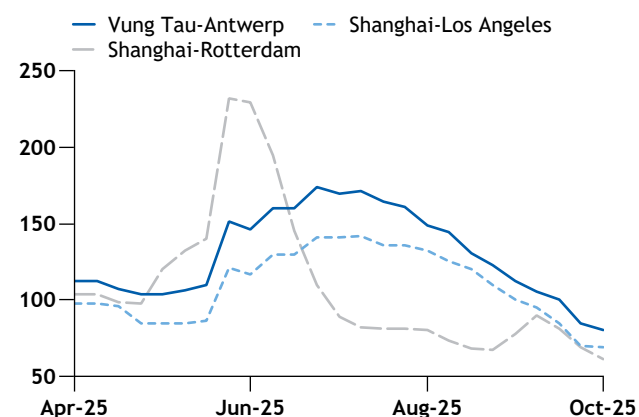
Meanwhile, the assessed range for rPET mixed-colour fob Southeast Asia was down at \$800-850/t this week, compared to last week at \$820-850/t.

Offers were heard at \$820-850/t fob Thailand and a deal was heard concluded below \$800/t fob Southeast Asia for mixed colour flakes. Meanwhile, colourless flakes fob Southeast Asia were unchanged at \$850-900/t this week. A deal was concluded at \$900/t fob Vietnam to UK this week.

Southeast Asian recyclers continue to see limited options to replace the reduced demand from the US with other long-haul exports, with buying interest in Europe remaining soft.

Prices for rPET pellets fob Southeast Asia were down at \$1,170-1,200/t this week, compared to \$1,170-1,250/t last week. Offers for pellets were placed at \$1,200 fob Vietnam.

Container freight rates



Recycled PET Asia-Pacific market prices						
	Timing	Currency	Low	High	Midpoint	Δ
<b>North East Asia rPET</b>						
rPET food grade pellets 25pc fob NE Asia	3-Oct	\$/t	840.00	860.00	850.00	nc
rPET food grade pellets 100pc fob NE Asia	3-Oct	\$/t	1,150.00	1,300.00	1,225.00	nc
rPET flakes domestic China	3-Oct	Yuan/t	5,700.00	5,850.00	5,775.00	nc
<b>South East Asia rPET</b>						
PET bottle bale colourless domestic Indonesia	3-Oct	IDR/kg	7,700.00	8,400.00	8,050.00	-750.00
		\$/t	460.00	510.00	485.00	-40.00
PET bottle bale mixed colour domestic Indonesia	3-Oct	IDR/kg	7,200.00	7,900.00	7,550.00	-850.00
		\$/t	430.00	480.00	455.00	-45.00
rPET food grade flakes colourless fob southeast Asia	3-Oct	\$/t	850.00	900.00	875.00	nc
rPET food grade flakes mixed colour fob southeast Asia	3-Oct	\$/t	800.00	850.00	825.00	-10.00
rPET pellets fob southeast Asia	3-Oct	\$/t	1,170.00	1,200.00	1,185.00	nc

Calculated rPET netforwards					
	Timing	Low	High	Midpoint	Δ
rPET food grade pellet cif USWC - netforward from NE Asia \$/t (20t/FEU)	3-Oct	1,216.83	1,384.15	1,300.49	-9.90
rPET food grade pellet cif ARA - netforward from NE Asia \$/t (24t/FEU)	3-Oct	1,217.03	1,375.28	1,296.16	-1.03
€/t	3-Oct	1,040.20	1,175.45	1,107.83	-3.22
rPET flake cif ARA - netforward from SE Asia \$/t (23t/FEU)	3-Oct	925.33	996.85	961.09	-5.38
€/t	3-Oct	790.88	852.01	821.45	-6.34

Container freight rates \$/t				
Route	Low	High	Midpoint	Source
Shanghai-Los Angeles	54.00	68.00	61.00	Freightos
Shanghai-Rotterdam	65.00	73.00	69.00	Freightos
Vung Tau-Antwerp	70.00	90.00	80.00	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](http://www.freightos.com) for complete lists of \$/FEU rates in the wider spot container market.

## MARKETS UPDATE – RPE/RPP – EUROPE

### PRN volatility hits UK bale prices

The UK bale market has been the most dynamic area of the European polyolefins sector in the past fortnight, although this owed to significant fluctuations in the price of Packaging Recovery Notices (PRNs) rather than dynamism in the underlying market itself.

The price of PRNs - credits which recyclers generate by recycling packaging waste and sell to obligated companies placing packaging onto the UK market – jumped from £265/t on 19 September to £400/t on 26 September, before re-treating to £250/t by 3 October. The rise followed a rush of buying after a data release showing a shortfall of credits for 2025, but was not sustained when PRN buyers pulled back after covering their requirements.

This sharp fluctuation, particularly around the time of monthly negotiations, sent bale prices into disarray. In PP, where supply/demand is balanced, sellers were able to pass on a large proportion of the PRN increase in spot sales in the week up to 26 September, before prices fell back this week after the PRN dropped. The 98/2 bale price also reacted quickly, climbing to £575-625/t delivered on 26 September before falling back to £500-540/t this week. But the price fluctuations were much less pronounced in the HDPE bale market, with subdued downstream demand meaning that buyers were happy to hold back from the market rather than accepting higher prices.

In mainland northwest Europe, low virgin PE and PP prices continued to weigh sentiment in the recycling market. Virgin LDPE and LLDPE spot prices fell by €75-88/t during September, widening their discount relative to transparent rLDPE/LLDPE grades. And, while many converters are committed to using recyclates, or incentivised by local regulations, this inevitably affects demand around the margins and led recyclers to reduce offers. Even for low-MFI shrink grades, recyclers reported selling at or below €1,300/t in cases to incentivise sales, although others were limited in what decreases they could offer given that the price of shrink hood bales in northwest Europe only declined by €10/t this week.

In the 98/2 bale market, European and southeast Asian prices have realigned over recent weeks, reopening the opportunity for some to export bales and supporting the low end of the European price range. But European recyclers have reduced their bids in recent weeks owing to an increase in availability since the summer period and falling rLDPE/LLDPE pellet prices. The range of prices has narrowed as a result. We corrected the low end of our assessment range from 26 September to €360/t, from €350/t, as it incorrectly included information about transactions outside of the

Europe recycled polyolefins					
	Timing	Low	High	Midpoint	Δ
<b>Bales del NWE (€/t)</b>					
HDPE rigid bale (D329 or equivalent)	3-Oct	190.00	270.00	230.00	nc
PP rigid bale PCR (D324 or equivalent)	3-Oct	100.00	160.00	130.00	nc
Shrink hood flexible PE bale	3-Oct	800.00	880.00	840.00	-10.00
98/2 flexible PE bale post-commercial	3-Oct	360.00	400.00	380.00	-5.00
80/20 flexible PE bale post-commercial	3-Oct	130.00	170.00	150.00	nc
Mixed colour flexible PE bale post-commercial	3-Oct	70.00	80.00	75.00	nc
Kerbside flexible bale (D310)	3-Oct	-170.00	-140.00	-155.00	nc
Mixed plastic waste (D350 fraction) del German incinerator*	3-Oct	-170.00	-140.00	-155.00	-5.00
<b>Bales del UK (£/t)</b>					
HDPE natural PCR bale	3-Oct	640.00	690.00	665.00	-15.00
HDPE coloured PCR bale	3-Oct	430.00	485.00	457.50	-27.50
PP PCR bale	3-Oct	460.00	500.00	480.00	-100.00
98/2 flexible PE bale post-commercial	3-Oct	500.00	540.00	520.00	-80.00
<b>Regrind del NWE (€/t)</b>					
HDPE regrind mixed colour household packaging	3-Oct	530.00	590.00	560.00	nc
PP regrind mixed colour household packaging	3-Oct	540.00	610.00	575.00	-5.00
<b>Regrenulate prices del NWE (€/t)</b>					
rHDPE BM white, from PCR, deodorised	3-Oct	1,650.00	1,950.00	1,800.00	nc
rHDPE BM natural from PCR deodorised del NWE	3-Oct	1,850.00	2,150.00	2,000.00	nc
rHDPE pipe dark/black	3-Oct	725.00	825.00	775.00	nc
rPP light, packaging, deodorised	3-Oct	1,570.00	1,820.00	1,695.00	nc
rPP grey, high MFI, plant pot and bucket	3-Oct	760.00	885.00	822.50	nc
rPP IM dark/black	3-Oct	730.00	855.00	792.50	nc
rLDPE/LLDPE shrink film transparent	3-Oct	1,295.00	1,400.00	1,347.50	-2.50
rLDPE/LLDPE stretch film transparent	3-Oct	1,130.00	1,240.00	1,185.00	nc
rLDPE/LLDPE standard film transparent	3-Oct	1,000.00	1,110.00	1,055.00	-5.00
rLDPE/LLDPE standard film dark/black	3-Oct	635.00	735.00	685.00	nc

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

geographical range for the assessment.

Falling virgin polymer prices have also affected marginal demand in the rHDPE and rPP markets. Prices in the PP value chain declined during September. Low end rPP pellet prices were assessed stable this week, after softening slightly in the second half of September. Demand for rHDPE pipe grade pellets is generally slow. Several recyclers reported that they will avoid processing HDPE fully or partly in October, having no room to reduce prices further to stimulate demand.

MARKETS UPDATE – RPE/RPP – AMERICAS

Midwest natural rHDPE prices hold steady

Natural rHDPE bale prices are holding steady at around 42.5¢/lb in early October, unchanged from September. After several weeks of flat pricing, it appears that prices may have found a bottom and are likely to stay at this level in the coming weeks before moving higher by the end of the year as supply decreases seasonally, market participants said.

Mixed-color bale prices were steady at around 4¢/lb, which likely represents a price bottom, sources said.

Pellet prices for rHDPE natural FDA moved down by around 2.5¢/lb to 112¢/lb in September, as the low end of the price range fell and the overall range widened. Prices were heard in a much wider range of 100-125¢/lb during the month, but the lowest and the highest prices within that range were judged too far outside of the market to be considered in the assessment.

The price range widened because suppliers have not been consistent in their price moves since the market fell from a peak in late spring, with some suppliers moving prices down much faster than others. The price range also depends on buyers' end use, with some buyers that do not need FDA qualifications buying FDA material at the low-end of the range because they prefer the consistency of FDA material.

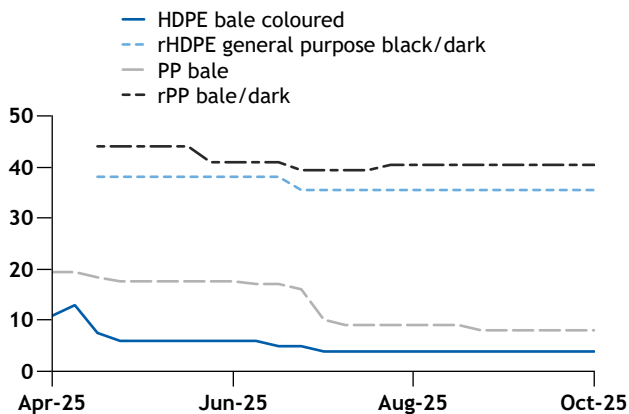
PP bale prices held steady at around 6-10¢/lb, but it is likely that prices will begin to move higher towards the end of the year, sources said.

Pellet prices for rPP are also holding steady for now, tracking stable rPP bale prices as well as stable virgin PP prices. Virgin PP material has stabilised at historically low prices, which is continuing to drive some buyers to opt for virgin material instead of recycled material.

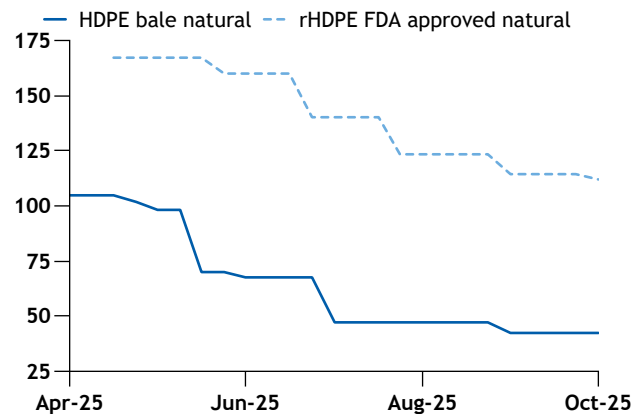
Recycled polyolefins US Midwest weekly market prices						
	Timing	Currency	Low	High	Midpoint	Δ
Weekly						
HDPE natural PCR bottle bale	3 -Oct	¢/lb	40.00	45.00	42.50	nc
		\$/t	881.85	992.08	936.97	nc
HDPE coloured PCR bottle bale	3 -Oct	¢/lb	3.00	5.00	4.00	nc
		\$/t	66.14	110.23	88.19	nc
PP PCR bale	3 -Oct	¢/lb	6.00	10.00	8.00	nc
		\$/t	132.28	220.46	176.37	nc

Recycled polyolefins US Midwest monthly market prices						
	Timing	Currency	Low	High	Midpoint	Δ
Monthly						
rHDPE BM natural, FDA approved	Oct 2025	¢/lb	107.00	117.00	112.00	-2.50
		\$/t	2,358.94	2,579.41	2,469.18	-55.12
rHDPE BM light grey, non-FDA approved	Oct 2025	¢/lb	45.00	50.00	47.50	nc
		\$/t	992.08	1,102.31	1,047.20	nc
rHDPE dark/black general purpose	Oct 2025	¢/lb	33.00	38.00	35.50	nc
		\$/t	727.52	837.76	782.64	nc
rPP light grey, FDA approved	Oct 2025	¢/lb	75.00	80.00	77.50	nc
		\$/t	1,653.47	1,763.70	1,708.59	nc
rPP light grey, non-FDA approved	Oct 2025	¢/lb	55.00	60.00	57.50	nc
		\$/t	1,212.54	1,322.77	1,267.66	nc
rPP dark/black, general purpose IM	Oct 2025	¢/lb	38.00	43.00	40.50	nc
		\$/t	837.76	947.99	892.88	nc

HDPE, PP bale, regranulate US Midwest



¢/lb HDPE bale, rHDPE regranulate US Midwest



## MARKETS UPDATE – RPE/RPP – ASIA-PACIFIC

### SE Asia market remains quiet

Southeast Asia's recycled PE market remained muted amid limited activity in the region.

Indonesia HDPE rigid bale and rHDPE natural-colour pellets prices were down at 8,000-9,500 rupiah/kg and 14,500-18,500 rupiah/kg this week, compared to 9,000-10,000 rupiah/kg and 15,500-19,500 rupiah/kg, respectively, last week.

The 98/2 PE bale cif Southeast Asia price was stable at \$430-470/t this week. The rLDPE/LLDPE transparent pellet fob Southeast Asia was stable at \$750-850/t this week.

Demand for rHDPE in the fob China market because sellers and buyers were unwilling to make deals before the Golden Week holiday.

Weak spot demand forced sellers to lower offers to \$1,350/t fob, and negotiation levels fell to \$1,270-1,330/t fob. A few small-size deals were concluded during 29-30 September, but prices were around \$30-50/t lower than in mid-September, an rHDPE producer said.

Trades in the Chinese domestic market also slowed. Deal prices fell to Yn10,500-11,000/t, down by Yn500/t at the high end from two weeks earlier.

Recycled polyolefins Asia Pacific market prices						
	Timing	Currency	Low	High	Midpoint	Δ
<b>South East Asia rPE</b>						
HDPE rigid bale PCR domestic Indonesia	3-Oct	IDR/kg	8,000.00	9,500.00	8,750.00	-750.00
		\$/t	480.00	570.00	525.00	-45.00
98/2 flexible PE bale, post commercial cif SE Asia	3-Oct	\$/t	430.00	470.00	450.00	nc
rHDPE natural, from PCR, domestic Indonesia	3-Oct	IDR/kg	14,500.00	18,500.00	16,500.00	-1,000.00
		\$/t	870.00	1,110.00	990.00	-50.00
rLDPE/LLDPE standard film, transparent. fob southeast Asia	3-Oct	\$/t	750.00	850.00	800.00	nc
<b>North East Asia rPE</b>						
rHDPE BM natural colour from PCR, food contact, fob China	3-Oct	\$/t	1,270.00	1,330.00	1,300.00	-40.00

## MARKETS UPDATE – RPVC – EUROPE

### rPVC Europe: UK prices decline

The European rPVC market remains quiet, with generally flat demand from the pipe and window profile sectors, UK prices declined heading into October.

Northwest Europe prices rolled over heading into October, while prices in the UK were assessed £38-50/t lower on the month. The decrease in the UK resulted from low demand, with recyclers able to lower prices after seeing a reduction in their feedstock prices in recent months. Window profile demand continues to be weak in Europe with little money being spent on renovations, and general construction demand sluggish. Some recyclers said that demand was returning more towards expected levels in October, after falling below expectations in September, but generally it remains subdued. Two traders told Argus that they were focussing on virgin PVC rather than rPVC this month, owing to the lack of demand for recyclates.

The latest Hamburg Commercial Bank (HCOB) Purchasing Managers Index (PMI) that tracks expansion and contraction in the Eurozone construction market showed that the market remained in contraction in August, in the latest reading. Industry activity rose to 46.7 in August, higher than July but below the 50.0 no change mark. In the virgin PVC market, contract prices were largely stable

Recycled PVC Europe market prices						
	Timing		Low	High	Midpoint	Δ
<b>ex-works NWE (€/t)</b>						
rPVC regrind white ex-works NWE	3-Oct		590.00	690.00	640.00	nc
rPVC regrind mixed colour ex-works NWE	3-Oct		415.00	550.00	482.50	nc
rPVC pellet white ex-works NWE	3-Oct		1,040.00	1,190.00	1,115.00	nc
rPVC micronised powder mixed colour ex-works NWE	3-Oct		640.00	730.00	685.00	nc
<b>ex-works UK (£/t)</b>						
rPVC regrind white ex-works UK	3-Oct		500.00	550.00	525.00	-50.00
rPVC regrind mixed colour ex-works UK	3-Oct		350.00	400.00	375.00	-42.50
rPVC pellet white ex-works UK	3-Oct		850.00	950.00	900.00	-50.00
rPVC micronised powder mixed colour ex-works UK	3-Oct		600.00	625.00	612.50	-37.50
<b>Virgin PVC (€/t)</b>						
S-PVC pipe del NWE final month 1	Sep 2025		-	-	1,005.00	nc

in September, but demand for European material has been hampered recently by the availability of cheaper Asian imports, which may also be limited demand for rPVC from some buyers. S-PVC spot import prices were assessed at €770-805/t cif Europe this week.

## SUSTAINABLE FEEDSTOCKS

### Petchems still favouring biobased feeds

Demand for plastic-derived pyrolysis oil (PPO) based feedstocks from the European polymer sector remained subdued, with the increased focus on biobased – rather than circular feedstocks – continuing.

The premium for mass-balanced circular naphtha over fossil-based material remained at \$1,300-1,350/t, with no new spot deals heard during the past two weeks. Combined with a drop in northwest European naphtha prices during the period, this means that outright prices for circular naphtha have declined. Spot PPO prices were assessed at €1,090-1,310/t fca Europe for refinery grade material and €1,360-1,490/t fca Europe for light fraction material, stable on the week.

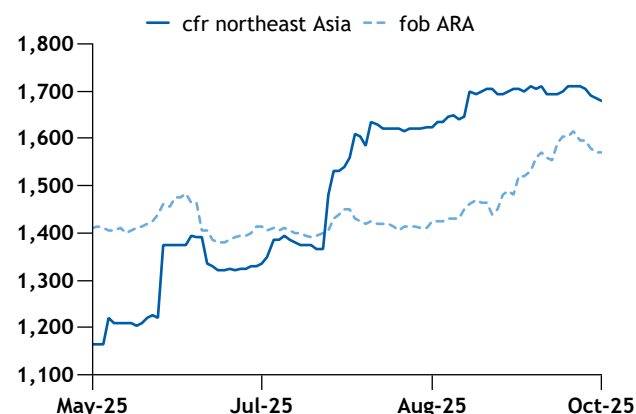
The premium for used cooking oil (UCO)-based bionaphtha over fossil-derived naphtha continued to strengthen over the past fortnight, rising to around \$1,035/t, but the outright price softened in recent session, tracking losses in conventional naphtha values. Premium gains were mainly driven by robust demand from the petrochemicals sector, with some support likely coming from stronger hydrotreated vegetable oil (HVO) prices, some said.

The premium for UCO-based biopropane over conventional propane continued to hold steady at around \$900/t, with demand remaining muted.

In Asia-Pacific, the cfr northeast Asian bionaphtha price fell from a fortnight ago on a softer fossil naphtha market. The assessment fell by \$15/t to \$1,680/t after the northeast Asian fossil-based naphtha price was assessed at \$580/t on 3 October, \$15/t lower than the last assessment on 19 September at \$595/t.

Advanced Recycling/Bio-feedstocks							
	Timing	Currency	Low	High	Midpoint	Δ	
<b>Europe</b>							
Pyrolysis oil plastic-derived refinery grade fca Europe	3 -Oct	€/t	1,090.00	1,310.00	1,200.00		nc
Pyrolysis oil plastic-derived light fraction fca Europe	3 -Oct	€/t	1,365.00	1,490.00	1,427.50		nc
Circular naphtha premium	3 -Oct	\$/t	1,300.00	1,350.00	1,325.00		nc
Bionaphtha fob ARA	Oct 2025	\$/t	1,575.00	1,585.00	1,580.00	+120.00	
<b>Asia-Pacific</b>							
Bionaphtha cfr Northeast Asia	Oct 2025	\$/t	1,680.00	1,700.00	1,690.00	-10.00	

**Bionaphtha** \$/t



## PETROCHEMICAL MARKETS

### Europe

Sentiment remained weak in the European PE and PP markets at the onset of the fourth quarter, amid low demand and ample supply. Buyers' focus remains on replenishing on a need-to basis, while sellers remain under pressure to move volumes. Spot prices for all PE grades, and PP homopolymer, were assessed stable this week. The October monthly contract prices for feedstocks ethylene and propylene were also stable, compared with September, with negotiations taking against the backdrop of upstream naphtha averaging flat in September at €480/t, compared with the August average.

European PET resin spot and contract prices rolled over, with already squeezed margins unable to reduce much further. US tariffs on Asian countries are a concern to European

producers as market participants worry that trade flows will divert from the US to Europe.

### Americas

September contract discussions in the US and Canadian PE market are still ongoing, with suppliers still officially pushing for price increases and buyers still arguing for flat to lower prices. Spot domestic prices were largely steady during the week, with most producers not making fresh offers until September contracts are settled.

US and Canadian PP contracts for September settled at a price rollover, prompting market participants to question whether October contract prices might decline, following further falls in spot polymer-grade propylene (PGP) prices.

## PETROCHEMICAL MARKETS

Spot PP prices are little changed from the previous week. There is still plenty of availability and producers are trying to clear out their inventories. Many seem willing to make deals to move stock.

US PET resin prices held steady in September but could rise in October owing to elevated import costs because of the new tariffs on PET imports, which went into effect on 8 September. PET resins imported under the 3907.61.00 or 3907.69.00 HTSUS codes will now be subject to standard tariff rates up to 50pc, depending on the country of origin. PET resins were originally exempt from tariffs, allowing countries to continue shipping more competitively priced PET to the US with no extra hurdles.

### Asia-Pacific

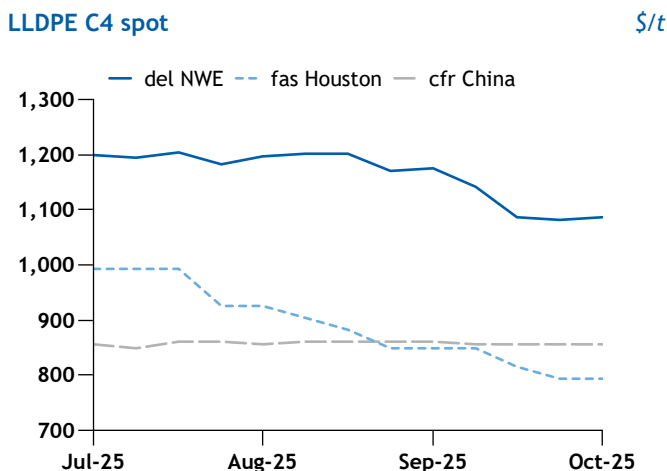
The Chinese PE and PP markets closed for eight days on 1 October owing to public holidays in the country. LLDPE and PP futures on the Dalian Commodity Exchange hovered in a narrow range during the week. Physical prices were stable as buying activity decreased before the holidays.

PET resin prices continued to drop lower owing to limited demand. Demand for PET resin remained weak because of insufficient support from the beverage sector. Major beverage makers entered their autumn production reduction phase, which caused the entire sector’s operating rates to fall. Transpacific freight rates dropped recently, and shipping costs on the Europe and South America routes fell by close to 6pc. Lower freight costs have supported export opportunities, but limited overseas demand may cap any further increase in exports.

Olefin monthly contracts & Polymer spot			
	Timing	Midpoint	Δ
<b>Ethylene contract</b>			
del NWE €/t	Oct 25	1,130.00	nc
cfr Taiwan \$/t	Jul 25	791.00	-52.00
Pipeline USGC ¢/lb	Sep 25	31.00	-1.00
<b>Polymer grade propylene (PGP) contract</b>			
del Europe €/t	Oct 25	1,005.00	nc
del Taiwan \$/t	Jul 25	792.00	-49.00
fob US ¢/lb	Sep 25	35.50	nc
<b>HDPE IM spot</b>			
del NWE \$/t	3 -Oct	1,086.50	+5.00
cfr China \$/t*	3 -Oct	825.00	nc
fas Houston bagged \$/t	26 -Sep	761.00	-33.00
<b>Polypropylene spot</b>			
homopolymer del NWE \$/t	3 -Oct	1,072.00	+5.00
raffia cfr China \$/t	3 -Oct	815.00	nc
<b>LLDPE butene-1 spot</b>			
del NWE \$/t	3 -Oct	1,086.50	+5.00
fas Houston \$/t	26 -Sep	794.00	-22.00
cfr China \$/t	3 -Oct	855.00	nc

\*Main origin

LLDPE C4 spot



## Argus Global Polyethylene and Polypropylene



Argus Global Polyethylene and Polypropylene is a weekly pricing service with global resin prices and detailed commentary on key polymer grades.

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## NEWS AND ANALYSIS

 from p1

a six-month trial in mid-September, with a view to scaling up the ability of the technology to process household flexible packaging waste.

### PRN prices dominate sideline discussions

Highlighting one of the challenges facing UK recyclers, discussions on the sidelines of the conference were dominated by the volatility of the UK's Packaging Recovery Notice (PRN) market, and its impact on feedstock price negotiations.

UK PRN prices jumped sharply in the week leading up to the conference, peaking at £400 the day after, before falling back to £250 on 3 October. This threw UK bale prices into disarray, and – for many recyclers – demonstrates the inefficiency of the PRN system.

PRNs are intended to provide financial support to the UK recycling industry, but recyclers complain that if they are forced to pay more for their feedstocks – or PRF operators have to pay more for mixed plastic waste – when prices rise, the benefits are confined upstream in the waste management sector. And, since exporters can claim a Packaging Export Recovery Notice (PERN), which has an equivalent value, for every tonne of UK packaging waste they export to an accredited recycler, UK recyclers feel that higher PRN/PERN prices improve export economics and increase competition for waste more than supporting the domestic industry. Concern about fraudulent PRN/PERN generation has also been expressed, with risks thought to increase as prices rise.

For some at the conference, the volatility highlights how the PRN/PERN system creates as many challenges as it does opportunities for UK recyclers. Extending the recently implemented pEPR scheme to provide financing for recyclers as well as local authorities is seen by some as a more predictable way of supporting the industry.

## NEWS AND ANALYSIS

*Price swings over the past three weeks are a stark reminder of the system's potential to disrupt, rather than support, the UK recycling industry, writes Will Collins*

### PRN volatility sends UK bale prices into disarray

Prices for UK Packaging Recovery Notices – credits that prove material has been recycled – rose by 150pc to £400/t (\$540/t) from 12-26 September, before dropping back to £250/t on 3 October, sending domestic bale prices into disarray.

UK recyclers generate one PRN for every tonne of recyclate they produce from domestic packaging waste. Likewise, exporters generate one Packaging Recovery Export Notice (PERN) for every tonne of plastic waste exported to accredited recyclers. Companies placing packaging onto the UK market have an obligation to purchase a certain number of credits each year. As a result, the value of plastic packaging waste to recyclers and exporters depends on the value of the material itself and the value of the PRN/PERN that can be generated from it. Sharp volatility in PRN/PERN prices last month led to two weeks of disarray in domestic UK bale prices.

In the weeks up to 26 September, bale sellers looked to raise their prices to reflect the higher PRN/PERN generation potential of their material, and some even pulled back offers to see how high PRN/PERN prices would rise. Meanwhile, recyclers buying material were cautious about accepting large price increases until they were confident the higher prices would last – justifiably, as it turned out.

The impact on bale prices was distributed unequally among materials. In the balanced polypropylene bale market, UK delivered prices rose quickly before falling back down this week. Slower demand for high-quality high-density polyethyl-

## NEWS AND ANALYSIS

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ene (HDPE) natural bales and polyethylene terephthalate (PET) bales gave buyers more power to resist price increases, meaning prices held comparatively stable over the three-week period. The 98/2 flexible PE market was quick to react, as usual, owing to its strong links to exports. Because bale exports generate a PERN, a rise in the price of a credit means sales to overseas customers net back to a much higher ex-works price in the UK, even if the delivered price is unchanged, and the diminishing number of UK processors have to pay up to compete with overseas buyers.

### Shortfall shocker

The initial PRN/PERN price increase followed the release of new data showing an increase in the number of notices that companies placing packaging onto the market will be obligated to buy in 2025, leading to expectations of a market shortfall. The 2025 obligation rose to 1.229mn t of PRN/PERNs, up from 1.207mn t previously and 1.13mn in 2024. The new 2025 figure is equivalent to 307,000 t/quarter – well above the PRN/PERN generation rate of 293,000 t/quarter seen in January-June. This means a shortage will set in by the end of the year unless generation picks up, despite 50,000t of PRN/PERNs having been carried into 2025 from last year. PRN/PERN generation by UK recyclers was 8.6pc lower on the year in January-June, perhaps unsurprising considering several recycling facilities closed their doors during June 2024-June 2025, including factories owned by Biffa, Viridor, Duclo and YS Reclamation. This resulted in a 4.25pc year-on-year drop in overall PRN/PERN generation in the first six months of 2025.

There was no data release to explain the subsequent fall, which appears to have owed simply to buyers pulling back from the market after covering their requirements.

The PRN/PERN system is intended to provide financial support to UK recyclers. But many recyclers and plastic recovery facility operators argue that the increases in their feedstock costs whenever PRN/PERN prices rise offset the benefits, while the potential for significant volatility creates challenges for cash flow and forward planning.

A common complaint is that higher PRN/PERN prices benefit exporters and their overseas customers more than UK recyclers. In particular, because UK recyclers' PRN generation is based on recyclates produced, yield losses often affect the number they can produce and sell per bale processed more than it affects PERNs generated per bale exported. Because yields are percentage-based, the benefit this gives to exporters expands when prices are higher.

The UK started a packaging extended producer responsibility (pEPR) scheme this year, and it is expected that this will eventually replace the PRN/PERN system. But as it stands no date has been given for when PRN/PERNs will be phased out, and the initial intention of the pEPR system will be to provide support to local authorities for collection and sorting, rather than to recyclers or exporters.

For many recyclers, the volatility of PRN/PERN prices in the past three weeks is a stark reminder of the system's potential to disrupt, rather than support, the UK recycling industry.

## NEWS AND ANALYSIS

*The expected decline in exports to the US will intensify competition for market share in Asia-Pacific, writes Sihan Long*

## Southeast Asian PET faces US tariff pressure

Southeast Asian recyclers are facing increasing challenges owing to a combination of declining virgin PET prices and newly imposed tariffs by the US on its imports of PET and recycled PET (rPET).

The US government on 8 September revised US tariff policies to include both virgin PET and rPET. Goods classified under HS codes 3907.61.00 and 3907.69.00, will now be subject to standard tariff rates, up to 50pc based on country of origin. PET resins were originally exempt from tariffs, allowing for countries to continue shipping more competitively priced PET to the US with no extra hurdles.

Southeast Asia has been disproportionately affected by this policy shift, market participants say. Many recyclers in the region depend heavily on exports to the US, with some estimating that up to 60pc of their rPET exports are directed to the US market.

With access to that market now restricted and European demand having been subdued throughout this year – particularly because of EU food contact legislation that requires proof of separate collection, which is extremely difficult for non-EU recyclers to obtain – southeast Asian recyclers are struggling to identify alternative export destinations. This has led to significant downward pressure on their prices.

Exporters from Taiwan are facing similar challenges, with 20-50pc of Taiwanese rPET food-grade pellet exports estimated to have travelled to the US before the tariff change. The result is increased competition among suppliers in the Asia-Pacific market, where only India and – from next year – South Korea have mandates to use recycled content in PET beverage bottles, and the largest market, China, does not allow any use of recyclates in food contact packaging. rPET offer prices have fallen sharply as a result.

rPET food-grade flakes colourless fob southeast Asia prices dropped by \$75/t compared with a month earlier to \$850-900/t on 26 September, while rPET food-grade flakes mixed colour fob southeast Asia prices fell by \$70/t over the same period to \$800-850/t on 26 September.

Food-grade pellet export prices have fallen across Asia-Pacific since the start of September, with the fob southeast Asia price dropping by \$57/t over the course of last month to \$1,170-1,200/t, and the fob northeast Asia price falling by \$55/t to \$1,150-1,300/t.

### Home comfort

Indonesian recyclers have indicated that domestic consumption could eventually provide some relief, particularly from Extended Producer Responsibility initiatives. But they caution that such support is unlikely to materialise in the near term. Asia-Pacific rPET buyers are often seen as more cost-sensitive and less willing to pay premiums to virgin prices than those in other regions. The fact that virgin PET prices have fallen – with the fob China spot price \$100/t lower on average in 2025 compared with 2024, makes finding additional demand in this environment even more challenging.

Many recyclers in southeast Asia have responded to this market pressure by reducing production rates. And several market participants have noted that recyclers are trying to clear existing inventories because stocks remain high and demand from key export markets has weakened.

## NEWS AND ANALYSIS

## Mechanical recycling

### China's Chengdu Environment to start up rPET plant

Chinese state-owned enterprise Chengdu Environment (CEG) aims to start up its new recycled polyethylene terephthalate (rPET) plant by the end of 2025.

The plant will process 50,000 t/yr of waste PET bottles to produce 40,000 t/yr of rPET pellets.

CEG started building the plant in September 2024. The firm recently completed construction of the plant building and began installing equipment. It plans to start converting waste PET bales to rPET flake in December this year, about six months later than initially planned, and aims for the pelleting segment to be online in March 2026.

The plant is in Xinjin county, Chengdu, the capital of Sichuan province in southwest China, and will be the first rPET plant in the region.

### Borealis opens rPO line in Belgium

Austrian chemical company Borealis has opened a new compounding line in Belgium, that can produce recycled polyolefins (rPO).

The line, in Beringen, was previously described by the company as "semi-commercial". Construction began in 2024.

The line can produce recycled polyethylene (rPE) and recycled polypropylene (rPP) from mechanically recycled plastic waste.

Borealis has expanded its mechanical recycling operations in recent years with the purchase of Bulgarian mechanical recycler Integra Plastics in April 2024 and Italian compounder Rialiti.

By George Barsted

## Chemical recycling

### Exxon pauses EU chemical recycling investments

ExxonMobil has paused plans to invest in chemical recycling plants for plastic in Rotterdam and Antwerp, saying they will be considerably less profitable under draft EU rules for tracking recycling content from chemical recycling.

ExxonMobil confirmed to Argus quotes attributed to senior vice president Jack Williams, saying that the rules discriminate against the use of existing petrochemical sites for chemical recycling compared with standalone facilities.

"Everything else is on track. We've had local support... We want to make these investments... The only thing standing between us and doing this project is EU policy", Williams said.

ExxonMobil did not specify to which part of the regulation it was referring. Argus understands that one of the is-

ssues for the industry relates to how mass balance accounting can be used to allocate recycled credits from plastic waste feedstock to petrochemical feedstocks when plastic-derived pyrolysis oil (PPO) passes through any units prior to the steam cracker stage of polymer production.

The European Commission carried out a public consultation this summer on draft mass balance accounting rules that allow for matching inputs with outputs to allocated recycled credits with the recycled content requirements for PET beverage bottles in the Single-Use Plastic directive. The draft stated that, while cracker operators could allocate recycled credits among the chemical outputs of their processes, no reallocation of credits would be permitted before the material enters a steam cracker. Mass balance accounting refers to a system by which feedstocks – in this case feedstocks derived from chemical recycling of post-consumer plastic waste – can be tracked through a production process in which they are mixed with other substances, allowing a certain quantity of the eventual output to be allocated with recycled content.

This means that if the recycling process includes processing through an oil refinery, a larger proportion of recycled credits would be "lost" to refinery outputs that are not used for petrochemical and polymer production – compared with a process in which PPO is produced in a standalone unit and fed into a steam cracker directly or via a dedicated separate upgrading unit.

The industry expects the draft rules for the SUP directive to set the template for mass balance rules that will be used to attribute recycled content under the EU's Packaging and Packaging Waste Regulation (PPWR). PPWR is seen as the more important legislation for the chemical recycling industry, as it includes recycled content requirements for almost all plastic packaging from 2030, rather than just PET beverage bottles.

By George Barsted and Will Collins

### Chem recycler Resynergi plans to leave California

Chemical recycler Resynergi plans to leave California due to what it said were regulatory challenges, but its new location has not been disclosed.

The company, which was founded in 2015 in Rohnert Park, California, is preparing to establish operations at a new site outside of the state to expand production of its pyrolysis technology. The move follows permitting challenges and community opposition at its Sonoma County research and development site.

The new location offers industrial zoning, tax incentives and streamlined approvals, the company said, which would allow it to set up its modular pyrolysis systems more quickly.

The company did not immediately respond to a request for comment about the location of the new site.

## NEWS AND ANALYSIS

Resynergi has developed a continuous microwave assisted pyrolysis (CMAP) technology that turns plastic waste into low-sulfur, low-carbon fuels and feedstocks. The process generates as much as 68pc less carbon dioxide compared with conventional disposal methods, Resynergi said. It is designed to operate at material recovery facilities, rather than requiring the plastic waste be shipped elsewhere for processing.

By Dona Davis

### Carbios expects to restart Longlaville build in 2025

French technology company Carbios said it expects to resume construction of a 50,000 t/yr PET enzyme-based depolymerisation plant in Longlaville, France this year, subject to securing necessary additional funding. The company also expects France's [EPR changes](#) to support demand.

The company now aims to commission the plant in the second half of 2027.

Pre-sale of products from the plant is progressing, Carbios said, and a "significant portion" of its raw material supply has been secured. It said it is working to secure enough pre-sale orders for the funding needed to restart construction this year.

Carbios expects France's newly-announced €1,000/t bonuses against extended producer responsibility charges, for companies using recycled PET (rPET) from hard-to-recycle waste into contact-sensitive applications, to buoy demand. Carbios said that the €1,000/t bonus, which the French government said would be introduced in 2028, will enable it to supply its packaging customers who are selling on the French market with rPET at a "comparable net price" to virgin PET.

The company signed an initial agreement in June 2023 with Indorama, which operates a PET production plant at Longlaville, to form a joint venture to oversee the site, including a commitment from Indorama to invest and repolymerise all monomers produced. But discussions over Indorama's investment and the repolymerisation agreement were still ongoing as of May, and no further update has been provided. This contributed to a pause in construction, which was announced in December 2024.

Since then, Carbios welcomed funding in February 2025 of roughly €42.5mn (\$49.9mn) from the French government. And it signed its [first bio-recycled PET sales contracts](#) with two cosmetic companies in May, followed by an [agreement in July to supply biorecycled monomers](#) to Indorama to manufacture rPET for use in Michelin tyres.

As of June 30 the company had €72mn available in cash, giving it a "cash horizon" of more than 12 months. It reported a loss of €23.5mn in the first half of this year, wider from a loss of €18.1mn in the same period of 2025, although this was impaired by one-off costs relating to restructuring and

financing. Its six-month reported operating loss was reduced on the year to €17.6mn from €20mn.

By George Barsted and Will Collins

### BASF, Porsche pilot ELV chemical recycling

German chemical company BASF and carmaker producer Porsche have completed a pilot project that has recycled mixed waste from end-of-life vehicles (ELV) to turn into material used in the production of steering wheels.

The pilot used a gasification process developed by German technology provider Bioenergy and Sustainable Technologies (BEST), whereby ELV waste is combined with biomass and recycled into syngas and derivatives, to be used as feedstock in BASF's Ludwigshafen site. BASF then uses mass balance accounting to allocate this feedstock to polyurethanes it produces to be used to make steering wheels.

The plastic waste streams are combined with biomass material at a BEST site in Vienna. The mix of plastic, film, paint and foam residues in the feedstock is "so complex that it can currently only be thermally recycled", BASF said.

The EU is working on regulations to mandate recycled content in automotive plastics with the ELV directive. The European Parliament [recently confirmed](#) its position that this should be 20pc recycled content from six years after the directive is adopted, of which 15pc should come from ELV waste.

This now needs to be negotiated with EU member states, which called for a lightly more stepped approach.

By George Barsted

### Ineos Styrolution receives rSM at Antwerp site

Chemical company Ineos Styrolution said the first truckloads of recycled styrene monomer (rSM) have been delivered to its site in Antwerp from waste management company Indaver, with the SM to be used in the production of recycled polystyrene.

Ineos Styrolution said it was the first commercial-scale delivery of rSM in Europe. SM is used to make general-purpose polystyrene (GPPS) and high-impact polystyrene (HIPS). The SM was recovered by Indaver using a technology called "Plastic2Chemicals" that relies on a thermal depolymerisation technology to break down plastics to their original monomers. The SM was provided by Indaver from its site in Antwerp, which can process roughly 26,000 t/yr of plastic waste. Indaver said that half of the recycled SM will be provided to Ineos Styrolution in an offtake agreement while the other half will be sent to polystyrene producer Trinseo.

Polystyrene is often seen as a hard to recycle plastic. Other deals have been inked for PS recycling in Europe. In June 2025, waste collector Green Dot said it was set to provide up to 20,000 t/yr of waste polystyrene feedstock to

## NEWS AND ANALYSIS

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chemical recycler Agilyx, which would be used to produce rSM. At the time, Agilyx did not operate any polystyrene recycling plants, under its brand name "Styrenyx" in Europe, but it does operate a 200 t/d site in Chiba, Japan. Agilyx is still not operating any chemical recycling plants for polystyrene in Europe currently.

*By George Barsted*

## Pledges and targets

### Australia's Woolworths uses more recycled plastic bags

Australian supermarket and online grocery retailer Woolworths has partnered with Australian packaging company Amcor to transition the former's Own Brand sliced-bread bags to flexible packaging that contains 30pc recycled plastic, Woolworths said on 30 September.

The retailer estimates this change will eliminate about 50,000 kg/yr of virgin plastic.

The switch began in June, covering six bread products. Amcor produces the new low-density polyethylene (LDPE) food-grade bags using advanced recycling technology via the mass balance approach, which enables recycled content to be used in food-safe applications.

These new bread bags can be returned for recycling at over 500 Woolworths stores in New South Wales, Victoria, Queensland and the Australian Capital Territory as part of a soft plastics collection pilot trial.

Woolworths has significantly reduced its use of virgin plastic over the past five years by improving its packaging. This includes introducing bakery containers made from 80pc

recycled plastic, which are now recyclable.

*By Sihan Long*

## Bioplastics

### Avantium, Tereos, LVMH to expand PEF in Europe

Renewable polymer producer Avantium, bioethanol supplier Tereos and luxury goods maker LVMH are considering a consortium to build and operate an industrial-scale polyethylene furanoate (PEF) plant in Europe.

The plant will be based upon Avantium's YXY technology and manufacture furandicarboxylic acid (FDCA) from plant-based feedstock and FDCA-based polymers such as PEF, which Avantium markets under the brand name Releaf. Tereos will provide the feedstock, and "demand will be driven" by LVMH. The latter is taking part through its scientific and environmental R&D division.

PEF can be used to manufacture packaging for foods, beverages and cosmetics, and fibres for clothing and industrial applications. Avantium is in the process of starting up its first FDCA plant in Delfzijl, the Netherlands, with a production capacity of 5,000 t/yr.

Demand for bio-based polymers is being driven by voluntary and carbon emissions-related commitments. The EU says it will clarify the position of bio-based content requirements within its Packaging and Packaging Waste Regulation (PPWR) by 12 February 2028, with a possibility that separate targets for bio-based content will be enacted, or that bio-based content will be allowed to count towards existing targets for recycled content for food packaging.

*By Will Collins*

## ANNOUNCEMENTS

## Proposal to change timing of US recycled polymer prices

Argus proposes, starting from November, to change the timing of its monthly US recycled polymers regranulate prices to publish on the first Friday after the 4th of each month, rather than the first Friday of each month. This change will enable more feedback on monthly price negotiations to be collected prior to publication. At the same time, Argus proposes to bring forward the cut-off time for all its US recycled polymers assessments to 3:00pm Houston time from 4:00pm Houston time.

Argus will accept comments on these proposals until 16 October. To discuss comments on these proposals, please contact Will Collins at [will.collins@argusmedia.com](mailto:will.collins@argusmedia.com) or +44 20 7780 4226, or Michelle Klump on [michelle.klump@argusmedia.com](mailto:michelle.klump@argusmedia.com) or +1 713-360-7509. Formal comments should be marked as such and may be submitted by email to [recycled-polymers@argusmedia.com](mailto:recycled-polymers@argusmedia.com) and received by 16 October. Please note, formal comments will be published after the consultation period unless confidentiality is specifically requested.

### Announcement

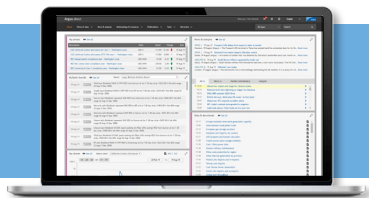
All data change announcements can be viewed online at [www.argusmedia.com/announcements](http://www.argusmedia.com/announcements). Alternatively, to be added to the email distribution list for all announcements, please email: [datahelp@argusmedia.com](mailto:datahelp@argusmedia.com).

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## NEWS IN BRIEF

UPM have stated they have achieved Recyclclass certification for their label materials for use on HDPE and PET packaging. The company states this means it can now have label materials recycled within these waste streams.

German waste-management group RCS Group has bought a stake in PET recycler Rekis, who are based in Croatia. The deal will be finalised this autumn according to the companies but apply retroactively to the beginning of this year. Rekis produces approximately 15,000 tons of rPET pellets annually, which are used primarily in the preform and bottle industries. No further deal details have been released.

Integra Plastics, a subsidiary of Austrian chemical company Borealis have announced they are converting a production facility in Bulgaria to produce recycled polypropylene, expanding capacity of the site to produce past 20,000 t/yr. The upgraded facility will begin operating in October 2025. The site had previously been producing recycled low-density polyethylene (rLDPE).

Enzymatic PET recycler Carbios has contributed chemically recycled PET to a shower bottle produced by cosmetics company L'Occitane en Provence who aim to have 100pc recycled PET bottles by 2028. The bottle in question is the first one to be made of 100pc enzymatically recycled PET according to the company.

Waste manager Biffa has acquired in full UK-based bottle manufacturer and PET recycler Esterform although the company did not provide further details of the acquisition. Biffa had previously acquired Esterpet, a bottle PET recycler based in Leeds, in the north of England in 2023. At the time, Esterpet could process up to 25,000 t/yr of PET flake, Esterform operates sites in West Yorkshire and Worcestershire counties in the UK. These sites will take food-grade recycled pellets from Biffa and turn them into bottles and containers. The sites will continue to operate as a wholly owned portfolio within the Biffa group, according to a statement from the company.



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