

The Marketplace for PRNs

Market Status Report By Tom Rickerby, Head of Trading



2022 was a compliance year without comparison. A highly unpredictable year that reflected a constantly changing macro and micro economic landscape. Recycling markets have suffered and with the exception of Wood, all PRN materials appear to have missed their target through in-year generation, relying heavily on the significant pool of carry-in tonnage to offset the deficit. Weak supply of PRNs and the constant threat of non-compliance has resulted in record PRN prices in 2022 (the total PRN market value has topped £600 million)

and a volatile closing quarter. As the market begins the difficult transition to EPR reform, high opening PRN prices for 2023 reflect the uncertain outlook and the decimation of carry-in volumes.

A total of 464,737 tonnes traded on t2e during Q4, up 9% on the previous quarter and up 32% on the same period last year. 305,356 tonnes were traded in the 2022 Spot Market and 14,364 tonnes traded in the 2023 Spot market. 4,643 tonnes were traded in the 28 Day Rolling Market, 38,714 tonnes were traded in the 2022 Forward markets and 101,660 tonnes were traded in the 2023 Forward markets.

Paper

It's been a tough year for the recovered paper sector with the CPI reporting a 6% drop in collections. This has reflected in lower PRN generation in Q1 to 3, however, Q4 has bucked this trend, breaking a new quarterly supply record and effectively eliminating the possibility of a General Recycling shortfall. Boosted by strong PRN prices, generation rose 16% on the Q1 to 3 average, exceeding 1 million tonnes for the first time since 2016. The improvement was critically needed though as persistent concerns of a shortfall pushed the PRN price to an all-time high in January. Spot prices surged to a record £60 per tonne in the final week of the compliance year.

Plastic

Prayers to the Compliance Gods were answered in Q4 as the Plastic market pulled off another minor miracle to rescue a year that looked destined for non-compliance following weak performance in 2022 and a market that had failed to hit target for 6 consecutive quarters. Despite falling polymer prices, 4th Quarter PRN generation rose 9% on the Q1 – 3 average and 14% on the same period last year, registering Plastic's 3rd best supply quarter ever. Improvements to supply coincided with a record average Spot price in Q4 (£406.51 per tonne), up 3% on the previous record set in Q3 2019. A highly stressed closing period saw a new all-time high price for the PRN market, with Plastic evidence changing hands at a record £600 per tonne. With virtually no plastic carry out (<1%), record opening prices of £375 (already 52% above the 2022 average price) in the 2023 forward markets hint at the challenge ahead.

Steel

Weak Q3 data saw the Steel PRN price spike to a 13 year high of £122 per tonne in early Q4. However, surging PRN prices have caught the attention of Steel brokers whose increased export activity in the final quarter appears to have compensated for waning demand for cans in the domestic market. Supply improved significantly (up 42%) in Q4 as a result, leading to a relatively comfortable compliance picture by the end of the year. Increased supply and diminishing demand saw Spot prices drift back to General Recycling levels, falling 67% to £40 in mid-January before recovering to £60 in a chaotic final fortnight. 2023 prices opened at £80 but fell to consolidate around the 2022 average at £50 per tonne.

Aluminium

Q4 saw Aluminium post its weakest PRN performance for over 3 years. Generation fell 11% on the previous quarter leaving the market well short of in-year compliance following an 8% year on year rise in the obligation. Rising Aluminium PRN prices over the course of the year have tracked the tightening supply picture and whilst buyers may have struggled to justify early price increases, price action in the final quarter should need little debate. Weak liquidity left late buyers with few options and saw Spot price rise 275% to £300 per tonne in the closing week.

Wood

Wood was the only material to comply though in-year generation alone, overtaking Paper as the largest contributor to General Recycling for the first time. Spot prices

looked to have peaked at £52.50 in Mid-December as diminishing demand saw prices pull back to a quarter low of £35 in January, mirroring similar price action in the paper market. However, distressed late buying saw a spike to a year high price of £60 per tonne on the final day of the compliance year. A buoyant closing market saw the highest ever average Q4 price for Wood.

Glass Aggregate

Despite posting its strongest supply quarter for over 2 years, Aggregate Glass was the only material to fail to hit its own target even with the inclusion of carry-in tonnes. A 30,000 tonne top up was needed from Remelt's carry-in reserves to ensure Glass hit target overall. Prices held up well as a result in the final quarter, trading between £87 and £120 but fell 26% on Q3's record average price. Excellent volume traded on t2e in the period, up 68% on the previous quarter.

Glass Remelt

Despite a tight finish, reduced buying pressure in Q4 saw Remelt spot prices fall to an 8 month low (£95), dropping over 50% of its value from the record price set in September. Prices recovered to close the year at £125 per tonne topping off a record year for Remelt prices, up 155% on the previous year. 2023 Spot prices opened in equally buoyant fashion at £110.

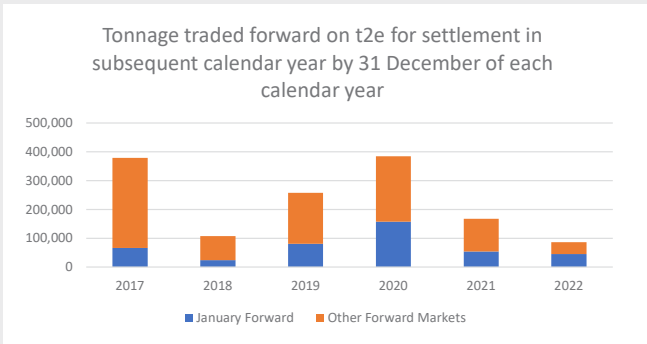
Q4 Nov 22 - Jan 23	High	Low	Traded this quarter	Quarterly Average Price	YTD Average Price	Total Volume
Paper						
Spot 2022	£60.00	£33.00	115,345	£43.55	£23.96	342,159
Spot 2023	£45.00	£30.00	4,933	£32.98	£32.98	4,933
DEC Forward 2022	£44.00	£44.00	3,000	£44.00	£19.63	142,620
Transitional JAN Forward 2023	£48.00	£44.00	20,500	£46.44	£43.78	27,500
APR Forward 2023	£37.50	£30.00	62,000	£33.83	£33.83	62,000
Plastic						
Spot 2022	£600.00	£243.60	71,970	£406.51	£260.60	260,173
Spot 2023	£380.00	£235.00	6,691	£304.48	£304.48	6,691
28 Day Rolling 2023	£375.00	£240.00	4,268	£318.52	£318.52	4,268
DEC Forward 2022	£450.00	£390.00	5,050	£424.18	£306.39	16,787
Transitional JAN Forward 2023	£430.00	£375.00	3,250	£390.82	£350.55	4,800
APR Forward 2023	£375.00	£250.00	8,100	£338.06	£338.06	8,100
JUL Forward 2023	£375.00	£370.00	4,250	£374.29	£374.29	4,250
OCT Forward 2023	£375.00	£375.00	3,250	£375.00	£375.00	3,250
DEC Forward 2023	£375.00	£375.00	3,250	£375.00	£375.00	3,250
Glass Other						
Spot 2022	£120.00	£87.00	32,730	£106.32	£80.55	80,872
Spot 2023	£100.00	£85.00	1,136	£86.98	£86.98	1,136
Glass Remelt						
Spot 2022	£150.00	£95.00	27,263	£119.09	£113.04	76,857
Spot 2023	£110.00	£110.00	400	£110.00	£110.00	400
Steel						
Spot 2022	£122.00	£40.00	20,553	£84.09	£53.67	61,991
Spot 2023	£110.00	£45.00	1,010	£45.26	£45.26	1,010
DEC Forward 2022	£120.00	£99.00	2,500	£115.80	£54.07	16,250
Transitional JAN Forward 2023	£120.00	£50.00	3,300	£92.42	£88.15	4,600
APR Forward 2023	£80.00	£35.00	13,750	£57.64	£57.64	13,750
JUL Forward 2023	£50.00	£50.00	6,000	£50.00	£50.00	6,000
Wood						
Spot 2022	£60.00	£35.00	32,057	£41.34	£18.44	141,161
Spot 2023	£35.00	£35.00	194	£35.00	£35.00	194
Transitional JAN Forward 2023	£46.00	£45.00	929	£45.54	£17.77	3,929
Aluminium						
Spot 2022	£300.00	£80.00	5,438	£139.90	£115.04	16,220
28 Day Rolling 2023	£150.00	£125.00	375	£138.33	£138.33	375
DEC Forward 2022	£80.00	£80.00	185	£80.00	£93.38	2,280
APR Forward 2023	£155.00	£105.00	560	£130.89	£130.89	560
JUL Forward 2023	£105.00	£105.00	250	£105.00	£105.00	250
OCT Forward 2023	£105.00	£105.00	250	£105.00	£105.00	250

The Marketplace for PRNs

Managing Director's Comments February 2023



A busy and informative quarter. Plenty of trading, although little forward trading, and plenty of information from DEFRA on what is planned to come. This is always a limbo time with much occurring, the end of the 2022 compliance year and the beginning of the 2023 one, and little data on what is going on. It would make a great deal of difference if Q4 data came out on 21 February rather than relying on a combination of guess work and estimates based on the voluntary monthly data. While this will improve once monthly data is compulsory, without an updated obligation it only provides one part of the picture. In this vacuum early pricing based on the previous year, or at least on three quarters of it, which is difficult at the best of times and particularly so following a year like 2022 turned out to be.



2022 Compliance

2022 met early expectations of tightness with some regretting not taking more advantage of the low prices of 2021 carry forward. Glass and Plastic looked very tight, a situation that remained as the year progressed with, at difference times, Aluminium, Steel and Paper all coming under pressure as the year progressed. The consequence of the Paper constraints caught many by surprise as the General obligation became extremely tight with prices spiralling and remaining high as the year end approached. Another consequence is that the carry forward into 2023 is small if not negligible. Once again the PRN delivered compliance, with much help from 2021 carry forward, in some of the toughest circumstances that it has been presented ... and at a mighty cost, but nothing in comparison to what is anticipated once modulated fees are introduced to finance local authority collections!

On the way there was a fair bit of drama with late submission of data hiding the total obligation, some companies refusing to comply, global logistics challenges and a reduction in waste arisings year on year, maybe an early display of the impacts of the cost of living crisis. How this passes on to the obligation for 2023 remains to be seen. The response of the Agencies to the challenges of non-compliance is crucial, non-compliance should not be perceived as a low-cost option. It is strongly recommended that, when calculating penalties, the price

used should not be an average price for the year but the price beneath which 98% of the tonnage is traded on t2e.

Extended Producer Responsibility (EPR)

DEFRA has been illuminating all on what to expect in 2024 and beyond. The obligation is changing. Brand owners, effectively those that have their name on the packaging, are taking on more responsibility. There are the inevitable difficulties of establishing obligations in some of the more complex commercial arrangements that will have to be ironed out with more detailed contractual agreements. The data obligations, which have already begun, are far more extensive than previously with the potential that any business with a turnover over £1 million must provide information on the packaging that they supply and where they supply it. Some of the basic questions are answered on page 4. More detail can be found on DEFRA's website under Frequently Asked Questions.

2022 PRNs	High	Last	98%	Average
Aluminium	£300.00	£250.00	£225.00	£99.39
Glass Other	£175.00	£110.00	£175.00	£66.69
Glass Remelt	£210.00	£125.00	£210.00	£117.45
Paper	£60.00	£60.00	£60.00	£19.58
Plastic	£600.00	£500.00	£500.00	£246.56
Steel	£122.00	£60.00	£122.00	£48.15
Wood	£60.00	£60.00	£48.00	£14.74

2023 Compliance

So what about compliance in 2023, the last year before EPR is implemented. It has opened with high prices, continuing the levels seen at the end of 2022. Without data, this seems necessary with uncertainty that all materials achieved 2022 targets within the calendar year. At this stage with a reduced carry forward, it looks as though compliance could be tight again with Aluminium, Glass and Plastic looking challenged, particularly once Scottish DRS material is not available for PRNs. While some are speculating that a drop in obligation will relieve the pressure in the market, it may well be that by the year end the flexibility of carry back from 2024 will be very necessary to ensure compliance given the uncertainties of consumption, inflation, and global logistics.

Thank you for your support in 2022, we look forward to being of service to you in 2023 and beyond.

Angus Macpherson
Managing Director

The Marketplace for PRNs

Q4 Supply Analysis By Andrew Letham, Operations Manager



In what was an incredibly challenging year for the PRN system overall Recycling fell just shy of 150,000t Year on Year (YoY) and despite Q4 recycling rates increasing 246,591 tonnes (t) (13%)

from the year-to-date average (1,905,909t) only Wood met target in year with all other materials reliant on carry-in to get over the line. Given the increased targets and tough economic conditions in 2022, compliance was no mean feat and one that will have to be repeated in 2023, with targets remaining the same and a significantly reduced carry-over, down 350,000t at 141,012t. As expected there has been an element of non-compliance with over 40,000t of PRNs being traded into 2023 that would otherwise have been used for compliance in 2022.

7,193 producers were registered at the end of the year up 61 from 2021, with the obligations increasing approximately 340,000t across all materials due to target increases for all but Wood. The largest increases were seen in Paper (339,673t) and Aluminium (13,362t) both up 10% on the previous year.

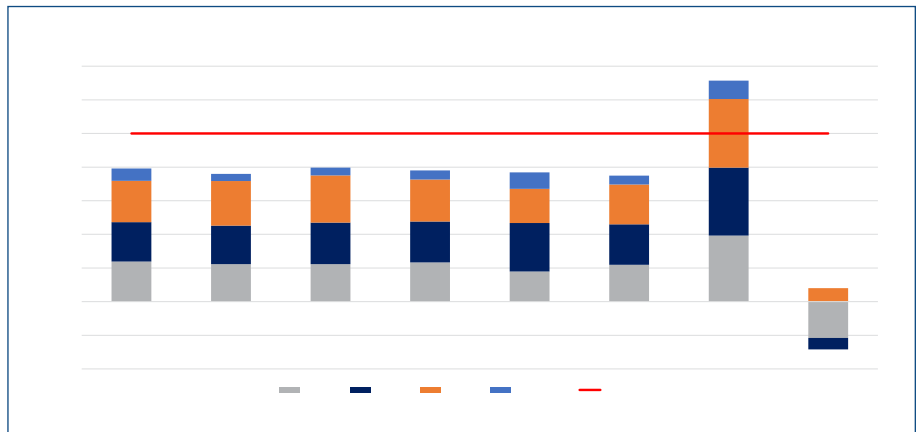
The combination of a 340,000t increase in **Paper** obligation and a 100,000t tonne drop in Recycling lead to the tightest ever year for Paper and record PRN Prices. The 3,695,244t reported as recycled fell short of the 3,706,695t obligation and means that a material that usually provides enough surplus to cover much of the General Recycling obligation made no contribution in year. As Paper and Wood remained the cheapest option for General Recycling 80% (212,991t) of the 269,643t carry-in was held against General Recycling obligations with a very modest 56,652t carried out into 2023.

A much-improved Q4 recycling return for **Plastic** (308,186t) up 26,411t on the Yearly average was too little too late in 2022 but does give some hope for 2023. The use of just under 50,000t of carry-in to meet the 1,210,860t obligation means that despite there being enough PRNs available, not everybody complied and carry-out into next year, although higher than expected will be 80% down on last year at 12,198t. With targets remaining the same, 2023 will be challenging with an anticipated 300,000t needed each quarter to meet target. With high prices carrying-over from 2022 buyers will be looking for strong Q1 to set the tone for the year.

After an awful start to the year in terms of supply, 54% of the **Glass** obligation was met in the 2nd half of the year with 492,990t contributed in Q4 alone. Both Remelt and Aggregate look to have missed their respective targets in year with Remelt falling just under 4,000t short and Aggregate just over 45,000t. A combined carry-in of 81,174t means that approximately 30,000t will be available to be carried out before any non-compliance is counted and supply levels

	Q1	Q2	Q3	Q4	YTD	2021	2022	2023	2024
Paper	269,643	884,056	869,776	910,497	1,036,817	3,706,695	3,970,789	264,094	56,652
Total Glass*	81,174	427,591	440,786	510,416	492,990	1,921,381	1,952,957	31,576	41,219
Glass remelt	64,555	309,243	341,135	387,226	342,100	1,383,394	1,444,259	60,865	34,605
Aluminium	8,212	35,382	36,937	37,815	33,583	151,735	151,929	194	914
Steel	37,025	68,261	110,193	77,469	109,676	381,358	402,624	21,266	18,587
Plastic	64,671	265,544	291,603	286,103	308,186	1,210,860	1,216,107	5,247	12,198
Wood	41,977	151,009	155,653	156,563	171,249	384,517	676,451	291,934	11,442
General *	0	-107,294	-34,189	39,727	213,365	498,785			
Total	502,702	1,831,843	1,904,948	1,978,863		7,756,546	8,370,857	675,176	141,012

*Total Glass consists of the combined total supply of Glass Remelt and Glass aggregate. *Please note the general supply figure has been generated from calculating the surplus material prns in each quarter and does not include carry in tonnage.



will need to continue at similar levels to the back end of 2022 to counter the reduction in Carry-out and ensure compliance in 2023.

Aluminium obligations rose 10% in 2022 to 151,735t, with supply falling 12,680t, resulting in an 8,000t shortfall needing to be met by the 8,212t carry-in and a potential negligible carry-out for 2023. The Q4 recycling return (33,583t) was the worst of 2022, down 8% on the YTD average and 14% on previous year's average. If the obligation remains the same in 2023, we will require a minimum of 38,000t each quarter to meet compliance, a feat not achieved once in 2022.

Steel supply fluctuated greatly in 2022 with a ridiculously low start to the year offset by a much-improved Q2 before the same thing repeated in Q3 and Q4. The average for the year finished at a rather modest 91,400t down 13,000t (12.5%) on 2021's quarterly average and falling 15,000t short of the required obligation (381,358t). A healthy carry-out out of c. 20,000t could still be seen, however Steel prices dropping in line with General Recycling at the tail end of the year may have seen more steel PRNs held in 2022 than expected and reduce this number further.

Wood was hugely oversupplied in 2022, averaging 158,500t a quarter and meeting 165% of its obligation in year. Despite this, prices held up and supply became difficult to come by in the latter months of the year as all other markets tracked behind target and Wood became the cheapest option for General recycling. Around 60,000t will have been available to carry-out across Wood and Paper which is likely to result in a drop in the Wood number from 2022 (41,9767t).

What's Coming Next? – Frequently asked questions from DEFRA's website



Department for Environment Food & Rural Affairs

for Packaging. It applies to all UK organisations that handle and supply packaging to consumers and to businesses. It is split into a recycling obligation, the historical PRN obligation, a deposit return obligation, applicable to beverage packaging only, and a disposal obligation. The latter only applies to household packaging which incurs a cost according to its recyclability. These funds are then paid to local authorities to cover the cost of packaging collected by local authorities from households or street bins.

When does it start?

With effect 1 March 2023 there is a requirement for businesses to register with their National Environmental Agency under EPR, if their most recently reported annual accounts have a turnover in excess of £1 million, to report the packaging that they supply in 2023, if the latter is over 25 tonnes. These businesses are known as small organisations. If in these accounts their turnover was in excess of £2 million, they must also report the nation in which the packaging is supplied, self-managed waste and waste type, if the total packaging supplied in 2023 is over 50 tonnes. These businesses are known as large organisations. This data will be used to calculate a business's recycling (PRN) obligation.

Will my business need to comply with EPR?

Businesses will not need to report packaging data if any of the following apply:

- they are a charity
- they have an annual turnover of £1 million or less (based on the most recently reported annual accounts)
- they are responsible for less than 25 tonnes of packaging in a calendar year (January to December)

What obligations does a business have under EPR?

Small organisations must in 2023 and annually thereafter:

- take steps to record data about all the empty packaging and packaged goods they handle and supply in the UK from 1 January to 31 December 2023
- create an account and register their organisation from January 2024
- pay an annual fee to the environmental regulator from 2024
- report data between 1 January 2024 and 1 April 2024 and annually thereafter about empty packaging and packaged goods they handled or supplied through the UK market throughout 2023

Large organisations must in 2023 and annually thereafter:

- take steps to record data about the empty packaging and packaged goods they handle and supply in the UK from 1 January to 31 December 2023
- create an account and register their organisation from July 2023

What is Extended Producer Responsibility (EPR)?

Extended Producer Responsibility (EPR) for Packaging is the successor of and incorporates Producer Responsibility

- pay a fee to the environmental regulator from July 2023
- buy PRNs or PERNs to meet their recycling obligations
- report data every 6 months about empty packaging and packaged goods they handled or supplied through the UK market. They will need to report data:
 - For the period January to June 2023, between July and 1 October 2023.
 - For the period July to December 2023, between 1 January and 1 April 2024.
- report nation data by 1 December 2024

From April 2024 for any packaging a large organisation handles and supplies that is collected by local authorities from households or street bins, they must also pay the scheme administrator:

- an administrative fee
- a waste management fee

Does an organisation have an obligation if supplying goods to the UK market under their own brand

An organisation may need to take action if packaged goods labelled with their own brand are supplied to the UK market. A brand includes any of the following:

- a name
- a trademark
- any distinguishing mark

What happens if an organisation places goods into packaging that's unbranded when it's supplied?

If an organisation places goods into packaging and that packaging is unbranded when it's supplied, it may need to take action. This could be goods it packaged for its own organisation or for another organisation.

What if an organisation imports products in packaging?

An organisation may need to take action if it imports products from outside the UK that are in packaging and goes on to supply these products to the UK market.

It may need to take action even if it discards packaging before selling the goods.

What if an organisation owns an online marketplace?

Under EPR for packaging, an organisation is classed as carrying out the 'owning an online marketplace' activity if it operates a website or app that allows non-UK businesses to sell their goods into the UK. If an organisation owns an online marketplace, it may need to take action.

Where can I learn more about EPR?

Not all producers will be obligated for both sets of obligations. Understanding whether a business is obligated or not, requires assessing the business against a range of criteria across two obligations, which can be done via the **EPR Obligation Checker** on www.gov.uk. DEFRA have published guidance on **How to collect your packaging data for EPR** and **guidance on Packaging waste: prepare for extended producer responsibility** on www.gov.uk. These supplement the EPR Obligation Checker tool and should be used together to further understand EPR requirements.