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The Marketplace for PRNs

Market Status Report

By Tom Rickerby, Head of Trading

2022 PRN markets got off to a painfully slow start as strong carry in figures, low opening prices and a perceived lower risk outlook failed to stimulate early buying interest. However, it took another global black swan event to shake the PRN markets from their early stupor. Russia's invasion of Ukraine has again derailed global markets, disrupted supply chains, exacerbated the cost of living and energy crises, and cast a cloud of uncertainty over the pandemic recovery. Concerningly weak Q1 recycling data suggests UK consumers are already tightening their belts and if taken as a proxy for economic performance in the period, may heighten fears that the UK is already slipping back into recession. DEFRA's decision to extend the PRN system till 2026 has also helped to galvanise the markets. PRN prices rallied hard in the second half of the quarter with 70% of trading occurring in this period.

A total of 405,587 tonnes traded on t2e during Q1, up 16% on the previous quarter and up 41% on the same period last year. 211,596 tonnes (52%) were traded in the 2022 Spot Market. 19,544 tonnes (5%) were traded in the 28 Day Rolling Market and 174,447 tonnes (43%) were traded in the 2022 Forward markets.

Paper

A recovery in the Paper price seemed as unlikely as war in Europe at the beginning of the compliance year. A return to Pre-pandemic supply levels and the resultant collapse in the PRN price in 2021 saw prices open the quarter at £1.50 per tonne, whilst weak buying support saw the lowest Spot traded volume in February since 2017. However, by the end of Q1, Paper had seen the largest percentage increase in value of any material, rising 566% to a 20-month high of £10 in the Forward markets. The recovery was backed-up by a 16% year on year drop in supply as quarterly generation fell to the low level since the start of the pandemic Q2 2020.

Plastic

A missed plastic target in 2021 should have raised some red flags over the 2022 compliance year but despite this warning, Plastic PRN markets opened the year in cautious fashion, subdued in part by a rampant Polymer market. Spot prices fell 10% in early February to a year low of £60 but recovered to find strong support at £75, trading around the 2021 average price. However, weak February monthly supply data provided the first bullish signal to destabilise the market and as buying interest increased, so too did the price. By the end of March prices had increased 127% to £170. A 'flash crash' to £134 brought some short-term relief for buyers, however strong demand in April saw prices rebound to top out at a year high of £180. Weak Q1 supply data validated a strong PRN price response with generation down 10% on the same period last year and significantly below the 2022 target.

Steel

Steel saw its worst quarterly performance since 2009 as PRN generation dropped by a third. A shock result given the strength of global scrap prices but attributable to a 50% collapse in domestic mill demand for Steel cans in the period. Good volume traded across both Spot and Forward markets as prices rose 265% to close the quarter at a 22-month high of £31 per tonne.

Aluminium

Aluminium started the year in the low-risk, low value category after another comfortable compliance year in 2021 but ended Q1 struggling to meet rapidly escalating demand. Prices rose 240% to £34 per tonne. Aluminium generation also contracted in Q1, falling 10% on the 2021 average. An initial health check based on the first obligation data release suggests supply and demand in balance, However, this is vulnerable to fall into an undersupply position once notable late submissions are registered. *(continued on page 2)*

Q1 Feb - Apr 22	High	Low	Traded this quarter	Quarterly Average Price	YTD Average Price	Total Volume
Paper						
Spot 2022	8.00	1.50	73,711	4.29	3.95	85,738
28 Day Rolling 2022	5.75	4.00	3,900	4.91	4.91	3,900
APR Forward 2022	3.00	2.00	23,000	2.65	3.01	39,500
JUL Forward 2022	10.00	2.00	50,000	7.69	5.99	84,000
OCT Forward 2022	10.00	2.00	10,500	6.19	5.11	17,500
DEC Forward 2022	10.00	2.00	13,000	3.62	3.62	13,000
Plastic						
Spot 2022	185.00	60.00	57,631	122.83	113.94	71,981
28 Day Rolling 2022	180.00	70.00	9,824	140.79	135.35	10,684
APR Forward 2022	135.50	75.00	3,450	102.14	87.58	13,500
JUL Forward 2022	180.00	75.00	4,075	133.19	98.88	12,075
OCT Forward 2022	180.00	75.00	3,935	144.61	117.73	7,435
DEC Forward 2022	180.00	130.00	750	163.33	163.33	750
Glass Other						
Spot 2022	22.00	10.50	19,229	17.33	16.38	22,203
APR Forward 2022	20.00	20.00	500	20.00	12.50	3,000
JUL Forward 2022	22.00	15.00	3,740	19.73	16.23	6,240
OCT Forward 2022	22.00	15.00	4,010	19.83	16.44	6,510
DEC Forward 2022	20.00	15.00	1,500	16.67	13.13	4,000
Glass Remelt						
Spot 2022	90.00	50.00	18,553	68.83	67.94	25,628
OCT Forward 2022	75.00	75.00	1,000	75.00	123.13	8,000
DEC Forward 2022	75.00	75.00	1,000	75.00	75.00	1,000
Transitional JAN Forward 2023	100.00	100.00	1,000	100.00	100.00	1,000
Steel						
Spot 2022	31.00	9.00	12,164	21.71	18.07	16,855
28 Day Rolling 2022	27.00	10.00	1,500	21.33	21.33	1,500
APR Forward 2022	18.00	8.50	4,217	10.70	10.70	4,217
JUL Forward 2022	31.00	8.50	8,000	17.25	17.25	8,000
OCT Forward 2022	31.00	8.50	6,000	19.21	19.21	6,000
DEC Forward 2022	31.00	8.50	5,000	13.75	13.75	5,000
Wood						
Spot 2022	6.00	1.50	28,511	3.05	2.75	34,690
28 Day Rolling 2022	6.50	6.50	4,000	6.50	6.50	4,000
APR Forward 2022	2.00	2.00	2,500	2.00	2.98	11,000
JUL Forward 2022	6.00	2.00	10,500	3.90	3.74	18,000
OCT Forward 2022	6.00	2.00	10,500	4.10	4.10	10,500
DEC Forward 2022	6.00	5.50	3,000	5.83	5.83	3,000
Aluminium						
Spot 2022	34.00	10.00	1,797	15.72	14.01	2,316
28 Day Rolling 2022	20.00	20.00	320	20.00	20.00	320
APR Forward 2022	25.00	15.00	600	16.67	17.47	1,500
JUL Forward 2022	26.00	15.00	1,470	18.45	18.45	1,470
OCT Forward 2022	25.00	15.00	600	16.67	16.67	600
DEC Forward 2022	25.00	15.00	600	16.67	16.67	600

Managing Director's Comments Summer 2022

t2e Response Submitted to Consultation on Reforms to the Packaging Waste Recycling Note (PRN) and Packaging Waste Export Recycling Note (PERN) System and Operator Approval

Proposal 1: Mandatory monthly reporting of reprocessing/export, PRN/PERN prices and revenue data

There is considerable agreement from t2e participants on the need for mandatory monthly reporting of reprocessing/exporting data. Strong feeling that it will deter price manipulation and hyper volatility, improve the quality of data and, potentially, make it easier for the Agencies to detect fraud. Swift publication of data needed. Emphasis on accuracy of data and improved checks by Agency prior to publication. Achieved by closer monitoring of NPWD by Agencies (possibly a new database is required?).

Clarification sought on penalties for late submission of monthly data.

Recommendation to include:

- PRNs issued in the period
- Destinations report for export

Reporting of off-market price data is required in financial markets where the information is reported with a time delay to the marketplace/stock exchange. It improves price transparency. Key information for each transaction is: Price, Volume, PRN type, Date of Transaction, Date of settlement/delivery. However, it is a contentious issue with t2e participants. Concern about frequency maybe initially not monthly, possibly quarterly, as well as annually based on PRNs sold and revenue received/due.

Revenue reporting

t2e participants are not convinced that by further sub-dividing revenue reporting it will improve knowledge. t2e's preference would be to see individual reprocessors and exporters stating publicly at the beginning of each year compliance year what they intend to do with the PRN revenue and at the end where the funds were actually spent.

From an analytical perspective the current categories are more than sufficient.

Timeframes

t2e participants did not support any time limitation additional to the current constraints on PRNs, although there was some support for a time limit for uploading data. The element of risk vs reward needs to be maintained in the market and improved data (plus January carry back mechanism) plus swift publication is the best tool to deter artificial inflation/ deflation of the market price.

t2e has always supported January carry-back to match December carry-forward. In the end they may to a great extent balance each other out! This solution is a better than a compliance fee mechanism to help to smooth out inter-year price volatility and prevent sellers 'holding the market to ransom' in a tight market. No trigger is required. January carry-back, like December carry-forward, should always be available.

Little support for extending PRNs validity, except to be used by late compliers (see below). Beyond that it increases the complexity of the system to little benefit. Current compliance year framework well established. January carry-back mechanism would provide greater overlap continuity/interplay between compliance years. Over-zealous attempts to control market volatility will undermine the market mechanism and devalue the PRN system creating the possibility for unintended consequences.

Interface with Deposit Return Schemes (DRS)

t2e considers not issuing PRNs on DRS material will have an impact on the market and also reduce the availability of PRNs making compliance not only expensive but also very difficult. It would also make it challenging to identify whether overall targets had been achieved. The preference would be to see all DRS material having PRNs issued on it. Those PRNs issued on material supplied by the DRS being returned to the DRS participants pro rata and any surplus being sold onto the general market. This will be vital for Aluminium, Glass and Plastic which otherwise may struggle to reach their targets.

A sampling and inspection plan is unnecessary, complex, and

(continued from page 1)

Glass Remelt

High volatility and a £135 per tonne price swing at the end of 2021 coupled with a polarised outlook for 2022 resulted in a significant void between buyers and sellers price expectations and little trading activity at the beginning of the new compliance year. Volume spot trading at £50 in early March signalled the start of some compromise, however, by this time the risk outlook was beginning to deteriorate. Greater buying urgency in the second half of the quarter saw prices escalate 80% to £90 per tonne, setting a record for the highest average Remelt Spot price in an opening quarter.

Glass Aggregate

Aggregate saw more consistent trading activity in Q1, outperforming Remelt volume by a third. Values initially rose in reaction to the strengthening Remelt price, however analysis of the supply data has reinforced the price action and shows a market already carrying an in-year deficit. News that is likely to bring further pressure to an already stretched Glass market. Prices closed the quarter in the ascendency at a £22 per tonne – a 22 month high.

Wood

Wood became the only material to comfortably hit target in Q1, de-pegging from the Paper price and becoming the market's best priced option for General Recycling demand. Prices still followed the inflationary trend, rising 333% from an opening price of £1.50 to close the period at £6.50. Traded volume was up 161% year on year.

fraught with problems. Identifying DRS from kerbside DRS at the MRF or by reprocessors and exporters would be nigh impossible too creating a high possibility for fraud and double counting. Obligated Producers should acquire evidence on all packaging placed on the market. DRS is solely a different collection method.

Simplest and most practical method is to place an obligation on all DRS material. It is not a double payment! Maintain PRN on all packaging material irrespective of collection channel. Maintain simplicity of reporting and liquidity of the PRN market. Reduced liquidity may result in more price volatility, market manipulation and market inefficiencies.

'Operator Competence' test for compliance schemes, reprocessors and exporters

All those that run compliance schemes should be fit and competent. This should not just be limited to their knowledge of the regulations but also their prior performance. This should be achieved without disadvantaging smaller 'boutique' schemes or impacting on Producer choice.

New Sellers should be subject to a rigorous competency test at application and a root and branch audit upon reaching the 400 tonne small seller threshold. Company directors with a previous history of defrauding the PRN system should be banned. Trial/probationary periods of accreditations prior to being authorised to issue PRNs or PERNs should be introduced.

Do you agree or disagree with the introduction of a compliance fee for producers who do not obtain sufficient PRNs/PERNs to meet their obligations?

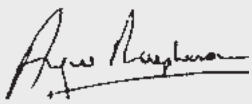
Disagree. To date there has been no need for a compliance fee as there is an incentive to over-perform. t2e would like to see at the end of the compliance year all surplus PRNs being pooled and if anyone fails to comply in that year then those PRNs being sold pro-rata at a price below which 95% of all PRNs in that relevant material and year had been sold. Clear penalties must be in place to deter deliberate non-compliance.

Do you think the introduction of a compliance fee would still be necessary in addition to the proposals (outlined above) to address the issues around price volatility?

No. Strongly against. A compliance fee is not a solution to price volatility. It is a solution to non-compliance due to force majeure (e.g. circumstances not anticipated when targets were set). Proposal generally not supported in the market.

If you have any other suggestions for improvements to the operation of the PRN/PERN market, please include details here:

1. More timely publication of data. In particular earlier release of quarterly data, especially Q4, as opposed to year end, data.
2. Early implementation of suspension for accredited reprocessors and exporters. Standard operating procedure suspension to occur in advance, from notification, and during Agency audits.
3. Greater clarification of circumstances which could result in the cancellation of PRNs. Caution required not to undermine the PRN by creating rival accreditation systems.
4. Tougher penalties for abuse of the PRN system.
5. Requirement for the Agencies to report late producer registrations in the same way late reprocessor and exporter data submissions are reported in the quarterly data.
6. More reliable communication around suspended/cancelled accreditations.



Angus Macpherson
Managing Director

(continued from page 4) obligation should mean it is once again a significant contributor to General recycling. An economic downturn could see demand for finished product begin to wane, but currently all price movement has been off the back of a poor start to the year in Paper rather than any material specific supply issues.

Steel supply dipped to levels not seen since Q1, 2009. 68,326t were recycled representing a -37.8% drop YoY. Depleted demand for Steel Cans and the absence of a large Reprocessor from the accreditation list in Q1 provide reason for the drop, the latter of which has been rectified and should result in stronger returns moving forward. A healthy 37,025 carry-forward from 2021 offers some protection in what could be a tight year.

Despite a reasonable Q1 recycling return of 35,334t **Aluminium** prices have continued to strengthen as reluctant sellers report of sporadic buying from traditionally strong sources. Demand is already up 2.6% YoY and expected to grow further. It is hoped that the strong PRN price currently on offer (£65) will be enough to coax some of those that exited the market due to low prices this year to reaccredit.

Aimee McIntosh

Aimee joined the team as Office Manager, PA to Angus, and settlement support in May. After graduating in 2022 with a degree in History, she believed this was the ideal role to start a career in environmental services, and to gain valuable experience in a new workplace after working in hospitality and retail while at university. Aimee is excited to be working in an office environment with colleagues due to remote learning throughout university. In her spare time, she enjoys watching live music, baking, and spending time with friends and family.

Q1 Supply Analysis

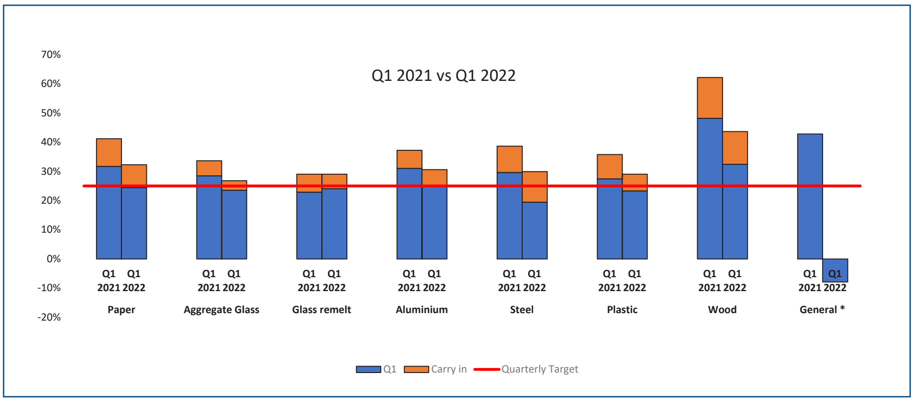
By Andrew Letham, Operations Manager

The first quarter of the year saw the worst recycling return since Q1, 2018. The 1,753,734 tonnes (t) recycled represents a drop of 296,496t (-14.2%) on the same period last year, and 235,833t (-11.8%) on the previous quarter (Q4, 2021). All materials except for Glass Remelt, which saw a 2.45% increase Year on Year (YoY) showed recycling to have slowed between -11.5% (Plastic) and -37.8% (Steel). This resulted in sharp price increases for many materials from the start of the year.

Packaging handled is up 175,118t (1.8%) from the initial release in 2021, however, there are currently 180 more producers registered than in May 2021. As seen in 2019 a large supermarket remains absent from the data with no indication of when their obligation will become visible. A supermarkets late inclusion in October 2019 added approximately 230,000t across multiple materials and although the numbers will not be the same, the impact on markets will be similar.

Material	Carry In	Q1	YTD 2022 Obligation	YTD Supply + Carry In	Balance
Paper	269,643	839,471	3,436,130	1,109,114	-2,327,016
Aggregate Glass	16,619	117,487	500,182	134,106	-366,076
Glass remelt	64,555	309,203	1,286,181	373,758	-912,423
Aluminium	8,212	35,229	141,948	43,441	-98,507
Steel	37,025	68,326	351,951	105,351	-246,600
Plastic	64,671	262,832	1,128,751	327,503	-801,248
Wood	41,977	121,186	373,630	163,163	-210,467
General *	0	-38,617	487,869		
Total	502,702	1,753,734	7,706,642	2,256,436	-4,962,337

**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.*



As feared **Plastic** recycling has continued at similar levels to Q3 & Q4 of last year. The 262,832t reported as recycled is 34,371t (-11.5%) down YoY and 15,115t (-5.4%) short of last year's average (277,947t). At current levels of recycling the full 64,671t carry-in would not be sufficient to aid compliance with the final requirement in Plastic estimated to be around 290,000t per quarter. Exports were down 20% YoY which sellers suggest is down to a lack of available material and is likely to be reflective of a wider economic downturn. Further to this soaring material prices have squeezed margins and increased risk making some lower grade material less attractive.

Glass Remelt was the only material in which recycling increased YoY with the 309,203t recycled marginally up (7,997t) on Q1 of last year but still some way short of the 337,089t yearly average. The current obligation sits 101,543t down on the final figure in 2021 (1,389,332t), however, that gap will be significantly reduced when the data includes currently absent producers. Growth is both expected and needed from current levels of recycling which alongside a reduced carry-in of 64,555t and the potential requirement to cover a shortfall in Aggregate have taken the Year-to-Date average price to more than twice that of last year. At current price levels (£115) competition from export for feedstock will become more prevalent which domestic Reprocessors will be keen to avoid.

A poor start to the year in **Glass Aggregate** with supply down 19.4% (28,264t) YoY is compounded by a 9,810t drop in carry-forward from 2021. If last year's recycling rates are reflective of the market's capacity, then there is still potential for a turnaround and for Aggregate to meet its individual target for the second year in a row. However, this will need to start in Q2.

Paper had its worst start to the year since 2018 as Recycling dipped 15.5% YoY to 839,471t. Due to consecutive 4% recycling target increases this would be insufficient to meet Papers individual demand (currently 3,438,836t) and has resulted in a substantial uplift in the base price of PRNs. With reports of increased volumes of mixed Paper moving at a much reduced 34.5% protocol and sporadic buying from overseas mills unwilling to pay high prices, what looked to be a comfortable year now seems anything but.

The strength of **Wood** supply has continued in 2022 with 151,009t reported in Q1 slightly down (-4.3%) on last year's average (157,875) which despite a 6% increase in *(continued on page 3)*

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