

The Marketplace for PRNs

Market status Report - 1st Nov 2015-31st Jan 2016 By Tom Rickerby, Head of Business Development



Quarter 4 is traditionally a time of falling PRN prices and an opportunity for buyers to pick up cheap PRNs in oversupplied markets. 2015 will be remembered as a rare exception to this trend. Concerns over a tightening of PRN supply as a result of a mounting challenges in both domestic and export waste markets resulted in one of the most volatile and unpredictable trading periods in the history of the Environment Exchange. The average Spot PRN price for the quarter was £19.56, almost four times the Q4 average in 2014 at £4.99. Total traded volume for the period was 359,686 tonnes, up 70% on the previous quarter: Of this 96,967 tonnes were traded in the forward markets and 262,719 in the spot.

Paper

Paper opened the quarter with prices creeping upwards and signs of growing pressure in the market. The market's 9 month reliance on paper to cover the deficit in recovery and the majority of general recycling obligations was beginning to impact on spot availability. As late buyers looked to close out end of year positions, prices continued to rise, hitting a high of £7.00 per tonne in mid-December - the highest paper price since January 2009. Prices fell in the 2nd half of the quarter as transitional tonnage became available and sellers looked to take advantage of a rare end of year PRN windfall. The average spot price for the quarter (£3.80) was up 326% on Q3 and more than 750% on the same period last year. 2016 prices opened at between £2.00 and £1.80.

Plastic

Follow a period of high volatility at the end of Q3, prices stabilised in the mid £70s during the first 2 weeks of November but swung in favour of buyers when a brief dip in the price sparked a more substantial sell off. Spot prices fell 35% to £47.50 in 4 days. This period of respite for buyers was short lived. With more attractive prices came new buying to the market and the price rebounded to £75.00 almost as rapidly as it had fallen before closing the month at £60.00 per tonne. This period of acute volatility highlights the nervousness felt on both sides of the plastic PRN market at this time. Prices yo-yoed between £65.00 and £45.00 in December and January. Strong buying in the 2016 spot market at around the £50.00 mark provided robust competition for transitional PRNs and helped to underpin the 2015 price. 2015 prices fell from £55.00 to £42.00 during the last weeks of trading with the majority of transitional tonnage selling into the 2016 compliance year where prices continued to track the falling 2015 price. The average Q4 plastic price was £60.54, the highest quarterly average price since Q3 of 2013 and nearly 10 times higher than the 2014 Q4 average. Traded volume was up 72% on the same period last year.

Glass

Compared to other materials Glass' 4th quarter was a period of calm and stability. Supply remained healthy throughout with Remelt surpluses offsetting the deficit in Aggregates supply. Against some buyer's expectation glass prices held up well. Remelt traded between £15.00 and £9.00, averaging £9.53, down 26% on the 2015 average. Glass other traded between £13.00 and £7.50 averaging £8.90 for the quarter, down 31% on the year's average price.

Steel

The dramatic upswing in PRN prices seen at the end of Q3 continued into November as spot prices increased 30% to a year high of £53.00 by the middle of the month. However the high PRN value stimulated the paralysed steel packaging market allowing accredited waste brokers to move Steel cans into European and Indian markets therefore maintaining a steady flow of export PRNs to market and compensating for the precipitous fall in UK reprocessing. By late November, as buying pressure for PRNs began to ease, prices also started to soften. The year ended at £15.00 per tonne with transitional tonnage trading from £21.00 up to £28.00 in the 2016 market, where prices are expected to remain buoyant.

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	High	Low	Traded This Quarter	Quarter Average Traded Price	YTD Average Traded Price	Year to date aggregated traded
Paper						
Spot 15	£7.00	£1.50	125,451	£3.80	£2.43	233,019
Dec Fwd 2015	£4.95	£2.00	11,000	£4.59	£1.12	106,598
Jan Fwd 2016	£3.00	£2.00	15,000	£2.50	£2.50	105,504
Spot 2016	£1.80	£1.80	350	£1.80	£1.80	350
Apr Fwd 2016	£2.00	£2.00	5,000	£2.00	£2.00	5,000
July fwd 2016	£2.00	£2.00	5,000	£2.00	£2.00	5,000
Oct Fwd 2016	£4.75	£1.80	13,500	£2.64	£2.64	13,500
Dec Fwd 2016	£2.00	£1.80	10,000	£1.90	£1.90	10,000
Plastic						
Spot 2015	£76.00	£42.00	46,028	£60.54	£45.03	147,727
Dec Fwd 2015	£75.00	£47.50	11,012	£66.23	£45.38	31,081
Jan Fwd 2016	£75.00	£58.00	4,628	£65.41	£65.71	7,876
Spot 2016	£50.00	£42.50	5,143	£45.82	£45.82	5,143
Apr Fwd 2016	£55.00	£42.50	7,100	£47.68	£47.68	7,100
Glass Other						
Spot 2015	£11.00	£7.50	8,397	£8.49	£12.27	51,010
Spot 2016	£9.75	£9.75	480	£9.75	£9.75	480
Glass Remelt						
Spot 2015	£15.00	£9.00	22,405	£9.53	£12.98	65,932
Dec Fwd 2015	£10.00	£10.00	2,000	£10.00	£10.00	2,000
Steel						
Spot 2015	£53.00	£12.50	17,282	£29.67	£16.69	57,509
Jan Fwd 2016	£22.00	£22.00	2,570	£22.00	£22.00	2,570
Spot 2016	£21.00	£30.00	2,471	£23.91	£23.91	2,417
Apr Fwd 2016	£23.00	£23.00	650	£23.00	£23.00	650
Wood						
Spot 2015	£25.00	£2.25	20,644	£15.41	£11.50	287,463
Dec Fwd 2015	£4.50	£2.00	6,902	£3.88	£2.78	13,696
Jan Fwd 2016	£17.00	£17.00	1,146	£17.00	£17.00	1,146
Aluminium						
Spot 2015	£75.00	£40.00	2,595	£51.40	£50.66	3,085
Spot 2016	£30.00	£30.00	2	£30.00	£30.00	2
Oct Fwd 2016	£60.00	£60.00	150	£60.00	£60.00	150
Recovery						
Spot 2015	£4.95	£1.00	11,481	£1.74	£1.61	13,209
Dec Fwd 2015	£1.75	£1.75	1,459	£1.75	£1.75	1,459

MANAGING DIRECTOR'S COMMENTS



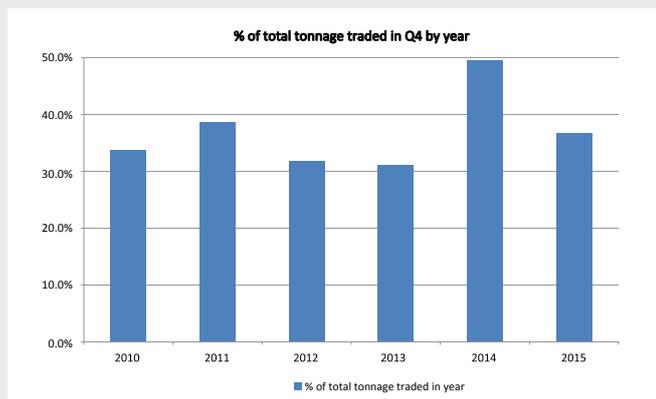
A roller coaster finish to a roller coaster year. All this against a backdrop of the Circular Economy package passing successfully through the European Parliament and a consultation on plastic and glass targets going forward. Tension in all materials was exacerbated by a perceived shortfall in general recycling and a real shortfall in

recovery. Good news for some and disaster for others. In the short term the shortage in recovery PRNs is unlikely to be repeated. But without the tonnage carried forward from 2014 there would have been insufficient PRNs available in plastic, steel, aluminium and overall recovery for everyone to have complied.

PRN price volatility

While for some the high price volatility of PRNs at the end of the year was a cause for concern for others it was a saviour. In the end compliance was achieved for all except the very last minute contenders courtesy of a phenomenal quarter of exports for both paper and plastic. While this success is applauded the question always arises from where do these materials appear? Is it better extraction? Is it diversion from landfill or energy from waste? Maybe a reflection of a boom in consumption or has it been stored somewhere waiting for prices to rise?

There are three other major contributors to this volatility. Firstly there is uncertainty which grows from the absence of good quality information as highlighted in Phil Conran's article, secondly there is a drift towards putting off purchasing decisions to the final quarter rather than locking in forward contracts earlier in the year and finally there is the trading activities of market participants. Some are failing to release tonnage until the last minute so creating false shortages. This was most apparent in Aluminium and Wood where, although a significant surplus was being generated, tonnage was very late to be released into the wider market.



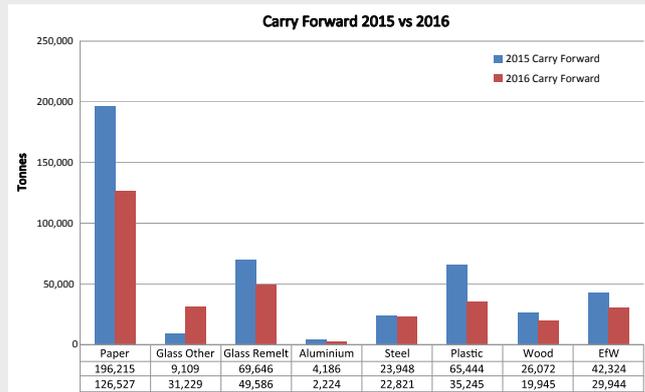
In both 2014 and 2015 there has been a significant movement away from forward trading with 49.5% and 36.76% respectively of total annual trading taking place in the fourth quarter; an increase of 24% on the previous two years. These levels have not been seen since 2011. Traders must ask themselves why they prefer to take their chances in the spot market rather than securing price certainty for both counterparties through using forward contracts. Of course using forward contracts in the PRN forward markets is not the solution to all price volatility and participants

should look to securing similar contracts in other commodity markets, a challenging issue with prices so reliant on currency fluctuations.

Circular Economy

With this in mind the aspirations of Circular Economy package should be tempered with a pragmatic dose of realism. There are many variables in global markets and price fluctuations in secondary raw materials are just one of the consequences. Energy is locked into secondary raw materials. As the cost of energy drops it is inevitable that the price of secondary raw materials will drop as will the desirability of primary raw materials increase. Exchange rates too will have a significant impact but that does not detract from their overall desirability or the fact that significant shortages of raw materials would occur without secondary raw materials.

Similarly there are significant challenges in defining the full cost of recycling. It is quite legitimate that this cost should be divided between public services on whom there is an obligation to carry out waste collection and producers on whom there is an obligation to ensure end of life costs are paid. What is quite clear is that the PRN is capable of meeting any of the demands that are imposed on it by the new ambitions.



What does 2016 hold?

Trying to look forward into 2016 is as challenging as predicting the outcomes of 2015. Carry forward is down but by less than anticipated. The economy continues to struggle both domestically and globally. However the demand for raw materials remains but so do the pressures on cost reduction. That combined with the uncertainty of the future for demand for recycled plastic has led to the UK government proposing to reduce the plastic material specific targets in 2016. A steady growth of 2% per annum to 2020 is now anticipated.

Thank you for your support through 2015. Q4 was the second highest quarter for tonnage traded ever and 2015 has been a record trading compliance year. Thank you too to Phil Conran for his comments. We would encourage you to think about securing price certainty in 2016 through using our forward contracts and look forward to being of service to you in 2016.

Angus Macpherson
Managing Director

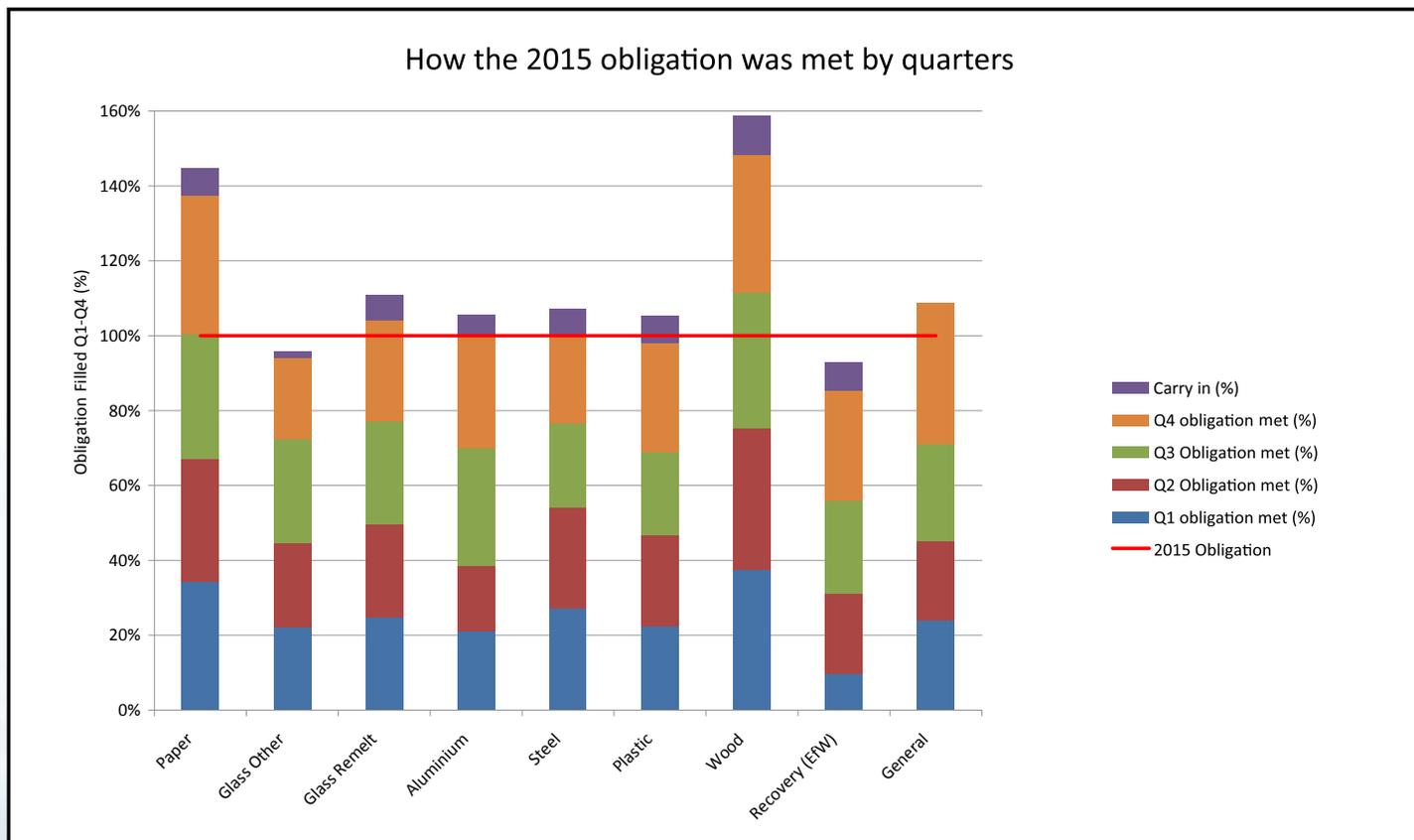
Summary of Q4 supply figures *By Andrew Letham, Sales and Marketing Manager*



The welcome early release of the final 2015 supply figures (Q4) was met with both surprise and caution. In what by all accounts has been a troublesome year for plastic a staggering Q4 supply figure was produced. 263,055 tonnes were recorded; the largest quarterly return in plastic ever, putting a stop to slowly increasing prices in January and leaving everybody to wonder if this is the new norm. Even so in year PRNs produced only 97% of 2015's total obligation with carry forward from 2014 used to fill the remaining 3%. Steel produced a strong quarter in the face of adversity at 86,557 tonnes leaving 2016 with a similar carry forward to last year albeit with a heavily advertised reduced capacity. Four quarters at the same level as Q4 would see steel targets met for 2016. Recovery posted a very strong Q4 result at 164,607 Tonnes. If supply of recovery continues at the same level into 2016 there will be much less pressure on Paper and less Wood being held against general obligations with both materials also performing well in Q4. As Glass other struggled to meet its obligation with an 115,955 tonne return leaving it 22,069 short overall, Glass Remelt romped home and easily bridged the gap with 277,034 tonnes recorded in Q4, 111,358 Tonnes ahead of the obligation target. In the end the overall recovery target was reached but only with a surplus of 49,155 tonnes a tiny 0.7% surplus to the overall recovery target!

Material	Q1 obligation met (%)	Q2 Obligation met (%)	Q3 Obligation met (%)	Q4 Obligation met (%)	Carry in (%)	2015 Obligation	Q1	Q2	Q3	Q4	Carry In	Obligation 2015
Paper	34%	33%	33%	37%	7%	100%	918,548	871,018	891,101	986,999	196,215	2,668,441
Glass Other	22%	23%	28%	22%	2%	100%	117,914	120,137	147,451	115,955	9,109	532,635
Glass Remelt	25%	25%	28%	27%	7%	100%	257,414	255,124	286,078	277,034	69,646	1,033,938
Aluminium	21%	17%	31%	30%	6%	100%	16,011	13,152	23,835	23,029	4,186	75,843
Steel	27%	27%	22%	24%	7%	100%	98,226	98,112	80,997	86,557	23,948	361,897
Plastic	22%	24%	22%	29%	7%	100%	202,933	220,432	203,088	263,055	65,444	907,072
Wood	37%	38%	36%	37%	10%	100%	94,626	95,835	91,195	93,282	26,072	252,643
Recovery (EfW)	10%	21%	25%	30%	8%	100%	54,812	119,023	137,796	164,607	42,324	557,896
General	24%	21%	26%	38%	0%	100%	242,503	215,693	260,576	382,742	0	1,013,025

Balalance is the difference between Year to date (YTD) Supply plus carry-in and the total annual obligation showing the minimum PRN production required by Material in Q4 to comply. The General PRN supply figure has been calculated by using the surplus Material Specific PRNs in each quarter. It does not include any carry-in tonnage. Surplus General PRNs may (and will) be required to meet any shortfall in Recovery PRNs.



PRN data transparency *By Phil Conran, Chairman of the Advisory Committee on Packaging*



When we look back on the history of the PRN system, 2015 will stand out for many people as one of the more turbulent and difficult years. An aluminium crisis in mid year, a plastic crisis in Q3, a steel and recovery crisis in Q4; what had started as a relatively straightforward expectation of 'challenging but achievable' tuned into a roller coaster year to compete with the

best of them.

PRN supporters would say that this demonstrated the system at its best, doing what it was designed to do which was to bump up prices to pull material through to meet targets. Detractors on the other hand, might say that it displayed the very worst aspects of the system hallmarked by uncertainty, high cost and export encouragement.

One of the problems consistently raised about the PRN system is the lack of data. The demand side isn't known until May but this is reasonably predictable. The real problem lies in the supply side. The Agency KPI sets deadline dates for publication of quarterly data, but with Q4 not due until March, both obligated and accredited parties struggle to know the likely start position for the year. This leads to procurement stand-offs and does nothing to help those with large obligations to plan. But a lack of regular data during the compliance year also makes it extremely difficult for both buyers and sellers to plan. Take recovery in Q4, for instance. A change in the eligibility of waste to energy incinerators to issue PRNs meant that Q1 saw a sudden and unexpected fall in recovery PRNs to the point that it suggested a need for surplus paper and wood PRNs to meet the overall recovery target. This was exacerbated by Q2 and Q3 data and led to a leap in wood and paper PRN prices. Wood, in particular, jumped from £1.50/tonne to £20/tonne in the space of a month. And yet when Q4 data was published – after the close of 2015 trading – it showed a massive jump in WTE volume through significant late registrations. And who would have guessed after Q3 data was published that plastic would achieve a record quarter nearly 30% higher in Q4, again, not known until after trading had closed.

The question is, how can we smooth the volatility and how can we help to ensure that targets can be met in a more planned and sustainable manner?

At the very least until the new Circular Economy Package is finalised, we are stuck with the PRN system as it stands in regulation. However, there are opportunities to improve the way the system works and this has been one of the key priorities for the ACP. Much work has gone – and continues to go – into the accreditation process to achieve greater simplification and consistency. But there are also efforts being made to speed up the publication of data and in a big step, to increase the frequency of publication. The Agency KPI states that Q4 should be published on 31st March, but the Agencies agreed for provisional data to be published on 10th February. The scale of some material achievements has raised some eyebrows, but at least the market now has something to work with. For Q4, given that everything had to be on the system and closed out by the end of January, that was a bit of a no-brainer. What is much more difficult is the earlier release of quarterly data as operators are not required to submit their quarterly returns until the 22nd of the month following a quarter. And many

operators clearly leave it until the last minute – some even beyond that – to finalise their data uploads.

Many people would like to see data published more regularly, but unfortunately, operator report dates are dictated by the regulations and the Agencies cannot force early data submission. However, following agreement at the ACP, the Agencies have agreed to try monthly reporting of recycling data to see if it will help with planning. The risk, of course, is that if operators do not enter the data onto NPWD on a regular basis, the data is meaningless and to some extent, this has been borne out by the first set of monthly data also published on 10th February. To allow for those that upload at the end of the month, the data is being published on the 10th of each month, but it was clear that less than half what might have been expected had been uploaded in this first dataset.

This is disappointing, but there is no legal basis for enforcement. Therefore, we will continue and see if the level of upload improves and review the position in a few months. Although some might use this to try and manipulate the data, we hope that operators will see that it is in the interests of everyone to improve transparency. At the end of the day, the PRN should be a measure of performance but at the moment, it is very much the commodity and whilst it is treated like that, we will always have the volatility and uncertainty that has plagued us in the past. Hopefully, we can move beyond that and achieve a more plannable and sustainable process.

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Wood

By November the wood market was also entering a liquidity crisis. Despite carrying a 50% oversupply, the majority of wood PRNs were tied up in bilateral contracts, starving the spot market of available tonnage. With a backlog of 17,000 tonnes of distressed buying built up in the market, when wood PRNs eventually became available in early December the spot price hit a staggering year high of £25.00 per tonne - the highest wood price in over a decade. Price softened in the latter stages of the quarter. January's month on month average price fell nearly 50% to £9.97 with the year closing at £2.50. 28,692 tonne were traded in Q4 - more than the previous 3 quarters combined. The Q4 spot average price (£15.41) was 10 times the Q1-3 average price.

Aluminium

Despite a recovery in the 3rd quarter, buyers remained nervous that the final quarter could remain tight. Prices continued to climb, hitting £75.00 in early November. However this would turn out to be the high point for the year as demand weakened, prices followed, closing the year at £40.00. The Q4 Aluminium average of £52.50 is the highest on t2e since Q3 2009.

Recovery

Recovery prices were pulled up by the resurgent paper and wood price reaching a year high of £4.95 in late December before collapsing in January as more recovery accreditations came on-line and sellers competed for the final trading opportunities. Q4 traded volume was 7.5 times higher than the total traded in Q1 to Q3, highlighting the supply issues experience throughout 2015.