

The Marketplace for PRNs

**Market Status Report – Nov 2016 - Jan 2017** *By Tom Rickerby, Head of Business Development*



Q4 rounded off what has been a record trading year on t2e. In total, over 1.3 Million tonnes were traded and settled through the Exchange in 2016, up 11.4% on the previous year. 2016 saw record trading volume in the Steel, Recovery, Plastic, Aluminium and Paper markets.

Q4 saw further falls to PRN values in a year that has seen good growth in recycling with all materials comfortably hitting their targets (See page 3). The 489,993 tonnes traded during the period was up 49% on the previous quarter and 19% on the same period last year. Of the total volume traded 217,763 tonnes were traded in the 2016 Spot Market, 26,082 tonnes in 2017 Spot Market and 246,148 tonnes were traded in the Forward markets.

**Paper**

The paper market finished the year as it started with record trading volume across the quarter. The 288,646 tonnes traded in the quarter was up 20% on the previous record set in Q1 of 2016 and up 236% on the previous quarter. A little under half of the volume was traded in the 2016 markets where falling prices were met with strong demand as buyers looked to close out paper and general recycling positions for the year. Prices hit a year low of 40p in the spot as the quarterly average fell by 20%. At 86p, the 2016 average price is the second lowest paper price on record.

Trading in the 2017 forward markets got off to a strong start as buyers looked to take advantage of low risk hedged positions and a bearish outlook from sellers. With 2017 prices ranging from 70 – 80p a low bar has been set in the early stages of the new compliance year.

**Plastic**

In a year of stable or falling prices, Plastic has been the one material to keep buyers on their toes. Whilst prices have seen a general softening across the compliance year, this trend has been interspersed with short term price spikes and pockets of volatility. The prominent question for late buyers in the 4th quarter was whether the 2016 Spot price would rise to match the higher values being paid for 2017 transitional tonnage or whether it would drift downwards in the event of 2016 demand being entirely met with Pre-December non-transitional PRNs. Forecast analysis indicated it would be tight. The quarter opened trading at £15.00 – £15.50 and despite a brief spike to £17.50 in late November, remained stable at this level till early December. Concurrent to this activity, strong appetite for transitional tonnage saw prices open at £24.00 and quickly rise to £26.00 in the January Forward Market. As the compliance deadline loomed and with 2016 PRN availability diminishing, 2016 Spot prices began to rise again, eventually hitting a quarter high of £22.00 per tonne by mid-January. Despite the late rally a small number of 2016 pre-December PRNs remained unsold at the compliance deadline. This suggests all transitional PRNs were carried over into 2017, raising the potential for a record carry in. Plastic's 2016 average of £30.27 was down 33% on the previous year.

**Steel**

Any resistance left in the steel market was finally broken in the 4th Quarter as the buying dried up and surplus PRNs were dumped in the Spot market. Prices collapsed from £4.90 to a year low of 50p per tonne as Steel sellers sought to compete with paper and

wood for the last of the general recycling buying. With little value in the 2016 markets, sellers turned their attention to the 2017 markets in order to secure better value for transitional tonnage and lock in prices for the first quarter. Despite trading between £10.00 and £11.20 in the January and April markets, 2017 Spot prices fell 20% to £8.00 in the run up to the 2016 deadline setting an early downward price trend for the year.

*Continues on Page 4*

	High	Low	Traded This Quarter	Quarter Average Traded Price	YTD Average Traded Price	Year to date aggregated traded
<b>Paper</b>						
Spot 2016	£3.00	£0.40	112,923	£0.55	£0.66	185,673
Dec Fwd 2016	£0.65	£0.60	25,000	£0.61	£0.86	169,500
Tran Jan Fwd 2017	£0.80	£0.70	22,013	£0.75	£0.72	54,513
Spot 2017	£0.75	£0.70	8,710	£0.71	£0.71	8,710
Oct Fwd 2017	£0.80	£0.80	70,000	£0.80	£0.80	70,000
Dec Fwd 2017	£0.80	£0.80	50,000	£0.80	£0.80	50,000
<b>Plastic</b>						
Spot 2016	£22.00	£10.00	36,833	£17.21	£29.03	187,715
Dec Fwd 2016	£17.50	£15.30	2,200	£16.32	£28.05	15,672
Tran Jan Fwd 2017	£16.00	£14.00	8,696	£25.33	£25.22	12,996
Spot 2017	£26.25	£25.00	9,763	£26.09	£26.09	9,763
<b>Glass Aggregate</b>						
Spot 2016	£13.00	£7.50	11,547	£11.49	£11.62	34,806
Spot 2017	£11.50	£11.00	1,018	£11.46	£11.46	1,018
Apr Fwd 2017	£11.50	£11.50	189	£11.50	£11.50	189
<b>Glass Remelt</b>						
Spot 2016	£15.00	£7.50	15,708	£12.23	£12.34	47,050
Dec Fwd 2016	£12.30	£12.30	3,800	£12.30	£12.34	7,800
Spot 2017	£12.00	£11.75	644	£11.79	£11.79	644
Apr Fwd 2017	£12.00	£12.00	3,000	£12.00	£12.00	3,000
Jul Fwd 2017	£12.40	£12.00	25,350	£12.01	£12.01	25,350
<b>Steel</b>						
Spot 2016	£10.00	£0.50	18,388	£0.95	£13.50	73,432
Dec Fwd 2016	£1.50	£1.50	1,600	£1.50	£10.51	7,600
Tran Jan Fwd 2017	£11.20	£10.00	1,300	£10.46	£10.49	4,300
Spot 2017	£9.50	£8.00	2,978	£8.36	£8.36	2,978
Apr Fwd 2017	£11.20	£10.00	6,800	£10.26	£10.79	9,050
<b>Wood</b>						
Spot 2016	£1.70	£0.50	16,046	£0.98	£1.80	37,566
Dec Fwd 2016	£1.35	£1.35	3,200	£1.35	£1.45	17,200
Tran Jan Fwd 2017	£1.50	£1.50	4,500	£1.50	£1.50	4,500
Spot 2017	£1.60	£1.60	800	£1.60	£1.60	800
Apr Fwd 2017	£1.55	£1.55	4,500	£1.55	£1.55	4,500
Jul Fwd 2017	£1.55	£1.55	3,500	£1.55	£1.55	3,500
Oct Fwd 2017	£1.55	£1.55	5,500	£1.55	£1.55	5,500
Dec Fwd 2017	£1.55	£1.55	3,500	£1.55	£1.55	3,500
<b>Aluminium</b>						
Spot 2016	£14.50	£7.00	1,246	£8.43	£16.48	5,909
Spot 2017	£10.00	£8.00	82	£9.95	£9.95	82
Apr Fwd 2017	£10.50	£10.50	1,500	£10.50	£10.50	1,500
<b>Recovery</b>						
Spot 2016	£0.45	£0.30	5,072	£0.38	£0.65	30,294
Spot 2017	£0.40	£0.40	2,087	£0.40	£0.40	2,087

## MANAGING DIRECTORS COMMENTS



A busy quarter with record tonnage traded through t2e, the end of the 2016 compliance year, the publication of initial end of year data, which gives a glimpse into what 2017 may hold and a consultation on targets for the years 2018 – 2020. Unlike 2015, targets in 2016 look to have been met comfortably

in all materials.

### Record trading

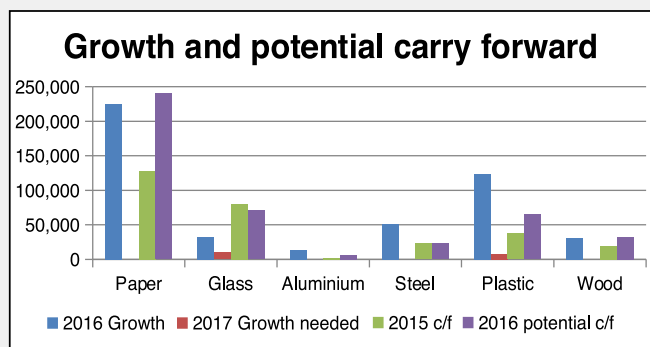
The final quarter saw t2e achieve three records: record trading in a quarter; record trading in a calendar year; record trading in a compliance year. Thank you to everyone for your support that has helped us to achieve these volumes.

Additionally there has been a substantial shift to forward trading early as participants try to secure price certainty and balance the risks of 2017. There has been much discussion about the benefits of transparency and the problems of price volatility. Price volatility is one of the risks of price transparency. Some view this as an opportunity but for those that are concerned the forward markets are the tools available to ameliorate them.

### Review of 2016

Targets have been comfortably met with growth in all materials except Glass Other. In tonnage terms almost 50% of the growth was in paper, much of which may be the result of the mid-year protocol change, and an excess of supply was generated within 2016 over demand in all materials except Glass. Even that looks close! The next closest was Plastic. Unexpectedly Steel met its target with some room to spare. Without the Recovery shortfall, there was no tension for General Recycling. As a consequence prices in all materials other than Glass and Plastic moved towards administrative values.

Many sellers took the opportunity to sell transitional tonnage into the more attractive looking 2017 markets. Equally the more far sighted took the opportunity to fix prices in the 2017 forward markets.



### Looking forward to 2017

While accuracy is difficult from the provisional monthly figures for supply, all expectations are that the carry forward into 2017 will be greater than 2016 and potentially greater than that into 2015 with only Glass seeing a year on year reduction, maybe by some 10,000 (12.33%) tonnes.

The revised obligation for 2016 has increased by some 70,000 tonnes on the November figures and 160,000 tonnes on initial expectations. Projecting this forward plus 2017's increase in Aluminium, Plastic, Steel, Recovery and General Recycling targets, the obligation could increase by a further 100,000 tonnes.

The materials that look as though in-year growth is required in 2017 are Glass and Plastic. However both shortfalls should be covered by the carry-in. If that growth is achieved, there could be a surplus of Recycling PRNs of about 2.5%; on the low side of historic comfort levels and less than this year's surplus of 3.6%.

The monthly data hints that exports of paper and plastic exploded in the final months of 2016, this was similar to 2015. However with the relatively early onset of Chinese New Year tonnage in January 2017 has dropped year on year. Additionally China has announced another 'Green Fence', Operation Sword. Plastic would appear to be a particular focus. Reported tonnage has dropped some 40% year on year; Steel has dropped 56% and Paper 16%, which may be an early indicator of tough times ahead.

### Targets 2018 – 2020

	2018 Business Target	2019 Business Target	2020 Business Target
Paper	70.0%	71.0%	72.0%
Aluminium	58.0%	61.0%	64.0%
Steel	78.0%	80.0%	82.0%
Wood	25.0%	28.0%	31.0%
Total Recovery	80.0%	81.0%	82.0%
General Recycling	73.6%	74.5%	75.4%

DEFRA's consultation showed the targets above made the greatest cost benefit impact.

Most support increasing the targets for Paper, Steel, Aluminium and overall Recovery and Recycling. Higher targets will not only keep the UK broadly equivalent to the Circular Economy targets but also increase the alignment of material specific targets to avoid one packaging material cross-subsidising another; one of the intentions of the Directive when initially introduced. In addition if DEFRA was to be more ambitious in setting high recovery and general recycling targets it could encourage the further growth of paper and wood recycling while allowing sufficient flexibility to compensate for the unexpected and allow adjustment if necessary at a later date.

Thank you again for your support in 2016. 2017 looks to have new challenges on many different fronts as the Brexit negotiations progress. Thank you to Roly Rimmer for his comments. We look forward to being of service to you in 2017.

Angus Macpherson  
Managing Director

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



With the Environment Agency not opting to release the supply data early this year, as they did in 2016 to combat growing concerns over the state of the steel market, we were left to pick through the monthly data to try and determine what the potential carry forward into 2017 will be.

Released on the 10th February the monthly supply data, should, barring any major discrepancies represent all PRNs that were uploaded onto the system for the full 2016 compliance year. Although still to be validated, which is expected on or before the 31st March 2017, it shows Q4 to be the largest quarter by volume in what has been a predominantly consistent year.

Plastic continued to perform strongly with 248,555 tonnes reported, 2,793 tonnes above the required level of 245,763 tonnes (25% of target). A total potential surplus of 32,254 tonnes was generated in 2016 before the carry in of 37,596 tonnes is taken into consideration. With prices for transitional plastic tonnage fluctuating between 12% and 60% higher than that of tonnage sold into the 2016 Spot market one would assume that all December tonnage would be sold at the higher rate and therefore a potential carry forward of around 70,000 tonnes would have been accrued.

Steel, similarly to plastic traded with significant disparity between 2016 and 2017 prices in Q4. 2016 prices plummeted in the final quarter as sellers looked to the General recycling market to offload excess tonnage that would otherwise be written off. With an average Spot 2016 price of £0.95 in Q4 and transitional tonnage trading into 2017 at an average price of £10.46 a strong carry forward is to be expected. 104,341 tonnes were reported as recycled in Q4 and as only tonnage generated in December is eligible to be carried forward the maximum expected sits at just below 35,000 tonnes whilst recent history would suggest that that 25,000 tonnes may be more realistic. Unwavering Aluminium supply since the end of 2015 has seen prices soften consistently throughout 2016. In Q4 slow trading saw prices drop 30% from £10.00 to £7.00 by the start of January which was supported by yet another strong quarterly return of 22,714 tonnes. A total oversupply of 5,662 tonnes for the year excluding carry in means 2017 starts in a healthy position with trading opening at £10.50 in the April Forward market.

With consistently low Aggregate Glass returns reported throughout the year, the gap between the prices of the two Glass evidence notes closed as we entered Q4 and supply became harder to come by. A Q4 return to date of 303,957 tonnes for Remelt and 98,913 tonnes for Aggregate saw total glass recycling fall short of the 1,619,007 tonne target by 9,877 tonnes excluding carry in. This result has to be tempered with the fact that 80,815 tonnes were carried into 2016. A reduced, all be it substantial carry forward is expected for 2017.

Wood supply dipped in Q4 but with 95,584 tonnes reported it was still 35% ahead of the quarterly obligation, closing the year out with a 157,100 tonne oversupply. With large volume going into the general recycling pot at sub £1.00 and trading in the transitional market at £1.50 you would expect to see most of the potential 30,000 transitional tonnage bought forward into 2017.

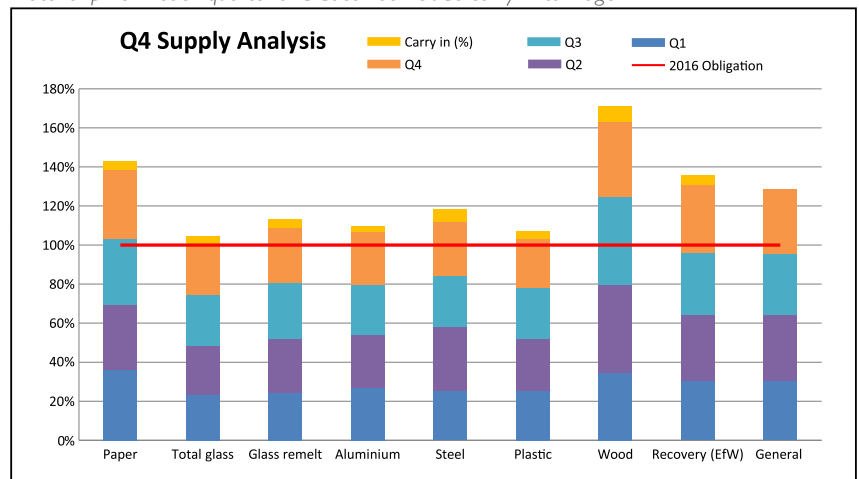
Large Q4 returns for paper and recovery at 1,002,329 and 204,114 tonnes respectively created large oversupplies in both materials as 2016 finished with a whimper. Paper recycling alone was enough to cover both its material specific and the General Recycling obligation. With a further revision of the mixed paper protocol coming into effect from the 1st January set to add an estimated 150,000 tonnes, trading of transitional tonnage took place at a low of £0.70.

With increased targets in Plastic, Aluminium and Steel we look ahead to 2017 with anticipation and the knowledge that no two compliance years are ever the same.

Material	Carry In	Q1	Q2	Q3	Q4	2016 Obligation	YTD Supply + Carry In	Balance
Paper	128,418	1,009,035	939,728	941,498	1,002,329	2,809,061	4,021,008	1,211,947
Total Glass*	80,815	377,704	406,095	422,461	402,870	1,619,007	1,689,945	70,938
Glass remelt	49,856	266,829	294,408	313,956	303,957	1,084,735	1,229,006	144,271
Aluminium	2,224	22,699	22,916	21,724	22,714	84,391	92,277	7,886
Steel	23,021	94,730	120,126	96,463	104,341	370,475	438,681	68,206
Plastic	37,596	247,065	266,686	252,998	248,555	983,050	1,052,900	69,850
Wood	19,945	85,802	111,698	112,401	95,584	248,385	425,430	177,045
EfW	29,944	179,201	195,774	187,831	204,114	584,522	796,864	212,342
General *	0	320,419	350,633	330,929	347,801	1,047,257	1,349,783	302,526
Total	371,819	2,016,236	2,063,023	2,035,376	2,080,507	7,746,148	8,517,105	770,957

\*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.



On 11 April 2017, Bournemouth University is hosting the ENDS conference:

**'Environment after Brexit – Building an Agenda for UK Law and Business'.**

Angus Macpherson, t2e's Managing Director, will be speaking at 13.30 on the following topic:

'Product Legislation, Producer compliance and Market Access after Brexit'.

For more details <http://www.ends.co.uk/environmentafterbrexit/agenda>



## Meet the Market: Accredited Plastic Reprocessor, Plasgran Ltd, Operations Manager, Roly Rimmer



### How did you find the 2016 compliance year after such a volatile end to 2015?

Plasgran as a company take a very measured approach to the sale of PRNs and 2016 was no different. As our investment on technology and infrastructure always outweighs the revenue generated from PRNs we try to look forward as much as possible to guarantee future income when the price is at a suitable level for us. By locking into forward contracts at opportune times in 2016 we really benefitted when the price softened later in the year.

### 2016 has been a difficult year for UK plastics recycling with a number of companies going into administration. What are the key challenges facing domestic reprocessors? And how are you adapting to meet these challenges?

We have always and will continue to target materials that relate to specific sales. In such a price sensitive market taking a position without an end buyer is very risky and subject to so many variables. We remain vigilant over prices on both the buy and sell side and work within the margins that those parameters allow.

### The PRN system has been under a great deal of scrutiny of late. What is your experience of it and what if anything would you change?

From our end the system certainly works to encourage recycling and has allowed us to offset some of the costs associated with that and invest in technology to increase our capacity. Packaging grades are certainly more attractive when the revenue from the PRN is

considered and maybe a similar system should be considered for non packaging grades that currently go to landfill and are much more damaging to the environment.

### Do you think the PRN provides sufficient subsidy for investment in plastics recycling in the UK?

As the PRN price fluctuates so drastically we always use the revenue it generates as a tool to support investment as opposed to relying on it for income. Although the PRN is certainly a welcomed addition and aids growth we buy material because it works financially out with the PRN revenue and anything we get subsequently is a bonus.

### How did the t2e trading platform help in your approach to trading PRNs in 2016?

With access to live prices and trade history available online we are always able to monitor our current position. The forward markets have allowed us to plan ahead and give some price security in what are ever fluctuating markets. The team at t2e are always on hand to provide guidance throughout the year and ensure you, as a trader, are aware of the best times to trade.

### What do you see as the major challenges in the upcoming year for plastics recycling?

2017 is a busy year for Plasgran and as we continue to expand the challenge will always be to maintain sufficient supply for our growing capacity whilst delivering the highest quality material that is demanded from both ourselves and customers. With news of a slowdown in the movement of lower grade plastic materials our focus must remain on quality over quantity as there will always be demand for high grade material.

## Market Status Report *Continued from Page 1*

### Aluminium

Aluminium prices continued to fall in the 4th Quarter closing the year at a year low of £7.00 per tonne. 72% of the value has been wiped off since the beginning of the year reflecting the growing surplus in a year that has seen an 18% rise in recycling rates. Record Aluminium volume traded on t2e in 2016, up 267% on the previous year. 2017 prices opened softly at £10.50.

### Glass

Producers that favour a stable and predictable PRN price will have delighted in the 2016 Glass markets. Prices rarely deviated too far from the yearly average with Remelt closing the year at £12.14 and Glass Other averaging slightly lower at £11.64. Trading in the final weeks of the compliance year did provide some less predictable conditions with the Remelt market briefly spiking at £15.00 before falling to £7.50. Glass Other also hit a year low of £7.50 prior to the deadline. However the low volumes involved will do little to influence the wider price picture. Despite a continued deficit in Glass Other, the supply and demand for Glass PRN, when combined with Glass Remelt remains broadly in balance. This year's predicted 70,000 tonne carry out is down on the previous year's but still represents a large enough buffer to prevent prices escalating. With no change to target, the 2017 market opened in similar vein, with

volume trading in Remelt at £12.00 per tonne for delivery in the first quarter. Transitional Glass Other opened at £12.00 in the 2017 Spot, falling to £11.00 by the quarter close.

### Wood

Wood's oversupply finally caught up with itself in the 4th quarter. Having commanded a premium to the paper price for most of the year, the lack of wood specific demand in the 4th quarter meant wood sellers were forced to consider general recycling bids as an outlet for excess PRNs. The result was a collapse to a year low of 50p per tonne in the final weeks of trading. Good volume opened across the 2017 forward markets at £1.55. Whilst opening prices are around 40% down on the same period last year, they are yet again attracting around a 50% premium to the 2017 paper price. Strong forward selling in the 2017 markets contributed to the best volume trading quarter of the year, up 31% on the previous quarter.

### Recovery

Q4 trading opportunities were few and far between for Recovery sellers as quarterly trading volume fell to its lowest level of the year. Prices fell to a year low of 30p per tonne in the 2016 Spot market as sellers looked to off load large surpluses in the market. 2016 is likely to see large right-offs of Recovery PRNs in a market that has carried around a 30% oversupply all year. Transitional tonnage trading in the 2017 Spot opened at 40p and may struggle to recover value should supply continue to outstrip demand.