

The Marketplace for PRNs

Market Status Report By Tom Rickerby, Head of Trading



The escalation of the Covid-19 crisis and the lock down of society at the end of Q1 has overshadowed the success of the 2019 PRN compliance market and positive start to 2020, bringing unprecedented levels of uncertainty to the UK recycling sector, PRN markets and the wider economy. Early panic as the crisis unfolded has given way to a more considered approach to the PRN markets and, whilst trading remains cautious, strong Q1 data has restored some confidence in the PRN system's ability to weather a significant downturn in Quarter 2.

380,055 tonnes (t) traded in the quarter, down 25% on the previous quarter and 7% on the same period last year. 243,886t were traded in the 2020 Spot market and 136,169t in the 2020 Forward markets.

Paper

Q1 saw Paper generation fall below 900,000t for the first time since Q1 2018, dropping 7.5% on the 2019 average and potentially pushing General Recycling into 'tight' territory. The contraction in supply will not come as a surprise to many sellers, who have been anticipating a downturn for well over a year – a premonition that has failed to be reflected in the PRN supply data until now. The year opened cautiously following the collapse in price at the end of 2019 but PRN values recovered to £8.00 reflecting new disruption to deep sea export markets and recovered paper prices at record lows. Spot prices had strengthened to £11.00 by mid-March but uncertainty around the developing Covid-19 situation saw nervous buyers withdraw from the market and as the UK went into lock-down, markets began to sell-off. Spot prices fell 36% to £7.00. However, with lock-down restrictions leading to a sharp decline in wastepaper arisings, sellers began to take a more bullish outlook. By the quarter close the Spot price had rebounded to a year high of £16.00 per tonne.

Plastic

Despite the success of the 2019 compliance market and the easing of Plastic prices in the transitional period, the 2020 market opened in a bullish mood. Competitive trading from the off saw prices strengthen 35% from £260.00 to £352.50 in the first 4 weeks. Over-heating concerns brought more restraint from buyers and saw Spot prices retrace and stabilise at £325.00. However, the rapid escalation of the Covid-19 crisis in late March triggered a more significant sell off as Plastic sellers made a 'dash for cash' and buyers collectively stepped back from the market. Spot prices hit a year low of £245.50 in the 2nd week of lockdown, however, as key buyers re-engaged with the market following the data submission deadline, prices stabilised again finding strong support at £250.00 in the closing weeks. Forward trading was up nearly 200% on the same period last year as both buyers and sellers sought to mitigate price risk in such uncertain times. Buyers will hope strong Q1 data will provide enough surplus to offset any contraction in supply in Q2.

Glass

Glass markets were already under inflationary pressure prior to the pandemic as early forecasting suggested another potentially tight market for 2020. Remelt prices rose 40% over the period, building on gains made at the end of the 2019. The Aggregate market followed closely behind, closing the quarter £1.00 down on the Remelt price at £23.00 per tonne. The Covid-19 crisis is likely to have a significant impact on the Glass recycling sector with supply badly affected by the closure of pubs and restaurants. Some growth is expected from increased consumption at home, but more data is needed to understand the net impact of this consumer behaviour shift and the effect it will have on the PRN market.

Aluminium

Aluminium Spot prices opened the quarter at £110.00 and closed down 4.5% at £105.00. In the intervening three months the price almost doubled to £200.00 per tonne and collapsed again on the back of strong supply data. Such volatility reflects a murky price picture and a material that is still struggling to find sustainable support levels following the meteoric rise and spectacular fall

of the 2019 market. With many sellers still chasing premium prices and buyers understandably reluctant to be sucked into a distorted market again this year, much of Q1 felt like a prolonged standoff – traded volumes were down 75% on the previous quarter but double the same period last year. Record Q1 supply data should have seen the market break in favour of buyers but the onset of Covid-19 has brought new levels of uncertainty meaning traders may also find Q2 short on compromise.

Steel

Steel 2020 prices opened trading around 20% below the 2019 average following a comfortable finish to the 2019 compliance year. Trading remained stable at £18.50 to £20.00 per tonne. However, the announcement of lockdown restrictions forced many scrap processing sites to close. Fears of a prolonged slow down across the sector and a decline in PRN generation saw the Spot price double to £40.00 per tonne. Traded volume was up 36% on the same period last year.

	High	Low	Traded this Quarter	Quarterly Average Price	YTD Average Price	Total Volume
Paper						
Spot 2020	£16.00	£7.00	80,605	£9.42	£9.05	101,649
APR Forward 2020	£10.00	£7.00	50,500	£7.92	£8.15	150,300
JUL Forward 2020	£15.00	£7.00	23,000	£12.87	£11.67	54,000
Plastic						
Spot 2020	£352.50	£245.50	67,768	£292.71	£287.70	91,666
APR Forward 2020	£350.00	£250.00	7,200	£313.02	£294.96	12,100
JUL Forward 2020	£340.00	£260.00	5,899	£295.43	£278.61	10,399
OCT Forward 2020	£338.00	£260.00	2,800	£295.14	£295.14	2,800
DEC Forward 2020	£338.00	£260.00	1,900	£303.50	£303.50	1,900
Glass Other						
Spot 2020	£23.00	£19.00	11,122	£20.95	£19.94	12,998
APR Forward 2020	£20.00	£20.00	8,000	£20.00	£16.26	20,500
JUL Forward 2020	£19.00	£18.00	500	£18.59	£17.05	1,000
OCT Forward 2020	£18.00	£18.00	500	£18.00	£16.75	1,000
DEC Forward 2020	£18.00	£18.00	500	£18.00	£18.00	500
Glass Remelt						
Spot 2020	£24.50	£17.50	34,736	£21.42	£20.79	39,776
APR Forward 2020	£23.00	£19.00	18,000	£21.50	£20.44	22,500
JUL Forward 2020	£22.00	£22.00	605	£22.00	£17.78	2,605
OCT Forward 2020	£21.50	£21.50	1,000	£21.50	£18.17	3,000
DEC Forward 2020	£21.50	£21.50	1,000	£21.50	£21.50	1,000
Steel						
Spot 2020	£40.00	£18.50	15,647	£22.54	£21.05	32,302
APR Forward 2020	£25.00	£25.00	1,000	£25.00	£25.00	1,000
JUL Forward 2020	£38.00	£20.00	8,000	£26.13	£26.13	8,000
Wood						
Spot 2020	£22.00	£7.50	30,520	£12.59	£12.35	32,271
APR Forward 2020	£11.00	£11.00	2,000	£11.00	£9.58	9,500
JUL Forward 2020	£11.00	£11.00	1,000	£11.00	£9.50	9,500
Aluminium						
Spot 2020	£200.00	£100.00	1,799	£158.77	£166.05	5,008
APR Forward 2020	£180.00	£175.00	300	£178.33	£259.01	3,550
OCT Forward 2020	£200.00	£200.00	500	£200.00	£256.12	2,450
DEC Forward 2020	£200.00	£200.00	500	£200.00	£166.67	750
Recovery						
Spot 2020	£1.50	£0.95	1,689	£1.11	£0.94	2,540
JUL Forward 2020	£1.25	£1.25	1,465	£1.25	£0.66	8,965

The Marketplace for PRNs

Managing Director's Comments May 2020



Last year I wrote "To say the outlook looks uncertain is probably an understatement". Although I said that about Brexit and the four consultations launched on Producer Responsibility, it remains as valid today as a year ago with the additional uncertainty of the impact both nationally and globally of Covid-19. Meanwhile the producer responsibility system has been delivering and, surprisingly for some, the final figures for 2019 and Q1 2020 are positive. Although as the full impact of Covid-19 did not hit until Q2, it may be a little early to make predictions.

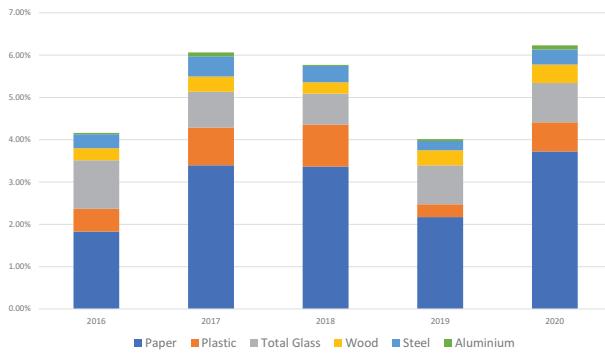
The uncertainty is exacerbated by the lack of targets for 2021 onwards. Regardless of proposals to change the system, which may be deferred, the industry needs targets for the next 5 years. It is to be hoped these will be forthcoming once Q2 data becomes available.

2019 Compliance

If 2018 was expensive for compliance, 2019 moved into new realms with PRN expenditure almost tripling to £367 million. Aluminium and Plastic were the major beneficiaries both per tonne and for the latter overall, with funding collection and developing markets overtaking infrastructure and capacity as the major areas of spend. The spending worked with total packaging recycling exceeding 7.85 million tonnes, some 400k tonnes greater than the previous record in 2016. UK reprocessing, which exceeded 4 million tonnes for only the second time, the last occurring in 2007, led the way with growth in Glass, Plastic and Wood, while in exports Aluminium and Paper grew, the latter reflecting the discovery of new markets in India, Malaysia and Turkey, an expanding destination for plastic exports as well, to replace the diminishing Chinese market.

In the end compliance was achieved in 2019 with some room to spare causing a fall in PRN prices as the year end approached and a substantial carry forward, led by Paper, both in tonnage and as a percentage of potential total obligation. Some buyers may regret not taking advantage of carry forward opportunities in January when they arose.

Carry forward by material as a % of potential total recycling obligation
2016 - 2020

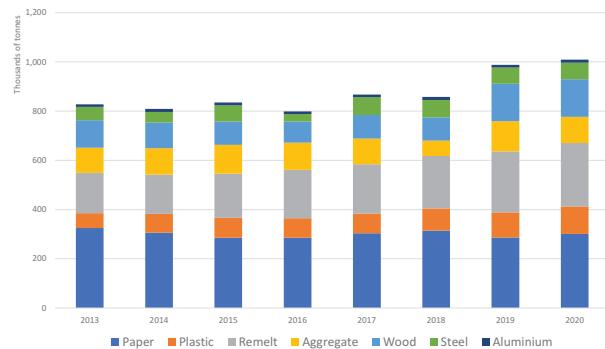


2020 Compliance

Q1 2020 is the eighth quarter in a row with over 2 million tonnes recovered with UK reprocessing continuing to grow Year on Year. All materials except Paper show overall Year on Year growth but there are hints of problems to come with Quarter on Quarter falls in Paper and Plastic and a slight (c1%) drop in Total Recycling. Based on this data and a substantial carry forward, compliance in 2020 looks a formality, but stormy waters lie ahead. The big unknowns are the impact of lockdown on both

packaging waste available for recycling and demand for recyclate. Not just in Q2, where most accept that there is a drop, but also on the strength of any rebound in Q3 and Q4.

The rise of UK Reprocessing. Q1 Packaging Waste Received 2013 - 2020



Concern has been expressed on the need for a safety valve should insufficient PRNs be generated to comply in 2020. Looking further ahead, in 2021 the obligation could drop due to a recession in 2020 but packaging recycling levels may increase. A simple solution would be to allow in the transition months carry forward of December tonnage and carry back of January tonnage. This should make available sufficient PRNs to achieve 2020 compliance and reduce the price volatility in these months in both 2020/21 and future years.

Plastic Packaging Tax

HMRC has issued a further consultation on the Plastic Packaging Tax. They have confirmed that the tax will start on 6 April 2022 and be charged at £200.00 a tonne on all plastic packaging that does not include a recycled content of 30%. It is anticipated to fall on 20,000 companies that create or import into the UK more than 10 tonnes of plastic packaging and raise £240 million in the first year, declining gradually thereafter. Questions on detail as well as a range of administrative issues remain.

There is a potential role for packaging data providers assisting companies to calculate their tax liabilities. Disappointingly there is no discussion on how to convey the recycled content or lack of it to the consumer.

28 Day Rolling Contract

In response to demand t2e will be opening a 28 Day Rolling Contract in June. The Settlement Date is 28 Calendar days from the Transaction Date. It will appeal to those that find the 3 Trading Day settlement process challenging and to those that wish to fix prices forward over a shorter duration than feasible with the quarterly Forward Markets.

Challenging times ahead. Thank you for your support through this difficult time. Stay safe. May the economy swiftly recover. We look forward to being of service to you.

Angus Macpherson
Managing Director

Market Status Report - continued from page 1

Wood

Wood recycling supply chains have seen some of the most severe disruption due to lockdown restrictions; the closure of HWRCs and the pause on economic activity such as construction has severely depleted the availability of waste wood, forcing the three UK board mills into temporary shut downs in April. Wood PRN prices had tracked the early rise of the Paper/General price but as Paper prices initially dropped following the lockdown announcement,

Wood Spot prices continued to climb, rising to a 10-month high of £22.00 at the quarter close. Despite the late turmoil, Q1 data showed little impact on supply, providing some buffer to a likely contraction in Q2.

Recovery

Recovery saw its weakest Q1 trading volume on t2e since 2015 as seller's higher price expectations deterred volume buyers. Q1 data shows supply remains tight and prices have justifiably strengthened, closing at £1.50 per tonne. Average spot prices rose 85% on the previous quarter, averaging above £1.00 for the first time since Q4 2015.

The Marketplace for PRNs

Q1 Supply Analysis By Andrew Letham, Operations Manager



As we all come to terms with the impact of Covid-19 and the uncertainty it has bought to businesses up and down the country it was hoped that Q1 recycling rates would be strong enough to stabilise the markets and offer a level of protection from an expected downturn in PRN generation in Q2. What we got was a mixed bag of results with excellent returns in Aluminium, Plastic, Steel and Wood, an average performance in Glass and a below par performance in Paper giving cause for concern.

Demand data also released on the 15th May (see Graph 1.1) is, as always, incomplete at this stage of the year however extended reporting deadlines due to Covid-19 have meant that 503 less producers are registered than at this stage last year (7,120) and 761 less than at close of play in the 2019 compliance year (7,378). Interestingly, declared volumes are up 62,899 tonnes (t) Year on Year (YoY) however overall demand (7,674,889t) is still 525,050t short of the final 2019 figure (8,199,939t) which does not include target increases for 2020. Last year the addition of 258 producers brought 587,949t of demand to the overall obligation. Graph 1.2 shows current supply levels against estimated final obligations for 2020.

Cracks in the **Paper** market finally began to show in Q1 as reported issues last year failed to materialise in a downturn in supply of PRNs. Generation in Q1 was down 8% YoY with the 884,425t reported as recycled the lowest return since Q1 2018. Reduced demand for finished product has exacerbated an already oversupplied market and, whilst a substantially increased carry-in from last year (284,433t) will offer some comfort, further reductions in PRN generation will put added pressure on a tight General Recycling market. Increasing PRN prices will no doubt make UK material more competitive and it is hoped that this alongside a Global easing of lockdown will result in better returns at the back end of the year.

Wood, also a significant contributor to General Recycling last year, posted a stable 153,546t Q1 return. This falls in line with last year's average of 152,887t and if continued would mean a surplus of approximately 100,000t on the increased c. 500,000t obligation. Concerns have however been raised about the slowdown in the panel board industry and how PRNs generated from this activity will be replaced if this situation continues longer term.

Plastic recycling has continued at similar levels to the 2nd half of 2019 with the 297,947t reported as recycled in Q1 alongside an increased carry-in of 51,959t making for an excellent start to the year. Expectation has been that recycling rates would drop off significantly in Q2 however unverified Monthly data for April has suggested that this may not be as acute as some first thought. Applying the new Plastic target (57%) to last year's packaging handled shows that we will need an average of 282,748t per quarter to comply in year. However, with businesses under threat and a concerted effort from some to reduce their Plastic packaging this figure could be closer to 275,000t by the end of the year.

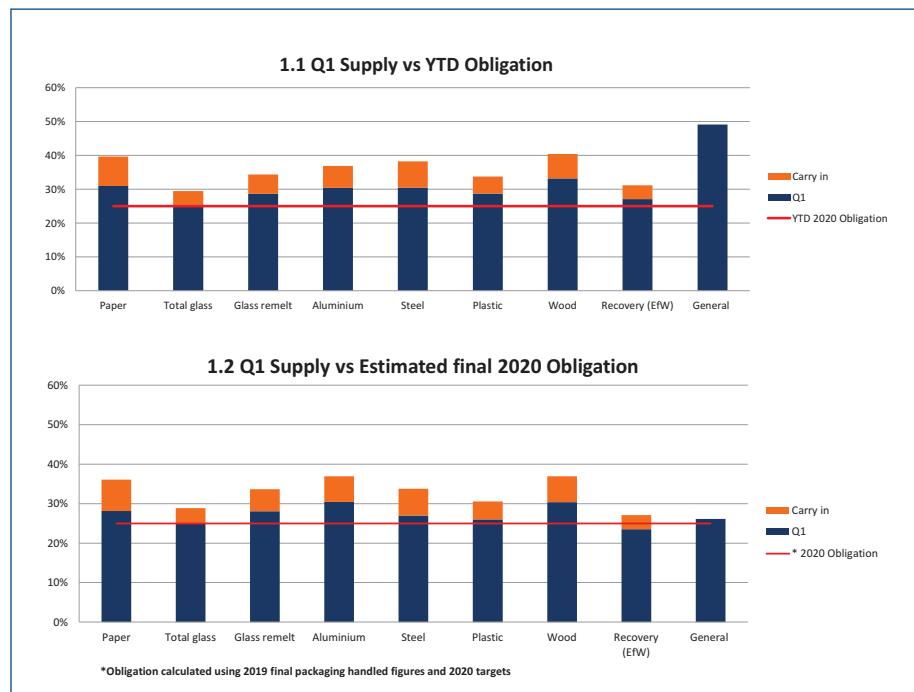
Steel was the only Material to show a YoY drop in the initial demand figures, falling 11,693t from the same data release last year to show a total of 349,424t. The final obligation figure is expected to be closer to 395,000t this year meaning at current supply levels 27% of its predicted obligation has been met. The 106,577t reported as recycled is the best return since Q2, 2018 and is up 7% (7,086t) on the last year's average.

Aluminium produced a record quarter in Q1 with the 36,250t recycled up 24% (7,082t) on last year's average and a huge 50% (12,126t) on the same period last

Material	Carry In	Q1	YTD 2020 Obligation	YTD Supply + Carry In	Balance
Paper	248,433	884,425	2,855,547	1,132,858	-1,722,689
Total Glass*	70,895	438,094	1,727,938	508,989	-1,218,949
Glass remelt	65,535	332,169	1,157,718	397,704	-760,014
Aluminium	7,746	36,250	119,252	43,996	-75,256
Steel	26,991	106,577	349,424	133,568	-215,856
Plastic	51,959	297,947	1,036,339	349,906	-686,433
Wood	33,330	153,548	461,909	186,878	-275,031
EfW	23,730	156,191	576,666	179,921	-396,745
General **	0	279,239	547,814		
Total	463,084	2,073,032	7,674,889	2,536,116	-5,350,973

*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.



*Obligation calculated using 2019 final packaging handled figures and 2020 targets

year. This year's obligation (119,252t) is also up 7% on last year (111,542t) and will likely increase further. To date 30% of target has been met before carry-in (7,746t) is considered with the increase largely attributed to a greater capture rate as opposed to increased activity. Aluminium accreditations for 2020 are up 40% from last year with the record high prices experienced in 2019 encouraging those not accredited to issue PRNs to register with the agency.

Total **Glass** recycling (438,094t) is up 7.5% (30,276t) on the previous quarter but down 1.5% (6,127t) YoY. The initial demand figure is up 9% (140,597t) YoY and is expected to grow closer to 1,765,000t by the end of the year. Based off this predicted obligation just under 25% of total obligation has been met and generation will need to improve if we are to meet target in year. Higher PRN Prices will likely spur the Aggregate market into action as construction returns.

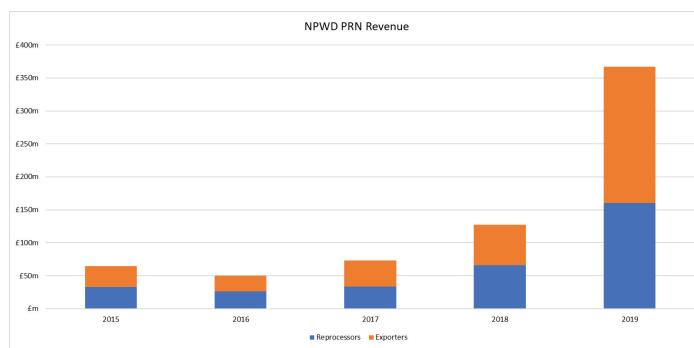
Producers affected by the surge in the price of Plastic & Aluminium last year will be delighted to see the PRN system delivering on its remit as supply levels of both materials have remained strong in Q1 and prices have stabilised. Less positive is the poor Paper result which will put pressure on the General Recycling price, especially if, as expected, Q2 supply bears the brunt of the ongoing pandemic. Now more so than ever the introduction of compulsory Monthly reporting would help alleviate the information gaps we currently experience and allow businesses to take decisions based on hard data as opposed to speculation and incomplete data sets which often prove misleading.

The Marketplace for PRNs

How do PRN Reprocessors and Exporters distribute their PRN Revenue? By Katharine Sealy, Account Manager

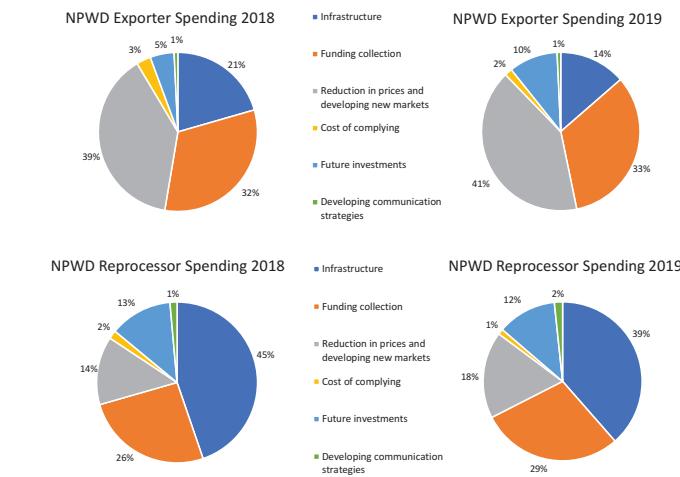


2019 was an unprecedented year for the PRN market with extreme price movement, particularly in Aluminium and Plastic, which peaked on t2e's trading platform at £520.00 and £480.00 respectively. Once again, the PRN system delivered on targets and UK obligations were met comfortably. According to the National Packaging Waste Database (NPWD) PRN Revenue Report, between 2018 and 2019 there was an 188% (£239,482,060.84) increase in PRN Revenue. The year on year increase in PRN revenue and the distribution of funds between Reprocessors and Exporters is depicted in the graph below.



Distribution of PRN Revenue

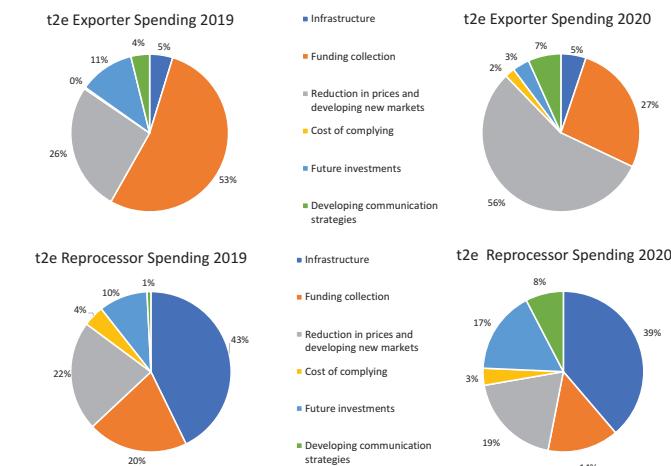
The NPWD PRN Revenue Report shows that Reprocessors tend to favour investment into infrastructure and the future whereas Exporters favour price support and developing new markets. Between 2018 and 2019, there were some small shifts in revenue distribution which represented a much bigger increase in actual funds due to the higher PRN value. In 2019 Reprocessors spent 3% (£1,461,407.63) more on Funding collection and 4% (£1,119,823.03) more on Reduction in prices and developing new markets. For Exporters, there was 5% (£1,052,266.38) more spent on Future investments and 2% (£1,836,287.64) more spent on Reduction in prices and developing new markets. Both Reprocessors and Exporters used less funds towards Infrastructure in 2019, a decrease of 6% (£3,848,330.73) and 7% (£1,946,835.17) respectively.



t2e Survey Results

t2e recognises the need for greater transparency surrounding PRN revenue, and to give our members an idea of where sellers allocate the

funds received through the trading platform, we carry out a survey in line with the NPWD guidance. The survey asks our member sellers how they anticipate distributing PRN revenue in the upcoming compliance year between the same six areas of expenditure as the NPWD, the results are displayed below alongside last year's results.



In 2020 t2e's Reprocessors anticipate that they will distribute 7% more of their PRN revenue towards Future investments and 7% more on Developing communication strategies. In contrast they anticipate they will allocate 2% less funds on Reduction in prices and developing new markets and 4% less on Infrastructure. t2e's Exporters anticipate an increase of 30% in funds allocated to Reduction in prices and developing new markets, with 26% less going towards Funding collection in 2020. This shift reflects the competitive pricing of 2019 as Exporters now anticipate that they will need to spend a lot more on price support to ensure the movement of material.

Overall due to the increase in average PRN price, significantly more funds have been injected into the system in 2019. According to the NPWD a total of £114,903,234.25 went towards Funding collection in 2019, compared to £36,783,546.64 in 2018, an increase of 212%. In 2019 PRN Plastic revenue increased by £194,221,486.33, making up 69% (£253,496,734.72) of the total PRN Revenue. Of this, 33% was paid to collectors, councils and waste management companies, some of whom have invested in Plastic sorting and processing plants (e.g. prices paid for Plastic packaging waste in 2019 included an additional PRN boost of approximately £72.44 per tonne (£15.48 in 2018)).

Following on from high PRN prices last year, many materials have opened this year at high prices, with the year to date Spot average higher in Aluminium, Glass Other, Glass Remelt, Plastic, Recovery and Steel than this time last year. This suggests that significant funds will also come into the PRN system in 2020.