ACT CDS Summary of Key Scheme Metrics to Assist with September 2018 True Up Calculations

1. Introduction

The invoice generated on 2 November 2018 contained two types of true up calculation:

i. A monthly true up associated with adjustments for the difference between the forecast and actual container collections by the Network Operator in September 2018 and historical changes in market share for previous months; and

ii. A quarterly true up associated with adjustments to the relative market share of the suppliers during the three months comprising Q3 2018 being (Jul-18, Aug-18 and Sep-18). This paper is designed to provide suppliers with an overview of the key inputs used to calculate the true up adjustments that may be present on your November invoice.

Please note: all monetary values provided in this paper are presented excluding GST

2. Monthly True Up Adjustment

2.1 The total costs of the scheme for the purposes of September Network Operator True Up were:

Container Material Type		Cost ($) Sep 2018
Aluminium	$	305,468.22
Glass	$	235,194.31
HDPE	$	33,566.98
PET	$	184,000.50
Liquid Paper Board	$	30,922.52
Steel	$	978.07
Other Plastics	$	114.24
Other materials	$	408.21
Total	**$**	**790,653.05**

2.2 The total containers supplied by all suppliers in September were

Container Material Type	Supplier Volumes Sep 2018
Aluminium	4,368,464
Glass	3,600,715
HDPE	735,737
PET	3,246,020
Liquid Paper Board	604,022
Steel	15,463
Other Plastics	2,849
Other materials	5,738
Total	**12,579,008**

For those suppliers that have not provided their actuals for September 2018, their forecast volumes will continue to be used until actuals are reported.

2.3 Actual prices per container type for September 2018

Actual prices per container are not used to calculate the cost of the scheme to each first supplier. They are a by-product of the calculations and are wholly dependent on the total volume of containers of each material type supplied into the ACT market during the month.

The table below shows the actual container pricing associated with the volumes and costs used during the September 2018 true up calculations.

Container Material Type	Price per Container Sep 2018
Aluminium	$ 0.0699257719
Glass	$ 0.0653187795
HDPE	$ 0.0456236173
PET	$ 0.0566849572
Liquid Paper Board	$ 0.0511943668
Steel	$ 0.0632522412
Other Plastics	$ 0.0400995350
Other materials	$ 0.0711419778

If the volumes reported for September are subsequently adjusted by suppliers, the rates will change, however, the total cost of the scheme will not. You may still see an adjustment to your individual contributions if your relative market share changes due to volume adjustments for all previously reported months.

2.4 The total number of containers collected during the month of September by collection stream and in total were as follows:

Container Material Type	Network Operator Actual Volume Sep 2018	*MRF Operator Forecast Volume Sep 2018*	True Up Container Volumes Sep 2018
Aluminium	640,598	*1,489,772*	2,130,370
Glass	317,360	*1,444,441*	1,761,801
HDPE	18,452	*223,382*	241,834
PET	262,800	*1,041,164*	1,303,964
Liquid Paper Board	38,187	*176,839*	215,026
Steel	581	*7,328*	7,909
Other Plastics	-	*827*	827
Other materials	1,028	*1,681*	2,709
Total	**1,279,006**	***4,385,434***	**5,664,440**

2.5 Restated data for previously reported months:

As mentioned previously the ACT CDS permits suppliers to alter historic volumes at any point in time which consequently will result in market share changes effective one or more supplier. In this section we intend to provide you with restated volumes and unit price for previously reported periods in this section.

While not used to calculate the true up adjustments in your invoice, the following table has been provided so that you are able to create a "unit price" should you wish to do so for previous months.

Please find overleaf two tables for previously reported periods, July 2018 & August 2018 for ACT.

Restated volumes for previously reported periods

Container Material Type	Volume Jul 2018	Volume Aug 2018
Aluminium	2,758,758	3,233,611
Glass	2,486,077	2,122,043
HDPE	585,295	642,402
PET	2,706,484	2,734,052
Liquid Paper Board	510,124	634,493
Steel	9,354	11,895
Other Plastics	4,269	9,661
Other materials	8,292	6,025
Total	**9,068,653**	**9,394,182**

Restated price per container for previously reported periods

Container Material Type	Price per Container Jul 2018	Price per Container Aug 2018
Aluminium	$ 0.0934353826	$ 0.0820864417
Glass	$ 0.0888280778	$ 0.1014571526
HDPE	$ 0.0376110898	$ 0.0484369077
PET	$ 0.0615600596	$ 0.0600506050
Liquid Paper Board	$ 0.0765956633	$ 0.0435195762
Steel	$ 0.0468462866	$ 0.0621996277
Other Plastics	$ 0.0363627121	$ 0.0224743339
Other materials	$ 0.0267548296	$ 0.0533536840

3. Quarterly True Up Market Share Adjustment

The quarterly true up process focuses solely on the difference in the forecast costs associated with the MRF collections and the cost for the actual containers claimed by the MRFs in their quarterly processing claims.

This is the first quarterly adjustment for ACT and we intend to provide a quick calculation at the end of the document explaining how to determine the quarterly true up.

Please find below and overleaf tables relating to the MRF claim.

3.1 Forecast Cost of MRF Claims

The following table summarises the forecast costs by container material type and by month:

Container Material Type	Cost ($) Jul 2018	Cost ($) Aug 2018	Cost ($) Sep 2018	Cost ($) Q3-18
Aluminium	137,554	141,825	135,434	414,812
Glass	142,263	145,764	131,313	419,340
HDPE	8,353	19,032	20,307	47,692
PET	87,902	91,887	94,651	274,441
Liquid Paper Board	26,492	14,669	16,076	57,238
Steel	191	494	666	1,352
Other Plastics	63	65	75	202
Other materials	42	69	153	263
Total	**402,859**	**413,805**	**398,676**	**1,215,339**

3.2 Actual Cost of MRF Claim

The following table summarises the forecast costs by container material type and by month:

Container Material Type	Cost ($) Jul 2018	Cost ($) Aug 2018	Cost ($) Sep 2018	Cost ($) Q3-18
Aluminium	15,138	55,659	149,919	220,716
Glass	7,572	99,269	47,024	153,865
HDPE	1,010	1,691	916	3,617
PET	68,798	47,697	64,130	180,625
Liquid Paper Board	-	-	-	-
Steel	-	-	-	-
Other Plastics	-	-	-	-
Other materials	-	-	-	-
Total	**92,518**	**204,315**	**261,989**	**558,823**

Not all container material types were claimed by the MRF and as such Liquid Paper Board, Steel, Other Plastics and Other materials have no cost associated with them.

3.3 Net adjustment to supplier contributions

As with monthly contributions, unit rates are not used to determine adjustments for suppliers. The true up adjustment is determined by calculating the actual market share of the actual costs for each supplier and deducting the forecast market share of the forecast costs for each supplier. If the amount is negative, the supplier will receive a rebate as they have paid more than required to meet their actual obligations. If the amount is positive, the supplier will need to make an additional contribution as their forecast contribution was less than their actual contribution is required to be. A worked example is provided at Appendix 1 should you wish to understand this adjustment in more detail.

The table overleaf summarises the position of the scheme as a whole.

Container Material Type	Cost ($) Jul 2018	Cost ($) Aug 2018	Cost ($) Sep 2018	Cost ($) Q3-18
Aluminium	- 122,416	- 86,165	14,485	- 194,096
Glass	- 134,691	- 46,496	- 84,289	- 265,475
HDPE	- 7,342	- 17,341	- 19,391	- 44,074
PET	- 19,104	- 44,190	- 30,521	- 93,816
Liquid Paper Board	- 26,492	- 14,669	- 16,076	- 57,238
Steel	- 191	- 494	- 666	- 1,352
Other Plastics	- 63	- 65	- 75	- 202
Other materials	- 42	- 69	- 153	- 263
Total	**- 310,341**	**- 209,489**	**- 136,687**	**- 656,517**

A negative number indicates more funding was collected than required by the scheme, a positive number

indicates additional funding is required by the scheme. As noted above, the position of an individual supplier will depend on the difference between their forecast contribution and their actual contribution.

3.4 MRF Collection Volumes

The costs provided in the tables above are driven by the number of containers claimed by the MRFs during the quarter. The forecast volume is an input to the calculation of the advanced contribution prices published each month by the Scheme Coordinator. These forecasts are then entered into the portal to provide a reference point for the true up calculations.

At the end of the quarter, the difference between the forecast volume and the collected and claimed volume determines the value of the true up. The following tables set out the container volumes used to generate tables 3.1 and 3.2.

3.4.1 Forecast Volumes for Pricing

Container Material Type	Volume Jul 2018	Volume Aug 2018	Volume Sep 2018	Volume Q3 2018
Aluminium	1,513,092	1,560,070	1,489,772	4,562,934
Glass	1,564,891	1,603,406	1,444,441	4,612,738
HDPE	91,879	209,349	223,382	524,610
PET	966,922	1,010,760	1,041,164	3,018,846
Liquid Paper Board	291,411	161,364	176,839	629,614
Steel	2,104	5,436	7,328	14,868
Other Plastics	688	711	827	2,226
Other materials	460	754	1,681	2,895
Total	**4,431,447**	**4,551,850**	**4,385,434**	**13,368,731**

3.4.2 Actual Containers Shipped for Recycling

Container Material Type	Volume Jul 2018	Volume Aug 2018	Volume Sep 2018	Volume Q3 2018
Aluminium	166,520	612,252	1,649,105	2,427,877
Glass	83,289	1,091,954	517,267	1,692,510
HDPE	11,114	18,597	10,081	39,792
PET	756,775	524,667	705,428	1,986,870
Liquid Paper Board	-	-	-	-
Steel	-	-	-	-
Other Plastics	-	-	-	-
Other materials	-	-	-	-
Total	**1,017,698**	**2,247,470**	**2,881,881**	**6,147,049**

Appendix 1 – Quarterly True Up Calculation with Worked Example

To maintain the confidentiality of each suppliers' circumstances, we have provided a simplified, generic explanation of how changes in market share during Q3 affect the contributions associated with the quarterly true up:

Assumptions:
1. There is only one material type
2. Suppliers were invoiced $2M in total for this material type in their advanced contributions
3. The actual cost for this material type was $1.5M
4. This means the first true up adjustment would return $0.5M in total to all suppliers split by market share.
5. Assume ABCD Co had a market share of 20% based on the advanced contribution volumes
6. Assume ABCD Co had a market share of 15% based on the actual contribution volumes reported at the time the November invoice was calculated (i.e. the quarterly true up)

Calculating Quarterly True Up for ABCD Co
True up adjustment = actual contribution required - advanced contribution
= $1.5M x 15% - $2M x 20%
= $0.225M - $0.400M
= -$0.175M (a rebate of $0.175M)
For the next true up, the cost has already been determined and will be fixed at $1.5M for the Scheme

Effect of a change to Reported Volumes

If suppliers have changed their volumes in the portal prior to the November invoice it will affect the market share of all participants.

- Scenario 1: Let's assume that the market share for ABCD Co is now 30%. The calculation of the true up for the December invoice is as follows:
  True up adjustment = actual contribution required – post true up contribution
  = $1.5M x 30% - $0.225M
  = $0.450M - $0.225M
  = $0.225M (an additional payment of $0.225M as this supplier is now responsible for a larger proportion of the actual cost)

- Scenario 2: Let's assume that the market share for ABCD Co is now 10%. The calculation of the true up for the December invoice is as follows:
  True up adjustment = actual contribution required – post true up contribution from June
  = $1.50M x 10% - $0.225M
  = $0.150M - $0.225M
  = -$0.075M (a rebate of $0.075M as this supplier is now responsible for a smaller proportion of the actual cost)