

**Major Appliance Recycling Roundtable**

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June 30, 2015

Mr. Cameron Lewis  
Executive Director, Waste Prevention Branch  
PO Box 9341, STN PROV GOVT  
Victoria, BC V8W 9M1

**Re: Major Appliance Recycling Roundtable Program Annual Report for 2014**

Dear Mr. Lewis:

Pursuant to the British Columbia Recycling Regulation, 449/2004, issued under the Environmental Management Act (O.C. 995/2004), please find attached the Major Appliance Recycling Roundtable (MARR) 2014 annual report for the MARR Stewardship Program for major appliances for the period of January 1, 2014 through December 31, 2014.

We would like to receive confirmation of receipt as well as approval of the report; however we will be posting it on our website promptly per our requirements under the Regulation.

If you have any questions regarding this report, please contact Gil Yaron, Interim Executive Director for MARR at 778-331-6971 or myself at 905-821-6713.

Sincerely,



Warrington Ellacott, Chair for the Major Appliance Recycling Roundtable  
Whirlpool Canada LP

cc: Gil Yaron, Interim Executive Director, MARR

# **Major Appliance Recycling Roundtable 2014 Annual Report to the Director**

**Submitted to:** Cameron Lewis  
Executive Director, Waste Prevention Branch  
PO Box 9341, STN PROV GOVT  
Victoria, BC V8W 9M1

**Submitted by:** Warrington Ellacott, Chair  
Major Appliance Recycling Roundtable (MARR)  
105 West 3<sup>rd</sup> Avenue  
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**June 30, 2015**

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## 1. Executive Summary

<b>Products within plan</b>	<p>The MARR plan includes major household appliances powered either by 120 volt or 240 volt input power that have been designed for use in residential homes, including those that use natural gas or propane for heating purposes. Appliances used in or sold for industrial, commercial and/or institutional (IC&amp;I) applications that have the same essential design characteristics as major household appliances, as defined above, are also included.</p> <p><b>Major product types include:</b></p> <ul style="list-style-type: none"> <li>• Refrigerators, wine coolers and beverage centers</li> <li>• Freezers</li> <li>• Portable, room and window air conditioners</li> <li>• Portable Dehumidifiers</li> <li>• Clothes washers and dryers</li> <li>• Ranges, built-in ovens and surface cooking units</li> <li>• Built-in and over the range microwave ovens</li> <li>• Dishwashers</li> <li>• Food waste disposers and trash compactors</li> <li>• Electric water dispensers</li> </ul> <p>For a detailed list of included products and relevant definitions, please refer to the MARR website at <a href="http://www.marrbc.ca">www.marrbc.ca</a></p>
<b>Program website</b>	<a href="http://www.marrbc.ca">www.marrbc.ca</a>

Recycling Regulation Reference	Topic	Summary Report
Part 2, section 8(2)(a)	<a href="#">Public Education</a> <a href="#">Materials and Strategies</a>	<ul style="list-style-type: none"> <li>• Meeting of MARR-Local Government Advisory Committee</li> <li>• Two newsletters emailed to participants</li> <li>• Completed collection site locator on <a href="http://Marrbc.ca">Marrbc.ca</a></li> <li>• Participated in the Recycling Council of BC Hotline and Recyclepedia</li> </ul>

Recycling Regulation Reference	Topic	Summary Report
Part 2, section 8(2)(b)	<a href="#">Collection System and Facilities</a>	<ul style="list-style-type: none"> <li>Existing comprehensive collection network available in market-driven system</li> <li>Update to system study research initiated in 2014 and completed in early 2015.</li> <li>245 drop-off collection sites were found to accept all types of major appliances, in addition to pick-up services offered</li> <li>Accessibility for BC residents to a drop off location for major appliances was estimated at 98.5% for all locations, and 93.6% for free drop-off locations.</li> </ul>
Part 2, section 8(2)(c)	<a href="#">Product Environmental Impact Reduction, Reusability and Recyclability</a>	<ul style="list-style-type: none"> <li>AHAM 7001-2014/CSA SPE-7001-14/UL 7001, <i>Sustainability Standard for Household Refrigeration Appliances</i>, received national accreditation under the American National Standard Institute (ANSI) and Standards Council of Canada (SCC)</li> <li>Voluntary processing standard to be implemented to ensure proper decommissioning and safe handling of substances of concern</li> </ul>
Part 2, section 8(2)(d)	<a href="#">Pollution Prevention Hierarchy and Product / Component Management</a>	<ul style="list-style-type: none"> <li>Update to system study research initiated in 2014 and completed in early 2015. 74% of the total weight of end-of-life major appliances are ultimately recycled.</li> </ul>
Part 2, section 8(2)(e)	<a href="#">Product Sold and Collected and Recovery Rate</a>	<ul style="list-style-type: none"> <li>103 producers registered for MARR and reporting sales as of 31 December 2014.</li> <li>System study estimated the quantity of products collected to be 37,556 tonnes, with an estimated collection rate of 98%</li> </ul>
Part 2, section 8(2)(e.1)		
Part 2, section 8(2)(f)	<a href="#">Summary of Deposits, Refunds, Revenues and Expenses</a>	<ul style="list-style-type: none"> <li>Please see Appendix D for independently audited financial statements.</li> </ul>

Comparison of Key Performance Targets*			
Part 2 section 8(2)(g); See full list of targets in <a href="#">Plan Performance</a>			
Performance Measure	Target	2013 Results	Remediation Strategies
Capture rate	75% interim target for first two years. Target to be established for years 3-5	98% of major appliances available to collect were captured.	n/a

\*Refer to Section 5 for additional information that MARR will be providing on an annual basis, once available.

## 2. Program Outline

The Major Appliance Recycling Roundtable (MARR) is a not-for-profit stewardship agency created to implement and operate a stewardship plan for end-of-life (EoL) major household appliances in the province of British Columbia (BC) on behalf of the major appliance “producers” who are obligated under the BC Recycling Regulation. The MARR stewardship plan was developed jointly by the Association of Home Appliance Manufacturers Canada (AHAM Canada) and Retail Council of Canada (RCC) and received the approval of BC's Ministry of Environment on June 29, 2012.

The MARR stewardship plan is fundamentally unique compared to many other British Columbia product stewardship programs. The financial value of end-of-life major appliances has given rise to a highly effective market-driven collection and recycling system for EoL major appliances. As such, the MARR plan is focused on enhancing the performance and transparency of the existing market-based system of collecting and recycling major household appliances in BC, rather than supplanting or replacing this system with a traditional stewardship model.

In particular, the MARR stewardship plan includes commitments to:

- Implement a recycling and processing standard as well as a processor certification and audit program to address the proper decommissioning of substances of concern in end-of-life major appliances;
- Work with collectors and recyclers to research and promote best practices to ensure on-going system performance and improvement;
- Create a branding and communications program to encourage market participation in the MARR processing standard; and
- Conduct operational system studies on the operation and performance of the market-driven recycling system.

Product Care Association (PCA) was contracted in early 2013 by MARR to provide program management services and to assist in implementing the MARR stewardship plan in BC. Some of the highlights of 2014 for MARR include:

- Development of a collection site locator tool as part of the program's website;
- Updating the System Study to validate the performance of the BC market driven system for major appliances (the “System Study”) initially completed in 2013; and
- Continuing active recruitment of obligated parties as program participants.

The MARR-Local Government Advisory Council (MARR-LGAC) was created in 2013 to provide a forum for local governments to deliver their unique perspective and advice to MARR, and for MARR to better understand municipal and regional needs, capabilities and capacities. MARR-LGAC met in 2014 to discuss the findings of the System Study and continue dialogue on the implementation of a Processing Standard. The LGAC also expanded its membership to include a First Nations representative. MARR also continues to engage stakeholders on the Major Appliance Processing Standard, as well as being a member of SABC and RCBC.

### 3. Public Education Materials and Strategies

In 2014 informational point of sale rack card for existing retailers and wholesalers were replenished upon request free of charge. See **Appendix A** for an example.

MARR is a member of the Recycling Council of BC and participates in a joint service agreement with other stewardship programs through Stewardship Association of BC (SABC) to provide the public with information about MARR through RCBC's Hotline and Recyclepedia. RCBC is a trusted public information resource used by consumers to learn about the recycling options available in their community. In 2014, RCBC Hotline and Recyclepedia received more than 155,000 inquiries about recycling from residents across B.C. RCBC received over 19,000 web searches and phone calls for MARR Program materials.<sup>1</sup> Product Care staff also responded to numerous consumer phone calls and email inquiries. All consumer concerns and questions were dealt with in a timely manner.

In December 2014 MARR launched a collection site finder on its program website -- *MarrBC.ca*. An estimated 1,871 unique visitors utilized the website during the 2014 calendar year, each spending on average of 2 minutes on the site.

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<sup>1</sup> In spring 2013, the RCBC Recycling Hotline upgraded to a new database system with enhanced features and functionality. While the new database has allowed frontline agents to better serve callers, a programming error was discovered in May 2014, specifically for the collection of Hotline query data. As such, the numbers outlined above are likely under-reported. When more accurate numbers become available, an addendum will be provided.

#### 4. Collection System and Facilities

As described in the MARR Program Plan, there is an existing recycling system for major appliances that has been in place in British Columbia for decades, driven by the positive financial value of these products at end-of-life. This system is comprised of a variety of collectors; including retailers, local governments, utilities and private companies that accept major appliances and then channel those products to scrap metal consolidators and processors. As part of the much larger commodities market, these scrap metal companies process the products to recover metal components which are sold to end markets such as steel mills for recycling.

In 2013, waste consultant, Ecoinspire Planning Services, undertook a study of the BC market driven system for major appliance recycling on MARR's behalf. *The Study on the Operations and Effectiveness of the Major Appliance Collection and Recycling System in British Columbia, May 8, 2014* report ("System Study") examined the operation and performance of the existing collection and recycling system, including identifying collection site locations. In early 2015, MARR, with the support of waste consultant Tetra Tech, undertook an update of the System Study to reflect operation and performance measures for 2014 (System Study Update).

##### Drop-Off Collection Sites:

In addition to the numerous pick-up services for major appliances offered by retailers and some municipalities, as well as utility bounty programs, 319 locations were identified across BC that will accept some or all household major appliances for drop off, up 4.5% from 2013. The list was further refined to include only those that accept all major appliance products under the MARR program, which includes 245 locations, down 2.5% from 2013.

Table 1 provides an estimate of the breakdown of the different types of locations accepting major appliances across the province.<sup>2</sup> **Appendix B** lists all collection sites active in the winter of 2014 that accepted all major appliances<sup>3</sup> and **Appendix C** lists the number of collection sites that accept all major appliances by Regional District.

**Table 1: Estimate of Sites that Accepted All MARR Products in 2014**

Type of Collection Site	Number of Sites in 2014
Metal Recycling Facility (Private)	63
Local Government Facility	182
<b>Total</b>	<b>245</b>

##### Pick-up Services:

<sup>2</sup> The list of collectors provided is based upon reports of which sites were accepting major appliances and represents the best available information as of March 2015. This list is not exhaustive, nor guaranteed to be current due to ongoing changes in business operations. The list only includes drop off sites of local governments and private/non-profit collectors and does not include the numerous collection options that may be offered through retailers, utility bounty programs or other possible pick up options.

<sup>3</sup> Ibid.



Many retailers offer a delivery/take-back option when you buy a new appliance at their store. Based on survey results of 10 major appliance retailers conducted as a part of the System Study Update, it was determined that 80% of respondents offered a take-back service to their customers for end-of-life appliances in 2014 and 85% of products sold were delivered. 36% of delivered major appliances included a pickup of an old appliance. After pick up, the appliances are generally delivered to a drop-off site although some retailers report that appliances may also go to a refurbisher.

**Bounty Programs:**

There are two electric utilities in BC, one servicing the majority of the province (BC Hydro) and a smaller one (Fortis BC) servicing an area centred in the Okanagan. The objective of bounty programs is to save energy by reducing the number of secondary refrigerators in households, and to prevent the reuse of less energy-efficient models. Fortis discontinued its bounty program in 2014. BC Hydro reduced its refrigerator program offering to 3 months. BC Hydro residential customers received a \$30 rebate if they retired an old full-size refrigerator with a limit of two refrigerators per property per account. In 2014, 7,000 units were collected and delivered to seven contracted dismantling facilities for removal of refrigerant and recycling.

**Accessibility:**

According to a GIS analysis completed as a part of the System Study, 98.5% of British Columbians had convenient access to a drop-off location for major appliance products. Accessibility to free drop-off locations for BC residents was estimated at 93.6%.<sup>4</sup>

## 5. Product Environmental Impact Reduction, Reusability and Recyclability

**Design for the Environment:**

Major appliance manufacturers continue to focus significant attention on reducing the environmental impacts of major appliances in three principal ways:

- Reducing toxic components;
- Reducing the materials used in the manufacturing and use of the products; and
- Increasing energy efficiency.

In terms of the reduction in toxic components, manufacturers have eliminated the use of mercury switches and PCB containing capacitors. Significant changes have and will continue to be made in the types of refrigerants used in refrigerators and freezers as manufacturers seek out refrigerants with lower GHG impacts, having already eliminated ozone depleting potential (ODP) refrigerants from their products.

Likewise, in terms of refrigerator insulation foam, the development of foam blowing agents which have significantly lower GHG potential and no ODP are being researched and used. Major appliance manufacturers have also been working to discontinue the use of brominated flame retardants in plastics.

In terms of material reduction, manufacturers have been working to reduce the amount of material used in the manufacture of many major appliances and in the packaging used to transport them. These

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<sup>4</sup> Accessibility is defined as a 30-minute drive or less for those within urban areas, and a 45-minute drive or less for those in rural areas of the province.

efforts must, however, be balanced against ensuring consumer safety and the overall protection and lifespan of the product.

On the issue of water consumption, manufacturers have been able to reduce water consumption through design changes to dishwashers and innovations such as front-load and high efficiency top-load washers. For example water consumption in dishwashers has been reduced by 37.3% (litres/cycle) between 1990 and 2009. Water usage in washers has also been reduced by 43.4% between 2005 and 2010. These reductions in water consumption also significantly reduce energy demand as there is less water to heat to perform the same cleaning task.

Most importantly, significant gains in energy efficiency have been made over the past 20 years. The average energy consumption of the typical set of major household appliances has declined by 50.2% since 1990. These gains are the result of a combination of factors including lower minimum energy efficiency standards, major research and development investments by manufacturers, and increased market penetration of Energy Star rated and utility rebate and promoted appliances as a result of market promotions. For example, the U.S. Department of Energy introduced new energy efficiency standards in September 2014 for refrigerators and freezers, which will reduce full-size refrigerator energy consumption by 25 percent, on average, compared to models manufactured 10 years ago.

In addition to the above activities the Association of Home Appliance Manufacturers (AHAM) is currently engaged in the development of a North American Sustainability Standard for major appliances. In January 2015, AHAM 7001-2014/CSA SPE-7001-14/UL 7001, *Sustainability Standard for Household Refrigeration Appliances*, received national accreditation under the American National Standard Institute (ANSI) and Standards Council of Canada (SCC) as approved National Standards for the US and Canada. The standard is based on a lifecycle approach for identifying the environmental impacts of refrigeration products in five key areas: energy, materials, end-of-life, performance, and manufacturing. These and other standards use a broad multi-attribute approach utilizing life cycle assessment and hot button analysis and other key factors that influence product environmental performance. These sustainability standards are published jointly by CSA, UL, and AHAM.

#### **Processing Standard and Certification Program:**

As outlined in the MARR stewardship plan, MARR continued to explore avenues in 2014 for implementing a Major Appliance Processing Standard to ensure the proper decommissioning of end-of-life appliances and the safe handling of substances of concern, including mercury switches and refrigerants. The intention of a Processing Standard is to have collectors of major appliances (retailers, municipalities etc.) agree to decommission the appliances they collect in accordance with the standard, or require their processors to whom they sell or provide their appliances to be certified against the standard. Part of this framework includes a certification and audit program to ensure that applicable processors are processing appliances in accordance with the standard. The program has faced challenges in obtaining industry buy-in for such a standard. As a result, MARR will be introducing a voluntary standard in 2015 and meeting with industry players to encourage participation and determine the willingness of collectors and processors to allow audits.

## **6. Pollution Prevention Hierarchy and Product / Component Management**

The following information is based on the understanding of the free market system, as well as findings from a system study completed by MARR in 2014 reflecting the 2013 fiscal year that involved surveying industry participants with regard to collection volumes and product management practices. No further due diligence was performed on the information in terms of site visits or other investigations and therefore there is some degree of uncertainty surrounding the end fate of the products.

MARR strives to promote the principles of the pollution prevention hierarchy as much as possible, including the design considerations and environmental impact initiatives outlined above in Section 5. According to research conducted for the System Study, the lifespan of 99.9% of major appliances is between 10 and 20 years.<sup>5</sup> This long life often results in many different owners of a product over its lifetime, usually facilitated by a used appliance retailer or refurbisher. Refurbishers are organizations involved in appliance reuse or the reuse of parts. They generally receive used major appliances from commercial generators or through retailers. The main goal of the refurbisher is to resell the unit into the second hand market, or at least use some of the parts for appliance repair.

Once an appliance is retired, or reaches end-of-life, it enters the collection system described above in Section 4. Major appliances are primarily manufactured with metal (both ferrous and non-ferrous) and plastics as well as small amounts of other materials like glass, rubber, foam, paper, electronics, refrigerants, oils, mercury and other substances.

Currently there are two mechanical processing facilities in BC that utilize shredders to break up scrap metal, including major appliances.<sup>6</sup> The shredded material is then sorted; ferrous and non-ferrous metals are separated from other materials such as plastic and foam.

The material composition of major appliances is reportedly approximately 75% metal.<sup>7</sup> Processors report that 98% of ferrous and non-ferrous metal that enters the shredder is recovered and recycled back into the commodities market.<sup>8</sup> On that basis, it is estimated that 74% of materials recycled are ferrous and non-ferrous metal. The remaining 26% , including plastic, glass, rubber and foam, does not undergo further processing, and is currently sent to landfill as part of the shredder residue to serve as landfill cover.<sup>9</sup> MARR is initiating discussions with processors in 2015 to examine the management of shredder residue and identify opportunities for achieving higher end uses of residual materials.

Prior to shredding, products undergo decommissioning to remove refrigerant and to look for any other substances of concern. In general the System Study identified that refrigerant is extracted responsibly, but that there remain some gaps. The vast majority of retailers transfer major appliances with refrigerant to secondary collectors and most processors have onsite staff to perform refrigerant removal. At local government sites that accept appliances with refrigerants, most will contract out the removal of refrigerants as part of the scrap metal removal contract. Refrigerant removal generally occurs at the first location to receive the appliance, the refrigerant is removed by a

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<sup>5</sup> Based on findings from a 2005 report produced by R.W. Beck and Weston for the Association of Home Appliance Manufacturers titled "Recycling, Waste Stream Management and Material Composition of Major Home Appliances" referenced in MARR's "Study on the Operations and Effectiveness of the Major Appliance Collection and Recycling System in British Columbia". The study also included weighted average composition for new and old appliances.

<sup>6</sup> Due to low commodity prices, one processor temporarily shut down its operations in 2014 and is diverting materials to its facility in Tacoma, WA.

<sup>7</sup> See note 5

<sup>8</sup> Based on survey responses from the two processors in BC currently operating shredders.

<sup>9</sup> *Ibid*

Technician and subsequently sent for recycling or destruction. In 2014, MARR initiated consultations with local governments and other industry stakeholders to explore ways to increase the availability and accessibility to qualified technicians for the safe removal of refrigerants, with particular focus on rural and remote communities.

Very few appliances reaching end of life will contain mercury switches or PCBs though some will contain heavy metals (circuit boards), mercury (fluorescent lights), compressor oil and polyurethane foam (insulation).

Table 2, below, illustrates the downstream process for each material stream (based on results from the System Study).

**Table 2: Component Management**

Material Commodity	Recycled	Landfilled	Safely Destroyed
Ferrous Metal	X		
Non Ferrous Metal	X		
Plastic		X	
Refrigerant	X		X
Other		X	

As major appliance recycling utilizes the existing market-driven system, MARR does not contract directly with collectors or processors, and is therefore not able to obtain information on percentages of materials processed. Volumes and percentages reported are based on estimates derived from survey responses from collectors and processors as part of MARR's System Study.

## 7. Product Sold and Collected and Recovery Rate

### Products Sold:

Registered participants of MARR (i.e., producers that have appointed MARR as their "agent" under the Regulation) are required to report their sales and remit Administrative Program Fees (APFs) to MARR on a quarterly basis. Table 3 displays the number of major appliance units sold in BC by product category between January 1 and December 31, 2014, as reported by MARR participants.<sup>10</sup> The findings of the 2014 MARR non-financial audit can be found in **Appendix D**.

<sup>10</sup> MARR did not conduct audits of participant in 2014. The data presented reflects self-reported member data which has not been subject to further verification.

**Table 3: Total Sales of Major Appliances in BC between January 1 and December 31, 2014**

MARR Category	Total Sales in Units
1. Full-Size Refrigerators & Wine Coolers/Beverage Centres	133,452
2. Compact Refrigerators & Wine Coolers/Beverage Centres	61,837
3. Freezers	52,460
4. Room Air Conditioners	22,351
5. Portable Air Conditioners	35,590
6. Dehumidifiers	21,002
7. Clothes Washer	95,463
8. Clothes Dryers	81,879
9. Ranges	98,123
10. Range Hoods & Downdrafts	76,154
11. Built-In Ovens	16,801
12. Built-In & Over the range Microwave Ovens	49,974
13. Surface Cooking Units	14,638
14. Dishwashers	97,446
15. Food Waste Disposers	30,702
16. Trash Compactors	628
17. Electric Water Dispensers	3,526
<b>Total</b>	<b>892,026</b>

**Products Collected:**

The results of the System Study Update were used to estimate the volume of end-of-life major appliances collected under the market-driven system. The volume of major appliances available to collect in BC was developed by using a lifespan model to produce theoretical estimates of the quantity entering life annually. The lifespan model combines historical unit sales data for the MARR list of 17 product categories, with lifespan data and unit weight data by product category to estimate the number of units and the total tonnage of MARR products at end-of-life each year.

The System Study Update estimated that approximately 37,556 tonnes of major appliances were collected in 2014. Table 4 below shows the estimated quantity of large appliances collected by regional district and for the province overall. The quantities listed by regional district reflect the combined tonnes of major appliances collected by local government, non-profit and private sector collectors. Quantities collected by bounty programs, retailers, scavengers and refurbishers are presented separately, with tonnes reported on a provincial basis.

**Table 4: Estimated Tonnes of Collected Major Appliances by Region in 2014**

Region and Collector Type	Estimated Tonnes Collected
Alberni Clayoquot	87
Bulkley-Nechako	316
Capital	1,626
Cariboo	220
Central Coast	23
Central Kootenay	292
Central Okanagan	1,082
Columbia Shuswap	221
Comox Valley/Strathcona	651
Cowichan Valley	342
East Kootenay	356
Fraser Valley	1558
Fraser-Fort George	527
Kitimat Stikine	177
Kootenay-Boundary	209
Metro Vancouver	11,906
Mount Waddington	70
Nanaimo	647
North Okanagan	349
Northern Rockies	25
Okanagan Similkameen	365
Peace River	343
Powell River	138
Skeena Queen Charlotte	79
Squamish-Lillooet	378
Sunshine Coast	186
Thompson-Nicola	707
<b>Subtotal</b>	<b>22,880</b>
<b>Other Collectors (tonnes collected provincially)</b>	<b>Estimated Tonnes Collected</b>

Region and Collector Type	Estimated Tonnes Collected
<i>Bounty programs</i>	903
<i>Retailers</i>	11,367
<i>Refurbishers</i>	1,203
<i>Scavengers</i>	1,203
<b>TOTAL</b>	<b>37,556</b>

#### Collection Rate:

The collection rate of the BC market-driven collection and recycling system can be estimated using a “capture rate” calculation, which compares the estimated weight of products “available to collect” with the estimated weight of products collected. Using the lifespan model described above, it was estimated that 37,556 tonnes, reached end-of-life in BC in 2014 and “available to collect”. The System Study Update provided estimates of the weight of products collected (see above).

The 2014 collection rate was estimated at 98% of all discarded appliances, exceeding the program target of 75%. This result is consistent with research that has been completed in other jurisdictions, where it was estimated that the market-driven collection and recycling system for end-of-life appliances continues to achieve a collection rate of over 90%<sup>11</sup>.

## 8. Summary of Deposits, Refunds, Revenues and Expenditures

MARR is funded by administrative program fees (APFs), which are remitted to MARR by its participants based on the volume of sales of new major appliances sold in British Columbia. The APF fee rates were set by MARR in consultation with industry and retailers. Retailers have the option to recover the fees from consumers as a separate visible environmental handling fee or to include it in the product’s price. Program revenues are applied to the management of the program, including education, outreach and administration. Table 5 sets out the administrative program fee rates for program products effective since August 1, 2013.

A copy of MARR’s audited financial statement can be found in **Appendix E**.

<sup>11</sup> Studies include “*Generation and Diversion of White Goods from Residential Sources in Canada*” by Canadian Appliance Manufacturers Association, Hansen Research and Communication and Hikene International Policy, Recycling, “*Waste Stream Management and Material Composition of Major Home Appliances*” by RW Beck and Weston Solutions and “*White Goods Assessment – Ontario*” by SBR International Inc.

**Table 5: Administrative Program Fees for Major Appliances per Category**

Product Category	Fee Per Unit
<b>Refrigerant Appliances</b>	
1. Full-Size Refrigerators & Wine Coolers/Beverage Centres	\$1.25
2. Compact Refrigerators & Wine Coolers/Beverage Centres	\$1.25
3. Freezers	\$1.25
4. Room Air Conditioners	\$1.25
5. Portable Air Conditioners	\$1.25
6. Dehumidifiers	\$1.25
<b>Non-Refrigerant Appliances</b>	
7. Clothes Washer	\$1.10
8. Clothes Dryers	\$1.10
9. Ranges	\$1.10
10. Range Hoods & Downdrafts	\$1.10
11. Built-In Ovens	\$1.10
12. Built-In & Over the range Microwave Ovens	\$1.10
13. Surface Cooking Units	\$1.10
14. Dishwashers	\$1.10
15. Food Waste Disposers	\$1.10
16. Trash Compactors	\$1.10
17. Electric Water Dispensers	\$1.10



## 9. Plan Performance

The following section details the targets and 2014 results for the MARR program.

**Table 6: Plan Performance Measures and Results**

Performance Measure	Target	2014 Results	Remediation Strategies
Capture rate	75%	Target exceeded. 98% capture rate.	n/a

## APPENDIX A – Educational Materials

### Major Appliance Recycling Roundtable






Building upon BC's recycling system for major appliances.


**MARR**  
 Major Appliance Recycling Roundtable

Visit [marrbc.ca](http://marrbc.ca) or call 1.800.667.4321  
(604.732.9253 in the Lower Mainland)  
for more information.

#### The Major Appliance Recycling Roundtable (MARR)

MARR is a not-for-profit industry association developed in response to the requirements of the BC Recycling Regulation. MARR is focused on improving the performance and transparency of the existing collection and recycling system for major appliances in BC.

#### MARR Funding

The MARR initiatives are funded by Administrative Program Fees (APFs) applied to the sale of new major appliances in BC. APFs may be included in a product's price or displayed as a separate charge.

The APFs cover all costs associated with MARR's initiatives, including public education efforts and the implementation of a processing standard and certification system to ensure end-of-life appliances are responsibly recycled.

#### Recycling Options

A number of options are typically available to individuals with major appliances to recycle in BC. Many retailers, municipalities and private companies offer collection services, which may include drop-off and/or pick-up options. To find the most convenient recycling option, please call the Recycling Hotline at 1.800.667.4321 (604.732.9253 in the Lower Mainland).

#### Products and APF Rates

##### Refrigerant Appliances

- Refrigerators
- Wine Coolers & Beverage Centres
- Freezers & Ice Makers

- › Room & Portable Air Conditioners
- › Dehumidifiers

APF Rate:  
**\$1.25**

##### Non-Refrigerant Appliances

- Built-in & Over-the-Range Microwave Ovens
- Ranges, Built-in Ovens & Surface Cooking Units
- Range Hoods & Downdrafts

- Dishwashers
- Clothes Washers & Dryers
- Food Waste Disposers
- Electric Water Dispensers
- Trash Compactors

APF Rate:  
**\$1.10**

Visit [marrbc.ca](http://marrbc.ca) or call 1.800.667.4321  
(604.732.9253 in the Lower Mainland)  
for more information.

## APPENDIX B: Collection Sites that Accept All MARR Program Products

**Table 1: Collection Sites that Accept All MARR Program Products**

Collection Facility	City	Regional District
100 Mile House Refuse Site	100 Mile House	Cariboo
150 Mile House Transfer Station	150 Mile House	Cariboo
7 Mile Landfill	Black Creek	Mount Waddington
70 Mile house	70 Mile House	Thompson-Nicola
AABC Recycler's Group	Richmond	Metro Vancouver
ABC Metals Recycling	Kelowna	Central Okanagan
ABC Metals Recycling	Prince George	Fraser-Fort George
ABC Metals Recycling	Surrey	Metro Vancouver
ABC Metals Recycling	Burnaby	Metro Vancouver
ABC Metals Recycling	Fort St. John	Peace River
ABC Metals Recycling	Campbell River	Strathcona
ABC Metals Recycling	Terrace	Kitimat-Stikine
Accel Towing & Consulting Ltd	Parksville	Nanaimo
ACRD Recycling Depot	Port Alberni	Alberni-Clayoquot
Action Steel Sales	Penticton	Okanagan-Similkameen
Alberni Foundry Ltd	Port Alberni	Alberni-Clayoquot
Alberni Valley Landfill	Port Alberni	Alberni-Clayoquot
Alert Bay Recycling Depot	Alert Bay	Mount Waddington
Alexis Creek Transfer Station	Alexis Creek	Cariboo
Area 'D' Transfer Station	Fraser Lake	Bulkley-Nechako
Armstrong-Spallumcheen Regional Disposal Facility	Armstrong	North Okanagan
A-Star Automotive Recyclers Ltd.	Prince George	Fraser-Fort George
Augusta Recyclers Inc.	Powell River	Powell River
Bailey Landfill	Chilliwack	Fraser Valley
Baker Creek Transfer Station	Baker Creek	Cariboo
Balfour Towing and Salvage	Balfour	Central Kootenay
Balfour Transfer Station	Balfour	Central Kootenay
Barnhartvale Landfill	Kamloops	Thompson-Nicola
Beaverdell Transfer Station	Beaverdell	Kootenay Boundary
Bessborough Landfill	Dawson Creek	Peace River
Big Lake Refuse Site	Big Lake	Cariboo
Big Y Auto	Grand Forks	Kootenay Boundary

Collection Facility	City	Regional District
Bings Creek SWM Complex	Duncan	Cowichan Valley
Blackpoint Auto Recyclers	Powell River	Powell River
Blue River	Blue River	Thompson-Nicola
Boswell Transfer Station	Boswell	Central Kootenay
Brentwood Auto and Metal Recyclers	Saanichton	Capital
Burnaby Recycling Depot	Burnaby	Metro Vancouver
Burns Lake Transfer Station	Burns Lake	Bulkley-Nechako
Burton Transfer Station	Burton	Central Kootenay
Campbell Mountain Landfill	Penticton	Okanagan-Similkameen
Campbell River Waste Management Centre	Campbell River	Strathcona
Canal Flats	Canal Flats	East Kootenay
Capital Salvage Co	Vancouver	Metro Vancouver
Capt'n Crunch Auto Wrecking Ltd.	Abbotsford	Fraser Valley
Carl's Metal Salvage	Nanaimo	Nanaimo
CCON Steel Inc.	Abbotsford	Fraser Valley
Cecil Lake	Fort st John	Peace River
Central Landfill	Salmo	Central Kootenay
Chaumox Landfill	Boston Bar	Fraser Valley
Cherryville & Area E Regional Disposal Facility	Cherryville	North Okanagan
Chetwynd Landfill	Chetwynd	Peace River
Christina Lake Transfer Station	Christina Lake	Kootenay Boundary
Church Road Transfer Station	Parksville	Nanaimo
Clearwater Eco depot	Clearwater	Thompson-Nicola
Clinton	Clinton	Thompson-Nicola
Cochin Refuse Site	Cochin Lake	Cariboo
Columbia Recycle	Trail	Kootenay Boundary
Columbia Recycle Ltd	Kimberly	East Kootenay
Columbia Valley Landfill	Windermere	East Kootenay
Comox Valley Waste Management Centre	Cumberland	Comox Valley
Coquitlam Transfer Station	Coquitlam	Metro Vancouver
Cranbrook Transfer station	Cranbrook	East Kootenay
Crawford Bay Transfer Station	Crawford Bay	Central Kootenay
Creston Landfill	Creston	Central Kootenay
Dawson Creek Transfer Station	Dawson Creek	Peace River
Dead Or Alive Auto & Metals Recycling	Vernon	North Okanagan
Earls Towing	Creston	Central Kootenay

Collection Facility	City	Regional District
Ecowaste	Richmond	Metro Vancouver
Edgewood Landfill	Edgewood	Central Kootenay
Elkford Transfer Station	Elkford	East Kootenay
Ellice Recycle Ltd	Victoria	Capital
Everclear Recycling	Mission	Fraser Valley
Falkland Transfer Station	Falkland	Columbia-Shuswap
Fernie Transfer Station	Fernie	East Kootenay
Foothills Boulevard Regional Landfill	Prince George	Fraser-Fort George
Forest Grove Transfer Station	Forest Grove	Cariboo
Fort St. James Transfer Station	Fort St James	Bulkley-Nechako
Fox Disposal Services Ltd	Port Hardy	Mount Waddington
Fraser Valley Metal Exchange	Maple Ridge	Metro Vancouver
Frost Creek	Williams Lake	Cariboo
Gabriola Island Recycling Organization	Gabriola	Nanaimo
Galiano Recycling	Galiano Island	Capital
Gibsons Disposal	Gibsons	Sunshine Coast
Glanford Bottle Depot	Victoria	Capital
Glenemma Transfer Station	Salmon Arm	Columbia-Shuswap
Glenmore Landfill	Kelowna	Central Okanagan
Gold Bridge Transfer Station	Gold Bridge	Squamish-Lillooet
Gold River Waste Management Centre	Gold River	Strathcona
Golden Landfill	Golden	Columbia-Shuswap
Goodies Trading Ltd	Chilliwack	Fraser Valley
Grand Forks and Electoral Area B Landfill	Grand Forks	Kootenay Boundary
Granisle Transfer Station	Granisle	Bulkley-Nechako
Greater Vernon Recycling and Disposal Facility	Vernon	North Okanagan
Grohman Narrows Transfer Station	Nelson	Central Kootenay
Happy Stan's Recycling Services Ltd.	Port Coquitlam	Metro Vancouver
Hartland Landfill	Saanich, BC	Capital
Hazelton Landfill	Hazelton	Kitimat-Stikine
Heffley Creek Eco depot	Heffley Creek	Thompson-Nicola
Hope Landfill/Transfer Station	Hope	Fraser Valley
Hornby Island Recycling Depot	Hornby Island	Comox Valley
Horsefly Transfer Station	150 Mile House	Cariboo
Hudson's Hope Transfer Station	Hudson's Hope	Peace River
Islands Landfill	Port Clements	Skeena-Queen Charlotte

Collection Facility	City	Regional District
J. D. Towing	Grand Forks	Kootenay Boundary
Kamloops Scrap Iron Ltd	Kamloops	Thompson-Nicola
Kaslo Transfer Station	Kaslo	Central Kootenay
Kelly Lake Transfer Station	Tomslake	Peace River
Keremeos Transfer Station	Keremos	Okanagan-Similkameen
Kimberley Transfer station	Kimberley	East Kootenay
Kingfisher Transfer Station	Kingfisher-Enderby	North Okanagan
Kitimat Landfill	Kitimat	Kitimat-Stikine
Kleena Kleene Refuse Site	Kleena Kleene	Cariboo
Knockholt Sub-Regional Landfill	Houston	Bulkley-Nechako
Knox Mountain Metals	Kelowna	Central Okanagan
Knutsford	Knutsford	Thompson-Nicola
Kool Country Auto Parts	Invermere	East Kootenay
Lac La Hache Transfer Station	Lac La Hache	Cariboo
Likely Refuse Site	Likely	Cariboo
Lillooet Landfill	Lillooet	Squamish-Lillooet
Logan Lake	Logan Lake	Thompson-Nicola
Loon Lake	Clinton	Thompson-Nicola
Louis Creek Eco depot	Barriere	Thompson-Nicola
Lower Nicola Eco Depot	Merritt	Thompson-Nicola
Lumby and Area D Regional Disposal Facility	Lumby	North Okanagan
Lytton	Lytton	Thompson-Nicola
Mackenzie Landfill	Mackenzie	Fraser-Fort George
Mac's Traders Inc.	Langley	Metro Vancouver
Malakwa Transfer Station	Malakwa	Columbia-Shuswap
Malcolm Island Transfer Station	Sointula	Mount Waddington
Marblehead Transfer Station	Meadow Creek	Central Kootenay
Masset TS	Masset	Skeena-Queen Charlotte
Matsqui Transfer Station	Abbotsford	Fraser Valley
MC Metal Recycling	Revelstoke	Columbia-Shuswap
Mcleese Lake Transfer Station	Mcleese Lake	Cariboo
McNeils DBA Ideal U Pick	Chilliwack	Fraser Valley
Meade Creek Recycling Dropoff Depot	Lake Cowichan	Cowichan Valley
Minnie's Pit/Mission Landfill	Mission	Fraser Valley
Mission Flats Landfill	Kamloops	Thompson-Nicola
Nakusp Landfill	Nakusp	Central Kootenay

Collection Facility	City	Regional District
Nanaimo Recycling Exchange Society	Nanaimo	Nanaimo
Nazko Refuse Site	Nazko	Cariboo
Nemaiah Valley Refuse Site	Nemaiah	Cariboo
New West Recycling Depot	New Westminster	Metro Vancouver
North Peace Regional Landfill	Charlie Lake	Peace River
North Shore Transfer Station	North Vancouver	Metro Vancouver
NRRM Landfill	Fort Nelson	Northern Rockies
Okanagan Falls Landfill	Okanagan Falls	Okanagan-Similkameen
Oliver Landfill	Oliver	Okanagan-Similkameen
Ootischenia Landfill	Castlegar	Central Kootenay
Osoyoos & District Sanitary Landfill	Osoyoos	Okanagan-Similkameen
Parksville Bottle & Recycling Depot	Parksville	Nanaimo
Parson Transfer Station	Skookumchuck	Columbia-Shuswap
Paul Lake	Kamloops	Thompson-Nicola
Peerless Road Recycling Dropoff Depot	Ladysmith	Cowichan Valley
Pemberton Transfer Station	Pemberton	Squamish-Lillooet
Pender Harbour Landfill	Garden Bay	Sunshine Coast
Pender Island Recycling	Pender Island	Capital
Planet Earth Recycling	West Kelowna	Central Okanagan
Port Renfrew Recycling Depot	Port Renfrew	Capital
Prespatou Transfer Station	Prespatou	Peace River
Princeton landfill	Princeton	Okanagan-Similkameen
Puds Auto Wrecking Ltd	Osoyoos	Okanagan-Similkameen
Puntzi Lake Refuse Site	Puntzi	Cariboo
Quesnel Landfill	Quesnel	Cariboo
Regional Landfill	Nanaimo	Nanaimo
Regional Recycling	Surrey	Metro Vancouver
Regional Recycling Abbotsford	Abbotsford	Fraser Valley
Regional Recycling Burnaby	Burnaby	Metro Vancouver
Regional Recycling Nanaimo	Nanaimo	Nanaimo
Regional Recycling Nanaimo Bottle Depot - Fremont	Nanaimo	Nanaimo
Regional Recycling Richmond	Richmond	Metro Vancouver
Regional Recycling Vancouver	Vancouver	Metro Vancouver
Regional Recycling Whistler	Whistler	Squamish-Lillooet
Revelstoke Landfill	Revelstoke	Columbia-Shuswap

Collection Facility	City	Regional District
Richmond Recycling Depot	Richmond	Metro Vancouver
Ridge Meadows Recycling	Maple Ridge	Metro Vancouver
Riske Creek Transfer Station	Riske Creek	Cariboo
Rock Creek Transfer Station	Rock Creek	Kootenay Boundary
Rose Prairie Transfer Station	Rose Prairie	Peace River
Rosebery Transfer Station	New Denver	Central Kootenay
Salmon Arm Landfill	Salmon Arm	Columbia-Shuswap
Salt Spring Island Recycling Depot	Saltspring Island	Capital
Sandspit TS	Sandspit	Skeena-Queen Charlotte
Savona	Savona	Thompson-Nicola
Schnitzer Steel	Campbell River	Strathcona
Schnitzer Steel Pacific Recycling	Duncan	Cowichan Valley
Schnitzer Steel Pacific Recycling	Surrey	Metro Vancouver
Scotch Creek Transfer Station	Scotch Creek	Columbia-Shuswap
Scrap King Auto Wrecking & Towing Ltd	Salmo	Central Kootenay
Sechelt Landfill	Sechelt	Sunshine Coast
Seymour Arm Transfer Station	Seymour Arm	Columbia-Shuswap
Sheridan Lake Refuse Site	Canim Lake	Cariboo
Sherwood Auto Parts	Port Alberni	Alberni-Clayoquot
Sicamous Landfill	Sicamous	Columbia-Shuswap
Skeena-Queen Charlotte Regional Recycling Depot	Prince Rupert	Skeena-Queen Charlotte
Skidegate TS	Skidegate	Skeena-Queen Charlotte
Skimikin Transfer Station	Chase	Columbia-Shuswap
Slocan Transfer Station	Slocan	Central Kootenay
Smithers-Telkwa Transfer Station	Smithers	Bulkley-Nechako
Smokey Creek Salvage Ltd.	Nelson	Central Kootenay
South Thompson Eco Depot	Chase	Thompson-Nicola
Southside Transfer Station	Grassy Plains	Bulkley-Nechako
Sparwood Transfer Station	Sparwood	East Kootenay
Spences Bridges Transfer Station	Spences Bridges	Thompson-Nicola
Squamish Landfill	Squamish	Squamish-Lillooet
Starlite Auto	Sorrento	Columbia-Shuswap
Stewart Landfill	Stewart	Kitimat-Stikine
Summerland Landfill	Summerland	Okanagan-Similkameen
Sunshine Valley Transfer Station	Cawston	Fraser Valley



Collection Facility	City	Regional District
Surrey Transfer Station	Surrey	Metro Vancouver
Sylvester Road Transfer Station	Mission	Fraser Valley
Tatla Lake Refuse Site	Tatla Lake	Cariboo
Terrace Landfill	Terrace	Kitimat-Stikine
Texada TS	Texada Island	Powell River
Thornhill Landfill	Thornhill	Kitimat-Stikine
Thorsen Creek Waste and Recycling Center	Bella Coola	Central Coast
Tie Lake Transfer Station	Jaffray	East Kootenay
Tomslake Transfer Station	Tomslake	Peace River
Township of Langley	Aldergrove	Metro Vancouver
Trout Lake Transfer Station	Trout Lake	Columbia-Shuswap
Tumbler Ridge Transfer Station	Groundbirch	Peace River
Vancouver Landfill	Delta	Metro Vancouver
Vancouver South Transfer Station	Vancouver	Metro Vancouver
Vanderhoof Transfer Station	Vanderhoof	Bulkley-Nechako
Village of Port Alice	Port Alice	Mount Waddington
Village of Tahsis Landfill	Tahsis	Strathcona
Village of Zeballos Landfill	Zeballos	Strathcona
Wasa Transfer Station	Wasa	East Kootenay
Watch Lake Refuse Site	Lone Butte	Cariboo
Wells Refuse Site	Wells	Cariboo
West Boundary Landfill	Greenwood	Kootenay Boundary
West Chilcotin Refuse Site	West Chilcotin	Cariboo
West Coast Landfill	Ucluelet	Alberni-Clayoquot
Westcoast Metal Recycling	Langley	Metro Vancouver
Westshore Auto Recycling /AMP Disposal	Sooke	Capital
Westside Residential Disposal & Recycling Centre	West Kelowna	Central Okanagan
Westwold	Westwold	Thompson-Nicola
Whistler Transfer Station	Whistler	Squamish-Lillooet
Wildwood Transfer Station	Williams Lake	Cariboo
Williams Lake Scrap Metal	Williams Lake	Cariboo
Williams Scrap Metal Recycling	Victoria	Capital
Wonowon Transfer Station	Wonowon	Peace River
Woss Transfer Station	Woss	Mount Waddington
Zeballos Public Works Yard (Metal Pile)	Zeballos	Strathcona

**Table 2: Collection Sites that Accept All MARR Program Product Added in 2014**

Collection Facility	City	Regional District
Frost Creek	Williams Lake	Cariboo
Grohman Narrows Transfer Station	Nelson	Central Kootnay
Knox Mountain Metal	Kelowna	Central Okanagan
Kitimat Landfill	Kitimat	Kitimat-Stikine
Regional Recycling	Surrey	Metro Vancouver
Schnitzer Steel	Campbell River	Strathcona
Zeballos Public Works Yard	Zeballos	Strathcona
Cecil Lake	Fort St. John	Peace River
Spences Bridges Transfer Station	Spences Bridges	Thompson-Nicola

**Table 3: Collection Sites No Longer Accepting Some or All MARR Program Product**

Collection Site	City	Regional District
Century Truck Sales & Parts Inc.	Port Coquitlam	Metro Vancouver
Gold Trail Recycling Centre	100 Mile House	Cariboo
Island Bottle Depot	Saanich	Capital
Lane's Auto Towing Ltd	Avola	Thompson – Nicola
Mile 62.5 Transfer Station	Montney	Peace River
Mission Recycling Depot	Mission	Fraser Valley
Moberly Lake Transfer Station	Moberly Lake	Peace River
Mostly German	Port Coquitlam	Metro Vancouver
Nelson Transfer Station	Nelson	Central Kootenay
Pink Mountain Transfer Station	Pink Mountain	Peace River
R.J.'s Rental and Repairs Inc.	Mackenzie	Fraser-Fort George
Scott Rd. Trading Ltd	Surrey	Metro Vancouver
Solutions Auto Recycler Inc.	Coquitlam	Metro Vancouver
Williams Scrap Metal Recycling	Victoria	Capital
YI Metal Recycle	Mission	Fraser Valley

## Appendix C: Number of Collection Sites that Accept All Major Appliances by Regional District

Regional District	Number of Sites
Alberni-Clayoquot	5
Bulkley-Nechako	8
Capital	10
Cariboo	25
Central Coast	1
Central Kootenay	18
Central Okanagan	5
Columbia-Shuswap	14
Comox	2
Cowichan Valley	4
East Kootenay	11
Fraser-Fort George	4
Fraser Valley	13
GVRD (Metro Vancouver)	24
Kitimat-Stikine	6
Kootenay Boundary	8
Mt. Waddington	6
Nanaimo	9
North Okanagan	6
Northern Rockies	1
Okanagan-Similkameen	9
Peace River	13
Powell River	3
Skeena-Queen Charlotte	5
Squamish-Lillooet	6
Strathcona	7
Sunshine Coast	3
Thompson-Nicola	19
<b>TOTAL</b>	<b>245</b>

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## **APPENDIX D – 2014 MARR Financial Statements**

**MAJOR APPLIANCE RECYCLING ROUNDTABLE**

**FINANCIAL STATEMENTS**

**31 DECEMBER 2014**



**ROLFE, BENSON LLP**  
CHARTERED ACCOUNTANTS

## **MAJOR APPLIANCE RECYCLING ROUNDTABLE**

### **Financial Statements**

For the year ended 31 December 2014

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Statement of Changes in Net Assets	5
Statement of Operations	6
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Notes to the Financial Statements	8 - 10





**ROLFE, BENSON LLP**

**CHARTERED ACCOUNTANTS**

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## **INDEPENDENT AUDITORS' REPORT**

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To the Members,  
Major Appliance Recycling Roundtable

### **Report on the Financial Statements**

We have audited the accompanying financial statements of Major Appliance Recycling Roundtable, which comprise the statement of financial position as at 31 December 2014, and the statements of changes in net assets, operations and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

### **Management's Responsibility for the Financial Statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditors' Responsibility**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the organization's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the organization's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.





ROLFE, BENSON LLP

CHARTERED ACCOUNTANTS

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## INDEPENDENT AUDITORS' REPORT - Continued

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We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of Major Appliance Recycling Roundtable as at 31 December 2014, and the results of its operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

*Rolfe, Benson LLP*

CHARTERED ACCOUNTANTS

Vancouver, Canada  
19 June 2015





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**MAJOR APPLIANCE RECYCLING ROUNDTABLE**  
**Statement of Financial Position**  
31 December 2014

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	2014	2013
<hr/>		
<b>Assets</b>		
<b>Current</b>		
Cash	\$ 202,921	\$ 134,989
Accounts receivable	284,075	253,739
Prepaid expenses	<u>2,231</u>	<u>500</u>
	<hr/>	<hr/>
	\$ 489,227	\$ 389,228
<hr/>		
<b>Liabilities</b>		
<b>Current</b>		
Accounts payable and accrued liabilities	\$ 40,723	\$ 541,065
GST payable	<u>27,835</u>	<u>7,324</u>
	<hr/>	<hr/>
	68,558	548,389
 <b>Net Assets (Deficiency)</b>		
<b>Unrestricted</b>	<hr/>	<hr/>
	420,669	(159,161)
	<hr/>	<hr/>
	\$ 489,227	\$ 389,228

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APPROVED BY THE DIRECTORS:

\_\_\_\_\_ Director                      \_\_\_\_\_ Director

The accompanying notes are an integral part of these financial statements.

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## MAJOR APPLIANCE RECYCLING ROUNDTABLE

### Statement of Changes in Net Assets

For the year ended 31 December 2014

	2014	2013
Balance, as previously stated	\$ (124,644)	\$ -
Prior period adjustment (Note 4)	<u>(34,517)</u>	<u>-</u>
Balance, as restated	(159,161)	-
Excess (deficiency) of revenues over expenses for the year	<u>579,830</u>	<u>(159,161)</u>
Balance - end of year	<u>\$ 420,669</u>	<u>\$ (159,161)</u>

The accompanying notes are an integral part of these financial statements.



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## MAJOR APPLIANCE RECYCLING ROUNDTABLE

### Statement of Operations For the year ended 31 December 2014

	2014	2013
<b>Revenues</b>	<b>\$ 1,030,232</b>	<b>\$ 370,886</b>
<b>Expenses</b>		
Program administration	366,682	441,533
Research and studies	66,191	77,821
Communications	17,529	10,693
	<u>450,402</u>	<u>530,047</u>
<b>Excess (deficiency) of revenues over expenses for the year</b>	<b>\$ 579,830</b>	<b>\$ (159,161)</b>

The accompanying notes are an integral part of these financial statements.

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## MAJOR APPLIANCE RECYCLING ROUNDTABLE

### Statement of Cash Flows

For the year ended 31 December 2014

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	2014	2013
<hr/>		
Cash provided by (used in):		
Operating activities		
Excess (deficiency) of revenues over expenses for the year	\$ 579,830	\$ (159,161)
Changes in non-cash working capital balances		
Accounts receivable	(30,336)	(253,739)
Prepaid expenses	(1,731)	(500)
Accounts payable and accrued liabilities	(500,342)	541,065
GST payable	20,511	7,324
Net increase in cash	67,932	134,989
Cash - beginning of year	134,989	-
Cash - end of year	\$ 202,921	\$ 134,989

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The accompanying notes are an integral part of these financial statements.



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## MAJOR APPLIANCE RECYCLING ROUNDTABLE

### Notes to the Financial Statements

For the year ended 31 December 2014

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#### 1. Incorporation

Major Appliance Recycling Roundtable ("MARR") was incorporated under the Canada Not-for-Profit Corporations Act on 17 July 2012 and commenced operations on 1 August 2013. MARR is a not-for-profit organization and it is not subject to income taxes. MARR currently operates a stewardship program in the Province of British Columbia to assist the major appliance producers in discharging their obligation to establish end of life product collection and recycling programs under the British Columbia Recycling Regulations.

#### 2. Summary of significant accounting policies

These financial statements are prepared in accordance with Canadian accounting standards for not-for-profit organizations. The significant policies are detailed as follows:

##### (a) Revenue recognition

Revenue from administrative program fees ("APF") is recognized at the time an APF applicable product is sold by a member of MARR, and the APF becomes due and payable. APF's are received from registered members which participate in MARR's programs. MARR recognizes these fees as revenue when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured. APF revenues are recognized as individual members report and remit them as required by applicable provincial environmental legislation.

##### (b) Cash and cash equivalents

MARR's policy is to disclose bank balances under cash and cash equivalents, including bank overdrafts with balances that fluctuate frequently from being positive to overdrawn and term deposits with a maturity period of three months or less from the date of acquisition.

##### (c) Financial instruments

###### (i) Measurement of financial instruments

MARR initially measures its financial assets and liabilities at fair value and subsequently measures all of its financial assets and financial liabilities at amortized cost.

Financial assets measured at amortized cost include cash and accounts receivable.

Financial liabilities measured at amortized cost include accounts payable and accrued liabilities.

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## MAJOR APPLIANCE RECYCLING ROUNDTABLE

### Notes to the Financial Statements

For the year ended 31 December 2014

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#### 2. Summary of significant accounting policies - Continued

##### (c) Financial instruments - Continued

###### (ii) Impairment

Financial assets measured at cost are tested for impairment when there are indicators of impairment. The amount of the write-down is recognized in the statement of operations. The previously recognized impairment loss may be reversed to the extent of the improvement, directly or by adjusting the allowance account, provided it is no greater than the amount that would have been reported at the date of the reversal had the impairment not been recognized previously. The amount of the reversal is recognized in the statement of operations.

###### (iii) Transaction costs

MARR recognizes its transaction costs in the statement of operations in the period incurred. However, financial instruments that will not be subsequently measured at fair value are adjusted by the transaction costs that are directly attributable to their origination, issuance or assumption.

##### (d) Use of estimates

The preparation of financial statements in accordance with Canadian accounting standards for not-for-profit organizations requires management to make estimates and assumptions that affect the reported amount of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reported period. Actual results could differ from these estimates.

#### 3. Financial instruments risks

MARR is exposed to various risks through its financial instruments. The following analysis provides a measure of MARR's risk exposure and concentrations at the statement of financial position date, 31 December 2014.

##### (a) Credit risk

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. MARR's main credit risks relate to its cash and accounts receivable. Cash is in place with major financial institutions. Concentrations of credit risk with respect to accounts receivable are limited due to the large number of members. MARR has evaluation and monitoring processes in place and writes off accounts when they are determined to be uncollectible.

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## MAJOR APPLIANCE RECYCLING ROUNDTABLE

### Notes to the Financial Statements

For the year ended 31 December 2014

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#### 3. Financial instruments risks - Continued

##### (b) Liquidity risk

Liquidity risk is the risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities. MARR is exposed to this risk mainly in respect of its accounts payable and accrued liabilities.

#### 4. Prior period adjustment

During the year, MARR determined that \$34,517 of program administration expenses related to 2013 were not recorded in the prior year. This error has been recorded as a prior period adjustment with a restatement of prior years financial statements. As a result, the program administration expense for the period ended 31 December 2013 have increased by \$34,517, accounts payable as at 31 December 2013 have increased by \$34,517 and net assets as at 1 January 2014 has decreased by \$34,517.

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## **APPENDIX E – 2014 MARR Non-Financial Audit**



**MAJOR APPLIANCE RECYCLING  
ROUNDTABLE**

**NON-FINANCIAL AUDIT**

**31 DECEMBER 2014**



**ROLFE, BENSON LLP**  
CHARTERED PROFESSIONAL ACCOUNTANTS



**ROLFE, BENSON LLP**

CHARTERED PROFESSIONAL ACCOUNTANTS

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## INDEPENDENT AUDITORS' REPORT

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To the British Columbia Ministry of Environment:

We have audited the following Selected Information within the Major Appliance Recycling Roundtable's ("MARR") Annual Report for the year ended 31 December 2014:

- Section 4 Collection System and Facilities and Appendix B - the location of collection facilities, and any changes in the number and location of collection facilities from the previous report in accordance with Section 8(2)(b) of BC Regulation 449/2004 (the "Recycling Regulation");
- Section 6 Pollution Prevention Hierarchy and Product/Component Management - the description of how the recovered product was managed in accordance with the pollution prevention hierarchy under Section 8(2)(d) of the Recycling Regulation;
- Section 7 Product Sold and Collected and Recovery Rate - the description of how total amounts of the producer's product sold and collected and the recovery rate has been calculated in accordance with Section 8(2)(e) of the Recycling Regulation; and
- Section 9 Performance Targets – the description of performance for the year in relation to targets in the approved stewardship plan under Section 8(2)(b), (d) and (e) of the Recycling Regulation.

### Responsibilities

Preparation and fair presentation of the Selected Information in accordance with the evaluation criteria as listed in Appendix 1 is the responsibility of Product Care Association's (the "Association") management. Management is also responsible for such internal control as management determines is necessary to enable the preparation of the Selected Information such that it is free from material misstatement.

Our responsibility is to express an opinion on the Selected Information based on the procedures we have performed and the evidence we have obtained. Our audit does not constitute a legal determination on the Association's compliance with Sections 8(2)(b), (d) and (e) of the Recycling Regulation.

### Evaluation Criteria

The suitability of the evaluation criteria is the responsibility of management. The evaluation criteria presented in Appendix 1 are an integral part of the Selected Information and address the relevance, completeness, reliability, neutrality and understandability of the Selected Information.



### **Scope of the Audit**

We carried out our audit in accordance with International Standard on Assurance Engagements 3000 (ISAE 3000) published by the International Federation of Accountants. This Standard requires, amongst others, that the assurance team possesses the specific knowledge, skills and professional competencies needed to understand and audit the information included within the Selected Information, and that they comply with specific requirements to ensure their independence.

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures within the Selected Information. An audit also includes assessing the evaluation criteria used and significant estimates made by management, as well as evaluating the overall presentation of the Selected Information. The main elements of our work were:

- inquiries of relevant management, to gain an understanding of the Association's data collection, monitoring and reporting processes in relation to the Selected Information included in the Annual Report;
- evaluating the qualifications and independence of contractors used to help prepare the 2014 System Study Update to the Study on the Operations and Effectiveness of the Major Appliance Collection and Recycling System in British Columbia (the "System Study Update");
- agreeing the estimated number of collection facilities to the System Study Update;
- agreeing the estimated volume of product collected to the System Study Update;
- checking the units of product sold during the year and agreeing to the audit work performed in relation to MARR's audited financial statements;
- re-performing conversion calculations on a test basis; and
- ensuring wording of the Annual Report is reflective of audit findings.

### **Inherent Limitations**

Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the Selected Information and the methods used for determining and calculating such information. Qualitative interpretations of relevance, materiality and the accuracy of data are subject to individual assumptions and judgments. Furthermore, the nature and methods used to determine such information, as well the evaluation criteria and the precision thereof, may change over time. It is important to read our report in the context of evaluation criteria.

### **Opinion**

In our opinion, the Selected Information within MARR's Annual Report for the year ended 31 December 2014 presents fairly in accordance with the evaluation criteria, in all material respects:

- the location of collection facilities, and any changes in the number and location of collection facilities from the previous report in accordance with Section 8(2)(b) of the Recycling Regulation;
- the description of how the recovered product was managed in accordance with the pollution prevention hierarchy under Section 8(2)(d) of the Recycling Regulation;
- the description of how total amounts of the producer's product sold and collected has been calculated in accordance with Section 8(2)(e) of the Recycling Program; and
- the description of performance for the year in relation to targets in the approved stewardship plan under Section 8(2)(b) and (e) of the Recycling Regulation.



### Emphasis of Matter

Without qualifying our opinion, the following should be noted regarding the information contained in the Annual Report:

1. The Selected Information included in Section 4 – Collection System and Facilities, Section 6 - Pollution Prevention Hierarchy and Product / Component Management and Section 7 – specifically relating to Product Collected and Section 9 – Plan Performance is based on information included in a System Study as described in Appendix 1. Additionally, the information included in Section 6 - Pollution Prevention Hierarchy and Product / Component Management and Section 9 – Plan Performance (Capture Rate) is based on information in the 2013 System Study. As such, there is uncertainty surrounding the information presented.
2. The Selected Information included in Section 7 specifically relating to Product Sold is based on self-reported member data. This data was not subject to further verification by internal audits performed by MARR and therefore is subject to uncertainty.

### Other Matter

Our report has been prepared solely for the purposes of management's stewardship under the Recycling Regulation and is not intended to be and should not be used for any other purpose. Our duties in relation to this report are owed solely to MARR, and accordingly, we do not accept any responsibility for loss occasioned to any other party acting or refraining from acting based on this report.

*Rolfe, Benson LLP*

CHARTERED PROFESSIONAL ACCOUNTANTS

Vancouver, Canada  
29 June 2015

## Appendix 1

### Evaluation Criteria

#### Collection facilities

Specific disclosures in the annual stewardship report for which evaluation criteria were developed	
Disclosure per annual report	Reference
Total number of collection sites – 245	Section 4 Collection System and Facilities - Table 1 – Estimate of Sites that Accepted All MARR Products in 2014 on page 5;  Appendix B - Table 1 – Collection Sites that Accepted All MARR Program Products on page 17-24
“The list of collectors provided is based upon reports of which sites were accepting major appliances and represents the best available information as of March 2015. This list is not exhaustive, nor guaranteed to be current due to ongoing changes in business operations. The list only includes drop off sites of local governments and private/non-profit collectors and does not include the numerous collection options that may be offered through retailers, utility bounty programs or other possible pick up options.”	Section 4 Collection System and Facilities – Footnote 2 on page 5
Decrease in the number of collection facilities in 2014 – 2.5% (6 collection facilities)	Section 4 Collection System and Facilities on page 5

The following evaluation criteria were applied to the assessment of the location of collection facilities, and any changes in the number and location of collection facilities from the previous report in accordance with Section 8(2)(b) of the Recycling Regulation:

- The number and location of collection facilities have been determined using the information included in *The Study on the Operations and Effectiveness of the Major Appliance Collection and Recycling System in British Columbia*, dated May 8, 2014 (“2013 System Study”) which was originally prepared for the 2013 fiscal year and has been updated to reflect 2014 fiscal year data (“System Study Update”).
- The content of the System Study Update appears to be sufficient to meet the reporting requirements by MARR to the British Columbia Ministry of Environment with respect to the number and location of collection facilities.
- The System Study Update was performed by MARR with the support of a third party consultant who reviewed the procedures, methods and calculations used in the System Study Update and provided a letter of assurance thereon.
- The third party consultant involved in the System Study Update is independent from MARR and has no business relationship outside of the System Study Update. Their qualifications appear sufficient to be able to prepare the report.
- The number and location of collection facilities as disclosed in the Annual Report agrees with the information included in the System Study Update.



- The change in the number of collection facilities is determined by comparing the estimated number of collection facilities between the 2013 System Study and the System Study Update.
- The listing of collection facilities only includes locations that accept all major appliances under the MARR program.

#### Pollution prevention hierarchy

Specific disclosures in the annual stewardship report for which evaluation criteria were developed	
Disclosure per annual report	Reference
“The following information is based on the understanding of the free market system, as well as findings from a system study completed by MARR in 2014 reflecting the 2013 fiscal year that involved surveying industry participants with regard to collection volumes and product management practices. No further due diligence was performed on the information in terms of site visits or other investigations and therefore there is some degree of uncertainty surrounding the end fate of the products.”	Section 6 Pollution Prevention Hierarchy and Product/Component Management on page 8
“As major appliance recycling utilizes the existing market-driven system, MARR does not contract directly with collectors or processors, and is therefore not able to obtain information on percentages of materials processed. Volumes and percentages reported are based on estimates derived from survey responses from collectors and processors as part of MARR’s System Study.”	Section 6 Pollution Prevention Hierarchy and Product/Component Management on page 9
<p>“The material composition of major appliances is reportedly approximately 75% metal. Processors report that 98% of ferrous and non-ferrous metal that enters the shredder is recovered and recycled back into the commodities market. On that basis, it is estimated that 74% of materials recycled are ferrous and non-ferrous metal. (Based on survey responses from the two processors in BC currently operating shredders.)”</p> <p>“The remaining 26% , including plastic, glass, rubber and foam, does not undergo further processing, and is currently sent to landfill as part of the shredder residue to serve as landfill cover.”</p> <p>“Prior to shredding, products undergo decommissioning to remove refrigerant and to look for any other substances of concern. In general the System Study identified that refrigerant is extracted responsibly, but that there remain some gaps. The vast majority of retailers transfer major appliances with refrigerant to secondary collectors and most processors have onsite</p>	Section 6 Pollution Prevention Hierarchy and Product/Component Management on page 8-9 and footnote 8



staff to perform refrigerant removal. At local government sites that accept appliances with refrigerants, most will contract out the removal of refrigerants as part of the scrap metal removal contract. Refrigerant removal generally occurs at the first location to receive the appliance, the refrigerant is removed by a Technician and subsequently sent for recycling or destruction."

"Very few appliances reaching end of life will contain mercury switches or PCBs though some will contain heavy metals (circuit boards), mercury (fluorescent lights), compressor oil and polyurethane foam (insulation)."

The following evaluation criteria were applied to the assessment of how the recovered product is managed in accordance with the pollution prevention hierarchy in accordance with Section 8(2)(d) of the Recycling Regulation:

- The information on product management has been determined based on a general understanding of the free market collection system and by using the information included in *The Study on the Operations and Effectiveness of the Major Appliance Collection and Recycling System in British Columbia*, dated May 8, 2014 ("2013 System Study") which was originally prepared for the 2013 fiscal year. The Systems Study Update for the 2014 fiscal year did not include an extrapolation of the product management data to the 2014 fiscal year.
- The content of the 2013 System Study appears to be sufficient to meet the reporting requirements by MARR to the British Columbia Ministry of Environment with respect to the number and location of collection facilities.
- The third party consultant involved in the 2013 System Study is independent from MARR and has no business relationship outside of the System Study Update. Their qualifications appear sufficient to be able to prepare the report.

#### Product sold and collected and recovery rate

Specific disclosures in the annual stewardship report for which evaluation criteria were developed	
Disclosure per annual report	Reference
<b>Product sold</b> Number of units sold – 892,026	Section 7 Product Sold and Collected and Recovery Rate - Table 3: Total Sales of Major Appliances in BC Between January 1 and December 31, 2014 on page 11
"MARR did not conduct audits of participants in 2014. The data presented reflects self-reported member data which has not been subject to further verification."	Section 7 Product Sold and Collected and Recovery Rate: Footnote 10 on page 10
<b>Product collected</b> Tonnes of product collected – 37,556	Section 7 Product Sold and Collected and Recovery Rate - Table 4: Estimated Tonnes of Collected Major Appliances by Region in 2014 on page 12-13



<b>Recovery rate (Capture Rate)</b> “The 2014 collection rate was estimated at 98% of all discarded appliances.”	Section 7 Product Sold and Collected and Recovery Rate on page 13
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The following evaluation criteria were applied to the assessment of the description of how total amounts of the producer’s product sold and collected has been calculated in accordance with Section 8(2)(e) of the Recycling Regulation:

**Product Sold:**

- MARR maintains a listing of product sold by product category for the fiscal year which agrees to the amounts disclosed in the Annual Report.
- The units of product sold per program category have been recalculated using the data included in the audit work performed in relation to MARR’s audited financial statements.
- Units put on the market and reported to the program are determined based on self-reporting by each member of units sold by category on a monthly basis. A key source of information in determining the accuracy of units put on the market and reported to the program by members is the internal audit process carried out on sales data reported by individual members. MARR has not performed any internal audits of its members’ sales data for the 2014 fiscal year.

**Product Collected:**

- The Estimated Tonnes of Collected Major Appliances have been determined using the information included in *The Study on the Operations and Effectiveness of the Major Appliance Collection and Recycling System in British Columbia*, dated May 8, 2014 (“System Study”) which was originally prepared for the 2013 fiscal year and has been updated to reflect 2014 fiscal year data (“System Study Update”).
- The content of the System Study Update appears to be sufficient to meet the reporting requirements by MARR to the British Columbia Ministry of Environment with respect to the number and location of collection facilities.
- The System Study Update was performed by MARR with the support of a third party consultant who reviewed the procedures, methods and calculations used in the System Study Update and provided a letter of assurance thereon.
- The third party consultant involved in the System Study Update is independent from MARR and have no business relationship outside of the System Study Update. Their qualifications appear sufficient to be able to prepare the report.
- The volumes of product collected as disclosed in the Annual Report agree with the estimated collection volumes as reported in the System Study Update.

**Recovery Rate**

- The estimated capture rate was determined using information in the 2013 System Study. MARR has not presented a recovery rate in its Annual Report.





**Performance targets**

<b>Specific disclosures in the annual stewardship report for which evaluation criteria were developed</b>	
<b>Disclosure per annual report</b>	<b>Reference</b>
Recovery rate Assertion – Target exceeded. 98% capture rate	Section 9 Plan Performance – Table 6: Plan Performance Measures and Results on page 15

The following evaluation criteria were applied to the assessment of the description of performance for the year in relation to targets in the approved stewardship plan under Section 8(2)(b), (d) and (e) of the Recycling Regulation:

- All stewardship plan targets relating to Section 8(2)(b), (d) and (e) of the Recycling Regulation have been identified and reported on by management in the Annual Report.
- The description of progress against targets to date is supported in the System Study Update.

