

Reporting of recycling outcomes

Purpose

A key feature of the B-cycle Scheme accreditation processing is the requirement to report on recycling performance. This consultation paper intends to explain the definitions and process for calculating:

- + B-cycle collection rate
- + B-cycle landfill diversion rate
- + Recycler recovery rates.

The intent is to obtain industry feedback on several related issues.

Background

The BSC Battery Stewardship Scheme, now known as 'B-cycle', was authorised on the basis that the Scheme will deliver public benefit in a transparent manner. This includes reporting on the recycling outcomes of the Scheme regarding:

- + Scheme collection and landfill diversion rates using aggregated data from participants
- + participant battery collection weight and recovery rate.

The Scheme design established a >90% landfill diversion rate for most chemistries but recognised that the rate may need to be lower for some problematic chemistries such as Nickel Cadmium batteries. The rate will be set by the BSC based on chemistry and in consultation with industry.

Recovery rate reporting for rebates

To receive the processing rebate participating recyclers are required to report their recovery rate. The intent is to assure the BSC, battery consumers, and government that:

- + collected batteries are being responsibly recycled
- + the diversion rate is being achieved
- + that the final fate of the batteries is disclosed.

This recovery rate will also be aggregated and used to demonstrate the Scheme Landfill Diversion rate.

Requirements and questions

Requirements	Accredited recyclers report a single recovery rate.
Recovery target	100% resource recovery.
Questions	<ul style="list-style-type: none"> + Is the calculation guidance clear? + Is 100% recovery target achievable? + If 100% is not achievable, of the material not being recovered what is happening to it and why? + Is it possible to report chemistry specific recovery rate? + How can BSC incentivise onshore processing as the Scheme evolves? + What else needs to be considered in establishing the protocol for calculating and reporting on recovery rates?

Definitions and acronyms

Term	Definition
ACCC	Australian Competition and Consumer Commission
AS 5377	Australian Standard: Management of Electrical and Electronic Equipment for Reuse & Recycling
B-cycle	The BSC Battery Stewardship Scheme
BSC	Battery Stewardship Council
Scheme Collection	Material collected by the Scheme divided by imports
Scheme Diversion rate	The inverse of the Scheme Collection rate
Recovery rate	Percentage of output materials processed into a product

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Calculating recovery rates

As defined in the Australian Standard AS/NZS 5377, the recovery rate is the percentage of all output materials classified as sent for recycling and other material recovery or other recovery, in proportion to the total of the input amount of non-treated or processed batteries components.

Resource recovery is the processing of separating fractions of products (in this case used batteries) that is then able to be sold or provided in a form that can be used as an input into a manufacturing process or to make a new product.

This rate will depend on the recovery processes, technologies and infrastructure of the processor and includes recycling but does not include re-use. It includes the entire recycling chain of the battery, whether onshore or offshore.

$$\text{RECOVERY RATE} = \frac{\text{Total of all output fractions (kg)}}{\text{Input amount of total non-processed used battery materials (kg)}} \times 100$$

While the onshore landfill diversion rate may be >90%, actual recovery could occur overseas with the processor exporting some material for processing overseas.

The future

As noted in the Scheme design, the diversion rate will be reviewed and set by the BSC Board in consultation with industry.

The rebate will be evaluated using data collected in the B-cycle App and accreditation process, industry knowledge, market reality, and Scheme performance.

Future adjustments to the rebate will consider issues such as:

- + changing economies of scale
- + changing commodity values
- + variations in the cost to recycle different chemistries
- + environment outcomes, for example greater emphasis on higher value outputs
- + incentives for onshore processing.

The BSC Board may decide to continue with a flat rate of rebate or to create chemistry-based rates.

This will enable the BSC to focus on addressing market failure and ensure that the rebate is used where it most needed e.g. for problematic chemistries, or to incentivize onshore processing.

Feedback

Please provide feedback to the BSC on the questions raised on Page 1. Feedback may be submitted in writing to the BSC to contact@bsc.org.au or participants may request a meeting to discuss the issues raised. BSC will receive feedback and prepare the final protocol to be used by participants.