

Weight Based Billing Summary Paper

A submission to NACRO



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1 Introduction

MRA has prepared this summary paper to aid the National Association of Charitable Recycling Organisations (NACRO) to explain the proposed Weight-Based Billing (WBB) system that can be applied to waste management services.

NACRO was formed to represent the charity sector and assist members to maximise their recycling operations. NACRO's members include Lifeline, Red Cross, St. Vincent de Paul Society and the Smith Family. NACRO is investigating WBB as one of the opportunities for improved waste service efficiency and cost savings for its members.

Below is a summary of the key issues and common questions and answers relating to Weight-Based Billing.

2 What is Weight-Based Billing?

Traditionally, Australian waste collectors charge customers based on bin size and number of bin lifts (volume of waste) for most front lift and rear lift truck waste services. This is referred to as lift-based billing. Under the lift-based billing system, there is no price signal to customers to reduce waste because the fee per bin lift is the same regardless of whether the bin is empty, half full or full.

WBB is an alternate billing system where waste collectors charge customers based on the weight of waste in each bin plus a service fee for attending the bin.

WBB produces higher accuracy in data reporting and billing and allows customers to better track their waste generation over time. The benefits of WBB include:

- Gives customers more transparency in terms of waste generation and waste management costs;
- Provides data to produce accurate business and sustainability reporting; and
- Financial incentives to modify waste generation and recycling behaviours.

3 WBB Charging Systems

WBB systems rely on appropriate scale technology that complies with Australia's trade measurement laws. The design of weight systems needs to be certified by the National Measurement Institute (NMI) to ensure the instrument "meets the relevant standards and performs as intended over a range of environmental and usage conditions"¹.

The trade measurement law for waste and recycling WBB systems requires that the equipment is:

- *used in the correct manner (eg indicating zero before use);*
- *kept clean and in good working order; and*
- *re-verified after any repair or adjustment.*

It is the responsibility of the Waste Service Provider (WSP) to make sure that measuring equipment is accurate at all times.

The first WBB scale was approved in 2012 and MRA is aware of at least two approved equipment suppliers, and several WSPs, operating with NMI trade-approved weighing systems. These WSPs could offer waste services through WBB.

¹ <https://www.measurement.gov.au/Industry/business/Pages/Waste-Management-and-Recycling.aspx>

4 How can the C&I sector, and charity organisations, benefit from WBB?

Incentivise reducing waste to landfill and increased recycling

A significant hindrance to the C&I sector in diverting waste from landfill is that a large portion of C&I waste is collected using a lift-based fee structure rather than per unit weight of waste collected. A C&I waste generator may halve their output of waste from one period to the next but still use the same number of bins and thus not see a change in disposal cost under a lift-based billing system. Therefore, the C&I sector is not subject to clear price signals when disposing of waste, which means there is less incentive for C&I waste generators to reduce waste output and increase recycling.

Reduce costs for charities eligible for a waste levy exemption

Charitable organisations that run retail outlets ('opportunity shops' or 'op shops') are engaged in recycling and reuse by redistributing clothing and household goods. Australian charitable recyclers have been 'recycling' since before Federation, and the Australian community and Governments rely on their welfare support, especially in times of crisis.

Due to this community service, charitable recyclers may be eligible for levy exemptions on landfilled waste under the *NSW Protection of the Environment Operations (Waste) Regulation 2014* charitable exemption clause. Given the landfill levy in metro NSW is currently \$141.2/t and NSW charities generate approximately 16,000t/yr of waste, this exemption would translate into significant cost savings for NSW NACRO members.

To qualify for the exemption, accurate tonnage data for waste sent to landfill is required. Currently, the NSW EPA relies on charitable recyclers 'self-hauling' waste to landfill in order to weigh loads at the weighbridge and then apply for the exemption. However, the self disposal of waste is not core business for charitable recyclers and most (approximately 80%) use WSPs, currently with contracts based on lift-based billing. As such, 80% of charitable recyclers are not currently able to apply for the waste levy exemption in NSW and are incurring avoidable waste management costs.

WBB could assist NACRO members in applying for a levy exemption. The charitable levy exemption by using WBB system requires written approval by the NSW EPA. If the exemption is approved for organisations utilising WBB, it will decrease the cost of waste services for participating charities, allowing charities to continue their community service at lower cost.

5 Could Contractors Manipulate the WBB System?

Like any system, there is the potential for 'rotting' or 'manipulation', insofar as illegal and unethical operations do occasionally occur. However, the potential for waste operators to manipulate a WBB system is limited and mitigated by:

- the use of NMI approved scales to ensure instruments meet Australian standards;
- improved and more granular data that is individualised to reflect weights and attendance at each site; and
- the requirement for waste contractors to produce invoices with actual weights per bin.

It is suggested that random audits of the invoices against known weights in a sample of bins would ensure compliance and confirm whether the weights are being invoiced accurately. Regular invoice checking, however, is also recommended for the current lift-based billing system.

In the case where NMI approved scales are temporarily non-operational, the system will revert to a lift-based billing system agreed between the C&I customer and the WSP. This is because a WBB system relies on the certified scales to operate in accordance with their approval from NMI.

6 Examples of WBB in the Waste Industry

6.1 Hunter Valley Trial

MRA and Remondis partnered to deliver a WBB trial in the Hunter Valley for the NSW EPA between 2015 and 2017. The trial included three groups of businesses:

1. a control group that remained on their usual lift-based service;
2. one group that remained on their usual lift-based service and also received education on recycling; and
3. the third group which received WBB and also received education on recycling.

Key findings from the trial in the Hunter were that businesses with WBB reduced their waste to landfill by about 12% compared to the control group, and about 10% compared to the education-only group. However, this reduction wasn't statistically significant at a 95% confidence limit, possibly due to a small sample size. Remondis found that the roll-out was relatively straightforward to its customers and as a result, now offers WBB in metro areas as a possible billing option.

6.2 Recent Tenders

WBB has been included in at least two recent large C&I waste management tenders to MRA's knowledge. Since Remondis' involvement in the Hunter Valley Trial in 2012, Remondis has several C&I customers using a WBB system. All major waste suppliers have indicated to MRA that they're able to implement WBB technology for C&I customers, either immediately or following a short implementation period (i.e. 6-12 months). Overall, WBB technology in the C&I sector is still in its early stages, and improvements and changes will inevitably occur as its uptake grows.