

Title	Collect, measure, and record baseline data for assessment of resource efficiency		
Level	4	Credits	5

Purpose	People credited with this unit standard are able to: collect baseline data for assessment of resource efficiency within an organisation; identify, measure and categorise resource use and waste streams in an organisation; and record data for assessment of resource efficiency.
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Classification	Zero Waste > Resource Efficiency
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Available grade	Achieved
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Guidance Information

- 1 Recommended texts
AS/NZS 3598.1-3:2000 *Energy Audits* available from <http://www.standards.co.nz>;
Solid Waste Analysis Protocol (Wellington: Ministry for the Environment, March 2002)
Ref. ME430, available at <http://www.mfe.govt.nz>;
Target Sustainability business guides, calculators, and worksheets, available at
<https://www.ccc.govt.nz/environment/sustainability/target-sustainability/>;
Guidelines, manuals, and codes of practice published by Water New Zealand,
available at <https://www.waternz.org.nz/library>.
- 2 Recommended websites
Energy Efficiency and Conservation Authority (vehicle fuel economy) –
<https://www.eecabusiness.govt.nz/>;
Environmental Protection Authority – <https://www.epa.govt.nz/>;
Water New Zealand – <http://www.waternz.org.nz>;
Resource Smart Victoria – <http://www.sustainability.vic.gov.au/Government>
Clean Air Society of Australia and New Zealand – <http://www.casanz.org.au/>;
WasteMINZ – <http://www.wasteminz.org.nz>.
- 3 Definitions
Assessment refers to an evaluation of performance to determine current practice.
Baseline data is collected information on resource use relating to areas such as energy, hazardous waste, emissions to air, liquid fuels, fleet transport, water, consumables, raw material, production outputs, sales, and solid waste. This information may be gathered from diurnal, daily, weekly, monthly, seasonal or annual data and be categorised as reused, recycled, recovered, and wastes sent to landfill. The data may be presented in relation to unit costs, quality standard, sector breakdown, production schedule, or energy type.
Organisation refers to an entire business entity in the private or public sector or a business unit within the organisation.

Outcomes and performance criteria

Outcome 1

Collect baseline data for assessment of resource efficiency within an organisation.

Performance criteria

- 1.1 Objectives and scope of project for which data is to be collected are confirmed with the organisation to ensure that all relevant baseline data will be collected and the organisation's requirements will be met.
- Range objectives may include but are not limited to – waste reduction, waste reuse, waste recycling, environmentally friendly alternatives, reducing toxicity, enhanced environmental outcomes, protecting biodiversity, resource sharing, cost reduction, energy efficiency, water efficiency;
scope includes but is not limited to – time, extent;
evidence of at least two objectives is required.
- 1.2 Baseline data sources are determined to ensure relevant costing information will be collected.
- Range sources may include but are not limited to – stock reconciliation, landfill fees, bin levies, trade waste, meter accounts.
- 1.3 Baseline data collected from the organisation's records is checked for validity.
- 1.4 Baseline data is collected for all resource use within the scope of the assessment and relevant to the organisation.
- 1.5 Baseline data is collected in sufficient quality and quantity to extract the type of information required to accurately assess site resource use.
- 1.6 Baseline data collection includes visual and statistical information from relevant sources within the organisation.
- Range sources may include – personnel, historical information, current site plan, drainage plan, samples, purchase records, process outputs, production outputs, process flow, photographs;
evidence of one visual and one statistical source is required.
- 1.7 Collection of baseline data on waste is guided by relevant protocols.
- Range examples of relevant protocols are – the *Solid Waste Analysis Protocol* for solid waste AS/NZS 3598:2000; Water New Zealand guidelines, manuals, and codes of practice.

- 1.8 Any gaps in baseline data are identified and their impact on the assessment is explained.

Range gaps may be identified by estimation, extrapolation, and interpolation.

Outcome 2

Identify, measure and categorise resource use and waste streams in an organisation.

Performance criteria

- 2.1 Resource use is identified, measured and categorised in accordance with the specified objectives and scope of the assessment.

- 2.2 Waste streams are identified, measured and categorised relevant to targeting possible actions for waste minimisation.

- 2.3 Costs of resource use and waste are identified and measured to provide accurate information for assessment.

Range may include but is not limited to – costing from waste, energy and water bills such as wastewater charges, waste and recycling collection charges.

Outcome 3

Record data for assessment of resource efficiency.

Performance criteria

- 3.1 On-site data is captured and recorded to match the objectives and scope of the assessment.

- 3.2 Any supplementary data is collected as required and recorded in a format that supports accurate assessment.

Range may include but is not limited to – resource consent, trade waste bylaws, hazardous substances regulations, waste emission treatment and disposal, contingencies for emergencies, safety data sheets, operating procedures, equipment lists.

- 3.3 The record meets the organisation's requirements for data format, type, detail, and confidentiality.

Planned review date	31 December 2023
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	17 June 2011	31 December 2015
Revision	2	21 November 2013	N/A
Rollover and Revision	3	28 June 2018	N/A

Consent and Moderation Requirements (CMR) reference

0014

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact MITO New Zealand Incorporated info@mito.org.nz if you wish to suggest changes to the content of this unit standard.