



SOUTH AUSTRALIAN GOVERNMENT TRADE WASTE INITIATIVE

RESOURCE PRODUCTIVITY ASSESSMENT GUIDELINE

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1. Introduction

Through the South Australian Government Trade Waste Initiative (the Initiative), eligible businesses can apply for up to \$10,000 (plus GST) in matched (1:1) grant funding for a Resource Productivity Assessment completed by a third party chosen from the [Preferred Supplier List](#). An assessment will identify and prioritise areas for improvement, focusing on trade waste management, resource efficiency and productivity, taking into consideration economic and environmental costs and benefits.

In many cases, a Resource Productivity Assessment is required prior to applying for a trade waste implementation grant. For businesses that are not eligible for trade waste implementation grants, an assessment may be a good first step towards implementing sustainable change within your business and may lead to cost reductions, resource savings, improved environmental performance and productivity.

Visit <http://www.greenindustries.sa.gov.au/trade-waste-initiative> for more details about the Initiative, including eligibility criteria, Application Guidelines, and the [Preferred Supplier List](#).

This guideline has been developed to:

- (a) assist potential applicants (South Australian businesses) understand the benefits of a resource productivity assessment, what's involved, and who to contact
- (b) assist those on the [Preferred Supplier List](#) understand the expected scope and minimum reporting requirements of Resource Productivity Assessments that are eligible for co-funding as part of the Trade Waste Initiative.

The information contained herein sets the guidelines, standards and minimum expectations for the completion of Resource Productivity Assessments undertaken as part of the Trade Waste Initiative. To be eligible for funding, assessments must meet these requirements.

Businesses applying for Trade Waste Initiative funding are encouraged to read the full document. Suppliers of assessment services are encouraged to read section 3 in particular.

2. Information for businesses applying for funding

To be eligible for Trade Waste Initiative grant funding, a Resource Productivity Assessment must meet or exceed the standard set out in section 3 of this Guideline. This section provides information on what you can expect from an assessment, and who to contact for a quote.

For details on eligibility and funding levels, refer to the *Trade Waste Application Guidelines* available from <http://www.greenindustries.sa.gov.au/resource-productivity-assessment-program>.

2.1. Benefits of a Resource Productivity Assessment

A Resource Productivity Assessment aims to identify opportunities for improving business operations by making it more efficient, saving resources (energy, water, materials), preventing waste, and increasing productivity, all of which can reduce operating costs and improve business performance and profitability.

Whilst you know your business best, it is sometimes difficult to step back from the day-to-day operations and analyse how your business is performing with regard to resource consumption and waste, and how this relates to your bottom line and profitability. That's where an independent assessment can help.

Having third party expertise to undertake an assessment means you have access to knowledge and skills that may not currently exist in your workforce. A third party can also offer advice based on what they've seen at other businesses to ensure you're aware of the latest trends, technologies, and best practice systems and standards.

2.2. Requesting third party expertise

A list of third parties that can deliver Resource Productivity Assessments has been established – refer to the [Preferred Supplier List](#). All suppliers on the list have been assessed to have relevant skills and experience to undertake an assessment to the standards set out in this document.

To be eligible for Resource Productivity Assessment funding through the Trade Waste Initiative, you must ensure one of the suppliers on the list will be engaged to complete the assessment. You should seek one or more quotes from suppliers on the list before submitting a grant funding application.

In order to prepare a quote, suppliers will typically request information about the business to help them get an understanding of the scale of the job. They might request a site visit in order to help them better understand your current situation, future plans, and any areas to which they should pay particular attention with respect to trade waste management, resource and process efficiency. Suppliers may also request access to any previous reports or information that could assist them in undertaking your resource productivity assessment, as a way to avoid duplication of work and thereby keep assessment costs to a minimum. In some cases, having information already prepared will reduce the duration and cost of an assessment.

2.3. What the assessment should include

Assessments undertaken as part of the Trade Waste Initiative should have a clear focus on identifying opportunities for reducing trade waste discharge load and volume. They should also cover other aspects of business operations such as solid waste management, energy and water efficiency, and/or process improvements in order to make recommendations that make the most commercial sense based on the unique operating environment of the business.

Key activities in a Resource Productivity Assessment typically include:

- Collection of data and information, including invoicing data, to create a baseline of resource use and waste (it is recommended a minimum of 12 months data is used).
- Site visits to better understand the operating environment and to talk with key staff.
The number and duration of visits is dependent on the level of detail required for the project and should be negotiated with the third party supplier.
- Data analysis undertaken throughout project delivery. Suppliers may request additional information to support data analysis and/or verification of findings by key staff during this process.
- Submission of a draft written report outlining opportunities for improvement with associated implementation costs and expected savings should be provided to you (the participating businesses) and Green Industries SA (GISA), allowing GISA to proof read and suggest improvements (if necessary) to ensure you (and your business) gets appropriate advice.

An opportunity to discuss key findings and recommendations, provide comments, and seek clarification is recommended prior to finalising a written report. The supplier will be expected to make these arrangements with you and GISA, incorporating feedback from both parties into a final report.

When seeking quotes for a resource productivity assessment, ensure suppliers are aware of any previous work (such as a *Cleaner Production Review* by SA Water, energy or water efficiency reviews or audits) and request a tailored assessment to avoid duplication.

Suppliers should ensure that any assessment completed as part of the Trade Waste Initiative meets the minimum requirements stated in section 3 of this guideline.

2.4. What to do when the assessment is complete

It's up to you to determine how, and to what degree recommendations are implemented. The intention of the assessment is to provide you with information that will aid decision making on business improvements.

Food and beverage businesses that are connected to, or planning to connect to the SA Water trade waste (sewer) network, may be eligible to apply for trade waste implementation grant funding through the Trade Waste Initiative. Funding is available for implementing assessment recommendations (purchasing plant/equipment or other associated costs) that are anticipated to have a direct benefit in reducing trade waste discharge volume and load.

If you are not eligible for trade waste implementation grants, contact aubrey.thomas@sa.gov.au to see if there are other funding options available.

3. Information for suppliers of Resource Productivity Assessments

Members of the *Preferred Supplier List* should meet or exceed the standards set out in this section when delivering Resource Productivity Assessments as part of the Trade Waste Initiative.

3.1. Minimum requirements for undertaking an assessment

Resource Productivity Assessments should consider all significant aspects of business operations at the nominated site (this may include administration, warehouse and storage, and production). These should be determined in consultation with the staff of the business and GISA.

The assessment must consider the following aspects:

- trade waste discharge and management

Plus one or more of the following key areas:

- process / operational efficiency
- energy efficiency
- water efficiency
- solid waste management.

The intention of an assessment is to take a holistic view of the business operations when making recommendations, and consider solutions for trade waste issues across the site rather than focussing on 'end of pipe' solutions. This approach provides increased consideration to how the suggested changes might impact other areas of the business, and may present opportunities for improvements in areas that may have otherwise been overlooked if the focus was simply on how to reduce trade waste discharge at the connection to sewer.

The supplier of assessment services should consider and incorporate (where possible) the following in their assessment:

- baseline data for trade waste discharge, and other key area(s) identified as being in scope (e.g. energy, water, materials consumption; solid waste) based on historical information representing typical business activities for the site over a minimum 12 month period
- material inputs, outputs and flows through the production process
- current and predicted future production levels, and how this will affect recommendations if the business has plans to expand, relocate, increase or reduce production
- current availability of relevant technologies and their suitability to the operating environment of the business
- implementation timeframes and how this could impact normal business operations
- impact of identified improvement opportunities over the lifetime of the improvement (i.e. short and long term costs, effect on production levels, impact on employment, impact on the environment, impact on operational spend).

Some businesses have already completed a *Cleaner Production Review* through SA Water. Others might have had an energy audit, water audit, waste and recycling review, eco-efficiency review, lean production review or another assessment that may be similar to the scope (in full or in part) of a Resource Productivity Assessment described in this guideline.

In these cases, suppliers should check the accuracy and validity of previous results and only provide updated information if deemed necessary (i.e. if the assessment was undertaken more than 12

months prior, and/or the business has undergone significant changes that requires some updates or more information to be provided). Suppliers should ensure work is not duplicated unnecessarily.

3.2. Minimum reporting requirements

Assessment reports must present key findings, clearly identify and quantify where and how savings can be made, and include a ranked set of recommended actions to reduce trade waste discharge volume and load, and maximise resource efficiency and productivity.

Actions can include no-cost and low-cost items that may be considered good housekeeping or reflective of preventive maintenance. These should be accompanied by an explanation of how to achieve those actions.

Accuracy of costs and benefits associated with the recommendations should be within +/- 20%.

The report should include the following elements as a minimum:

- Summary that includes the top 5-10 key actions that make most business sense in terms of effectiveness, cost, ease of implementation, and payback or Net Present Value (NPV). This should be presented in tabular form to allow for simple comparison, such as the example template provided as Table 1 on page 6.
- Brief description of the scope of work including:
 - overview of the business site
 - exclusions and constraints (if relevant)
 - timeframe of the assessment
 - data availability including any previous reports used in analysis.
- Overview of assessment methodology and acknowledgement of any changes to the methodology that had occurred since preparing the quote for services.
- Baseline data (quantity and cost) based on historical information representing typical business activities for the site over a minimum 12 month period, including trade waste and other significant areas of consumption and waste (e.g. energy, water, solid waste).

Reference to benchmark data may be included, but this is not mandatory.

If appropriate, efficiency metrics that relate resource consumption and waste generation to production (e.g. material input cost per unit of product; energy/water consumption per unit of product; solid waste / trade waste amount per unit of product).

- List of improvement opportunities that includes:
 - description of the opportunity and associated action
 - impact of the action on resource consumption / waste generation / operational costs
 - impact of the actions on other factors relevant to the business such as labour, space requirements, implementation timeframes, need for shutdown during installation, ongoing maintenance costs and/or procedures, and staff training requirements
 - implementation costs, expected savings, and payback and/or NPV
 - benefits associated with key recommendations such as improved productivity, job creation or retention, improved environmental performance, reductions in operating costs, and reduced trade waste discharge volume and load.

- Costs and savings relating to new or upgraded plant/equipment should be based on recent quotes from suppliers of the plant/equipment if this is a key recommendation. Therefore suppliers are expected to seek quotes before making final recommendations about plant/equipment.

The level of detail required in the report may vary on a case-by-case basis. Suppliers should seek clear explanations and agreement from participating businesses and GISA regarding their expectations, noting that a certain level of detail is required to meet eligibility criteria for the Trade Waste Initiative Implementation Grants.

Green Industries SA (in addition to the participating business) must be given the opportunity to provide feedback on a draft report and all reasonable requests for modifications to the report and/or assessment must be made by the supplier within an agreed timeframe.

Table 1: Example of what can be included in a report to summarise key recommendations

Opportunity (Title and description)	Area(s) of Operation	Estimated Annual Savings			Capital Expenditure	Simple Payback Period (or NPV)	Suggested Implementation Timeframe
		Resource	Operating Cost	tCO ₂ -e			
Title Description		e.g. [x] kL trade waste [x] tonnes trade waste BOD [x] kWh electricity [x] tonnes waste to landfill					e.g. immediate; short-term; 6 months; 3-5 years