

The Economic Contribution of the Australian Organics Recycling Industry 2023-24



March 2025

A E A S

Australian Economic
Advocacy Solutions

Foreword

Each year the organics recycling industry is processing 7.676 million tonnes of waste to produce valuable product for further use across the Australian economy.

Diverting organic resources for recycling, significantly reduces emissions and recovers valuable nutrients from being landfilled that improves sustainability and provides benefit to our community.

Organics recycling closes the loop on food and other organic wastes and ultimately returns them to production through the soil or other value added inputs to our economy. It is an exemplar of the “circular economy”.

In performing these commendable tasks to the environment the Australian Organics Recycling Industry is also providing an enormous economic benefit to everyday Australians as is evidenced in this report.

Nick Behrens – Director AEAS

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REPORT PREPARATION

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Executive Summary

Australian Economic Advocacy Solutions (AEAS) was commissioned by AORA (Australian Organics Recycling Association) to determine the economic benefit of the Australian Organics Recycling Industry (AORI) to the Australian and all State economies.

AORI in 2023-24 recycled 7.676 million tonnes of organic material. Across the decade AORI's recycled tonnage has grown by 0.9 per cent each year and compares to Australia's average population growth rate across the same time of 1.5 per cent.

Garden organics makes up the largest portion of organic materials recycled nationally comprising 3.2 million tonnes of materials followed by biosolids (1.4 million tonnes), timber (1 million tonnes) and food organics (551k tonnes). Garden organics represents the largest percentage of recycled materials in each of the Australian States.

Australia's overall organic material recycling rate in 2023-24 was 52.3 per cent equating to 296 kilograms of recycled organic material for each person in Australia. This compares to 52.3 per cent and 296 kilograms respectively in 2021-22 and 51.5 per cent and 298 kilograms respectively in 2018-19. The reduction in recycling rate reflects a higher number of tonnes recycled but a comparatively higher amount of organic material generated. Nonetheless AORI's economic contribution has continued to grow since last measured in 2021-22.

Direct Economic Benefit

AORI is an important contributor to the Australian economy. Results of a macro-economic analysis of the Industry reveal the following.

- 168 businesses operating;
- Recycled and processed of 7.676 million tonnes of organic material in 2023-24;
- Providing 5,359 jobs to Australian residents;
- Pays over a \$421 million in wages and salaries and an additional \$48.4 million towards employee superannuation;
- Provides an average livelihood to each employee within the industry of \$78,607 which is almost directly in line with Australian average weekly earnings of \$78,640;
- Has a collective industry turnover of over \$2.6 billion;
- Sources and provides \$2.4 billion in benefit across its supply chain;
- Invests \$216 million in land, buildings, plant and equipment and vehicles each year; and
- Contributes \$843.4 million in industry value add to the Australian economy.

Indirect Economic Benefit

AORI is estimated to contribute a further:

- \$673.9 million in industry value add to GDP through flow-on demand for goods and services, including production induced and consumption induced effects; and
- 4,485 indirect jobs provided through flow on activity.

Other key economic statistics include:

- One job is supported for every 1,432 tonnes of organic material recycled in Australia;
- The average sales per organics recycling business is \$15.5 million. Expressed alternatively total AORI turnover is estimated at \$338.67 per tonne of recycled organic material; and
- Supply chain expenditure is estimated at \$310.64 per tonne of recycled organic material.

Environmental Benefit

The total estimated greenhouse gas savings from organics recycling in Australian in 2023-24 is approximately 3.9 million tonnes of CO₂-e. These GHG savings are considered equivalent to:

- 5.8 million trees that would have to be planted to absorb the same amount of CO₂.
- The greenhouse gas emissions that 895,329 cars would produce in a year.

Benefits of increasing organic material recycling rates

AEAS as part of this report has modelled what the economic and environmental contribution of AORI would be if the current organics recycling rates were increased under four different scenarios - to at least 70 per cent, 80 per cent, 90 per cent and 95 per cent.

70 per cent recycling rate:

- Organics recycling businesses would generate an extra \$988.9 million in sales providing an additional \$906.9 million in supply chain opportunity with an extra \$320.4 million in industry value add towards the Australian economy.
- Organics recycling businesses would provide 2,039 extra jobs paying \$159.9 million in livelihood to everyday Australians.
- An extra 1,401,349 tonnes of greenhouse gas emissions saved which is equivalent to 2,095,017 trees planted and 323,712 cars taken off the road each year.

80 per cent recycling rate:

- Organics recycling businesses would generate an extra \$1.4 billion in sales providing an additional \$1.3 billion in supply chain opportunity with an extra \$468.9million in industry value add towards the Australian economy.
- Organics recycling businesses would provide 2,980 extra jobs paying \$234.2 million in livelihood to everyday Australians.
- An extra 2,155,239 tonnes of greenhouse gas emissions saved which is equivalent to 3,222,083 trees planted and 497,860 cars taken off the road each year.

90 per cent recycling rate:

- Organics recycling businesses would generate an extra \$2.0 billion in sales providing an additional \$1.8 billion in supply chain opportunity with an extra \$633.4 million in industry value add towards the Australian economy.
- Organics recycling businesses would provide 4,025 extra jobs paying \$316.4 million in livelihood to everyday Australians.
- An extra 2,909,130 tonnes of greenhouse gas emissions saved which is equivalent to 4,349,150 trees planted and 672,009 cars taken off the road each year.

95 per cent recycling rate:

- Organics recycling businesses would generate an extra \$2.2 billion in sales providing an additional \$2.0 billion in supply chain opportunity with an extra \$715.2 million in industry value add towards the Australian economy.
- Organics recycling businesses would provide 4,545 extra jobs paying \$357.2 million in livelihood to everyday Australians.
- An extra 3,286,075 tonnes of greenhouse gas emissions saved which is equivalent to 4,912,683 trees planted and 759,083 cars taken off the road each year.

1.0 The Australian Organics Recycling Industry

Recycled organics can be defined as a generic term for a range of products manufactured from compostable organic materials (garden organics, food organics, residual wood and timber, biosolids and agricultural organics). There are essentially two distinct but related organics markets: the service market for waste stream removal and processing and the product market for compost.

Figure 1: Organic Markets



Source: AEAS

1.1 Sources of recycled organics

- **Municipal sources:** this supply reflects residential supply from kerbside collection and transfer station drop-off, as well as other council waste (including parks and garden maintenance);
- **Commercial and industrial (C&I):** waste produced from businesses as a by-product of commercial activities. These include timber residuals, food organics and a range of processing by-products (for example, organic waste materials from abattoirs); and
- **Construction and demolition (C&D):** waste products produced from C&D activities. Within the recycled organics industry, this waste stream is largely timber residuals – offcuts from construction or timber products from demolition.

1.2 Recycled organics products

A range of recycled organics products are produced including:

- **Uncomposted mulch products:** these are essentially ‘raw’ products including mulch for application on top of garden beds, and potting mix which is bagged for retail sale. They typically do not contain garden organics products (although some uncomposted garden organics ‘mulch’ is sold as a budget product).
- **Compost products:** the composting process produces recycled organic compost of different ‘grades’ that correspond to product maturity. Pasteurised products have completed the pasteurisation process but are not stable nor mature; in contrast, compost is relatively stable in addition to being pasteurised, and ‘mature compost’ is fully stable. A range of products are then produced from compost products which are essentially variants of compost, reflecting age and expected use.

Compost has different uses for various segments of the market. The purpose for which the compost product will be purchased can generally be categorised in four areas of:

- Mulching (for water conservation and weed control);
- Soil conditioning (to improve soil structure and water holding capacity);
- Fertilising (to increase levels of nitrogen, phosphorus and potassium and micronutrients); and
- Other (including carbon storage and disease suppression).

1.3 Recycled organics market segments

Products are used in five industry market segments including:

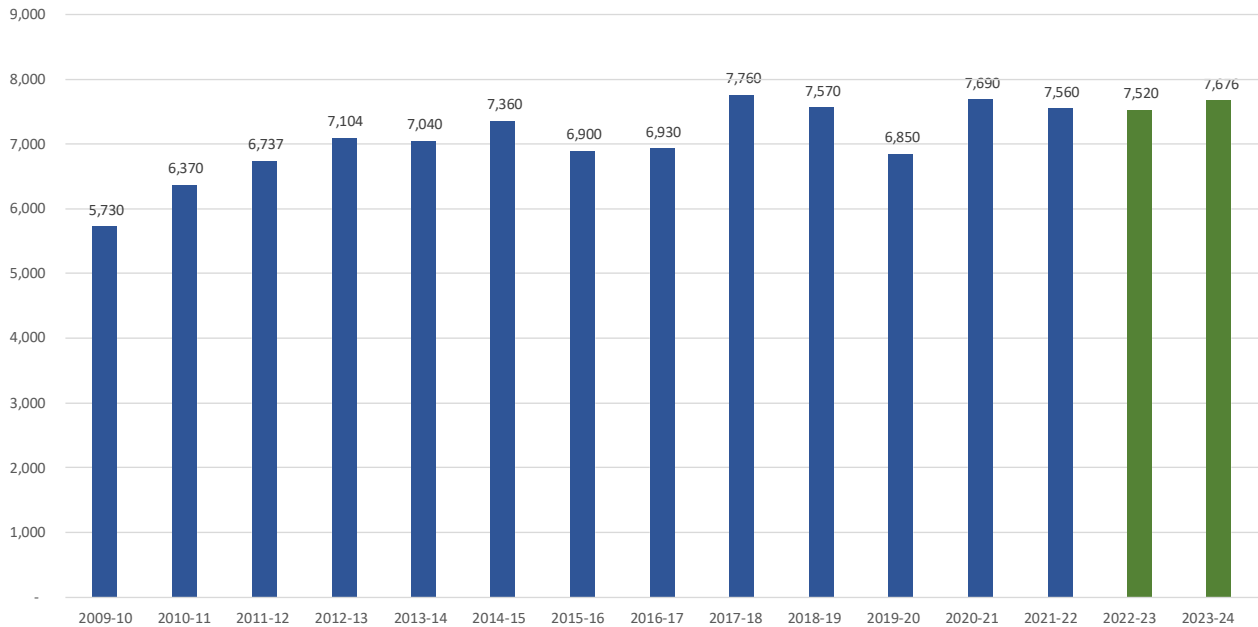
- **Urban amenity:** for use in urban areas including residential and commercial landscaping, retail nursery, special projects (such as highway verges).
- **Intensive agriculture:** agricultural use including viticulture, vegetable production, fruit and orchards, turf production, nursery production and wholesaling.
- **Extensive agriculture:** agricultural use including pasture production (livestock including sheep, beef and dairy), broadacre cropping and forestry.
- **Rehabilitation:** use for landfill cover and rehabilitation, erosion stabilisation, land reclamation, restoration, revegetation and rectification.
- **Environmental remediation:** contaminated site and soils remediation, water purification and biofiltration uses.

2.0 Australian Organic Material Recycling

2.1 Organic Material Recycled in Australia

The Australian Organics Recycling Industry (AORI) in 2023-24 recycled 7,676 kilotons of organic material, a 2.1 per cent increase on the previous financial year. Across the decade the AORI's recycled material has grown on average by 0.87 per cent each year and compares to Australia's average population growth rate over the same period of 1.49 per cent.

Figure 2: Kilotonnes of Organic Material Recycled in Australia



Source: National Waste Report, AEAS

The growth rate for organic material recycled is largely representative of slowly rising portion of organic material being recycled. This has been driven by both population and economic growth but is also a reflection of technological change, access to recycling markets, Local Government collection changes; and both Commonwealth and State Government waste and carbon reduction policies. It is also now starting to reflect negative influences such as capacity challenges emerging in several states.

2.2 Organic Material Recycled by State

New South Wales accounts for the largest tonnes of organic material being recycled in Australia at present with 2,817,078 tonnes in 2023-24. Victoria is the next largest with 1,521,203 tonnes followed by South Australia with 1,286,249 tonnes and then Queensland with 1,141,656 tonnes of organic material recycled.

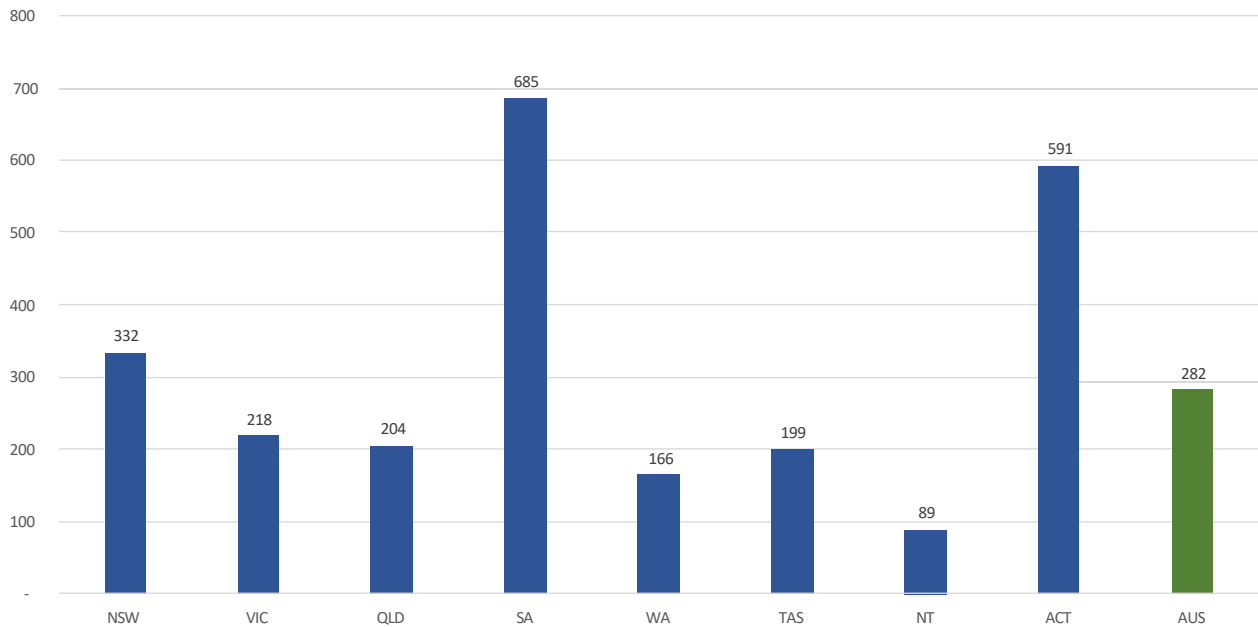
Table 1: Tonnes of Organic Material Recycled 2023-24

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUS
Food organics	296,952	40,182	72,456	8,395	97,628	34,933	-	161	550,708
Garden organics	1,158,285	578,670	620,777	306,695	220,670	47,036	-	257,876	3,190,009
Timber	299,065	297,225	108,479	259,612	63,356	-	-	21,996	1,049,733
Other organics	761,569	95,463	-	582,444	5,725	-	-	-	1,445,201
Biosolids	301,207	509,663	339,944	129,103	104,759	32,514	22,824	-	1,440,014
Total	2,817,078	1,521,203	1,141,656	1,286,249	492,138	114,483	22,824	280,033	7,675,664

Source: National Waste Report, AEAS

On a per head of population basis, South Australia is the Australian leader in recycling 685 kilograms per person each year followed by the Australian Capital Territory recycling 591 kilograms each year. These compare to the Australian average of 282 kilograms per person. This trend aligns with the overall percentage of organic material recycle which is discussed in section 2.4.

Figure 3: Kilograms of Organic Material Recycled Per Head of Population 2023-24

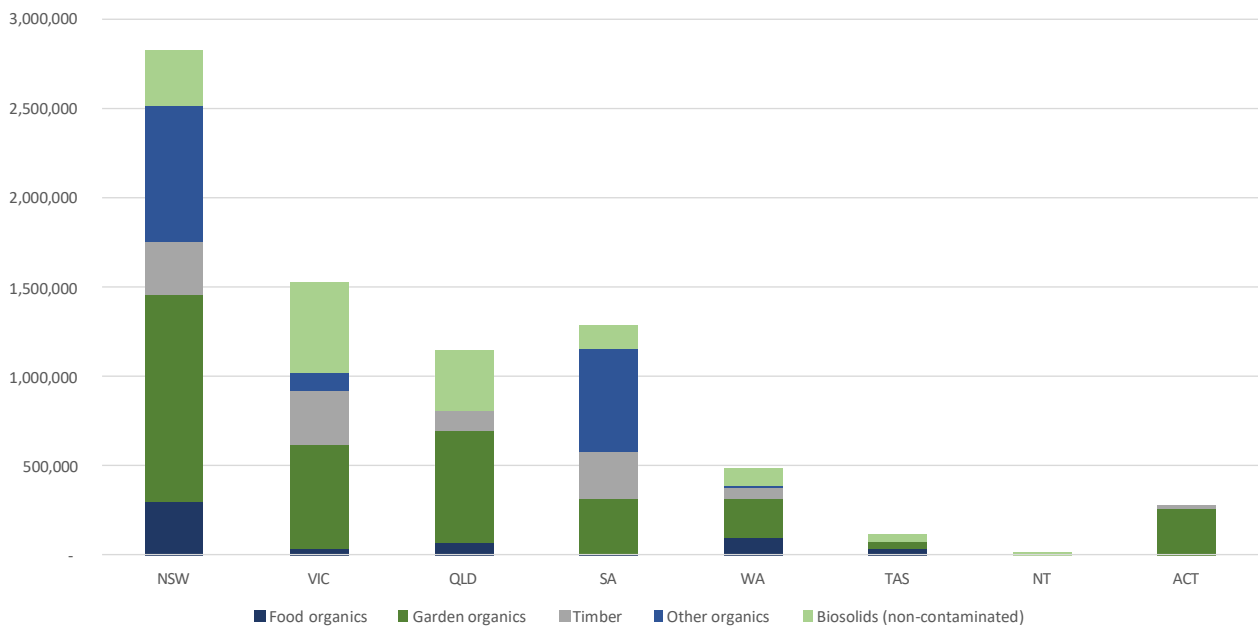


Source: National Waste Report, AEAS

2.3 Organic Material Recycled by Material

Garden organics makes up the largest portion of organic materials recycled nationally comprising 3.2 million tonnes of materials followed by biosolids (1.4 million tonnes), timber (1 million tonnes) and food organics (551k tonnes). Garden organics represents the largest percentage of recycled materials in each of the Australian States.

Figure 4: Tonnes of Total Organic Material Recycled by Material 2023-24

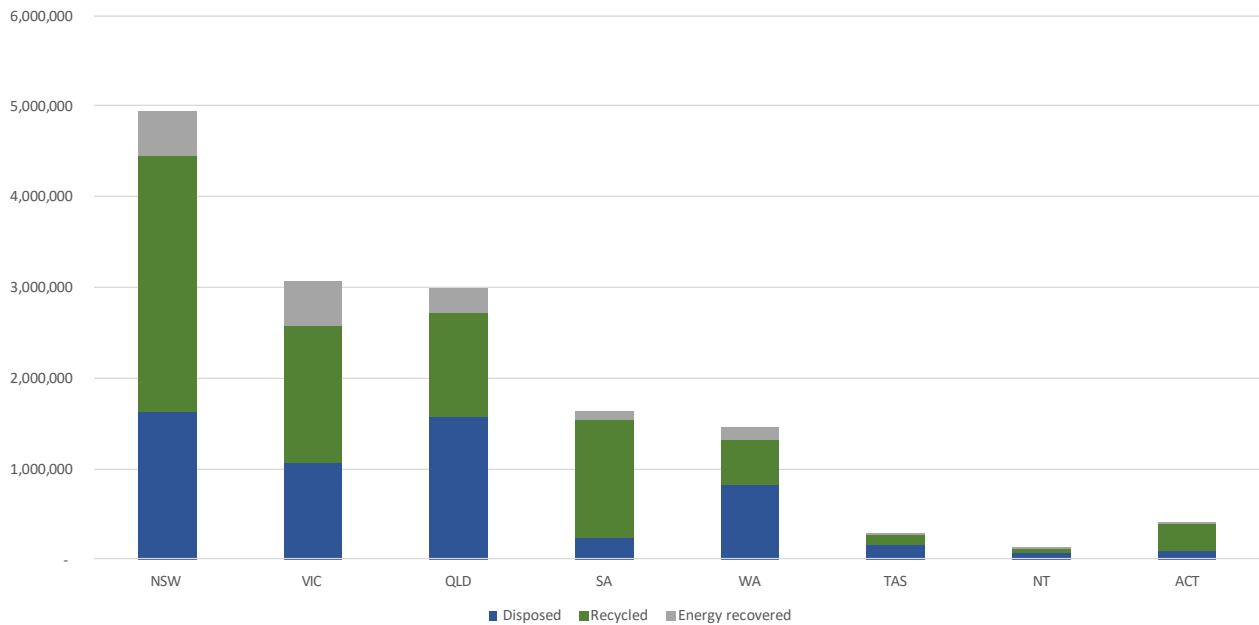


Source: National Waste Report, AEAS

2.4 Organics Recycling and Recovery Rates

In 2023-24 Australia produced 14.930 million tonnes of organic waste of which 5.685 million tonnes was sent to landfill, 7.676 million was recycled and 1.569 million tonnes recovered through energy. Australia's overall organic material recycling rate was 51.4 per cent and the recovered rate was 61.9 per cent.

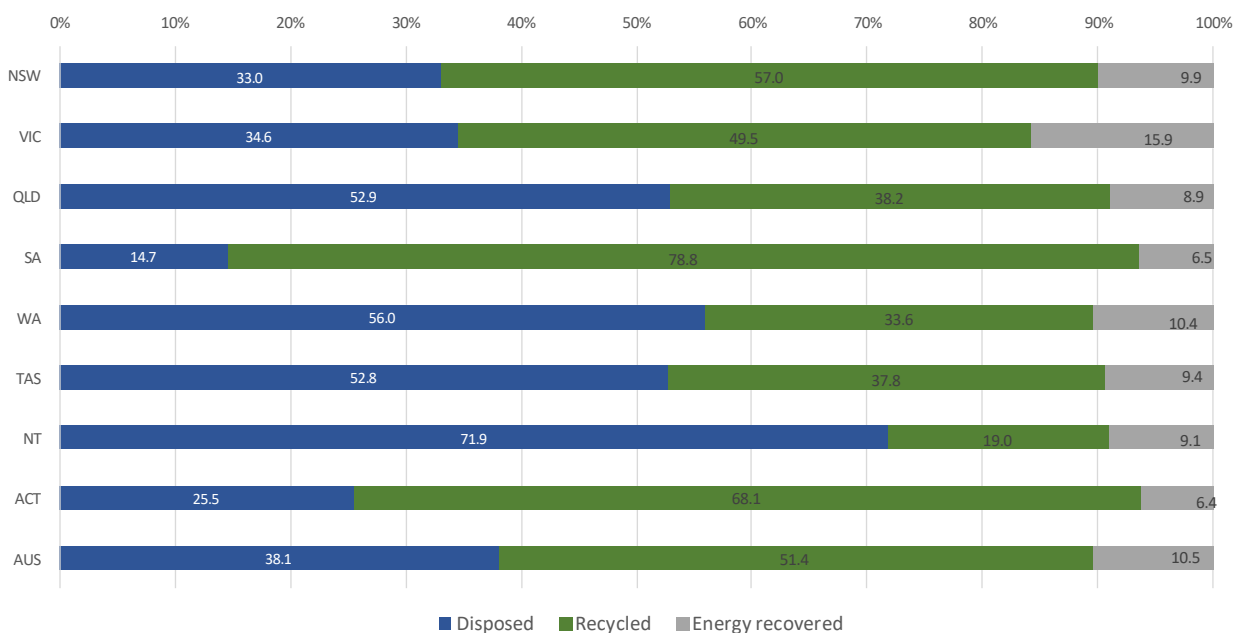
Figure 5: Organic material recycled & energy recovered in 2023-24 (tonnes)



Source: National Waste Report, AEAS

South Australia currently has the highest organics material recycling rate at 78.8 per cent, followed by the ACT (68.1%), NSW (57.0%), Victoria 49.5%, Queensland (38.2%) Tasmania (37.8%) and Western Australia (33.6%). The Northern Territory had the lowest organics recycling rate at 19.0 per cent in 2023-24.

Figure 6: Organic material recycled & energy recovered rates in 2023-24 (percentage of total)



Source: National Waste Report, AEAS

3.0 Economic and Environment Benefit Estimate Methodology

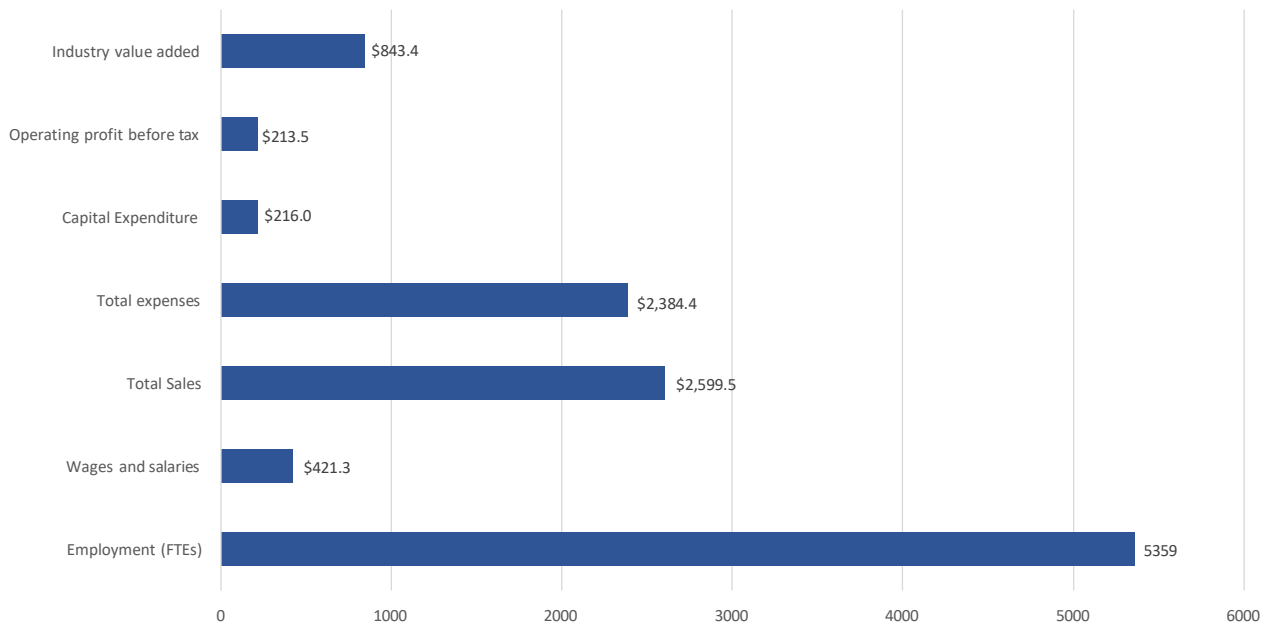
- 3.1 AEAS was commissioned by AORA (Australian Organics Recycling Association) to determine the economic benefit of the Australian Organics Recycling Industry (AORI) to the Australian and State economies based on analysis of existing data as referenced in Appendix One.
- 3.2 This report provides a detailed summary of the level of economic contribution to the Australian and State economies by AORI and the multiplier and flow-on effects that are generated by that contribution. The report was developed in consultation with AORA and identifies a range of vital statistics that the Industry contributes to the economy including:
- The contribution the Industry makes to Gross Domestic Product in industry value add;
 - The number of direct and indirect jobs created by the Industry;
 - The value of wages and salaries paid by the Industry;
 - Level of investment in buildings and plant and equipment made by the Industry; and
 - Environmental benefit of reduced greenhouse gas emissions.
- 3.3 The preparation of this report was undertaken in several stages including:
- Processes involved in organic recycling, and a series of definitions for the sector were identified.
 - Desktop research was undertaken to establish the degree of information currently available, for use as a benchmark for AEAS calculated results. A summary of key reference material is provided below.
 - Section Four provides estimates of the direct and flow-on contribution of AORI to the Australian and State economies in terms of industry value add, employment, income (i.e. wages and salaries) and other indicators. Direct impacts, are the first round of effects from direct operational expenditure on goods and services by the Industry. The flow-on or indirect effects (i.e. the multiplier effects) are estimated in two parts: production-induced and consumption-induced effects. The production-induced effects arise from expenditure by Industry businesses / organisations on goods and services supplied by other firms in Australia. The consumption-induced effects arise from expenditure of Industry workers' income on goods and services supplied by Australian businesses.
- 3.4 The economic significance estimates in this report are produced using data primarily from the:
- Australian Bureau of Statistics - Australian Industry (Cat. No. 8155.0)
 - National Waste Report 2024; and
 - Other Australian Bureau of Statistics data including Census data and ABS Catalogues 6202.0 and 5220.0.
- 3.5 AEAS has used ABS Cat 8155.0 - Australian Industry which presents estimates of the economic and financial performance of Australian industry (ANZSIC). The estimates are produced annually using a combination of directly collected data from the annual Economic Activity Survey (EAS), conducted by the ABS, and Business Activity Statement (BAS) data provided by businesses to the Australian Taxation Office (ATO).
- 3.6 AEAS has then used the National Waste Report 2020 to model the percentage of economic contribution created by organic recycling businesses operating within ANZSIC's Waste Collection, Treatment and Disposal Services sub-division and more specifically with the 2921: Waste Treatment and Disposal Services; and 2922: Waste Remediation and Materials Recovery Services classes.
- 3.7 One of the objectives of this project is to measure the economic value of waste related activities across the whole economy. Accordingly AEAS has used indirect waste industry multiplier estimates for economic activity prepared by EconSearch; and indirect employment multiplier prepared by Deloitte Access Economics for these estimates.
- 3.8 All estimates are presented in nominal terms (i.e. current prices in the year received), unless otherwise stated.
- 3.9 Finally AEAS has used conversion of recycling into environmental benefit ratios used by Green Industries SA to calculate the reduced greenhouse gas emissions benefit of AORI with further conversions into trees planted and cars taken off the road..

4.0 Economic Contribution of Australian Organics Recycling Industry

4.1 Introduction

AORI is an important contributor to the Australian economy. Results of a macro-economic analysis of the Industry reveal it is providing 5,359 jobs to Australian residents, paying over a \$421 million in wages and salaries; providing a livelihood to each employee within the industry of \$78,607; has a collective industry turnover of over \$2.6 billion; sourcing \$2.4 billion across its supply chain, investing \$216 million in land, buildings, plant and equipment and vehicles each year and contributing \$843 million in industry value add to the Australian economy.

Figure 7: Contribution of Australian Organics Recycling Industry 2023-24 key economic metrics (\$ millions)

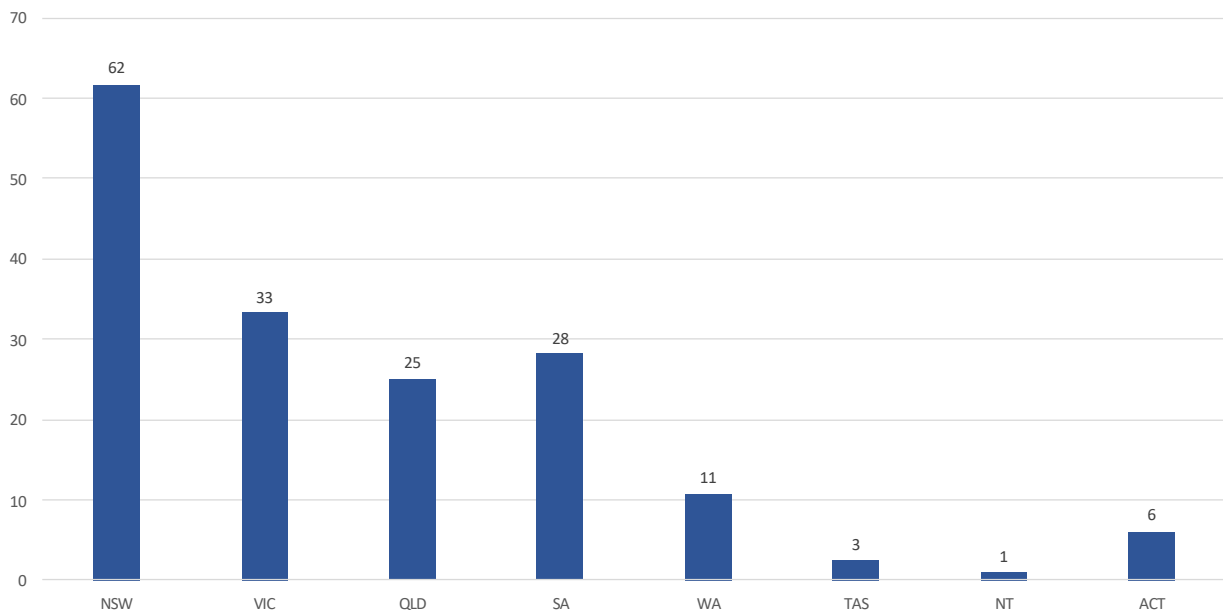


Source: AEAS

4.2 Number of Organic Recycling Businesses

In total there are 168 organic recycling businesses operating in Australia. NSW has 62 organic recycling businesses, Victoria has 33, Queensland 25, South Australia 28, Western Australia 11, Tasmania 3 and the ACT has 6* organic recycling businesses. The average size organic recycling employs 16 persons and accordingly is defined by the Australian Bureau of Statistics as a small business.

Figure 8: Number of Organics Recycling Industry Businesses by State 2023-24

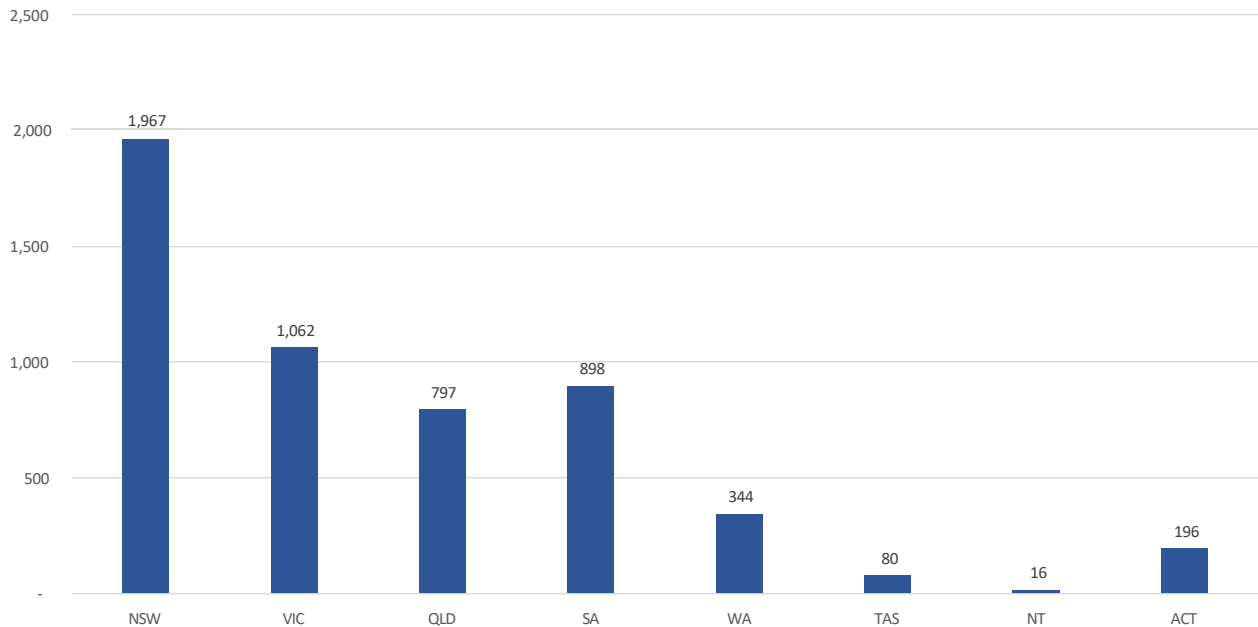


Source: AEAS. *Operating within or near the ACT

4.3 Industry Employment

The AORI is estimated to employ 5,359 Australians in 2023-24 with NSW organic recycling businesses employing 1,967, Victorian businesses employing 1,062 persons, Queensland employing 797 persons, South Australia employing 898 persons, Western Australia employing 344 persons and ACT employing 196 persons. Expressed alternatively one job is supported for every 1,432 tonnes of organic material recycled in Australia. AEAS estimates that a further 4,485 indirect jobs are provided through flow on activity.

Figure 9: Organics Recycling Industry Employment by State 2023-24 (FTEs)

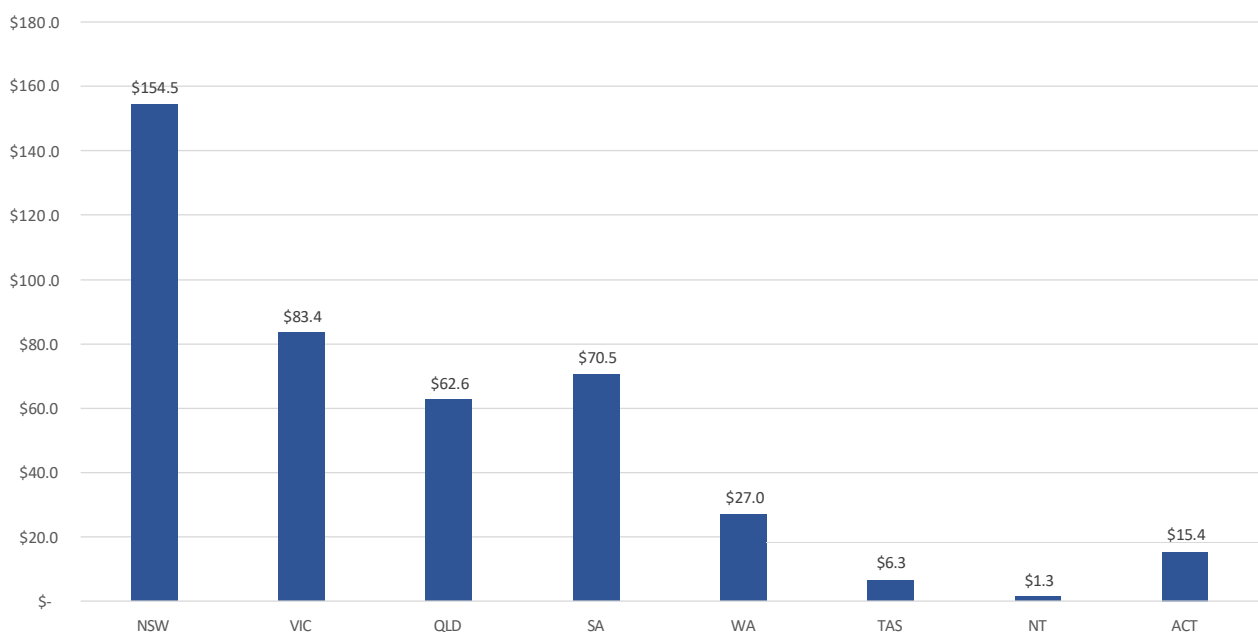


Source: AEAS

4.4 Wages and Salaries Paid to Australians

The AORI is estimated to provide over \$421 million in wages to Australians. NSW organic recycling businesses provide \$154.5 million in wages, Victorian businesses providing \$83.4 million, Queensland businesses providing \$62.6 million, South Australia providing \$70.5 million, Western Australia providing \$27.0 million and ACT providing \$15.4 million in wages. The average salary provided to each AORI employee is \$78,607 and compares to Australian average weekly earnings of \$78,640. In addition, AEAS estimates that an additional \$48.4 million was paid by organics recycling businesses towards employee superannuation.

Figure 10: Organics Recycling Industry Wages and Salaries by State 2023-24 (\$ millions)

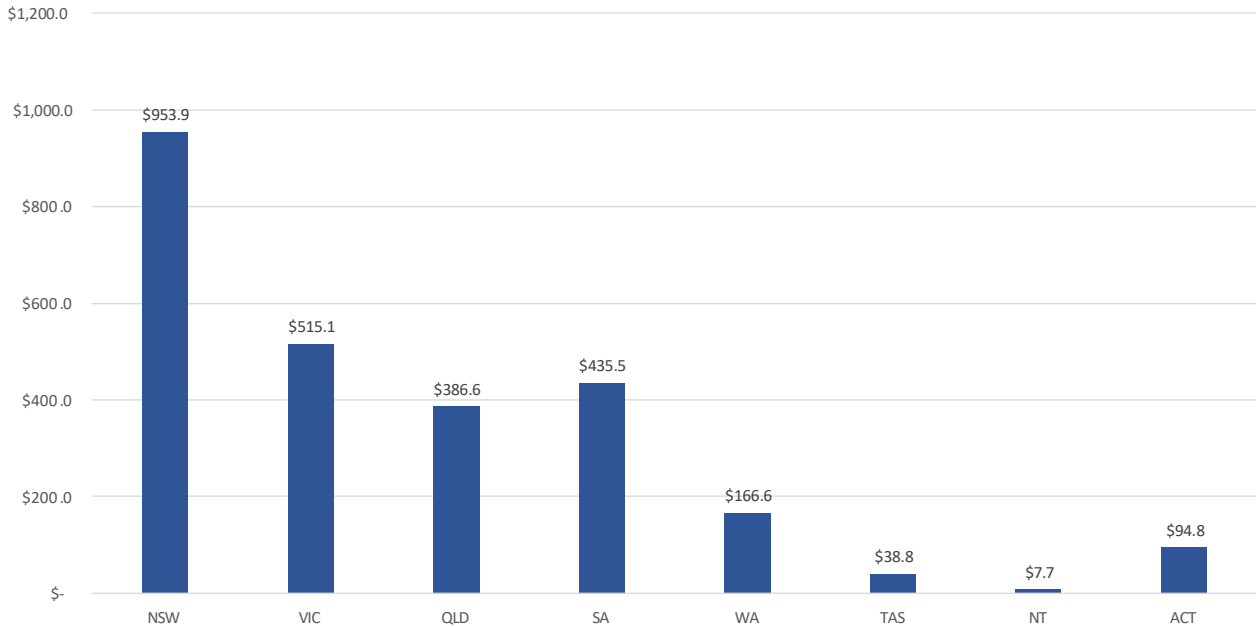


Source: AEAS

4.5 Industry Sales

Through the receipt of inputs and the sale of composted materials AORI earned over \$2.6 billion in sales in 2023-24. NSW organic recycling businesses earned \$953.9 million in sales, Victorian businesses earned \$515.1 million, Queensland businesses earned 386.6 million, South Australia earned \$435.5 million, Western Australia earned \$166.6 million and ACT organic recycling business earned \$94.8 million in sales. The average sales per organics recycling business was \$15.5 million in 2023-24. Expressed alternatively AORI turnover is estimated at \$338.67 per tonne of recycled organic material.

Figure 11: Organics Recycling Industry Turnover by State 2023-24 (\$ millions)

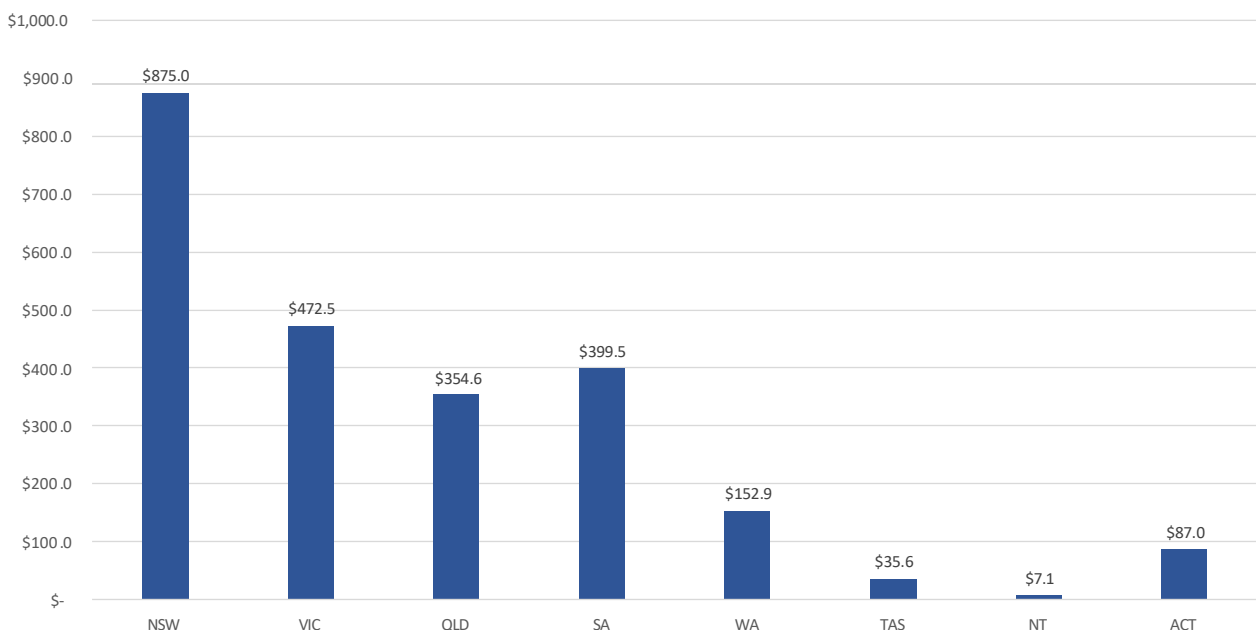


Source: AEAS

4.6 Supply Chain Expenditure

In 2021-22 Australian organics recycling businesses supported \$2.4 billion of supply chain expenditure. NSW organic recycling businesses spent \$875.0 million in expenditure, Victorian businesses spent \$472.5 million, Queensland businesses spent \$354.6 million, South Australia spent \$399.5 million, Western Australia spent \$152.9 million and ACT organic recycling business spent \$87 million in expenditure. Each organics recycling business on average supported a \$14.2 million supply chain. Expressed alternatively AORI supply chain expenditure is estimated at \$310.64 per tonne of recycled organic material.

Figure 12: Organics Recycling Industry Supply Chain Expenditure by State 2023-24 (\$ millions)

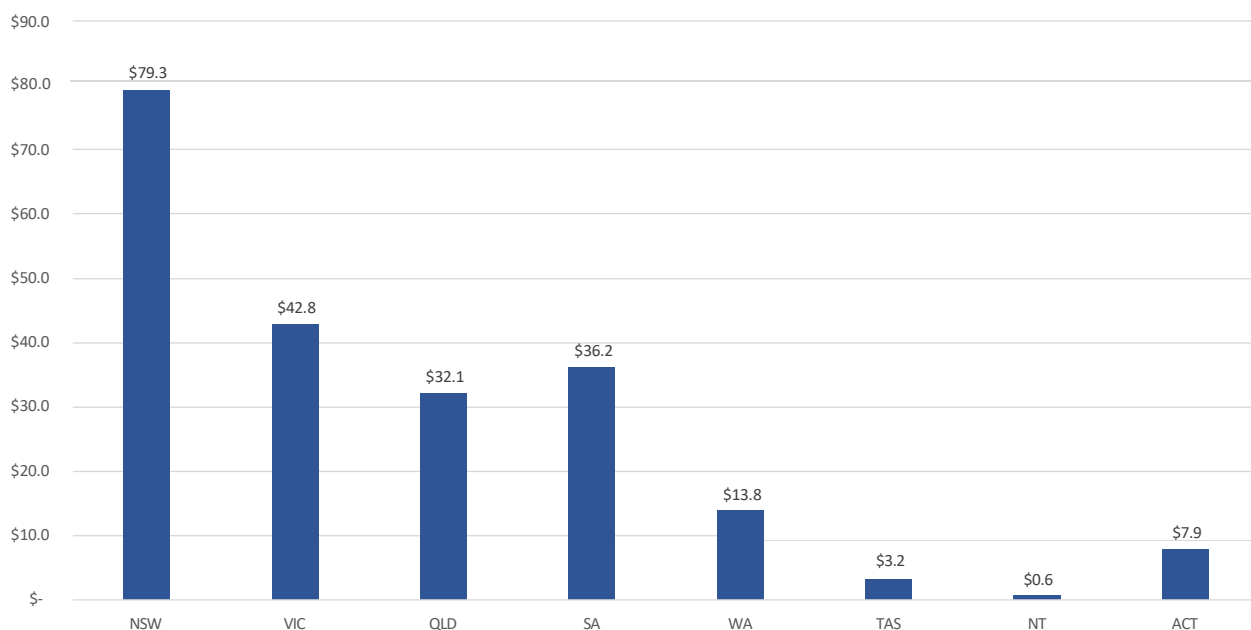


Source: AEAS

4.7 Capital Expenditure

The AORI invested approximately \$216 million in 2023-24 in land, buildings, plant and equipment, vehicles and other recycling infrastructure. NSW organic recycling businesses invested \$79.3 million, Victorian businesses invested \$42.8 million, Queensland businesses invested \$32.1 million, South Australia invested \$36.2 million, Western Australia invested \$13.8 million and ACT organic recycling business invested \$7.9 million in land, buildings, plant and equipment, vehicles and other recycling infrastructure. Each organics recycling business on average invested \$1.3 million in land, buildings, plant and equipment, vehicles and other recycling infrastructure in 2023-24.

Figure 13: Organics Recycling Industry Capital Expenditure by State 2023-24 (\$ millions)

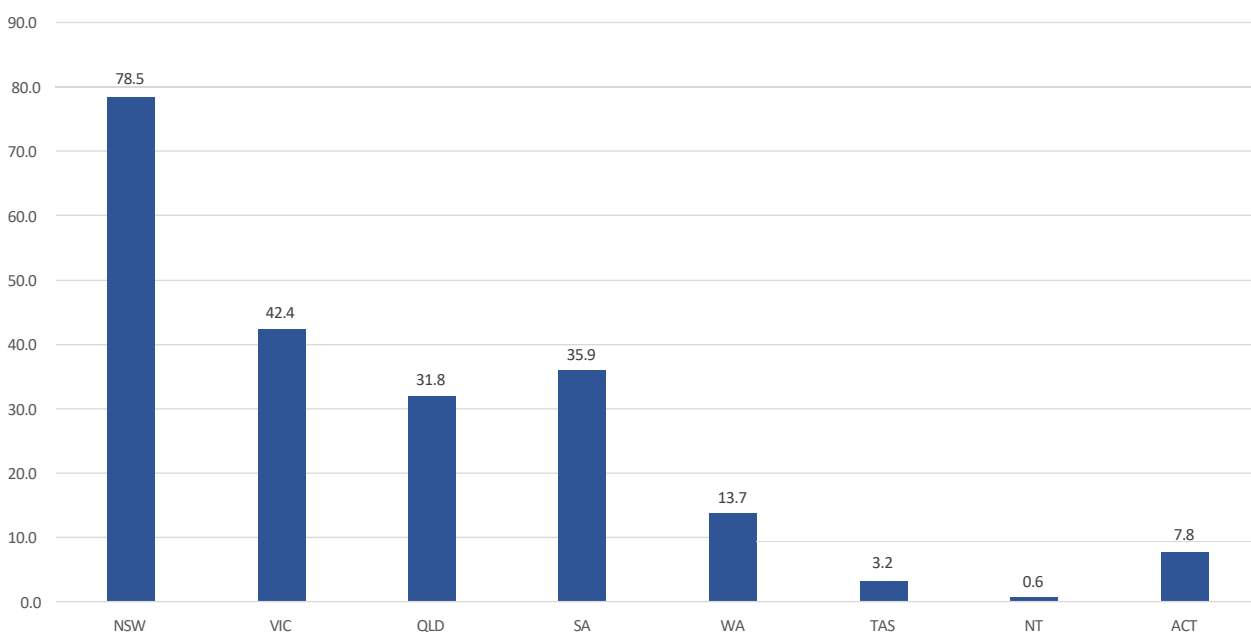


Source: AEAS

4.8 Industry Profits by State

Whilst AORI is characterised as a fledgling industry it is a profitable industry. AORI recycling businesses earned \$214 million operating profits before taxes. NSW organic recycling businesses earned \$78.5 million in profits, Victorian businesses earned \$42.4 million, Queensland businesses earned \$31.8 million, South Australia earned \$35.9 million, Western Australia earned \$13.7 million and ACT organic recycling business earned \$7.8 million in operating profits before taxes. Whilst sales are higher the industry profitability has fallen since 2021-22 when it recorded \$325 million in profits.

Figure 14: Organics Recycling Industry Operating Profit before Tax by State 2023-24 (\$ millions)

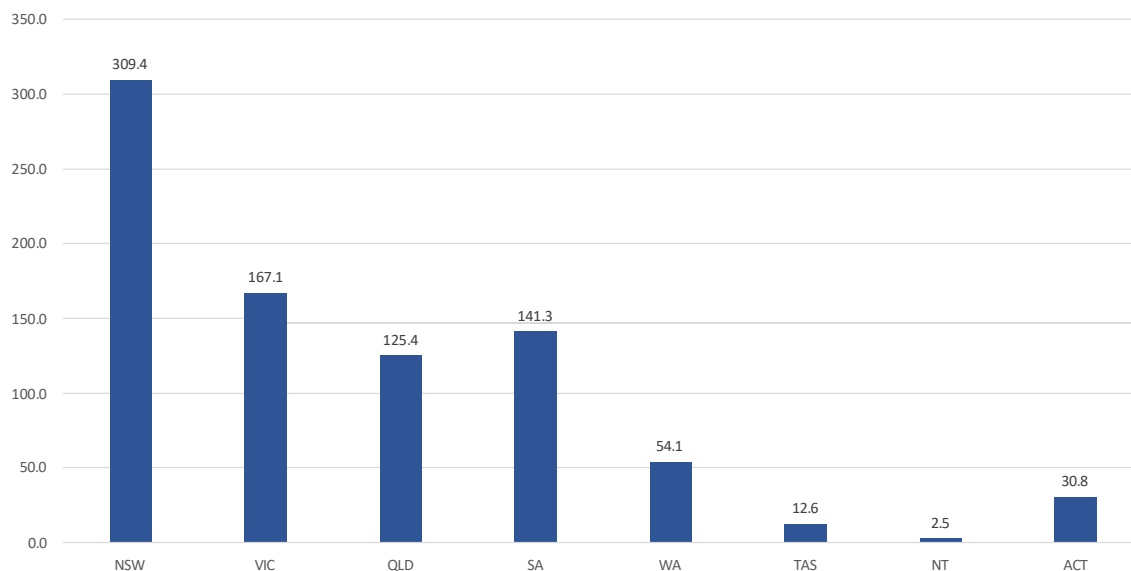


Source: AEAS

4.9 Total Contribution to the Economy

While gross sales or turnover is an easy concept to understand, ‘value added’ is a better measure in the context of an industry’s contribution to the economy. Value added for an industry is comprised of wages and salaries, gross operating surplus of business operating in the industry and indirect taxes (e.g. payroll tax). From the data, the direct value added attributable to AORI has been estimated. AORI’s direct value add (contribution to GSP) in the last financial year is estimated by AEAS to \$843.4 million. A state breakdown of organics recycling industry’s valued add to the economy is provided in Table 2. In addition to the direct contribution of the economy, AORI is estimated to have contributed a further \$673.9 million in industry value add to GSP through flow-on demand for goods and services, including production induced and consumption induced effects.

Figure 15: Organics Recycling Industry Value Added by State 2023-24 (\$ millions)



Source: AEAS

4.10 Economic Summary – 2010-11 to 2021-22

A summary of the growth of AORI’s economic contribution since 2010-11 is provided in table 2 below.

Table 2 : Economic contribution to Australian Economy 2010-11 to 2023-24 (\$ millions – current prices)

	Employment at end of June	Wages and salaries	Sales	Expenditure	Capital expenditure	Operating profit before tax	Industry value added
2010-11	4,386	\$ 344.8	\$ 2,127.3	\$ 1,951.3	\$ 176.8	\$ 174.7	\$ 690.2
2011-12	4,638	\$ 364.6	\$ 2,249.8	\$ 2,063.7	\$ 186.9	\$ 184.8	\$ 730.0
2012-13	4,891	\$ 384.5	\$ 2,372.4	\$ 2,176.1	\$ 197.1	\$ 194.9	\$ 769.7
2013-14	4,848	\$ 381.1	\$ 2,351.3	\$ 2,156.7	\$ 195.4	\$ 193.1	\$ 762.9
2014-15	5,068	\$ 398.4	\$ 2,458.3	\$ 2,254.9	\$ 204.3	\$ 201.9	\$ 797.6
2015-16	4,770	\$ 375.0	\$ 2,313.7	\$ 2,122.2	\$ 192.2	\$ 190.1	\$ 750.7
2016-17	4,791	\$ 376.6	\$ 2,323.6	\$ 2,131.3	\$ 193.1	\$ 190.9	\$ 753.9
2017-18	5,365	\$ 421.7	\$ 2,602.0	\$ 2,386.7	\$ 216.2	\$ 213.7	\$ 844.2
2018-19	5,236	\$ 411.6	\$ 2,539.8	\$ 2,329.6	\$ 211.0	\$ 208.6	\$ 824.0
2019-20	4,782	\$ 375.9	\$ 2,319.2	\$ 2,127.3	\$ 192.7	\$ 190.5	\$ 752.5
2020-21	5,368	\$ 421.9	\$ 2,603.5	\$ 2,388.1	\$ 216.3	\$ 213.9	\$ 844.7
2021-22	5,279	\$ 414.9	\$ 2,560.3	\$ 2,348.4	\$ 212.7	\$ 210.3	\$ 830.7
2022-23	5,251	\$ 412.7	\$ 2,546.8	\$ 2,336.0	\$ 211.6	\$ 209.2	\$ 826.3
2023-24	5,359	\$ 421.3	\$ 2,599.5	\$ 2,384.4	\$ 216.0	\$ 213.5	\$ 843.4

Source: AEAS

4.11 Economic Summary – State Breakdown

A summary of the State breakdown of AORI's economic contribution metrics is provided in table 3 below.

Table 3 : Economic contribution by State in 2023-24 (\$ millions)

	Employment at end of June	Wages and salaries	Sales	Expenditure	Capital expenditure	Operating profit before tax	Industry value added
NSW	1,967	\$ 154.5	\$ 953.9	\$ 875.0	\$ 79.3	\$ 78.5	\$ 309.4
VIC	1,062	\$ 83.4	\$ 515.1	\$ 472.5	\$ 42.8	\$ 42.4	\$ 167.1
QLD	797	\$ 62.6	\$ 386.6	\$ 354.6	\$ 32.1	\$ 31.8	\$ 125.4
SA	898	\$ 70.5	\$ 435.5	\$ 399.5	\$ 36.2	\$ 35.9	\$ 141.3
WA	344	\$ 27.0	\$ 166.6	\$ 152.9	\$ 13.8	\$ 13.7	\$ 54.1
TAS	80	\$ 6.3	\$ 38.8	\$ 35.6	\$ 3.2	\$ 3.2	\$ 12.6
NT	16	\$ 1.3	\$ 7.7	\$ 7.1	\$ 0.6	\$ 0.6	\$ 2.5
ACT	196	\$ 15.4	\$ 94.8	\$ 87.0	\$ 7.9	\$ 7.8	\$ 30.8
AUS	5,359	\$ 421.3	\$ 2,599.5	\$ 2,384.4	\$ 216.0	\$ 213.5	\$ 843.4

Source: AEAS

5.0 Environmental Contribution of Australian Organics Recycling Industry

Organics recycling reduces Greenhouse Gas (GHG) emissions primarily by decreasing the amount of energy, particularly fossil fuels, used by industry to make products compared with using virgin raw materials. It also reduces emissions of greenhouse gases by diverting recovered materials from landfills which biologically decompose in landfills and generate methane.

Australian organics recycling industry compost products in particular help the environment by:

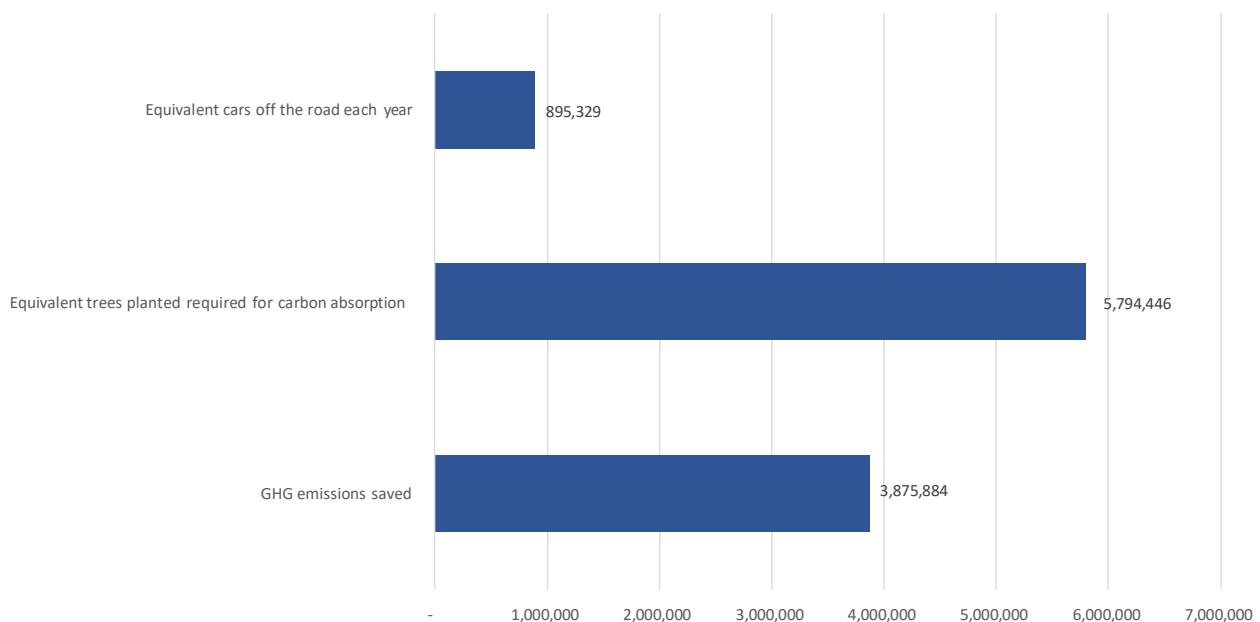
- Building soil carbon in agricultural soils. One tonne of composted garden organics applied to land can sequester approximately 0.5 tonnes of CO₂e (equivalent);
- Creating healthy soils that use less water, less fertiliser and fewer pesticides whilst reducing nutrient leaching and protecting the aquatic environment;
- Supporting resilient farming systems producing healthy food and supporting Australia's food security; and
- Buffering the effects of climate change in agriculture by:
 - reducing water loss from soils (improving water use efficiency and reducing cropping risk)
 - protecting soils against wind and water erosion
 - reducing soil temperature fluctuations (increasing root growth and soil biology)
 - reduces synthetic fertilizer demand and carbon emissions from fertilizer manufacture and use

Mulch application suppresses weed growth and can save more than 30 per cent of irrigation water depending on conditions. The composting process destroys weed seeds and pathogens, helping to control the spread of weeds and diseases as well as managing biosecurity risks.

The total estimated greenhouse gas savings from organics recycling of materials received in Australian in 2023-24 is approximately 3.9 million tonnes of CO₂-e. These GHG savings are considered approximately equivalent to:

- Approximately 5.8 million trees that would have to be planted to absorb the same amount of CO₂.
- The greenhouse gas emissions that 895,329 cars would produce in a year.

Figure 16: Australian Organics Recycling Industry - Environmental Benefits 2023-24



Source: AEAS

The environmental benefits by State are provided in table 4 on the next page.

Table 4: Australian Organics Recycling Industry - Environmental Benefits Summary 2023-24

	GHG emissions saved (tonnes)	Equivalent trees planted required for carbon absorption	Equivalent cars off the road each year
NSW	1,422,505	2,126,645	328,599
VIC	768,143	1,148,373	177,441
QLD	576,487	861,849	133,169
SA	649,501	971,003	150,035
WA	248,508	371,520	57,405
TAS	57,809	86,425	13,354
NT	11,525	17,231	2,662
ACT	141,405	211,401	32,665
AUS	3,875,884	5,794,446	895,329

Source: AEAS

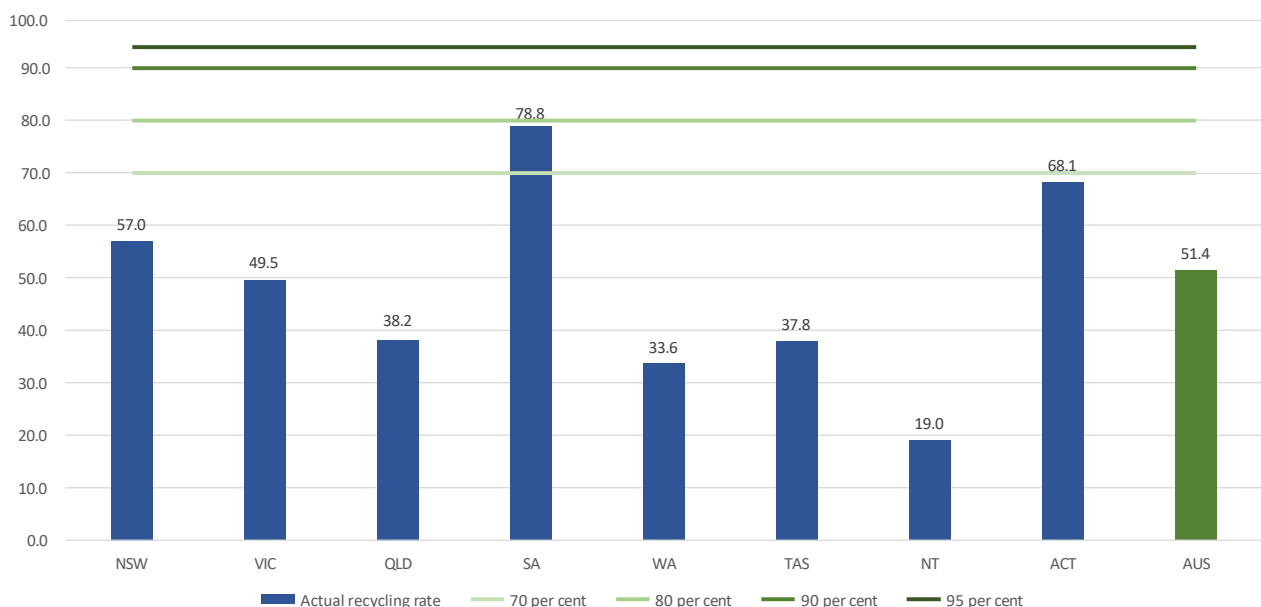
6.0 Modelling of increased Organics recycling rates

AEAS as part of the report has modelled what the economic contribution of the Australian Organics Recycling Industry would be if the current organics recycling rates were increased under four scenarios - to at least 70 per cent, 80 per cent 90 per cent and 95 per cent. This analysis is designed to assist AORA advocacy to implement policies across Australian states that lead to improved recycling of organic material..

6.1 Methodology:

Utilising the economic and environment benefit metrics modelled in sections 4 and 5 of this report on a per tonne basis, AEAS has recalculated these metrics after increasing the tonnes of organic material recycled to achieve a 70 per cent, 80 per cent, 90 per cent and 95 per cent recycling rate in each State. Where the State is already achieving the percentage recycling rate the existing economic and environmental benefit has been retained.

Figure 17: Organic material recycling rates in 2023-24



Source: National Waste Report, AEAS

6.2 Scenario – No Change

The baseline scenario of no change in recycling rates and the resulting economic and environmental benefits are provided below.

Table 5 : Base Economic contribution by State (\$ millions) No Change

	Employment at end of June (FTE)	Wages and salaries	Sales	Expenditure	Capital expenditure	Operating profit before tax	Industry value added
NSW	1,967	\$154.5	\$953.9	\$875.0	\$79.3	\$78.5	\$309.4
VIC	1,062	\$83.4	\$515.1	\$472.5	\$42.8	\$42.4	\$167.1
QLD	797	\$62.6	\$386.6	\$354.6	\$32.1	\$31.8	\$125.4
SA	898	\$70.5	\$435.5	\$399.5	\$36.2	\$35.9	\$141.3
WA	344	\$27.0	\$166.6	\$152.9	\$13.8	\$13.7	\$54.1
TAS	80	\$6.3	\$38.8	\$35.6	\$3.2	\$3.2	\$12.6
NT	16	\$1.3	\$7.7	\$7.1	\$0.6	\$0.6	\$2.5
ACT	196	\$15.4	\$94.8	\$87.0	\$7.9	\$7.8	\$30.8
AUS	5,359	\$421.3	\$2,599.5	\$2,384.4	\$216.0	\$213.5	\$843.4

Source: AEAS

Table 6: Environmental Benefits as a result of recycling

	GHG emissions saved (tonnes)	Equivalent trees planted required for carbon absorption	Equivalent cars off the road each year
NSW	1,422,505	2,126,645	328,599
VIC	768,143	1,148,373	177,441
QLD	576,487	861,849	133,169
SA	649,501	971,003	150,035
WA	248,508	371,520	57,405
TAS	57,809	86,425	13,354
NT	11,525	17,231	2,662
ACT	141,405	211,401	32,665
AUS	3,875,884	5,794,446	895,329

Source: AEAS

6.3 Scenario: Achievement of 70 per cent recycling rate

If all Australian states were able to achieve 70 per cent recycling rate for organic material the Australian economy would benefit from:

- Organics recycling businesses would generate an extra \$988.9 million in sales providing an additional \$906.9 million in supply chain opportunity with an extra \$320.4 million in industry value add towards the Australian economy.
- Organics recycling businesses would provide 2,039 extra jobs paying \$159.9 million in livelihood to everyday Australians.

Table 7: Economic contribution by State (\$ millions) – 70 per cent recycling rate

	Employment at end of June (FTE)	Wages and salaries	Sales	Expenditure	Capital expenditure	Operating profit before tax	Industry value added
NSW	2,415	\$189.7	\$1,171.4	\$1,074.5	\$97.3	\$96.4	\$379.9
VIC	1,502	\$118.0	\$728.3	\$668.1	\$60.5	\$60.0	\$236.2
QLD	1,460	\$114.7	\$708.2	\$649.6	\$58.9	\$58.3	\$229.7
SA	898	\$70.5	\$435.5	\$399.5	\$36.2	\$35.9	\$141.3
WA	715	\$56.2	\$346.9	\$318.2	\$28.8	\$28.6	\$112.5
TAS	148	\$11.6	\$71.8	\$65.9	\$6.0	\$5.9	\$23.3
NT	59	\$4.6	\$28.5	\$26.1	\$2.4	\$2.3	\$9.2
ACT	201	\$15.8	\$97.5	\$89.4	\$8.1	\$8.0	\$31.6
AUS	7,398	\$581.2	\$3,588.1	\$3,291.3	\$298.2	\$295.4	\$1,163.8

Source: AEAS

Table 8 : Economic Gain by State (\$ millions) – 70 per cent recycling rate

	Employment at end of June (FTE)	Wages and salaries	Sales	Expenditure	Capital expenditure	Operating profit before tax	Industry value added
NSW	448	\$35.2	\$217.5	\$199.5	\$18.1	\$17.9	\$70.5
VIC	440	\$34.5	\$213.2	\$195.6	\$17.7	\$17.6	\$69.2
QLD	663	\$52.1	\$321.6	\$295.0	\$26.7	\$26.5	\$104.3
SA	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
WA	372	\$29.2	\$180.3	\$165.4	\$15.0	\$14.8	\$58.5
TAS	68	\$5.4	\$33.1	\$30.3	\$2.7	\$2.7	\$10.7
NT	43	\$3.4	\$20.7	\$19.0	\$1.7	\$1.7	\$6.7
ACT	5	\$0.4	\$2.7	\$2.4	\$0.2	\$0.2	\$0.9
AUS	2039	\$159.9	\$988.6	\$906.9	\$82.2	\$81.9	\$320.4

Source: AEAS

If all Australian states were able to achieve 70 per cent recycling rate for organic material the Australian environment would benefit from an extra 1,401,349 tonnes of greenhouse gas emissions saved which is equivalent to:

- 2,095,017 trees planted; and
- 323,712 cars taken off the road each year.

Table 9: Environmental Benefits – 70 per cent recycling rate

	GHG emissions saved (tonnes)	Equivalent trees planted required for carbon absorption	Equivalent cars off the road each year
NSW	1,746,501	2,611,019	403,442
VIC	1,085,797	1,623,266	250,819
QLD	1,055,942	1,578,633	243,923
SA	649,501	971,004	150,035
WA	517,492	773,651	119,541
TAS	107,104	160,121	24,741
NT	42,437	63,444	9,803
ACT	145,311	217,240	33,567
AUS	5,277,233	7,889,463	1,219,041

Source: AEAS

Table 10: Gain in Environmental Benefits – 70 per cent recycling rate

	GHG emissions saved (tonnes)	Equivalent trees planted required for carbon absorption	Equivalent cars off the road each year
NSW	323,996	484,374	74,843
VIC	317,654	474,893	73,378
QLD	479,455	716,785	110,754
SA	-	-	-
WA	268,984	402,131	62,135
TAS	49,295	73,696	11,387
NT	30,912	46,213	7,141
ACT	3,906	5,840	902
AUS	1,401,349	2,095,017	323,712

Source: AEAS

6.4 Scenario: Achievement of 80 per cent recycling rate

If all Australian states were able to achieve 80 per cent recycling rate for organic material the Australian economy would benefit from:

- Organics recycling businesses would generate an extra \$1.4 billion in sales providing an additional \$1.3 billion in supply chain opportunity with an extra \$468.9million in industry value add towards the Australian economy.
- Organics recycling businesses would provide 2,980 extra jobs paying \$234.2 million in livelihood to everyday Australians.

Table 11: Economic contribution by State (\$ millions) – 80 per cent recycling rate

	Employment at end of June (FTE)	Wages and salaries	Sales	Expenditure	Capital expenditure	Operating profit before tax	Industry value added
NSW	2,759	\$216.8	\$1,338.3	\$1,227.6	\$111.2	\$110.2	\$434.1
VIC	1,715	\$134.7	\$831.9	\$763.0	\$69.1	\$68.5	\$269.8
QLD	1,668	\$131.1	\$809.1	\$742.2	\$67.2	\$66.6	\$262.4
SA	912	\$71.6	\$442.1	\$405.5	\$36.7	\$36.4	\$143.4
WA	818	\$64.2	\$396.6	\$363.8	\$33.0	\$32.7	\$128.6
TAS	169	\$13.3	\$82.1	\$75.3	\$6.8	\$6.8	\$26.6
NT	67	\$5.3	\$32.5	\$29.8	\$2.7	\$2.7	\$10.5
ACT	230	\$18.0	\$111.3	\$102.1	\$9.3	\$9.2	\$36.1
AUS	8,339	\$655.5	\$4,044.8	\$3,710.1	\$336.1	\$332.3	\$1,312.3

Source: AEAS

Table 12: Economic Gain by State (\$ millions) – 80 per cent recycling rate

	Employment at end of June (FTE)	Wages and salaries	Sales	Expenditure	Capital expenditure	Operating profit before tax	Industry value added
NSW	793	\$62.3	\$384.4	\$352.6	\$31.9	\$31.7	\$124.7
VIC	653	\$51.3	\$316.8	\$290.6	\$26.3	\$26.1	\$102.7
QLD	871	\$68.4	\$422.5	\$387.6	\$35.1	\$34.8	\$137.0
SA	13	\$1.1	\$6.5	\$6.0	\$0.5	\$0.5	\$2.1
WA	474	\$37.3	\$230.0	\$210.9	\$19.1	\$18.9	\$74.6
TAS	89	\$7.0	\$43.3	\$39.7	\$3.6	\$3.6	\$14.0
NT	51	\$4.0	\$24.8	\$22.7	\$2.1	\$2.0	\$8.0
ACT	34	\$2.7	\$16.5	\$15.1	\$1.4	\$1.4	\$5.4
AUS	2,980	\$234.2	\$1,445.3	\$1,325.7	\$120.1	\$118.7	\$468.9

Source: AEAS

If all Australian states were able to achieve 80 per cent recycling rate for organic material the Australian environment would benefit from an extra 2,155,239 tonnes of greenhouse gas emissions saved which is equivalent to:

- 3,222,083 trees planted; and
- 497,860 cars taken off the road each year.

Table 13: Environmental Benefits – 80 per cent recycling rate

	GHG emissions saved (tonnes)	Equivalent trees planted required for carbon absorption	Equivalent cars off the road each year
NSW	1,996,001	2,984,021	461,076
VIC	1,240,911	1,855,162	286,650
QLD	1,206,791	1,804,152	278,769
SA	659,027	985,245	152,235
WA	591,420	884,173	136,618
TAS	122,405	182,995	28,276
NT	48,500	72,507	11,203
ACT	166,070	248,274	38,362
AUS	6,031,123	9,016,529	1,393,189

Source: AEAS

Table 14: Gain in Environmental Benefits – 80 per cent recycling rate

	GHG emissions saved (tonnes)	Equivalent trees planted required for carbon absorption	Equivalent cars off the road each year
NSW	573,496	857,377	132,478
VIC	472,768	706,788	109,209
QLD	630,303	942,303	145,600
SA	9,526	14,241	2,200
WA	342,911	512,652	79,213
TAS	64,596	96,571	14,922
NT	36,974	55,277	8,541
ACT	24,665	36,874	5,698
AUS	2,155,239	3,222,083	497,860

Source: AEAS

6.5 Scenario: Achievement of 90 per cent recycling rate

If all Australian states were able to achieve 90 per cent recycling rate for organic material the Australian economy would benefit from:

- Organics recycling businesses would generate an extra \$2.0 billion in sales providing an additional \$1.8 billion in supply chain opportunity with an extra \$633.4 million in industry value add towards the Australian economy.
- Organics recycling businesses would provide 4,025 extra jobs paying \$316.4 million in livelihood to everyday Australians.

Table 15: Economic contribution by State (\$ millions) – 90 per cent recycling rate

	Employment at end of June (FTE)	Wages and salaries	Sales	Expenditure	Capital expenditure	Operating profit before tax	Industry value added
NSW	3,106	\$244.0	\$1,506.2	\$1,381.6	\$125.2	\$124.0	\$488.5
VIC	1,930	\$151.6	\$935.9	\$858.5	\$77.8	\$77.1	\$303.6
QLD	1,877	\$147.5	\$910.4	\$835.1	\$75.7	\$75.0	\$295.3
SA	1,025	\$80.5	\$496.9	\$455.8	\$41.3	\$40.9	\$161.2
WA	920	\$72.3	\$446.1	\$409.2	\$37.1	\$36.7	\$144.7
TAS	190	\$15.0	\$92.3	\$84.7	\$7.7	\$7.6	\$29.9
NT	75	\$5.9	\$36.6	\$33.6	\$3.0	\$3.0	\$11.9
ACT	258	\$20.3	\$125.3	\$114.9	\$10.4	\$10.3	\$40.6
AUS	9,384	\$737.7	\$4,551.7	\$4,175.1	\$378.2	\$373.9	\$1,476.8

Source: AEAS

Table 16: Economic Gain by State (\$ millions) – 90 per cent recycling rate

	Employment at end of June (FTE)	Wages and salaries	Sales	Expenditure	Capital expenditure	Operating profit before tax	Industry value added
NSW	1,139	\$89.5	\$552.3	\$506.6	\$45.9	\$45.5	\$179.1
VIC	868	\$68.2	\$420.8	\$386.0	\$35.0	\$34.7	\$136.5
QLD	1080	\$84.8	\$523.8	\$480.5	\$43.5	\$43.1	\$169.9
SA	127	\$9.9	\$61.4	\$56.3	\$5.1	\$5.1	\$19.9
WA	576	\$45.3	\$279.5	\$256.3	\$23.2	\$23.0	\$90.6
TAS	110	\$8.7	\$53.6	\$49.1	\$4.5	\$4.4	\$17.4
NT	60	\$4.7	\$28.9	\$26.5	\$2.4	\$2.4	\$9.4
ACT	63	\$4.9	\$30.4	\$27.9	\$2.5	\$2.5	\$9.9
AUS	4,025	\$316.4	\$1,952.2	\$1,790.7	\$162.2	\$160.4	\$633.4

Source: AEAS

If all Australian states were able to achieve 90 per cent recycling rate for organic material the Australian environment would benefit from an extra 2,909,130 tonnes of greenhouse gas emissions saved which is equivalent to:

- 4,349,150 trees planted; and
- 672,009 cars taken off the road each year.

Table 17: Environmental Benefits – 90 per cent recycling rate

	GHG emissions saved (tonnes)	Equivalent trees planted required for carbon absorption	Equivalent cars off the road each year
NSW	2,245,501	3,357,024	518,711
VIC	1,396,025	2,087,057	322,482
QLD	1,357,640	2,029,671	313,615
SA	741,405	1,108,400	171,265
WA	665,347	994,694	153,695
TAS	137,706	205,870	31,810
NT	54,562	81,571	12,604
ACT	186,829	279,309	43,157
AUS	6,785,014	10,143,596	1,567,338

Source: AEAS

Table 18: Gain in Environmental Benefits – 90 per cent recycling rate

	GHG emissions saved (tonnes)	Equivalent trees planted required for carbon absorption	Equivalent cars off the road each year
NSW	822,997	1,230,380	190,112
VIC	627,882	938,684	145,041
QLD	781,152	1,167,823	180,446
SA	91,904	137,397	21,230
WA	416,839	623,174	96,290
TAS	79,896	119,445	18,456
NT	43,037	64,340	9,942
ACT	45,424	67,908	10,493
AUS	2,909,130	4,349,150	672,009

Source: AEAS

6.6 Scenario: Achievement of 95 per cent recycling rate

If all Australian states were able to achieve 95 per cent recycling rate for organic material the Australian economy would benefit from:

- Organics recycling businesses would generate an extra \$2.2 billion in sales providing an additional \$2.0 billion in supply chain opportunity with an extra \$715.2 million in industry value add towards the Australian economy.
- Organics recycling businesses would provide 4,545 extra jobs paying \$357.2 million in livelihood to everyday Australians.

Table 19 : Economic contribution by State (\$ millions) – 95 per cent recycling rate

	Employment at end of June (FTE)	Wages and salaries	Sales	Expenditure	Capital expenditure	Operating profit before tax	Industry value added
NSW	3,277	\$257.4	\$1,589.1	\$1,457.7	\$132.1	\$130.8	\$515.4
VIC	2,037	\$160.0	\$987.9	\$906.2	\$82.1	\$81.3	\$320.4
QLD	1,982	\$155.7	\$961.0	\$881.5	\$79.9	\$79.1	\$311.7
SA	1,082	\$85.0	\$524.8	\$481.4	\$43.6	\$43.2	\$170.2
WA	971	\$76.3	\$470.9	\$432.0	\$39.1	\$38.8	\$152.7
TAS	201	\$15.8	\$97.5	\$89.4	\$8.1	\$8.0	\$31.6
NT	80	\$6.3	\$38.6	\$35.4	\$3.2	\$3.2	\$12.5
ACT	273	\$21.4	\$132.3	\$121.3	\$11.0	\$10.9	\$42.9
AUS	9,904	\$778.5	\$4,803.8	\$4,406.3	\$399.1	\$394.6	\$1,558.6

Source: AEAS

Table 20: Economic Gain by State (\$ millions) – 95 per cent recycling rate

	Employment at end of June (FTE)	Wages and salaries	Sales	Expenditure	Capital expenditure	Operating profit before tax	Industry value added
NSW	1,310	\$102.9	\$635.3	\$582.7	\$52.8	\$52.3	\$206.1
VIC	975	\$76.6	\$472.8	\$433.7	\$39.3	\$38.9	\$153.4
QLD	1,184	\$93.1	\$574.4	\$526.9	\$47.7	\$47.3	\$186.3
SA	184	\$14.5	\$89.3	\$81.9	\$7.4	\$7.4	\$29.0
WA	627	\$49.3	\$304.3	\$279.1	\$25.3	\$25.1	\$98.7
TAS	121	\$9.5	\$58.7	\$53.8	\$4.9	\$4.8	\$19.0
NT	64	\$5.0	\$30.9	\$28.3	\$2.6	\$2.5	\$10.0
ACT	77	\$6.1	\$37.5	\$34.4	\$3.1	\$3.1	\$12.1
AUS	4545	\$357.2	\$2,204.4	\$2,022.0	\$183.2	\$181.1	\$715.2

Source: AEAS

If all Australian states were able to achieve 95 per cent recycling rate for organic material the Australian environment would benefit from an extra 3,286,075 tonnes of greenhouse gas emissions saved which is equivalent to:

- 4,912,683 trees planted; and
- 759,083 cars taken off the road each year.

Table 21: Environmental Benefits – 95per cent recycling rate

	GHG emissions saved (tonnes)	Equivalent trees planted required for carbon absorption	Equivalent cars off the road each year
NSW	2,370,251	3,543,525	547,528
VIC	1,473,582	2,203,004	340,397
QLD	1,433,064	2,142,431	331,038
SA	782,594	1,169,978	180,779
WA	702,311	1,049,955	162,234
TAS	145,356	217,307	33,577
NT	57,593	86,102	13,304
ACT	197,208	294,826	45,555
AUS	7,161,959	10,707,129	1,654,413

Source: AEAS

Table 22: Gain in Environmental Benefits – 95 per cent recycling rate

	GHG emissions saved (tonnes)	Equivalent trees planted required for carbon absorption	Equivalent cars off the road each year
NSW	947,746	1,416,881	218,929
VIC	705,439	1,054,631	162,956
QLD	856,577	1,280,582	197,869
SA	133,093	198,975	30,745
WA	453,803	678,435	104,828
TAS	87,547	130,882	20,223
NT	46,068	68,872	10,642
ACT	55,803	83,425	12,890
AUS	3,286,075	4,912,683	759,083

Source: AEAS

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AEAS Business Information

Australian Economic Advocacy Solutions delivers services in economic analysis, research and advocacy in Australia and was set up by Nick Behrens following two decades of experience applying these skills in the real world for Australia's business community. More specifically AEAS provides:

- Economic Analysis and Market Research;
- Government Relations and Submissions;
- Media Relations; and
- Stakeholder Relations

AEAS delivers services nationally to exemplary organisations including ACOR, Allgas, AORA, Australian Aluminium Council, Australian Industry Group, Australian Gas Industry Trust, Australian Steel Institute, BASF, Brisbane Airport Corporation, Brisbane Cross River Rail, Brisbane Economic Development Agency, Business Chamber Queensland, Canegrowers, Cairns Airport, Dexus, IOR Petroleum, LifeFlight, Mackay Airport, Maleny Dairies, Master Builders Australia, Manufacturing Skills Queensland, Motor Trades Association, Natroads, NWRIC, Neuron E-Scooters, North Queensland Airports, Port of Brisbane, Property Council of Australia, QFI, Queensland Resources Council, Queensland Major Contractors Association, Queensland Trucking Association, RACQ, Remondis, Suncorp, VTA, Victorian Waste Management Association, WRISA, WRINT, WRIQ, unions, local government authorities, the Commonwealth and State Governments and many others.

AEAS can be engaged for either a special project (for the entire project or just the parts our clients need help with) or on an ongoing basis. We will take the time to understand your unique challenge and create a partnership with you to tailor a solution specific to your budget. We engage with confidentiality and integrity. Choose AEAS for our expertise, professionalism and ability to work with our valued clients to achieve exceptional results.

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Professional Bio: Nick Behrens

Across his professional career Nick has realised many outstanding outcomes to complex challenges for the business community. He possesses significant experience in gathering and presenting information, and leveraging that information to achieve results across a range of economic areas including taxation, regulatory environment, workers compensation, employment legislation, migration, infrastructure and planning issues.

Nick's representations are based on extensive research and his preferred approach to advocacy has always been to achieve results rather than headlines by working with stakeholders behind the scenes to secure positive and lasting outcomes. He places much emphasis on having a thorough and convincing evidence that is readily understood and in turn leads to real world solutions. As Director of Australian Economic Advocacy Solutions (AEAS), Nick provides:

- Exceptional understanding of social, political and economic issues impacting on business;
- Considerable real-world application of project, business and economic research and analysis;
- Significant expertise in advocacy, including government and stakeholder relations;
- In-depth and firsthand knowledge of the workings of Government;
- Extensive networks in political, government, business and community sectors;
- Significant commercial expertise; and
- Media commentator.

