6. Public health and environment

6.1. Total greenhouse gas emissions reported under the NGER scheme – HE_N1

The greenhouse gas emission indicators (including E12) were decommissioned from 2024–25 following the NPR Framework Indicator Review. The updated Framework now aligns with the National Greenhouse and Energy Reporting (NGER) scheme, requiring reporting only for service providers that meet NGER thresholds. Therefore, the new HE_N1 indicator, as the sole greenhouse gas emissions measure under the updated Framework, is discussed in this section, acknowledging that no historical data is available pre-2024–25.

Although water and wastewater service providers contribute only a small proportion of Australia's total national emissions, collecting and publicly reporting emissions under the NGER scheme remains essential. Transparent reporting supports service providers accountability and enables tracking emissions reductions over time. These data also offer insights into the environmental impacts of service providers' operational activities.

While emissions are not a direct performance measure, efforts to reduce them including investments, whether voluntary or policy-driven, can have financial implications. These costs affect overall financial performance, making consistent emissions reporting critical for understanding both environmental progress and associated economic impacts.

The HE_N1 indicator reports the total Scope 1 and 2 greenhouse gas emissions reported by service providers for the reporting year under the NGER scheme (t CO_2 equivalent). The NGER scheme, established by the National Greenhouse and Energy Reporting Act 2007 (NGER Act)[22], is a national framework for reporting information about greenhouse gas emissions, energy production, and energy consumption. The NGER outlines two distinct types of emissions factors that may need to be reported based on service providers' activities:

- Direct emission factors (Scope 1) which are the emissions released to the atmosphere as a direct result of an activity or series of activities at a service provider level.
- Indirect emission factors (Scope 2) which are the emissions released to the atmosphere from the indirect consumption of an energy commodity, for example coming from the use of electricity produced by the burning of coal.

The National Greenhouse and Energy Reporting (Measurement) Determination 2008 (Measurement Determination) provides methods, criteria and measurement standards for calculating greenhouse gas emissions, which is updated annually. Reporting service providers should make sure that they use the correct version of the Measurement Determination, corresponding to the year in which they are reporting.

Comparing different service providers' net greenhouse gas emissions is a difficult exercise and should be undertaken with caution due to the number of variables affecting emissions and such a comparison, including:

- sources of water
- gravity versus pumped networks

[22] National Greenhouse and Energy Reporting Act 2007 - Federal Register of Legislation

- geographical conditions (influencing the need for pumping)
- the number of customers that a service provider serves (the size of the service provider)
- the extent of industry within the customer base
- the prevailing greenhouse policy in the jurisdiction.

Total greenhouse gas emissions data for 2024–25 is presented in Table A14, Appendix A.

6.1.1. Key findings

Table 6.1 summarises the total greenhouse gas emissions reported by service provider in each size group for 2024–25. Very small service providers were not required to report data to this indicator for the 2024–25 reporting year.

As HE_N1 is a new indicator introduced following the 2020 NPR Framework Indicator Review, no data is available prior to 2024–25. Across all reporting size groups, the median total greenhouse gas emissions was approximately 11,762 t CO_2 equivalent. Water Corporation–Perth (Western Australia) in the Major size group reported the highest emissions, reflecting its high reliance on desalination and extensive pumping needs across the state. In contrast, Armidale Regional Council (New South Wales) in the Small size group reported the lowest emissions as the service provider sources water only from surface water resources.

Table 6.1 Overview of results: Total greenhouse gas emissions reported under the NGER scheme (t CO_2 equivalents)

Service provider size group[bc]	Range		No. service providers with increase/decrease from 2023–24		Median[a]		Change in median from 2023–24 (%)
	High	Low	Increase	Decrease	2023–24	2024–25	
Major	462,923 WC (Perth)	7,811 Barwon Water	-	-	-	54,461	-
Large	37,400 Goulburn Valley Water	11,417 North East Water	-	-	-	22,147	-
Medium	19,557 Port Macquarie Hastings	2,798 Clarence Valley	-	-	-	8,416	-
Small	12,107 Kempsey	872 Armidale	-	-	-	5,598	-
All size groups (national)	**462,923 WC (Perth)**	**872 Armidale**	**-**	**-**	**-**	**11,762**	

Notes:

[a] The median total greenhouse gas emissions for each year is calculated using data from all service providers supplying both water and wastewater services reporting data for HE_N1 for that year.

[b] This indicator is introduced from 2024–25 as a new indicator following the 2020 NPR Framework Indicator Review, with no historical data being collected pre-2024–25.

[c] Very small service providers (serving less than 10,000 connected properties) were not required to report data of greenhouse gas emissions for the 2024–25 reporting year.

6.1.2. Results and analysis – Major size group

In 2024–25, the median total greenhouse gas emissions by all reporting Major service providers was around 54,461 t CO_2 equivalent, which was higher than the median value for other size groups. Water Corporation–Perth (Western Australia) and Barwon Region Water Corporation (Victoria) reported the highest and lowest total greenhouse gas emissions, respectively. In addition to its substantial reliance on desalinated water and groundwater sources, Water Corporation–Perth (Western Australia) serves about five times more customers than Barwon Region Water Corporation (Victoria), contributing to its higher overall emissions.

6.2. Percentage of the population where microbiological compliance was achieved – H3

This indicator reports the percentage of the population serviced by the service provider for whom microbiological compliance was achieved. Compliance is assessed against the Australian Drinking Water Guidelines 2011[23] or licence conditions imposed on the service provider by their regulator. Typically, service providers record very high compliance. However, unforeseen events may deliver a lower compliance result, and the cause of non–compliance is not always traceable.

Following the 2020 NPR Framework Indicator Review, from 2024–25, H3 has not materially changed, and its historical data remains valid for comparative analysis (Table 1.1).

Microbiological compliance data for 2024–25 is shown in Appendix A, Table A15.

6.2.1. Key findings

Table 6.2 shows a summary of the percentage of population for which microbiological compliance was achieved by service provider size group. Very small service providers were not required to report data to this indicator for the 2024–25 reporting year.

In 2024–25, nationally and across all service provider size groups, the median remained at 100% (no change from the previous year). The majority of service providers achieved 100% microbiological compliance, except for Fraser Coast Regional Council (Queensland), Bundaberg Regional Council (Queensland), Lower Murray Water (Victoria), all from the Medium size group as well as Southern Downs Regional Council (Queensland) from the Small size group. These service providers achieved 99.6%, 99.4%, 99.0% and 99.9% of the microbiological compliance, respectively.

[23] https://www.nhmrc.gov.au/about-us/publications/australian-drinking-water-guidelines, updated June 2025

Table 6.2 Overview of results: Percentage of the population where microbiological compliance was achieved

Service provider size group[b]	Range		No. service providers with increase/decrease from 2023–24		Median[a]		Change in median from 2023–24 (%)
	High	Low	Increase	Decrease	2023–24	2024–25	
Major	100.0 Multiple utilities	100.0 Multiple utilities	0	0	100.0	100.0	0
Large	100.0 Multiple utilities	100.0 Multiple utilities	0	0	100.0	100.0	0
Medium	100.0 Multiple utilities	99.0 Lower Murray Water	2	3	100.0	100.0	0
Small	100.0 Multiple utilities	99.9 Southern Downs	0	1	100.0	100.0	0
All size groups (national)	**100.0 Multiple utilities**	**99.0 Lower Murray Water**	**2**	**4**	**100.0**	**100.0**	**0**

Notes:

[a] The median percentage of population for which microbiological compliance was achieved for each year was calculated using data from all service providers supplying water services and reporting data against H3 in that reporting year.

[b] Very small service providers (serving less than 10,000 connected properties) were not required to report data of microbiological compliance for the 2024–25 reporting year.

6.2.2. Results and analysis – Major size group

Over the past five years, all service providers in the Major size group achieved 100% microbiological compliance, except for South East Water Corporation (Victoria) which achieved 99.9% in the 2022–23 and 2020–21 reporting years. TasWater (Tasmania) did not report to this indicator in 2024–25 due to a failure in auditing.