

FY22

CARBON EMISSIONS PERFORMANCE REPORT

UN SDG13 - CLIMATE ACTION

Summary

This report provides a consolidated overview of Ausgrid's carbon emission targets and performance for the financial year from 1 July 2021 to 30 June 2022

Our new emissions targets

In FY22, we committed to increase the ambition of our emissions reduction targets to align with net zero objectives and reflect the significant progress made by Ausgrid and our industry to reduce emissions and decarbonise the electricity grid.

To support our response we have joined the United Nations (UN)-backed global campaign, 'Race to Zero' and the 'Business Ambition for 1.5°C', as part of our commitment to the [Science Based Targets initiative \(SBTi\)](#).

We will lodge renewed targets with the SBTi in FY23 for validation and approval. To meet our above commitments the targets will at a minimum achieve:

- A. 50% reduction of our scope 1 and 2 emissions by 2030
- B. Net zero by 2050 for our scope 1, 2 and 3 emissions

Our targets will include line losses, be based on a more recent base year and include all of our supply chain scope 3 emissions per the [Greenhouse Gas Protocol](#).

Our previous targets

In FY19, Ausgrid created two categories of carbon emission reduction targets:

- A. 8% of all emissions (scope 1, 2 and selected 3) by FY24 and 17% by FY30; and
- B. 44% of all emissions (scope 1, 2, and selected 3), excluding line losses, by FY24.

Our targets were baselined to FY17 to reflect our change in ownership when the NSW Government entered into shared ownership with AustralianSuper and IFM Investors.

In FY22, Ausgrid achieved reductions of 19.6% and 24.9% for targets A and B, respectively. These results mean we have successfully achieved our 8% and 17% emissions targets early, and we are on track to achieve our 44% reduction target in FY24.

While our targets to date have been ambitious and successful, Ausgrid is aware of the need to accelerate our target ambitions to meet the challenges of climate change.

FY22 performance

Scope 1 emissions

Reduced 3.4% since FY17 mainly from fleet efficiencies counterbalanced by an increase in sulphur hexafluoride (SF₆) used on our network. Ausgrid has implemented an SF₆ strategy to reduce these emissions.

Scope 2 emissions

Reduced 19.2% since FY17 due to grid decarbonisation, reduced electricity demand, property improvements and the installation of solar generation. Excluding line losses, Ausgrid has achieved a significant reduction of 45.7% since FY17.

Scope 3 emissions

Reduced 25.5% from FY17 and continued to decrease in line with our streetlight LED program, which is the bulk of these emissions.

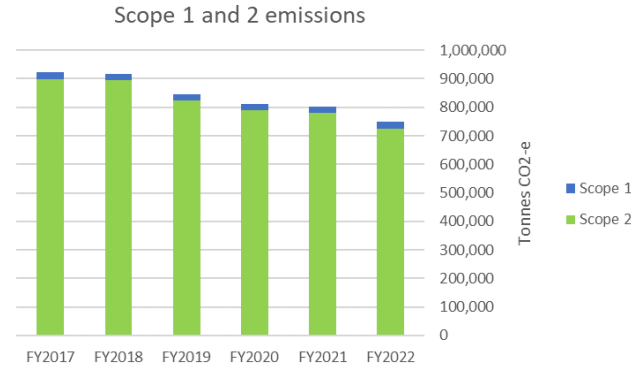
We will be working with our suppliers to improve our understanding of our scope 3 footprint and implement strategies to reduce this to net zero by 2050.

Our new commitments

Reducing our own emissions is integral to our wider net zero strategy



50% reduction by FY30 for scope 1 and 2 emissions, and net zero by FY50 for scope 1, 2 and 3 emissions



This year Ausgrid refreshed its vision and launched a new strategy shaped by input from our customers and people. Delivering net zero is now one of our strategy's core pillars, and our new emissions targets support our strategy.

Ausgrid is responding to an urgent call-to-action for companies to set emissions reduction targets in line with a 1.5°C future, backed by a global network of UN agencies, business and industry leaders.

Ausgrid will set verifiable science-based targets through the SBTi, which independently assesses corporate emissions reduction targets in line with what climate science says is needed to meet the goals of the Paris Agreement.

In FY22, we joined the UN-backed global campaign, [Race to Zero](#) and the [Business Ambition for 1.5°C](#) as part of our commitment to the SBTi.

In line with these commitments, Ausgrid at a minimum will achieve:

- A. 50% reduction of our scope 1 and 2 emissions by 2030
- B. Net zero by 2050 for our scope 1, 2 and 3 emissions

These targets include our scope 2 line losses.

Our commitments are baselined to FY20 to meet the SBTi requirement that the baseline year inventories are within two years of the latest year of complete data, which for Ausgrid is FY21. These commitments will be lodged with the SBTi in FY23 for their validation and approval.

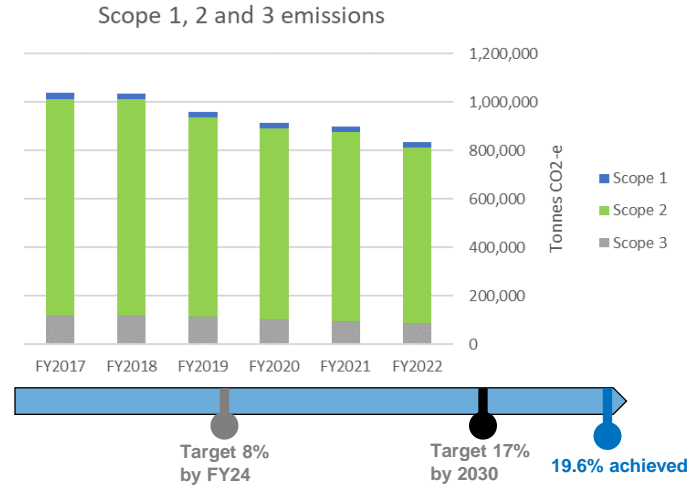
Ausgrid will be working with suppliers to obtain information on the emissions intensity of the goods and services we procure and understand their decarbonisation pathways in order to set a near-term target for all our scope 3 emissions.

For more information on our strategy and net zero, see our latest [Sustainability Report](#).

Our previous targets

We were the first electricity distribution network service provider in Australia to set CO₂-e targets

Scope 1, 2 and selected scope 3 emissions target – including line losses 8% reduction by end FY24 and 17% by 2030

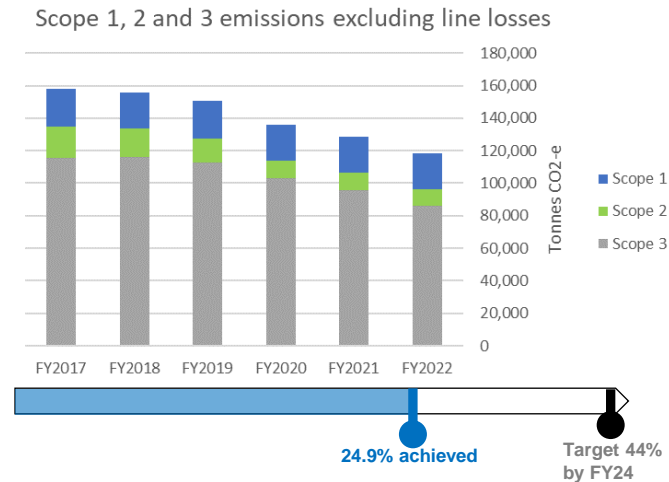


Emissions have reduced by 19.6% from FY17.

Decarbonisation of the electricity grid and lower electricity demand have been key contributors to the success of this target.

With our new emissions commitments coming into place, FY22 will be the last year Ausgrid reports on the targets detailed on this page.

Scope 1, 2 and selected scope 3 emissions target - excluding line losses 44% reduction by end FY24



Emissions (excluding line losses) were reduced by 24.9% from FY17.

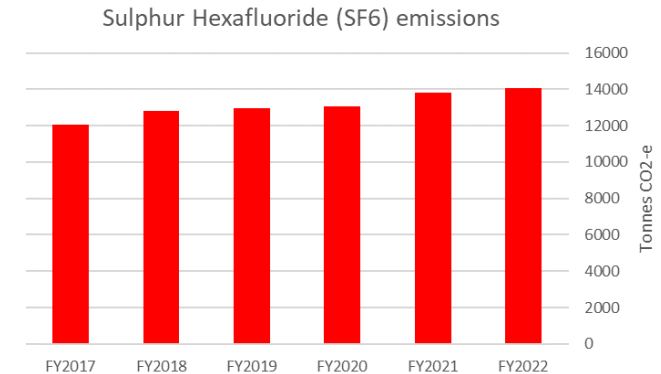
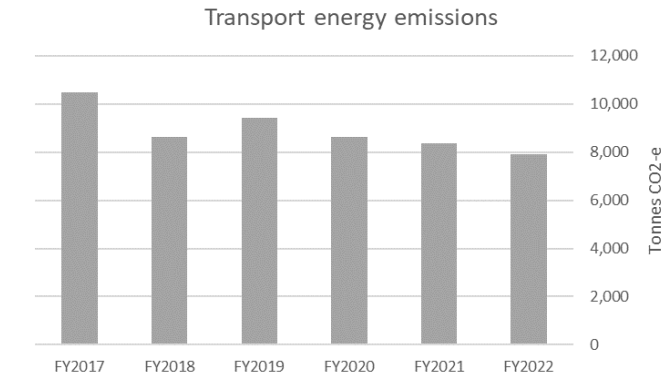
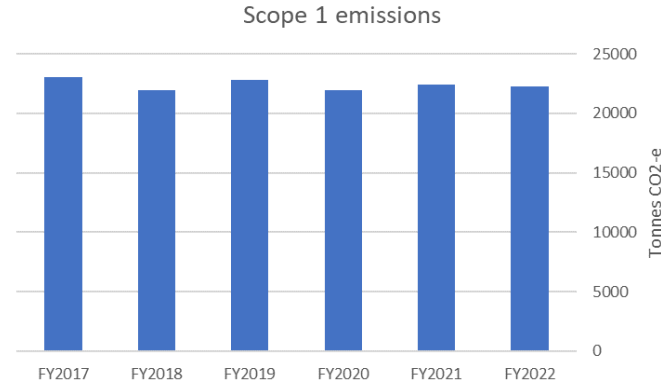
Ausgrid has actively pursued initiatives to reduce the emissions from our operations. Solar panel installation, increased property energy efficiency, fleet reductions, and a more energy efficient fleet, as well as changing our streetlights to more efficient LEDs, have contributed to this success.

In FY22, Ausgrid entered into a new electricity contract for its operations. Commencing in January 2024, this electricity will come from 100% renewable sources in FY24 supporting the achievement of our 44% target.

Scope 1 emissions

(liquid fuels, oils and gases)

Efficiencies in our fleet have provided large benefits



Total scope 1 emissions were reduced by 3.4% from FY17.

Scope 1 emissions from petrol, oils, diesel, LPG and natural gas were reduced by 25.2% from FY17.

Transport emissions declined from reductions in fleet holdings, the use of pool vehicles and more efficient vehicles. Emissions were reduced by 24.4% from FY17.

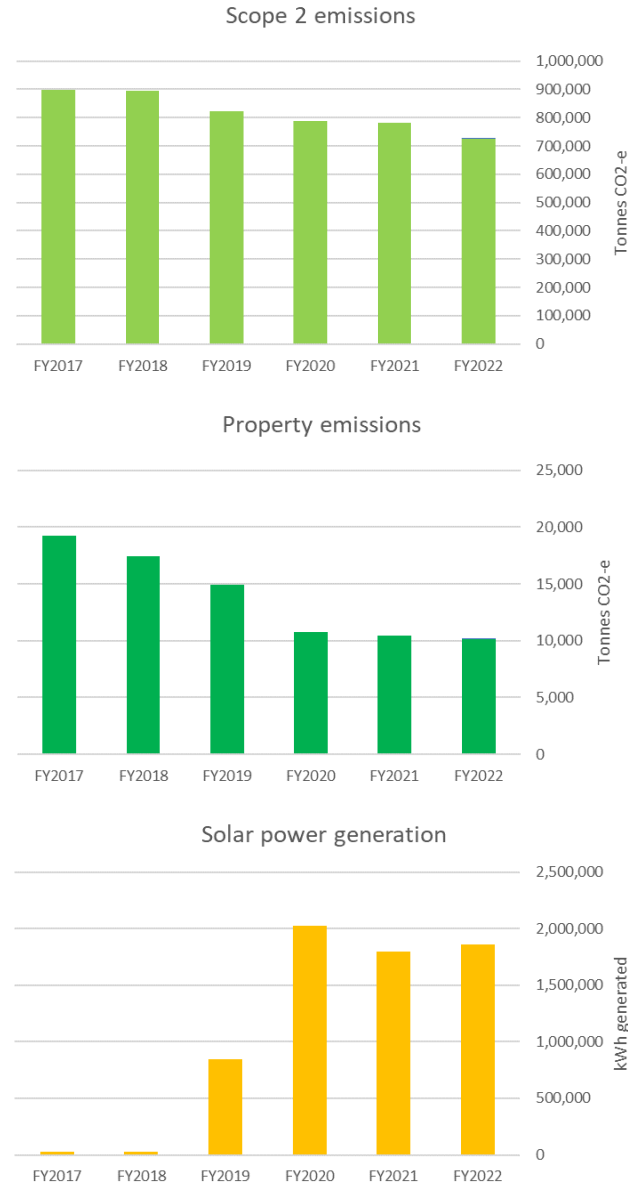
Emissions from SF₆ increased by 14.1% from FY17. SF₆ emissions have grown as we update our network. This potent greenhouse gas provides a safe solution that has allowed electricity infrastructure to be placed inside buildings and have a significantly smaller footprint.

Our SF₆ strategy is examining ways to phase out its use with SF₆ free equipment, better management to reduce SF₆ gas losses, and improvement in the measurement of our losses to direct measurement instead of using 'default' factors. We anticipate this strategy will drop reported SF₆ emissions significantly from FY23.

Scope 2 emissions

(line losses, property and solar)

Improvements in our properties and our increased use of solar have been beneficial



Our scope 2 emissions were reduced by 19.2% from FY17. These scope 2 emissions include our line loss emissions. All of these emissions continue to decline due to grid decarbonisation, lower demand and Ausgrid initiatives.

Property emissions were reduced by 45.7% from FY17. Since FY17, Ausgrid property electricity use has reduced significantly, resulting in much lower emissions. Ausgrid upgraded several of its key depots and improved the energy efficiency of its head office property. Roden Cutler House was refurbished, and its NABERS rating increased from 1.5 to 5.5 stars.

We have installed solar power generation at many of our depots. From January 2024, all the power we use for our operations will come from renewable sources, with our renewed electricity contract to supply 100% green power.

Line losses (electricity lost in transmission and distribution) are the most significant part of Ausgrid's emissions, with 3.6% of the electricity we carry lost.

The decarbonisation of NSW electricity generation and energy efficiency are helping to reduce these emissions. Line loss emissions declined by 18.6% from FY17.

Line losses explained

Distribution network losses are the difference between the electrical energy that enters our distribution network and the energy that is delivered to our end customers. As energy passes through our network, a small proportion of this is lost as heat during the transportation.

They are the unavoidable consequence of transferring electricity across the network but can be minimised using appropriate technologies and assets.

To minimise energy costs to consumers, where practical and cost effective, we undertake activities to reduce these line losses.

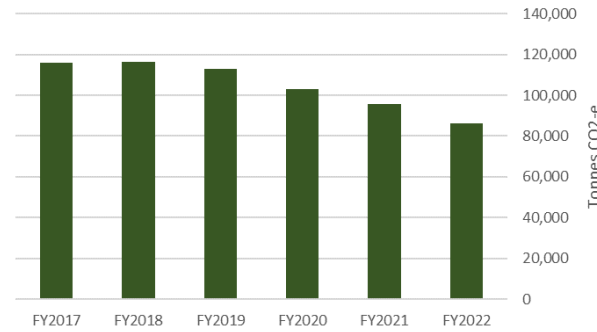
As the proportion of renewable energy that we distribute increases as a result of decarbonisation of energy generation in NSW, this will lower the carbon footprint of our line losses.

Scope 3 emissions

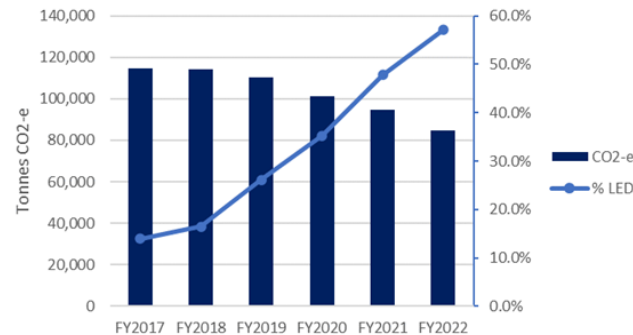
(travel, waste, streetlights)

Our LED streetlight program continues to reduce our scope 3 emissions

Selected scope 3 emissions



Streetlight emissions and % converted to LED



Selected scope 3 emissions were reduced by 25.5% from FY17, all from the significant reductions in streetlight emissions.

Scope 3 emissions are an indirect by-product of our business conduct. They are the scope 1 and 2 emissions from other businesses in our supply chain. Our selected scope 3 emissions integrated into our previous emissions targets included business travel, waste, and streetlight emissions.

Ausgrid has 257,155 streetlights which help keep our communities safe. Local councils are responsible for the power bills for these lights, and as a result, these streetlights are a scope 3 emission.

In collaboration with local councils, as the asset owner, we have been converting these streetlights to LED to provide a more cost efficient and environmentally sound solution.

Since FY17, streetlight emissions have been reduced by 25.8%, and nearly 60% of the streetlights are now efficient LEDs.

Our new targets include all of our supply chain scope 3 emissions as per the Greenhouse Gas Protocol. We will work with our suppliers to improve our understanding of our scope 3 footprint and implement strategies to reduce this to net zero by 2050.

Data tables

Our emissions are reducing, and we are continuing to investigate ways to reduce them further

Environment

EMISSIONS	Unit	FY2022	FY2021	FY2020	FY2019	FY2018	FY2017
Greenhouse gas emissions							
Total carbon emissions (scope 1, 2 and 3)	tCO ₂ -e	834,433	899,063	914,279	959,125	1,033,714	1,037,443
Carbon footprint scope 1							
Carbon footprint scope 1	tCO ₂ -e	22,263	22,438	21,950	22,855	21,958	23,047
Carbon footprint scope 1 component parts							
Stationary energy use	tCO ₂ -e	227	218	180	415	396	335
Transport energy use	tCO ₂ -e	7,921	8,343	8,621	9,409	8,614	10,474
Sulphur Hexafluoride (SF6)	tCO ₂ -e	14,049	13,804	13,088	12,987	12,829	12,068
Other	tCO ₂ -e	66	73	61	44	119	170
Carbon footprint scope 2							
Carbon footprint scope 2	tCO ₂ -e	725,921	780,844	789,287	823,503	895,352	898,646
Carbon footprint scope 2 component parts							
Property electricity emissions	tCO ₂ -e	10,159	10,444	10,741	14,937	17,449	19,241
Line losses during distribution of electricity on our network	tCO ₂ -e	715,762	770,400	778,546	808,566	877,903	879,405
Average line losses on our network	%	3.61%	3.70%	3.70%	3.70%	4.00%	3.90%
Carbon footprint scope 3							
Carbon footprint scope 3	tCO ₂ -e	86,248	95,781	103,042	112,767	116,404	115,750
Carbon footprint scope 3 component parts (Group)							
Business travel	tCO ₂ -e	142	51	588	804	653	305
Waste	tCO ₂ -e	1,160	1,159	1,105	1,601	1,530	948
Streetlights	tCO ₂ -e	84,946	94,571	101,349	110,362	114,221	114,497

Data tables continued

ENERGY USE AND EFFICIENCY	Unit	FY2022	FY2021	FY2020	FY2019	FY2018	FY2017
Energy consumed							
Energy use (scope 1 and 2)	GJ	3,429,254	3,598,012	3,637,838	3,759,806	4,024,722	4,019,237
Percentage reduction in emissions from FY2017							
Emissions reduction (all emissions) – scope 1, 2 and 3	%	-19.6%	-13.30%	-11.90%	-7.50%	-0.40%	-
Emissions reduction (excluding line losses) – scope 1, 2 and 3	%	-24.9%	-18.60%	-14.10%	-4.70%	-1.40%	-
Emissions reduction (NGER emissions) – scope 1 and 2	%	-18.8%	-12.80%	-12.00%	-8.20%	-0.50%	-
Emissions reduction (NGER emissions excluding losses) – scope 1 and 2	%	-23.3%	-22.20%	-22.70%	-10.60%	-6.80%	-
Emissions reduction – scope 3 only	%	-25.5%	-17.30%	-11.00%	-2.60%	0.60%	-
POWER GENERATION AND PRODUCTION							
Renewable energy generated for our use							
Solar	kWh	1,861,768	1,799,233	2,029,191	843,571	26,503	26,503



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