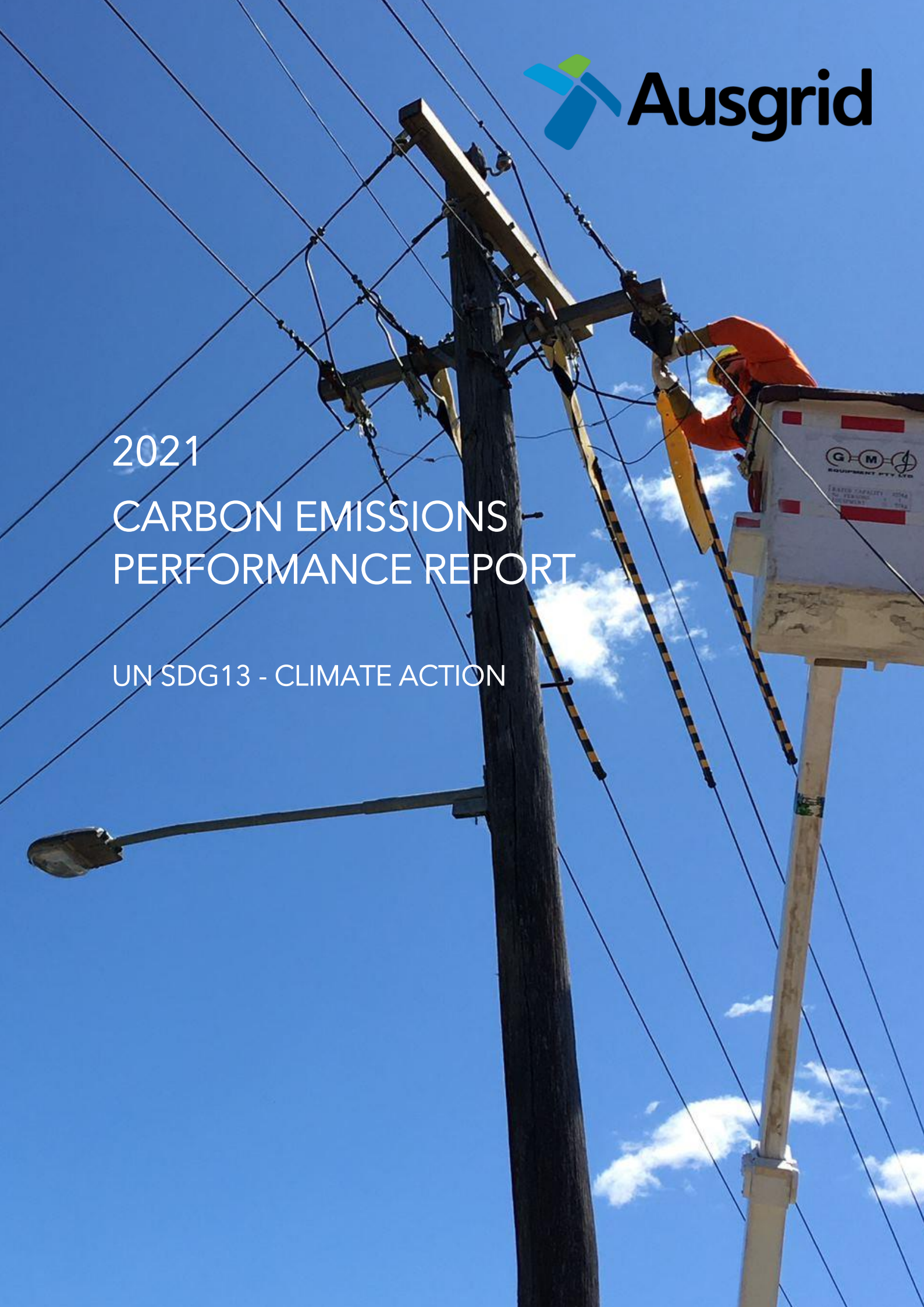


2021

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 2020 to 30 June 2021.

Ausgrid has two categories of carbon emissions reduction targets:

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

Our targets are baselined to FY17 to reflect our change in ownership (NSW Government entered into shared ownership with AustralianSuper and IFM Investors). In FY21, Ausgrid achieved progress of 13.3% and 18.6% for targets, A and B, respectively.

It is our intent in FY22 to commence a refresh of our targets and update these to align them with our net zero ambitions.

While we do not have a reduction target associated with only scope 1 and 2 emissions (excluding line losses), **Ausgrid has achieved significant reductions of 22.2% since FY17.**

Scope 1 emissions

Reduced 2.6% since FY17 mainly from fleet efficiencies. While overall these emissions are decreasing, *SF₆* emissions have increased and a strategy to reduce these is underway.

Scope 2 emissions

Reduced 13.1% since FY17 due to grid decarbonisation, reduced demand, property improvements and the installation of solar generation.

Excluding line losses, Ausgrid has achieved significant reductions of 45.7% since FY17.

Scope 3 emissions

Reduced 17.3% from FY17 and continued to decrease in line with our streetlight LED program, which is the bulk of these emissions.

Emissions legend

Scope 1 – emissions from petrol, oils, diesel, LPG, natural gas and SF₆.

Scope 2 – electricity use, distribution and transmission line losses.

Scope 3 – waste, business travel and streetlights.

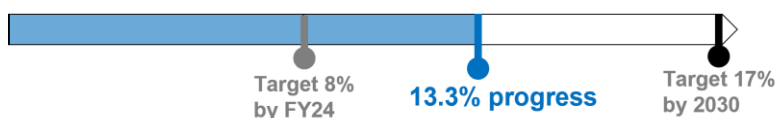
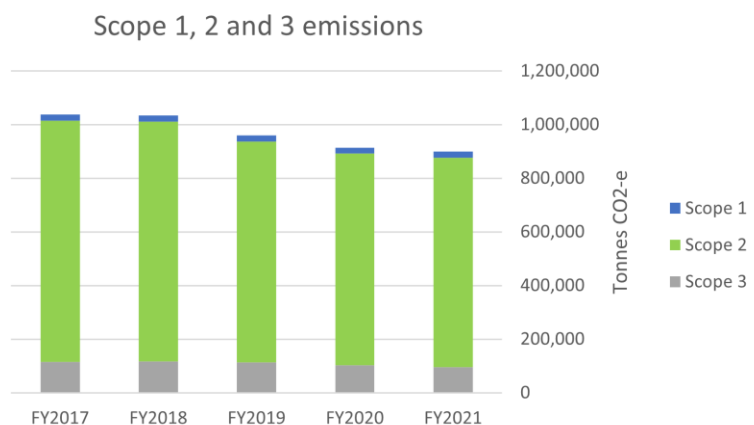
Note: due to ring-fencing requirements, the emissions of PLUS ES (Ausgrid's affiliate) are not reported in these results.

Our targets

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

All emissions target – including line losses

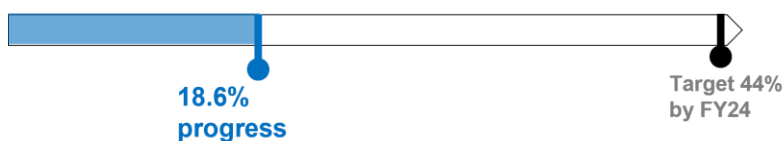
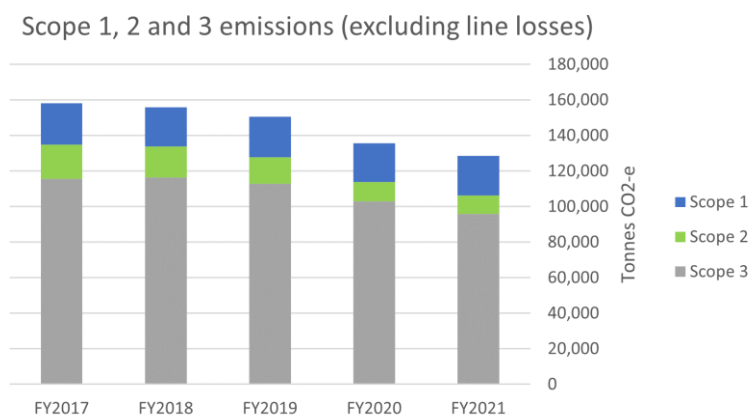
8% reduction by end FY24 and 17% by 2030



- 8% reduction by end FY24, 17% by 2030.
- **Emissions have reduced 13.3% from FY17 to FY21.**
- Decarbonisation of the electricity grid and lower electricity demand have been the key contributors to the success of this target.

All emissions target – excluding line losses

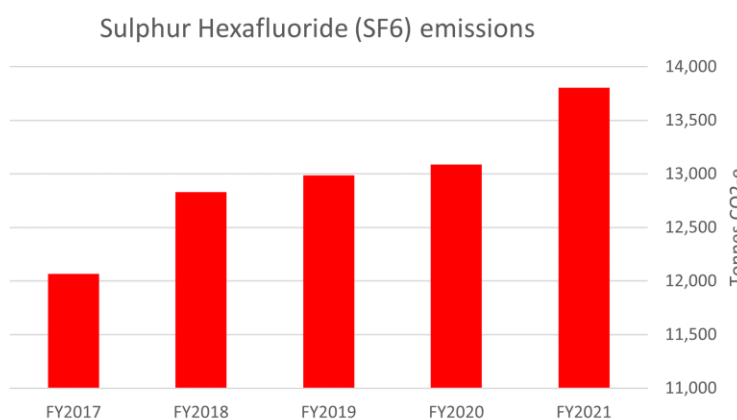
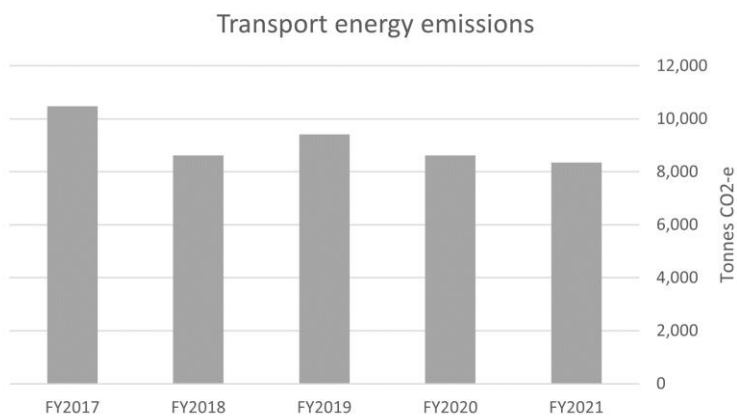
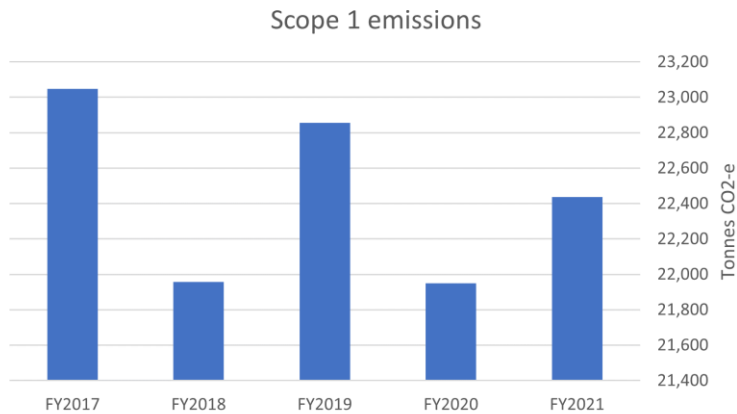
44% reduction by end FY24



- **Emissions have reduced 18.6% from FY17 to FY21 (excluding line losses).**
- Solar panel installation, increases to property efficiency, fleet reductions, and a more energy efficient fleet have contributed to this success.

Scope 1 emissions – liquid fuels, oils, gases

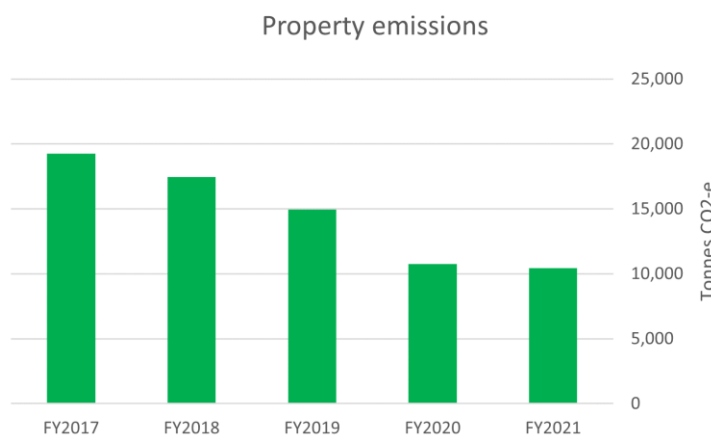
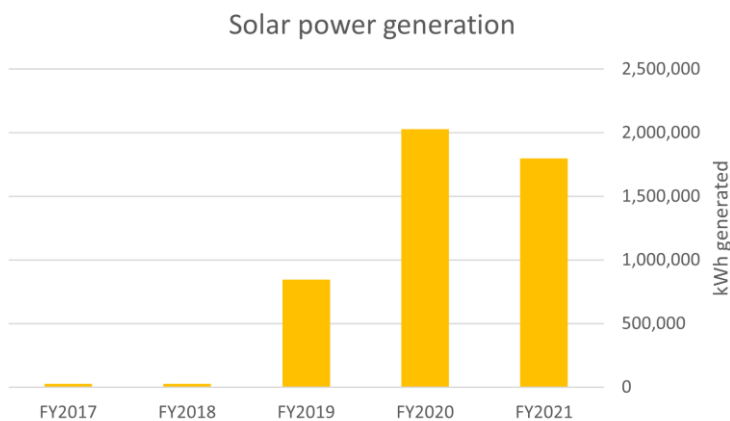
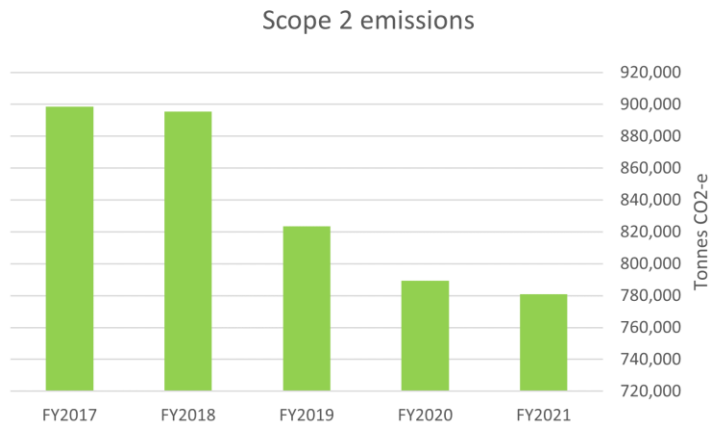
Efficiencies in our fleet have provided large benefits



- Scope 1 emissions from petrol, oils, diesel, LPG and natural gas have reduced 20.8%, while emissions from sulphur hexafluoride (*SF₆*) have increased. **Scope 1 emissions reduced by 2.6% since FY17**
- Transport emissions have declined from reductions in fleet holdings and progress continues to be made with the use of pool and more efficient vehicles. **Emissions reduced 20.3% from FY17.**
- *SF₆* emissions continue to grow as we update our network. This potent GHG provides a safe solution that has allowed electricity infrastructure to be placed inside buildings and have a significantly smaller footprint. ***SF₆* emissions increased 14.4% from FY17.**
- Our *SF₆* strategy is examining ways to phase out its use and to improve management of this gas.
- Improved *SF₆* management may allow us to move from the default method for calculating losses under the National Greenhouse & Reporting Act to more accurate methods which may significantly reduce the amount of *SF₆* losses we report each year.

Scope 2 emissions – line losses, property, solar

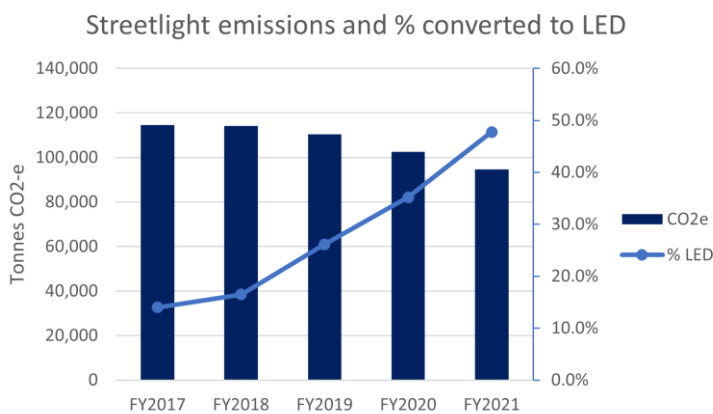
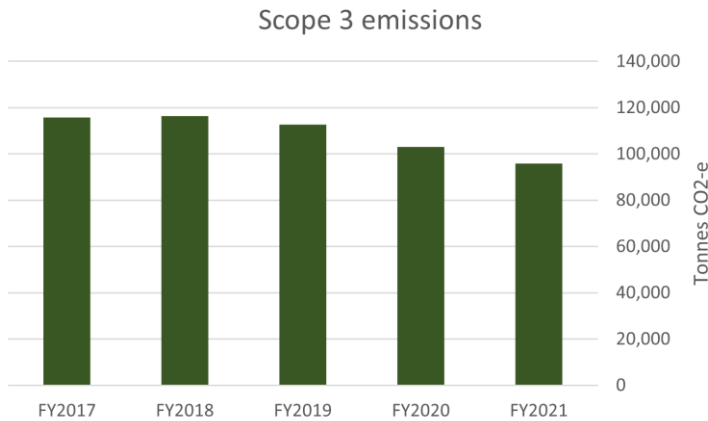
Improvements in our properties and our increased use of solar have been beneficial



- Our scope 2 emissions including line losses continue to reduce due to grid decarbonisation, lower demand and Ausgrid initiatives. **Emissions reduced 13.1% since FY17.**
- In recent years Ausgrid property electricity use has reduced significantly, resulting in much lower emissions. Ausgrid replaced 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. **Property emissions have reduced by 45.7% since FY17.**
- We have installed solar power generation at many of our depots. There are no current plans to increase this generation and investigations into purchasing green power are underway.
- Line losses (electricity lost in transmission and distribution) are the most significant part of Ausgrid’s emissions with 3.7% of the electricity that we carry lost. The decarbonisation of NSW electricity generation and energy efficiencies are helping to reduce these emissions. **Emissions reduced by 12.4% since FY17.**

Scope 3 emissions – travel, waste, streetlights

Collectively, our streetlights create significant emissions, and we are working with local councils in our network area to reduce these

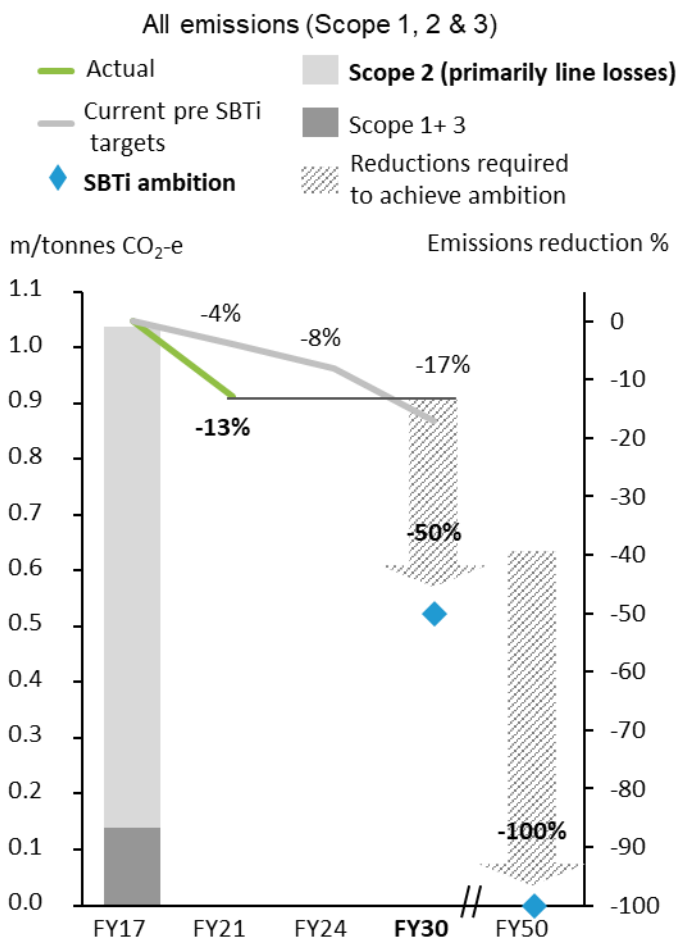


- Scope 3 emissions are those which are an indirect by-product of our business conduct. They are the scope 1 and 2 emissions from other businesses in our supply chain. Most organisations report on business travel and waste. Due to their materiality, we have also included our streetlight emissions.
- **Our scope 3 emissions reduced by 17.3% from FY17, all of which is from the significant reductions in streetlight emissions.**
- Ausgrid has over 261,505 streetlights which help keep our communities safe. Local councils are responsible for power bills for these lights and as a result, these streetlights are a scope 3 emission and not our direct responsibility.
- 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 reduced by 17.4% and 47.8% of the streetlights are now efficient LEDs.**

Net zero ambitions

Refreshing our targets to align them with net zero ambitions

Ausgrid emissions



- Ausgrid is aware of the need to accelerate target ambitions to meet the challenges from climate change.
- Our targets to date have been ambitious and successful.
- Our current targets were established in 2019 using a comprehensive investigation into business impacts that may grow or shrink our emissions footprint, and technology solutions available to us at the time. These were then analysed against a marginal abatement curve to identify the initiatives with the most impact that provided cost savings.
- Since 2019 the external environment that impacts on our carbon footprint, especially the forecast for renewable electricity generation in New South Wales, has undergone significant changes. It is our intent in FY22 to commence a refresh of our carbon targets and update these to align them with our net zero ambitions.

Data tables

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

Ausgrid

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

Energy Use and Efficiency	Unit	FY2021	FY2020	FY2019	FY2018	FY2017
Energy consumed						
Energy use (Scope 1 & 2)	GJ	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 & 3	%	-13.30%	-11.90%	-7.50%	-0.40%	-
Emissions reduction (excluding line losses) - scope 1, 2 & 3	%	-18.60%	-14.10%	-4.70%	-1.40%	-
Emissions reduction (NGER emissions) - scope 1 & 2	%	-12.80%	-12.00%	-8.20%	-0.50%	-
Emissions reduction (NGER emissions excluding losses) - scope 1 & 2	%	-22.20%	-22.70%	-10.60%	-6.80%	-
Emissions reduction - scope 3 only	%	-17.30%	-11.00%	-2.60%	0.60%	-

Power Generation and Production	Unit	FY2021	FY2020	FY2019	FY2018	FY2017
Renewable energy generated for our use						
Solar	kWh	1,799,233	2,029,191	843,571	26,503	26,503
Tri Generation	kWh	32	43,394	116,800	150,661	173,726

Note: In FY20, Ausgrid NGER (National Greenhouse and Energy Reporting) excluded PLUS ES data which can be up to 4% of (group fleet, property, waste, business travel) emissions and energy, and water totals.

PLUS ES was formed in FY18 and therefore, FY18 and FY19 data has been similarly adjusted to exclude PLUS ES energy, emissions, waste, water and business travel.