

**2020**

**LEGISLATIVE ASSEMBLY FOR THE  
AUSTRALIAN CAPITAL TERRITORY**

**ACT Greenhouse Gas Inventory for 2018-19**

**Statement**

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I am pleased to table the ACT's Greenhouse Gas Inventory for the 2018/19 reporting period.

The annual Greenhouse Gas Inventory provides a comprehensive picture of the Territory's greenhouse gas emissions. It identifies the sectors responsible for greenhouse gas emissions, which assists us to tackle these sources in pursuit of meeting our interim emissions reduction targets, and ultimately achieving net zero emissions by 2045.

#### Emissions trends

I am pleased to inform the Assembly that for the 2018-19 reporting period, greenhouse gas emissions in the Territory have reduced by 18 percent from the 2017-18 reporting period.

The current greenhouse gas inventory estimates emissions from the Territory in the 2018/19 reporting period as 2,568 kilotonnes of carbon dioxide equivalent. This is 13% below 1990 level emissions (recalculated to 2,940 kilotonnes of carbon dioxide equivalent this year), which is the baseline year for the ACT's emissions reduction targets.

Per capita emissions have also fallen from 7.54 to 6.02 tonnes per capita. We continue to be well below our per capita emissions from 1990 levels, which were 10.53 tonnes.

## Electricity and Renewables

The ACT's emissions reductions continue to be driven by our transition to 100% renewable electricity. In the 2018-19 period, the proportion of the ACT's electricity supply from renewable sources grew from 47 percent to 69 percent.

At the end of June 2019, six of the seven wind farms contracted by the ACT Government were supplying under their respective contracts. These wind farms are Coonooer Bridge and Ararat in Victoria, Hornsdale 1 and Hornsdale 2 in South Australia, and Sapphire 1 and Crookwell 2 in NSW. The seventh, Hornsdale 3, started supplying under contract on 1 October 2019.

As a result, electricity emissions accounted for around 31 percent of emissions in the ACT in the 2018-19 reporting period. This is a decrease from 44 percent in 2017-18.

## The importance of targeting other sectors

With the ACT achieving 100 percent renewable electricity from 1 January 2020, the pathway to net zero emissions will need to focus on the remaining sectors, especially transport, gas and waste. These sectors are likely to be more challenging and will require greater involvement from the community.

Last year, we released the *ACT Climate Change Strategy 2019-2025* which sets out actions that Government will take between now and 2025 to reduce emissions across these sectors.

The Strategy is an acknowledgement that the ACT has reduced its emissions in the past by targeting the ‘low hanging fruit’ of electricity emissions. ACT citizens did not have to change their behaviour to secure these emissions reductions. Now, more community involvement is required, particularly to reduce transport emissions.

### Transport

For the first time, the ACT’s transport emissions are higher than the ACT’s electricity emissions (around 42 percent and 31 percent respectively).

The transport sector is expected to account for over 60 percent of ACT emissions in 2019-20. The latest greenhouse gas inventory shows that in the last year transport emissions have continued their upward trend. The increase was 19 kilotonnes of carbon dioxide equivalent, or 1.6 percent. This is slightly slower than the increase over the previous year but is nevertheless an increase that needs to be addressed if the ACT is to achieve its emissions reduction targets over time.

With the majority of transport emissions coming from private car travel, it is essential that we improve the movement of people around our city, especially by increasing public transport and active travel, and reducing reliance on private car travel.

Good work is already occurring to achieve this:

- Stage 1 of the light rail has provided a high-quality public transport option between Gungahlin and Civic and Canberrans have responded by catching it in significant numbers. The light rail is now powered by 100 percent renewable electricity.

- The ACT Government continues to work towards increasing the uptake of zero emissions vehicles and e-bikes through our *Transition to Zero Emissions Vehicles Action Plan*. Work continues on transitioning to a zero-emissions government vehicle fleet, installing new charging infrastructure, and providing incentives for consumers to purchase zero emission vehicles.
- From December 2019, e-scooters and other similar devices are legally allowed to be used in the ACT.

However, more needs to be done. The *Climate Change Strategy* sets out actions that Government will take between now and 2025 to reduce transport emissions by, amongst other things, promoting active travel and public transport solutions, and supporting the uptake of zero emissions transport technologies.

### Natural gas

By 2020, natural gas is expected to account for 21 per cent of the ACT's total emissions. The latest inventory report reveals that emissions from natural gas have decreased by around 1.2 percent on the previous year. This is lower than the decrease we saw last year (4 percent) but is a further positive step. It is important to note however that gas emissions levels in Canberra do vary in response to the severity of the winter season, as many people still use gas to heat their homes.

Residential customers account for well over half of total consumption. There are good opportunities to reduce these emissions, for example through the expanded use of highly efficient electrical appliances as an alternative to gas appliances. The *ACT Climate Change*

*Strategy* sets out actions the ACT Government will support this; in particular, developing a new Sustainable Energy Policy and a plan to reduce emissions from gas to zero by 2045.

In 2019, the ACT Government committed to expanding the Energy Efficiency Improvement Scheme to incentivise a transition from natural gas to efficient electric heating and hot water systems. We have also recently removed the requirement for new suburbs to have a gas connection, which makes it possible for new suburbs to be zero emissions and is an important step in combating climate change.

### Waste

The waste sector produces emissions through wastewater treatment and the release of landfill gas. Any organic material disposed of in landfill - such as garden waste or food waste - results in greenhouse gas emissions due to their breakdown in an oxygen-free environment.

Waste emissions currently account for 3 percent of the ACT's greenhouse gas inventory but by 2020, after the removal of all electricity emissions, they are expected to account for about 6 percent of our total emissions.

Emissions from solid waste disposal in 2018-19 were 25 percent higher than in 2017-18, mainly because of a decrease in the volume of landfill gas emissions from legacy waste captured and burnt at the Mugga Lane and Belconnen landfill sites.

To reduce these greenhouse gas emissions in the future, we have committed in the *Climate Change Strategy* to introducing a food and garden waste collection for all households (including multi-unit dwellings) from 2023, developing and consulting on a scheme for requiring large organic waste producers such as hospitality and food retail businesses to have a separate organic waste collection, and exploring waste treatment options such as anaerobic digestion and composting.

### Industry

Industry emissions in the Greenhouse Gas Inventory are entirely comprised of synthetic gases used in refrigerants and are taken from the National Greenhouse and Energy Reporting System.

This year, the national system reported a significant decrease in the estimate of emissions from synthetic fluorinated hydrocarbon gases in the ACT. This was a marked change from the previous year, when a significant increase was reported.

The national system also recalculated previous year's figures for these emissions. Taking these recalculations into account, the ACT's emissions from industrial processes increased by around 5% between 2017-18 and 2018-19 and currently account for around 8.7% of ACT emissions.

### Land Use and Agriculture

The ACT's greenhouse gas emissions from land use and agriculture are taken from the National Greenhouse Gas Inventory.

In previous years, land use change and agriculture have been small and shown little change year on year. Land use change has constituted a net sink, essentially meaning that land clearing activities in the ACT are less than revegetation efforts.

This year, the Department of Environment and Energy has recalculated the amount of carbon that is removed from the atmosphere by vegetation in the ACT. This increase is due to improvements in satellite imagery data that is available to the Department of Environment and Energy, which indicates that part of the border between the ACT and NSW has previously been incorrectly allocated to NSW. Correcting this error has resulted in an appreciable area of managed plantation forest being re-allocated to the ACT.

Because of this, the ACT's emissions for the 2018-19 reporting period include the removal of around 231 kilotonnes of carbon dioxide equivalent. In previous years, this has only been 6.5 kilotonnes of carbon dioxide equivalent.

The Department of Environment and Energy has recalculated these removals back to 1989-90. Because of this, the ACT's emissions in 1989-90 have been recalculated from 3,196 kilotonnes of carbon dioxide equivalent to 2,940 kilotonnes of carbon dioxide equivalent.

## Progress towards the ACT's emissions reduction targets

Madam Speaker, these latest results show that we have come a long way in reducing our greenhouse gas emissions. But there is still a lot of work to be done.

If electricity emissions are zero in 2019-20, and all other emissions remain the same, the ACT will reach its emission reduction target of 40 percent below 1990 levels. However, there remain risks to achieving this. For example, if sequestration rates were to decline significantly or if emissions in any sector increase by a large amount there is a possibility of the ACT not meeting the 40 percent target.

This highlights the challenges we face in meeting our 2020 target. We have made great progress in shifting to 100 percent renewable electricity, and we now need to prioritise efforts to reduce transport emissions and continue the good work to date in reducing emissions from natural gas.

The 'ACT Climate Change Strategy' provides a basis for us to continue to reduce these emissions. Our success will be measured in future reporting periods.

I commend this Report to the Assembly.