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**THE LEGISLATIVE ASSEMBLY FOR THE
AUSTRALIAN CAPITAL TERRITORY**

**Investigation Report on Scope 3 Greenhouse Gas Emissions in the ACT –
Government Response**

**Presented by
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Introduction

In September 2021, an investigation to evaluate scope 3 greenhouse gas emissions for the ACT was completed and delivered to the ACT Government. The terms of reference for the investigation were to consider:

- methodologies for measuring scope 3 emissions;
- effective ways to reduce scope 3 emissions;
- any appropriate targets for reduction; and
- recommendations for short and long-term action in this area.

This direction was issued pursuant to sections 12(1)(b) and 21(1)(a) of the *Commissioner for Sustainability and the Environment Act 1993*.

Two independent consultants with relevant expertise were commissioned to analyse data regarding the ACT's scope 3 emissions including:

- the University of New South Wales who completed modelling to calculate the total scope 3 emissions of the ACT and identify potential areas for reduction; and
- The Footprint Company who undertook analysis of scope 3 emissions of the ACT Government specifically.

The key findings were:

- approximately 30% of the ACT's scope 3 emissions originate outside of Australia, 19% from Queensland, and 18% from New South Wales, 13% from Victoria and 20% from all other sources;
- household consumption is the main source of ACT scope 3 emissions (59%), followed by government (33%) and business (8.2%) (see page 30); and
- scope 3 greenhouse gas emissions in the ACT make up 94% of the total emissions generated by the ACT (page 23).

Specifically for the ACT Government, the majority of scope 3 emissions produced are related to building and lease assets (page 79).

The Minister for the Environment tabled the report in November 2021 and provided an overview of the investigation findings. The Minister highlighted that critical action for emissions reductions in the ACT is required by targeting the highest scope 3 product groups, regions and consumer groups through education campaigns, planning and sustainable procurement.

The Commissioner provided twelve recommendations which are outlined and addressed in this Government Response.

Government response to Commissioner for Sustainability and the Environment Report on scope 3 emissions

Recommendation 1

ACT Government to implement a methodology (such as that presented in this Investigation) to report on scope 3 emissions across the Territory every three years.

Response: AGREED IN PRINCIPLE

The ACT is already taking strong action to consider scope 3 emissions in decision-making. The ACT Climate Change Strategy 2019-2025 Action 5.6 includes a commitment to:

- *Ensure all new Government capital works with a budget of more than \$10 million either seek or are consistent with an independent sustainability rating such as an Infrastructure Sustainability rating from the Infrastructure Sustainability Council of Australia (ISCA).*

Light Rail stage 2 and the new CIT campus in Woden are two projects that are using sustainability ratings that include calculation of scope 3 emissions.

Major Projects Canberra is developing a tool (with Arup) to calculate scope 3 emissions from construction projects. When the tool is developed and tested, smaller construction projects (less than \$10 million) will be able to report their scope 3 emissions.

Estimating and reporting scope 3 emissions from all sectors across the Territory is a complex task and requires further refining to meet the UNFCCC *good practice approach* to emissions inventory reporting which is, consistent, comparable, complete, accurate and transparent – and maintaining inventories in a manner that improves inventory quality over time.

Australia uses country-specific methodologies and emissions factors in compiling its National Inventory Reports and the ACT broadly follows this methodology to align with the globally recognised approach set out in the [United Nations Framework Convention on Climate Change reporting guidelines on annual inventories](#) and the [2006 IPCC Guidelines for National Greenhouse Gas Inventories](#). The methodologies used to estimate the ACT's inventory have been improved over time and will continue to be refined as new information emerges, and as international practice improves.

In recent years, different emissions accounting systems and methods have been proposed for scope 3 emissions calculation for cities. However, there is not a global agreed-upon protocol yet, neither is there a specific model shared among researchers for these city scale carbon emissions calculations. In fact, numerous studies show that scope 3 emissions value for a city would be significantly different when calculated employing different available data, methodological and accounting approaches.

Beginning in 2024, subject to further decisions of Cabinet and funding through future budget processes, the ACT Government will review the literature and assess the improvements and changes in carbon emissions methodology and data availability. The ACT Government will decide to report on the Territory's scope 3 emissions based on whether the limitations still exist and the materiality of those limitations for producing

meaningful scope 3 estimates over the long term. Variability and volatility in future scope 3 emissions reports which is unrelated to underlying trends and is a result of data and methodological limitations, would limit the productive use of these statistics for decision makers and the community.

Recommendation 2

ACT Government to work in partnership with state, territory and national governments to discuss initiatives to reduce scope 3 emissions across jurisdictions.

Response: AGREED

The ACT Government is working in partnership across state, territory and national governments and will discuss scope 3 emissions through existing arrangements and sub-national policy forums.

Recommendation 3

Standardise and improve collection and publication of data to ensure accurate calculation can be made of the scope 3 emissions of the ACT Government.

Response: AGREED IN PRINCIPLE

As outlined in our response to recommendation 1, the ACT Government will undertake a literature review and assess the improvements and changes in scope 3 emissions methodology and data availability in 2024. If the ACT Government decides to report scope 3 emissions, then any needed improvement in data collection and publication would necessarily be based on the chosen methodology. As noted in the response to recommendation 1, this would be subject to funding through future budget processes.

Recommendation 4

Set scope 3 emissions reduction targets for ACT Government operations and assess progress towards these targets every three years

Response: NOTED

The ACT Government has set nation-leading targets to reduce scope 1 and 2 emissions through the Climate Change and Greenhouse Gas Reduction Act 2010. Due to the complexities and uncertainty with the measurement and data available for estimates of scope 3 emissions, we will not be seeking to mandate scope 3 emission reduction targets at this time.

The ACT has reduced its scope 2 emissions to zero through innovative contracts with renewable electricity generators and is the first jurisdiction in Australia to reach zero emissions in electricity.

Our priority now is to reduce scope 1 emissions especially, through measures such as developing our gas transition plan and increasing the uptake of zero emissions vehicles.

Recommendation 5

Implement sustainable procurement principles, including developing mandatory embodied carbon limits of procured equipment, items and materials, and supporting the longevity of equipment and waste reduction.

Response: AGREED IN PRINCIPLE

The ACT Procurement Framework encourages Territory entities to consider and apply concepts of sustainability in their procurements. The ACT Government's commitment to incorporating and realising its environmental, ethical, and social priorities through the procurement process is reflected in the Government Procurement (Charter of Procurement Values) Direction 2020 (The Direction). The Direction requires Territory entities to consider each of the six procurement values in all procurements, including 'Environmental Responsibility', which seeks to ensure that ACT Government procurements have a positive impact on our physical environment and local and global ecosystems.

The Procurement Framework also includes the Sustainable Procurement Policy (Policy) which outlines the principles of procuring sustainably and provides guidance on how to conduct sustainable procurement of goods, services and works. The Policy has been in place since 2015 and Procurement ACT is currently updating the Policy for Government buyers to reflect contemporary best practice and will release a revised Sustainable and Circular Economy Procurement Guide later in 2022.

The ACT Climate Change Strategy includes commitments to:

- *Implement a user-friendly sustainable procurement approach for goods and services and capital works that ensures greenhouse gas and adaptation outcomes are considered in all procurement decisions. (Action 5.4)*
- *Ensure the social cost of carbon and climate change adaptation outcomes are considered in all ACT Government policies, budget decisions, capital works projects and procurements. (Action 5.5).*

The Government is actively seeking to reduce embodied carbon emissions across procurement of its major projects pipeline. For example, delivery of Stage 2 of light rail – Canberra's biggest-ever infrastructure project – will be guided by the Light Rail Sustainability Policy. This sets out commitments against multiple sustainability themes including several that relate to low emissions construction materials. The project is establishing sustainability targets against the themes and commitments in this Policy. The targets include net zero emissions across construction and operations for scope 1 and scope 2 emissions. This will be achieved through emissions reduction initiatives and addressing residual emissions through the purchase of carbon offsets or an equivalent investment initiative.

The project will also target a 30 per cent reduction in scope 3 emissions from a baseline model. Reduction in scope 3 emissions will be achieved through material reductions and substituting recycled or low embodied energy materials. Low and zero emissions construction materials will be prioritised through procurement and design activities. Sourcing materials from local manufacturers will also reduce scope 3 emissions.

Recommendation 6

Reduce the physical footprint of ACT Government staff, with the aim of 7 square metres per person.

Response: NOTED

The ACT Government has hundreds of workplaces which provide specific front-facing services such as hospitals, schools, depots, shopfronts, transport vehicles etc – these spaces are purpose designed for the services they provide and should be exempt from consideration in this target.

For ACT Government office environments, the trend to a smaller footprint has already started.

While existing lease obligations may preclude this target being met in the short term, the transition to hybrid and other forms of flexible work (including working from home) means that the current spatial standard of 12m² per workpoint could eventually reduce to 7m² per office worker without the need to redesign or relinquish workspaces.

As our workforce grows, the ratio of workpoints to employees will reduce over time.

Recommendation 7

Develop and implement a policy for flexible business operations that supports reduction of scope 3 emissions such as working from home and reducing business travel.

Response: AGREED IN PRINCIPLE

Noting response 6 above, the ACT Government has many location-dependent workplaces and roles which may be limited in their capacity to access working from home provisions.

For office-based ACT Government employees, the recommendation is agreed in principle, noting the Government is considering further support for ongoing flexible working arrangements in the ACTPS.

Several policy and employment framework elements already exist to support reductions, including the Flexible Working Policy and flexibility provisions in Enterprise Agreements. Strategic Board and the Head of Service have also articulated their support for hybrid working in the ACTPS.

The creation of flexi office locations in each town centre also supports the reduction of scope 3 emissions by encouraging active travel and reduced commute distances.

Recommendation 8

Develop and implement education and awareness-raising campaigns for residents on reducing household scope 3 emissions. Key areas of focus should include low carbon building products, adopting the circular economy, and household food waste reduction.

Response: AGREED IN PRINCIPLE

The ACT Government is committed to raising awareness amongst ACT residents about how to reduce their carbon footprint. Most of the scope 3 emissions in the ACT are from consumption, and not production. Therefore, education and training on reducing consumption will have a significant impact on ACT's scope 3 emissions.

The introduction of the pilot food organics and garden organics (FOGO) collection service in four suburbs (Belconnen, Bruce, Cook and Macquarie) includes an extensive community engagement and education program focusing on food waste separation and resource recovery.

The 'Love Food Hate Waste' food waste avoidance pilot in 2020-21 saw more than 4,600 people participate in the Food Waste Challenge, which led to reported changes in people's knowledge, motivation and behaviours around food and reductions in food wastage and costs.

Additionally, under the Parliamentary and Governing Agreement of the 10th Legislative Assembly (PAGA) the ACT Government has committed to the development circular economy legislation, including requiring businesses to have separate collection of organic waste and a food waste reduction plan.

The ACT Government's ongoing education and awareness campaigns on waste reduction, sustainability and everyday action on climate change provide an opportunity to continue strengthening community understanding of scope 3 emissions reduction.

Recommendation 9

In alignment with the national target, implement a 50% food waste reduction by 2030 target in the "Food Organics Garden Organics" program, using a consistent methodology to track progress.

Response: NOTED

The ACT Government, along with other Australian jurisdictions supports the National Waste Policy Action, which includes halving the amount of organic waste sent to landfill for disposal by 2030.

The ACT Government's PAGA includes commitments to:

- Roll out a household food waste collection service, starting with a pilot program in Belconnen next year
- Create circular economy legislation, including requiring businesses to have separate collection of organic waste and a food waste reduction plan.

Additionally, the introduction a food and garden waste collection for all households (including multi-unit dwellings) and support with an education program from 2020 is a key component of the ACT Climate Change Strategy 2019-25 and is supported in the ACT Waste Feasibility Study.

The pilot FOGO collection service has begun in Belconnen, Bruce, Cook and Macquarie. Information from the pilot will be used to inform the roll-out of the food waste collection

service across the ACT. Work is underway to develop circular economy legislation, as per the PAGA commitment.

The Territory conducts household bin audits to monitor volumes of household waste and recyclable materials. The audits are conducted to support the evaluation of the impacts of the current waste program and inform future direction of waste management activities, including the roll out of the FOGO collection service.

Recommendation 10

Undertake analysis to determine the barriers and opportunities to increase the supply of low carbon cement to the ACT.

Response: AGREED IN PRINCIPLE

The ACT Government is currently utilising lower carbon concrete on a number of projects which increases our knowledge of the barriers and opportunities to the use of lower carbon cement and lower carbon concrete products in the delivery of new infrastructure. This includes a number of trials and initiatives such as:

- Use of an independently certified net zero concrete product in a current infrastructure project
- Identifying opportunities to revise the ACT's Municipal Infrastructure Technical Specifications to enable the use of lower carbon concrete across a range of infrastructure projects
- Trialling the use of innovative products including concrete reinforced with recycled plastic rather than steel to decrease embodied carbon and contribute to waste recycling
- Seeking to trial the use of more sustainable concrete in the Raising London Circuit project as part of Light Rail to Woden.

An investigation into the barriers and the supply of low carbon cement will be undertaken by the ACT Government subject to funding through future budget processes.

Recommendation 11

Define and implement scope 3 performance metrics for at least 65% of the highest emission intensity infrastructure types by 2025.

Response: AGREED IN PRINCIPLE

Setting a target for the scope 3 emissions intensity of new Government-owned infrastructure provides important information to decision makers about the total embodied carbon emissions of such projects. However, any target for scope 3 emissions requires a baseline for comparison to be meaningful. Additional research is required to identify baseline scope 3 emissions metrics for new ACT Government owned infrastructure. Further research is also required to assess the methods and potential approaches to measuring scope 3 emissions for the purpose of performance metrics over the long term, given the likely volatility in scope 3 measurement over time (due to the limitations described in the Commissioner's report). The ACT Government will explore appropriate timeframes for

delivering methods and implementation options, subject to funding through future budget processes, but is not committed to the suggested 2025 timeframe at this stage.

Recommendation 12

Review and expand legislation and ensure compliance of new building regulations related to scope 3 emissions, such as:

- a. Incentivise renovation of existing buildings instead of demolition
- b. Undertake a carbon impact assessment and implement mandatory embodied carbon limits for all new and replacement buildings, fit out, and infrastructure
- c. Implement allowable low carbon material lists for construction
- d. Develop an exemplar infrastructure project to demonstrate low embodied energy building principles
- e. Increase the reuse of construction and demolition materials for public and private buildings, including the development of an accreditation system to ensure quality of the materials for reuse
- f. Increase inspections and reporting of compliance of building codes.

Response: AGREED IN PRINCIPLE

The recommendation broadly aligns with government policy objectives to reduce emissions in the ACT and to influence supply chains to reduce emissions outside the ACT. However, the associated regulatory impact and cost implications will require further analysis to understand the impact across the community prior to any regulatory or legislation change.

The specialised materials and procurement principles may have cost implications for government infrastructure projects, commercial projects and for home builders. The recommendations do not address or quantify the cost to Government, businesses or households for these materials or weigh those costs against the benefits. While some low carbon materials are well established, others such as “green steel” are at a very early stage of development which adds uncertainty.

The ACT Government recognises that while there are a range of tools available for modelling and measuring overall building performance, the calculation methods for Scope 3 emissions are still in the development phase.

The PAGA includes commitments to “commencing a 10-year pathway to shift to world’s best practice on climate-ready and environmentally-sustainable buildings” and “reform the ACT’s building and planning system to ensure a transition to best practice climate-ready and environmentally sustainable buildings and planning”.

Progressing these commitments will provide an opportunity for policy development to achieve improved sustainability outcomes in the built environment including consideration of how Scope 3 emission may be reduced. This work, and any additional work in implementing this recommendation, will be subject to further decisions of Government and funding through future budget processes.

As part of leading by example, the Suburban Land Agency (SLA) in alignment with the [SLA Sustainability Strategy 2021-25](#), is looking into sustainable development opportunities such as minimising the impact of construction materials.

SLA is collaborating within government, with agencies such as Major Projects Canberra on learnings to better measure and reduce the greenhouse gas emissions from construction projects. A range of projects underway in 2022 to inform SLA include:

Sustainable Civil Construction Project – The SLA is looking to improve the sustainability outcomes of civil works across its sites and achieve best practice sites by developing a civil works sustainability framework. The project will consider current best environmental practices for civil works activities, covering the themes identified in the SLA Sustainability Strategy.

Whitlam innovation precinct – SLA is developing a showcase sustainable innovative precinct featuring three townhouses designed for multi-generational living and a net positive house which will feature as an SLA office and events space. The Whitlam Multi-Gen Townhouses project was awarded the first prize for the Multi-Gen category of the Canberra Low Carbon Challenge awards. The precinct will host workshops to engage industry and community on sustainable construction and development. [Winners announced in Canberra Low Carbon Housing Challenge | ArchitectureAU](#).