Commissioner *for* Environmental Sustainability Victoria

VICTORIA State Government

Strategic Audit

Implementation of environmental management systems in Victorian Government 2018-19

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Acknowledgements

Traditional Owners

The Commissioner for Environmental Sustainability proudly acknowledges Victoria's First Nations peoples and their ongoing strength in practicing the world's oldest living culture. We acknowledge the Traditional Owners of the lands and waters on which we live and work, and pay our respect to their Elders past and present.

We recognise and value the ongoing contribution of Aboriginal people and communities to Victorian life, and how this enriches us. We also acknowledge that Aboriginal self-determination is a human right enshrined in the United Nations Declaration on the Rights of Indigenous Peoples, and recognise the hard work of many generations of Aboriginal people who have fought for this right to be upheld.

We embrace the spirit of reconciliation and Treaty, working towards the equality of outcomes and ensuring an equal voice.

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Abbreviations

CES	Commissioner for Environmental Sustainability
CO_2-e	Carbon dioxide equivalent
DEDJTR	Victorian Department of Economic Development, Jobs, Transport and Resources
DELWP	Victorian Department of Environment, Land, Water and Planning
DET	Victorian Department of Education and Training
DHHS	Victorian Department of Health and Human Services
DJCS	Victorian Department of Justice and Community Safety
DJPR	Victorian Department of Jobs, Precincts and Regions
DJR	Victorian Department of Justice and Regulation
DPC	Victorian Department of Premier and Cabinet
DOT	Victorian Department of Transport
DTF	Victorian Department of Treasury and Finance
EMS	Environmental Management System
EPA	Environment Protection Authority Victoria
FRD	Financial Reporting Directive
FTE	Full Time Equivalent
GHG	Greenhouse Gas
SV	Sustainability Victoria

Dr Gillian Sparkes

Commissioner for Environmental Sustainability

Executive Summary

I am pleased to present the 2019 Strategic Audit on the implementation of Environmental Management Systems (EMS) by mandated Victorian Government entities in accordance with section 8(b) of the *Commissioner for Environmental Sustainability Act 2003* ('CES Act'). This 2018-19 financial year audit is based on annually reported information provided by all Victorian Government departments, Sustainability Victoria (SV) and the Environment Protection Authority Victoria (EPA) according to the mandatory reporting requirements described by Financial Reporting Directive (FRD) 24D.[1] The directive applies minimum criteria for government to report its office-based emissions.

This 2019 Strategic Audit analyses the Victorian Government's environmental performance, using the FRD 24D indicators as the framework for analysis. The audit also takes the proactive and practical step of adding an 'Opportunities' section that highlights sectors where entities can reduce their environmental footprint. These opportunities include the development of a policy for purchasing Green Power (that is, power that is purchased from a renewable source), increasing the number of electric vehicles in the vehicle fleet, better education for staff on recyclable materials and the setting of government-wide targets for entity performance in accordance with FRD 24D.

The greenhouse gas (GHG) emission reporting issues remain from previous Strategic Audits, with FRD 24D only capturing ten per cent of GHG emissions annually reported by Victorian Government entities (see Figure 1).

[1] Department of Treasury and Finance 2018, 'FRD 24D Reporting of office-based environmental data by government entities', Melbourne, Victoria https://www.dtf.vic.gov.au/sites/default/files/2018-05/FRD%2024D%20Reporting%20of%20office-based%20environmental%20data%20by%20government%20entities.DOCX Accessed 13 January 2020.

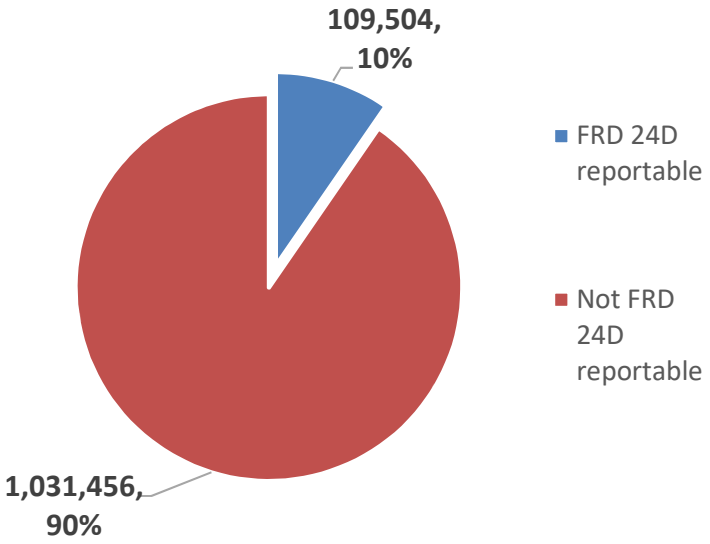

Figure 1: GHG emissions (tonnes CO_2-e) reported in entity annual reports, 2018-19.

Figure 1 shows GHG emissions data reported by Victorian Government entities, which is split into emissions that are FRD 24D reportable and emissions that are reported in annual reports, but are not required to be reported by FRD 24D.

Table 1 summarises differences in the scope of entity reporting. Further information on GHG emissions can be found in the **Results** section.

Table 1: Extent of GHG emissions reporting by entity and in relation to that mandated by FRD 24D

Department / entity	Extent of reporting
DEDJTR	Includes depots, labs and research facilities. Emissions for all activities are grouped together resulting in an unclear FRD 24D emissions total.
DJCS	Reporting categories are 'non-office' and 'office'. The category 'non-office' includes correctional centres, custodial facilities and training centres such as the Victorian Emergency Management Institute. Data relevant to FRD 24D data is clearly identified.
DJPR	Includes depots, labs and research facilities. Emissions for all activities are grouped together resulting in an unclear FRD 24D emissions total.
DHHS	Includes office-based, public hospitals, housing services, public hospital nitrous oxide, vehicle fleet and air travel, hospital emergency transport and public hospital waste production. Data relevant to FRD 24D data is clearly identified.
DELWP	DELWP reports well beyond the scope of FRD24D environmental reporting, with the inclusion of all the following from the DELWP accommodation portfolio across Victoria: offices, airbases, depots, fire towers, laboratories, office / depots, radio masts, research centres and warehouses. Data relevant to FRD 24D data is clearly identified.
DJR	Includes correction centres and custodial facilities. Data relevant to FRD 24D data is clearly identified.
DET	Greenhouse gas emissions for non-school office sites with at least ten FTE. Data relevant to FRD 24D data is clearly identified.
EPA	Includes data from all EPA offices, air monitoring stations, small monitoring sites and staff input. Emissions for all activities are grouped together resulting in an unclear FRD 24D emissions total.
DOT	Includes offices, depots/research centres and a railway training centre. Emissions for all activities are grouped together resulting in an unclear FRD 24D emissions total.
DPC	Includes emissions data on paper use. Data relevant to FRD 24D data is clearly identified.
DTF	FRD 24D reportable emissions only.
SV	Includes emissions data on all operational activities and staff commuting. Data relevant to FRD 24D data is clearly identified.

Further improvement to the FRD 24D framework, or an alternative mechanism, remains an opportunity to help track and ultimately further improve, environmental performance of mandated entities.

Upgrading data storage systems and processes is a complementary opportunity to improve the utility and usage of the data collected. In the absence of a centralised environmental management database for Victorian Government entities, my team has been working to fill that void. We have created a database that is stored on the cloud and an automated system for data processing and analytics. Data entry into the database is still a manual process that involves manually transcribing results from entity annual reports, which is something I aim to semi-automate over the next cycle, with support of entity EMS coordinators. This will improve the efficiency of this reporting process, reduce erroneous data and enable better analysis of the data.

There is also an opportunity for Victorian Government entities to align the FRD reporting framework to the United Nations Sustainable Development Goals (SDGs). I have included a dedicated section of this report to discuss how the SDGs can be applied to FRD 24D. It is pleasing to note that the Department of Justice and Community Safety's (DJCSs) annual report touched on the links between its environmental performance and

the SDGs, while DELWP have aligned their corporate reporting to the SDGs.[2,3] This highlights the power the SDGs can have for environmental management systems; SDGs can be used in corporate output reporting as well as the outcome and condition reporting that my team and I have been progressing through the State of the Environment 2018, State of the Yarra and its Parklands 2018 and State of the Forests 2018 reports.[4,5,6]

Many Victorian Government entities have achieved significant progress through consistent implementation of targeted programs, even if these programs aren't consistently applied across all government entities. Throughout this report we have highlighted some of the most noteworthy achievements.

The ***performance at a glance*** summary section of this report, including Table 2, compares Victorian Government entity performance since the baseline year for 20 indicators.[7]

Comparison with last year – 12 of the 20 indicators improved during 2018-19, with five indicators (energy use, energy use per FTE, waste disposal per FTE, paper use per FTE and water consumption per m^2) improving by more than ten per cent. Two of the 20 indicators deteriorated more than ten per cent during 2017-18.

Comparison with base year – 13 of the 20 indicators have improved in performance since 2009-10. Victorian Government entities are producing significantly less waste and consuming less paper and energy, and even though overall water consumption has increased, water use per FTE has decreased. GHG emissions associated with air travel has also improved significantly over the decade, assisted by DELWP's initiative to offset all GHG emissions from its air travel.

The areas where performance has significantly deteriorated since 2009-10 are waste GHG emissions (although waste emissions represent less than one per cent of GHG emissions by Victorian Government entities), office-based GHG emissions associated with energy use, energy use per unit of office area, water consumption per unit of office area, the recycling rate and the proportion of electricity purchased as Green Power.

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[2] Department of Justice and Community Safety 2019, 'Annual Report 2018-19', Melbourne, Victoria https://www.justice.vic.gov.au/sites/default/files/embridge_cache/emshare/original/public/2019/10/77/fe62665e2/DJCS_Annual_Report_2018-19.pdf Accessed 13 January 2020.

[3] Department of Environment, Land, Water and Planning, 'Corporate Plan 2019-23', East Melbourne, Victoria https://www2.delwp.vic.gov.au/__data/assets/pdf_file/0019/431047/DELWP-Corporate-Plan-2019-23.pdf Accessed 13 January 2020.

[4] Commissioner for Environmental Sustainability 2019, 'Victorian State of the Environment 2018 Report – summary report', Melbourne, Victoria https://www.ces.vic.gov.au/sites/default/files/SoE2018_SummaryReport.pdf Accessed 13 January 2020.

[5] Commissioner for Environmental Sustainability 2019, 'State of the Yarra and its Parklands 2018 Report', Melbourne, Victoria https://www.ces.vic.gov.au/sites/default/files/SoY_Front_Working_Document_20_03_19_F.pdf Accessed 13 January 2020.

[6] Commissioner for Environmental Sustainability 2019, 'State of the Forests 2018 Report', Melbourne, Victoria https://www.ces.vic.gov.au/sites/default/files/State%20of%20the%20Forests%20Report%202019.pdf Accessed 13 January 2020.

[7] The baseline year varies across the indicators but is 2009-10 for most indicators (refer to Table 2).

The decreased proportion of electricity purchased as Green Power should be viewed in the context of policy shifting to funding renewable energy projects that will power activities broader than internal government operations. These activities and projects are not captured by the FRD 24D scope and include:

- completely offsetting Melbourne's tram network by solar power in a move that is expected to result in a reduction of more than 80,000 tonnes of GHG emissions;[8]
- installing solar power systems at Water Treatment Plants;[9] and
- investing in a Regional Health Solar Program to install solar panels on hospital rooftops that is estimated to reduce annual GHG emissions by more than 13,000 tonnes.[10]

I would like to take this opportunity to thank the hard working and dedicated, departmental environmental coordinators for their important contribution to improving the environmental performance of the agencies and their support in the development of this report.

It is an honour to serve as Victoria's Commissioner for Environmental Sustainability and to report on the progress of the Victorian public sector to reduce its environmental footprint. I hope these findings benefit the public sector as I continue to advocate for further improvements to the environmental reporting framework, FRD 24D, and its implementation by Victorian Government entities.

Dr Gillian Sparkes

Commissioner for Environmental Sustainability

January 2020

[8] Department of Environment, Land, Water and Planning, 'On board with Solar Trams', East Melbourne, Victoria https://www2.delwp.vic.gov.au/media-centre/media-releases/on-board-with-solar-trams Accessed 13 January 2020.
[9] Department of Environment, Land, Water and Planning, 'Hamilton Treatment Plant solar upgrade', East Melbourne, Victoria https://www.water.vic.gov.au/water-industry-and-customers/know-your-water-corporation/wannon-water/hamilton-treatment-plant-solar-upgrade Accessed 13 January 2020.
[10] Department of Health and Human Services, 'Regional Health Solar Program', East Melbourne, Victoria https://www.vhhsba.vic.gov.au/health-infrastructure/regional-health-solar-program Accessed 13 January 2020.

Performance at a glance

Table 2: Summary of total Victorian Government entity results for FRD 24D indicators.

Indicator	Unit	Value in 2018-19	% change from 2017-18 to 2018-19	Baseline year	% change from baseline year to 2018-19
Energy use					
Total energy usage	MJ	263,726,608	-2%	2009-10	-7%
Percentage of electricity purchased as Green Power	%	4	5%	2010-11	-85%
Units of energy used per FTE	MJ / FTE	10,598	-15%	2014-15	-29%
Units of energy used per unit of office area	MJ / m^2	545	-24%	2009-10	19%
Waste and recycling					
Total units of waste disposed of	kg	1,258,010	-8%	2009-10	-36%
Total units of waste disposed of per FTE	kg / FTE	57	-20%	2009-10	-48%
Recycling rate	%	63	-4%	2009-10	-24%
Paper use					
Total units of A4 equivalent copy paper used	Reams	308,539	-8%	2009-10	-21%
Units of A4 equivalent copy paper used per FTE	Reams / FTE	10	-12%	2009-10	-31%
Percentage of recycled content in copy paper purchased	% of 75-100% recycled content	92%	-5%	2015-16	24%
Water consumption					
Total units of metered water consumed	L	221,700,000	3%	2009-10	8%
Units of metered water consumed in offices per FTE	L / FTE	9,136	2%	2009-10	-15%
Units of metered water consumed in offices per unit of office area	L / m^2	426	-50%	2014-15	39%
Transportation					
Total energy consumption by vehicle fleet	MJ	287,249,733	0%	2009-10	-19%
Total vehicle travel associated with Entity operations	km	86,145,390	0%	2009-10	-16%
Total distance travelled by air	km	25,504,289	3%	2009-10	-21%
Greenhouse gas emissions					
Total greenhouse gas emissions associated with energy use	tonnes CO_2-e	83,545	-2%	2009-10	25%
Total greenhouse gas emissions associated with vehicle fleet	tonnes CO_2-e	20,137	0%	2009-10	-19%
Total greenhouse gas emissions associated with air travel	tonnes CO_2-e	5,092	-4%	2009-10	-64%
Total greenhouse gas emissions associated with waste disposal	tonnes CO_2-e	730	-6%	2009-10	85%

Improving	Stable	Deteriorating
(Improvement by more than ten per cent)	(Change by ten per cent or less)	(Deterioration by more than ten per cent)

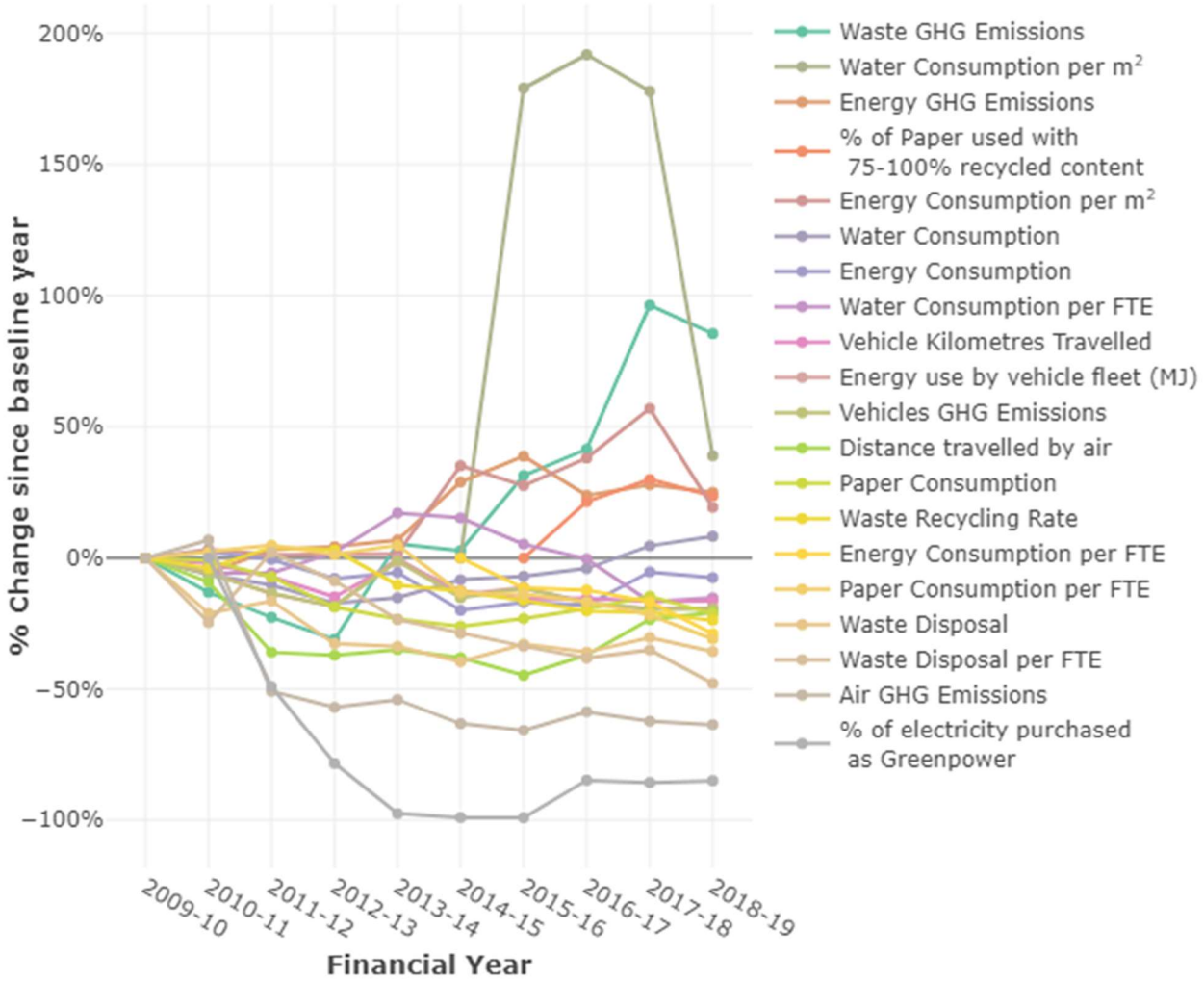

Figure 2: Percentage change in FRD 24D indicator values from the baseline year to 2018-19. Note that the legend on the right-hand side of the figure is arranged to match the points in the graph for 2018-19 in descending order. This has been done to make it easier to determine which lines are for each indicator.

Performance summary 2018-19

FRD 24D mandates that Victorian Government entities must annually report on their environmental footprint, with 20 of the indicators required for reporting being suitable for analysis at the whole-of-government level. The performance of Victorian Government entities for 12 of the 20 indicators improved during 2018-19, while 13 of the indicators have improved since baseline data was collected.

Of the 20 indicators, six are 'intensity' measures that assess consumption or usage per FTE or area of office space. The four intensity indicators associated with FTE all show at least a ten per cent more efficient environmental performance across Victorian Government entities since the baseline period, while the two intensity indicators associated with office space show at a least a ten per cent deterioration. This highlights the importance of understanding which intensity indicator is most appropriate for reporting purposes, with the results reflecting that the density of Victorian Government entity employees per unit of office area, has increased over the past decade. For energy, paper and waste usage, these efficiencies have outpaced the growth of Victorian Government entities in terms of staff numbers, which has resulted in reductions in the total usage of these resources. However, a greater amount of water was used by government entities in 2018-19 compared to 2009-10 despite a 15 per cent reduction in water use per FTE.

Significant changes (that is, changes by more than ten per cent) in Victorian Government performance for the EMS indicators are summarised below. The themes are provided in the brackets, with more details provided in the thematic sub-sections of the 'Results' section of this report.

Significant ***long-term improvements*** include:

- (Transportation) Air travel GHG emissions have decreased by 64 per cent due to a reduction in distance travelled and lower emitting aircraft, while energy consumption and GHG emissions associated with motor vehicle travel have decreased by 19 per cent;
- (Waste and recycling) Total waste disposed of has reduced by 36 per cent and the amount of waste disposed of per FTE is 48 per cent less;
- (Paper use) Total paper use and paper use per FTE are down 21 per cent and 31 per cent respectively since 2009-10, while the percentage of 75-100 per cent recycled content in copy paper has increased by 24 per cent; and
- (Waste consumption) Water use per FTE is down 15 per cent since 2009-10.

Significant ***long-term deteriorations*** include:

- (Energy use) Office-based GHG emissions associated with energy usage have increased by 25 per cent from 2009-10 to 2018-19 and account for 76 per cent of total GHG emissions reported in accordance with FRD 24D;

- (Energy use) Green Power as a proportion of electricity purchased has fallen from 27 per cent in 2010-11 to 4 per cent in 2018-19. This is likely to be part of the reason that office-based GHG emissions associated with energy usage have increased by 25 per cent despite total energy usage falling by seven per cent. Green Power represents electricity consumed from renewable energy sources; and
- (Waste and recycling) The waste recycling rate has fallen by 24 per cent since 2009-10 and GHG emissions associated with waste disposal have increased by 85 per cent since 2009-10, however waste disposal is only associated with less than one per cent of Victorian Government entity GHG emissions.

Significant ***improvements during 2018-19*** include:

- (Energy use, waste disposal, paper use and water consumption) Efficiency improvements of at least ten per cent for energy use per FTE and per m^2, waste disposal per FTE, paper use per FTE and water consumption per m^2.

There were no significant ***deteriorations during 2018-19***.

To improve the practicality of this report, opportunities to better report and reduce the environmental footprint of Victorian Government entities are consistently highlighted throughout the narrative of this report. These concepts are discussed most prominently in the 'Sustainable Development Goals', 'Data integrity, reporting and analysis limitations' and 'Opportunities' sections of this report.

Sustainable Development Goals

The Sustainable Development Goals (SDGs) are the blueprint to achieve an improved and sustainable future for all. They took effect on 1 January 2016 and address the global challenges we face, including those related to poverty, inequality, climate change, environmental degradation, peace and justice.[11] The 17 Goals provide a comprehensive and integrated framework of 169 targets and 230 indicators to support planning and reporting through to 2030. They provide business, government and civil society with a compelling framework for future growth that aims to be socially fair, environmentally sustainable and economically prosperous.

As reported in the Victorian State of the Environment 2018 Report (SoE 2018), there are four critical aspects of the SDG framework that are relevant to environmental reporting.[12] The SDGs provide:

1. a pre-prosecuted framework for reporting across complex and disparate areas of social, economic and environmental policy;
2. a framework that is internationally agreed and widely supported;
3. a common language for measuring progress against goals and targets; and
4. broad support from across business, government and community.

Many countries, businesses and stakeholder organisations are taking up the challenge of the SDGs, with initial efforts including a range of evidence-based assessments.[13,14,15]

Another important distinction made in the SoE 2018 was to focus on the SDG targets, rather than the goals or SDG indicators. Although useful as a framing and communication device, working at the goal level proved too broad; it reinforced silos, and did not convey the 'indivisible whole' anticipated by the SDG framework. The current suite of SDG indicators (230 across 169 targets) were also inadequate to drive alignment as they, at least at the current stage of development, do not offer comprehensive measurement of the targets – and often the indicators are not nuanced for local knowledge or management priorities.

[11] United Nations, 'The Sustainable Development Agenda', New York, United States https://www.un.org/sustainabledevelopment/development-agenda/ Accessed 13 January 2020.
[12] Commissioner for Environmental Sustainability 2019, 'Victorian State of the Environment 2018 Report – summary report', Melbourne, Victoria https://www.ces.vic.gov.au/sites/default/files/SoE2018_SummaryReport.pdf Accessed 13 January 2020.
[13] Allen C, Nejdawi R, El-Baba J, Hamati K, Metternicht G, Wiedmann T 2017, 'Indicator-based assessments of progress towards the sustainable development goals (SDGs): a case study from the Arab region', Sustainability Science, 12(6), pp. 975-989.
[14] European Union 2018, 'Sustainable Development in the European Union: Monitoring report on progress towards the SDGs in an EU context', https://ec.europa.eu/eurostat/documents/3217494/9237449/KS-01-18-656-EN-N.pdf/2b2a096b-3bd6-4939-8ef3-11cfc14b9329 Accessed 13 January 2020.
[15] Bertelsmann Stiftung and Sustainable Development Solutions Network 2018, 'SDG Index and Dashboards Report 2018', New York, United States.

The targets were considered the best frame for aligning SDGs with environmental reporting because they are action-oriented and enable a direct assessment for achieving ecologically sustainable development outcomes through policy and management interventions.

The model used in the SoE 2018 of aligning SDG targets with existing indicators has been applied to the FRD 24D indicators evaluated in this report. 15 SDG targets were found to align with the existing indicator suite of FRD 24D indicators. This alignment opens-up the opportunity to track and compare Victorian Government entity performance in the future against interstate and international government jurisdictions in a consistent fashion, as well as with industry. Reporting in such a way that leverages the power of the SDGs, would enable a more complete understanding of the impacts of decisions made as part of implementing EMS. The 15 SDG targets relevant to FRD 24D are shown below in Table 3.

Table 3: Aligning SDG targets with EMS and FRD 24D reporting.

Goal	**SDG target**	**Alignment to EMS and FRD 24D**
6. Clean Water and Sanitation	6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity	Water consumption
7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix	Energy use and procurement
7. Affordable and Clean Energy	7.3 By 2030, double the global rate of improvement in energy efficiency	Energy use
9. Industry, Innovation and Infrastructure	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities	Procurement
11. Sustainable Cities and Communities	11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons	Transportation
11. Sustainable Cities and Communities	11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	Waste and recycling
11. Sustainable Cities and Communities	11.B By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels	Entity sustainability plans

Goal	SDG target	Alignment to EMS and FRD 24D
12. Responsible Consumption and Production	12.1 Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries	Entity sustainability plans
12. Responsible Consumption and Production	12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	Waste and recycling
12. Responsible Consumption and Production	12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities	Procurement
12. Responsible Consumption and Production	12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature	Staff behaviour change
13. Climate Action	13.2 Integrate climate change measures into national policies, strategies and planning	GHG emissions and water consumption
16. Peace and Justice Strong Institutions	16.6 Develop effective, accountable and transparent institutions at all levels	Access to information – publicly accessible annual reports and data sets. Transparent process to set targets for entity environmental performance.
16. Peace and Justice Strong Institutions	16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements	Access to information – publicly accessible annual reports and data sets
17. Partnerships to achieve the Goal	17.14 Enhance policy coherence for sustainable development	Entity sustainability plans and cross-government policies

Method

Background

Since 2003, Victorian Government departments,[16] the EPA and SV – referred to collectively as 'entities' – have been required to implement environmental management systems (EMS). This requirement was introduced with an office-based focus, modelled on the ISO 14001 standard[17] and enabled by the FRD 24C. In May 2018, FRD 24D was introduced as an update and replacement for FRD 24C, with the reporting period for FRD 24D commencing 1 July 2017.[18]

Section 18 of the CES Act[19] requires that by no later than 31 January each year, the Commissioner for Environmental Sustainability (the Commissioner) must report to the Minister for Energy, Environment and Climate Change on 'the implementation of environmental management systems by entities and public authorities'. Entities are determined by the Victorian Government, as set out in section 18(2)(a) of the CES Act.

This Strategic Audit presents environmental performance and analysis for the 2018-19 period, as provided to the Commissioner or obtained from annual reports, in general accordance with FRD 24D and consistent with section 18 of the CES Act.

The Victorian Government's FRD 24D sets minimum reporting requirements for office-based activities with environmental impacts, including:

- **energy use** – stationary energy: building consumption such as electricity (including Green Power), natural gas, liquefied petroleum gas, heating oil, diesel and solid fuel;
- **waste and recycling** – waste to landfill or recycling and composted waste;
- **paper use** – paper used for printing and photocopying;

[16] Applies to all entities as defined in part (a) of the definition of 'department' under section 3 of the *Financial Management Act 1994* (FMA) and to the environmental entities (EPA and SV) referred to in FRD 24D as 'entities'. Other public-sector entities are encouraged to adopt the requirements of this FRD to their annual reports.

[17] ISO 14001 is the recognised international voluntary standard that sets generic requirements for preparing an EMS. An organisation must prepare an EMS that identifies and controls the environmental impact of its services and products, continually improves its environmental performance and implements a systematic approach to setting, achieving and monitoring progress towards meeting environmental objectives and targets.

[18] Department of Treasury and Finance 2018, 'FRD 24D Reporting of office-based environmental data by government entities', Melbourne, Victoria https://www.dtf.vic.gov.au/sites/default/files/2018-05/FRD%2024D%20Reporting%20of%20office-based%20environmental%20data%20by%20government%20entities.DOCX Accessed 13 January 2020.

[19] Office of the Chief Parliamentary Counsel Victoria 2003, 'Commissioner for Environmental Sustainability Act 2003', Melbourne Victoria http://www.legislation.vic.gov.au/Domino/Web_Notes/LDMS/PubStatbook.nsf/f932b66241ecf1b7ca256e92000e23be/c2f668afe3e426d1ca256e5b00214061/$FILE/03-015a.pdf Accessed 13 January 2020.

- **water consumption** – domestic water use, rainwater and reused water;
- **transportation** – vehicle fleet energy use and air travel;
- **GHG emissions** – those associated with building energy use, vehicle fleet use, air travel and waste production (any offsets purchased are also reported); and
- **procurement** – a discussion as to whether, and how, procurement activities are environmentally responsible.

FRD 24D requires nominated entities to measure and report relative resource use (efficiency or intensity indicators such as *energy consumption per floor area* or *per number of FTE employees)*, as well as total resource use or 'absolute' consumption such as *total energy use* or *total GHG emissions*.

Data integrity, reporting and analysis limitations

All figures provided to the Commissioner are verified in annual reports where available. As in previous years, entities revised some data from previous years (that is, compared with that presented in the Commissioner's 2017-18 Strategic Audit) in line with the final billing cycle data and/or data corrections. This Strategic Audit reflects the latest data consistent with the latest annual reports.

The current data process involves a lot of the data to be manually entered. Prior to the next Strategic Audit, the Commissioner will investigate the feasibility of developing a system for EMS Coordinators from each entity to upload data to the Commissioner's cloud-based database of EMS data. The data would then be automatically analysed and visualised using programs developed by the Commissioner during 2018-19. This process modernisation would improve resource efficiency and reduce the potential to introduce erroneous data.

As at 30 June 2019 there are ten Victorian Government entities included in EMS reporting. During the past decade there has been an average of more than one 'machinery-of-government' change per year. The net effect of these changes, introduced to meet the policy objectives of successive governments, is that it is difficult to consistently track and compare EMS data for a given Victorian department or entity. As an example of these machinery-of-government changes, on 1 January 2019 the Department of Economic Development, Jobs, Transport and Resources transitioned into two new departments – the Department of Jobs, Precincts and Regions, and the Department of Transport. Due to the frequency of departmental changes, the most reliable way to track EMS performance of Victorian Government entities is to look at the 'total' combined results for all entities, with additional analysis of individual entities performed selectively when the extra layer of detail adds value and is required to understand an overall change or trend.

FRD 24D does not mandate or specify targets to be met for individual items required to be reported by entities. The lack of targets reduces the efficacy of this type of reporting, because the reporting is less likely to drive improvements in environmental management practises if there are no targets that need to be met. Despite

not being required to meet targets as part of their reporting of office-based environment data as part of FRD 24D, it is encouraging to note that most entities do specify their own targets in their annual reports.

The issues associated with GHG emissions that have been highlighted in previous Strategic Audits remain, with FRD 24D only capturing ten per cent of GHG emissions annually reported by Victorian Government entities in 2018-19. The *Climate Change Act 2017* states that the relevant Minister must make a statement in respect of whole-of-government GHG emissions reductions on or before 1 August 2020.[20] In light of FRD 24D only capturing a small percentage of government GHG emissions, it is recommended that any whole-of-government GHG emissions reduction pledge incorporate GHG emissions beyond the scope mandated by FRD 24D. Despite these issues, entities have become increasingly able to separate out 'office only' and 'beyond office' data (see Table 1), which better enables a comparison between the 'office only' and 'beyond office' environmental footprints. Splitting the data in such a way highlights the limitation of constricting reporting to office-based performance.

Some of the results presented in Table 2 are contradictory and highlight the potential for issues in data quality. For example, GHG emissions associated with waste increased by 85 per cent from 2009-10 to 2018-19 despite the total amount of waste disposed during that period falling by 36 per cent. This result is only possible if the types of waste being disposed – or the waste disposal techniques – have diversified to such an extent that the GHG emissions per unit of waste disposed are significantly greater in 2018-19 than they were in 2009-10. This seems implausible and it is considered more likely that this result is due to inconsistencies in reporting by Victorian Government entities.

[20] Office of the Chief Parliamentary Counsel Victoria 2017, 'Climate Change Act 2017', Melbourne, Victoria http://www.legislation.vic.gov.au/Domino/Web_Notes/LDMS/PubStatbook.nsf/f932b66241ecf1b7ca256e92000e23be/05736C89E5B8C7C0CA2580D50006FF95/$FILE/17-005aa%20authorised.pdf Accessed 13 January 2020.

Results

Energy use

Table 4: Summary of total Victorian Government entity results for energy use FRD 24D indicators.

Indicator	Value in 2018-19	% change from 2017-18 to 2018-19	Baseline year	% change from baseline year to 2018-19
Total energy usage	263,726,608 MJ	-2%	2009-10	-7%
Percentage of electricity purchased as Green Power	4 %	5%	2010-11	-85%
Units of energy used per FTE	10,598 MJ / FTE	-15%	2014-15	-29%
Units of energy used per unit of office area	545 MJ / m^2	-24%	2009-10	19%
Total greenhouse gas emissions associated with energy use	83,545 tonnes CO_2-e	-2%	2009-10	25%

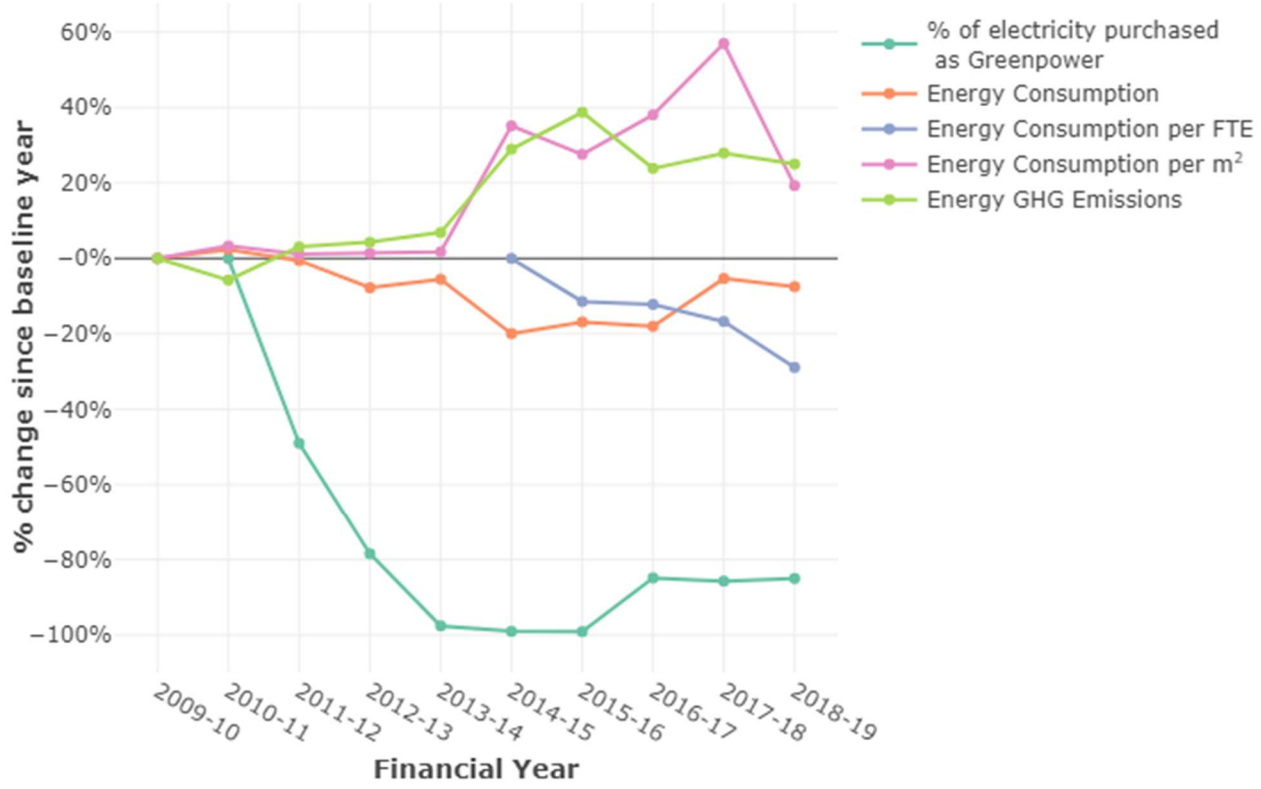

Figure 3: Percentage change in FRD 24D energy use indicator values from the baseline year to 2018-19.

There has been a slight reduction in total energy consumption by Victorian Government entities since 2009-10. Office-based energy efficiency initiatives by government entities are currently outpacing the increase in FTEs, which is demonstrated by the reduction in energy consumption per FTE since that metric began being tracked in 2014-15.

Despite the efforts to manage energy usage, GHG emissions associated with energy use have increased by 25 per cent during the past decade. This is likely to be linked to the reduction in the percentage of electricity purchased as Green Power, which occurred following the Victorian Government's decision to discontinue mandatory Green Power targets from 1 July 2011. Green Power represents electricity consumed from

renewable energy sources. Currently SV purchases 100 per cent of its electricity as Green Power, with DELWP also purchasing a significant proportion of its electricity (25 per cent) as Green Power. EPA (4.4 per cent) purchases a small proportion of Green Power, while no other entities purchase Green Power. This means that none of the three biggest electricity-using entities purchase any Green Power – these entities are DHHS, DJCS and DJPR and they account for a combined 70 per cent of total Victorian Government entity electricity usage.

Energy consumption per unit of office area had been increasing steadily from 2013-14 before a sharp reduction during 2018-19. It is unclear what caused this reduction, although it is likely to be linked to the significant improvements recorded at DET and DPC, as well as the drops in association with the machinery-of-government changes when DEDJTR changed to become DJPR and DOT. DPC stated in their 2018-19 Annual Report that "*reductions in electricity consumption per FTE and square metres can be attributed to an increase in the use of 5-star energy-rated appliances and DPC's adoption of flexible workplace practices, which have led to a more efficient office design.*"[21]

Waste and recycling

Table 5: Summary of total Victorian Government entity results for waste and recycling FRD 24D indicators.

Indicator	Value in 2018-19	% change from 2017-18 to 2018-19	Baseline year	% change from baseline year to 2018-19
Total units of waste disposed of	1,258,010 kg	-8%	2009-10	-36%
Total units of waste disposed of per FTE	57 kg / FTE	-20%	2009-10	-48%
Recycling rate	63 %	-4%	2009-10	-24%
Total greenhouse gas emissions associated with waste disposal	730 tonnes CO_2-e	-6%	2009-10	85%

[21] Department of Premier and Cabinet 2019, 'Department of Premier and Cabinet Annual Report 2018-19', Melbourne, Victoria https://www.content.vic.gov.au/sites/default/files/2019-10/DPC-Annual-Report-2018-19.pdf Accessed 13 January 2020.

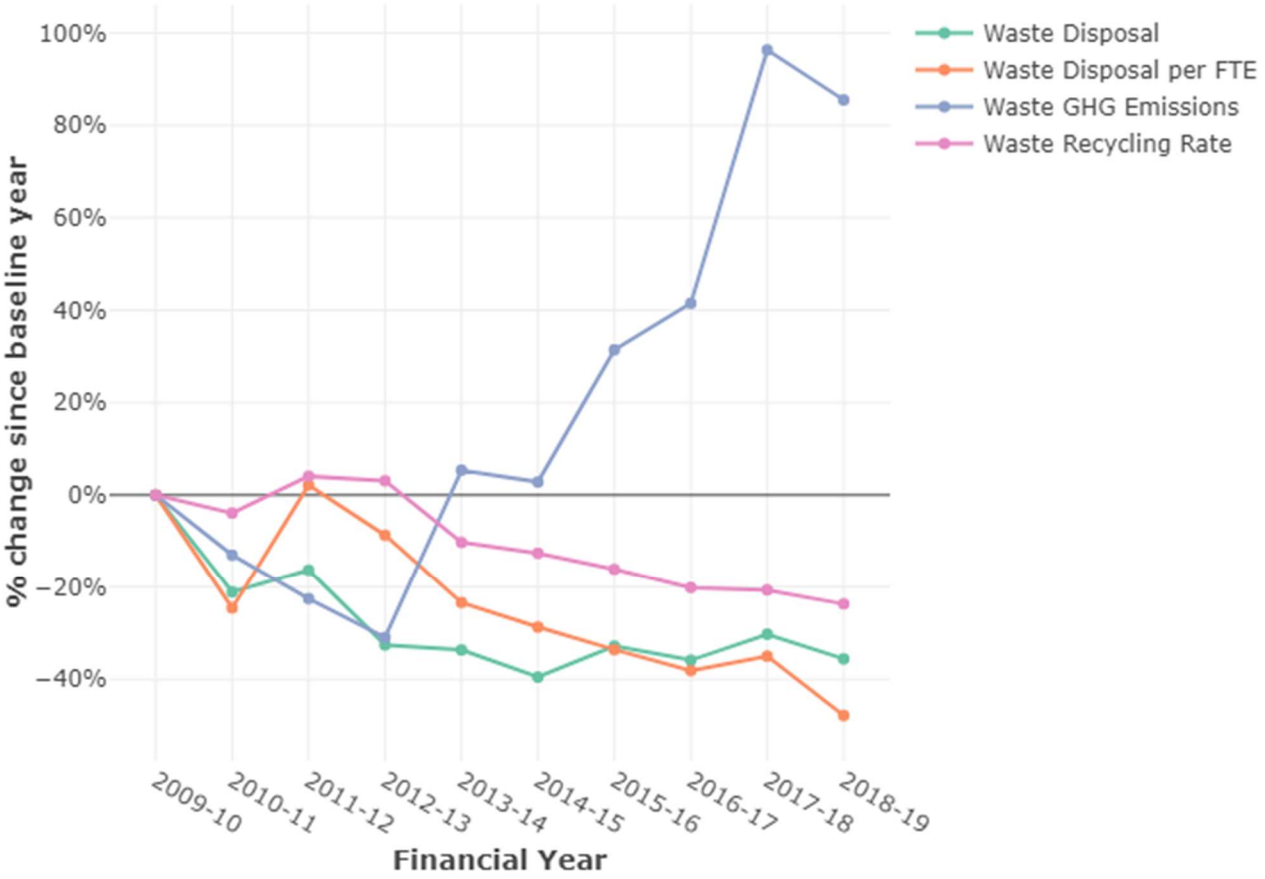

Figure 4: Percentage change in FRD 24D waste disposal and recycling indicator values from the baseline year to 2018-19.

The reduction of waste disposed of by government entities is one of the best long-term environmental improvements made within government. Figure 4 shows that most of the reductions in waste disposal (green line in Figure 4) were achieved between 2009-10 and 2014-15, with these improvements being maintained in recent years despite the increase in government FTE; waste disposal per FTE has continued to consistently decrease since 2014-15.

The results are not all positive for the waste sector though, with the recycling rate of Victorian Government entities reducing steadily since 2013-14. Unlike the two waste disposal indicators represented in Figure 4, a reduction in the recycling rate represents an opportunity for more targeted action within government entities. Anecdotal feedback suggests a lack of education and awareness of which items are suitable for recycling is a barrier to improving the waste recycling rate within government entities and would be consistent with the recycling behaviours observed across the community more broadly. Entities are beginning to report the breakdown of waste disposal by destination, which provides an opportunity for future Strategic Audit reports to look at trends in organic waste.

The change in waste-related, GHG emissions observed since the baseline period are contradictory to the amount of waste disposed and as discussed in the 'Method' section, highlights potential data quality issues.

GHG emissions associated with waste increased by 85 per cent from 2009-10 to 2018-19 despite the total amount of waste disposed during that period falling by 36 per cent. This result is only possible if the types of waste being disposed – and/or the waste disposal techniques – have diversified to such an extent that the GHG emissions per unit of waste disposed of are significantly greater in 2018-19 than they were in 2009-10. This seems implausible and it is far more likely that this result is due to inconsistencies in reporting by Victorian Government entities.

Paper use

Table 6: Summary of total Victorian Government entity results for paper use FRD 24D indicators.

Indicator	Value in 2018-19	% change from 2017-18 to 2018-19	Baseline year	% change from baseline year to 2018-19
Total units of A4 equivalent copy paper used	308,539 Reams	-8%	2009-10	-21%
Units of A4 equivalent copy paper used per FTE	10 Reams / FTE	-12%	2009-10	-31%
Percentage of recycled content in copy paper purchased with 75-100% recycled content	92%	-5%	2015-16	24%

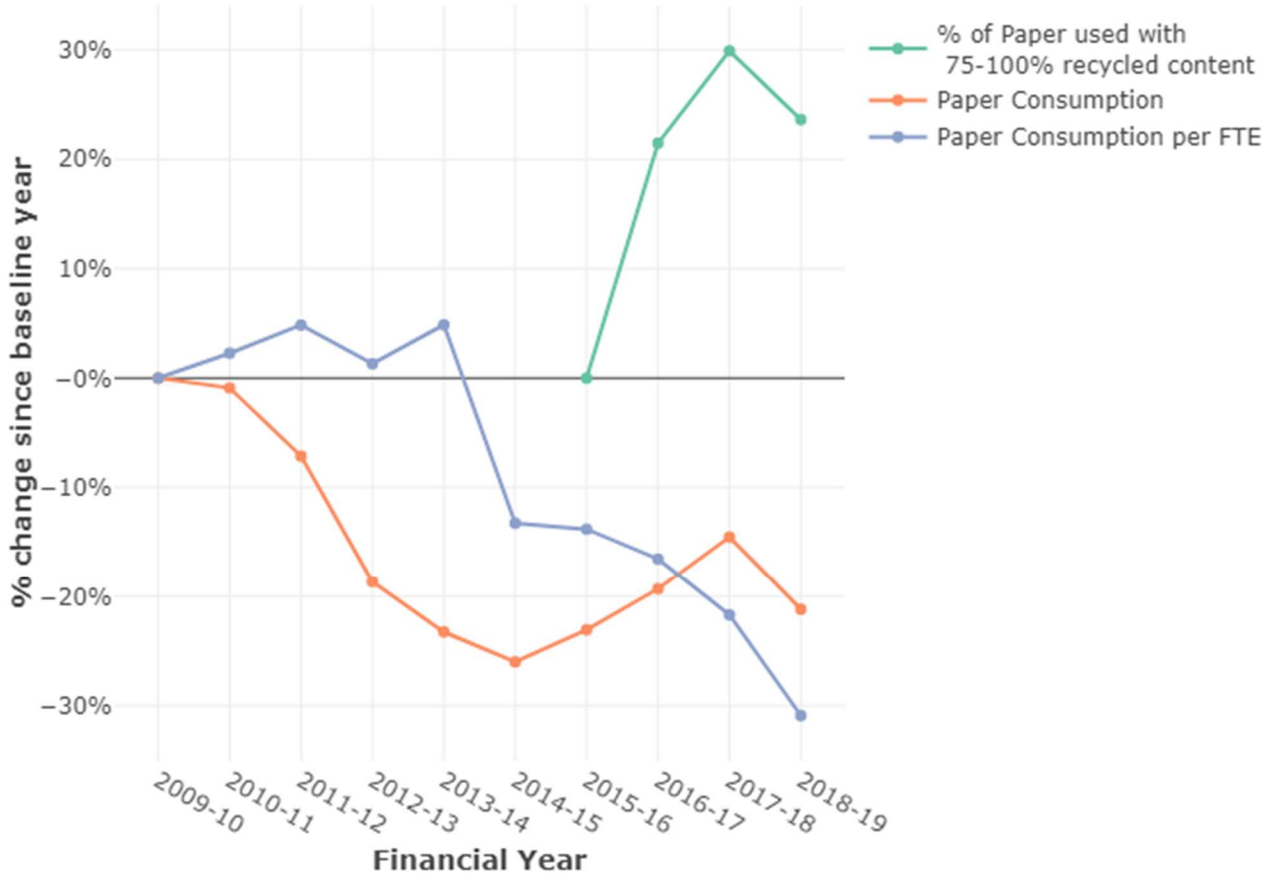

Figure 5: Percentage change in FRD 24D paper use indicator values from the baseline year to 2018-19.

Paper use within government entities continues to be a positive story. Paper use has reduced by 21 per cent since the 2009-10 baseline year, with paper use per FTE reducing by 31 per cent over the same period.

Furthering the benefits associated with a significant reduction in paper use, there has also been a substantial increase in the percentage of paper used that has a large percentage (75-100 per cent) of recycled content.

The reduction in paper usage since the baseline period is likely due to a range of factors that include the proliferation of digital technologies replacing legacy paper-based systems, as well as most entities now using some form of 'follow-me' printing that only releases documents to be printed when users are physically at the printer. DHHS successfully deployed a 'follow-me' printing system to all printers in its offices at 50 Lonsdale Street, Melbourne, that was found to have prevented 26,000 pages of uncollected documents from being printed during a three-month trial.[22]

Water consumption

Table 7: Summary of total Victorian Government entity results for water consumption FRD 24D indicators.

Indicator	Value in 2018-19	% change from 2017-18 to 2018-19	Baseline year	% change from baseline year to 2018-19
Total units of metered water consumed	221,700,000 L	3%	2009-10	8%
Units of metered water consumed in offices per FTE	9,136 L / FTE	2%	2009-10	-15%
Units of metered water consumed in offices per unit of office area	426 L / m^2	-50%	2014-15	39%

[22] Department of Health and Human Services 2019, 'Department of Health and Human Services Annual Report 2018-19', Melbourne, Victoria https://www.dhhs.vic.gov.au/sites/default/files/documents/201910/Department%20of%20Health%20and%20Human%20Services%20annual%20report%202018-19.pdf Accessed 13 January 2020.

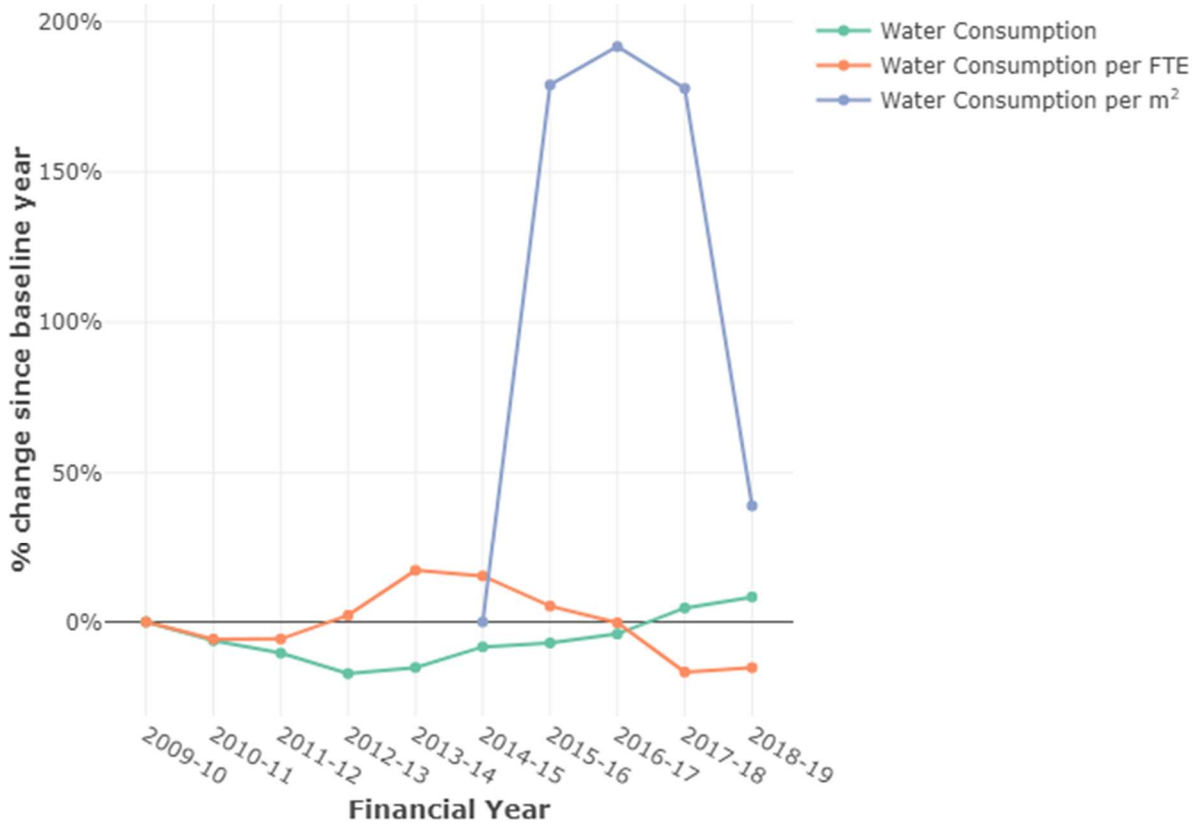

Figure 6: Percentage change in FRD 24D water consumption indicator values from the baseline year to 2018-19.

Improvements in water efficiency, in terms of water consumption per FTE, have been observed since 2013-14. However, increases in total Victorian Government entity FTE during that period have outpaced the efficiency improvements and total water consumption from entities has increased slightly since the 2009-10 baseline year.

Water consumption per square metre of office area changed dramatically from to 2014-15 to 2015-16 and again in the past twelve months. This is more likely to reflect inconsistencies in how office area has been recorded over time, rather than an actual change in water consumption per square metre, which is similar to the sharp reduction in energy use per unit of office area that was observed in 2018-19 and noted in the 'Energy use' section of this report. These changes in consumption per square metre of office area are likely to be linked to the significant improvements that were reported in association with the machinery-of-government change of DEDJTR to DJPR and DOT. These drops are shown in Table 8.

Table 8: Summary of water consumption per unit of office area before and after the machinery-of-government changes when DEDJTR changed to become DJPR and DOT.

	DOT (01-Jan-2019 to 30-Jun-2019)	DJPR (01-Jan-2019 to 30-Jun-2019)	DEDJTR (01-Jul-2019 to 31-Dec-2019)	DEDJTR (2017-18)
Units of metered water consumed in offices per unit of office area (kL/m²)	0.14	0.24	0.12	0.6

Transportation

Table 9: Summary of total Victorian Government entity results for transportation FRD 24D indicators.

Indicator	Value in 2018-19	% change from 2017-18 to 2018-19	Baseline year	% change from baseline year to 2018-19
Total energy consumption by vehicle fleet	287,249,733 MJ	0%	2009-10	-19%
Total vehicle travel associated with Entity operations	86,145,390 km	0%	2009-10	-16%
Total distance travelled by air	25,504,289 km	3%	2009-10	-21%
Total greenhouse gas emissions associated with vehicle fleet	20,137 tonnes CO_2-e	0%	2009-10	-19%
Total greenhouse gas emissions associated with air travel	5,092 tonnes CO_2-e	-4%	2009-10	-64%

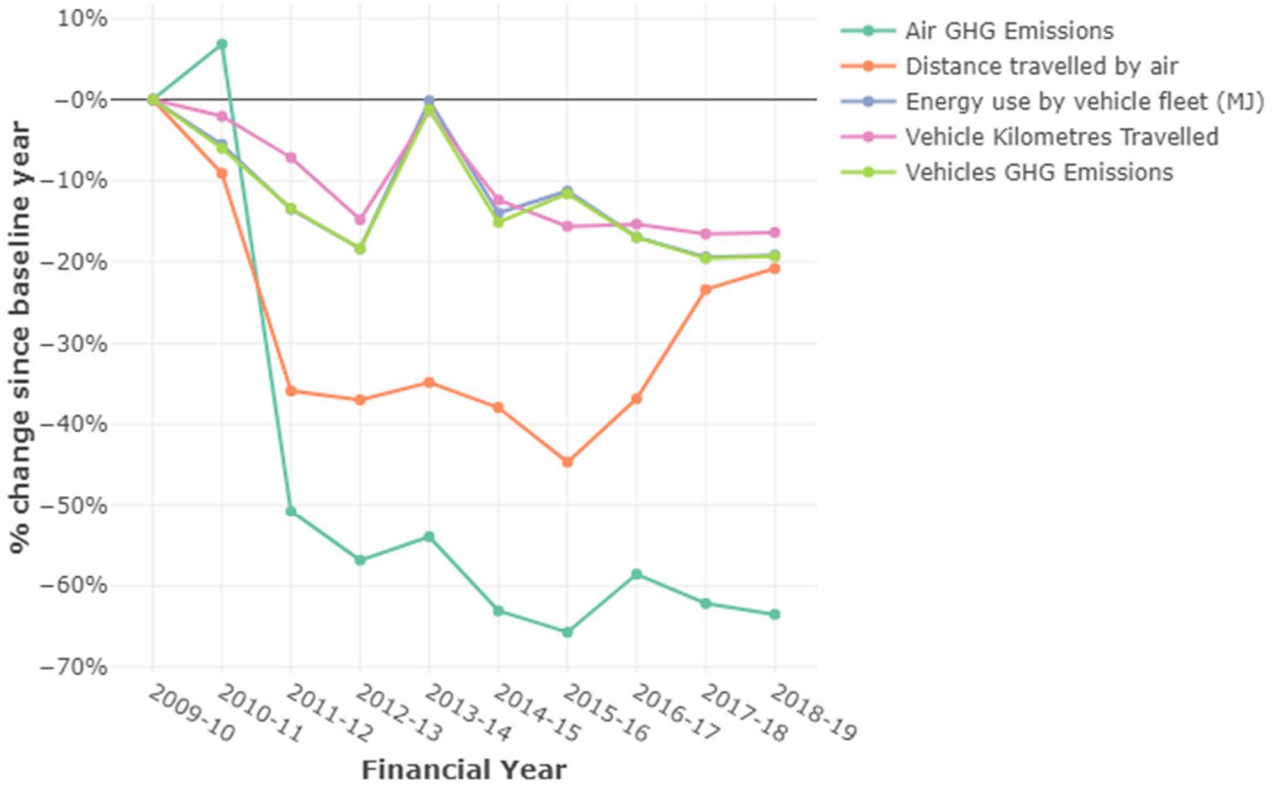

Figure 7: Percentage change in FRD 24D transportation indicator values from the baseline year to 2018-19.

All five FRD 24D indicators for transportation have positive results when data for 2018-19 is compared against the 2009-10 baseline year. Most of the improvements were achieved between 2010-11 and 2012-13, with mostly minor changes occurring since 2012-13 - apart from an increase in air travel observed since 2015-16.

Entities also report on an 'intensity' indicator that measures GHG emissions from the vehicle fleet per 1,000 km. This information is useful as some entities are very proactive in the way they set targets. For example, DJCS has introduced an internal emissions intensity target of 130 grams of CO_2/km and a sliding scale surcharge to reduce fleet emissions. This target has driven DJCS to update its Supplementary Motor Vehicle Policy to mandate default low-emission vehicles, which has resulted in 55 per cent of the DJCS vehicle fleet being

comprised of hybrid vehicles, with a two per cent rate of plug-in hybrid electric vehicles. These changes contributed to DJCS reducing its transport intensity by 25 per cent during the past year.[23]

Victorian Government entities are also required to report on the percentage of employees using sustainable transport (public transport, cycling, walking or car-pooling) to get to and from work, by locality type. There is reducing variability between entities in the way this indicator is reported, which is enabling better analysis between entities, although DEDJTR, DJPR and DOT did not report on this indicator. However, only having access to aggregated percentages that entities include in their annual reports precludes the ability to provide an overall sustainable transport commuting percentage across all entities.

The available data for staff commuting is displayed in Figure 8 and shows a general pattern of more sustainable transport commuting by staff working in the CBD than other metropolitan and regional areas. Most Victorian Government entities report that more than 90 per cent of staff use sustainable transport to commute to work locations in the CBD, with a large variance between entities in the percentage of staff in offices in other parts of metropolitan Melbourne commuting via sustainable transport, while the percentage of staff using sustainable transport to commute to work is generally least in regional offices.

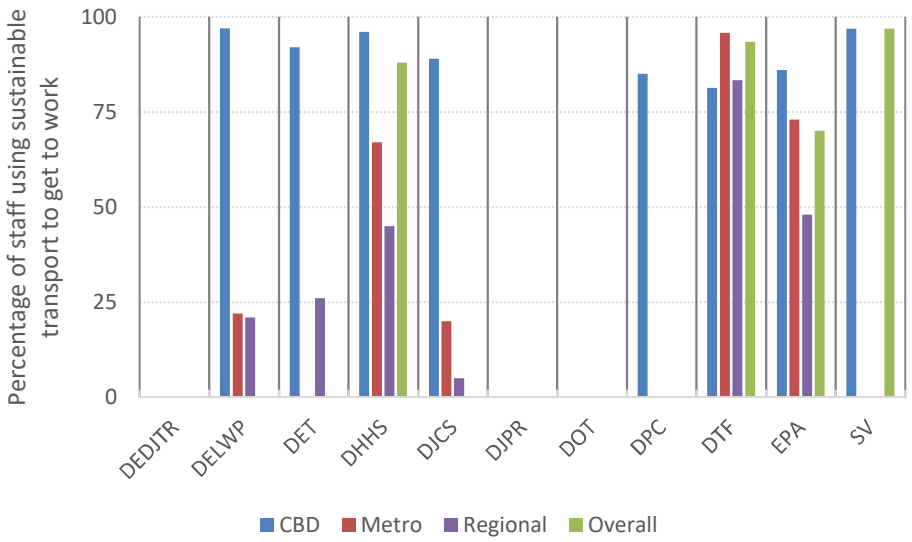

Figure 8: Percentage of staff using sustainable transport to get to work in 2018-19, categorised by work location.

[23] Department of Justice and Community Safety 2019, 'Annual Report 2018-19', Melbourne, Victoria https://www.justice.vic.gov.au/sites/default/files/embridge_cache/emshare/original/public/2019/10/77/fe62665e2/DJCS_Annual_Report_2018-19.pdf Accessed 13 January 2020.

Greenhouse gas emissions

Table 10: Summary of total Victorian Government entity results for GHG emission FRD 24D indicators.

Indicator	Value in 2018-19	% change from 2017-18 to 2018-19	Baseline year	% change from baseline year to 2018-19
Total greenhouse gas emissions associated with energy use	83,545 tonnes CO_2-e	-2%	2009-10	25%
Total greenhouse gas emissions associated with vehicle fleet	20,137 tonnes CO_2-e	0%	2009-10	-19%
Total greenhouse gas emissions associated with air travel	5,092 tonnes CO_2-e	-4%	2009-10	-64%
Total greenhouse gas emissions associated with waste disposal	730 tonnes CO_2-e	-6%	2009-10	85%
Total greenhouse gas emissions	109,504 tonnes CO_2-e	-2%	2009-10	3%

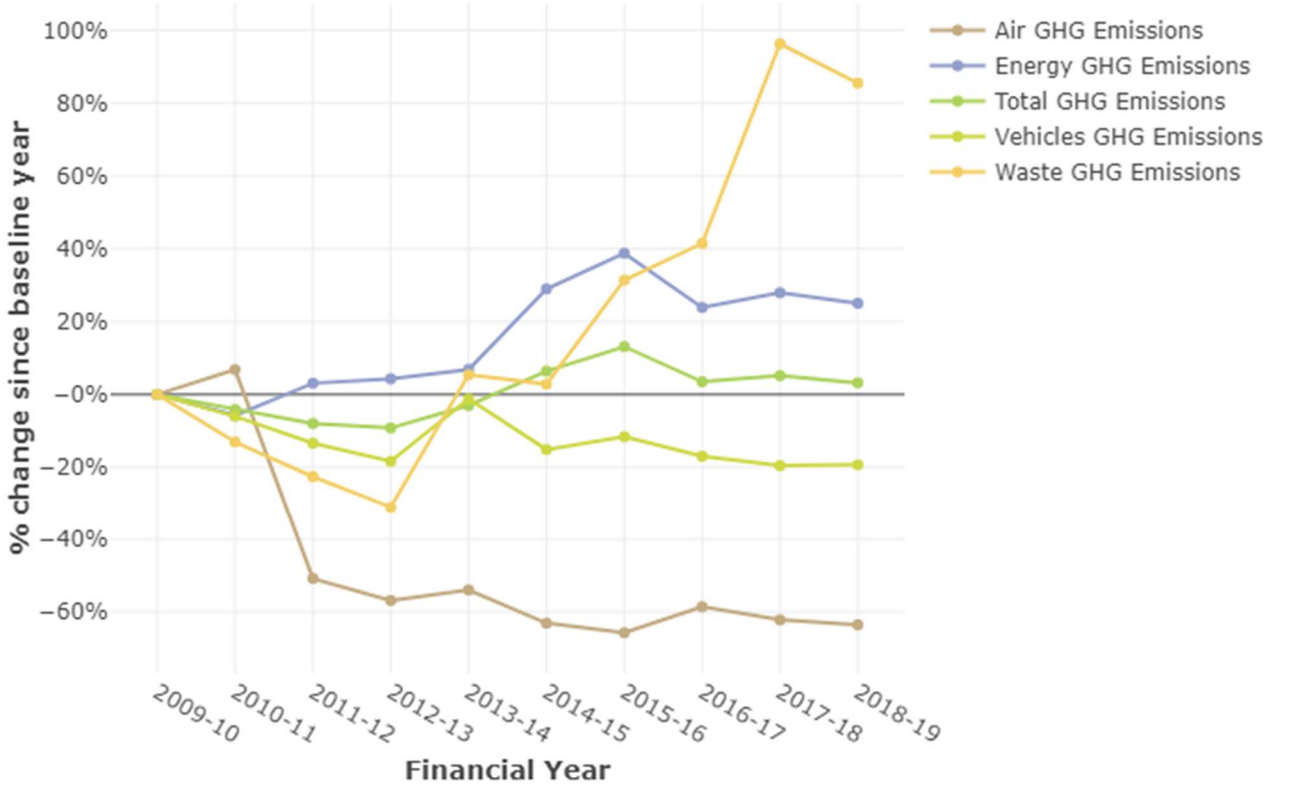

Figure 9: Percentage change in FRD 24D GHG emission indicator values from the baseline year to 2018-19.

Analysis of GHG emissions is provided in previous environmental sector-specific sections (that is, it is provided in energy use, waste and recycling and transportation). GHG emissions have increased over time for waste disposal and energy use, while reductions have been recorded for air and vehicle travel. This section includes an analysis on total GHG emissions for all sectors. Across FRD reportable GHG emissions from energy, waste and transportation, there has been a less than one per cent increase in the past year and a three per cent increase from 2009-10. In 2016 the Victorian Government pledged to reduce emissions from the operations

of government departments by 30 per cent below 2015 levels by 2020.[24] FRD reporting occurs across financial years, so some tweaking needs to be done to compare FRD reportable GHG emissions against a calendar year. Taking 2015 levels to be the average of 2014-15 and 2015-16 levels, FRD reportable GHG emissions have reduced by six per cent from 2015 to 2018-19.[25]

Procurement

FRD 24D states that entities are to discuss whether and how their procurement activities are environmentally responsible and support the objectives of the *Environmental impact in procurement – procurement guide*.[26]

Green procurement reporting is nuanced differently across the entities, but all government entities consistently report that procurement activities support the objectives of the Government's Environmental Procurement Policy. For example, DELWP reports that "*the Procurement Governance Group provides internal procurement advice to support and strengthen environmental procurement practices. Departmental templates for tendering and contracting incorporate requirements for tenders to demonstrate their environmental credentials and allow tender evaluation teams to weight and score this as a separate assessment criterion, where relevant*".[27]

[24] Department of Land, Water and Planning 2016, 'Acting now on climate change', East Melbourne, Victoria https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0030/89832/DELWP_Take2-Acting-Now-on-Climate-Change.pdf Accessed 13 January 2020.
[25] As demonstrated in Table 1, FRD reportable GHG emissions are only ten per cent of total GHG emissions reported by Victorian Government entities in 2018-19 annual reports.
[26] Department of Treasury and Finance, 'Guidance for FRD 24D Reporting', Melbourne, Victoria https://www.dtf.vic.gov.au/sites/default/files/2018-05/FRD%2024D%20Reporting%20of%20office-based%20environmental%20data%20by%20government%20entities.DOCX Accessed 13 January 2020.
[27] Department of Environment, Land, Water and Planning 2019, 'Annual Report 2018-19', East Melbourne, Victoria https://www2.delwp.vic.gov.au/__data/assets/pdf_file/0032/438188/DELWP-Annual-Report-2018-19-web.pdf Accessed 13 January 2020.

Opportunities

Throughout the results section of this report, many opportunities emerged when analysing entity EMS performance. These opportunities manifested into four primary themes: staff behaviour change, reducing GHG emissions associated with energy use, reducing GHG emissions from vehicle and air travel, and improved target setting and accountability.

Staff behaviour change: The waste recycling rate averaged across all entities has deteriorated each year for the past six years and is now at a record low level since the baseline period of 2009-10. Anecdotal feedback suggests a lack of education and awareness of which items are suitable for recycling is a barrier to improving the waste recycling rate within government entities. This is reflective of a wider issue affecting the waste sector across Victoria. The 2019 Victorian Parliamentary Inquiry into recycling and waste management found that delivery of education about municipal recycling in Victoria is fragmented amongst a number of organisations and this leads to Victorians receiving contradictory information about what can and cannot be recycled.[28] Additionally, staff behaviour change can positively impact on greener procurement choices and determining the vehicle fleet composition, as well as energy usage, water usage and waste avoidance.

More work needs to be done to understand the impact of contemporary workplace practices on the environmental footprint of entities. Technology connects us much better now than the baseline period (2009-10), which has led to greater flexibility of working locations, including strong anecdotal evidence of an increase in the frequency of government staff working remotely (for example, working from external offices or from home). Additionally, improving facilities in the workplace encourages a greater proportion of the workforce to cycle to work, which could in turn increase water use due to more showering at work. The trade-offs associated with these activities fit nicely within the SDG framework and will be explored in greater detail in future Strategic Audit reports.

Leveraging emerging technology to reduce GHG emissions from buildings: GHG emissions associated with energy usage have increased by 25 per cent during the past decade. This is likely to be linked to a dramatic reduction in the percentage of electricity purchased as Green Power. Green Power represents electricity consumed from renewable energy sources. Currently SV purchases 100 per cent of its electricity as Green Power, with DELWP also purchasing a significant proportion of its electricity (25 per cent) as Green Power. EPA (4.4 per cent) purchases a small proportion of Green Power, while none of the other seven entities purchase any Green Power. This means that none of the three biggest electricity-using entities purchase any Green Power – these entities are DHHS, DJCS and DJPR and they account for a combined 70 per cent of total Victorian Government entity electricity usage. There is an opportunity for DTF to create a policy for Green Power

[28] Parliament of Victoria, 'Inquiry into recycling and waste management final report', East Melbourne, Victoria https://www.parliament.vic.gov.au/images/stories/committees/SCEP/Recycling_and_Waste_Mgmt/Report/Inquiry_into_recycling_and_waste_management.pdf Accessed 13 January 2020.

purchasing. The cost differential between Green Power and non-Green Power is likely to be a consideration for entities when choosing whether to purchase Green Power, however a Green Power purchasing policy could enable more creative opportunities such as entities having shared purchasing arrangements to reduce the cost per unit of energy.

Many entities noted activities to reduce energy usage and GHG emissions from buildings. EPA's activities highlight the advantages of combining infrastructure upgrades with staff behaviour change, with the EPA annual report stating "*EPA continues to encourage staff to maximise energy-saving potential in EPA offices and with equipment. This includes turning off computers at the power point and the use of energy-efficient office heating, cooling and lighting, where possible. These initiatives have led to the high energy performance of EPA's head office with a NABERS energy rating of 5.5 stars for the base building in 2018–19, an increase from a rating of 5 in 2017–18.*"[29] All entities and their environmental coordinators need to continue pioneering this work.

Installing or increasing entities' solar capacity is another opportunity, which should be facilitated by knowledge-sharing and a consistent policy for procurement across entities. DJCS noted an increase of the department's solar capacity by over 460kW during 2018-19, with another 700kW expected to be installed in the coming months.[30]

Reducing the GHG emissions from transport by transitioning to a cleaner vehicle fleet and increasing the uptake of emissions offsets for air travel: The 2017-18 EMS Strategic Audit report analysed vehicle fleet composition and emission rates in detail, and found the fleet average vehicle emission rate had dropped (based on manufacturer's stated performance) from 215 g CO_2-e per km in 2009-10 to 168 CO_2-e per km in 2017-18. This is an excellent reduction; however, the rate can reduce further. For example, electric vehicles are virtually non-existent in the fleet and if they become more widely used, it is very likely that a step-change improvement in the vehicle-fleet emission rate would be observed.

Purchasing emission offsets for air travel is another significant opportunity. DELWP currently purchase air travel offsets for all flights taken by their staff, which has resulted in no GHG emissions from air travel being recorded by DELWP. No other entity purchases offsets for all its air travel.

Improved target setting and accountability: FRD 24D does not mandate or specify targets to be met for individual items required to be reported by entities. The lack of targets reduces the efficacy of this type of reporting framework because the reporting is less likely to drive improvements in environmental management

[29] EPA Victoria 2019, 'Annual Report 2018-19', Carlton, Victoria https://ref.epa.vic.gov.au/~/media/Publications/1792.pdf Accessed 13 January 2020.
[30] Department of Justice and Community Safety 2019, 'Annual Report 2018-19', Melbourne, Victoria https://www.justice.vic.gov.au/sites/default/files/embridge_cache/emshare/original/public/2019/10/77/fe62665e2/DJCS_Annual_Report_2018-19.pdf Accessed 13 January 2020.

practice without targets that need to be met. Despite not being required to meet targets as part of the mandated reporting of office-based emissions under FRD 24D, it is encouraging to note that most entities do specify their own targets in their annual reports. Government-wide targets need to be set for entity performance in accordance with FRD 24D, supported by a scheme that incentivises and rewards achievement of the targets.

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