

# TRANSPORT CANBERRA AND CITY SERVICES

## ABOUT THE DIRECTORATE

Transport Canberra and City Services (TCCS) is a diverse Directorate responsible for delivering a wide range of services that Canberrans rely on every day. This includes the public transport network; management of public open spaces and city places, including lakes and Canberra's urban trees; the majority of urban infrastructure (roads, bridges, street lighting and stormwater); Libraries ACT; ACT NOWaste; Yarralumla Nursery; Birrigai Outdoor School; Capital Linen Service and ACT Cemeteries.

TCCS has a dedicated Sustainability Program which provides high level support and advice on the ACT Government's sustainability objectives and implementation of the Carbon Neutral Government Framework across the Directorate. The TCCS Sustainability Working Group was established in 2015 with representatives from each Division and most business units as well as inter-departmental representatives who advocate on sustainability matters, develop a positive sustainability culture, collaborate and share ideas.

The TCCS Carbon/Energy Budget for 2017-18 sets a target of 1% reduction in stationary energy compared with CY2016. This target is comprised of electricity reductions anticipated through an Energy Performance Contract for the streetlight network and LED lighting upgrades at a number of sites including Kippax, Belconnen and Tuggeranong Libraries and Belconnen and Tuggeranong Depots.

As the largest contributor to ACT Government emissions, TCCS are presented a responsibility and opportunity to lead by example through constantly striving to deliver our services in the most efficient way. The TCCS Carbon/Energy Budget demonstrates our commitment to supporting carbon neutral operations in ACT Government by 2020 and more broadly the Territory's net zero emissions target under the ACT Climate Strategy.

## KEY PERFORMANCE INDICATORS

Growth in the Territory will result in TCCS increasing service delivery and operations resulting in a commensurate increase in energy use. Energy intensity measures are included in the TCCS Carbon/Energy Budget to track efficiencies where changes in operations or environment occur.

Transport Canberra bus network contributes to the Territory's emission reduction target under the *Climate Change and Greenhouse Gas Reduction Act 2010* through reducing passenger vehicles on ACT roads. Transport Canberra continues to improve its customer experience and sustainability, trialling alternate energy buses in 2018 and promoting more passengers through greater accessibility, bike racks and introducing more air conditioned buses to the fleet. Energy use per passenger kilometre is a measure developed to monitor the energy intensity of the bus network as the network evolves to integrate bus and light rail with each other and with other forms of transport including taxis, cycling and walking to ensure that transport is accessible for all Canberrans.

Energy intensity trends as a measure of energy per unit of linen processed has been developed and normalised based on benchmark energy for 2013-14 for Capital Linen Services. As the gas meter is shared with another site, the energy use is proportioned against floor area and performance should therefore be considered an estimate of performance rather than actual performance.

Energy use per hectare of mowing area is currently being established for TCCS mower fleet in 2017-18 following the introduction of the global navigation satellite system (GNSS) in late 2017. The GNSS system is expected to be fully rolled out by the start of the 2018-19 mowing season. At this time a benchmark will be established for future tracking of this performance indicator.

## COMMENTS ON THIS QUARTER

- > Energy consumption is affected by operational changes; environmental conditions; equipment or equipment controls; and other factors that may be outside the control of TCCS.
- > Environmental analysis indicates 13% more heating requirements during Quarter 1 (2017-18) compared with Quarter 1 (2016-17) which contributed to an increase in gas consumption.

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## COMMENTS

### ACHIEVEMENTS

- > Streetlight Energy Performance Contract (EPC) awarded with contract negotiations underway.
- > Trial of alternative energy buses continuing for bus fleet with one electric and one hybrid vehicle in service.
- > Second electric bus due for delivery in early 2018.
- > Pinpoint system in final stages of implementation. This will allow for fleet optimisation with mowers as well as improve business systems.
- > LED upgrades completed Belconnen Library and LED lighting upgrade continuing at Belconnen bus depot.
- > TCCS Fleet reduced emissions of 51 vehicles from an average 218 g CO<sub>2</sub>-e/km to 195 g CO<sub>2</sub>-e/km through WhoG bulk vehicle order.

### UNCERTAINTIES/CONSTRAINTS

- > Growth and increasing service delivery.
- > Environmental factors.
- > Existing infrastructure and limited budget to implement emission saving strategies.

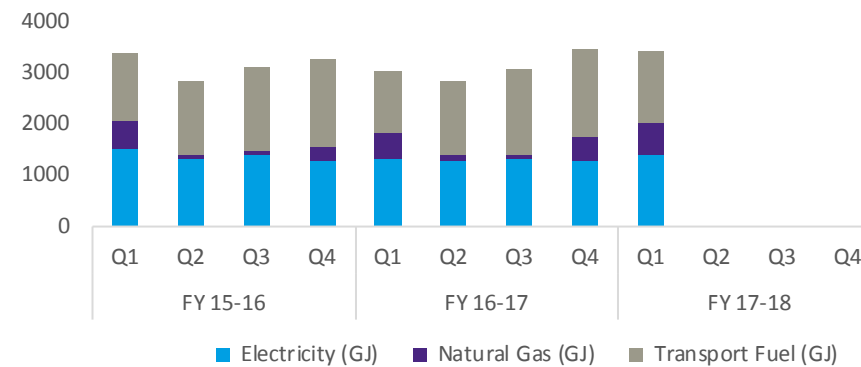
### FOCUS AREAS/OPPORTUNITIES

- > Identification of energy saving opportunities at key sites across the Directorate.
- > Explore alternative transport fuel options.

### DATA EXTRACTED

28/03/2018

### 3 YEAR ENERGY CONSUMPTION PROFILE



### QUARTERLY ENERGY CONSUMPTION

	Q1 17-18	Difference*	tCO <sub>2</sub> -e <sup>^</sup>
Electricity (GJ)	50,782	-3%	6,066
Gas (GJ)	20,435	7%	1,048
Fuel (GJ)	129,570	2%	8,790
<b>Total energy (GJ)</b>	<b>200,787</b>	<b>1%</b>	<b>15,904</b>

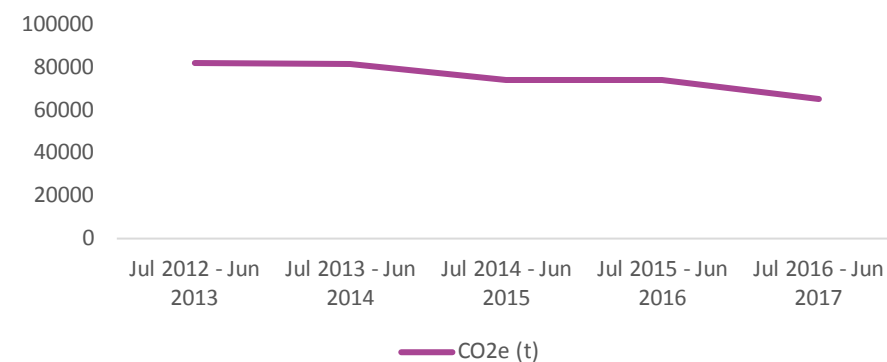
\* Compared to the same period previous year  
<sup>^</sup> Related to current reporting period

### FINANCIAL YEAR TO DATE ENERGY CONSUMPTION

	YTD 17-18	Difference*	tCO <sub>2</sub> -e <sup>^</sup>
Electricity (GJ)	50,782	-3%	6,066
Gas (GJ)	20,435	7%	1,048
Fuel (GJ)	129,570	2%	8,790
<b>Total energy (GJ)</b>	<b>200,787</b>	<b>1%</b>	<b>15,904</b>

\* Compared to the same period previous year  
<sup>^</sup> Related to current reporting period

### EMISSIONS PROFILE SINCE 2012-13



## DG INDICATOR

### Q1 2017-18

(July to September 2017)

A 1% stationary energy reduction target and ensuring the effective internal governance of energy performance reporting.

### DIRECTORATE KPI'S

KPIs	Q1 16-17	Q1 17-18	Difference
GJ/kg Linen	1.11	1.10	-1%
GJ/100 passg km	0.25	0.25	2%
MJ/Hectare	n/a	n/a	n/a

### FINANCIAL YEAR TO DATE ENERGY CONSUMPTION AT FOCUS SITES

Location	Energy (GJ) <sup>#</sup>	Difference*	tCO <sub>2</sub> -e <sup>^</sup>
Streetlights	40,122	-2%	4,993
Bus Depots	2,531	-5%	302
Libraries ACT	352	-11%	42

<sup>#</sup> Electricity only  
 \* Compared to financial year to date 2016-17  
<sup>^</sup> Related to current reporting period

### FINANCIAL YEAR TO DATE ENERGY CONSUMPTION BY BUSINESS UNIT

Group	Energy (GJ) <sup>#</sup>	Difference*	tCO <sub>2</sub> -e <sup>^</sup>
Transport Canberra	130,549	3%	8,884
City Services	69,528	-1%	6,956

<sup>#</sup> Excludes Head Offices  
<sup>#</sup> Includes electricity and natural gas  
 \* Compared to financial year to date 2016-17