

# ENVIRONMENTAL IMPACT

REDUCING OUR  
ENVIRONMENTAL IMPACT



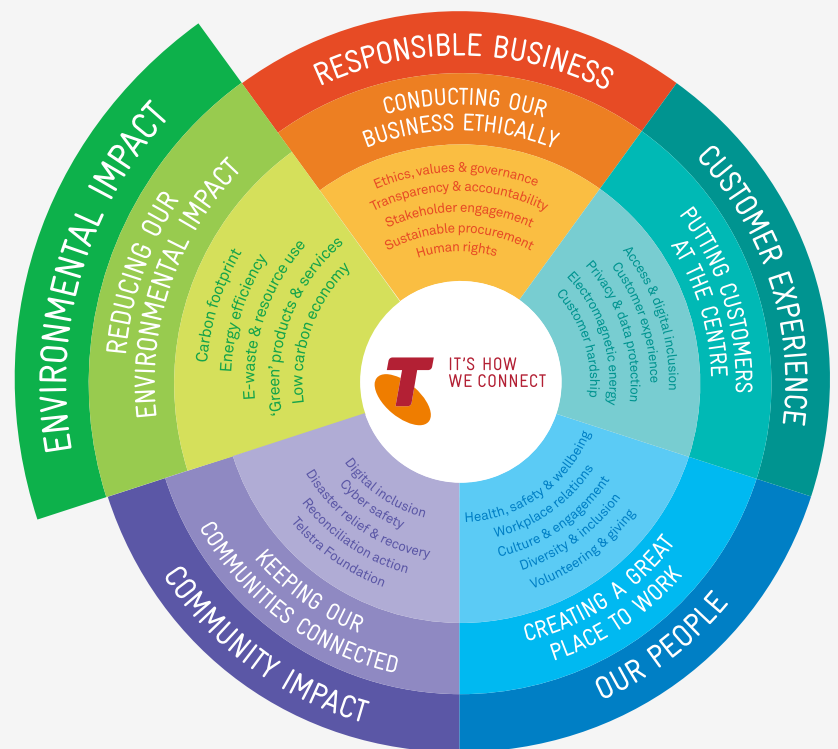
BIGGER PICTURE  
TELSTRA 2013 SUSTAINABILITY REPORTING SERIES

IT'S HOW  
WE CONNECT



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## OUR BUSINESS

Telstra is Australia's leading telecommunications and information services company, offering a full range of communications services and competing in all telecommunications markets. In Australia we provide 15.1 million mobile services, 7.8 million fixed voice services and 2.8 million retail fixed broadband services. Telstra's international businesses include Hong Kong's leading mobile operator CSL New World, Telstra Global's networks and managed services business and Telstra's China-based search and advertising businesses.

## ABOUT OUR SUSTAINABILITY REPORTING

Our sustainability reporting comprises the *Bigger Picture Telstra 2013 Sustainability Reporting Series*, our sustainability website and a concise summary of our approach and performance in our 2013 Annual Report. Through our reporting we aim to provide information on sustainability issues relevant to our business and of importance to our stakeholders.

We develop our sustainability reporting with reference to industry and sustainability standards including the United Nations Global Compact Communication on Progress, the Global Reporting Initiative (GRI) G3 Sustainability Reporting Guidelines and Telecommunications Sector Supplement (pilot) and AccountAbility's AA1000 Principles Standard 2008. This financial year we apply the GRI framework to application level B+.

For more information visit [www.telstra.com.au/sustainability](http://www.telstra.com.au/sustainability)

## SCOPE

Our sustainability reporting covers the 2012/13 financial year (1 July 2012 to 30 June 2013) for Telstra Corporation Limited and Sensis Pty Ltd (Telstra) unless otherwise stated. Aside from Sensis, all other controlled entities are excluded.

## FEEDBACK

We welcome your feedback on our sustainability reporting, approach and performance. Please email us at [sustainability@team.telstra.com](mailto:sustainability@team.telstra.com)

# ENVIRONMENTAL IMPACT HIGHLIGHTS

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CARBON EMISSIONS  
INTENSITY  
**DOWN BY 33%**

**99%**  
OF OUR OWN E-WASTE  
RECYCLED OR REUSED

RECYCLED 14 TONNES OF  
MOBILE PHONES AND  
ACCESSORIES THROUGH  
MOBILEMUSTER

**98% OF**  
NATIONAL  
TELEPHONE  
DIRECTORIES  
REUSED OR  
RECYCLED

ESTIMATED **72,724** TONNES OF CO<sub>2</sub>E  
EMISSIONS SAVINGS THROUGH  
PROJECT INITIATIVES

OFFICE, BILLING  
AND PRINTING  
PAPER USAGE  
DOWN BY 24%



# ENVIRONMENTAL IMPACT CONTEXT



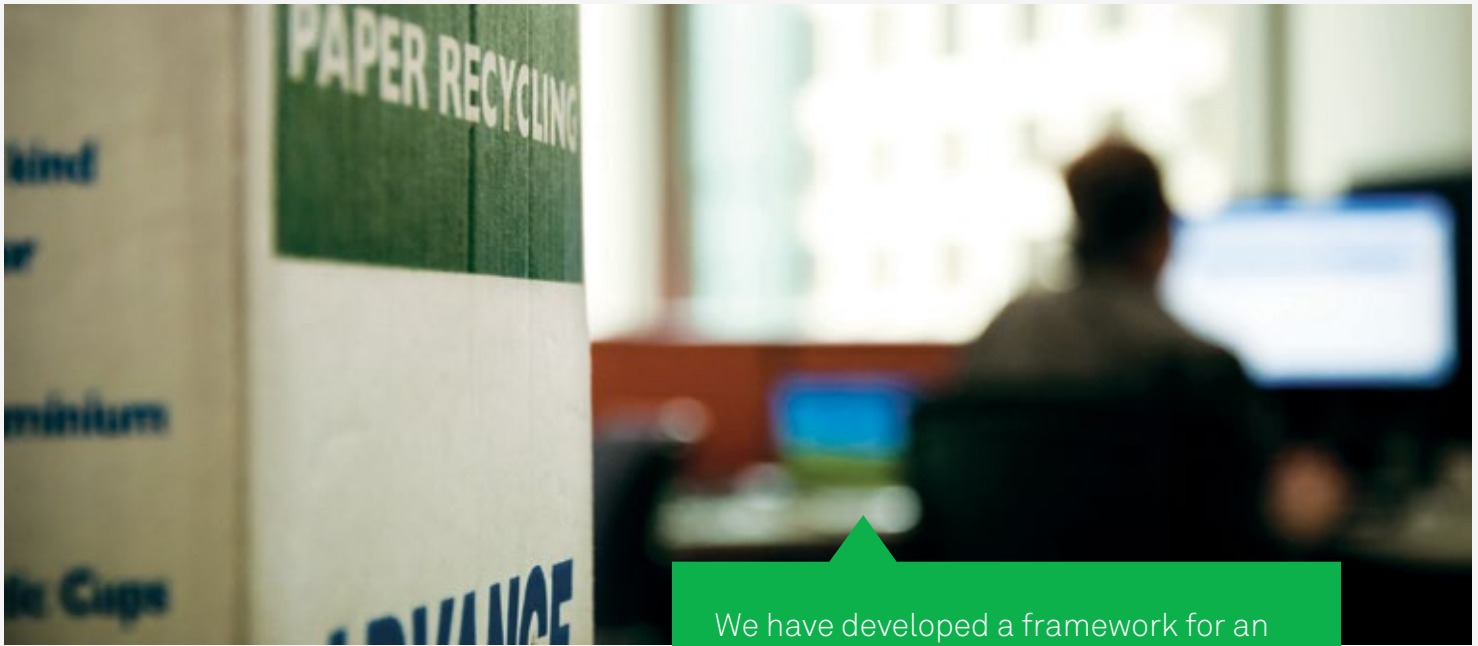
We're focusing on operational excellence, influencing our supply chain and developing greener products and services.

With limited supplies of natural mineral, energy and water resources essential for human survival and maintaining lifestyles, it is important that we limit and manage our resource use. In addition, our understanding of climate change impacts continues to grow and there is increasing regulatory and societal pressure to address this issue.

The information and communications technology (ICT) industry is integral to the future of a low carbon economy. It has great capacity to support an environmentally sustainable society and unlock financial and environmental benefits. Cloud computing, machine to machine (M2M) monitoring, videoconferencing, and communications tools will assist people to use less energy and be more productive. As a leading telecommunications company, we use our technical expertise to help support low carbon solutions.

# ENVIRONMENTAL IMPACT

## ENVIRONMENTAL STRATEGY



We have developed a framework for an enterprise-wide environmental strategy.

### APPROACH

This year we reviewed our environmental capabilities, risks and opportunities.

We also commissioned an independent review to identify the environmental issues that matter most to our stakeholders and have the potential for the biggest impact on our organisation. The review identified the following issues as highly material:

- greenhouse gas emissions and energy (in data centres and networks)
- green information and communications technology (ICT) services
- e-waste
- eco-designed ICT products
- sustainable sourcing
- paper consumption (print directories)
- environmental regulatory compliance.

As a result of this work, we know we need to take a more strategic approach to managing Telstra's environmental risks and opportunities. We have developed a framework for an enterprise-wide environmental strategy, which was endorsed by our Sustainability Council in July 2012. The framework comprises three areas of focus (below), and we have established a cross company team to progress work in each area.

#### Operational excellence

Telstra is building on a 30 year history of environmental improvement in our operations. We're focusing on several areas including opportunities to embed energy efficiency requirements into the way we design our fixed and wireless networks and data centres, and the overall energy efficiency of our facilities and offices. We're also looking for ways to minimise e-waste, and we will explore the potential to expand our use of renewable energy.

#### Supply chain

Consideration of environmental risks and opportunities in our supply chain can reduce our own impact and costs, as well as reduce the impacts of our suppliers' operations, products and services. This consideration will help us to deliver new products and services with strong environmental credentials, such as low energy use, responsible packaging and lower life-cycle impacts.

#### Environmentally friendly products and services

We know that customers are looking for opportunities to reduce their environmental impacts. Some of our largest customers are already considering the environmental credentials of the services we deliver to them and we know that this will only increase in the future. We aim to identify, quantify and communicate the environmental benefits of our products and services, and create new products and services that reduce both environmental impacts and customer costs.

We'll finalise our environmental strategy and action plan and commence implementation in 2013/14. The plan will set out our commitments and detail our targets and programs.

# ENVIRONMENTAL IMPACT

## ENVIRONMENTAL STRATEGY

### ENGAGEMENT

This year, we were one of 25 organisations globally that participated in the development of industry standards for the Greenhouse Gas (GHG) Protocol ICT Sector Guidance.

The GHG Protocol, developed by the World Business Council for Sustainable Development and the World Resources Institute, is the globally accepted standard for greenhouse gas emission reporting. The ICT Sector Guidance will support reporting of emissions for ICT products such as communication equipment, consumer electronic equipment and telecommunication services.

The support of our employees is critical to achieving our environmental goals. Our cross-company EcoChampions network is a group of Telstra people who actively promote environmentally friendly behaviours in the workplace. Employees interested in energy efficiency can get together in our Energy Matters community of practice to collaborate on ideas for greener ICT. This year, Energy Matters completed a Masters/PhD collaboration with the University of Melbourne, focussing on energy efficient networking. Twenty-one students and seven Telstra employees participated in the course.



### BUILDING AND APPLYING ENVIRONMENTAL SKILLS IN OUR TECHNICAL TEAMS

Environmental sustainability is one of four key competency areas that underpin Telstra's Advanced Diploma/ Diploma of Telecommunications Network Engineering (TNE) qualification facilitated by NSW TAFE South Western Sydney Institute (SWSi).

As part of the program this year, 15 employees in our Network Applications and Services (NAS) business assessed the carbon footprints of some of our largest enterprise customers. Participants were required to identify environmental drivers and priorities of the customers, estimate carbon emissions from Telstra-supplied equipment, and identify how the latest IC Technologies can reduce energy and carbon emissions.

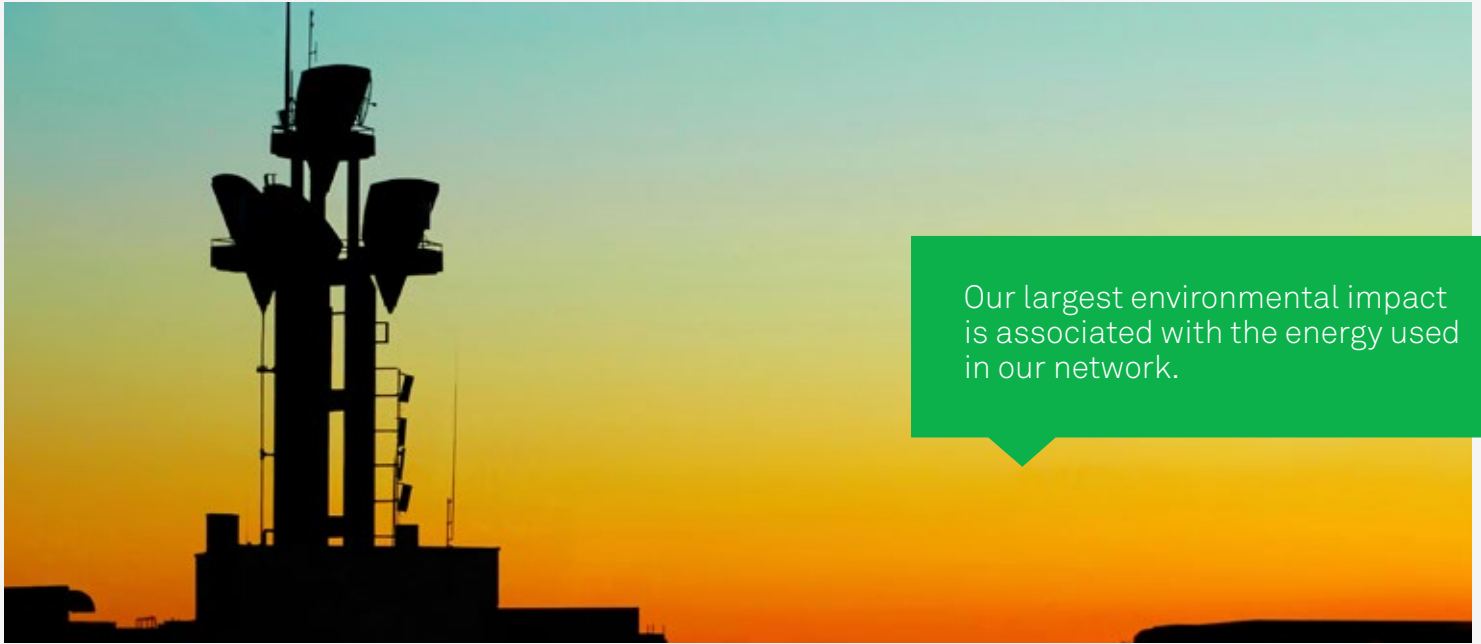
In their roles, our NAS employees design and build large-scale ICT solutions for our enterprise customers, who are increasingly asking us to help them reduce their carbon emissions.

Senior Technology Specialist, Alan Low said of the project, "Conducting this analysis and knowing how to apply IC technologies adds value to the quality of our solutions for Telstra's enterprise customers who also benefit greatly from our learnings."

In addition to the 15 NAS employees, 97 employees from across Telstra completed the program this year. The TNE qualification(s) was developed in partnership with the NSW Department of Education and Training for our Telstra Operations staff in 2011. The qualification uses innovative learning techniques, embedding industry competency standards into on-the-job skills development that meets individual and business needs.

# ENVIRONMENTAL IMPACT

## ENERGY USE AND CARBON EMISSIONS



Our largest environmental impact is associated with the energy used in our network.

### APPROACH

Since 2009/10, our overall energy consumption and carbon dioxide equivalent (carbon or CO<sub>2</sub>e) emissions have remained relatively stable while we have experienced substantially increasing data loads carried over our network.

This stability is the result of better utilisation of infrastructure and the energy and carbon efficiency measures we've implemented. We expect data growth to continue as digital applications become more data intensive and consumer demand continues to grow.

Our largest environmental impact is associated with the energy used in our network. Telecommunications networks need large amounts of energy to power equipment and keep it at optimum operating temperature. In 2012/13, network energy use represented 86 percent of our total energy consumption and carbon emissions footprint. To take account of continuing data growth, we use a carbon emissions intensity measure – tonnes of carbon dioxide equivalent per terabyte (tCO<sub>2</sub>e/TB) – to track the carbon emissions efficiency of our business.

The Board Audit Committee regularly reviews our carbon emissions approach and performance. We're two years into a five-year strategy that outlines a capital

investment program of \$41.3 million to make our facilities more energy and carbon efficient. This investment focuses on initiatives that will deliver positive net present value outcomes. In 2012/13, we implemented a \$14 million program of initiatives, and have committed a further \$7 million for next year.

### PROGRESS

## OUR FOOTPRINT

In 2012/13, carbon emissions intensity was 0.83 tonnes CO<sub>2</sub>e per terabyte of data, a 33 per cent decrease on carbon emissions intensity from the previous year and surpassing our 15 per cent reduction target.

We expect continued improvements in our carbon emissions efficiency due to better utilisation of network equipment and a continued dedicated investment in energy and carbon efficiency projects. We've set a target for a further 15 per cent reduction in emissions intensity in 2013/14.

Total energy consumption (stationary and transport) and total carbon emissions (Scope 1, 2 and 3) decreased by 1.7 per cent and 2.6 per cent respectively, since 2011/12. This reduction was driven by decreases in electricity consumption in a number of portfolios.

Electricity in commercial buildings decreased due to continuing consolidation and divestment of office buildings. Electricity also decreased significantly in mobile phone towers as part of the separation of the 3GIS network partnership with Vodafone Hutchison Australia (VHA) in September 2012. Following the separation, some of the Telstra base stations retained were switched off and services migrated to nearby base stations.

Carbon emissions decreased due to revised emission factors released by the Australian Government. The revised emission factors attribute lower carbon emissions intensity to the purchase of electricity (Scope 2 emissions) in a number of Australian states. This change reflects changes to the national fuel mix used to generate the electricity that we purchase.

Scope 1 emissions remained consistent. Telstra did increase stationary energy consumption, particularly diesel fuel for backup generators at some sites. The total number of sites with temporary generator support has increased by 1,200 from the previous year as part of Telstra's commitment to enhance reliability across the network.



# ENVIRONMENTAL IMPACT

## ENERGY USE AND CARBON EMISSIONS

Within Telstra's fleet, diesel vehicles are preferred for their fuel efficiency. LPG vehicle numbers reduced and have been replaced mostly with petrol wagons or diesel light commercial vans because the LPG Falcon wagon was no longer available. This resulted in an increase in carbon emissions from petrol and associated decrease in carbon emissions from LPG.

### REDUCTION INITIATIVES

Throughout the year, we continued to implement a program of works to improve the energy efficiency and reduce the carbon intensity of network facilities.

Projects included installation of fresh air cooling systems in mobile sites, new economy cycle systems, lighting control systems, air conditioning control system upgrades and retrofitting high efficiency fans into air conditioning units. As a result, we estimate that we'll avoid 72,724 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) each year.

### ENERGY EFFICIENCY OPPORTUNITIES PROGRAM

We have successfully completed the first five year cycle of the Australian Government's Energy Efficiency Opportunities (EEO) program.

As part of this ongoing program we've assessed, identified and publicly reported on cost effective energy efficiency opportunities for 89 per cent of our energy use (above the legislated 80 per cent).

### CARBON EMISSIONS

#### KEY PERFORMANCE INDICATORS

	2012/13 <sup>1</sup>	2011/12	2010/12	Percentage change 2011/12-2012/13
<b>Total emissions</b> (Scope 1, 2 & 3) tCO <sub>2</sub> e	<b>1,633,712</b>	<b>1,676,925</b>	<b>1,659,714</b>	<b>-2.6</b>
Scope 1 emissions <sup>2</sup> tCO <sub>2</sub> e	53,645	53,587	55,083	+0.1
Scope 2 emissions <sup>3</sup> tCO <sub>2</sub> e	1,331,148	1,374,617	1,359,076	-3.2
Scope 3 emissions <sup>4</sup> tCO <sub>2</sub> e	248,918	248,720	245,554	+0.1
<b>Terabytes<sup>5</sup></b> TB	<b>1,967,686</b>	<b>1,353,678</b>	<b>858,700</b>	<b>+45.4</b>
<b>Emissions intensity</b> tCO <sub>2</sub> e/TB	<b>0.83</b>	<b>1.24</b>	<b>1.93</b>	<b>-33.1</b>
<b>Network related emissions<sup>6</sup></b> Percentage of total emissions	<b>86</b>	<b>85</b>	<b>86</b>	<b>+1.2</b>
<b>Annualised emissions savings</b> <b>resulting from project initia-</b> <b>tives in FY tCO<sub>2</sub>e/yr</b>	<b>72,724</b>	<b>25,272</b>	<b>24,436</b>	<b>+187.8</b>

#### NOTES:

- <sup>1</sup> Reported amounts based on information available as at June 30, 2013. Sum of 'Scope 1, 2 and 3' differs to 'total emissions' due to rounding.
- <sup>2</sup> Emission sources include: transport fuels, stationary energy use and natural gas consumption.
- <sup>3</sup> Emissions from electricity consumption. Electricity consumption as part of our unmetered hybrid fibre coaxial (HFC) network includes Foxtel infrastructure.
- <sup>4</sup> Emission sources include: electricity transmission losses, fuel extraction and refining, air travel and waste disposal.
- <sup>5</sup> June data for this figure was not available at the time of reporting and has been estimated.
- <sup>6</sup> Network category includes all network-related sites including unmetered sites and data centre services hosted at Telstra exchanges.



# ENVIRONMENTAL IMPACT

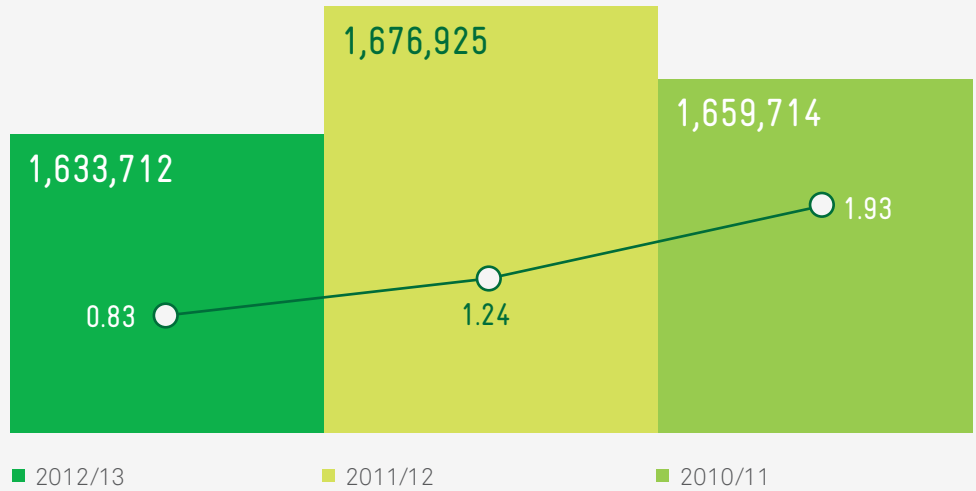
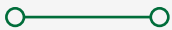
## ENERGY USE AND CARBON EMISSIONS

### TOTAL CARBON EMISSIONS AND EMISSIONS INTENSITY

Total emissions (Scope 1, 2 & 3)  
tCO<sub>2</sub>e



Emissions intensity  
tCO<sub>2</sub>e/TB



### CARBON EMISSIONS BY SOURCE

TONNES OF CARBON DIOXIDE EQUIVALENT (tCO<sub>2</sub>e)

#### NOTES:

<sup>1</sup> Electricity consumption as part of our unmetered HFC network includes Foxtel infrastructure.

<sup>2</sup> For 2012/13, we have changed our emissions calculation methodology for air travel. See glossary for explanation. Carbon emissions from 2011/12 have not been recalculated using this new methodology.

<sup>3</sup> Total kilometres travelled:  
92,007,373 km (2012/13)  
75,632,515 km (2011/12).

There was an increase in air travel across all sectors. The largest increase was in the long haul sector indicating more international travel has been taken this year compared with last year.

	2012/13	2011/12	Percentage change 2011/12-2012/13
<b>Stationary energy</b>			
Electricity <sup>1</sup>	1,544,466	1,589,353	-2.8
Natural gas	1,366	1,360	+0.4
Diesel	4,424	2,397	+84.6
LPG	83	53	+56.6
Ethanol	< 1	< 1	—
Petrol	293	257	+14.0
<b>Transport fuels</b>			
Diesel	41,292	41,321	-0.1
Petrol	4,148	3,262	+27.2
LPG	6,265	9,179	-31.7
Ethanol	< 1	< 1	+71.4
<b>Waste</b>			
Waste	7,047	6,063	+16.2
<b>Air travel<sup>2</sup></b>			
Air travel	24,328 <sup>3</sup>	23,679	+2.7

# ENVIRONMENTAL IMPACT

## ENERGY USE AND CARBON EMISSIONS

### ENERGY CONSUMPTION BY SOURCE

GIGAJOULES (GJ)

Key performance indicators	2012/13	2011/12	2010/11	Percentage change 2011/12-2012/13
<b>Total energy use<sup>1</sup> (stationary + transport)</b>	<b>5,988,603</b>	<b>6,092,985</b>	<b>5,952,433</b>	<b>-1.7</b>
<b>Stationary energy (total)</b>	<b>5,284,560</b>	<b>5,356,527</b>	<b>5,199,629</b>	<b>-1.3</b>
Electricity <sup>2</sup>	5,170,889	5,271,097	5,106,780	-1.9
Solar energy (generated by Telstra) <sup>3</sup>	26,208	26,255	26,301	-0.2
Natural gas	22,994	22,759	17,128	+1.0
Diesel	59,145	32,044	44,902	+84.6
LPG	1,274	819	732	+55.6
Petrol	4,049	3,551	3,784	+14.0
Ethanol	1	2	2	-57.7
<b>Transport fuels (total)</b>	<b>704,043</b>	<b>736,457</b>	<b>752,804</b>	<b>-4.4</b>
Diesel <sup>4</sup>	549,758	550,132	536,547	-0.1
Petrol	57,296	45,024	49,127	+27.3
Ethanol	904	520	526	+73.8
LPG	96,085	140,781	166,604	-31.7
<b>Annualised network energy savings resulting from project initiatives in FY</b>	<b>228,067</b>	<b>81,207</b>	<b>76,064</b>	<b>+180.8</b>
<b>Annualised commercial energy savings resulting from project initiatives in FY</b>	<b>1,462</b>	<b>110</b>	<b>15,930</b>	<b>+1,229.1</b>

### NOTES

<sup>1</sup> Sum of 'stationary energy' and 'transport energy' differ to 'total energy use' due to rounding.

<sup>2</sup> Electricity consumption as part of our unmetered HFC network includes Foxtel infrastructure.

<sup>3</sup> Telstra has approximately 13,850 sites with solar panels installed, providing power to telecommunications equipment in rural and remote locations where the power grid does not reach.

<sup>4</sup> Diesel figures reported based on period 1 June 2012 - 31 May 2013.

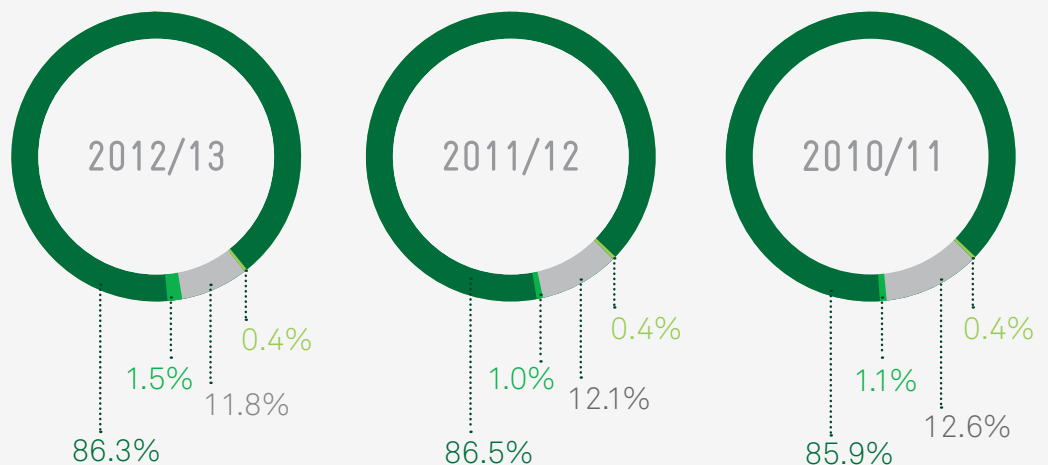
### STATIONARY AND TRANSPORT ENERGY BY SOURCE

#### Stationary energy

- Electricity
- Solar energy (generated by Telstra)
- Stationary fuel<sup>1</sup>

#### Transport fuel

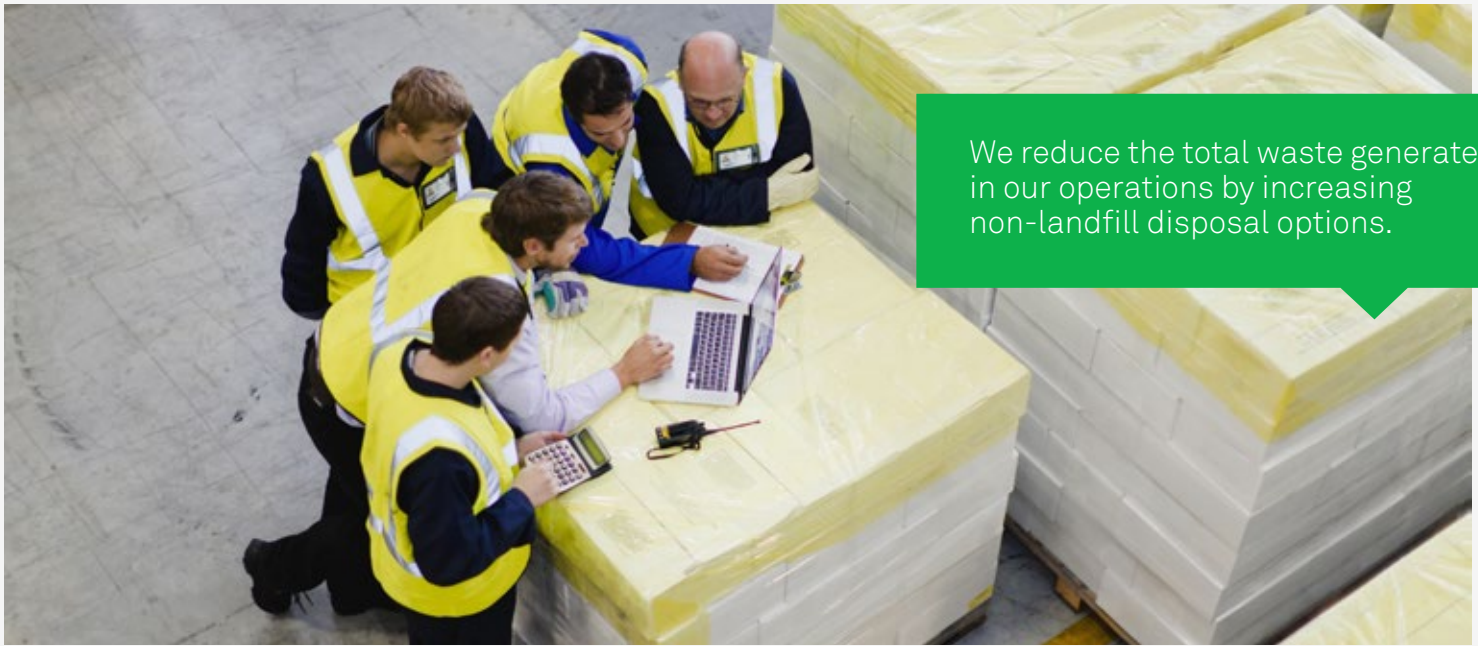
- Transport fuel



<sup>1</sup> Stationary fuel includes diesel, petrol, liquefied petroleum gas (LPG), and petrol and ethanol used for back-up power supply (e.g. generators), grounds maintenance, water pumping and civil and construction activities.

# ENVIRONMENTAL IMPACT

## RESOURCE USE AND WASTE



### APPROACH

Telstra has a waste management system to maximise reuse and recycling and to minimise the impacts associated with resource use and disposal.

We reduce the total waste generated in our operations by increasing non-landfill disposal options and implementing best practice waste management services.

Our national water management strategy is designed to reduce water consumption in Telstra's commercial and network properties through capital investment, employee engagement and review of performance management processes.

### PROGRESS

## SENSIS DIRECTORIES YELLOW AND WHITE PAGES

Sensis continues to utilise printers located in Australia and overseas in the Asia-Pacific to produce its telephone directories.

All vendors are required to conform to Telstra's environmental standards. During the year, we selected a number of existing suppliers to print a larger proportion of our directories.

The environmental impacts of any changes resulting from our suppliers' printing processes will be calculated and publically reported as part of the process for obtaining carbon neutral certification in 2013.

The Yellow Pages and White Pages (print and online) have received carbon neutral certification through Low Carbon Australia since February 2010. In 2012, we supported four carbon reduction projects in Cambodia, India and China through purchasing 65,319 tonnes of CO<sub>2</sub>e offsets. As part of our ongoing commitment, we will be purchasing carbon offsets in late 2013 to certify our directories for 2012/13.

We're committed to using paper from environmentally and socially responsible sources and Telstra is a member of the Forest Stewardship Council (FSC). We have taken steps to ensure we use FSC certified paper and coverboard, and a number of our directories have received formal FSC certification.

We also have an objective to maintain a 96 per cent national recycling and reuse rate for our directories. We promote household recycling by providing information on recycling options and the associated environmental benefits. For 2012/13, market research indicated that the national recycling rate was 98 per cent.

We reduce the total waste generated in our operations by increasing non-landfill disposal options.

## OFFICE, BILLING AND PRINTING PAPER

We reduced our paper usage by 24 per cent this year. Billing paper continues a downward trend as more customers opt for online billing.

Use of printing paper also decreases with the move to online advertising reducing our need to print information flyers. We expect these trends to continue.

The use of office paper has reduced largely as the result of the 'follow-me' printing initiative introduced at our corporate headquarters in Melbourne in December 2012. This initiative enables employees to print anywhere in the building from almost any device, and requires employees to use their building access cards to log in and activate printing. This significantly reduces the number of pages printed and not collected. Overall, we achieved a 14 per cent decrease (701,686 sheets) in paper use in six months.

# ENVIRONMENTAL IMPACT

## RESOURCE USE AND WASTE

### E-WASTE

**E-waste is a fast growing waste type in Australia and overseas.**

We define e-waste as any type of electronic components, rental telephones, payphone parts, batteries, telephone power supplies and other miscellaneous electronic items that are no longer being used. In 2012/13, we reused or sent to recycling facilities around 99 per cent of our own e-waste, which is mostly end-of-life network equipment and batteries. There was a significant increase in the amount of e-waste collected due to the number of batteries replaced at Telstra's exchanges.

We also work to help our customers deal more effectively with e-waste. Throughout 2012/13 we collected 14 tonnes of mobile phones and accessories from Telstra retail stores, offices and repair centres through the MobileMuster program.

This is a two per cent decrease from 2011/12, and 0.3 tonnes short of our target to collect 14.3 tonnes. As part of the e-waste component of our environmental strategy, we will review our approach to encourage our customers and employees to recycle mobile phones and accessories.

### WASTE AND WATER MANAGEMENT

**The amount of waste we collect is dependent on specific projects, making it difficult to compare our performance with previous years.**

We are continuing to improve our measurement of waste by progressively refining our understanding of specific waste streams. Accordingly, in 2012/13 we noted an increase in construction and demolition work, which accounts for

around three quarters of the increase in waste to landfill. Further, we're reporting a new waste stream for the first time - copper cable extracted from the Telstra network. During 2012/13, a project recovering copper cable from within Telstra's network recovered almost 13,000 tonnes of cable which was recycled.

In 2012/13, we used 953 mega-litres of water, equivalent to 381 Olympic-sized swimming pools. This is a seven per cent increase on the previous year; mainly due to increases in data load in the network and associated use of air-conditioning (over 80 per cent of water consumption is used in cooling towers). As Australia experienced above average temperatures during summer, more air conditioning was required to keep exchanges at their optimal operating temperatures.





# ENVIRONMENTAL IMPACT

## ENVIRONMENTAL DATA

### SENSIS PRINT DIRECTORIES

#### DIRECTORY PAPER USE

Tonnes

Key performance indicator	2012/13	2011/12	2010/11	Percentage change 2011/12-2012/13
Yellow Pages and White Pages	20,388	27,231	27,479	-25.1
Yellow Pages In The Car (regional)	1,122	1,810	942	-38.0

#### DIRECTORY PAPER AND PRINTER DETAILS

Tonnes

Product	Paper properties: grade, recycled content and other properties	Print suppliers	Paper suppliers
Yellow Pages and White Pages	Paper - 36GSM, >15% Recycled Fibre content Cover board - 260GSM, 25% Recycled Fibre content	PMP Print	Nippon Paper industries, Holmen Paper, UPM, Amcor
Yellow Pages In The Car (regional)	Paper - 100% Recycled Fibre Content Cover board - 240GSM to 260GSM, 100% Recycled Fibre Content	Australia - PMP Print, Offset Alpine International - Toppan Leefung, Times Printers, RRD, C&C Printing	Sourced by the printer contracted to tender specifications

#### DIRECTORY OPT OUT

Total number of opt-out customers

2012/13	2011/12	2010/11
89,543	35,078	26,258

#### NOTES

Total number of customers who have chosen not to receive a print directory through the Directory Select Opt Out website [www.directoryselect.com.au](http://www.directoryselect.com.au)

#### NATIONAL DIRECTORY RECYCLING AND REUSE RATE

Percentage of print directories recycled or reused by customers

2012/13	2011/12	2010/11
98 (77% recycled; 21% reused)	98 (76% recycled; 22% reused)	97 (85% recycled; 12% reused)

#### NOTES

Determined through independent market research of households across Australia. All figures based on financial year (1 July - 30 June) survey results. Figures for 2010/11 have been restated, based on financial year. In previous reports, this figure was based on distribution year (1 August - 31 July) survey results.

# ENVIRONMENTAL IMPACT

## ENVIRONMENTAL DATA

### OFFICE, BILLING AND PRINTING PAPER

TONNES

	2012/13	2011/12	2010/11	Percentage change 2011/12-2012/13
<b>Total<sup>1</sup></b>	<b>3,215</b>	<b>4,244</b>	<b>4,272</b>	<b>-24.2</b>
Office paper <sup>2</sup>	336	349	304	-3.7
Printing paper <sup>3</sup>	1,180	1,905	1,786	-38.1
Billing paper	1,699	1,990	2,182	-14.6

#### NOTES

<sup>1</sup> Overall decrease can be attributed to increasing online and digital advertising media, customers opting for paperless billing and direct debit.

<sup>2</sup> Office paper consumption is a measure of paper purchased. In 2011/12 and 2010/11, a nominal average weight was applied to the number of reams purchased.

In 2012/13, the weight of each specific paper type was calculated separately, resulting in more accurate data.

<sup>3</sup> 2012/13 and 2011/12 figures include Telstra Smarter Business Ideas magazine, previously not captured.

### WASTE AND RECYCLING

TONNES

	2012/13	2011/12	2010/11	Percentage change 2011/12-2012/13
<b>Total</b>	<b>26,669</b>	<b>14,883</b>	<b>21,366</b>	<b>+79.2</b>
<b>Waste by disposal type</b>				
Waste to landfill	6,406	5,512	10,963	+16.2
Waste recycled <sup>1</sup>	18,523	9,371	9,597	+97.7
Organic waste collected <sup>2</sup>	122	142	—	-14.1
Hazardous waste <sup>3</sup>	10	29	—	-65.5
E-waste	2,056	1,271	806	+61.8
<b>E-waste by disposal type</b>				
E-waste recycled <sup>3</sup>	2,047	1,255	—	+63.1
E-waste to landfill <sup>3</sup>	9	16	—	-43.8
MobileMuster contribution	14.0	14.3	17.3	-2.1

#### NOTES

<sup>1</sup> 2012/13 waste recycled figure excludes waste water, as water pumped from pits is typically taken to a treatment plant and disposed to sewers.

<sup>2</sup> 2011/12 first year for reporting as a separate category.

<sup>3</sup> 2010/11 first year for reporting as a separate category. Significant increase in 2012/13 due to volume of batteries replaced at network exchanges.

### TOTAL WATER USE

KILOLITRES

	2012/13	2011/12	2010/11	Percentage change 2011/12-2012/13
	<b>952,580</b>	<b>886,176</b>	<b>819,869</b>	<b>+7.5</b>

# ENVIRONMENTAL IMPACT

## NEXT STEPS AND PERFORMANCE



### NEXT STEPS 2013/14

**REDUCE** our carbon emissions intensity by 15 per cent by the end of June 2014

**DELIVER** an enterprise-wide environment strategy with work programs and targets in operational excellence, supply chain and environmental customer value proposition

**MAINTAIN** carbon neutral certification for Sensis printed and online directories

**RELEASE** one thought leadership report on the environmental benefits and impacts of ICT

### PERFORMANCE

PROGRESS ON 2012/13 COMMITMENTS	RESULT
Implement the second year of our energy and carbon emissions intensity reduction strategy through a \$14 million program of works	Achieved
Achieve a 15 per cent reduction in carbon emissions intensity from 2011/12	Achieved
Collect 14.3 tonnes of mobiles phones components from Telstra retail stores, offices and repair centres through the MobileMuster program	Not achieved
Increase the use of FSC certified paper to 100 per cent in Sensis print directories (excluding coverboard)	Achieved