

MELBOURNE HEALTH

Melbourne Health Environmental Report

2014-15

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Introduction

Melbourne Health is one of the highest performing Victorian health services in relation to environmental initiatives and achievements. Our commitment to promote environmental sustainability amongst staff, visitors and patients is led and fully supported by our Chief Executive and Executive Committee.

Think Green strategy 2015-2020

We have completed our strategic planning and have set our sustainability priorities and goals for the next five years in our new Think Green Strategy.

Priorities

- Minimise our environmental footprint by encouraging environmentally sustainable practices.
- Foster a think green culture in everything we do.

Strategic Goals

1. Continued improvement in waste segregation and reduction
2. Implement mechanisms to monitor and reduce resource consumption
3. Promote green thinking amongst staff, visitors and partners
4. Encourage sustainable and active transport
5. Foster sustainable procurement, where feasible

This report details our progress towards reaching our 'Think Green' goals.

Key environmental achievements during the year:

In 2014-15 Melbourne Health was chosen as a finalist for the Leadership in the Public Sector Awards in the Environmental Sustainability category by the Institute of Public Administration Australia.

We now have 98 Green Champions signed up to promote and lead environmental initiatives in various departments across our sites. New environmental subcommittees were formed by staff in the Emergency Department and in Nephrology and they are leading their own initiatives. Sustainability events including Spring Clean, our annual Environment and Sustainability Expo and Switch Off Week had staff participating in great numbers.

In December 2014, the Intensive Care Unit (ICU) Environment Special Interest Group won the inaugural 'Think Green' Award for their efforts in waste reduction and segregation.

'Think Green' Summary:

Our achievements throughout 2014/15	Our results	Why is it important?
Reduced clinical waste at The Royal Melbourne Hospital City Campus	34 tonnes less clinical waste than in the previous year – that's equal to (about) six elephants	Clinical waste has to be disinfected and shredded prior to going into landfill. This process is energy intensive. By improving our waste segregation we have removed plastics, glass and paper from clinical waste and recycle them instead, reducing greenhouse gas emissions
Increased recyclables at The Royal Melbourne Hospital Royal Park Campus	We've nearly tripled the amount of waste we recycle at Royal Park over the past two years	Recycling removes waste from landfill. Decomposing waste in landfill creates methane, a greenhouse gas 21 times more potent than CO ₂ .
Reduced water consumption at Royal Park Campus	We've saved over 4,000 kilolitres compared to the previous year or 15%	Water is a precious resource and conservation is important
Decreased energy consumption at The Royal Melbourne Hospital City Campus	Decreased our energy consumption per patient treated over last year	Reducing energy consumption also reduces greenhouse gas emissions

The tables below show our consumption data in detail for both The Royal Melbourne Hospital City and Royal Park campuses.

The Royal Melbourne Hospital – City Campus

Energy consumption			
Total energy consumption by energy type (GJ)	2012-13	2013-14	2014-15
Electricity (Grid)	42,032	34,929	40,613
Electricity (Cogenerated)	65,332	72,301	66,667
Natural gas and LPG	89	1,502	718
Other energy types (e.g. steam, diesel)	64,698	69,027	72,634
Total (gigajoules)	172,151	177,759	180,632
Normalised energy consumption	2012-13	2013-14	2014-15
Energy per unit of floor space (GJ/m ²)	1.51	1.55	1.58
Energy per bed-days (GJ)	0.71	0.78	0.76
Energy per separations (GJ)	1.93	2.23	2.16
Energy per patient treated (GJ)	0.37	0.39	0.38
<i>Underground car park (26,800 m²) not included in floor space</i>			
Greenhouse gas emissions			
Total greenhouse gas emissions (tonnes CO₂e)	2012-13	2013-14	2014-15
Scope 1	3,319	3,612	3,757
Scope 2	25,436	24,142	25,553
Total	28,755	27,754	29,310

Normalised greenhouse gas emissions	2012-13	2013-14	2014-15
Emissions per unit of floor space (kgCO ₂ e/m ²)	251	243	256
Emissions per bed-days (kgCO ₂ e)	118	121	123
Emissions per separations (kgCO ₂ e)	322	348	350
Emissions per patient treated (kgCO ₂ e)	62	60	61
Water consumption			
Total water consumption by type (kL)	2012-13	2013-14	2014-15
Potable water	188,042	152,798	156,660
Re-used / recycled water			
Total	188,042	152,798	156,660
Normalised water consumption	2012-13	2013-14	2014-15
Water per unit of floor space (kL/m ²)	1.64	1.34	1.37
Water per bed-days (kL)	0.77	0.67	0.66
Water per separations (kL)	2.10	1.92	1.87
Water per patient treated (kL)	0.41	0.33	0.33
Water re-use and recycling	2012-13	2013-14	2014-15
Re-use / recycling rate (percentage)	N/A	N/A	N/A
<i>No metering available for re-used/recycled water</i>			
Waste generation			
Total waste generation by type (tonnes)	2012-13	2013-14	2014-15
Clinical waste	443	412	376
General waste	864	889	928
Recycled waste	431	577	500
Total	1,738	1,878	1,804
Normalised waste generation	2012-13	2013-14	2014-15
Waste per bed-days (kg)	7.14	8.19	7.56
Waste per separations (kg)	19.45	23.56	21.53
Waste per patient treated (kg)	3.76	4.08	3.77
Waste recycling	2012-13	2013-14	2014-15
Waste recycling rate (percentage)	25%	31%	28%
<i>Clinical waste does not include sharps as sharps weight data is not available</i>			

The Royal Melbourne Hospital – Royal Park Campus

Energy consumption			
Total energy consumption by energy type (GJ)	2012-13	2013-14	2014-15
Electricity (Grid)	13,444	13,458	13,338
Natural gas and LPG	17,302	15,838	18,973
Other energy types (e.g. steam, diesel)	19	19	19
Total (gigajoules)	30,765	29,315	32,330
Normalised energy consumption	2012-13	2013-14	2014-15
Energy per unit of floor space (GJ/m ²)	1.21	1.15	1.27
Energy per bed-days / per patient treated (GJ)	0.59	0.57	0.64
Energy per separations (GJ)	9.95	10.75	12.28
Greenhouse gas emissions			
Total greenhouse gas emissions (tonnes CO₂e)	2012-13	2013-14	2014-15

Scope 1	889	814	975
Scope 2	4,444	4,449	4,372
Total	5,333	5,263	5,347
Normalised greenhouse gas emissions	2012-13	2013-14	2014-15
Emissions per unit of floor space (kgCO ₂ e/m ²)	210	207	210.55
Emissions per bed-days / per patient treated (kgCO ₂ e)	102	103	106.03
Emissions per separations (kgCO ₂ e)	1,725	1,929	2,030.69
Water consumption			
Total water consumption by type (kL)	2012-13	2013-14	2014-15
Potable water	22,500	29,220	24,971
Re-used / recycled water			
Total	22,500	29,220	24,971
Normalised water consumption	2012-13	2013-14	2014-15
Water per unit of floor space (kL/m ²)	0.90	1.15	0.98
Water per bed-days /per patient treated (kL)	0.43	0.57	0.50
Water per separations (kL)	7.36	10.71	9.48
Water re-use and recycling	2012-13	2013-14	2014-15
Re-use / recycling rate (percentage)	N/A	N/A	N/A
<i>No metering available for re-used/recycled water</i>			
Waste generation			
Total waste generation by type (tonnes)	2012-13	2013-14	2014-15
Clinical waste	18	15	20
General waste	210	208	198
Recycled waste	8	13	22
Total	236	236	240
Normalised waste generation	2012-13	2013-14	2014-15
Waste per bed-days / per patient treated (kg)	4.51	4.62	4.75
Waste per separations (kg)	76.22	86.39	91.02
Waste recycling	2012-13	2013-14	2014-15
Waste recycling rate (percentage)	3%	6%	9%
<i>Royal Park is a long-term residential/ aged care facility</i>			
<i>2012-13 recycled waste data incomplete due to multiple contractors</i>			
<i>Clinical waste does not include sharps as sharps weight data is not available</i>			

*Water consumption data is partially estimated and some discrepancies in data collection and normalisation have been discovered. The Department of Health and Human Services is implementing an Environmental Data Management System for all public health services to improve and standardise data collection. We expect to have more robust consumption data in future.