

MELBOURNE HEALTH

# Melbourne Health Environmental Report

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*2015-16*

First in Care,  
Research and  
Learning

CARING  
EXCELLENCE  
INTEGRITY  
RESPECT  
UNITY

# Melbourne Health Environmental Report 2015-16

## Introduction

Melbourne Health continues to promote environmental sustainability among staff, visitors, patients and consumers in line with the priorities and goals in our 'Think Green' strategy. Our sustainability initiatives are led and supported by our Executive Committee.

This report details our progress towards reaching our 'Think Green' goals throughout the 2015-16 financial year.

## Think Green strategy 2015-2020

### Priorities

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

### Strategic Goals

#### *Goal 1 - Continued improvement in waste segregation and reduction*

##### Objectives

- 1. Reduce clinical waste at the Royal Park Campus through better segregation**
  - a. Clinical waste at the Royal Park Campus has been reduced by 25 per cent this year
- 2. Maintain clinical waste levels at RMH despite Theatre and ICU capacity increases**
  - a. We reduced clinical waste by a further 21 tonnes this year
- 3. Reduce waste to landfill generation and introduce new recycling streams**
  - a. We reduced waste to landfill by 26 tonnes at the City Campus and increased recyclables by 13 tonnes at the Royal Park Campus
  - b. We introduced a food waste recycling stream at the City Campus
- 4. Increase recycling rate to 30 per cent**
  - a. We achieved a recycling rate of 31 per cent across the two sites

#### *Goal 2 - Implement mechanisms to monitor and reduce resource consumption*

##### Objectives

- 1. Implement Department of Health and Human Services Environmental Database to accurately measure energy and water data**
  - a. We continue to work with DHHS to refine the database and are also contributing to a new waste database function
- 2. Investigate energy and water consumption efficiency strategies**
  - a. We have installed CO2 sensors in our carpark and are now running six exhaust fans only during peak traffic hours to reduce energy consumption
  - b. A lighting audit at all sites has been completed for all light fittings and replacements of halogen lights with LEDs has commenced
- 3. Establish paper reduction strategies**
  - a. We are developing paper reduction strategies with our printer supplier Ricoh. Trials are under way to install printer key cards to reduce unwanted printing.
  - b. The Electronic Medical Record Management System is being implemented this year; resulting in less paper consumption in the future

### ***Goal 3 - Promote green thinking amongst staff, visitors and partners***

#### Objectives

- 1. Lead through the environment committee**
  - a. The Environment Committee meets bi-monthly and oversees and coordinates all environmental initiatives and projects
  - b. In October 2015, Melbourne Health was chosen as a finalist for the inaugural Premier's Sustainability Award in the Health category for our Think Green Program
- 2. Annual events to engage staff, visitors and partners**
  - a. Our annual Spring Clean and Environment and Sustainability Expo were well attended and staff also participated in our Switch Off Week in March to mark Earth Hour 2016
- 3. Annual communications strategy**
  - a. In June 2016 we released our first quarterly *Thinking Green* newsletter for our Green Champions which is also available to all staff on our Think Green intranet site
  - b. We continue to communicate our achievements and events through articles in our fortnightly staff newsletter, case studies and by sharing our learnings with internal and external stakeholders
- 4. Transparent internal and external reporting**
  - a. We report our progress publicly through this annual environmental report and also fulfil our legislative reporting requirements

### ***Goal 4 - Encourage sustainable and active transport***

#### Objectives

- 1. Encourage staff to take public transport, walk or ride to work**
  - a. We have engaged with bicycle users and are planning ride to work events next year
- 2. Continue to optimise our fleet vehicles**
  - a. We have reduced fleet vehicles by 48 cars, used 1,146 litres less fuel and reduced GHG emissions from fleet use by 70 tCO<sub>2e</sub>

### ***Goal 5 - Foster sustainable procurement, where feasible***

#### Objectives

- 1. Engage with HPV Sustainable Procurement Officer to influence HPV tender requirements**
  - a. One of our Green Champions, Dr Katherine Barraclough, lobbied HPV for better pricing on recycled paper products and minimum standards on paper fibre sourcing with the support of our CFO. Dr Barraclough was invited to join the HPV Product Reference Group and the new contract now includes only certified paper and better priced recycled content paper options.
- 2. Engage with our suppliers**
  - a. Theatre staff lobbied Johnson and Johnson to take back eskies and reusable freezer packs used to deliver drugs to Theatres
  - b. We secured 17 exhibitors to engage with 105 staff at our annual Environment and Sustainability Expo

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

<b>Energy consumption</b>				
<b>Total energy consumption by energy type (GJ)</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Electricity (Grid)	42,032	34,929	40,613	37,920
Electricity (Cogenerated)	65,332	72,301	66,667	71,336
Natural gas and LPG	89	1,502	718	10
Other energy types (e.g. steam, diesel)	64,698	69,027	72,634	78,126
<b>Total (gigajoules)</b>	<b>172,151</b>	<b>177,759</b>	<b>180,632</b>	<b>187,392</b>
<b>Normalised energy consumption</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Energy per unit of floor space (GJ/m <sup>2</sup> )	1.51	1.55	1.58	1.55
Energy per bed-days (GJ)	0.71	0.78	0.76	0.78
Energy per separations (GJ)	1.93	2.23	2.16	2.10
Energy per patient treated(GJ)	0.37	0.39	0.38	0.39
<i>Underground car park (26,800 m<sup>2</sup>) not included in floor space</i>				
<b>Greenhouse gas emissions</b>				
<b>Total greenhouse gas emissions (tonnes CO<sub>2</sub>e)</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Scope 1	3,319	3,612	3,757	4,018
Scope 2	25,436	24,142	25,553	25,120
<b>Total</b>	<b>28,755</b>	<b>27,754</b>	<b>29,310</b>	<b>29,137</b>
<b>Normalised greenhouse gas emissions</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Emissions per unit of floor space (kgCO <sub>2</sub> e/m <sup>2</sup> )	251	243	256	241
Emissions per bed-days (kgCO <sub>2</sub> e)	118	121	123	122
Emissions per separations (kgCO <sub>2</sub> e)	322	348	350	326
Emissions per patient treated (kgCO <sub>2</sub> e)	62	60	61	60
<b>Water consumption</b>				
<b>Total water consumption by type (kL)</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Potable water	188,042	152,798	156,660	236,572
Re-used / recycled water				
<b>Total</b>	<b>188,042</b>	<b>152,798</b>	<b>156,660</b>	<b>236,572</b>
<b>Normalised water consumption</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Water per unit of floor space (kL/m <sup>2</sup> )	1.64	1.34	1.37	1.95
Water per bed-days (kL)	0.77	0.67	0.66	0.99
Water per separations (kL)	2.10	1.92	1.87	2.65
Water per patient treated (kL)	0.41	0.33	0.33	0.49
<b>Water re-use and recycling</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Re-use / recycling rate (percentage)	N/A	N/A	N/A	N/A
<i>No metering available for re-used/recycled water</i>				
<b>Waste generation</b>				
<b>Total waste generation by type (Tonnes)</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Clinical waste	443	412	376	355
General waste	864	889	928	923
Recycled waste	431	577	500	481
<b>Total</b>	<b>1,738</b>	<b>1,878</b>	<b>1,804</b>	<b>1,759</b>
<b>Normalised waste generation</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Waste per bed-days (kg)	7.14	8.19	7.56	7.35
Waste per separations (kg)	19.45	23.56	21.53	19.70
Waste per patient treated (kg)	3.76	4.08	3.77	3.62
<b>Waste recycling</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Waste recycling rate (percentage)	33%	39%	35%	34%
<i>Clinical waste does not include Sharps as sharps weight data is not available</i>				

## The Royal Melbourne Hospital – Royal Park Campus

<b>Energy consumption</b>				
<b>Total energy consumption by energy type (GJ)</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Electricity (Grid)	13,444	13,458	13,338	14,069
Natural gas and LPG	17,302	15,838	18,973	27,104
Other energy types (e.g. steam, diesel)	19	19	19	19
<b>Total (gigajoules)</b>	<b>30,765</b>	<b>29,315</b>	<b>32,330</b>	<b>41,192</b>
<b>Normalised energy consumption</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Energy per unit of floor space (GJ/m <sup>2</sup> )	1.21	1.15	1.27	1.62
Energy per bed-days / per patient treated (GJ)	0.59	0.57	0.64	0.72
Energy per separations (GJ)	9.95	10.75	12.28	12.44
<b>Greenhouse gas emissions</b>				
<b>Total greenhouse gas emissions (tonnes CO<sub>2</sub>e)</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Scope 1	889	814	975	1,398
Scope 2	4,444	4,449	4,372	4,416
<b>Total</b>	<b>5,333</b>	<b>5,263</b>	<b>5,347</b>	<b>5,814</b>
<b>Normalised greenhouse gas emissions</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Emissions per unit of floor space (kgCO <sub>2</sub> e/m <sup>2</sup> )	210	207	210.55	228.94
Emissions per bed-days / per patient treated (kg)	102	103	106.03	101.83
Emissions per separations (kgCO <sub>2</sub> e)	1,725	1,929	2,031	1,756
<b>Water consumption</b>				
<b>Total water consumption by type (kL)</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Potable water	22,500	29,220	24,971	33,383
Re-used / recycled water				
<b>Total</b>	<b>22,500</b>	<b>29,220</b>	<b>24,971</b>	<b>33,383</b>
<b>Normalised water consumption</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Water per unit of floor space (kL/m <sup>2</sup> )	0.90	1.15	0.98	1.31
Water per bed-days / per patient treated (kL)	0.43	0.57	0.50	0.58
Water per separations (kL)	7.36	10.71	9.48	10.09
<b>Water re-use and recycling</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Re-use / recycling rate (percentage)	N/A	N/A	N/A	N/A
<i>No metering available for re-used/recycled water</i>				
<b>Waste generation</b>				
<b>Total waste generation by type (Tonnes)</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Clinical waste	18	15	20	15
General waste	210	208	198	222
Recycled waste	8	13	22	35
<b>Total</b>	<b>236</b>	<b>236</b>	<b>240</b>	<b>272</b>
<b>Normalised waste generation</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Waste per bed-days / per patient treated (kg)	4.51	4.62	4.75	4.76
Waste per separations (kg)	76.22	86.39	91.02	82.10
<b>Waste recycling</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
Waste recycling rate (percentage)	4%	6%	10%	14%
<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>				