



Office of
Environment
& Heritage



Government resource efficiency policy

Office of Environment and Heritage Annual Report 2014-15



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Contents

About this report.....	iv
Agency resource efficiency snapshot	v
Introduction	1
Key findings	1
Energy and water	1
Waste.....	5
Annual statement of compliance	6
Beyond compliance	8
Department of Planning and Environment cluster: Summary 2014–15.....	9
Appendix A: Entities	10
Appendix B: Methodology	11

About this report

Launched in July 2014, the Government Resource Efficiency Policy (GREP) sets targets to improve performance in three main areas – energy, water and waste – and also reduce harmful air emissions from government operations. All general NSW government sector agencies are required to report annually on policy targets, actions and minimum standards by using financial-year data.

This report gives details of resource usage for the 2014–15 reporting year and the three previous years by the Office of Environment and Heritage (OEH). A list of entities included in this report is available in Appendix A.

OEH is located within the Planning and Environment cluster as of 1 July 2015.

This report has been compiled by OEH.

Key contact

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Agency resource efficiency snapshot

OEH reported on over
400 sites

Expenditure 2014–15

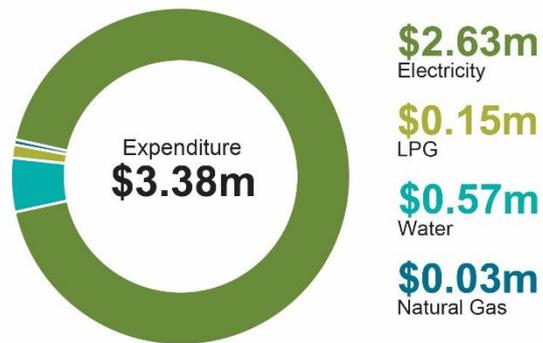
Total expenditure 2014–15

2014–15 expenditure
(resources) was

\$3.37m

(4% increase from 2013–14)

Expenditure distribution 2014–15



Individual E1 (energy efficiency projects) targets for OEH

\$1.05 million

40% of billed energy use for
electricity and gas using
baseline data from 2012–13

16

energy efficiency projects
undertaken since July 2012

Introduction

OEH has more than 400 sites that range from national park visitor centres, cabins and camp grounds to science labs and large commercial offices. It manages its own sites, as well as the sites it co-locates with the Environment Protection Authority (EPA). Space occupied by the EPA is included in the OEH data.

Key findings

- The findings in this report are based on an analysis of electricity, natural gas, LPG and water usage data for OEH.
- They include details of all energy efficiency projects undertaken since July 2012.
- OEH selected three waste streams, but volume and expenditure for each waste stream were not reported.

Total usage by resource type

The table below shows annual resource consumption from 2012 to 2015 for energy, water and waste.

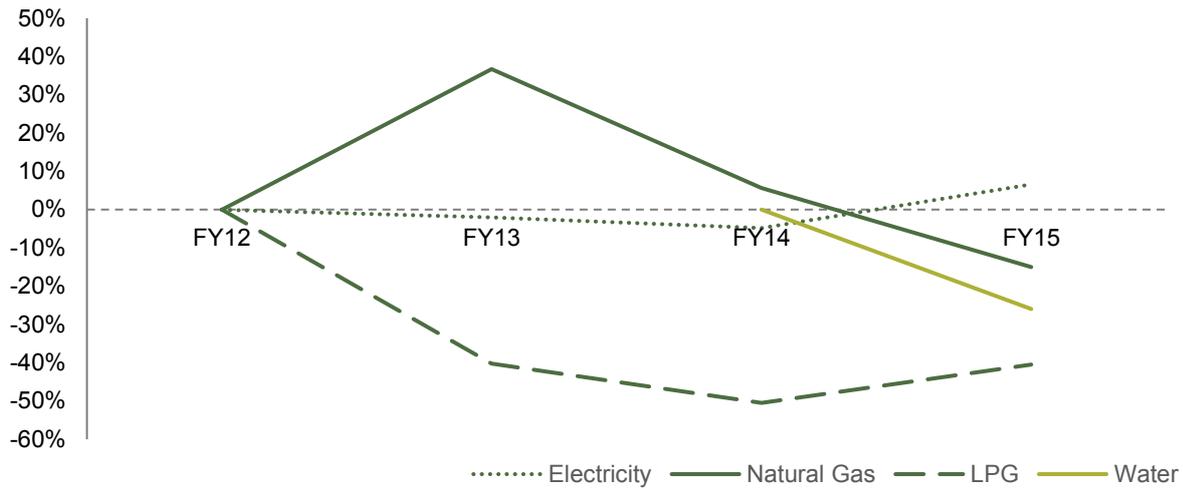
FY	Electricity		Natural gas		LPG		Water		Waste	
	kWh	\$	MJ	\$	L	\$	kL	\$	t	\$
2012	10,387,017	2,120,801	1,383,853	29,911	335,573	197,119	0	0	0	0
2013	10,176,849	2,594,472	1,891,567	33,986	200,517	156,178	0	0	0	0
2014	9,885,325	2,539,646	1,461,452	29,335	166,127	180,814	144,435	494,017	0	0
2015	11,070,133	2,634,964	1,176,148	26,325	199,815	148,088	106,932	565,569	0	0

Note: Because there were insufficient data, water consumption for 2011–12 and 2012–13 was not included, and waste data were not reported. OEH is in the process of developing a waste baseline through a site survey and verification process. For a breakdown of individual waste streams, please see the Waste section.

Energy and water

OEH consumes **electricity, natural gas, LPG and water**. During 2014–15, on average 22% GreenPower was purchased across all sites.

The following graph shows the variations in OEH's energy use for 2011–12 (FY12) to 2014–15 (FY15) and water use for 2013–14 (FY14) to 2014–15. Because there were insufficient data, water consumption for 2011–12 and 2012–13 (FY13) was not included in this graph. The natural gas spike in 2012–13 was due to increased consumption at the OEH's Lidcombe Laboratories.



Resource use as a percentage from financial year 2012 to financial year 2015

Top 10 sites by total billed resource use

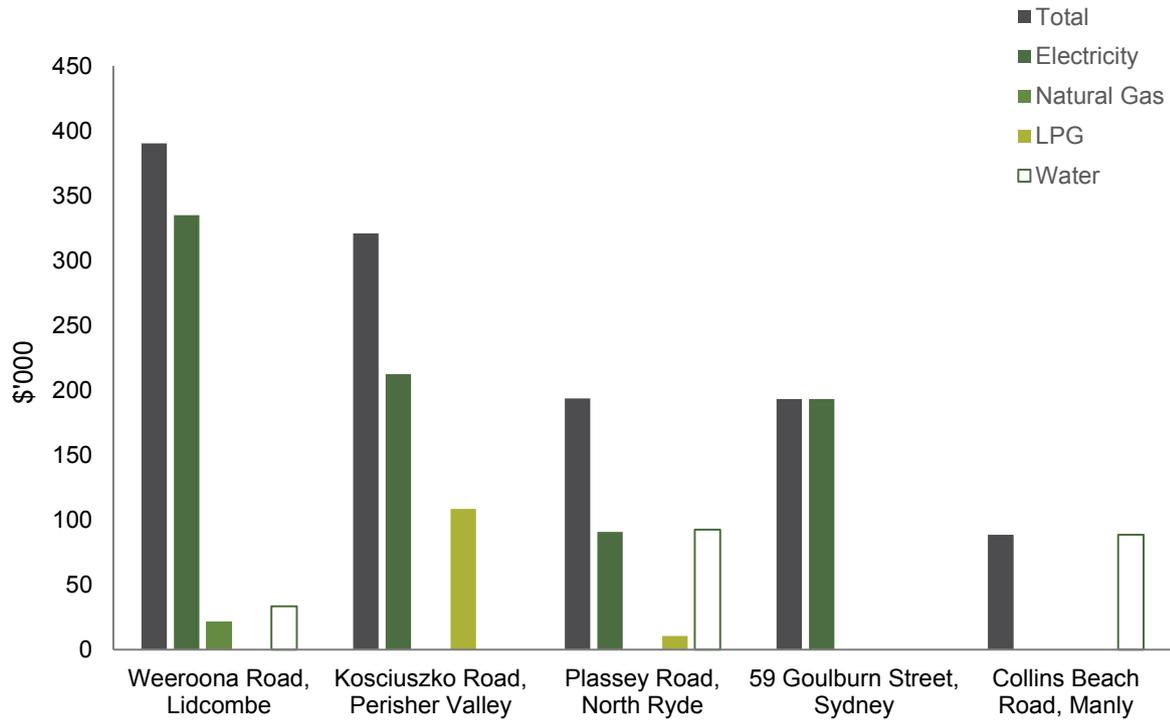
The table below shows the total billed resource use, including charges from energy and water consumption, for 2014–15, and the percentage of energy and water (combined) billed at each site.

Site address	Total billed resource use 2014–15	
	\$	% of agency total
Lidcombe Labs, Weeroona Road, Lidcombe	390,227	12%
Various sites, Kosciuszko Road, Perisher Valley*	320,795	10%
Lane Cove River Tourist Park, Plassey Road, North Ryde	193,528	6%
Office, 59 Goulburn Street, Sydney	193,216	6%
North Head, Sydney Harbour National Park, Collins Beach Road, Manly	88,478	3%
Goat Island, Port Jackson	85,798	3%
Ku-ring-gai Chase National Park, Bobbin Head Road, Turramurra	75,164	2%
Office, 43 Bridge Street, Hurstville	66,319	2%
Arakoon National Park, Cardwell Street, Arakoon	63,338	2%
Visitor centre and office, 4 Kosciuszko Road, Jindabyne	51,331	2%
Total	1,528,194	45%

* Sites on Kosciuszko Road, Perisher Valley include the sewage treatment plant, ski tube, pumping station and other premises.

Top five sites by total billed resource use

The figure below shows the top five sites by billed resource use for 2014-15.



Dollars spent on resource consumption for 2014–15

Energy efficiency projects

OEH has implemented a total of **16** energy efficiency projects.

Projects through the Government Finance Facility

The table below shows that no projects were implemented through the Government Finance Facility in 2014–15.

Site name	% billed energy use	Financial year	Project type
None	–	–	–

Internal energy efficiency projects

These are projects implemented by OEH but not funded through the Government Finance Facility.

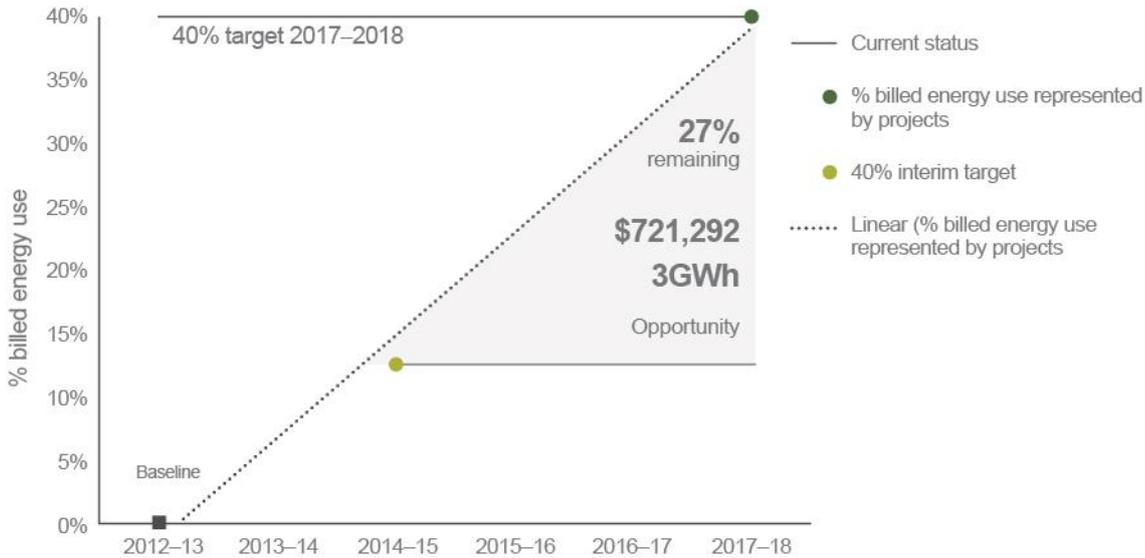
Site name	% billed energy use*	Financial year	Project type
1 Wolstenholme Avenue, Greendale	0.63%	After 2012	Solar hot water
145 Miller Street, Armidale	0.00%	After 2012	Lighting /appliances / solar photovoltaic
104 Flatrock Road, Mundamia	0.00%	After 2012	Lighting
Putty Road, Colo Heights	0.00%	After 2012	Appliances
2 Govetts Leap Road, Blackheath	0.00%	After 2012	Various
10 Miles Street, Tenterfield	0.20%	After 2012	Solar hot water
Summerland Way, Kyogle	0.23%	After 2012	Optimisation
Arumpo Road, Arumpo	0.00%	After 2012	Lighting / appliances
Cardwell Street, Arakoon	0.22%	After 2012	Lighting
2 Hayes Street, Scone	0.09%	After 2012	Various
137 Kelly Street, Scone	0.29%	After 2012	Various
1 Coller Road, Ulladulla	0.00%	After 2012	Lighting
1 Hams Street, Griffith	0.07%	After 2012	Solar photovoltaic
59 Goulburn Street, Sydney	10.18%	After 2012	Various
Evans Street, Cowra	0.46%	After 2012	Various
Oakdale Depot	0.19%	After 2012	Energy efficiency
Total	12.56%		

* Total billed energy use at the site for 2012–13 as a percentage of the total billed energy use within OEH for 2012–13

Progress towards 40% energy saving target

OEH aims to implement, by June 2018, energy efficiency projects at sites that represent a total of 40% (\$1.05 million) of its 2012–13 baseline billed energy for electricity and gas. This target aligns with the Government Resource Efficiency Policy (GREP) measure E1 (energy efficiency projects) 40% interim cluster target.

The table above shows that the projects implemented at the 16 sites cover nearly 13% of the total billed energy use across all OEH/EPA sites. To satisfy the 2017–18 interim target of 40%, OEH needs to take action at sites representing a further 27% of its total billed energy use. This opportunity is identified in the chart below.



Estimated savings based on implementation of energy efficiency projects completed between 2012 and 2015

Waste

OEH chose three top waste streams for 2014–15: paper, commingled recyclables and general waste. Volume and expenditure for each waste stream were not reported. OEH is in the process of developing a waste baseline through a site survey and verification process.

Take action today

Reduce your waste by taking the following three simple actions:

Talk to your contractors to get data. Are you struggling to get waste data? Speak with your waste contractors to see what data they can provide. When contracts are being renegotiated, add data-provision requirements to the contract to make sure that the data is collected and provided to you.

Determine what materials are in your general waste. Do a waste audit or visual inspection to work out what materials are in your general waste. Use the information from the audit to target recycling or avoidance campaigns.

Address waste at the source. Waste begins at the source, not in the bin. Reducing what you use also reduces what ends up in the bin. For example, review your stationery requirements and the use of security paper bins, or adopt a low-waste purchasing policy that takes packaging into consideration.

Annual statement of compliance

E2: Minimum NABERS Energy ratings for offices and data centres

OEH has three leased offices – each more than 2000 square metres – located at Parramatta, Sydney CBD and Hurstville. OEH has been conducting [NABERS](#) (National Australian Built Environment Rating System) energy tenancy ratings since 2009. NABERS energy tenancy ratings were undertaken in July 2015, and the three sites were rated with 5 stars, 4.5 stars and 5.5 stars respectively (without GreenPower). The EPA is co-located at two of these three large office sites, namely Parramatta and Sydney CBD. The EPA and OEH are committed to working together to continually improve the energy efficiency of our large offices to improve our NABERS energy ratings.

OEH manages the data centres for OEH and the EPA. OEH is in the process of virtualising servers and moving equipment into more energy-efficient specialised commercial offsite data centres.

E3: Minimum standards for new electrical appliances and equipment

Key procurement documentation, such as a procurement manual, templates and contracts, that cover OEH and the EPA have been recently updated to include sustainable procurement and to reflect GREP performance requirements.

E4: Minimum standards for new buildings

OEH and the EPA are working with Government Property NSW to ensure that GREP energy, water, waste and indoor-environment quality performance requirements for new buildings are met and, where possible, exceeded.

E5: Identify and enable solar leasing opportunities

OEH identified six sites suitable for solar leasing opportunities, as identified through GREP, and is reviewing these sites as well as other sites that it owns to prioritise the installation of solar photovoltaic systems where cost effective. The EPA is not located at any of the sites identified to date.

E6: Minimum fuel efficiency standards for new light vehicles

The National Parks and Wildlife Service has a fire-fighting fleet managed through StateFleet. The fire-fighting fleet has been given an exemption from StateFleet, as the vehicles need to be fit for purpose. The EPA does not lease any vehicles outside the State Contract.

E7: Purchase 6% GreenPower

All sites on contract purchase a minimum of 6% GreenPower. Some sites purchase more, including Lidcombe Science Laboratories (25%); Dubbo Office (25%); Coffs Harbour Office (100%); Lane Cove Caravan Park (100%); Sydney CBD Office (25%); Hurstville Office (10%); Kurnell Visitor Centre (100%); Ku-ring-gai Chase National Park (10%); Narooma Office (100%); and Hill End Historic Site (10%).

W2: Minimum NABERS Water ratings for office buildings

At their large leased offices at Parramatta, Sydney CBD and Hurstville, OEH and the EPA are working closely with the building management to improve water efficiency. The current whole-building NABERS water rating for Parramatta and Hurstville is 4 stars; the Sydney CBD office has a 3.5-star rating. OEH and the EPA are the key tenants in the Sydney CBD office, with OEH leasing 14 of the 26 floors and the EPA occupying four. OEH has a green lease and environmental management plan at the Sydney CBD office; this will improve the environmental sustainability performance of both the base building and the tenancy. A key part of this is identifying opportunities to improve water efficiency.

W3: Minimum standards for new water-using appliances

Key procurement documents, such as a procurement manual, templates and contracts that cover OEH and the EPA, have been recently updated to include sustainable procurement and to reflect the GREP performance requirements.

A1: Air emissions standards for mobile non-road diesel plant and equipment

OEH and the EPA are collating a list of the mobile non-road diesel plant and equipment that they currently own and lease. Once this has been collated, OEH and the EPA will be using a cost-benefit analysis to identify equipment to be upgraded.

A2: Low-VOC surface coatings

Key procurement documentation, including a procurement manual, templates and contracts, that cover OEH and the EPA has recently been updated to include sustainable procurement and to reflect the GREP performance requirements. The Sydney CBD office refurbishment (14 floors in November 2014) used low-VOC (volatile organic compound) paint.

Beyond compliance

Energy

An initial investigation into energy efficiency and renewable energy opportunities at OEH sites was completed in June/July 2015. In July 2015, the OEH Facilities team upgraded the Sydney CBD office lighting system, making it more energy efficient and giving OEH and EPA staff better control over their lighting needs. Instead of lights coming on automatically each morning, staff now switch on the lights manually when they arrive. The new system also allows for easier programming to switch lights off during public holidays and long weekends.

Water

An initial investigation into water efficiency opportunities at OEH sites was completed in June/July 2015.

Waste

OEH and the EPA introduced soft plastics recycling to the Sydney CBD office in October 2014. Approximately 132 kilograms of soft plastic waste that would otherwise have gone to landfill was recycled between October 2014 and April 2015. There have been flow-on effects for staff, with staff bringing in soft plastics from home to recycle or dropping them off at Woolworths or Coles, both of which offer free soft plastics recycling. Signage for commingled containers, paper and cardboard and organics was also updated in October 2014. As part of the introduction of soft plastics recycling and new recycling signage, an information session was held for OEH and EPA staff to ensure the success of the soft plastics initiative and improve general recycling.

Clean air

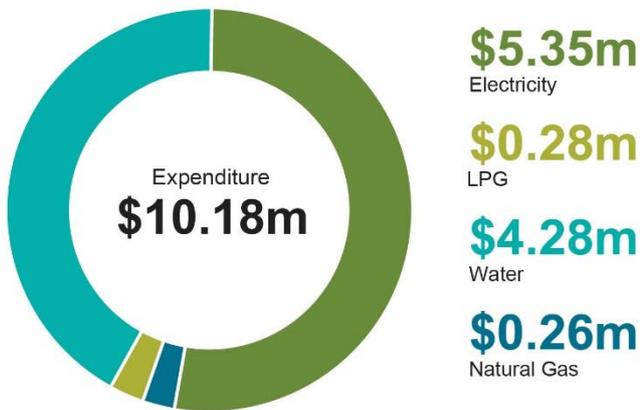
OEH and EPA staff at the Sydney CBD office were surveyed in July 2015 about the indoor environment quality as part of an indoor environment assessment conducted by the University of Sydney.

Other

OEH organised a Sustainability Leaders Roundtable with representatives from similar-sized organisations to OEH in government and industry to better understand best and next practice sustainability and thus inform the development of its new corporate sustainability strategy. A staff sustainability survey was conducted in December 2014 to guide the development of the new OEH/EPA Sustainability Strategy. The survey also requested feedback on how staff viewed current OEH and EPA sustainability performance. A joint OEH and EPA Sustainability Strategy 2015–2020 was approved in July 2015; this strategy meets and exceeds GREP requirements. It was launched in September 2015 to staff and is now on the OEH website. A roadshow was taken to six offices as part of the launch, with staff at regional sites having opportunities to discuss sustainability initiatives.

Department of Planning and Environment cluster: Summary 2014–15

Expenditure distribution



E1 (energy efficiency projects) interim target for Department of Planning and Environment cluster

\$2.15 million

40% of billed energy use for
electricity and gas using
baseline data from 2013–14

Electricity

accounted for

53%

of Department of Planning
and Environment's total billed
resource use for 2014–15

9

general government sector
entities included in the

40% target

20

energy efficiency projects
undertaken across the
cluster since July 2012

Appendix A: Entities

Entities included in this report

Office of Environment and Heritage

Environment Protection Authority

Entities included in the cluster

Department of Planning and Environment

Central Coast Regional Development Corporation

Office of Environment and Heritage

Environment Protection Authority

Hunter Development Corporation

Office of Local Government

Office of Strategic Lands

UrbanGrowth NSW Development Corporation

Centennial Park and Moore Park Trust

Heritage Council of NSW

Jenolan Caves Reserve Trust

Lord Howe Island Board

Parramatta Park Trust

Royal Botanic Gardens and Domain Trust

Sydney Living Museums

Taronga Conservation Society Australia

Western Sydney Parklands Trust

Appendix B: Methodology

This report presents data from government-held contracts, combined with internally sourced data where provided by agencies.

All data have been annualised to cover 12 months in the case of monthly billing cycles and 365 days in the case of quarterly billing cycles.

All expenditure figures include both usage and service charges and exclude GST.

Cluster 40% target

The cluster 40% target is based on the total billed energy use by all clusters combined (\$) for electricity and natural gas in 2013–14.

Data for all sites belonging to agencies classified as General Government Sector within a cluster are included in the target.

The cluster classification used in this report is for 2015–16, effective 1 July 2015.