

Environmental Sustainability Forum

Driving energy efficiency and performance in the health system

Tiernan Humphrys

Manager Environmental Sustainability

Overview

Climate Change Act

Health system energy performance

Greener Government Buildings program

NABERS for Hospitals

Whole of government Marginal Abatement Cost Curve

Financing energy efficiency

Using environmental data to track performance

Climate Change Act

Target of 15-20 per cent below 2005 levels by 2020

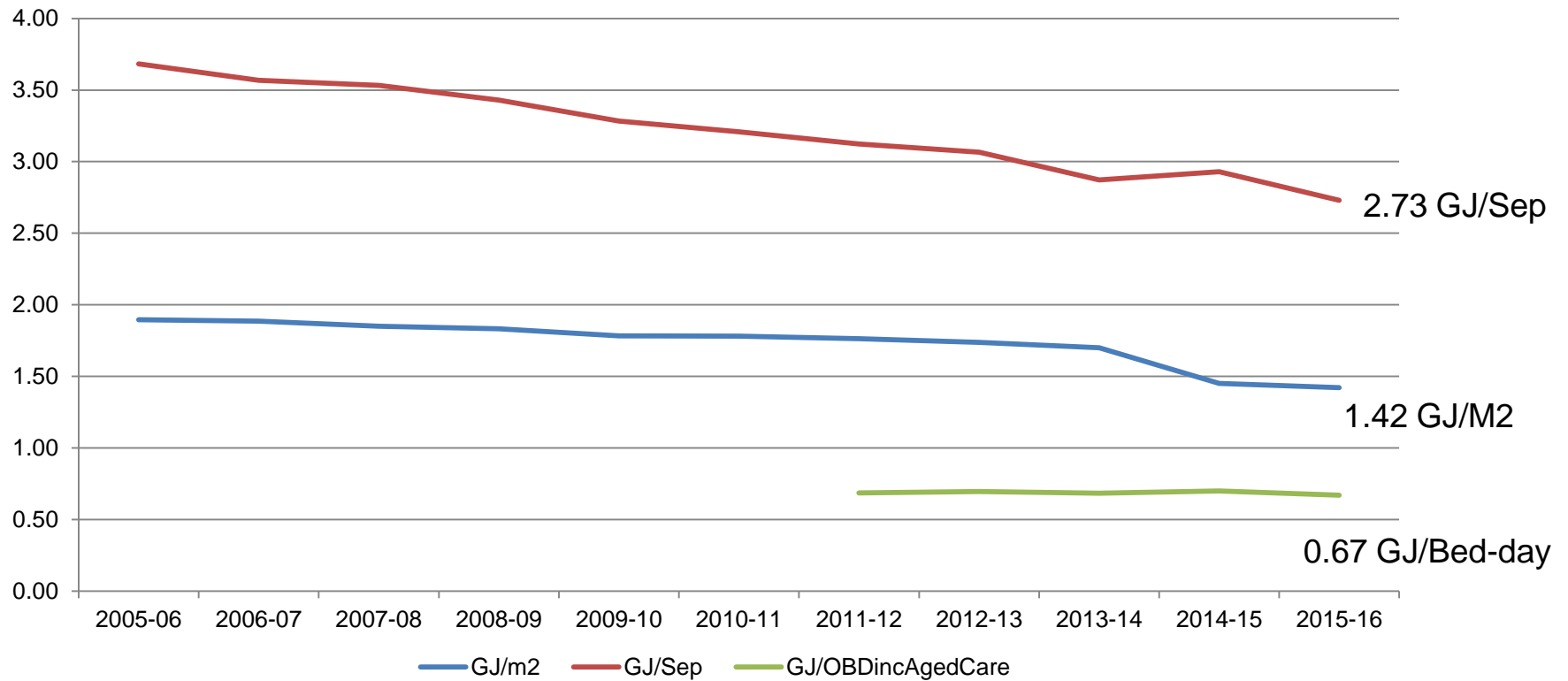
Net zero emissions by 2050

Departmental (portfolio) emission reduction pledges and 5 year emission reduction plans by 2020

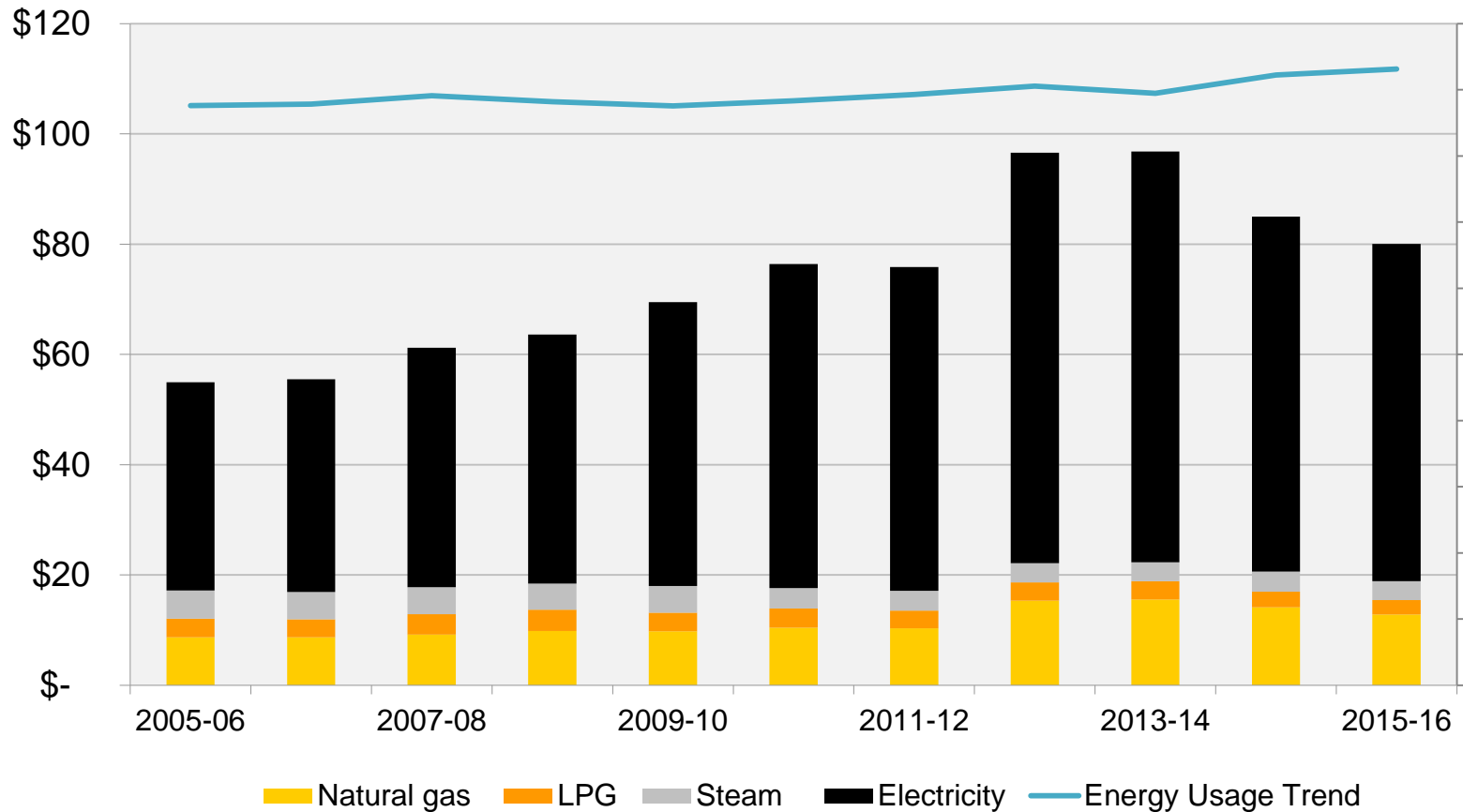
DHHS is preparing an emissions reduction plan covering:

- **Sport and recreation facilities**
- **High rise public housing**
- **Departmental facilities**
- **Public hospitals**

Health system energy efficiency



Energy costs and energy trend (total GJ)



Greener Government Buildings program

Health service	Date	\$ value	MWh saved	GJ saved	Payback
Austin	May 2015	\$0.4m	269	-	4 years
West Gippsland	May 2016	\$5.8m	1,380	11,980	7 years
Peninsula	Mid-2016	TBC	TBC	TBC	<5 years
Metro hospital	Mid-2017*	TBC	TBC	TBC	<5 years
Gippsland	Late-2017*	TBC	TBC	TBC	<5 years
Regional	Early/Mid-2018*	TBC	TBC	TBC	<5 years

* Approx. date of going to market

Bulk procurement of solar panels

Department and Health Purchasing Victoria bulk procuring solar panels

- **Initially for Gippsland region**
- **If successful would be replicated for next region with GGB program funding**
- **Potential scope to include other projects if timing suits**



NABERS for Hospitals


Newest NABERS tool – energy & water

Rating certificates for all public hospitals and aged care homes

2015-16 ratings to be sent out mid-2017

2016-17 ratings to be sent out early-2018

Need complete dataset in the environmental data management system





NABERS ENERGY

Rating valid until
December 2012

★ ★ ★ ★ ★ ☆

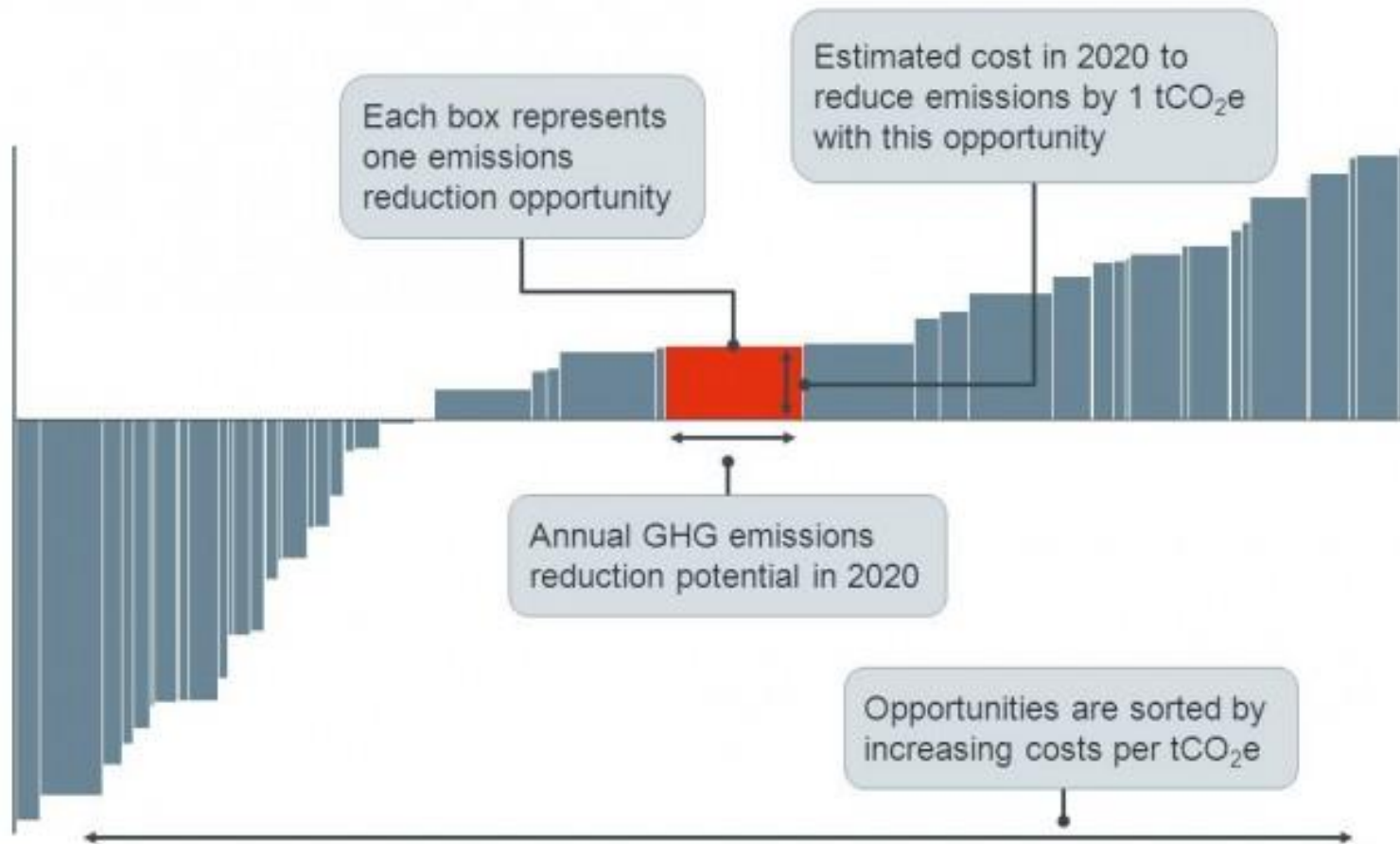
COMPANY NAME
achieved 5 star NABERS Energy whole building rating for

BUILDING NAME
STREET ADDRESS
SUBURB NSW 2000



This NABERS Rating is based on 12 months of operational energy use. More stars indicate better energy performance and lower emissions of greenhouse gases. NABERS is a national initiative of the Commonwealth, State and Territory Governments. It is managed by the Office of Environment and Heritage, NSW Department of Premier and Cabinet. www.nabers.com.au

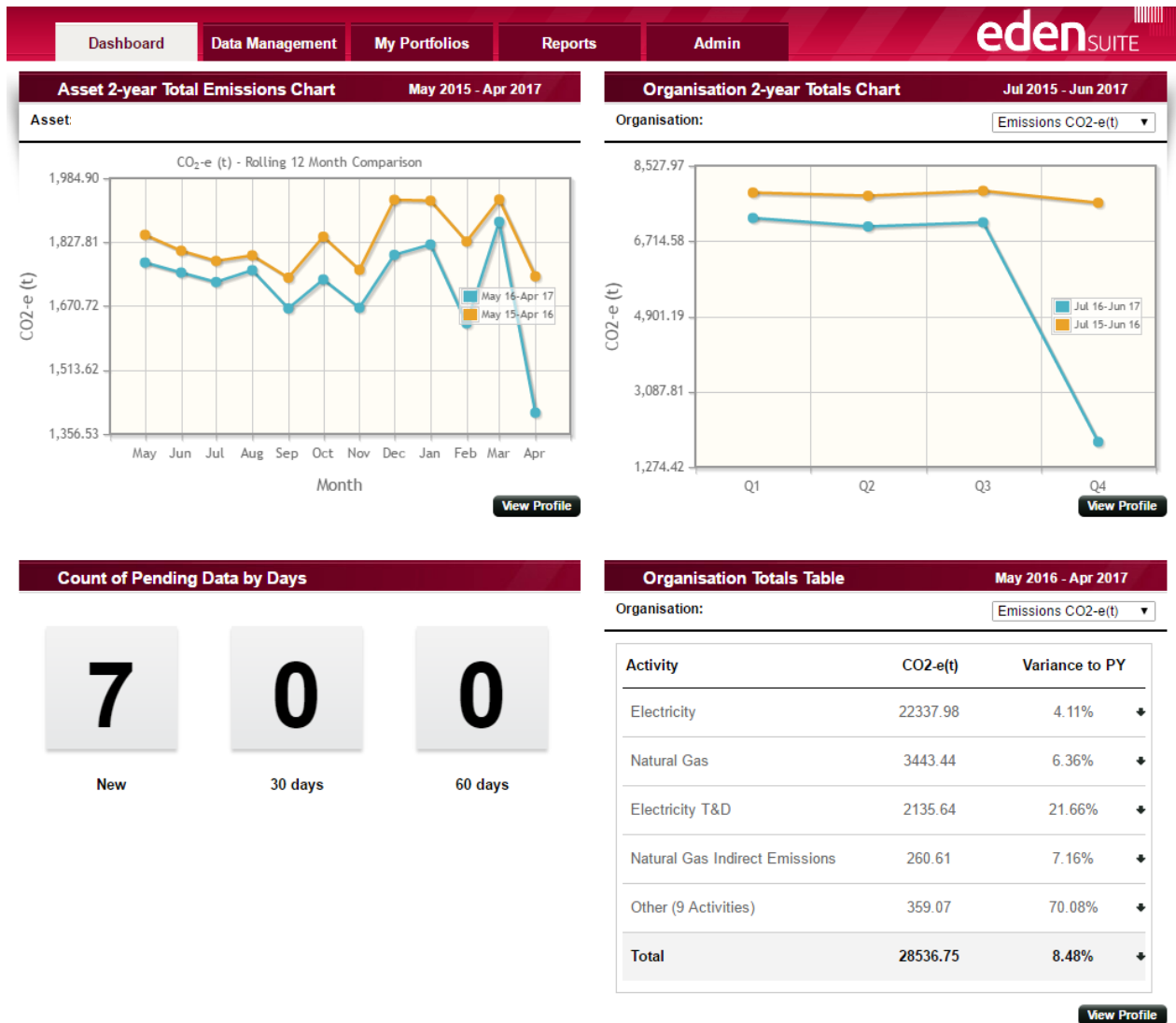
Marginal Abatement Cost Curve



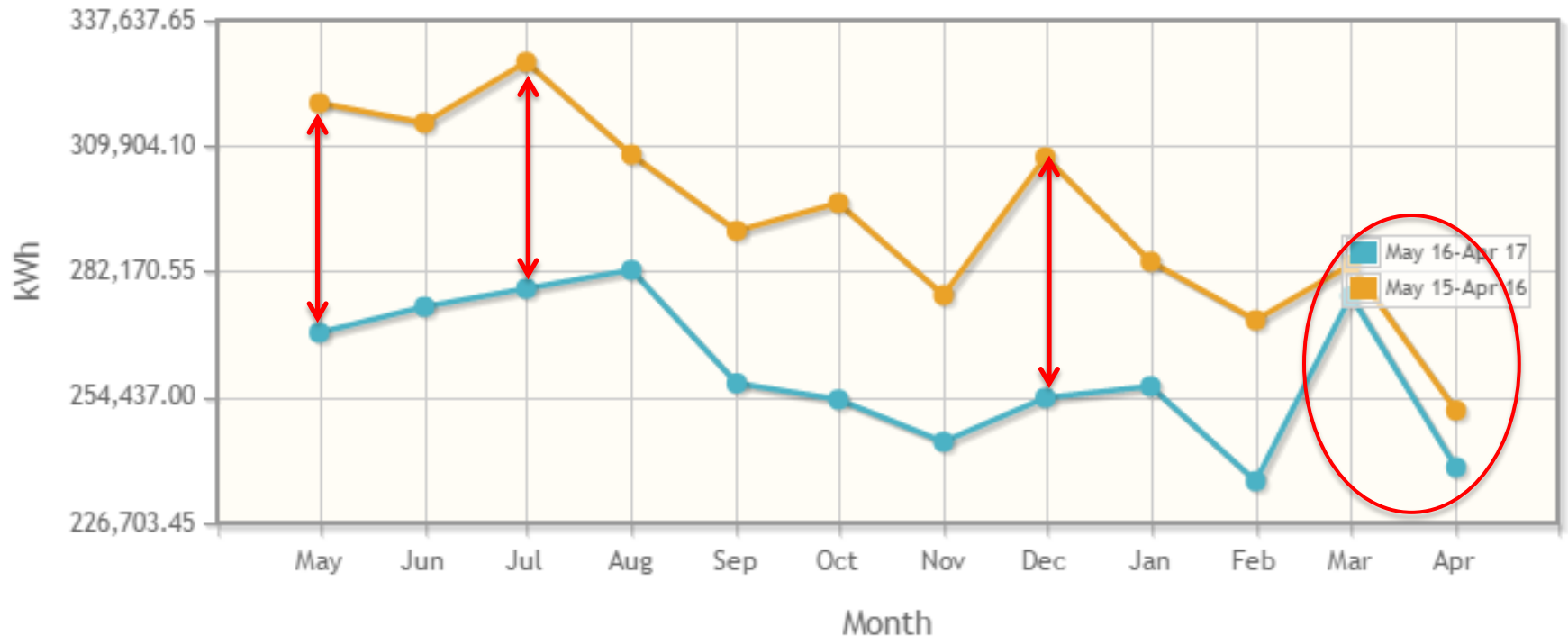
Financing energy efficiency

Greener Government Buildings program (Treasury loan)	Self-financing (health service)
Built around 5 year payback	Built around available funding
Whole of organisation scope	Generally project specific
Timing linked to program roll-out	Timing dictated by health service
Savings guaranteed	Savings not guaranteed
Savings used to repay loan (5yrs)	Savings available immediately
Savings visible at facility level	Savings may not be readily visible at facility level

Using environmental data to track performance



Measuring performance – electricity use



Shows significant drop year on year...but...

...March and April 17 shows level back to previous year. Why?

Measuring performance – carbon emissions

Organisation Totals Table

May 2016 - Apr 2017

Organisation:

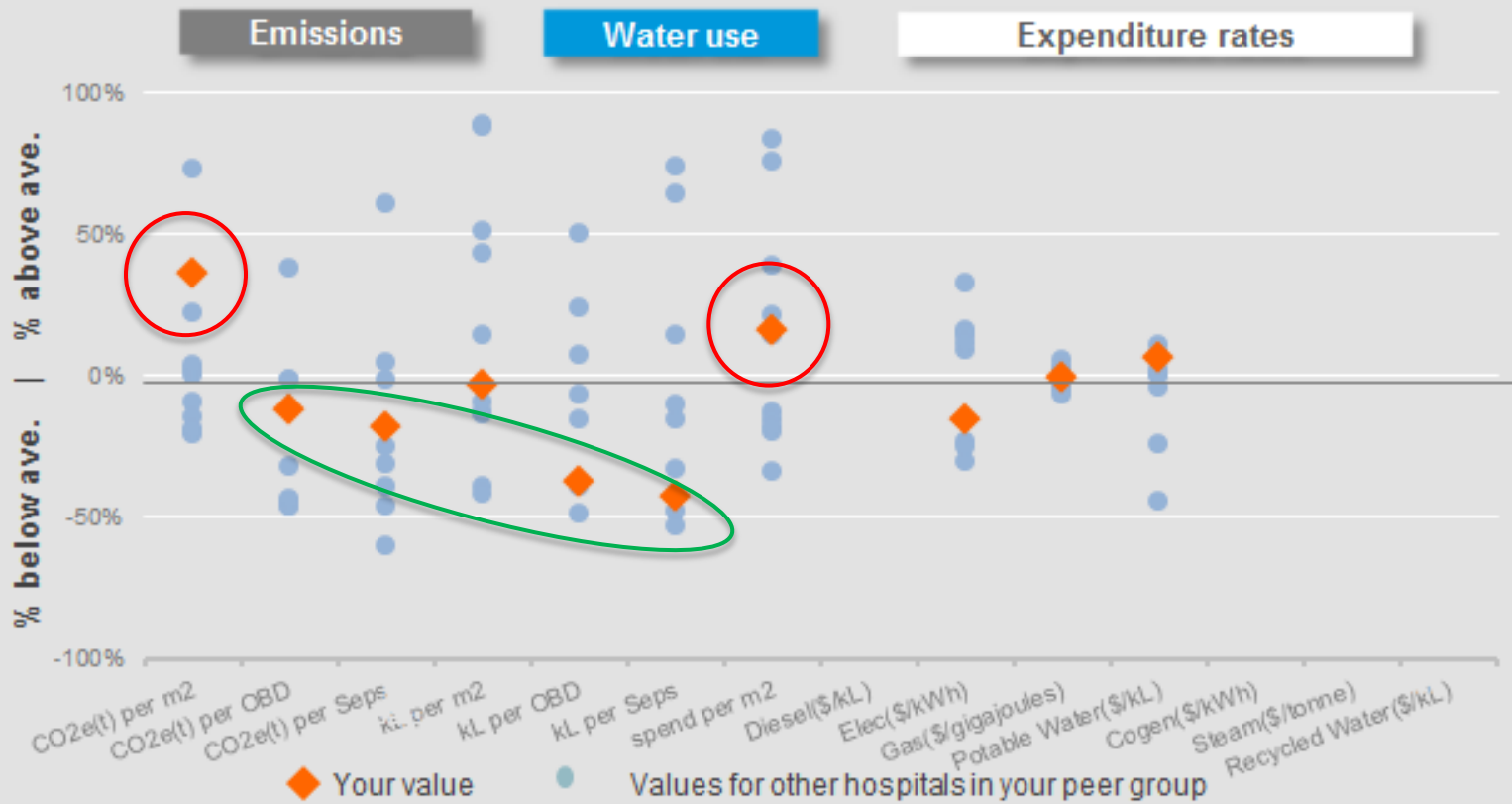
Emissions CO2-e(t) ▼

Activity	CO2-e(t)	Variance to PY	
Electricity	22337.98	4.11%	↓
Natural Gas	3443.44	6.36%	↓
Electricity T&D	2135.64	21.66%	↓
Natural Gas Indirect Emissions	260.61	7.16%	↓
Other (9 Activities)	359.07	70.08%	↓
Total	28536.75	8.48%	↓

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Measuring performance – benchmarking

Benchmarks | 2015-16



Questions?

Tiernan Humphrys

Manager Environmental Sustainability

Department of Health and Human Services

(03) 9096 2057

tiernan.humphrys@dhhs.vic.gov.au