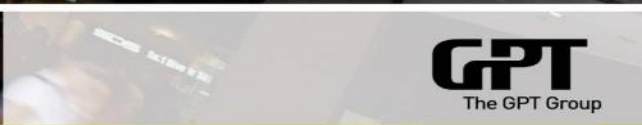
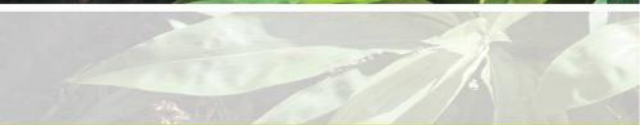


Global peer perspective

GPT Group (Australia)

Bruce Precious | Sustainability & Property Services



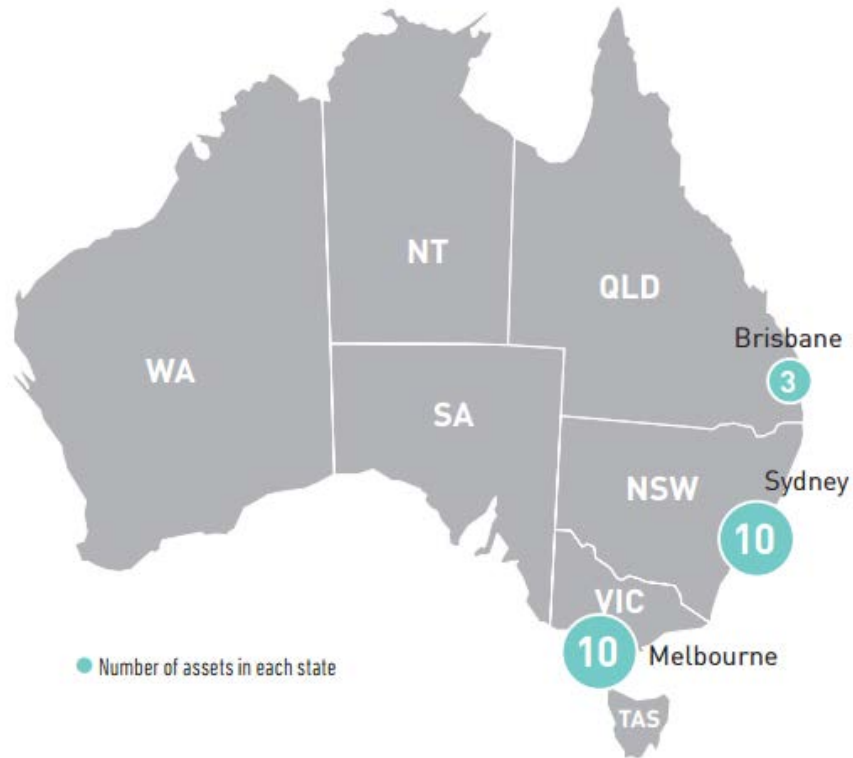
about GPT

- Australia's first listed property trust 1971
- Our vision is to be the most respected property company in Australia in the eyes of our investors, people, customers and communities
- Consistently ranked as one of the best performing property and real estate companies in global sustainability benchmarks
- AUS\$ 19 Billion assets under management
- Over 1,000,000 sqm each of premium retail, office and logistics property
- Manage unlisted funds, GPT Wholesale Office Fund and GPT Wholesale Shopping Centre Fund



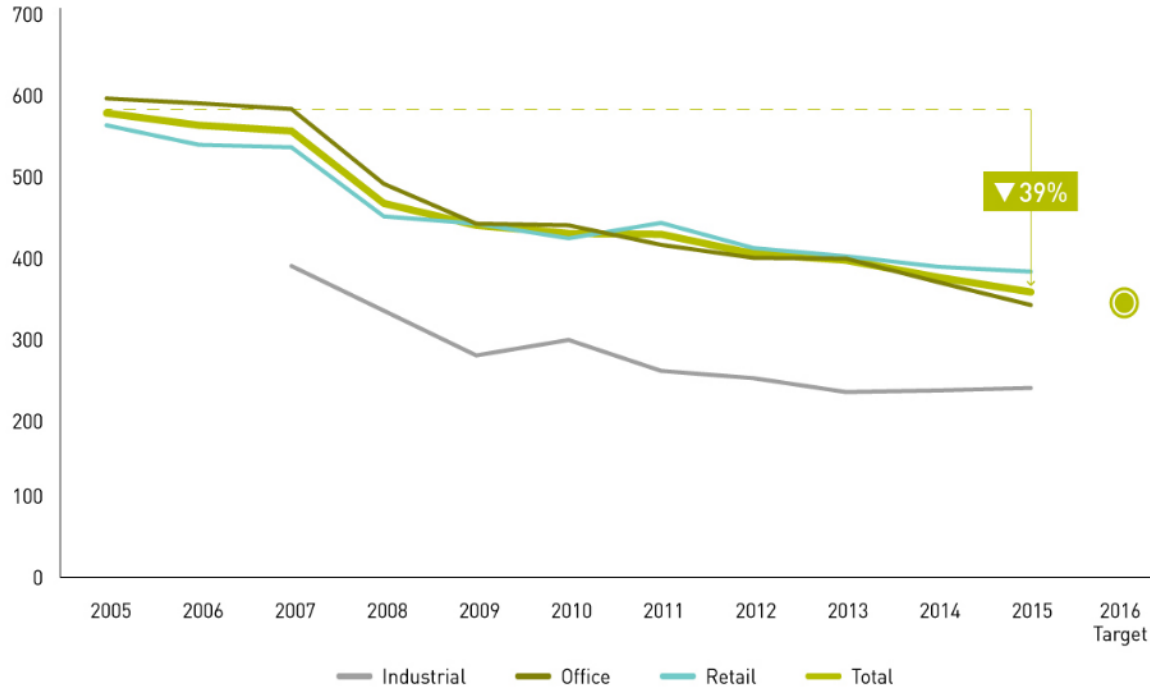


GPT in Australia



Sustainability | Energy

Energy intensity (MJ/sqm) by year

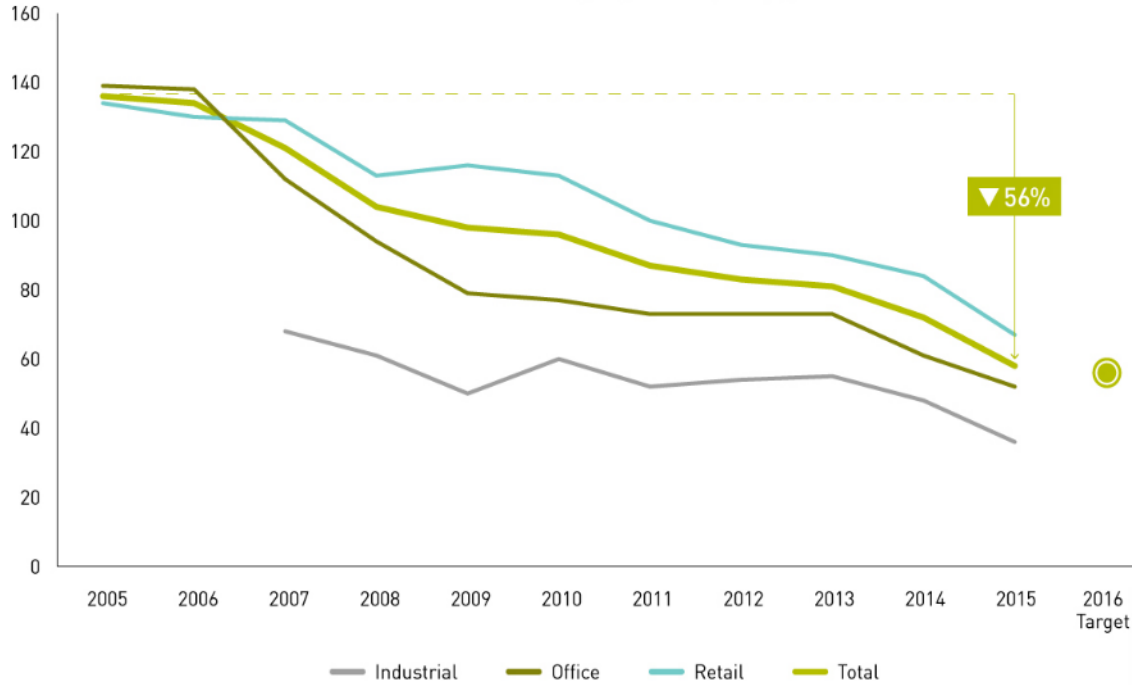


▼ Energy consumption /sm has decreased by 39% since 2005

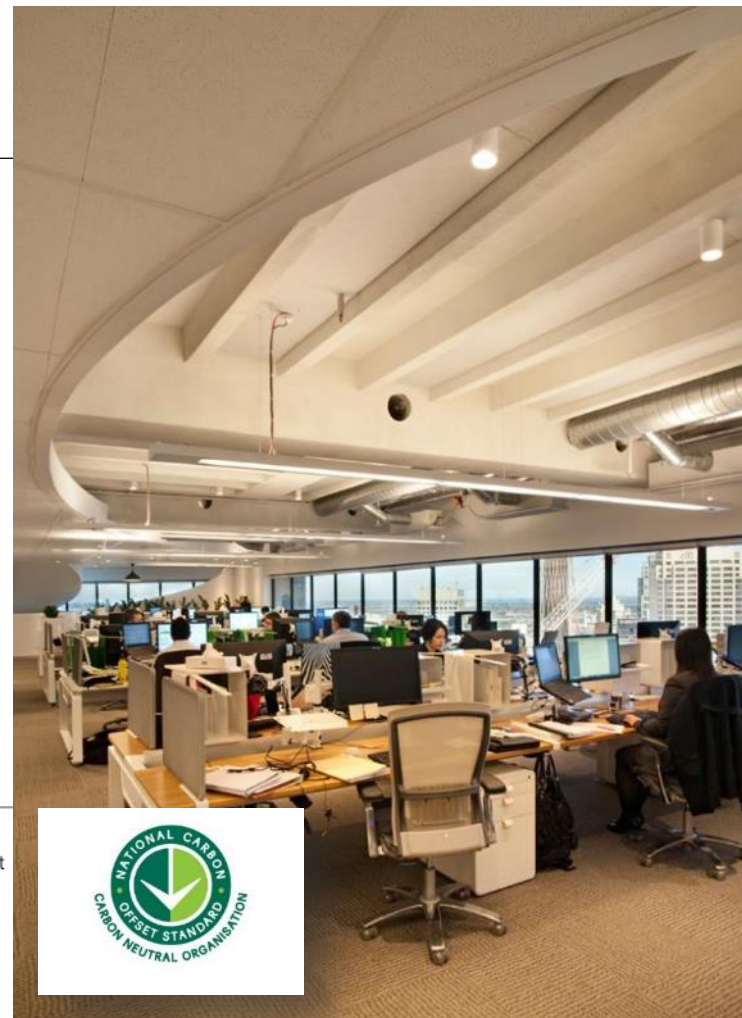


Sustainability | carbon emissions

Emissions intensity (kgCO2/sqm) by year



▼ Average carbon emissions intensity has decreased by 56% since 2005





Dow Jones Sustainability Index | DJSI

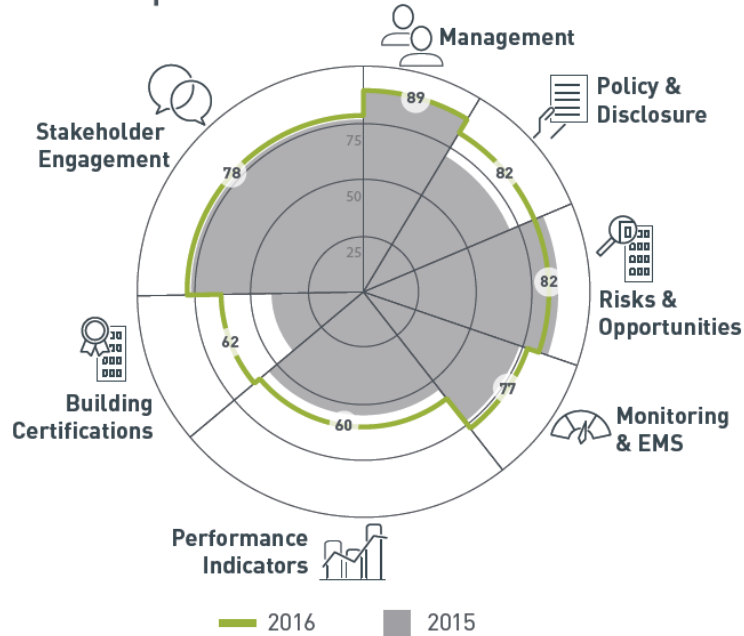
Australia is well represented in the RobecoSam Dow Jones Sustainability Index with 5 of the 18 leaders

<http://yearbook.robecosam.com/industry/real-estate.html>

Sustainability leaders 2016	
RobecoSAM Gold Class	
Stockland*	Australia
RobecoSAM Silver Class	
GPT Group	Australia
RobecoSAM Bronze Class	
British Land Co PLC	United Kingdom
CapitaLand Ltd	Singapore
Dexus Property Group	Australia
Sustainability Yearbook Members	
City Developments Ltd	Singapore
Fonciere Des Regions	France
Gecina SA	France
Hammerson PLC	United Kingdom
HCP Inc**	United States
Intu Properties PLC	United Kingdom
Klepierre ¹	France
Land Securities Group PLC	United Kingdom
LendLease Group	Australia
Mirvac Group	Australia
Unibail-Rodamco SE	France
Wereldhave NV	Netherlands
Weyerhaeuser Co	United States

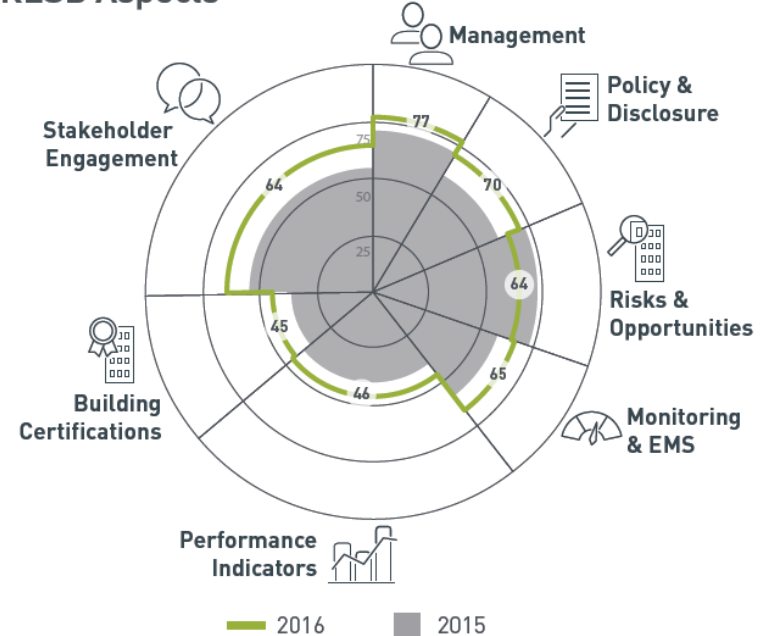
Global Real Estate Sustainability Benchmark | GRESB

GRESB Aspects



Australia/NZ

GRESB Aspects



North America

Is collaboration the key to success ?

“The region’s leadership reflects a long-term commitment to sustainability and a pervasive spirit of collaboration and knowledge sharing. Companies and funds in Australia and New Zealand are competitive, yet they are unusually open to exchanging experiences and insights. Competitors frequently work together to address new issues”

2016 GRESB Snapshot



Global Real Estate Sustainability Benchmark | GRESB

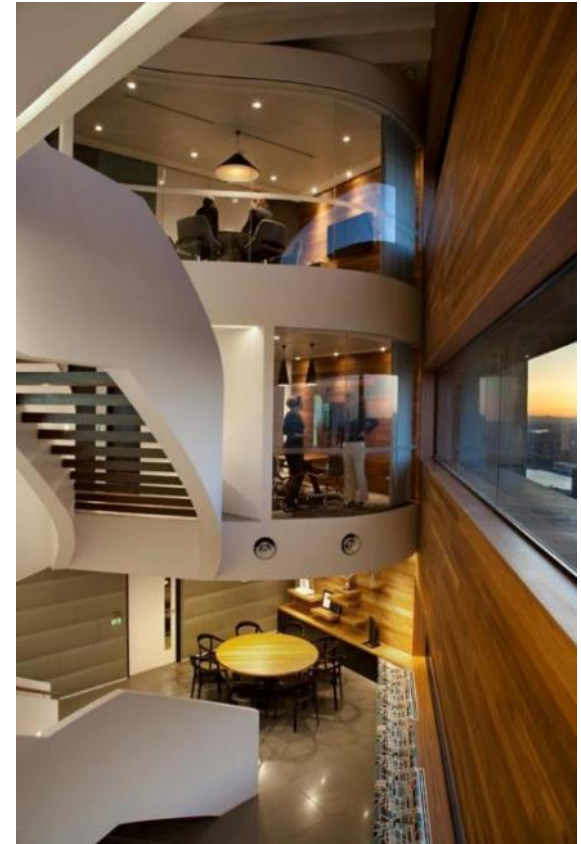
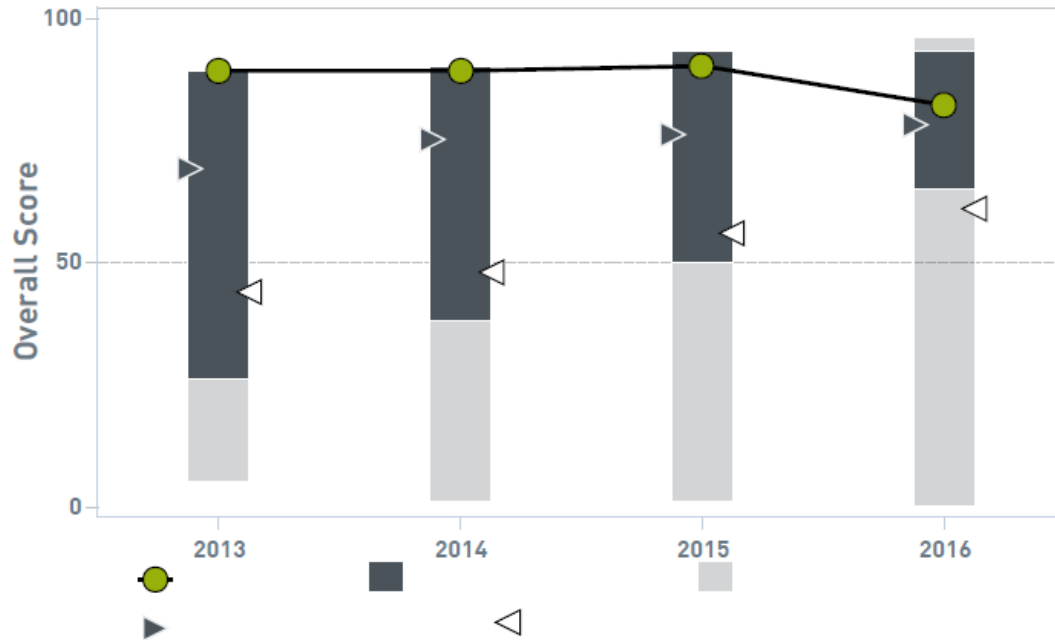
GRESB Aspects



GPT Wholesale Office Fund (GWO) vs peers

GPT Wholesale Office Fund | GRESB Trend

Trend



GPT Wholesale Office Fund

Data Coverage POINTS: 2/8

Overall



in search of the green premium



NABERS transforming Australia's office market

Figure 3: Distribution of office assets by star rating
IPD Office Database, asset count, Q3 2013

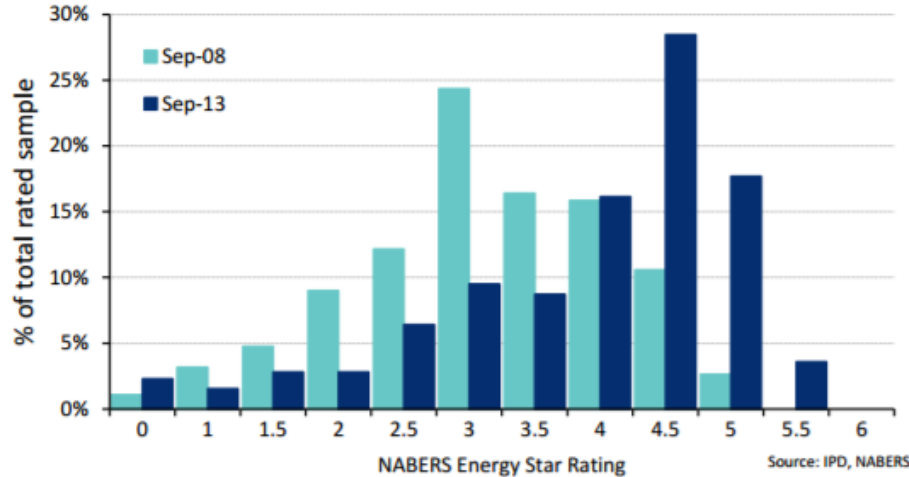
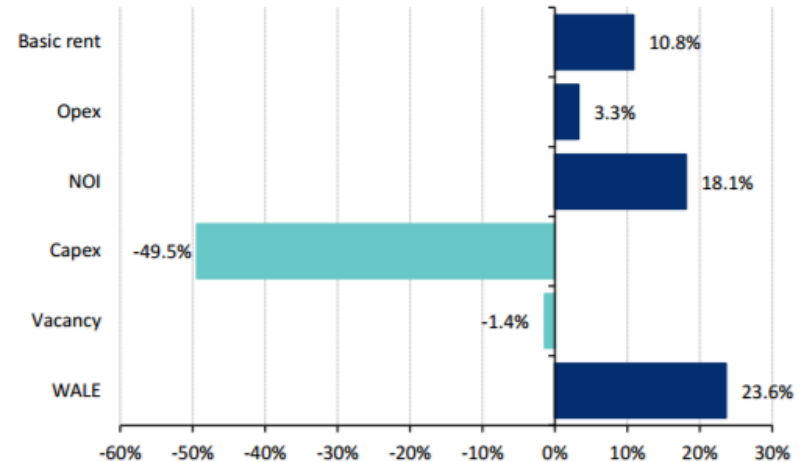


Figure 8: High vs. Low NABERS Energy rated offices
Percentage difference, Q3 2013



Source: IPD, NABERS

NABERS transforming Australia's office market

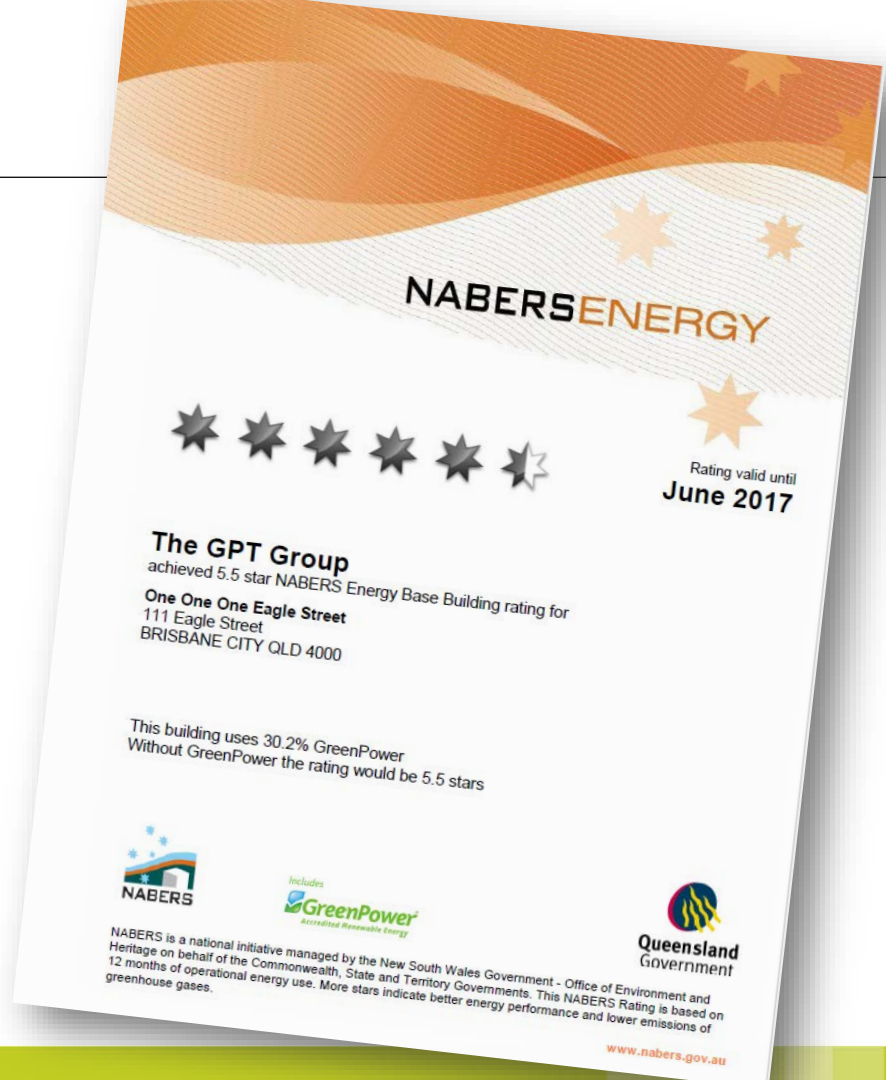


www.nabers.com.au



NABERS tools

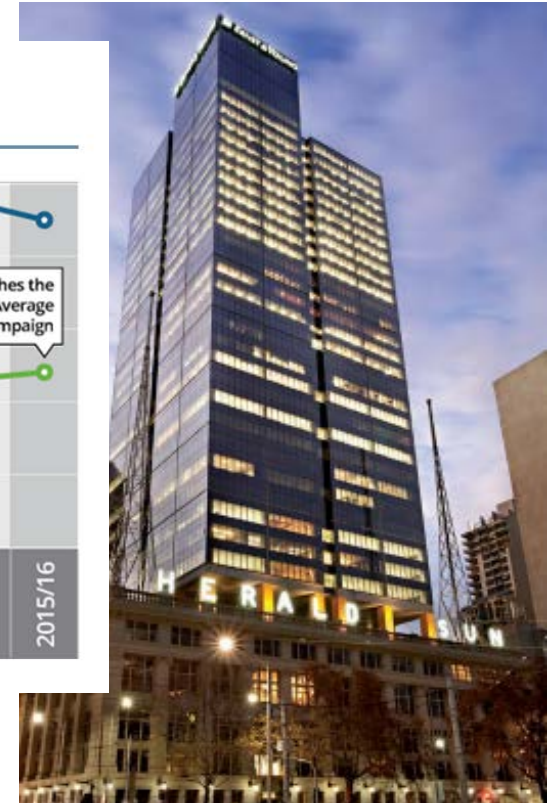
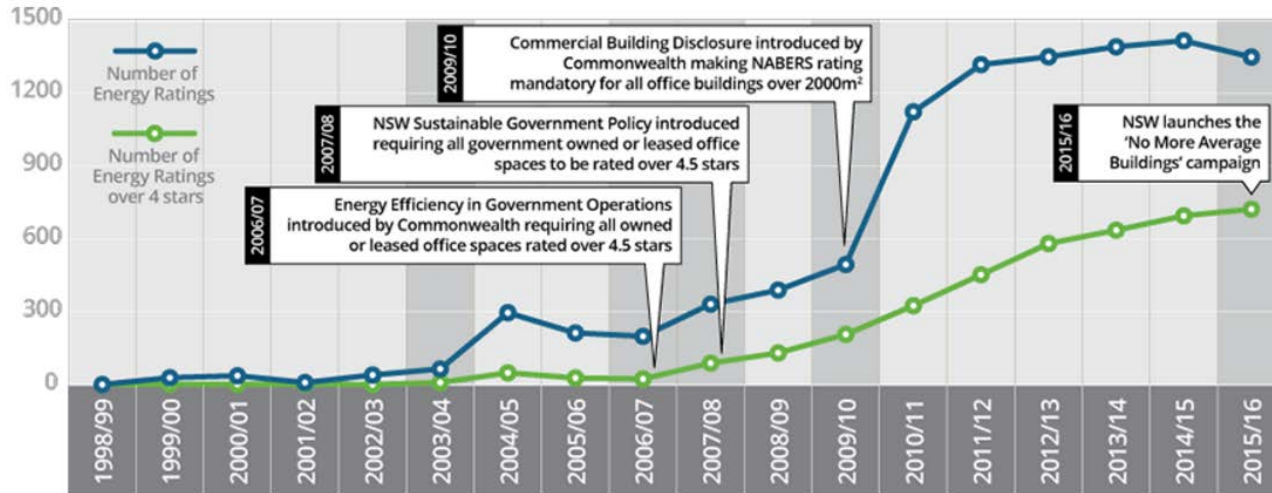
- NABERS Energy
- NABERS Carbon
- NABERS Water
- NABERS IEQ
- NABERS Waste



NABERS transforming Australia's office market

Ratings and government policy

COUNT BUILDINGS AND TENANCIES WITH NABERS OFFICE ENERGY RATINGS CERTIFIED

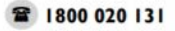


<https://nabers.gov.au/AnnualReport/2015-2016/life-of-program-statistics.html>

NABERS transforming Australia's office market

Mandatory disclosure

- Any offer for sale or lease of office space > 1,000 sqm must disclose the NABERS Energy rating



Advertising Requirements



FOR SALE Smith-Jones Real Estate

Let's do a deal

- Up to 5,500m²
- Flexible fitted out space
- Basement car parking
- 2.5-star NABERS Energy rating

PHONE 00 1234 5678
www.example1.com.au
Ground floor, 1-2 Example St, Example City



FOR SALE Smith-Jones Real Estate

Let's do a deal

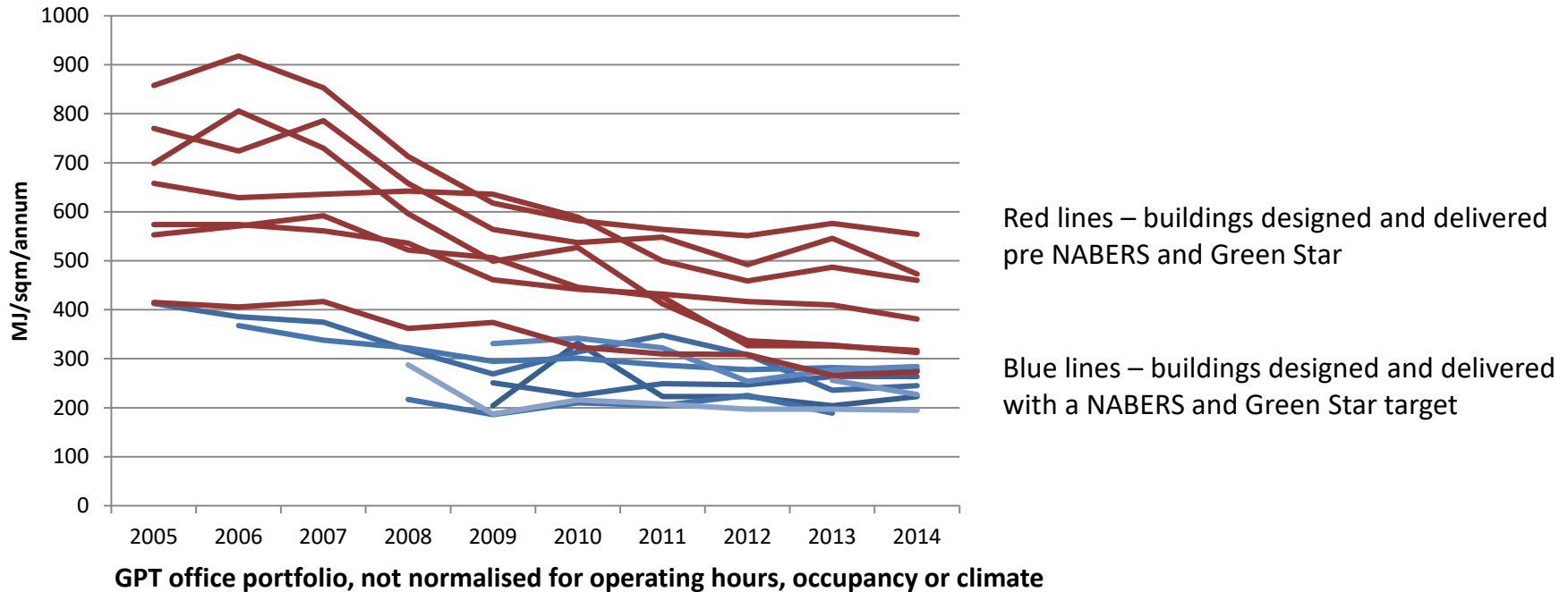
- Up to 5,500m²
- Flexible fitted out space
- Basement car parking

2.5-star NABERS Energy rating ←

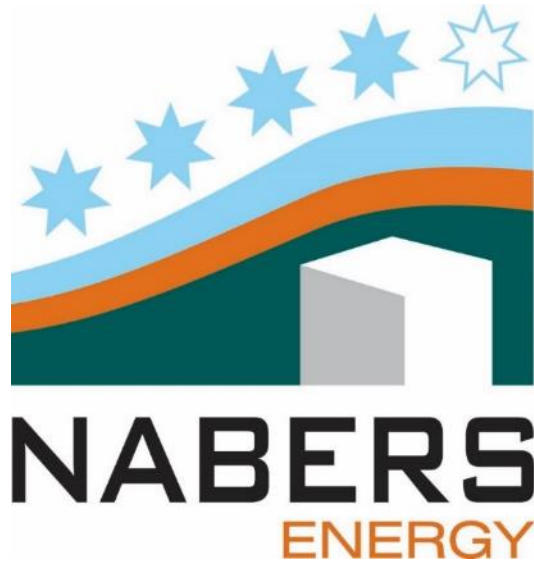
PHONE 00 1234 5678
www.example1.com.au
Ground floor, 1-2 Example St, Example City

Rating must not be smaller than the majority of the text.

NABERS transforming Australia's office market



Features of buildings with a NABERS target



Map

580 George Street, Sydney, NSW 2000

Offices

Property No. 501304511

Show Page Visits

For Lease Please contact agent

Striking A Grade Tower with CBD Outlooks.

- A Grade office tower
- Undercover walkway to Town Hall Station
- Availability in sought after address

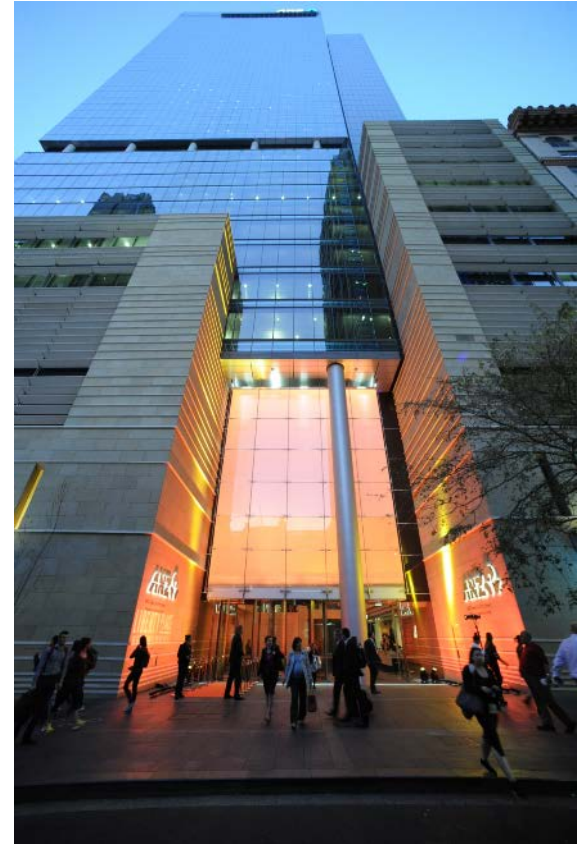
Floor Area
1215.0 m² - 7634.0 m²

Last Updated
Jan 11, 2017

Energy Efficiency Rating
4.0-star NABERS Energy Rating

Case study #1: Liberty Place, Sydney

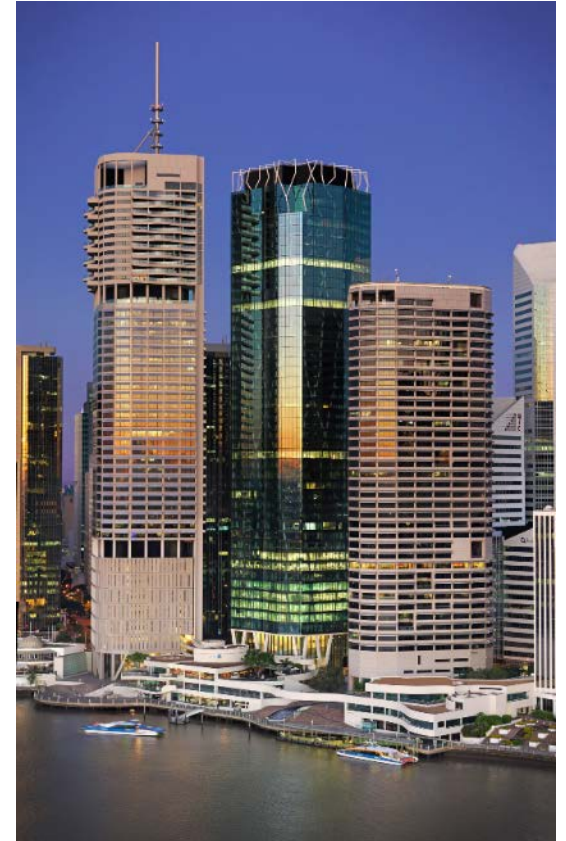
- Premium office building
- 6 star Green Star design and as built
- 57,300 sqm NLA
- 42 office levels
- Contracted NABERS rating = 5 stars
- First year operational rating = 5 stars
NABERS Energy base building





Case study #2: One One One Eagle St, Brisbane

- Premium office
- 6 star Green Star design and as built
- 64,145 sqm NLA
- 44 office levels
- First year operational rating = 5.5 stars NABERS Energy



Best practice green leasing



Green leasing standard



PROJECTS ▾

ABOUT ▾

RESOURCES ▾

NEWS



GREEN LEASING

Key projects – the BBP Leasing Standard



BETTER
BUILDINGS
PARTNERSHIP

Launched in September 2016, the BBP Leasing Standard provides a recognisable logo by which organisations committed to collaboration and sustainability outcomes through commercial leasing may be recognised. The principles of the Leasing Standard can be applied with the use of precedent lease templates, executed leases or memoranda of understanding signed after the lease is executed.

The BBP Leasing Standard project provides a recognisable and easy-to-understand system for the industry to differentiate best practice. Associated tools (see below) include a lease score and compliance logo to help promote a commitment to the core topics of green leasing and collaboration between tenants and landlords.

62%

Market saturation

Sydney leases include best practice lease clauses

BBP Leasing Standard Introduction

The BBP Leasing Standard identifies organisations committed to better leasing outcomes and sustainability.

Integrating the logo, score or other materials

referencing the Leasing Standard indicates a commitment to the core topics of green leasing and collaboration between tenants and landlords.

What is the BBP Leasing Standard?

Definition

The BBP Leasing Standard sets a minimum definition of green leasing as a way for tenant and landlords to collaborate for better sustainability and performance outcomes. This provides a recognisable and easy-to-understand system for the industry to differentiate best practice and enable a marriage of committed organisations during the lease dealing process.

Recognition

The BBP Leasing Standard also includes a method for recognising deeper and stronger commitments to action towards more sustainable outcomes between tenants and landlords. The scoring of lease frameworks is not a certification. It is a self-assessment of an organisation's willingness to collaborate, take action and commit on industry-endorsed topics.



BETTER BUILDINGS PARTNERSHIP



Score your lease document at

LeaseScore.betterbuildingspartnership.com.au

What makes up the BBP Leasing Standard?

Topics

Through 5 years of industry consultation and review, the BBP notes that 20 topics currently make up best practice in green leasing. These 20 topics are outlined in the categories below.

Of these 20, the BBP has found that 5 are consistently noted as core topics for green leasing in Australia and globally. These 5 core topics are noted below.

CO-OPERATION & WORKS <ul style="list-style-type: none"> Environmental Initiatives Enabling Upgrade Works Sustainability Management Collaboration Premises Design for Performance Managing Waste from Works Social Initiatives 	MANAGEMENT & CONSUMPTION <ul style="list-style-type: none"> Energy Management Water Management Waste Management IEQ Management Sustainable Utilities Sustainable Cleaning Sustainable Transport Sustainable Procurement 	REPORTING & STANDARDS <ul style="list-style-type: none"> Information Sharing Performance Rating Design/Development Rating Performance Standards Metering Comfort
--	--	---

Dimensions

In using the BBP Leasing Standard, an organisation is committing to making the 5 core topics present in their lease, but not necessarily to act or introduce strong commitments on those topics.

When recognising commitment beyond the minimum definition, the BBP Leasing Standard sets out the varying levels of depth to topics, as outlined below.

PRESENCE <p>A topic is "present" where the lease being scored contains a clause that can achieve the underlying intent and objective outlined in the topic. This could include an acknowledgement of, or commitment to, the topic.</p>	ACTIONS <p>A topic has "actions" where there is at least one action attributed to the party being scored for the clause topic.</p>	COMMITMENTS <p>A topic has "commitments" where there are consequences if the party does not comply with a scored clause, such as a resolution process.</p>
---	---	---

Net zero carbon operational buildings

- Efficient buildings running on renewable energy



Making a market for net zero carbon operational buildings



Australian Government
Department of the Environment



green building council australia



Transforming the waste industry to close the loop

A-grade Recovery

A-grade recovered products:

- Meets the closed loop objectives;
- May be used over and over again, constantly being returned to the same production cycle, and;
- Can be recovered without any consequent hazardous material build-up in the environment.

B-grade recovery

B-grade recovered products are:

- Downcycled to a lower value product;
- Have a limited number of recovery cycles, and;
- Produce valueless by-products after several recycling cycles.

C-grade recovery

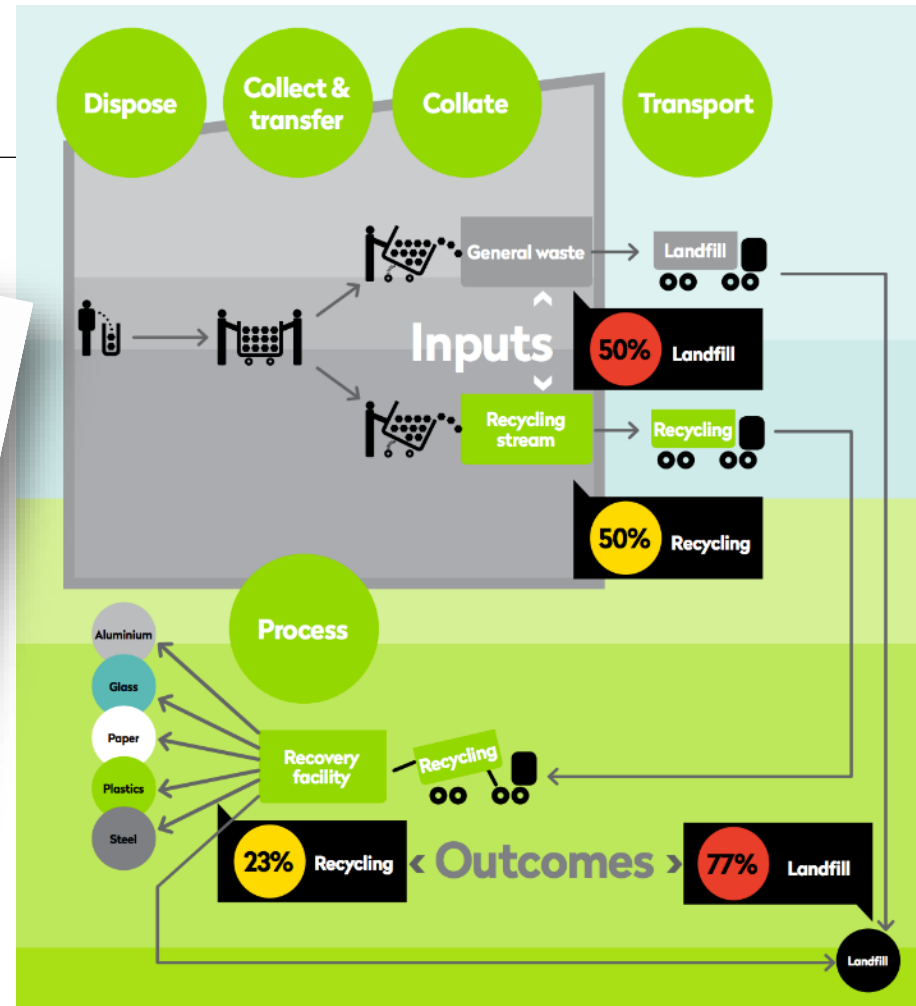
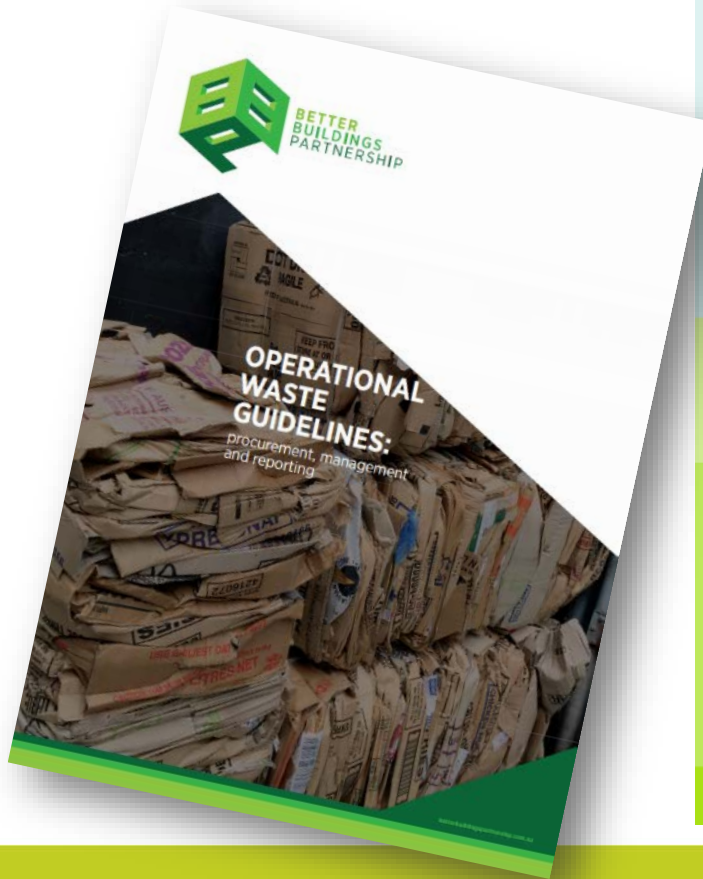
C-grade recovered products are those which are produced in a waste diversion process but are only available for a single additional application.





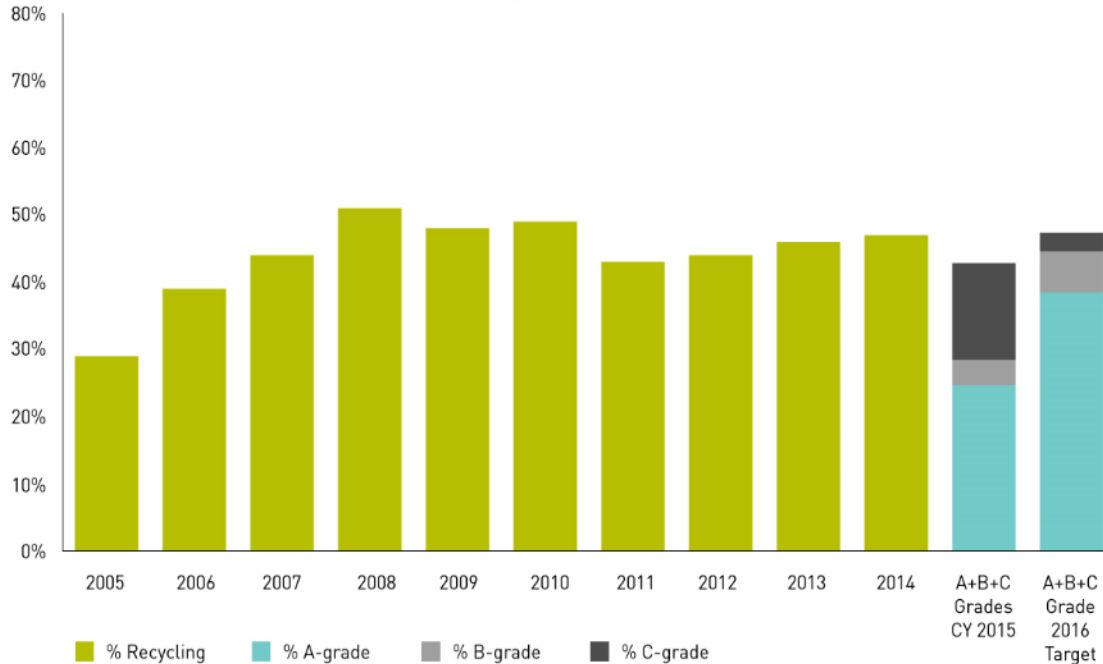
Outcomes based reporting

www.betterbuildingspartnership.com.au



Outcomes based waste reporting

GPT recycling rate (%) by year



Refurbishment waste

www.betterbuildingspartnership.com.au



Embedding data capture



Embedding data capture | from the organisational view

envIZI Manage ▾ Monitor ▾ Optimize ▾ Report ▾ Admin ▾

Locations ▾ Search for Locations 🔍

GPT / GPT Whole of Organization

Quick Links

- Groups
- Locations
- Accounts
- Meters
- Interval Meter Alerts
- Building Energy Performance

Frequently Visited

- 4103868033, 3 Murray Rose x4103868033, Main DB
- VAAA000493, Melbourne Central Office VAAA000493, Main DB
- 4103817100, 5 Murray Rose x4103817100, Main DB
- Macarthur Square 200 Gilchrist Drive, Campbelltown, NSW, 2560, Australia
- 150 Collins St
- 4103890251, 3 Murray Rose x4103890251, Main DB
- 3 Murray Rose
- 5 Murray Rose
- B1 Main Water Meter, HSBC Centre GPT_HSBC_W1, Water
- Import Channel 4103817100, 5 Murray Rose x4103817100_i, Main DB

Energy Performance

Duration: 12 Months Ending: Last Month (Dec 2016) Compare with: Previous Period

Energy Consumption (Jan 2016 - Dec 2016)	780,174 GJ
Comparison (Jan 2015 - Dec 2015)	833,229 GJ
Total Variance	-53,055 GJ
Variance %	-6.36 % ↓

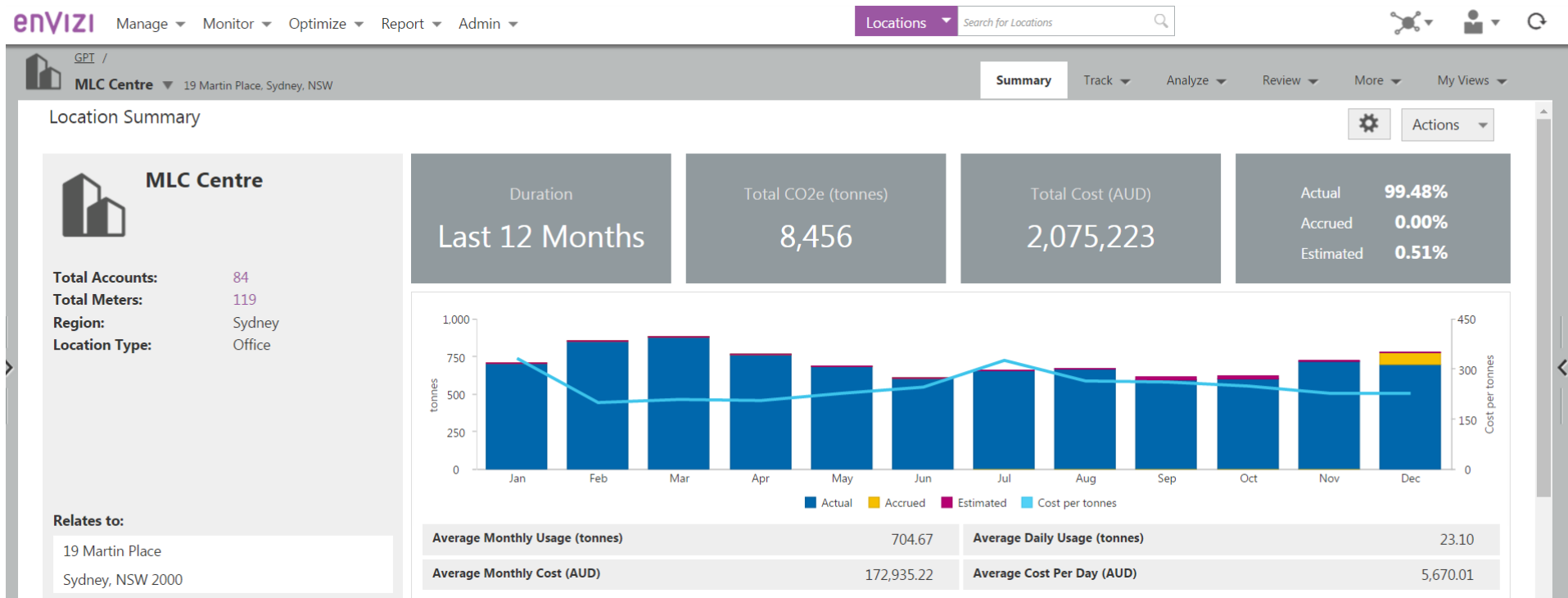
Emissions Performance

Duration: 12 Months Ending: Last Month (Dec 2016) Compare with: Previous Period

CO2e t

Scope 1 ↑	Scope 2 ↓	Scope 3 ↓	GHG Emissions ↓	GHG Reductions ↑	Total GHG Inventory ↓
Current	14,667 +	161,157 +	24,983 =	200,808 -	39,639 = 161,169

Embedding data capture | to a property view



Embedding data capture | to a system view

enVIZI Manage Monitor Optimize Report Admin

Locations Search for Locations

GPT / MLC Centre / Main DB /

4103765510 Electricity [kWh]

Summary Track Analyze Review More

Meter Summary

4103765510 Electricity [kWh]
Installed On: -
Closed On: -

Service Point: Main DB
Component: NEMMCO 12 KWH Meter with Sub-Metering
Linked Account: 4103765510
Notes: MDA = ENERGEXM

Relates to:
MLC Centre
19 Martin Place
Sydney, NSW 2000

Duration: Last 28 Days
Total (kWh): 311,606
Maximum Demand (kVA): 1,267
Last Reading Date: 11/01/2017 23:45

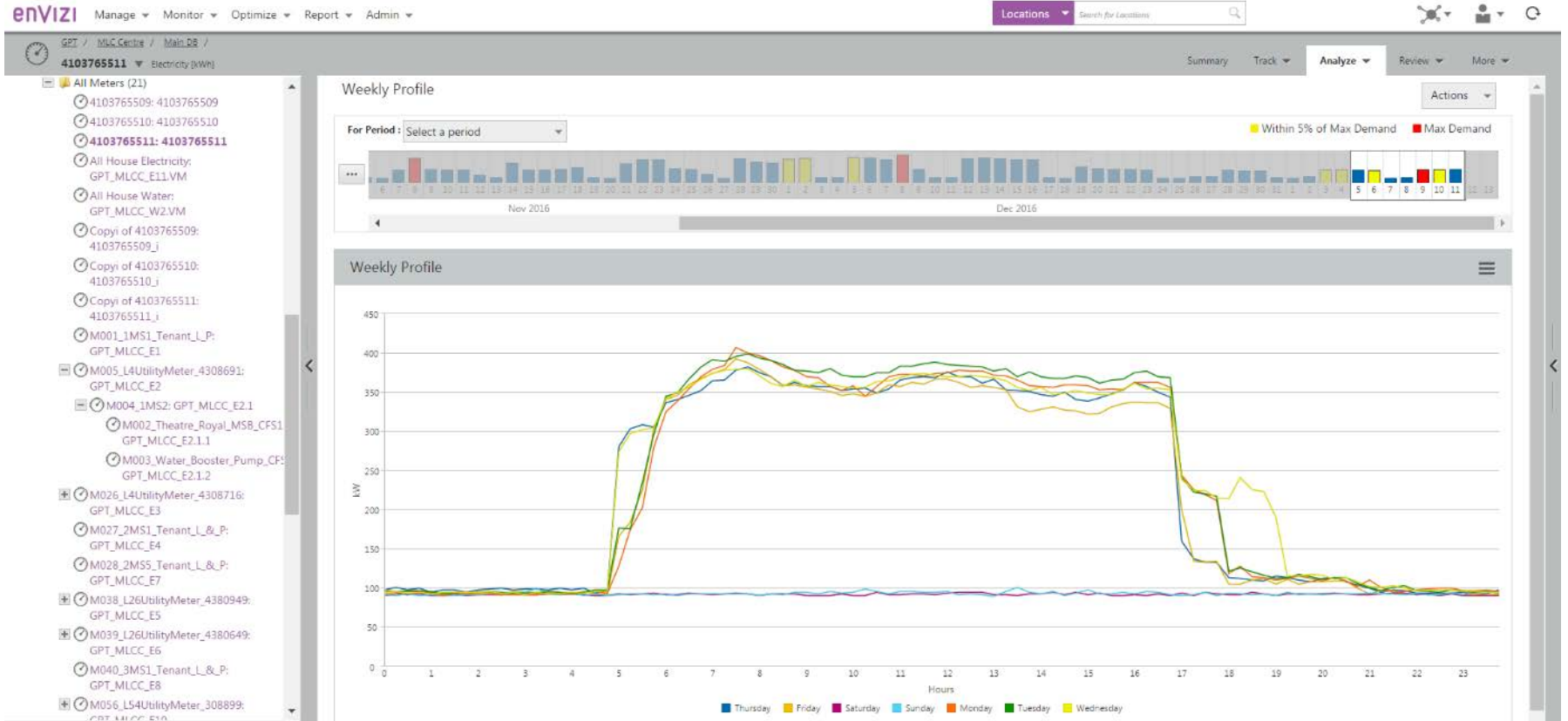
16/12/2016

Category	Value
Annual Average Monthly (kWh)	344,173.00
Annual Average Daily (kWh)	11,284.00

Daily Data 28 Rows

- All House Electricity: GPT_MLCC_E11.VM
- All House Water: GPT_MLCC_W2.VM
- Copyi of 4103765509: 4103765509_j
- Copyi of 4103765510: 4103765510_j
- Copyi of 4103765511: 4103765511_j
- M001_1MS1_Tenant_L_P: GPT_MLCC_E1
- M005_L4UtilityMeter_4308691: GPT_MLCC_E2
- M026_L4UtilityMeter_4308716: GPT_MLCC_E3
- M027_2MS1_Tenant_L_&_P: GPT_MLCC_E4
- M028_2MS5_Tenant_L_&_P: GPT_MLCC_E7
- M038_L26UtilityMeter_4380949: GPT_MLCC_E5
- M039_L26UtilityMeter_4380649: GPT_MLCC_E6
- M040_3MS1_Tenant_L_&_P: GPT_MLCC_E8

Embedding data capture | to the device



Partnering with suppliers for success

GPT PARTNERS WITH ENVIZI TO BOOST PERFORMANCE OF PREMIUM REAL ESTATE DATA LIES AT THE HEART OF IT ALL



FOR PAST 7 YEARS ON THE DOW JONES SUSTAINABILITY INDEX

4.8 ★★★★★

4.8 STAR AVERAGE NABERS RATING (UP FROM 3 STAR)



REDUCTION IN EMISSIONS INTENSITY



US **\$95M**

AVOIDED COSTS - ELECTRICITY, GAS, WATER SINCE 2005



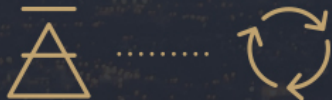
PUBLICLY COMMITTED TO CARBON NEUTRALITY



INCREASE IN M² UNDER MANAGEMENT



REDUCTION IN WATER USE INTENSITY



GLOBAL REAL ESTATE SUSTAINABILITY BENCHMARK LEADER



REDUCTION IN ENERGY INTENSITY (571MJ PER M² TO 349MJ PER M²)



RECYCLING RATE (UP FROM 29%)



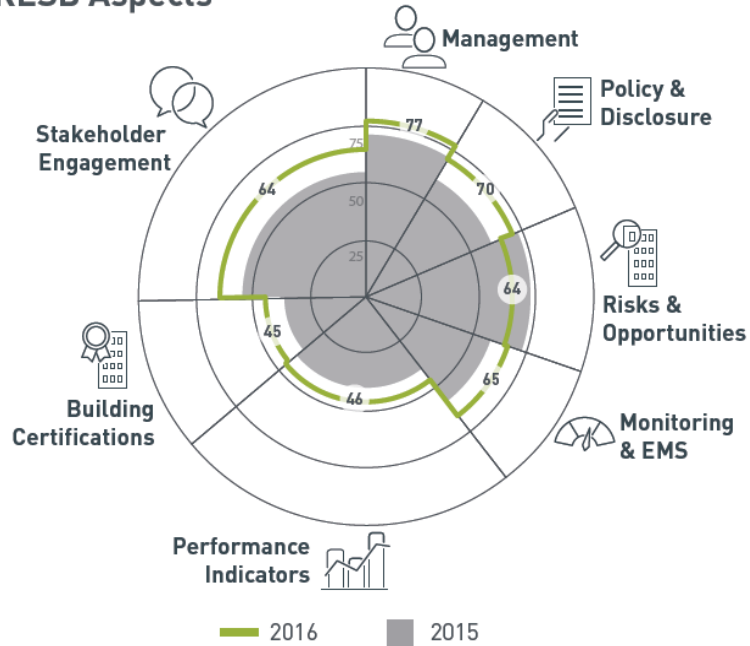
US **\$18M**

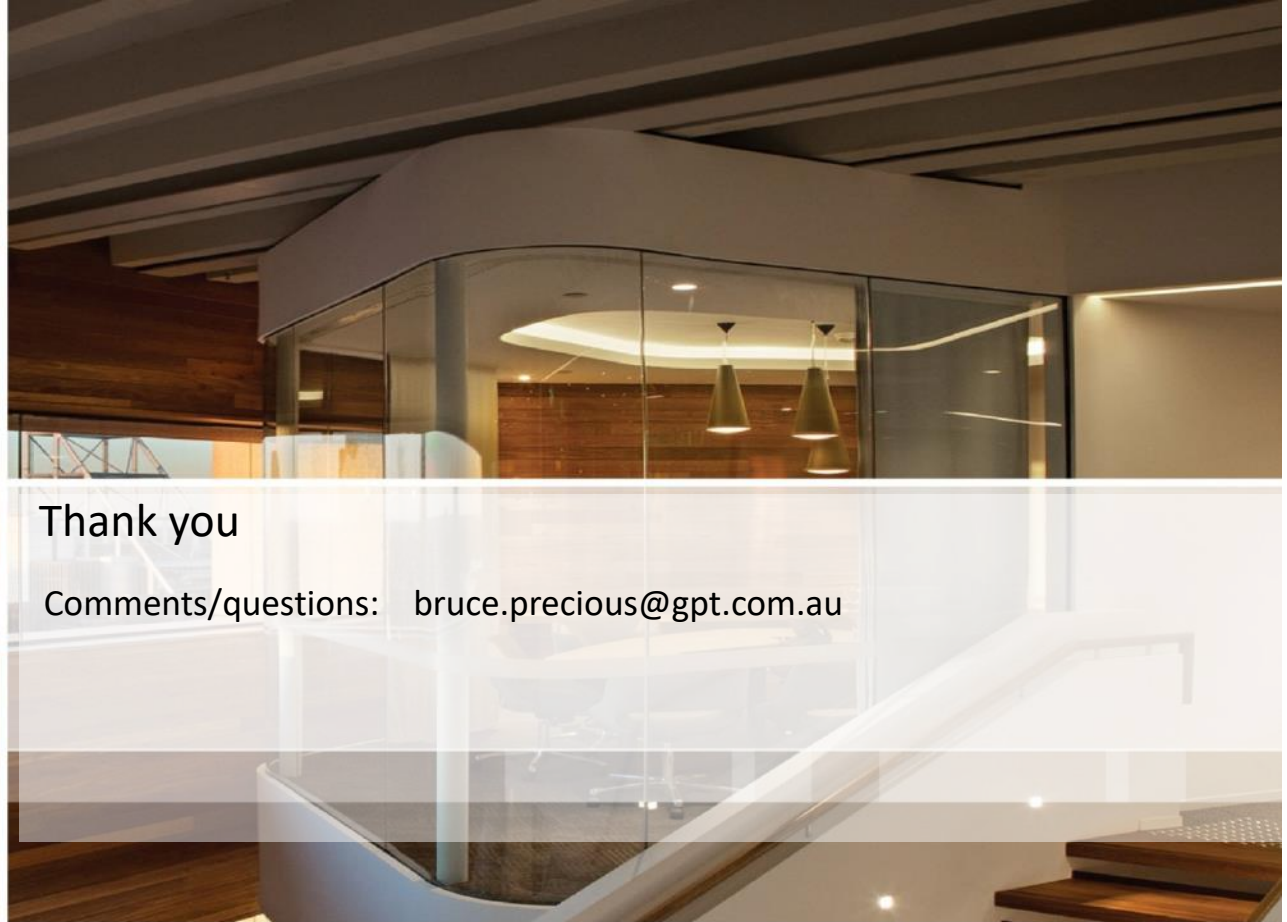
SAVED IN ENERGY COSTS IN 2015

*ALL FIGURES COMPARED TO 2005 BASELINE

Conclusions

GRESB Aspects





Thank you

Comments/questions: bruce.precious@gpt.com.au

WHO WILL REWARD US for GETTING TO "ZERO"?...

CARBON

...HOW WILL WE KNOW WHEN WE GET THERE?

\$ GREEN PREMIUM

HMMM... How about a PERVASIVE SPIRIT of COLLABORATION - and -

How MIGHT WE COMPARE THE MOST EFFICIENT/SUSTAINABLE PROPERTIES?

MANDATORY PARTICIPATION

(SUSTAINABLE) CITIES...

MONITORED TENANT ENERGY



Global PEER PERSPECTIVE

with: BRUCE PRECIOUS

KNOW WASTE RECOVERY RATES

with WHOM?

KNOWLEDGE SHARING?!

...INTERNAL COLLABORATION

GETTING RESULTS:

ELEMENTS of

CONTROL VERSUS Influence

... OUR GREATEST INVENTION!

accountable AND RESPONSIBLE - CLEARLY IDENTIFIED

TRANSFORMING MARKETS Together

...PEERS! ~ for SHARING BEST PRACTICES

...our TENANTS! ~ with LEASE STRUCTURES.

...HEALTHCARE CAMPUSES ~ for ↓ EMISSIONS

...CAPITAL PARTNERS ~ for "GREENER OUTCOMES"

WHO WOULD BE YOUR TRUSTED PARTNER?

KEYS



MUST BE ABLE to MEASURE

BOTH!

BASE BUILDING VS. TENANT ENERGY

*SHARE our KNOWLEDGE!



REPORTING/ DATA on ONE COMMON PLATFORM

* COLLABORATE!

* CHANGE the MARKET!

"CITIES ARE MANKIND'S GREATEST INVENTION."

THE TRIUMPH OF THE CITY

GREEN PREMIUM PROBLEM HAS GONE AWAY

NABERS

WE UNDERSTAND
RISK VS. OPPORTUNITY

HAS REQUIRED ALL STAKEHOLDERS

CITIES ARE PRODUCTS OF THE MARKETS

BUT

MANDATORY SYSTEM

TENANT BASE - BUILDING

MANDATORY ADVERTISING

STANDARD REPORTING CAME WITH COLLABORATION

UNDERSTANDING WHERE WASTE GOES

WASTE & MATERIALS

AGGREGATE THE "ASK"

WE MUST TRANSFORM MARKETS TO GET THE CITIES THAT WE WANT



THE AUSTRALIAN PERSPECTIVE

WHO ARE THE BEST PARTNERS IN N.A.?



REQUIRES

COLLABORATION



AND THE ABILITY TO INFLUENCE NEW CONSTRUCTION

WHAT DOES "RECYCLING" MEAN TO YOUR PROVIDERS?

STRIP-OUT WASTE REQUIREMENTS

AN EXTREMELY CONDENSED MARKET



WITH A HIGH REIT %

INCREASED LEVELS OF COLLABORATION

with TENANTS ON LEASE STRUCTURES

with PEERS ON BEST PRACTICES

with GOVERNMENT ON STANDARDS

with FINANCIAL STRUCTURES ON INVESTMENT OUTCOMES

with INTERNAL STAKEHOLDERS ON AUGMENT

SUCCESS REQUIRES

CONTROL

- * RETAIL LAGS
- * MANDATORY TENANT DISCLOSURES?

C

DESIRE TO GET TO CARBON 0

WHO WILL REWARD US?

WHAT DOES CARBON 0 (OR NEUTRAL) MEAN?

CHALLENGE: GETTING MARKET RESPECT

GRADING SYSTEM A-



ALL APPLIANCES MUST BE ON THE PLATFORM!

DEVICE DATA CAPTURE