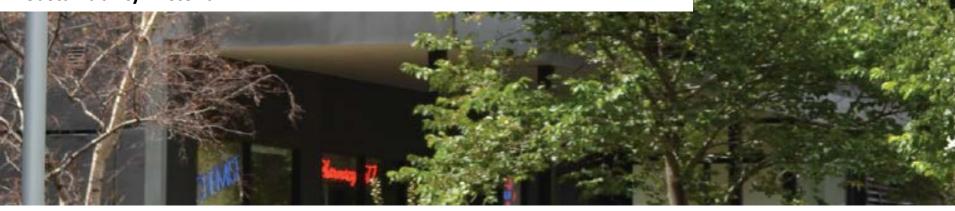
Energy Efficient Office Buildings program

Jamie Wallis Sustainability Victoria





\$14 million over five years to assist a variety of industry sectors to use resources more efficiently

- > Energy and materials
- > Recycling
- > Energy Efficient Office Buildings



Energy Efficient Office Buildings program

\$3.59 million, three year program

- > Grants of up to \$150,000 are available per building
- > Focus on building tuning
- > Targeting mid-tier office buildings
- > Suburban, regional buildings
- > Turn-key energy efficiency improvement





TYPES OF UPGRADE

Shallow upgrade

- Building tuning
- Lighting
- 'low hanging fruit'



Deep upgrade

- Major plant and equipment
- Building envelope
- 'Repositioning'









Tuning Results: actual figures



Group BB Total BB HVAC Total	Reference kWh/Cons.D 981,561 690,958	Report kWh/Cons.D 734,334 521,140	Change % -25.19 -24.58	*					
					Lifts Total	36,991	25,136	-32.05	-
					BB L&P	148,221	89,946	-39.32	*
Car Park	51,078	45,819	-10.3	•					
BB Gas Total	53,104	* 45,111	-15.05	*					
BB Water Total	4,155	* 4,167	0.29	•					
Temperature data	*Period	^Period	#Period						
Mean Max °C	20.2	19.6	20.4						
Mean Min °C	10.3	10.4	10.3						
Consumption days	284.5	285.5	284.5						
* 8-Jun-12 To 8-Jun-13	^ 8-Jul-11 To	8-3ul-12 # 8-3u	H12 To 8-Jul-13						





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EVIDENCE BASE

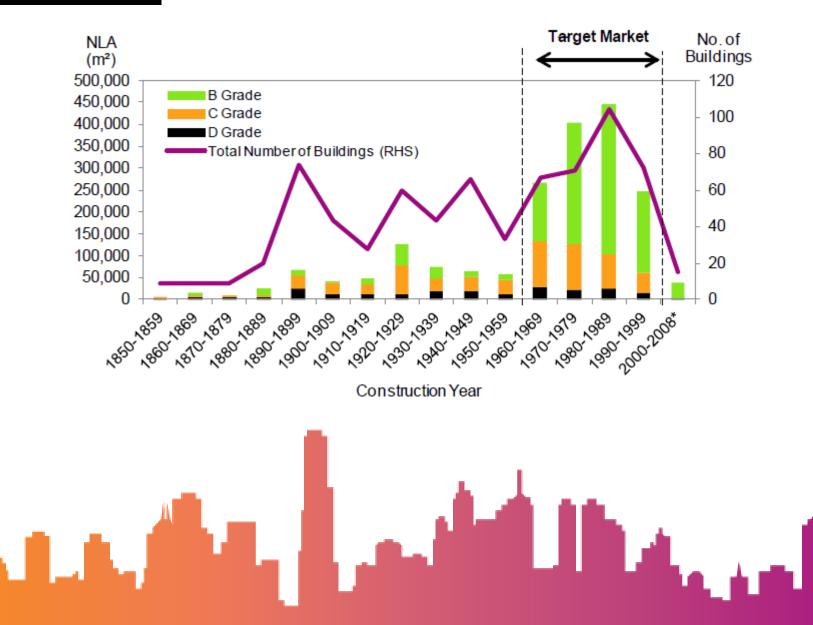




Retrofitting Victoria's office buildings



KEY FINDINGS



Energy Efficient Office Buildings program

Three simple stages:

- 1. Opportunities Analysis
- 2. Building tuning
- 3. Monitoring

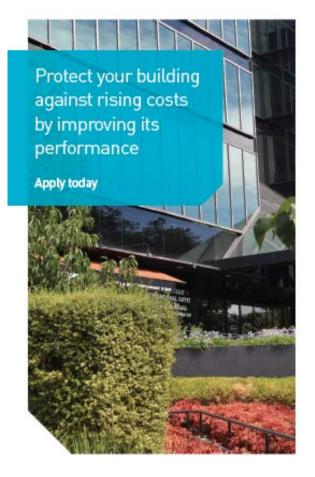




Energy Efficient Office Buildings program

1. Opportunities Analysis

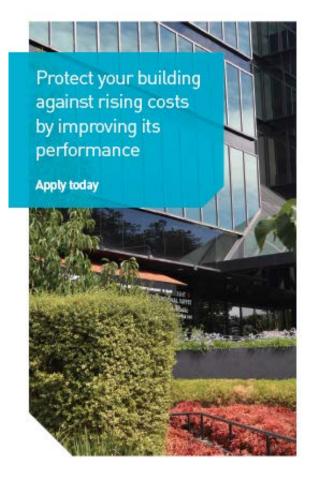
- Level 2 energy audit
- NABERS assessment
- Analysis of major cap works with energy efficiency improvements
- Capital works forecast
- Analysis of low emissions energy/renewables
- Analysis of building fabric upgrades
- Dynamic thermal modelling





Energy Efficient Office Buildings program

- 1. Opportunities Analysis
- 2. Building tuning
- HVAC controls tuning
- Lighting controls tuning
- Switches, sensors, controllers
- Installation of metering/sub-metering
- Retro-commissioning activities
- Updated schematics/relevant drawings





Energy Efficient Office Buildings program

- 1. Opportunities Analysis
- 2. Building tuning
- 3. Monitoring

Involves implementing metering and monitoring to enable an evaluation of building performance for the 12 month period following building tuning





Energy Efficient Office Buildings program

- > Matched funding of up to \$150,000 is available to eligible buildings
- > SV will fund **50%** of eligible project costs
- > Funding is limited, so apply soon
- > Project works must be delivered by a member of SV's panel of Service Providers





More information

To find out if you are eligible or to apply contact Sustainability Victoria:

Email: buildings@sustainability.vic.gov.au

Phone: 1300 363 744

Visit: www.sustainability.vic.gov.au/eeob

