

ESD

A Tenant's Perspective

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A Tenant's Perspective

Investors and Developers are leading the drive to build “green building”. The tenants have to live in them.

What does this mean?



Why Go Green?

- To be a good corporate citizen for Clients and staff
- Optimisation of opex
- Improvement in staff productivity?



Comfort and Productivity

Variables affecting Perceived Staff Productivity the most are:

- Comfort (including perceived control)
- Responsiveness to need
- Building size and depth (and ventilation type)
- Workgroups and their layout in the space plan
- Design Intent and how this is communicated to the users



Comfort and Productivity

Building Use Studies

Perceived Productivity varies with Internal Environment

-17.5% to **+15%**



UK/Europe Experience

Green Buildings:-

Reduction in Sick Building Syndrome

20-25% reduction in health complaints

Perception that daylight offices are healthy

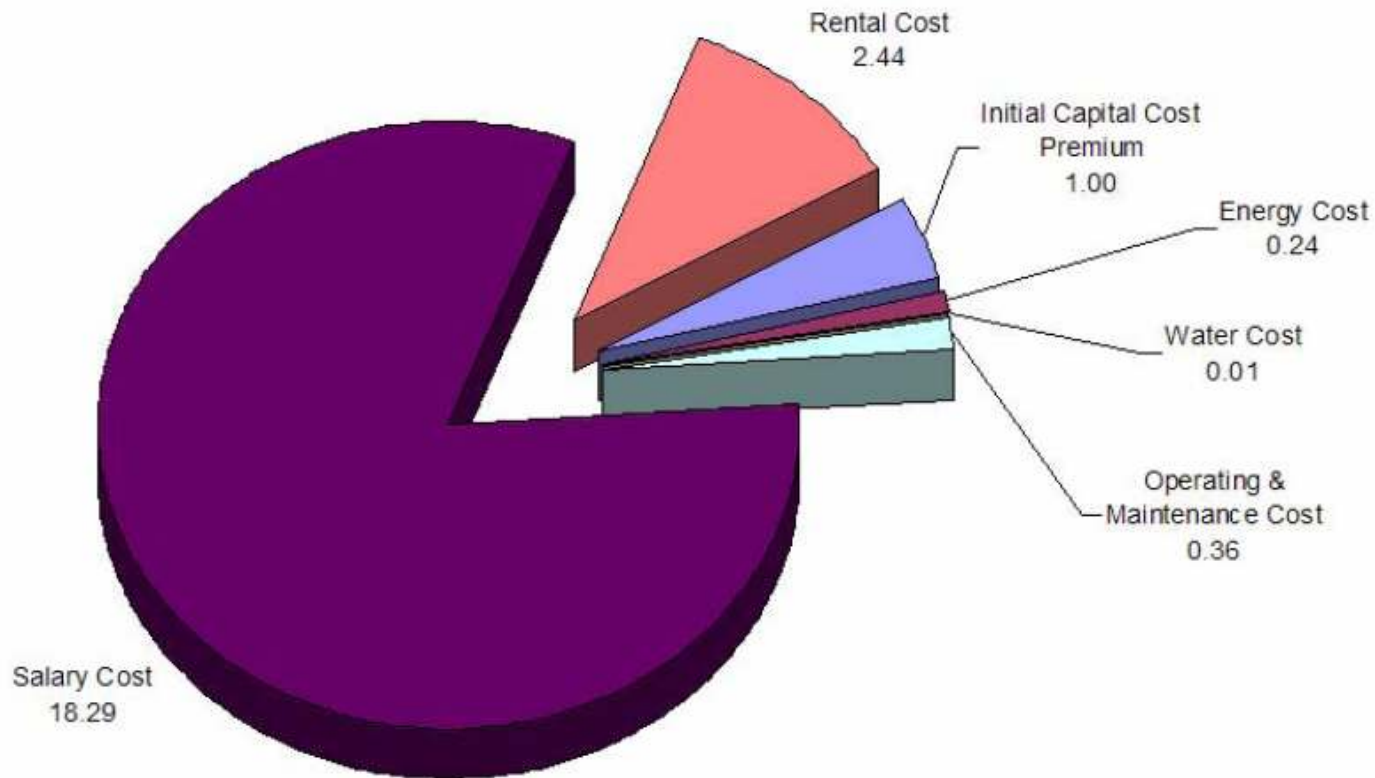
Lower absenteeism

Increased motivation and productivity



Business Costs

Office building – 20-year present values



NB: Relative to the initial capital cost premium.

Business Costs

Example – 4,000 sqm Office Building

	<u>Green Office</u>	<u>Standard Office</u>
Construction Costs	100-110%	100%
Annual Energy Costs	\$60k	\$107k
Annual Salary Cost	\$13.2 million	\$13.2 million
Energy Saving	\$50 to 60k	
+ 1% productivity	-\$132k	n/a
+ 5% productivity	-\$660k	n/a
+10% productivity	-\$1.32 million	n/a



(Some) Business Benefits of Green Buildings

Marketing Advantage - Protect and Enhance Reputation

Lower Annual OPEX cost

Increased Staff Productivity

Reduced Staff Turnover

Show commitment to Staff Welfare

Futureproof assets

Higher Asset Value, Higher Returns – Rent and Investment

Demonstrate commitment to environmental policy and SRI

Reduced Local, National and Global Impact

Reduce Planning Risks

Reduce Exposure to Future 'Green' Taxes



How Green do you go?

- * 4 Star - Best Practice
- * 5 Star - Excellence
- * 6 Star - World Leader

Increased Star rating target leads to:

- Increased cost (rent)
- Increased risk of missing target
- Diminishing return on payback



Risks

- Increased build/rental costs
- Staff acceptance of indoor environmental conditions
- Fixation on “ticking the box” to get a star rating



ESD Option Analysis

2.1 Management	Potential Benefits		
	User Comfort	Energy/OPEX	Environmental
<ul style="list-style-type: none"> Carry out quarterly fine tuning of building operation in first 12 months, and recommissioning after 12 months. 	✓	✓	✓
<ul style="list-style-type: none"> Appoint Commissioning Agent to provide independent advice and verification. 	✓	✓	✓
<ul style="list-style-type: none"> Provide Building Users Guide incorporating relevant information for users and tenants. 	✓	✓	✓
<ul style="list-style-type: none"> Contractor requirement to provide and implement comprehensive Environmental Management Plan 	✗	✗	✓
<ul style="list-style-type: none"> Construction waste to be reused or recycled. 	✗	✗	✓
2.2 Indoor Air Quality			
<ul style="list-style-type: none"> Provide enhanced outdoor air ventilation rate to better the minimum requirements of AS 1668. 	✓	✗	✗
<ul style="list-style-type: none"> Provide CO2 sensor control of outdoor air ventilation rates 	✓	✓	✓
<ul style="list-style-type: none"> Assess thermal comfort levels using comfort modelling approach during the design phase. 	✓	✗	✗
<ul style="list-style-type: none"> Provide double glazing system with shading coefficient to suit solar orientation 	✓	✓	✓
<ul style="list-style-type: none"> Specify low-VOC paints where possible. 	✓	✗	✓

What does the Tenant need to do?

- Location related to public transport
- Integrated fitout design
- Reduction in carparks
- Cyclist facilities
- Waste Management

Feedback

