

RESEARCH REPORT 

## RETROGREENING OFFICES IN AUSTRALIA

The story to create jobs

*Davis Langdon investigates how the need for green could lead Australia's largest employment sector toward recovery.*

Australia's commercial sector is feeling the fallout of the economic downturn. A sharp reduction in demand for office space, along with increasing unemployment and declining economic growth forecasts are beginning to take a toll on the sector.

However, the time ahead could also pose some significant opportunities.

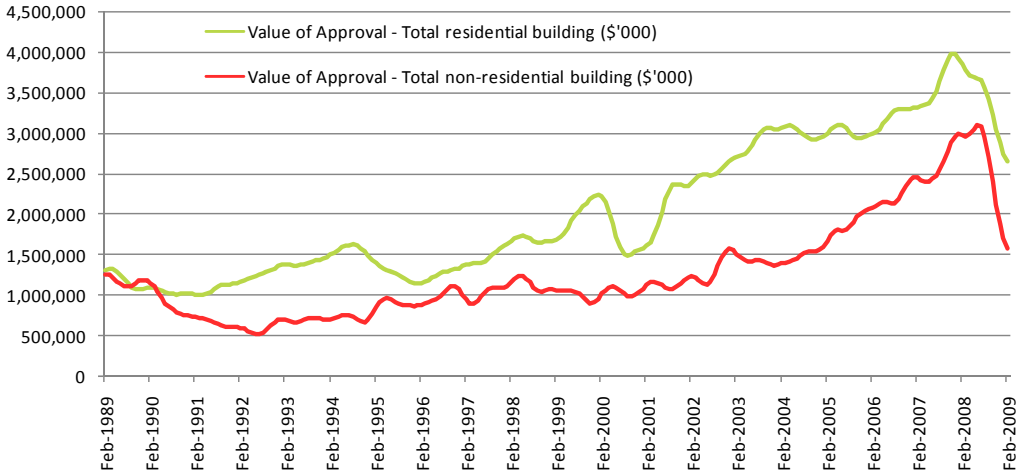
In this report we investigate how building owners can use this 'down time' to reposition their assets, increase energy efficiency and improve value. By rethinking the way building owners invest, there are opportunities to achieve greenhouse gas (GHG) reductions while creating a raft of employment opportunities across the nation. This effectively leads to a stimulus ready productivity and performance improvement of a significant part of our built environment.

## CONSTRUCTION IN DECLINE

With 9% of the national labour force involved in some way in the construction industry (representing 7% of Australia's GDP), any fluctuation to this sector has a significant impact and subsequent flow on effect in the Australian economy.

The Construction Forecasting Council (CFC) forecasts that the construction industry will contract by \$12 billion during the upcoming two years – irrespective of the federal government's spending efforts. They estimate more than 75,000 jobs could be lost due to sharp falls in building activity.

Building approvals released for February 2009, are already down 37% on the previous year, and Non residential building approvals are looking worse still, down 47% across the same period; in dollar terms, taking them back to 2004 levels.



## THE OFFICE SECTOR

Generally speaking we would anticipate building approvals to directly correlate with output, translating into “work done”. However, many big projects that have been a long time in the planning process (and have now been approved) have been cancelled before they get out of the ground.

With each new set of data that is released, the outlook for office construction over the next couple of years grows more uncertain. The current unpredictable state of the economy is also making forecasting a difficult task.

Revised forecasts released by the CFC in March 2009 reveal that activity in this sector is expected to contract by an additional -37% this year alone, and as much as -48% in 2010, with a worsening outlook looking ahead.

With limited opportunities for new construction as a result of the economic climate, coupled with very low lending activity as a result of the current restricted finance environment, the outlook for one of the nation’s largest building sectors appears ominous.

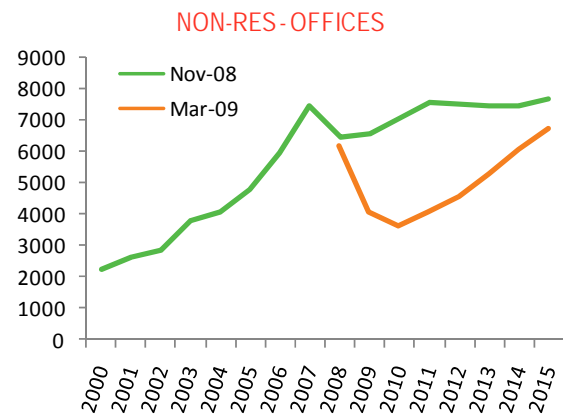
One might even argue that in the midst of a stagnating economy, do we really need any new office stock? New stock poses a problem in a marketplace where demand is contracting and unemployment is on the rise. Every new supply addition pressures vacancy rates, which in turn has the knock on effect of lifting the incentive component of rents – which in effect weakens the value of the sector.

However, while new stock poses a problem, 81% of Australia’s existing commercial office stock is over ten years of age, with a need for refurbishment.

This raises the question, can refurbishing our ageing building stock provide a much needed key to bolster employment?

As well as lowering operating costs and reducing greenhouse gas emissions, any measure toward refurbishing existing building stock would also address the very important issue of creating green jobs. A broad alliance of industry groups, environmentalists and government bodies are also starting to ask whether refurbishing our existing office stock might hold the key.

There is the potential for a win-win situation for both the environment and for the economy.

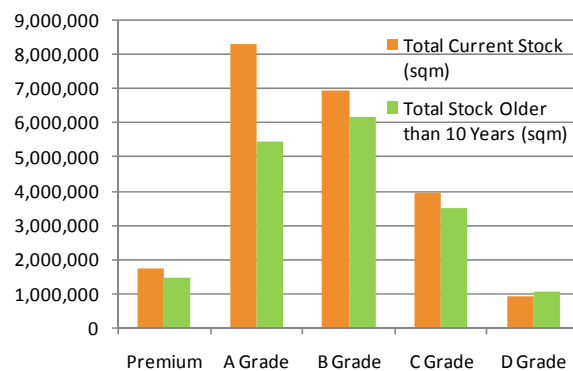


## GREEN JOBS

Of Australia’s 21 million square metres of existing office stock, 81% is over ten years of age, equalling more than 17.5 million square metres.

The lower grades of offices have the highest ratio of old stock, with 89% of all B grade and C grade stock, over ten years of age.

For every dollar spent in the construction industry the flow on effect to the broader economy multiplies significantly. So the real value of retro-greening our existing office buildings is far more widespread than the immediate impact on the environment, on the economy, or even on direct employment.



## GREEN JOBS (CONT)

Stock type	Assumptions	Rate to upgrade (\$/sqm)
Premium	Base rate for existing Premium grade building to Medium Standard*	\$ 850
A Grade	Base rate for existing A grade building to Medium Standard*	\$ 850
B Grade	Base rate for existing B grade building to Medium Standard*	\$ 1,000
C Grade	Base rate for existing C grade building to Medium Standard*	\$ 1,124
D Grade	Base rate for existing D grade building to Medium Standard*	\$ 1,500

\*We have modelled the *most likely* retrogreening scenario where a good level of upgrade/refurbishment is achieved but the highest possible level of refurbishment has not been undertaken.

Retrogreening such a significant quantity of office stock across the nation would create direct employment for more than 10,000 people engaged in construction each year, which means generating almost 27,000 new jobs across the broader economy.

Further benefit comes from the fact that this type of work sees a quick flow on to industry, and there is a substantial replacement of otherwise 'lost' jobs in the industry and the broader economy.

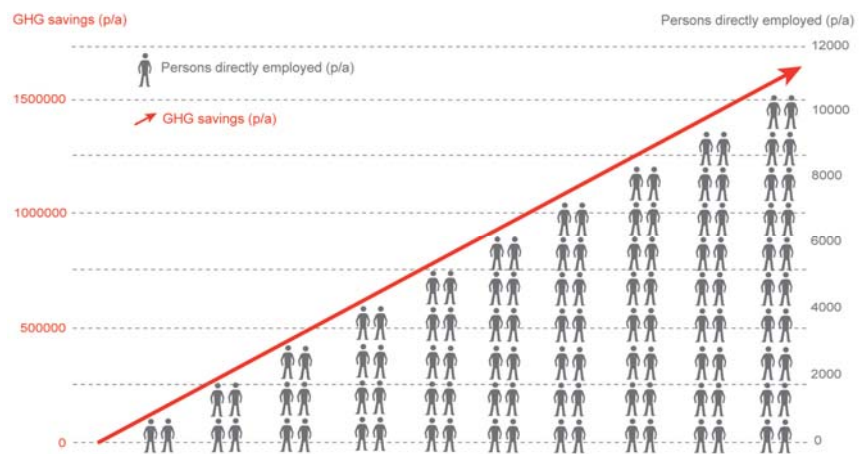
	Cost to upgrade over 10 years	Construction Industry Employed	Total Persons Employed -multiplier effect across the broader economy
Total Office Stock Retrogreening (CBD and Non-CBD)	\$ 26.4bn	10,800 (per annum) 108,000 (total)	27,000 (per annum) 270,000 (total)

## THE BENEFITS

For every job created as a result of retrofitting existing office stock, there is a potential annual saving of approximately 130 tonnes of greenhouse gas.

If retrogreening was achieved over 10 years then, on an annual basis, there could be a GHG reduction of 1.4million tonnes, equivalent to taking 300,000 cars off the road. To achieve this, these buildings would consume 42% less power – reducing the growing demands on infrastructure already stretched to meet demand.

Whats more, we end up with a situation that creates jobs growth without creating additional office stock - the activity instead serving to future proof our existing stock, making buildings perform closer to new standards and new tenant expectations.



Environmentally, there are net GHG reductions through the upgrade of offices to a medium standard with more than 1.4 million tonnes of CO2 saved per annum. This is achieved through energy efficiency measures across the base building and tenancy areas.

## JOB READY INVESTMENT

Whilst the task is not small it is very scalable. Buildings across the country can be found in a relatively short period with employment stimulated and jobs created within a few months.

Initial modelling to achieve a medium standard\* of upgrade suggests a methodology where work on the office building is staged, probably three floors at a time, thereby retaining most of the existing tenants and reducing disruption.

The building owner achieves a reliving of their investment. The improved building will have greater tenant appeal, progressively higher rents, reduced operating costs, reduced vacancies, longer remaining life and all this will combine to generate a building of higher value when compared to doing nothing to the building.

The community achieves a significant economic stimulus through employment generating activity and a significant reduction in greenhouse gas emissions.

Tenants achieve an improved and healthier work environment.

## THE ROAD AHEAD

Of course, buildings vary considerably and the degree to which it is possible to retrogreen any individual office building is different from the next. It is an impossible task to calculate this level of complexity across every office building in the nation and to do so would require an extremely in-depth and complex research study. The industry should start this process now.

There is little doubt, however, that incentives or drivers will need to be found by Government to support this change. Providing owners with accelerated depreciation entitlements is one incentive but more will be necessary. Linking retrogreening incentives to a mandatory disclosure regime might provide market incentives where occupiers are able to compare performance levels and where owners might get recognition for making the effort.

The property industry and Australian community needs to decide how to achieve long term sustainability.