

# Environmental Upgrade Finance

## *Gaining market acceptance of a new finance mechanism*

Melbourne Forum  
12 November 2014



**Australian Government**  
**Department of Industry**

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## There are some great new technologies...



## ...but most of these are implemented in new buildings, whereas much of the opportunity is in existing stock

	How much activity is happening?	What are some key achievements?	What factors influenced the activity?	Key metric										
<b>NEW COMMERCIAL BUILDINGS</b>	<p><b>Strong improvement in new office base buildings, and likely improvements in remaining building types due to increased standards</b></p> <p><b>Improvements in standards and emergence of market leaders</b></p>	<ul style="list-style-type: none"> <li>New office base buildings are about 32% more efficient than the average 10 year old building</li> <li>Green Star offices represent over 31% of new office space built since 2003, emitting 46% less than offices built to meet 'minimum standards'</li> </ul>	<ul style="list-style-type: none"> <li>Competition in high end office market</li> <li>Strengthening of building standards</li> <li>Improvements in skills and technologies</li> <li>Split incentives</li> <li>Lack of actual data for non-office buildings</li> </ul>	<p>Estimated emissions intensity of office base buildings, kgCO<sub>2</sub>e/m<sup>2</sup>*</p>  <table border="1"> <tr> <th>Category</th> <th>Value</th> </tr> <tr> <td>Average 10 year old building</td> <td>138</td> </tr> <tr> <td>Average new build in 2012</td> <td>94</td> </tr> <tr> <td><b>Change</b></td> <td><b>-32%</b></td> </tr> </table>	Category	Value	Average 10 year old building	138	Average new build in 2012	94	<b>Change</b>	<b>-32%</b>		
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<b>EXISTING COMMERCIAL BUILDINGS</b>	<p><b>Energy intensity per m<sup>2</sup> has decreased by an average 0.3% p.a.</b></p> <p><b>Improvements are still limited to a small subset of buildings</b></p>	<ul style="list-style-type: none"> <li>Subsequent NABERS rating in 2011-12 showed average emissions reductions of 9% for over 620 buildings</li> <li>In 2011, 39% of offices reporting through the mandatory disclosure program had better ratings than standard new builds</li> </ul>	<ul style="list-style-type: none"> <li>Competition in high end office market</li> <li>Commercial Building Disclosure</li> <li>Grants &amp; white certificate schemes</li> <li>Lack of data for many building types</li> </ul>	<p>Average commercial energy intensity per m<sup>2</sup>, index*</p>  <table border="1"> <tr> <th>Year</th> <th>Index</th> </tr> <tr> <td>2002-03</td> <td>1.00</td> </tr> <tr> <td>2006-07</td> <td>1.01</td> </tr> <tr> <td>2010-11</td> <td>0.98</td> </tr> <tr> <td><b>Change</b></td> <td><b>-2%</b></td> </tr> </table>	Year	Index	2002-03	1.00	2006-07	1.01	2010-11	0.98	<b>Change</b>	<b>-2%</b>
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## Retrofitting existing buildings can be more difficult than designing efficient & sustainable buildings in the first place

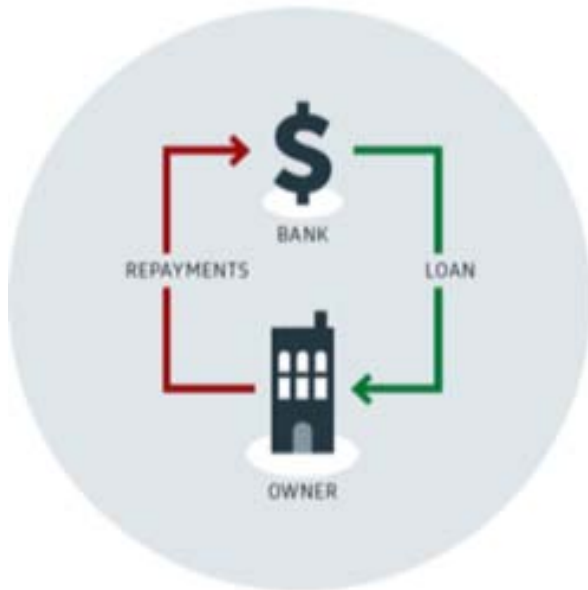
### Split incentive



### Access to finance



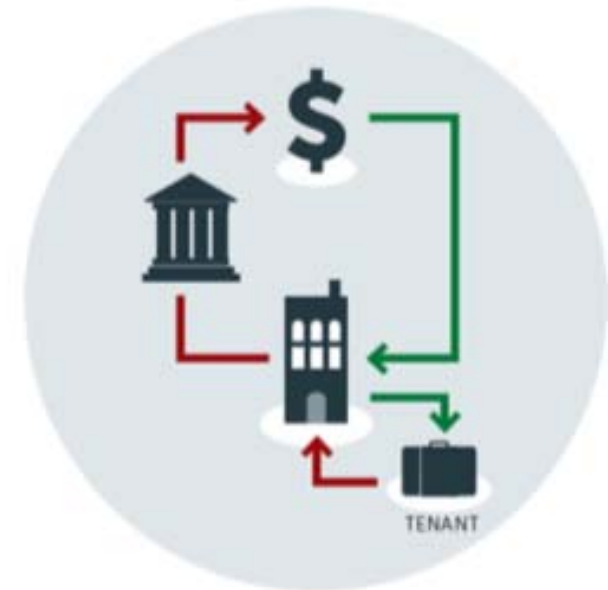
**There's an innovative finance mechanism that has been developed to help overcome these issues**



Traditional finance



Environmental Upgrade Finance



...with tenant contribution



**But it has been slow to take off, in part because it is new and unfamiliar – traditional finance is well understood...**



**3.5%**

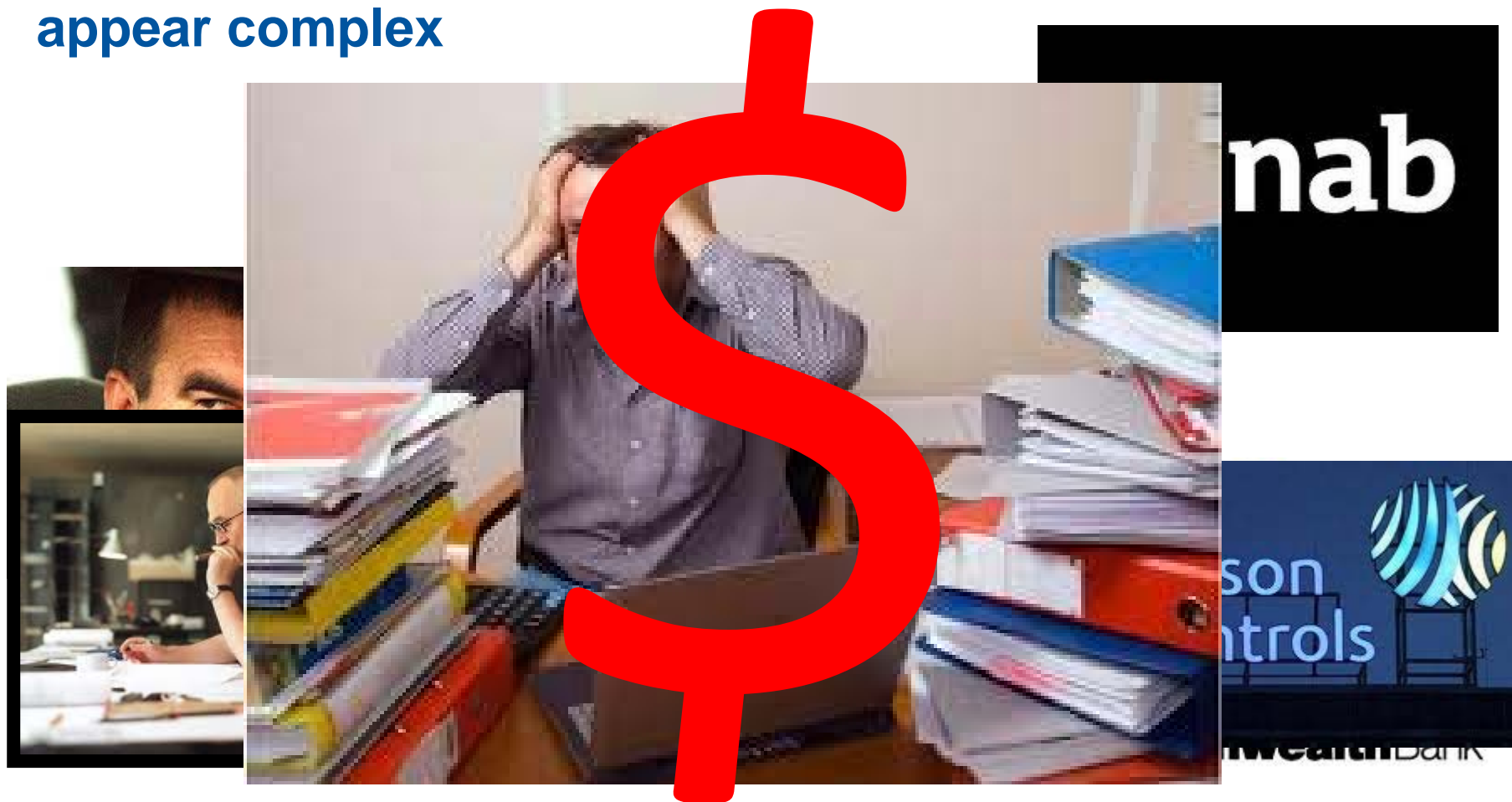


 **3.5%**



**Commonwealth**Bank

Whereas financing a retrofit project using EUF may still appear complex



**There are plenty of great technologies that could deliver big improvements in existing buildings**





**The opportunity is huge, so whoever cracks it will be doing well!**

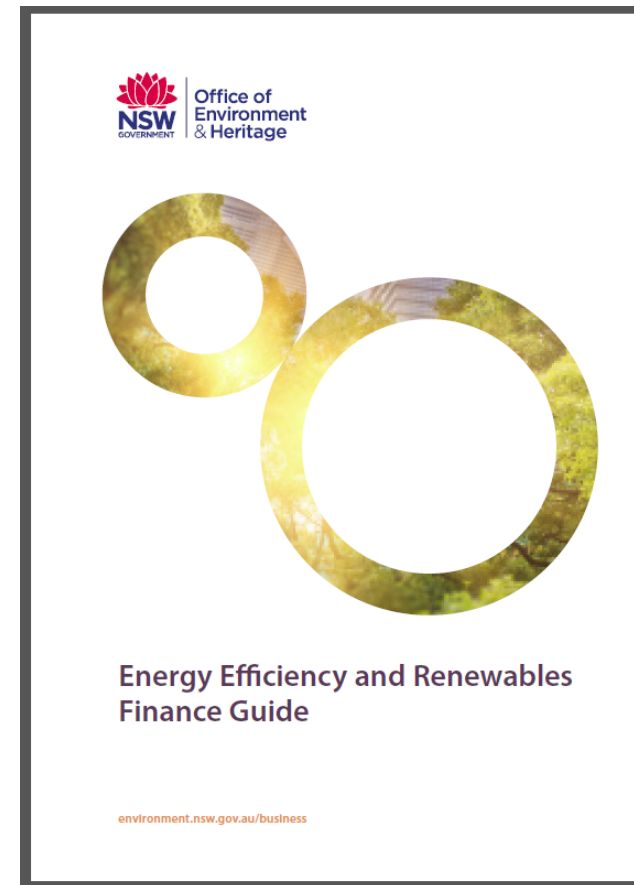


**We have developed a website to try to make the business case for this finance mechanism very clear**



## There are other options

- Self funded
- Commercial loan
- Energy efficiency loan
- Operating lease
- Capital lease
- On-bill financing
- Energy Services Agreement
- Power Purchase Agreement



## For further information:

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