

Low Carbon Australia

Acting now for Australia's low carbon future

We provide finance and advice to
Australian businesses and the wider community through
innovative programs
to catalyse investment in and take-up of
energy-efficient technologies and practices
for cost-effective carbon reductions

- Formerly Australian Carbon Trust, **Low Carbon Australia** was established by the Federal Government and commenced operations in 2010
 - Independent public company limited by guarantee
 - ~\$100m initial funding

- **Low Carbon Australia** manages two innovative programs:
 - An **Energy Efficiency Program** to provide finance and advice to eligible businesses and the public sector for the retrofit of commercial properties.
 - The **Carbon Neutral Program** which provides accreditation for organisations that have products or operations being certified as carbon neutral under the National Carbon Offset Standard.

Independent Board with diverse business & Government experience

- Professor Robert Hill (Chairman) – former Minister for the Environment, Chancellor of the University of Adelaide and Professor of Sustainability at the United States Studies Centre at University of Sydney
- Tony Coleman - Director of Lonergan Edwards Associates
- Don Matthews - National President of the Australian Industry Group
- Martijn Wilder – Partner with Baker & McKenzie and head of B&M's Global Climate Change and Emissions Trading Practice

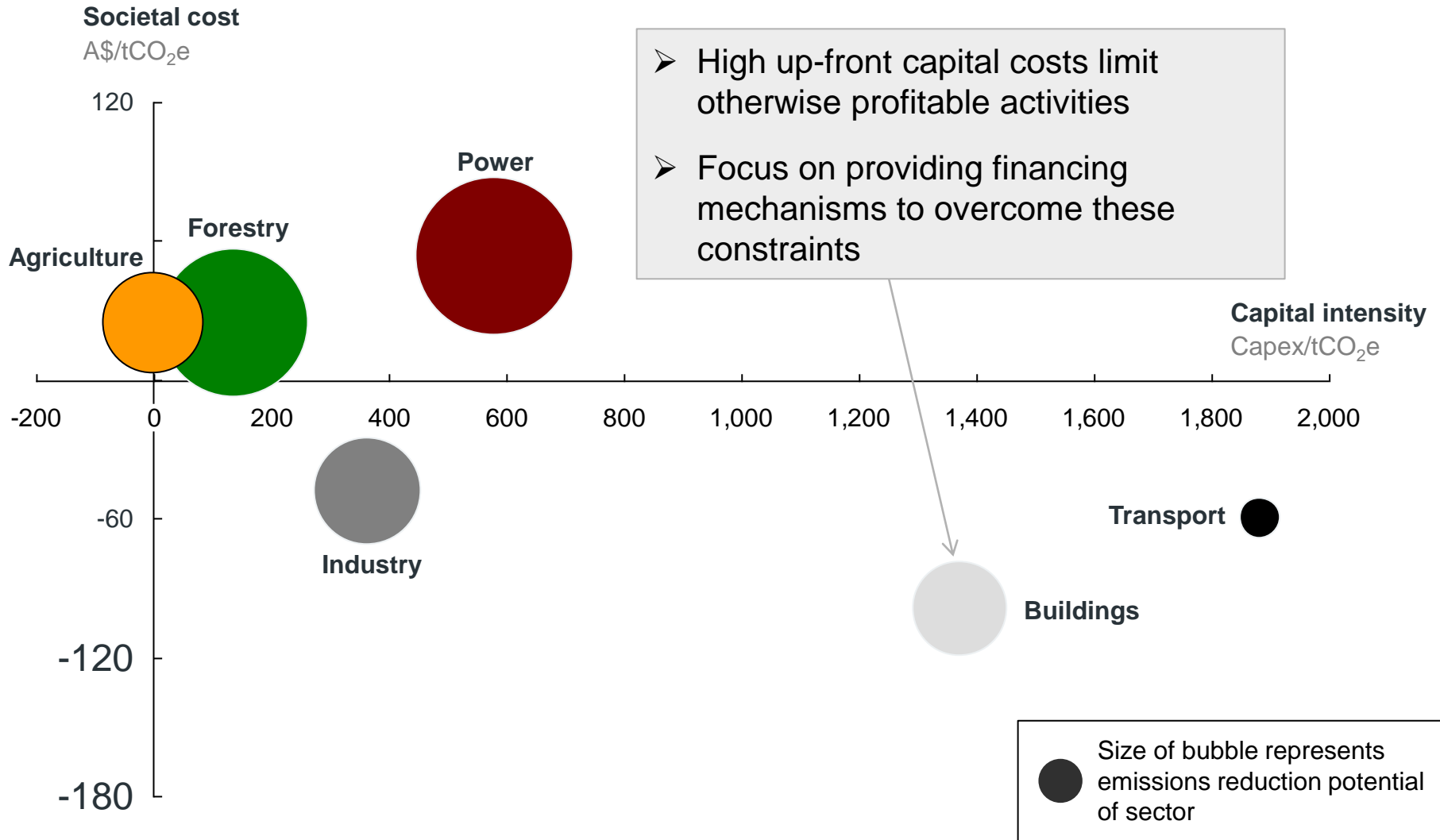


Low Carbon Australia Board with Minister Combet and Parliamentary Secretary Dreyfus

Energy Efficiency Program

Initial focus on the buildings sector

Opportunity for cost-effective emission reductions

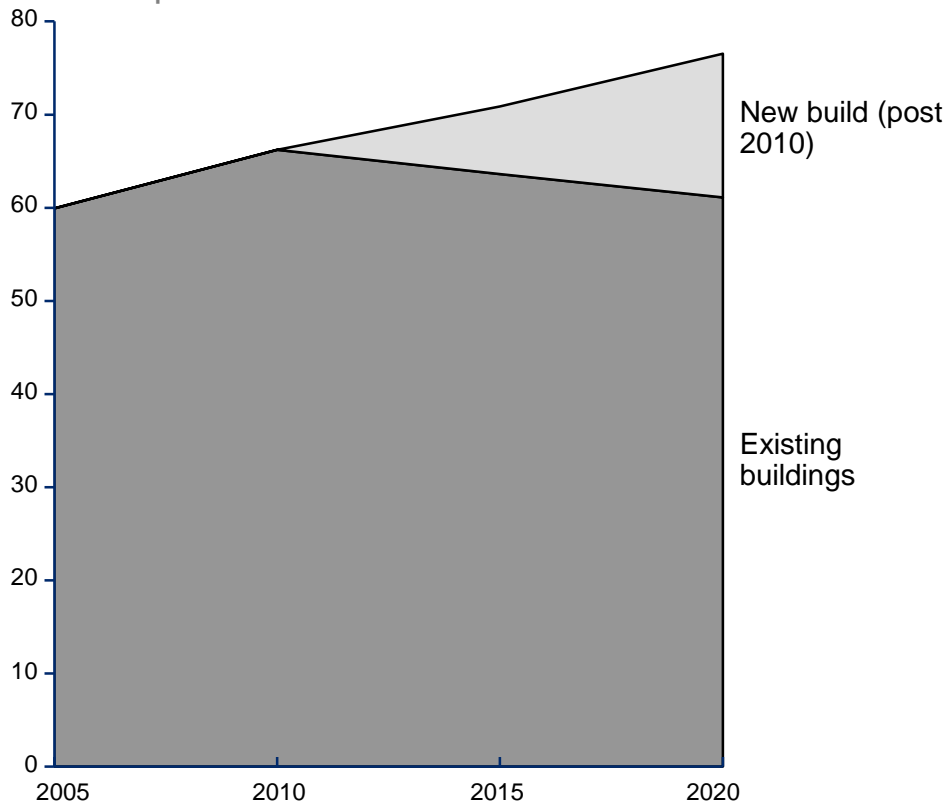


Majority of future energy consumption will be in buildings which already exist

Significant opportunity and need for energy-efficient retrofits

Projected growth in energy consumption in non-residential buildings

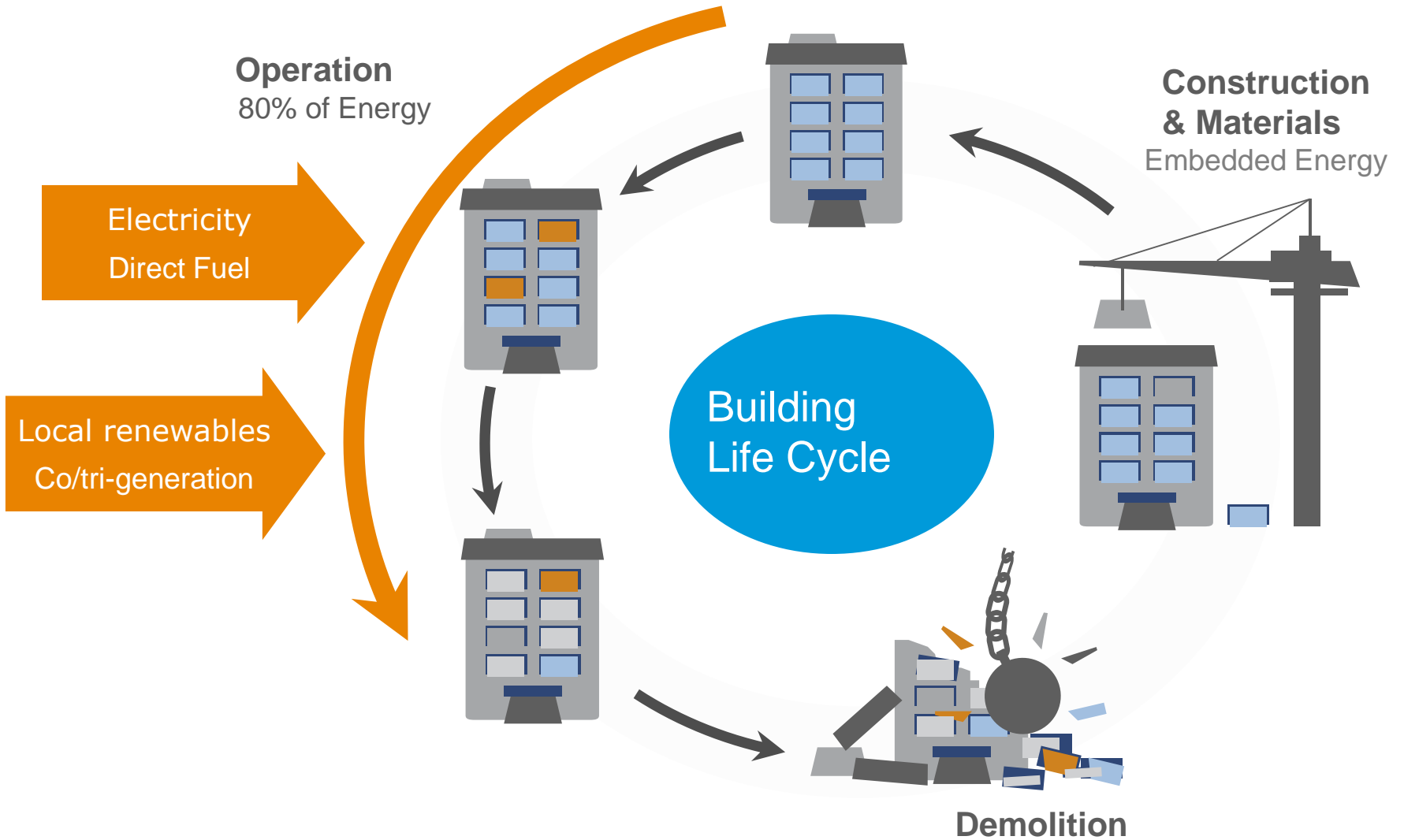
TWh per annum



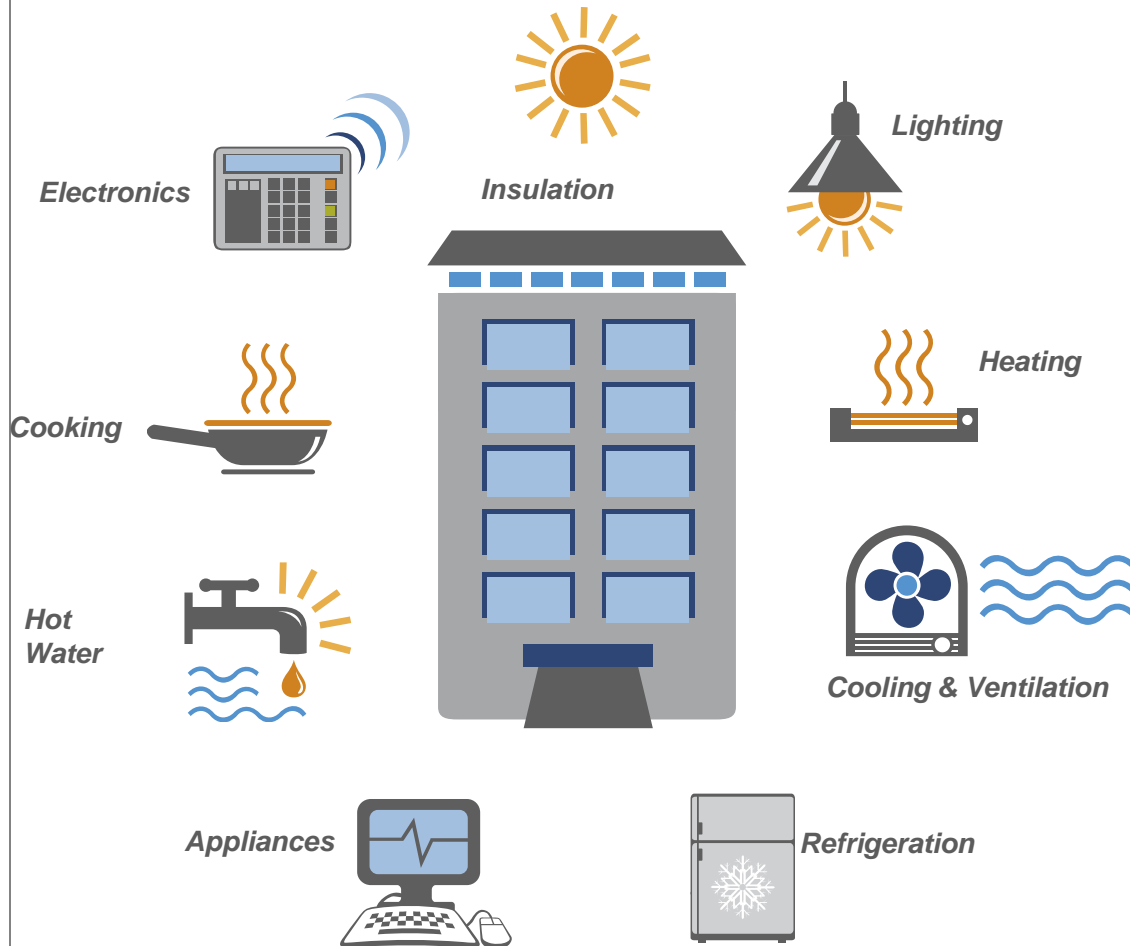
- New builds the main focus of energy efficiency policy and investment to date
 - e.g. Green Star
- Yet, 80% of emissions in 2020 will be from buildings which exist today
- Opportunity to achieve significant results through retrofits
 - Most existing buildings have low energy efficiency
- Total investment of \$13bn required to deliver least-cost emissions reductions of 16.3MtCO₂e by 2020
 - Energy savings of 23,000GWh
- Most projects have a positive long-term financial return
 - However, high up-front capital costs and long payback times create barriers to investment

Majority of life-cycle emissions from buildings come from use

High potential for emissions reductions



Significant energy savings achievable in all areas of use, with established technologies



➤ Largest areas of energy use:

- Heating, ventilation & air conditioning (34% of total)
- Appliances (19% of total)
- Lighting (15% of total)

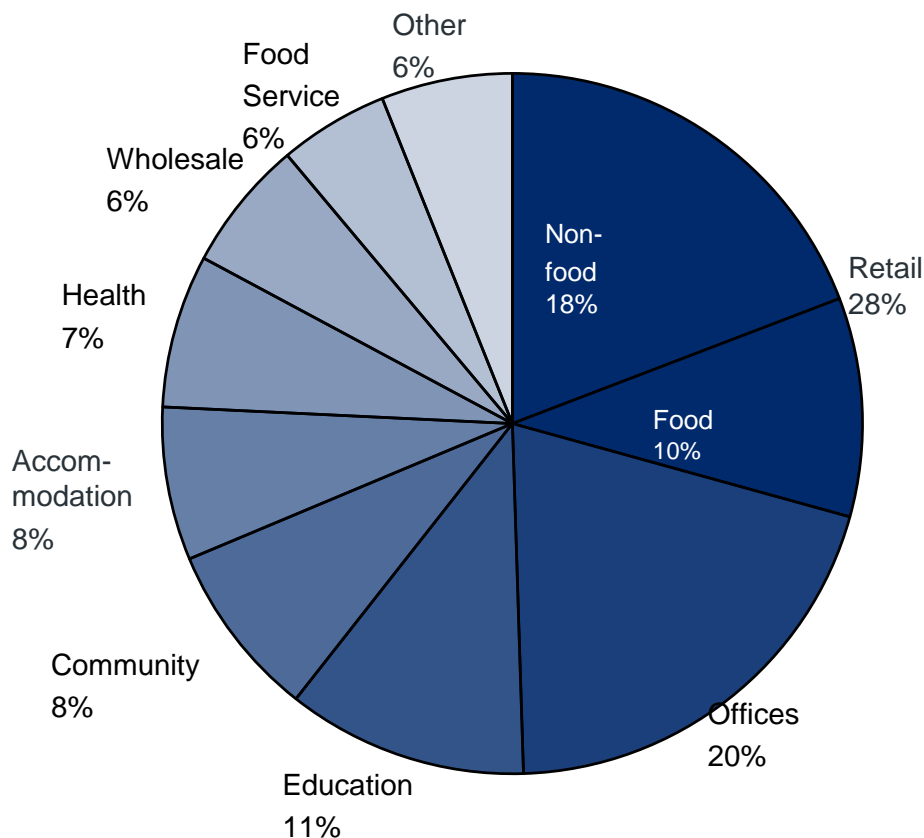
➤ Significant energy savings can be achieved through retrofits using established technologies, e.g.

- New elevator designs use 75% less power than those of 10 yrs ago
- Replacing incandescent bulbs with efficient LED versions can reduce energy consumption by 75%

Greatest potential for impact in retail, office and education buildings

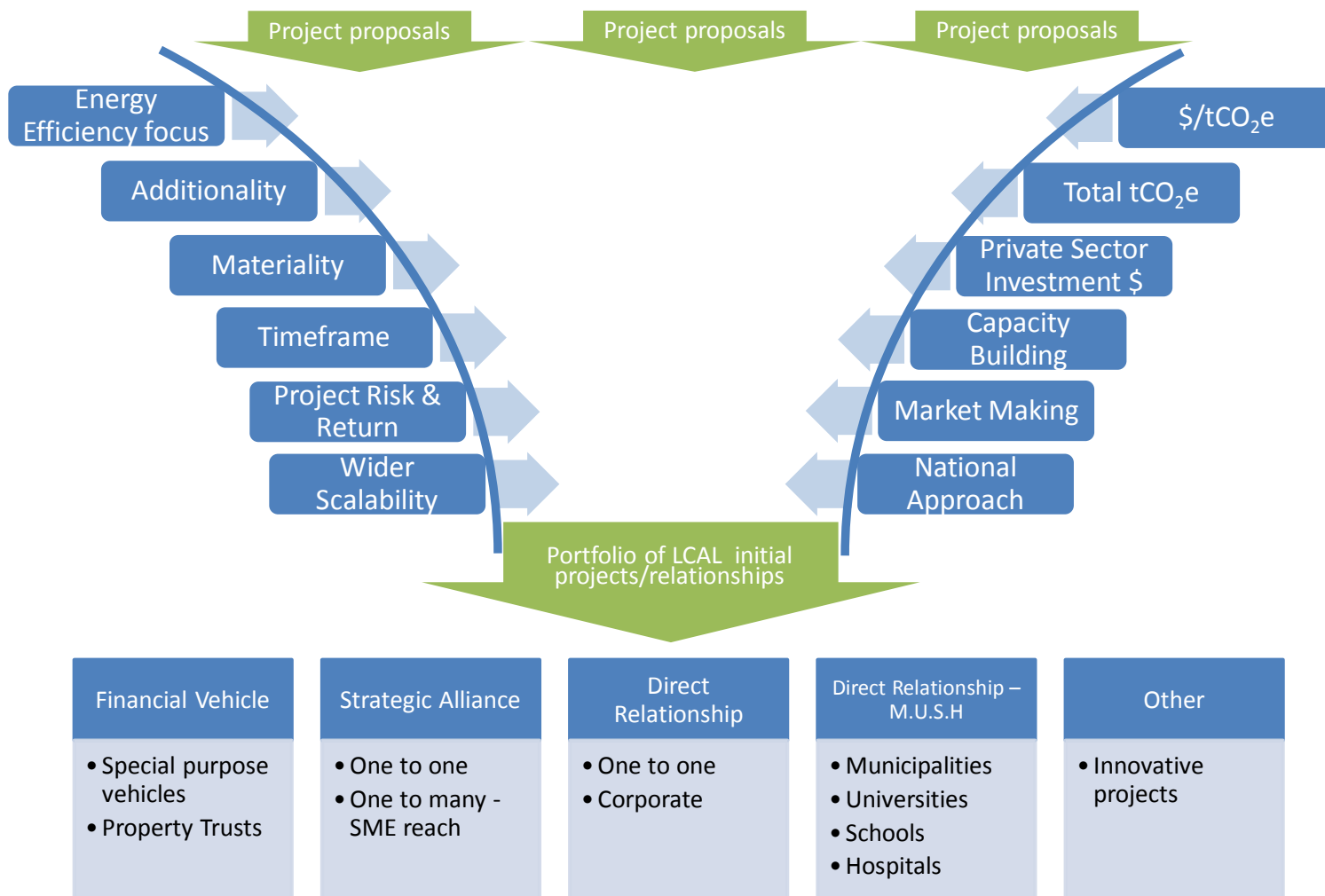
Energy consumption in existing non-residential buildings

(% of 2020 projected total of 61,000GWh)



- Commercial buildings include a broad range of sectors – not just offices
- The largest sectors - retail, offices & education - account for 59% of total energy use
- Energy savings of 23,000 GWh across all sectors equates to average energy savings of 37% on projected 2020 levels

Energy efficiency project proposals evaluated according to rigorous process & criteria



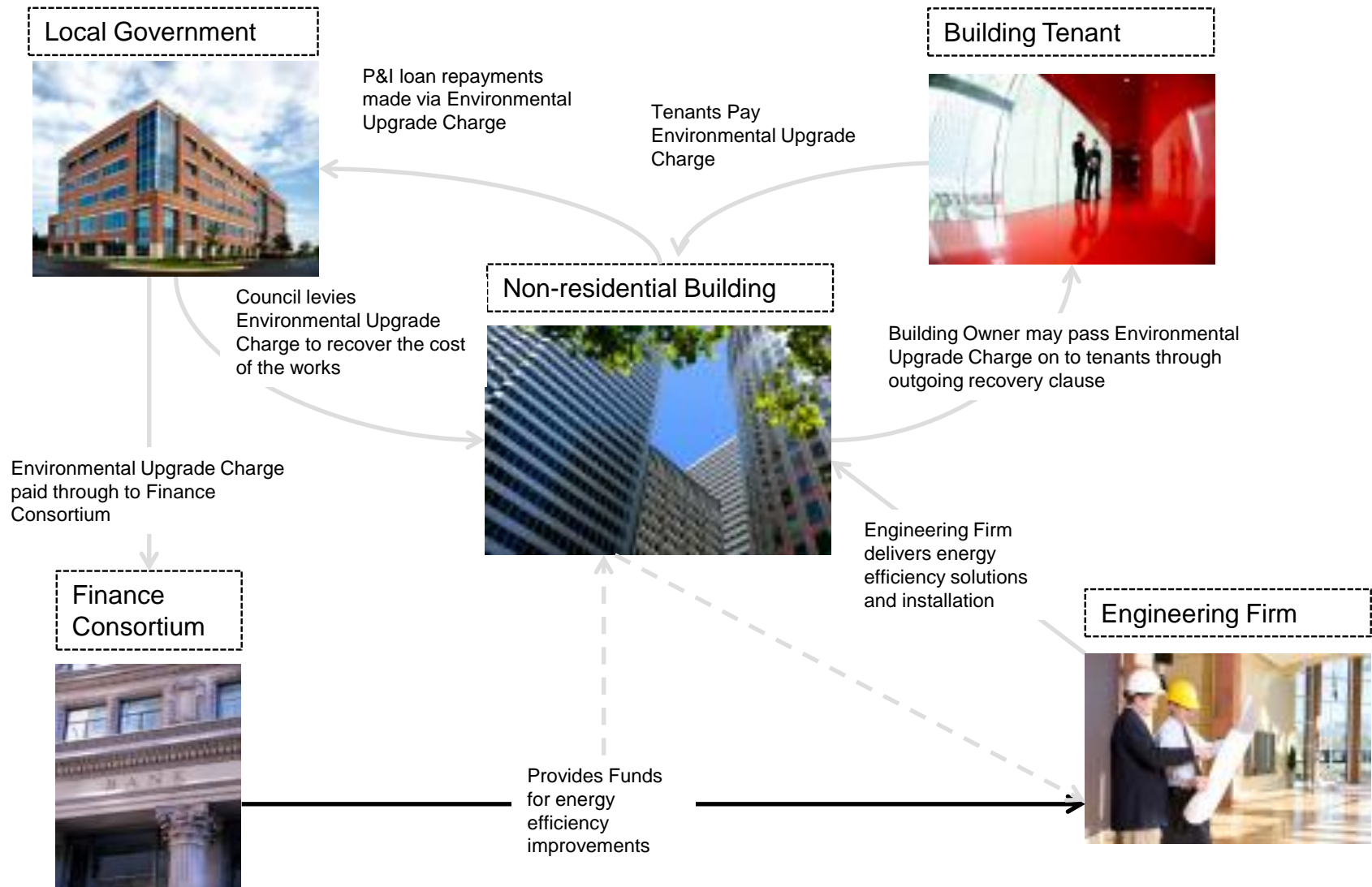
New sources of funding for upgrades of commercial buildings - NAB and Eureka Funds Management



- Legislation enabling Environmental Upgrade Agreements has been enacted for the City of Melbourne and in NSW.
- NAB, Eureka Funds Management and Low Carbon Australia have developed the NAB Environmental Upgrade Loan program anticipated to grow to over \$200 million over the next two years.
- This will support the energy efficiency retrofit of non-residential buildings, in Melbourne as part of the \$2 billion City of Melbourne 1200 Buildings program and in Sydney and regional NSW cities
 - potential for this type of financing to be implemented Australia-wide.

Environmental Upgrade financing

1200 Buildings Program and recent NSW legislation



New Leasing Finance for Energy Efficiency Equipment - Alleasing



- Low Carbon Australia and Alleasing have created an innovative Energy Efficiency Equipment Lease (E3 Lease) with up to \$100 million available.
 - Equipment that can be leased includes HVAC, LED and other lighting systems and Building Management Systems.
- Organisations looking to reduce energy costs and GHG emissions could benefit from the E3 lease
 - Including REITS, private owners, office, retail, commercial, industrial, university, hospital and local government.
- Benefits of the E3 Lease include:
 - 100% of Energy Efficiency equipment acquisition cost with no capital outlay by end-user/lessee
 - Flexibility to move to newer technology as it becomes available, in a rapidly evolving industry
 - Preserves capital in the business by eliminating capital expenditure requirements
 - May eliminate 'split incentive' issues



New Loan Finance - Origin Energy – Energy Savings Guarantee

- Origin Energy and Low Carbon Australia will deliver up to \$12.7million for an Energy Savings Guarantee finance program
 - Customers can access energy saving equipment without up-front capital expenditure
- Provides business customers end-to-end service to reduce their energy use and costs,
 - Identifying energy saving opportunities and technologies
 - Structured finance and repayments to lower the cost for business of energy efficiency technologies
- Being marketed to Origin's ~15,000 business customer sites in non-residential industry, distribution and infrastructure properties nationally.

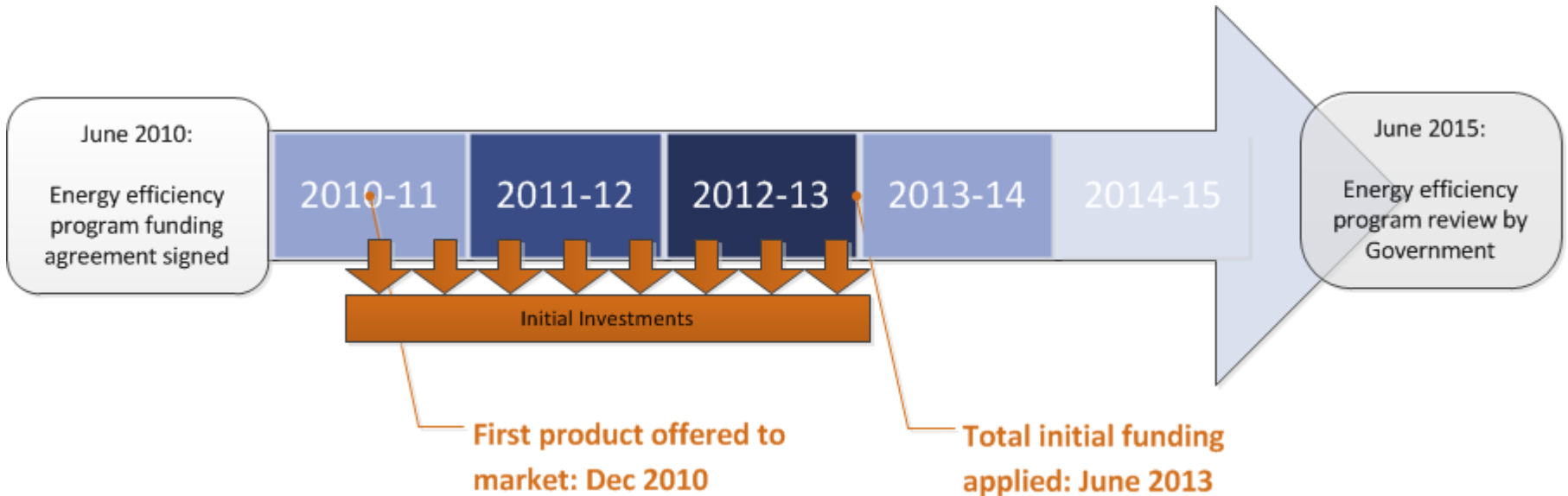
Helping building owners identify energy savings



- \$200,000 support to Melbourne City Council to assist City of Melbourne provide an online toolkit to help building owners and tenants calculate potential energy and cost savings from undertaking an Environmental Upgrade.
- 1200 Buildings program aims to retrofit 1200 non-residential buildings to achieve a 38% improvement in energy efficiency
 - may generate up to \$2 billion of private sector investment and create 8000 new green jobs.*

*Source City of Melbourne

Project financing commitments to be made over 3 year period



- Initial investments and pipeline of proposals continuing to be evaluated and further developed.
- Revolving fund model will require continuous feed of new projects into the pipeline

The Future for Low Carbon Australia

- Rolling out similar innovative programs
- New strategic alliances and a flow of new financing for energy efficiency projects
- Pipeline of projects to help small, medium and large businesses and the public sector
- Create new financial vehicles to catalyse private sector investment
- Revolving fund approach and flexibility for tailored financial support offers:
 - continuity
 - market driven
 - overcomes barriers that Government interventions have not
 - cost effective carbon reductions and savings to business
 - capacity to broaden this approach to other sectors
- Renewed focus on energy efficiency and we expect to see further acceleration in this area

THANK YOU

You can find out more at
<http://www.lowcarbonaustralia.com.au/>