1. Strategic Context
2. Emissions Reduction Policy
3. Retrofit existing stock
4. Efficient new stock
5. Develop local combined heat and power (CHP)
City of Melbourne
Capital city local government
37.7 km²
800,000 daily city users
$57 billion GRP
Economic transition: manufacturing to knowledge services

Growth since late 1990’s:
Jobs - Av +16,000 pa
Residents – Av +4000 pa

Activity growth:
800,000 daily city users 2012
1,200,000 daily city users 2030
(Average 3% growth pa)
2. EMISSIONS REDUCTION POLICY

Define municipal emissions profile

Set abatement strategy

most cost efficient opportunities

Barriers and enablers

Action - Regulate and facilitate

ZERO NET EMISSIONS BY 2020
UPDATE 2008
2. EMISSIONS REDUCTION POLICY

municipal emissions profile

4.9 million tonnes CO$_2$
Estimate 2013

- Water
- Electricity (Residential)
- Electricity (Non-residential)
- Gas (Residential)
- Gas (Non-residential)
- Residential Waste
- Industrial Waste
- Transport

- 47%
- 19%
- 12%
- 14%
- 5%
- 1%
- 1%
- 1%
2. EMISSIONS REDUCTION POLICY

Set the abatement strategy

- Commercial
- Manufacturing and Industrial
- Residential
- Transport
- Waste and wastewater
- Offset

Graph showing emissions reduction over time with different strategies.
most cost-effective opportunities.

2. EMISSIONS REDUCTION POLICY
3. RETROFIT EXISTING

Best opportunities for retrofitting

Obstacles to retrofitting

The 1200 Buildings program
Best Retrofit Opportunities

Building stock segmentation analysis

- High
- Medium
- Low
- Re-commission

Much of the low opportunity stock is heritage – marry heritage restoration with retrofit.

3. RETROFIT EXISTING

Heritage stock

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Arup

Melbourne Forum ESD Policy in Local Government 18 June 2013
Obstacles to retrofitting

1. Access to finance

2. Split owner/tenant incentives

3. Regulatory barriers to utilising CHP, solar, wind.

4. Building systems Industry skills and capacity

3. RETROFIT EXISTING
1. Engage and educate
2. Support with policy
3. Increase access to finance
4. Promote success

60 registered to date

160 buildings are retrofitting (10% of stock)
Cost of finance generally low
Some foreign owners don’t want public acknowledgement

3. RETROFIT EXISTING
EFFICIENT NEW STOCK
Convert industry standards to minimum standards + mandatory disclosure

Planning Controls
1. Coordinated set of minimum standards and assessment
2. Linked to industry ratings and assessment tools.
3. Selected rating tool for type and scale of building & ability to meet targets.
4. Industry acceptance.
5. Ease of use in approvals.
6. All uses commercial, retail, residential, educational.

Develop building industry best practice

Regulate minimum energy water waste efficiency standards
COMBINED HEAT AND POWER (CHP) HUBS

Understand the business model

Regulate to enable deployment

Remove Regulation barriers from privatisation
Build CHP hubs in Intensive mixed use

**Detailed Feasibility**
1. Lend Lease development
2. Town Hall

**Preliminary Feasibility**
3. Crown Casino
4. RMIT University
5. Queen Victoria market

**Identified Opportunities**
6. Bio Medical / university
7. Fishermans Bend urban renewal
8. E-gate urban renewal
9. Arden urban renewal
10. Carlton Connect

5. LOCAL CHP
City of Melbourne’s building energy policy
Melbourne Forum 18 June 2013

David Mayes  Manager Strategic Planning, City of Melbourne

Thank you