

“What Works” in commercial buildings policy

Peter Mallaburn

UCL Energy Institute

September 15th 2016

The performance gap in commercial buildings

- UK emissions stuck at 2000 levels
- Policy-free zone in London
- Severe principle/agent issues – the “Circle of Inertia”
- Some countries are making progress e.g. Australia, US, NZ



The UK situation

- London offices are 2-4x less efficient than Melbourne
- Design-for-compliance culture
 - Focus on predictions and not real-world performance
 - Tendency to over-complicate fabric and systems
- Unclear landlord and tenant responsibilities
 - Large shell-and-core prime offices in London
 - Tenants responsible for local design and HVAC
- Several attempts to sort this out at EU level have failed

Follow the money

- For developers:
 - Increased rent and occupancy rates
 - Increased income and capital return
 - Lower voids and operating costs
 - More government tenants
 - Reputation and compliance benefits
- For tenants:
 - Reduced operating costs
 - Tangible reputational benefit e.g. for HQ offices
 - Some evidence of productivity and welfare benefits

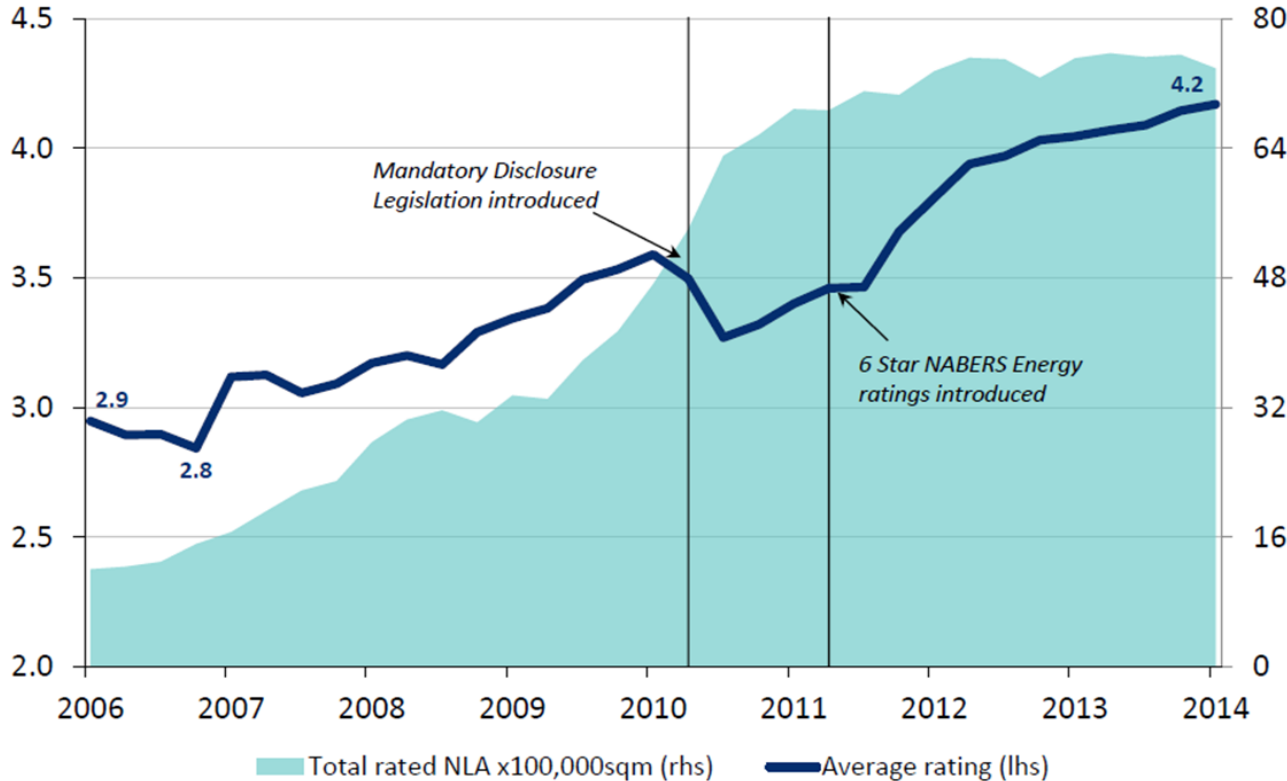
NABERS* in Australia

- Benchmarking scheme focused on actual performance of the base building
- “Investment Grade” ratings based on 1-6 stars
- Began in 1999 as a voluntary scheme in NSW
- Federal procurement targets set in 2004
- Mandatory disclosure from 2011
- “Commitment Agreement” for new buildings

*NABERS - National Australian Built Environment Rating System

Impact of NABERS

NLA-Weighted Average NABERS Rating & Total Rated Area



Source: IPD, NABERS.

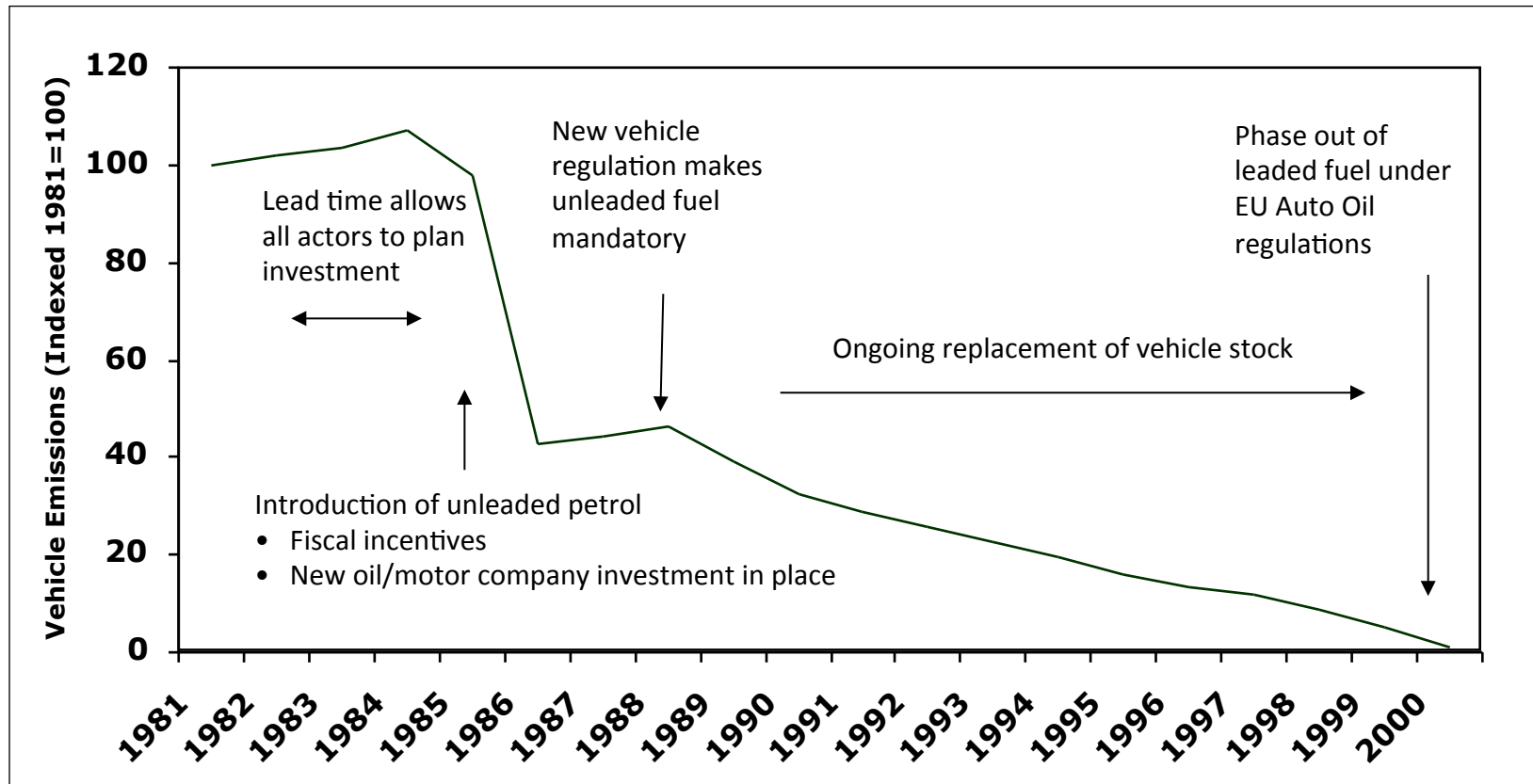
Impact of NABERS

- Since 2000 average performance of new offices has improved by 100%
- Carbon emissions down by 11.5% since 2011
- Significant improvement in asset value (2014/15 data)
 - Average rent 9% up
 - Operating costs 8% down
 - Lease length 44% up
 - Vacancy rate 4% down

A low carbon industrial strategy?

- With the right information and incentives the market will follow the money
- But focus on actual performance not design predictions
- Build in flexibility to deal with glitches and respond as the market changes
- Collaborate with industry to build market confidence and capacity...
- ...then remove the worst performers when the benefits are established
- Government/estate policies have a role – leadership and procurement

Phasing out unleaded petrol



Source: UK National Air Quality Archive (DEFRA, AEAT)