



Reducing carbon emissions from the UK's non-domestic buildings

ESTA London Conference

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➤ **New Carbon Trust report to be launched**

➤ Some key messages

➤ What's next?

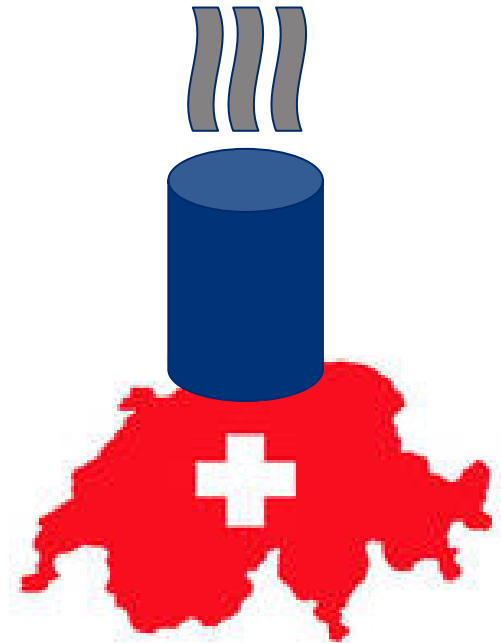
The Carbon Trust will soon be launching a new report on non-domestic buildings



“What would a carbon reduction target of at least 80% mean for non-domestic buildings in the UK?”, both in terms of government policies needed to deliver it, and subsequent action from industry.

- Report due to be launched on 3rd December 2009
- This first report will be primarily policy focused, with further reports focused on different parts of the sector

Why worry about non-domestic buildings?



What has been done to help answer this question?

Our perspectives have been informed through 2 main sources:

- 'Success scenario' analysis conducted in conjunction with Arup based on a detailed model which predicts the carbon emissions, and, from non-domestic buildings under a range of different scenarios,
 - Impact of carbon reduction measures in terms of CO₂
 - Associated cost

- In-depth interviews with ~70 players from across the entire value chain

What the report does:

- Shows the case for Government to act in order to catalyse the industry to reduce carbon
- Describes how the Government could set and communicate the overall direction for the industry
- Suggests a coherent set of policies for Government to consider

➤ What is the report?

➤ **Some key messages**

➤ What's next?

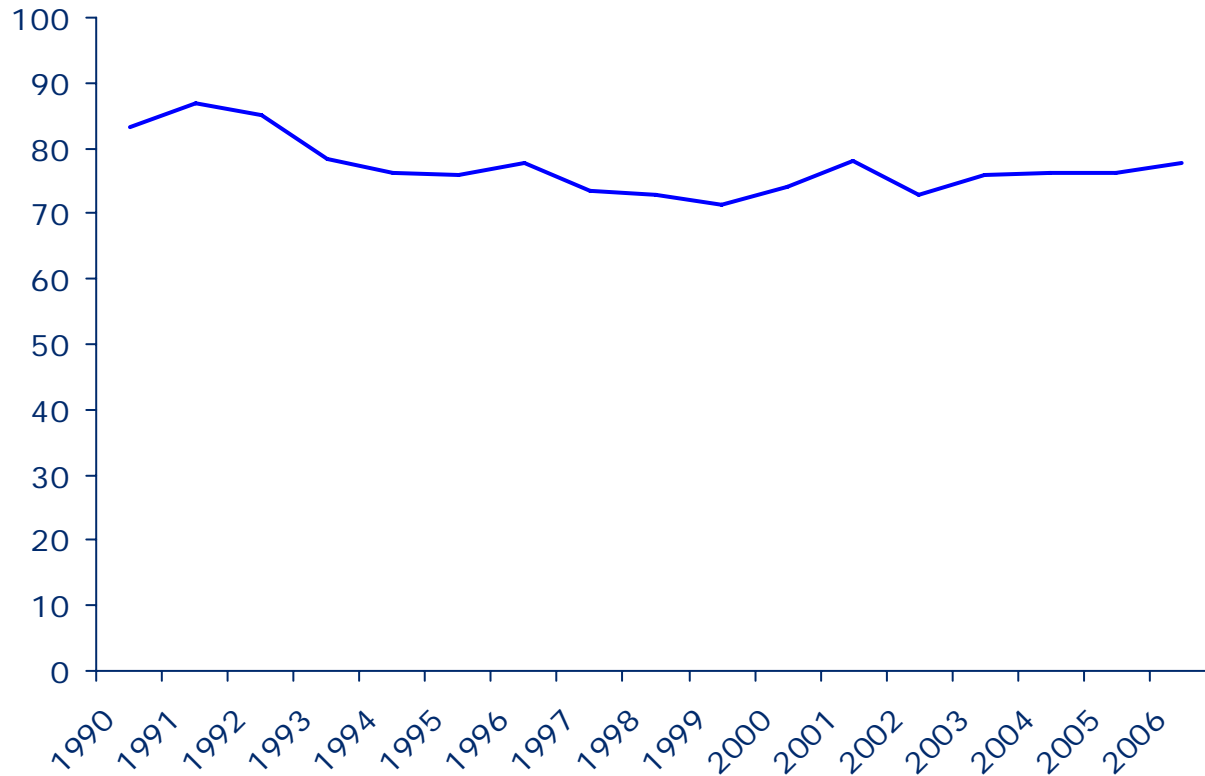


The challenge is huge...

Historical carbon emissions have been flat – this will not get us close to 80%



M tons CO₂



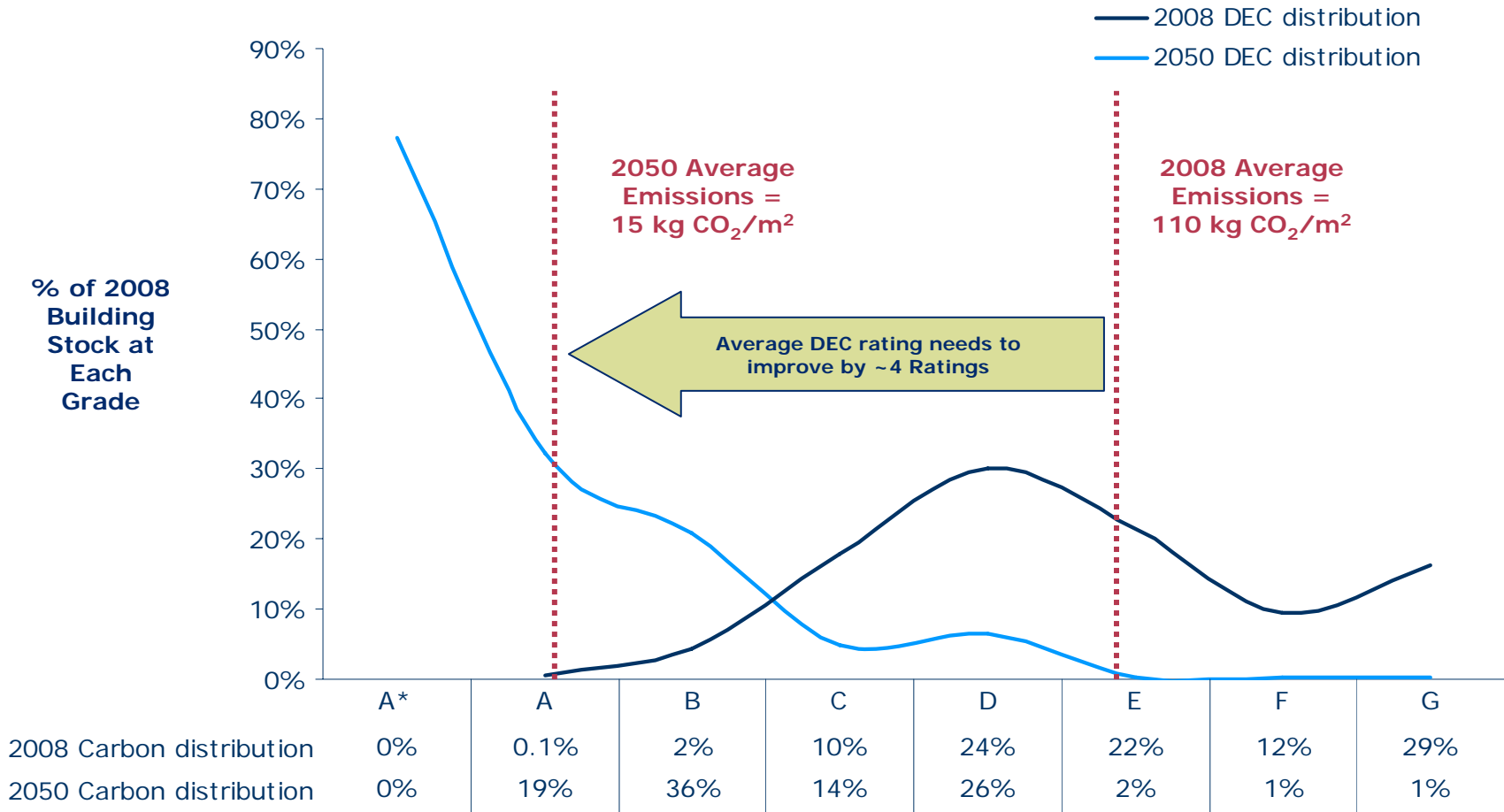
CO₂ Emissions
Change rate

-0.5% p.a.

Floor space
Change rate

+3.7% p.a.

The average building in 2050 will need to be 4 DEC ratings better than today

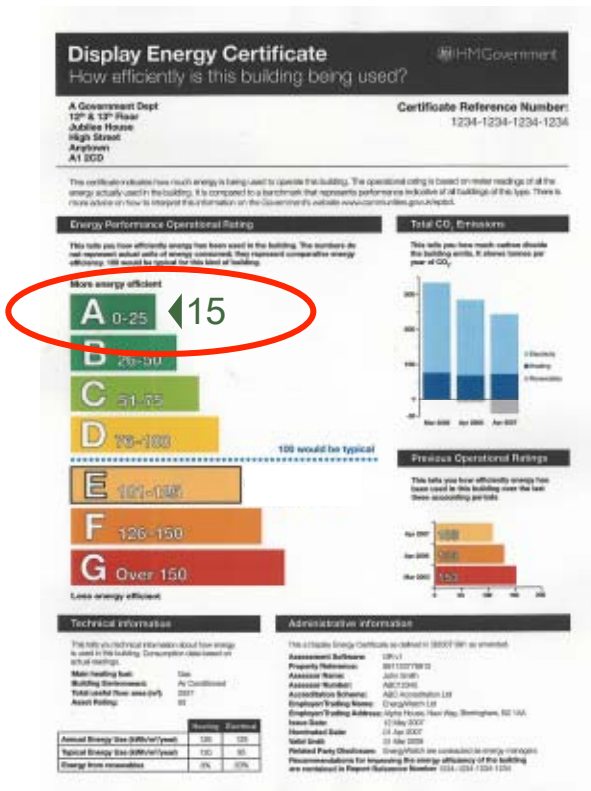


Lots need to be done over the long term...

To reach 80% reduction in carbon emissions by 2050 will require



➤ Much better buildings AND decarbonisation of the electrical grid



To reach 80% reduction in carbon emissions by 2050 will require

- Much better buildings AND decarbonisation of the electrical grid
- Improvements in new AND existing buildings



Pre-1940: 31%



1940-1985: 46%



1985 on: 23%

To reach 80% reduction in carbon emissions by 2050 will require



- Much better buildings AND decarbonisation of the electrical grid
- Improvements in new AND existing buildings
- Almost all energy efficiency measures AND a huge amount of low/zero carbon energy generation on/near site

To reach 80% reduction in carbon emissions by 2050 will require



➤ Much better buildings AND decarbonisation of the electrical grid

➤ Imp

So longer term, there really is **no choice in the measures which need to be implemented**

➤ Almost all energy efficiency measures AND a huge amount of low/zero carbon energy generation on/near site



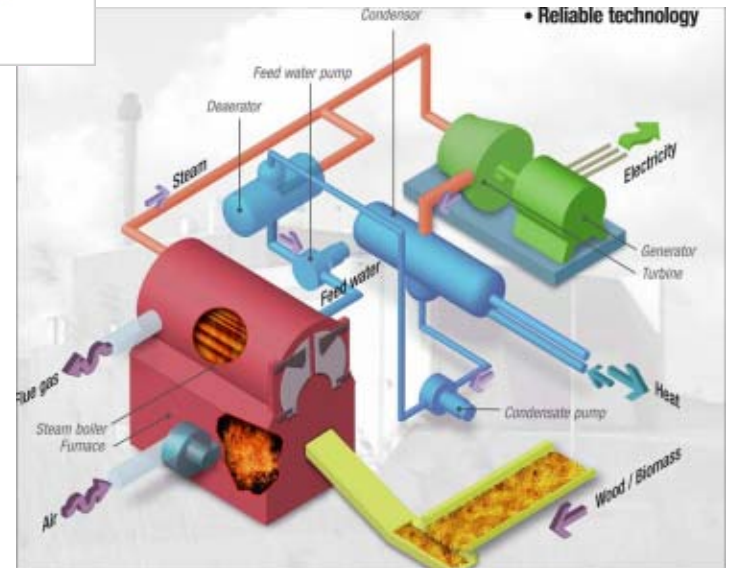
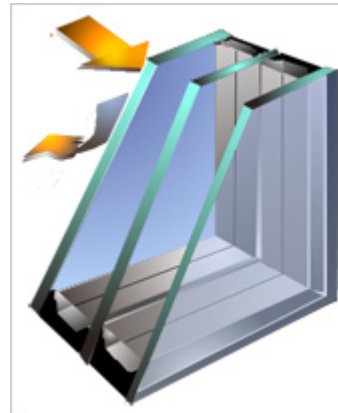
So the order and speed is what really matters...

For emissions are to travel along a trajectory that means an 80% reduction by 2050 is realistic:



➤ Up to 2020

➤ Beyond 2020



➤ What is the report?

➤ Some key messages

➤ **What's next?**

What's next?

- Launch the report on 3rd December
- Go to www.carbontrust.co.uk to download a copy of the report