



Hanham Hall
BedZED

Jubilee Wharf, Penryn
Bill Dunster Architects

Dongtan



Lighthouse

Greenhouse



“This house proposes that investment should be diverting from achieving carbon neutral new homes to the existing stock”

Chris Twinn: Opposing the motion



Earth Centre
Conference
Building

BowZED
ZEDfactory



Stratford City

Heart of East Greenwich
FIRST BASE

Ashford ZED
ZEDHOMES

Gallions Park

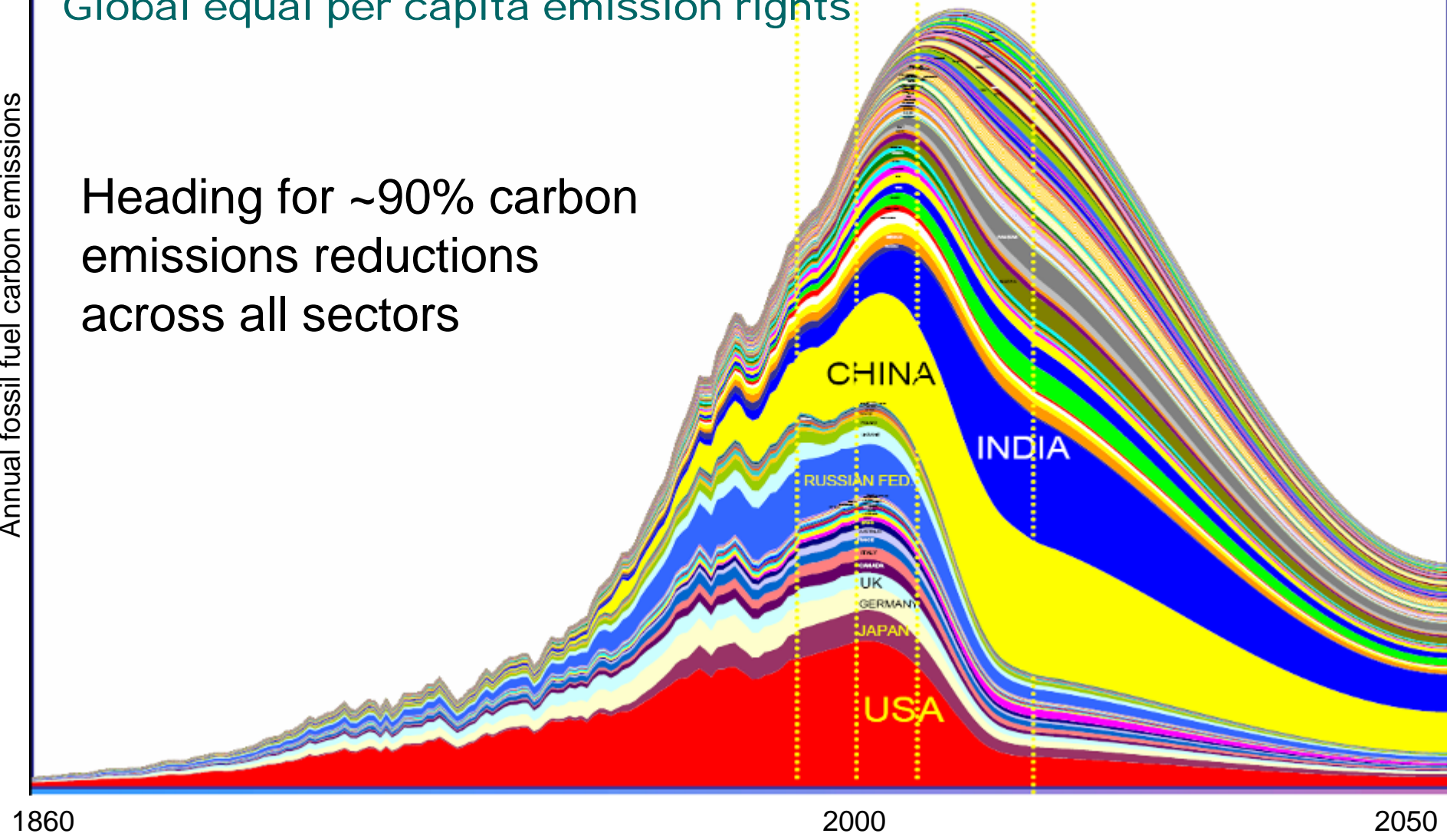


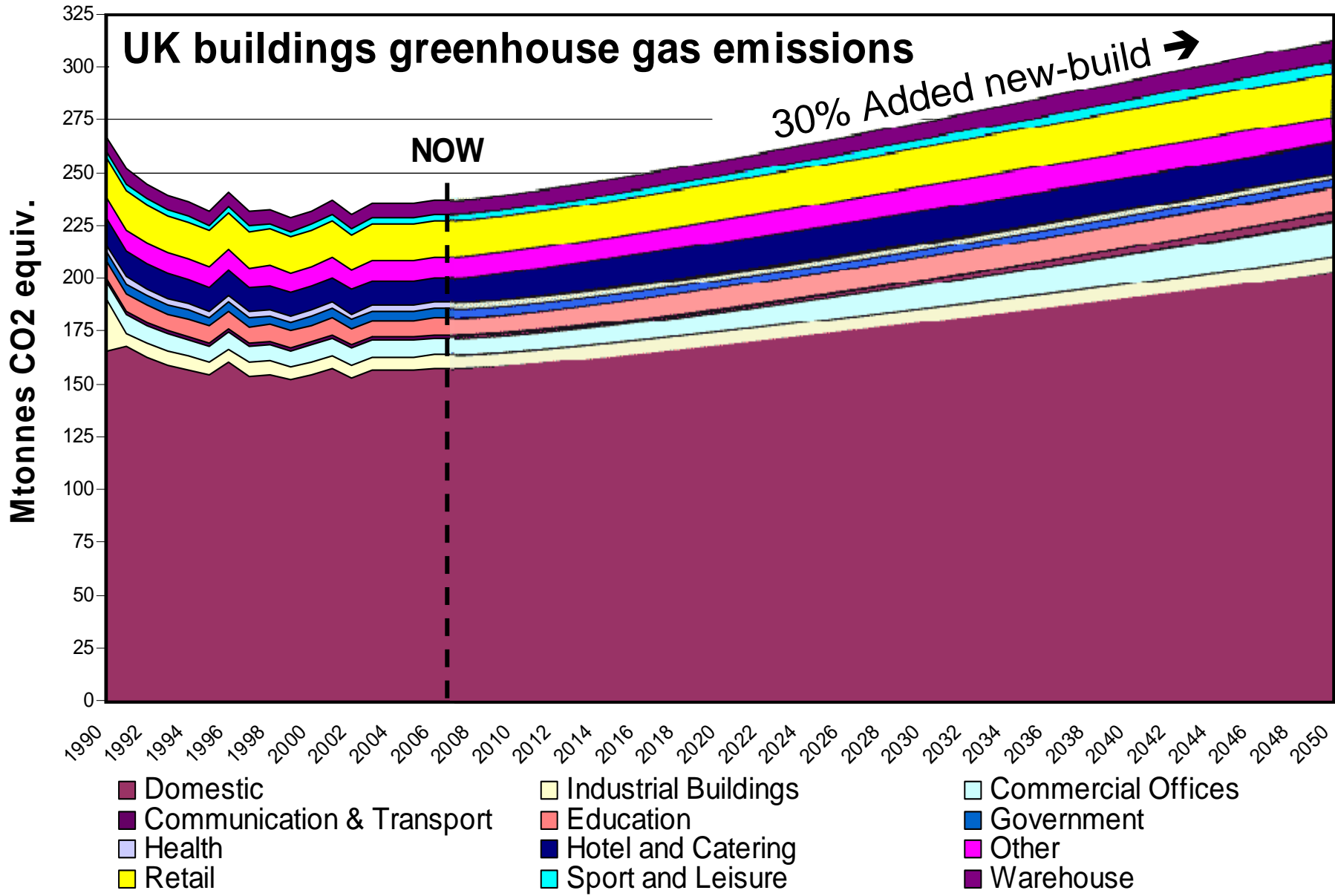
Kyoto phase two? CO₂ Contraction & Convergence Global equal per capita emission rights

GCI: www.gci.org.uk

Annual fossil fuel carbon emissions

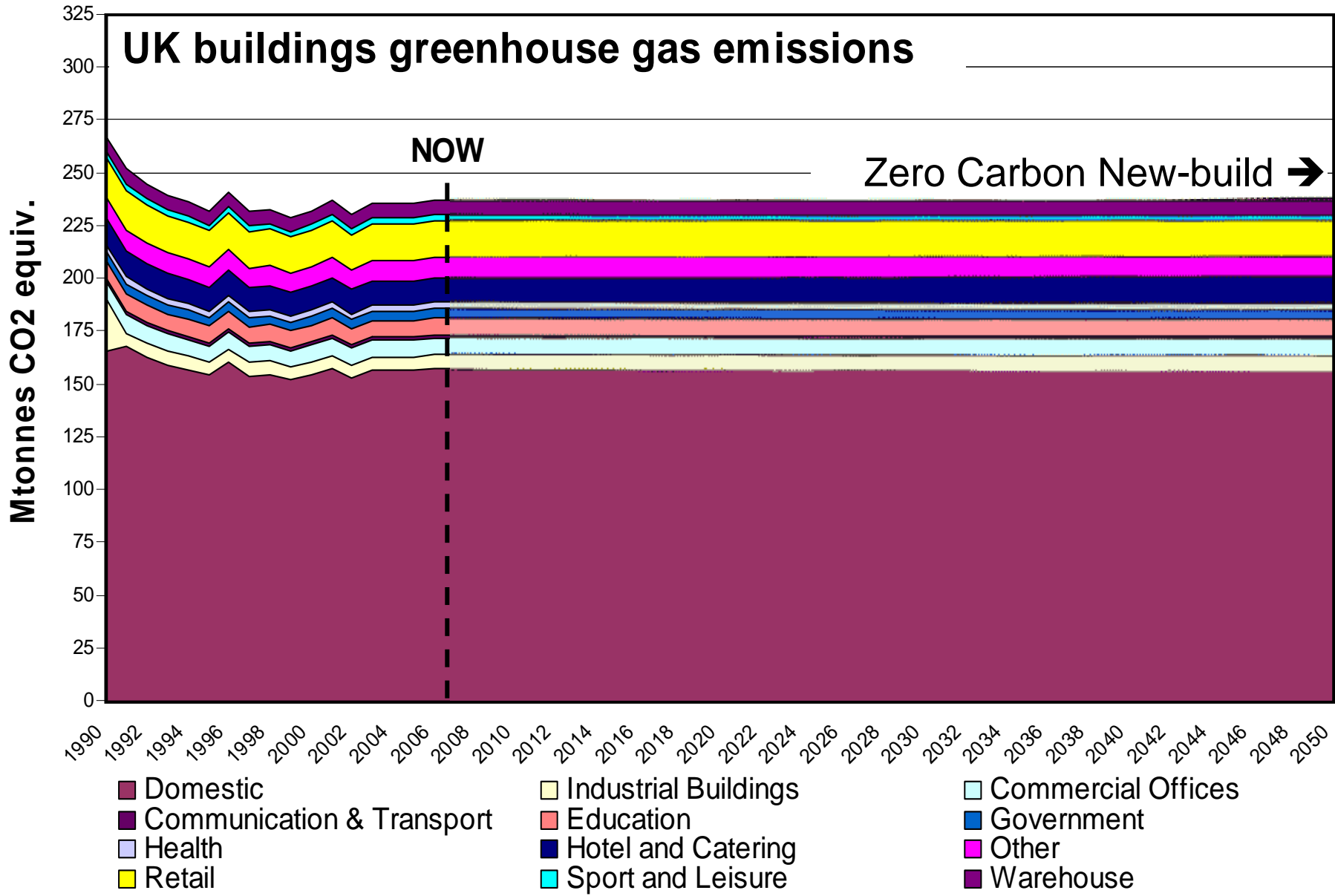
Heading for ~90% carbon emissions reductions across all sectors





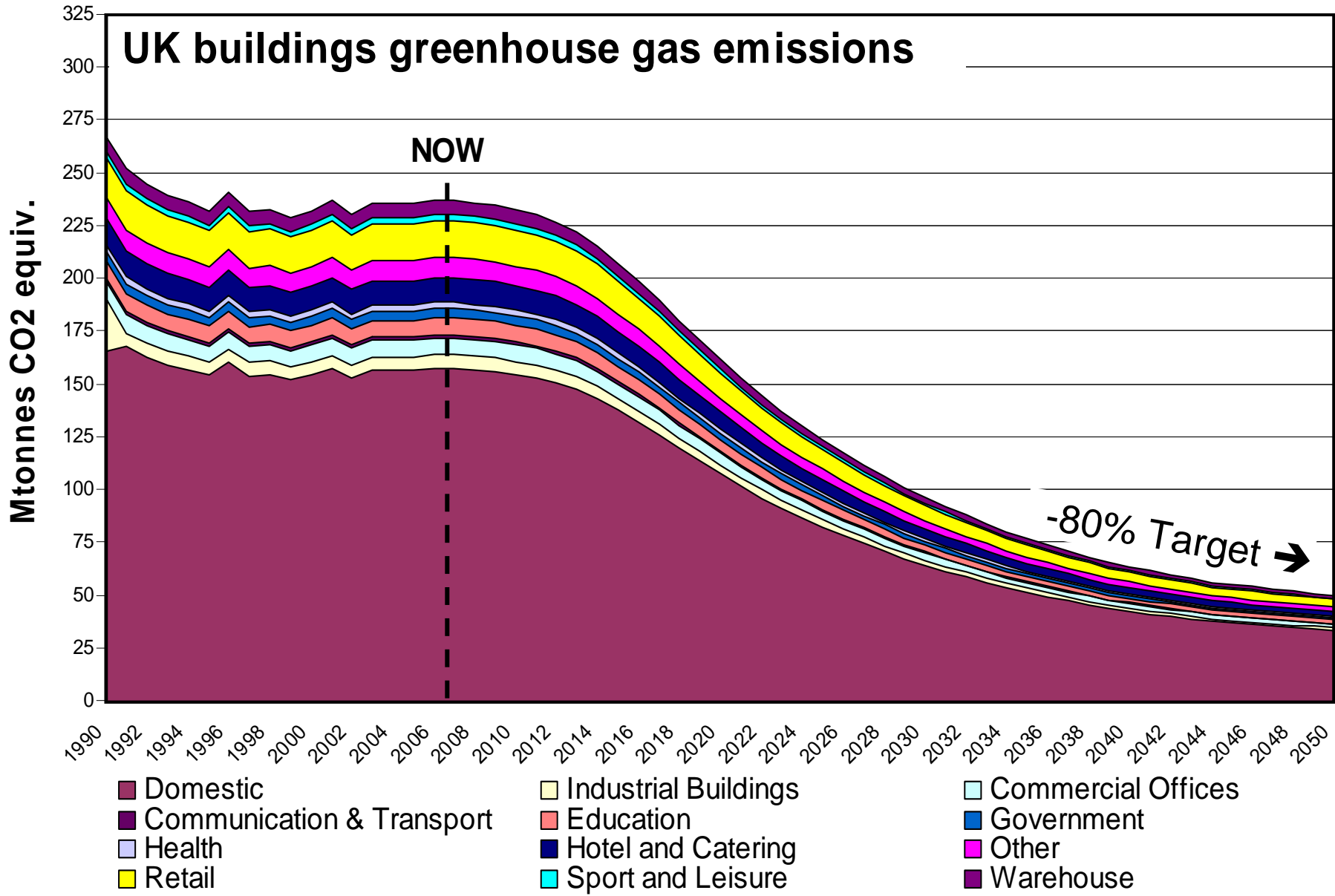
New-build contribution in perspective

ARUP



New-build contribution in perspective

ARUP



New-build contribution in perspective

ARUP

Some numbers – So how much is diverted?

150,000/yr (?) new-build homes:

- Average build cost per home, say = £100k
- Zero carbon funding per home = ~ 5%
- Total capital available = £750m

To be divided between 22m existing homes:

- If ALL new-build funding diverted
= **ONLY £45/home!**

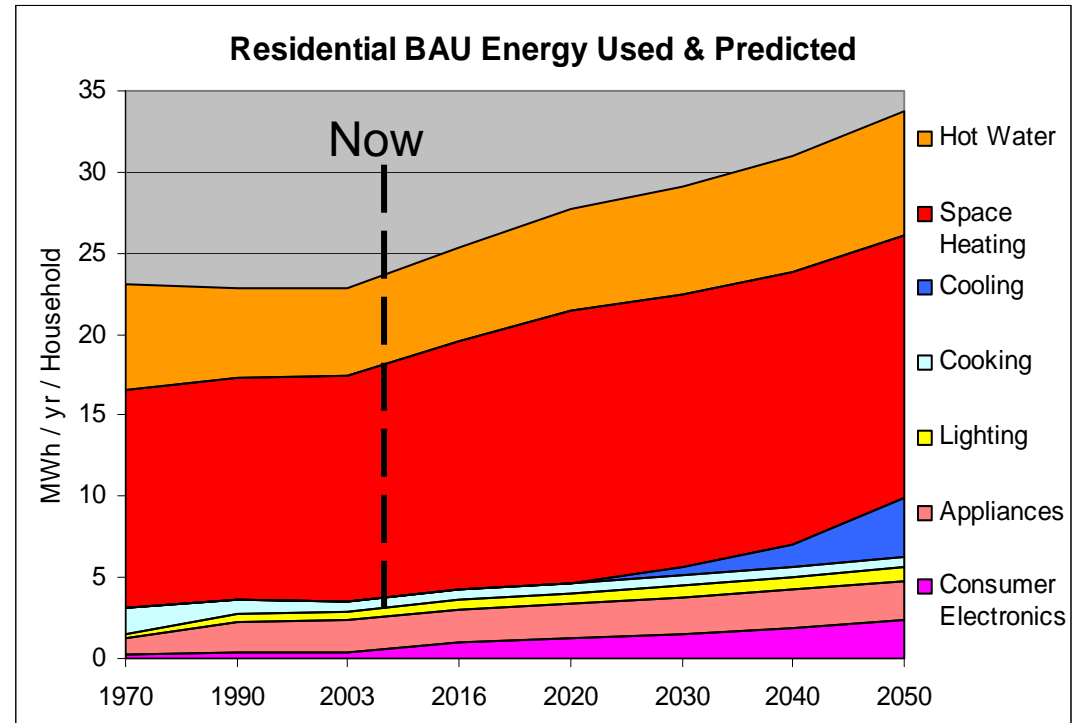
CERT (ex-EEC) £900m = £41/home

**More effective to reduce
17.5% VAT on refurb....?**

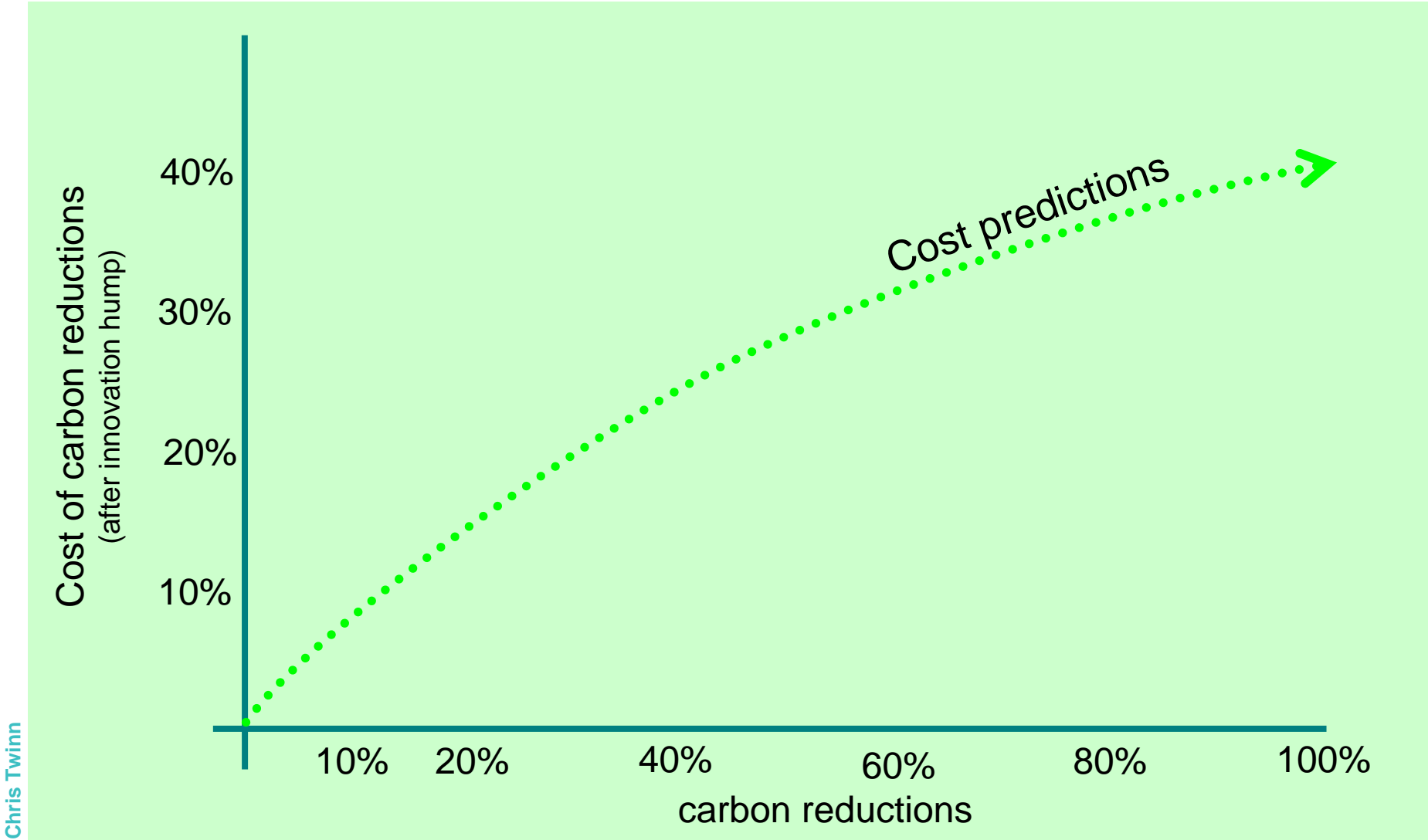


Existing stock investment: Rebound effects

- **More heating used despite better insulation**
- **Domestic appliances multiplying:**
 - more home electronics,
 - bigger appliances,
 - security systems & lighting,
 - mechanical ventilation,
 - electric towel rails,
 - heated mirrors,
 - DHW pumps,
 -
- **Lower bills → buy more appliances**

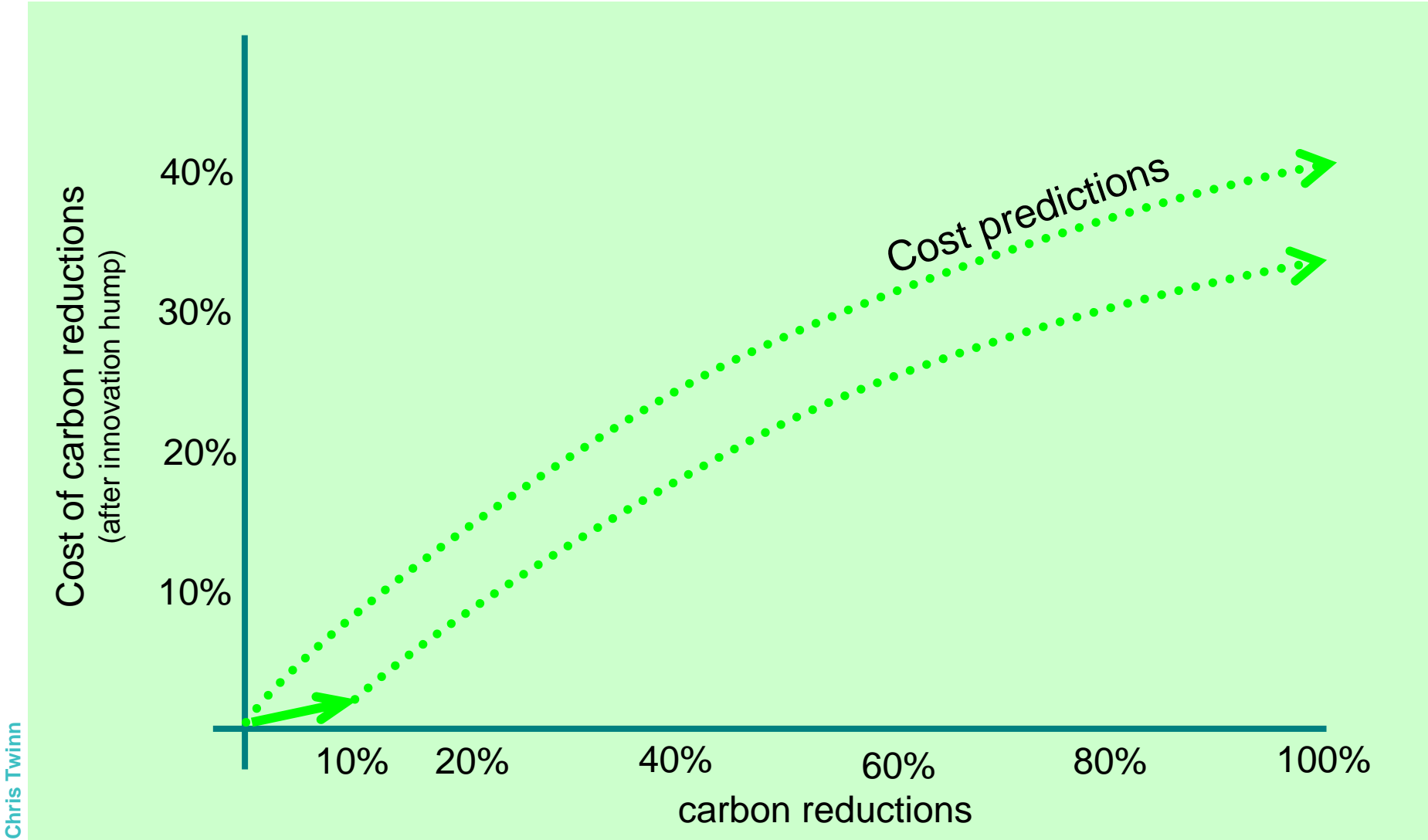


Is Zero carbon so expensive?

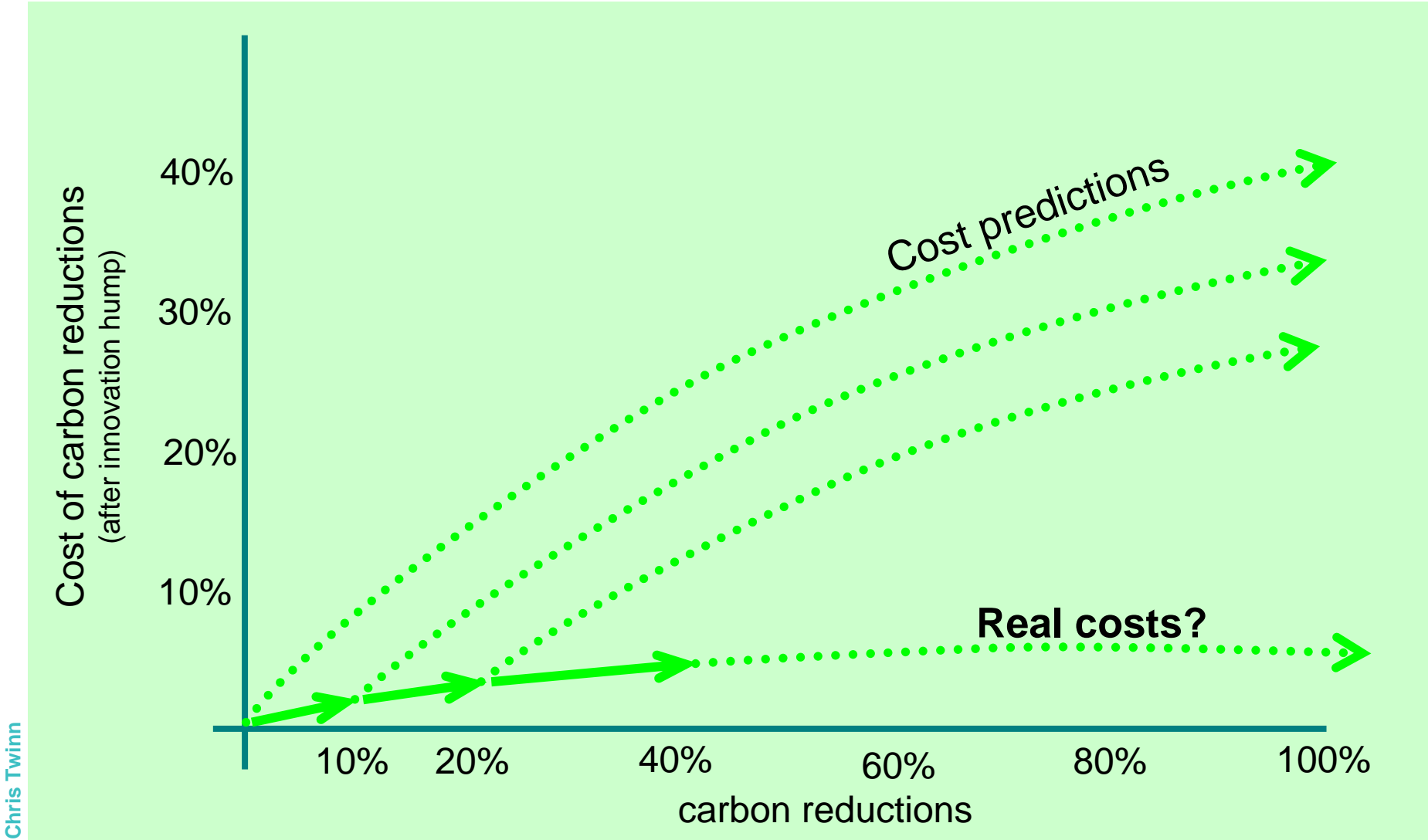


Chris Twinn

Is Zero carbon so expensive?

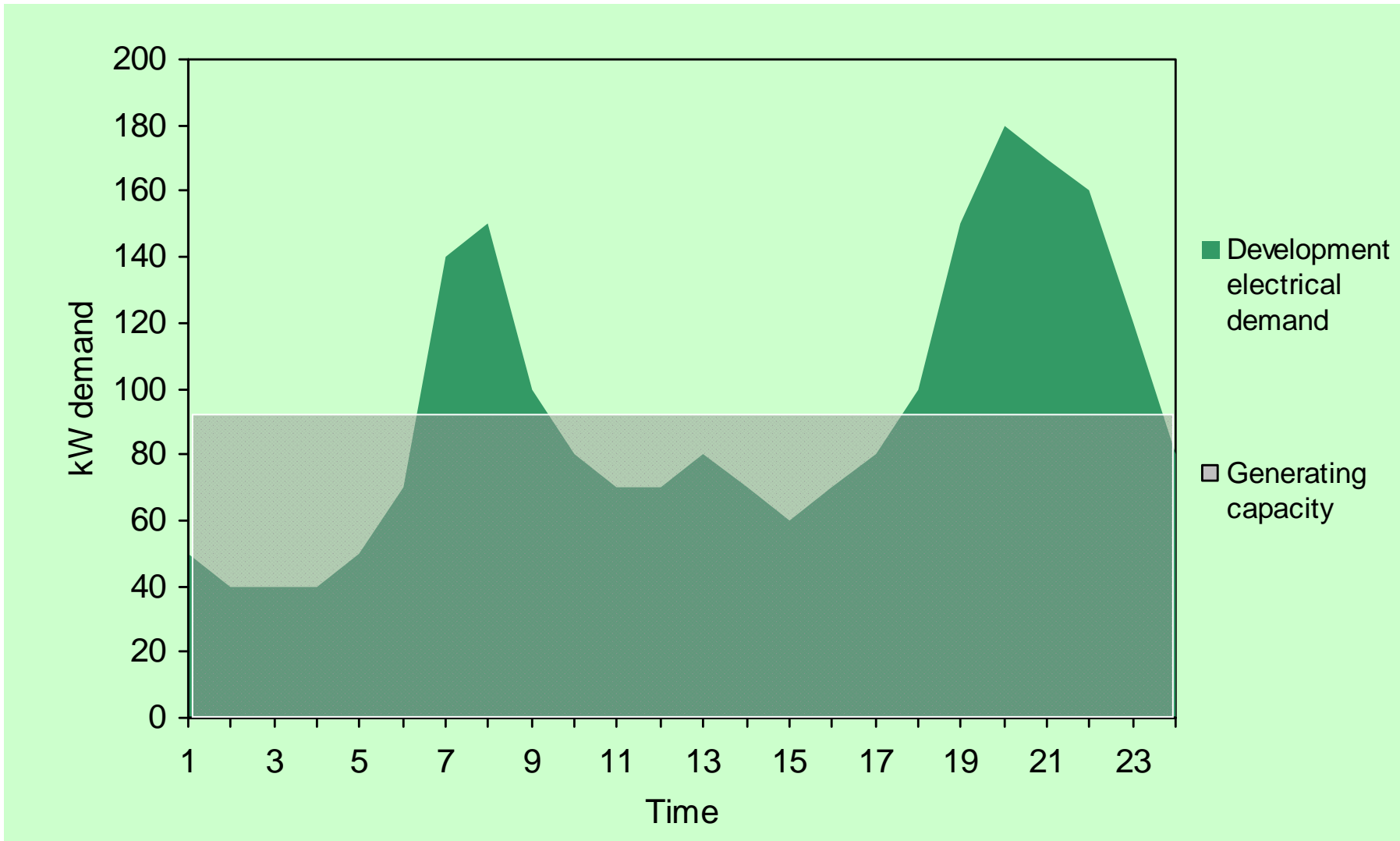


Is Zero carbon so expensive?



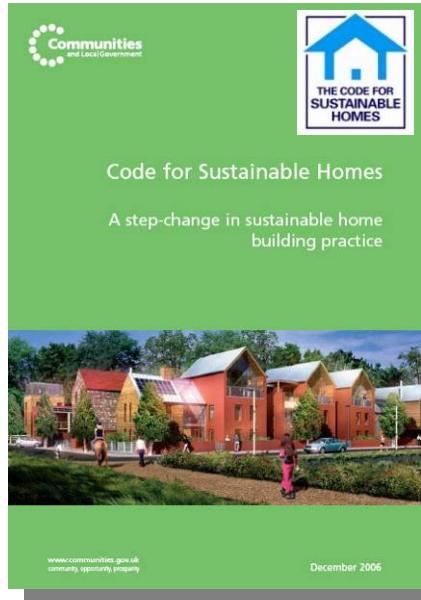
Chris Twinn

Is the 80/20 rule applicable to net zero carbon?

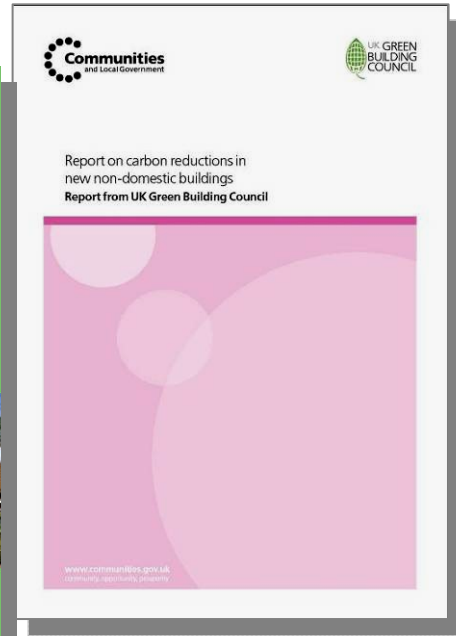


UK Pathway to Zero Carbon

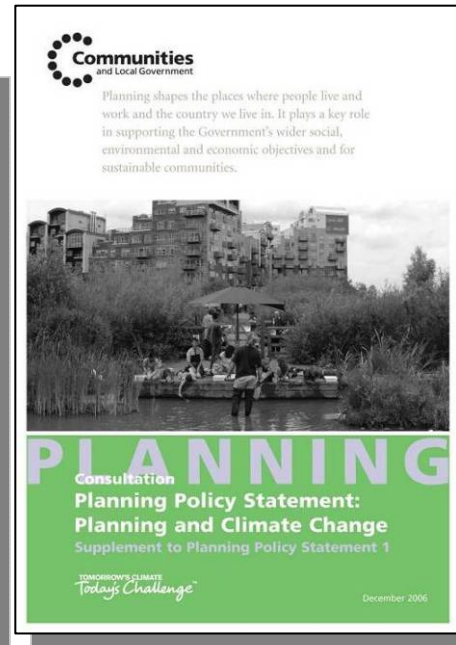
Homes



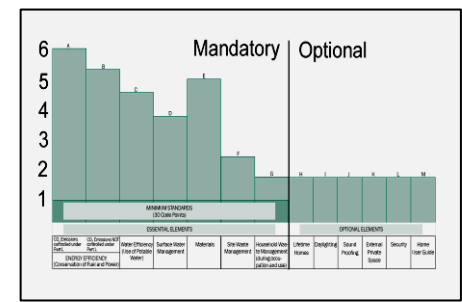
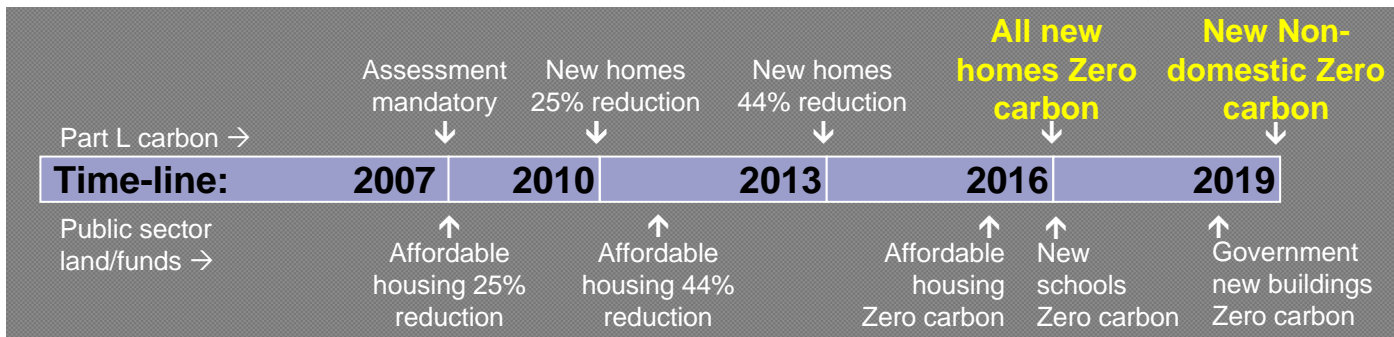
Non-domestic



Communities



Pathfinders



Investment should NOT be diverting from achieving carbon neutral new homes

1. For 80% emissions reduction, new-build must not add to emissions
2. New-build gives more ‘Bang for your buck’
3. Existing stock needs lifestyle engagement before it can deliver
4. ‘Net zero’ mean 80/20 rule inappropriate
5. VAT reform is more appropriate measure for existing
6. Must not stop the current momentum

