

# Tees Valley Strategy and Darlington Transport Strategy

Environmental Sustainability Modelling: A solution in search of a problem?

## Case Material

1. Tees Valley Footprint
2. Darlington Local Motion

## Possible Discussion Themes

1. Appropriate spatial levels for applying the various tools
2. Embedded vs bought-in capacity
3. Developing analytical capacity and advocates: who, where, how?
4. Opportunities in the policy landscape
5. Necessary and sufficient conditions for successful engagement



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# Case Material 1: Tees Valley Footprint

- EA local office initiative
  - Regulation and globalisation are successfully decoupling local environmental impacts – what about consumption?
- Two workshops organised by SEI early 2008
  - One dealt with housing, one with transport
  - Attendees: policy officers from the 5 Tees Valley local authorities (~15-20 per workshop)
  - Full day workshops
    - AM – ecological footprinting, introduction to REAP software
    - PM – development of scenarios to reduce the ecological footprint of Tees Valley
    - 4 groups: pre-prepared spreadsheets for translating policy variables into REAP input data
    - Hands on REAP data entry and scenario construction
- Output
  - Tees Valley Ecological Footprint Report (SEI website)
  - Ecological footprinting event, Middlesbrough, July 2007



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# Tees Valley Footprint: Housing



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## ■ Background

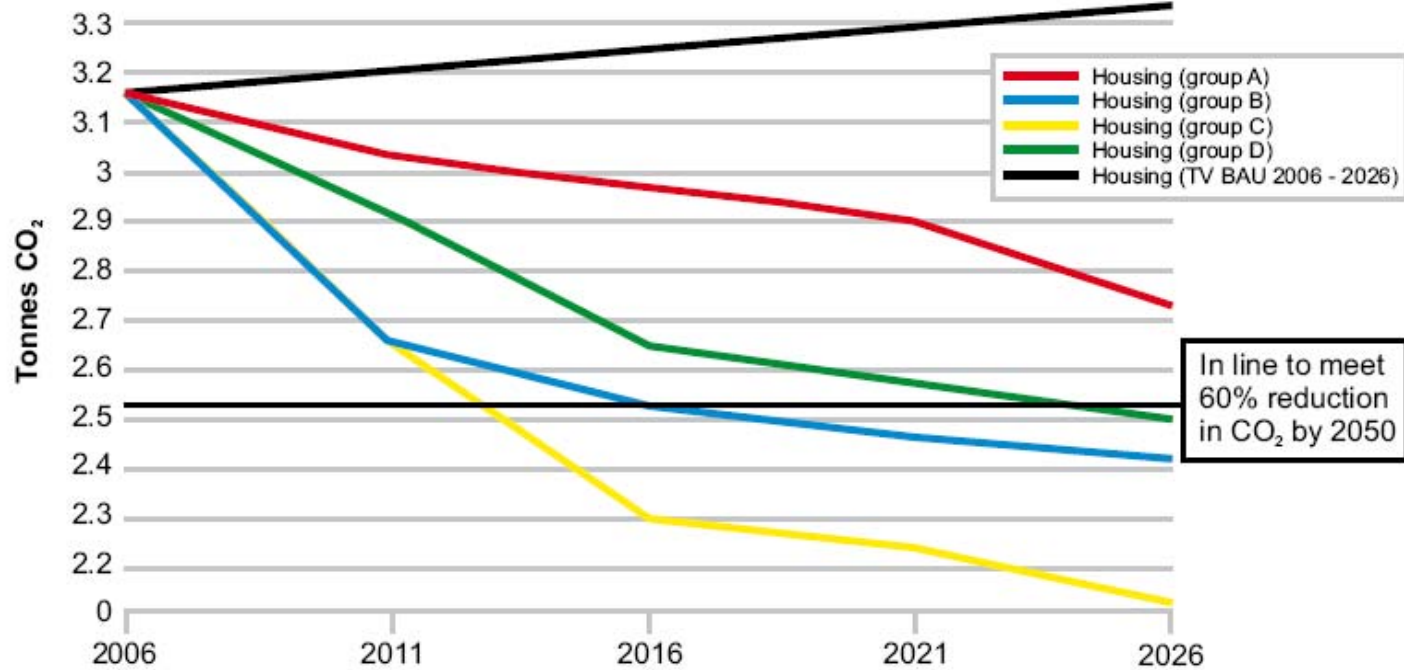
- 2004 Housing Market assessment showed much of the housing stock outdated in terms of standard and amenity
- Progressive renewal of housing needs to solve problem of market failure and ensure balance between aspiration and available stock
- ‘patch and mend’ approach to old housing may not be enough in some areas
- Housing market renewal key to regeneration and progress in the Tees Valley

## ■ Business As Usual Scenario

- Based on existing policies and trends
- 1168 houses a year demolished
- 2510 houses a year built to meeting Building Regs only (no ecohomes)
- No retrofit programme
- 14% renewables in energy mix by 2026
- Carbon Footprint increases by 5.5% over 20 years

# Housing: Scenario Results

Figure 5 : Group scenarios for housing



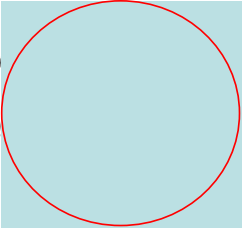
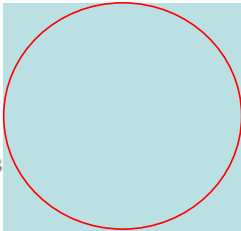
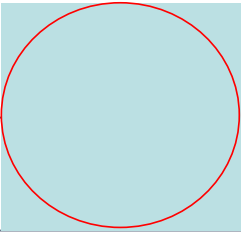
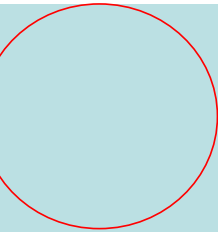
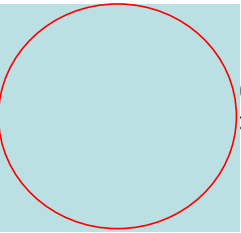
# What Happened As A Result

- Presentation of results
  - Full day event, Middlesbrough
- Training organised
  - ~10 people, half-day October 2007
  - Tees Valley JSU, Darlington Borough Council
- Darlington Local Strategic Partnership
  - Interested
  - Points of engagement?
- Darlington Local Motion
  - Assess footprint impact using REAP



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# Housing Policy Approaches

<b>A</b>	Focus on meeting national climate change targets		New build above rate of BAU – reflecting trends in household occupancy. All houses built to best practice energy efficiency standards	Energy efficiency of existing housing improves with technological advancements	Renewables boosted by inclusion of clean coal technologies	<b>0.69%</b>	<b>-13.7%</b>
<b>D</b>	RSS based with focus on retrofit	Similar rate to BAU but 75% demolitions are Terraced housing	Bias toward detached new build. 30% homes built to Ecohome Excellent standards 10% built to 'Best practice standards' by 2026		Energy policies reverse recent trends. Renewables generate 20% of electricity by 2026	<b>-1.04%</b>	<b>-20.8%</b>
<b>B</b>	Housing market restructure	Demolitions 1400 a year until 2011 then decline to below BAU levels	New build rates peak in 2016. 50% of new build built to Ecohome or 'best practice' standards	50% of houses retrofitted to minimum standards		<b>-1.18%</b>	<b>-23.6%</b>
<b>C</b>		Realistic rates based on funding and future forecasts		High emphasis as most of existing stock will remain	Steady reduction in gas and coal. Renewables 43% by 2026	<b>-1.63%</b>	<b>-32.6%</b>