

Newcastle: A green case study



Steve Evans

Director of Corporate Services

The Context

- **City with 284,300 inhabitants, with CO2 emissions of 6.8 tons per capita**
- **At the forefront of economic growth in the North-East of England, as part of a change from heavy industry to the knowledge and service sectors**
- **UK's most Environmentally Sustainable City 2 years running**
- **The national agenda is to reduce carbon dioxide emissions by 34% in 2020, and 80% by 2050.**
- **An ambitious Citywide Climate Change Strategy and action plan**
- **Developed our carbon reduction scenario - but constrained by nationally produced emissions data**

Leading the change

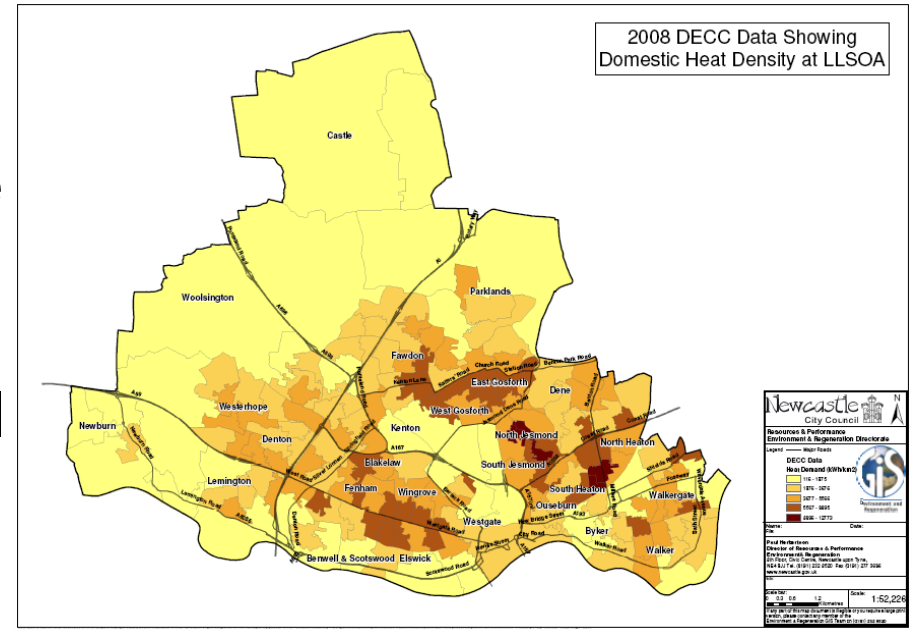
- **Carbon Routemap – a pioneering project with Newcastle University as part of the Science City Partnership**
 - **Aims to understand energy and carbon profiles at a building level**
 - **Will help us to understand remaining/ future potential interventions and identify the suitable buildings**
- **Provided free loft and cavity insulation to 45,000 homes, through a public, private and voluntary partnership backed by Central Government.**
- **Started ‘greening the council’ – Green Fleet Strategy, retrofitting buildings.**

Leading the change

- **Changing behaviour – encouraged residents to borrow smart meters from libraries**
- **Established a freight quality partnership across the region which aims to create a more efficient and sustainable flow of freight traffic.**
- **Embedding adaptation into our Science Central project – considering the future climate impacts**
- **Run a district heating scheme in Byker which powers almost 1,800 homes**
- **£1.7 million project to link 4 tower blocks in Riverside Dene to a biomass system, estimated to reduce carbon emissions by 40-80%**
- **Run a pilot project in Walker to show how social housing can cut energy demands by up to 80%**

Our future plans

- Better use of I.T. to understand and reduce the problem (e.g. changes in temperature/rainfall, vehicle routing, and spatial distribution of heat, gas and electric use)
- This will underpin a number of areas, including economic modelling for a district Heat Network, reducing climate impacts on services, and mitigating carbon emissions from fleet transport



Our future plans

- **A £3.9 million project to develop 35 types of passenger electric vehicles in conjunction with Newcastle University and regional partners**
- **Started to install up to 700 Electric Vehicle Charging points**
- **Designing a web portal to let residents and businesses unlock our data – let them check if their buildings are suitable for solar photo voltaic/thermal, grants, and see anticipated bills**
- **We will roll out 1,000 domestic photo voltaic installations and connecting to National Grid – greening the grid and being paid for it**
- **Embedding carbon values into procurement and investment decisions – we currently spend around £400 million p.a. on goods and services alone**
- **Better understanding the relationship between our financial and carbon footprints**

Changing our approach to IT

- **Designed our environment to deliver efficient architectures and reduced energy consumption e.g.**
- **Merging the wide-area networks**
- **Reducing server hardware from 540 servers to 208 further reduction to 10 servers over the next 3 years**
- **Installing a power management platform**
- **Working in partnership to consolidate regional data centres**