

# Newcastle: A green case study

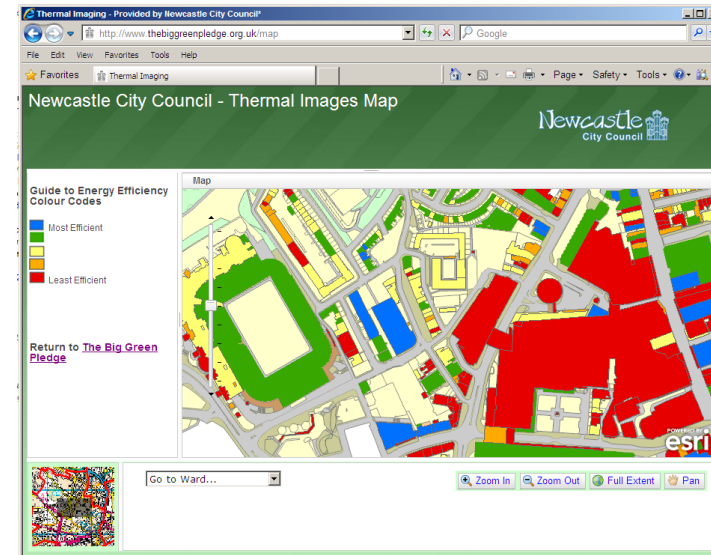


# The Context

- **City with 292,000 inhabitants, with CO2 emissions of 6.7 tons per capita**
- **At the forefront of economic growth in the North-East, as part of a change from heavy industry to the knowledge and service sectors**
- **UK's most 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 constrained by nationally produced emissions data**

# Leading change in the Domestic Sector

- Retrofitted 40,274 houses, and installed 51,514 insulation measures, resulting in a reduction of 31,369 tonnes of CO2 per annum
- Developing a 'Green Deal' successor scheme to provide renewable technologies to residents at no cost
- Designed a web portal ([www.thebiggreenpledge.org.uk](http://www.thebiggreenpledge.org.uk)) to let residents and businesses unlock our data – let them check energy efficiency of their buildings
- Plans to look at suitability for solar p.v./thermal, grants, and see anticipated bills



- **Changing behaviour – encouraged residents to borrow smart meters from libraries**
- **Running a social marketing pilot to develop new approaches to take up of Loft Insulation**
- **Established a freight quality partnership across the region which aims to create a more efficient and sustainable flow of freight traffic.**
- **£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%**



# Changing our approach to IT

- **Designed our environment to deliver efficient architectures and reducing energy consumption (e.g. cloud computing)**
- **Merging the wide-area networks, working with our partners to take 4 networks down to 1, releasing 500KWh per year**
- **Investing in the technology to minimise environmental impact (mobile working, home working)**

- **Reduced server hardware from 540 servers to 208, releasing 6,400kWh p.a.**
- **This will fall to 10 servers over the next 3 years saving a further 1,900 KWh p.a.**
- **Installing a power management platform, expected to release 7,000kWh savings each year**
- **Consolidating regional data centres, reducing our energy consumption by 1,500 KWh per year**

# Transport







# Some of our future plans

- **Rolling out the Green Deal scheme to 15,000 households across the North East**
- **We will roll out 1,000 domestic p.v. 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 use of I.T. to understand and reduce the problem (e.g. 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**