Words Matthew Sutcliffe

Low carbon living

Dr Kevin Anderson, Research Director at the Tyndall Centre for Climate Change Research.

Imagine the year is 2050. You live in a comfortable house that looks more or less like a house does today, except that it costs a fraction to run by comparison. Your heat and electricity come from power stations that run at 80 per cent efficiency instead of the current 45 per cent, or from solar panels, wind turbines or combined heat-and-power units. You work from home or commute to work on clean, efficient public transport.

At work and at home there is less need to travel because advanced electronics mean you can hold meetings or go shopping 'virtually'. Because we're less reliant on cars, there are fewer traffic jams, and the cars we drive are fuelled by electricity or clean-burning hydrogen. The air you breath is correspondingly cleaner. You can choose a slower pace of life and you have more time off from work. Sleek double-decker trains whisk you and your family off for unhurried holidays, often in the Northwest's own revitalised resorts, and there is even a decent dining car on board. You occasionally still fly for work or leisure and when you do, it's likely to be on a hydrogen powered aircraft.

> "We can move to a low carbon economy, but the journey will become much more arduous the longer we leave it to act."

More startlingly, the values that underpin and drive our society have evolved, and for the better. We no longer measure personal success solely in pounds, and national progress in GDP. We live stabler lives amongst stronger communities.

This is one vision of the future, as imagined by Kevin Anderson. Perhaps, more accurately, it is his dream or aspiration for the future.

Anderson is one of a handful of people in the Northwest – indeed, the country – who has the expertise required to glimpse this tantalising vision.

He is research director of the Tyndall Centre for Climate Change Research at the University of Manchester. With bases around the country, the centre's scientists have won a reputation for objectivity and insight that ranks them amongst our most respected experts on climate change.

Such is the centre's renown that Anderson is a man much in demand. He's managed to squeeze in an interview for Source between speaking at both the Conservative and Labour Party Conferences and fielding questions from the national press. Rarely does he work less than 60 hours a week.

The press want to talk to Anderson about a new report from the Tyndall Centre, which warns that the government must act within the next four years to drive down carbon emissions, if the UK is to play its part in mitigating the worst effects of climate change and meet its own targets for 2050.

"We have very little time to bring into place a suite of policies that will start to reduce emissions," says Anderson. "Our emissions are actually going up. We've got to not only stop that rise, but turn it down very dramatically by about 2010 or 2012. That's no time from now."

If we fail to act quickly and decisively, Anderson is clear that we will pay a heavy price. Taking the water environment here in the Northwest as an example, he warns, "There are huge water implications because the rainfall will probably be quite different. There might be almost monsoon-like conditions where everything grinds to halt, and then very hot periods where the railway lines expand." At worst, the consequences will be alternating periods of drought and floods, and problems with the sewage system.

So with the Northwest Regional Development Agency set to unveil its Climate Change Action Plan in November, Anderson is calling for strong leadership regionally as well as from London. "I want to see the Northwest lead on both renewable energy production and also on reducing demand for energy, which is about clever, sophisticated ways of integrating behaviour and technology. It is one of the important issues the Northwest should be leading on because we have excellent expertise at our universities."

It is because the challenge of climate change will force us to rethink not only how we live our daily lives, but also the values that underlie modern life, that Anderson's vision of a brighter future comes into view.

So is he optimistic? Looking at the lack of action so far, unfortunately not very.

"But there's a small thread of hope that I cling to, and if enough other people join that thread of hope then perhaps we can make significant changes. Our message is one of hope as well as showing the real scale of the problem."

TURNING POINTS

1978 – Leaves school at sixteen & joins the merchant navy, working as a marine engineer for P&O.

1982 – Leaves Manchester University with a degree in Chemical Engineering. Joins Marathon Oil as a project engineer, & also works on North Sea oil rigs.

1990 – Graduates from the University of Manchester with an MSc in Environment and Pollution control.

2001 – Joins the Tyndall Centre at the University of Manchester.

2005 – Becomes research director of the Tyndall Centre's energy and climate change programme.