

view from the field



Corporate responsibility innovation and climate change at Severn Trent Plc

Sir John Egan, Chairman, Severn Trent Plc

Climate change is the most serious environmental issue facing the world today and one that also has important social and political implications for the 21st century. It is now widely accepted that the underlying reason for climate change is the world-wide emission and build-up in the atmosphere of CO₂. To resolve it, co-operation will be required not just from government and industry but from every household in every country in the world.

As long ago as 1896, the Nobel Prize winning chemist Arrhenius predicted that burning fossil fuels would increase the content of CO₂ and other greenhouse gases in the atmosphere and that this would cause global warming. When Arrhenius' predictions were made there were 280ppm of CO₂ in the atmosphere, today there are 380ppm – by 2050 it is projected there will be 540ppm - roughly double the pre-industrial levels. By 2075 there will be 790ppm, by which time the global temperature will be up to 6°C (or 11°F) higher than the pre-industrial levels. This might not sound much but it means that the Greenland and Antarctic ice caps will have largely melted and sea levels will rise by 20–30 feet. Already the evidence here is alarming, the ice caps are thought to be melting much more rapidly than 8 years ago when I first started investigating this phenomenon.

The developed world needs to take responsibility. The UK produces about 2% of the world's CO₂, the USA produces 22% and the EU produces 12% in total. But a solution requires the full engagement of large developing world emitters: China already produces 13% of the world's CO₂. It is vital that we put in place a system of international co-operation for CO₂ reductions including all major emitters. Such a system will need to reduce emissions whilst not restricting the social benefits of economic growth, particularly for emerging markets. Therefore any new international treaty to reduce emissions should be underpinned by substantial technology assistance to emerging markets to enable cleaner development.

Implications for business

What does this mean for business? All businesses must seek to understand their contribution to climate change and to reduce their emissions. Understanding means taking a long term view of the changing environment within which each industry operates and putting in place measures to both manage risk and innovate to provide solutions.

Severn Trent has established climate change as a priority within its corporate responsibility (CR) programme. Our group is responsible for around 0.3% of UK greenhouse gas emissions, largely from landfill gas and the indirect emissions from purchased electricity. However we also generate around 5% of UK renewable electricity from the degradation of biodegradable waste and sewage sludge, as part of our programme to control net emissions. Severn Trent Water (STW) generates renewable power which equates to 12% of its own electricity use and we are keen to become more self-sufficient to protect the group from the impact of volatile energy prices. To expand this renewables capability further we are considering micro-generation including hydro, solar and wind technologies. We will continue to invest in improving power generation from anaerobic digestion, an area in which we lead the UK water industry.

Businesses also need to understand how they might need to adapt to a changing climate. The water industry, because it will see the impact of a changing climate faster than others, has a responsibility to control our own emissions and educate others regarding the challenge of mitigation and adaptation. Over the coming decades the UK will see drier summers,

increasing water resource pressures, whilst also having to deal with the flood risks arising from more intense precipitation events.

STW has worked closely with the UK Climate Impacts Programme (UKCIP) to understand how the climate will change for our region and has incorporated these changes into long term water resources planning. We have also run a series of workshops examining the potential impacts of climate change on Biffa's activities which are feeding into business planning.

The water resource pressures caused by climate change, will create political and business challenges in both the developed and developing world. Businesses need water to survive and flourish – clearly business cannot succeed in a society that fails. Severn Trent is a longstanding member of the Water Programme at the World Business Council for Sustainable Development, which will shortly publish new scenarios regarding the implications of water stress for business growth around the world over the coming decades.

There will be business opportunities in climate change which the water industry will be well placed to benefit from. New technologies for the re-use and recycling of wastewater will be required to improve the efficiency of water use. Energy efficient desalination, particularly if it can be powered by renewable energy, could be a positive solution for water stressed areas.

Environmental trade offs

In 2005 Severn Trent published a Carbon Management report, available on our website, which investigated the long term challenges and opportunities the water and waste industries face from climate change. Sharing this work with investors has helped them understand the risks we have identified and how we intend to manage them. It has also prompted an interesting dialogue within the water and waste industries.

In particular the report highlights a number of environmental 'trade offs' which business, government and society as a whole need to debate. Do we want ever higher standards of wastewater treatment, which requires greater energy use and therefore greater emissions? Are we aware that increased recycling will, at least in the medium term, increase transport

emissions? Such potential trade-offs all need greater research and consideration in the process of environmental policy making.

The latest, third, phase of Severn Trent's carbon management work investigates the long term emissions and energy cost projections of different technology choices for sewage sludge treatment in Severn Trent Water and waste treatment in Biffa. The assets which both of these businesses invest in will be in use for 25 years or more, and so decisions made today need to take account of the likely impact of climate change over that period. These impacts include not just water resource pressures or more intense precipitation events but also the impact on energy costs that future emissions trading schemes might bring. Through this work we are placing climate change at the heart of our business planning.

Business as part of the solution

A well run company treats corporate responsibility as an extension of its core business, focusing on issues of importance to business performance and executing high quality programmes with great skill. In addition stakeholders may identify other issues in the business environment which they view as important for the company to manage well, which the company should embrace with equal rigour. In this way business is a force for good in society. Climate change clearly presents risks and opportunities to our core business and as such we seek to manage it in an integrated way.

Businesses, especially utilities, also have an opportunity to help educate stakeholders, including customers and investors, regarding the challenge that society faces from climate change. Recent research for Severn Trent has shown that whilst customers may understand the need for environmental action such as greater recycling or water conservation, they don't understand the knock on effect these activities can have on emissions and therefore climate change. Nor do they feel that their own actions can make a significant difference to a problem as big as climate change. Together we must assist households in understanding that they can make a difference.

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