

Severn Trent – Climate change adaptation

Company background

Severn Trent is a leading environmental services group providing water, waste and utility services. Group turnover in 2004 was £2015 million. The Group employs over 15,000 staff. Its core businesses are:

- Severn Trent Water provides essential water and sewerage services to around 3 million households, as well as products and services to business customers in England and Wales.
- Biffa is one of the UK's largest integrated waste management businesses providing collection, landfill and specialist waste services to local authorities, industrial and commercial clients.
- Severn Trent Laboratories (STL) is the largest environmental testing company in the world, providing environmental analysis services in the US and the UK.

As Severn Trent is an environmental services company, climate change will have a major impact on its operations. Moreover, the company is a significant emitter of greenhouse gases. Methane, a by-product of the decomposition of organic material at Biffa's landfill sites, and from sludge digestion at Severn Trent Water's sewage treatment works, accounts for 69% of its greenhouse gas emissions. Other sources are indirect, arising from electricity use for the treatment of water and waste, as well as from the running of its transport fleet. In 2003/4 greenhouse gas emissions from its UK sites, vehicles and electricity purchases totalled 2.02 million tonnes of carbon dioxide equivalent (tCO₂e), approximately 0.3% of the total greenhouse gas emissions in the UK.

Severn Trent's approach to climate change is twin-track: measuring, monitoring and mitigating its greenhouse gas emissions; and adapting the business to ensure its operations are able to cope with the adverse impacts of climate change.

Adapting to climate change at Severn Trent

Severn Trent's rationale for adapting to climate change falls under two broad headings: risk and responsibility. The changing climate represents a risk to Severn Trent's business interests, so managing and minimising those risks is key to its business success. Recognising its obligations to the communities it serves, its customers, its employees and its shareholders, the company regards adapting to climate change as a key responsibility in meeting stakeholder expectations.

Water management

The most critical risks and potential impacts relate to Severn Trent's water management business. Severn Trent Water has taken a lead within their sector to understand and plan for the effects of a changing climate. Over the next century, drier summers will put greater pressure on water resources, while wetter winters with increased periods of intense precipitation will put pressure on its sewerage systems to provide adequate drainage.

Historically, droughts have occurred in the UK every 30-40 years. By 2030, it is forecast that they will occur every 5 years. Moreover, it is increasingly likely that droughts and localised flooding could occur simultaneously in two locations under Severn Trent's control.

Decision-making on climate change adaptation is integrated within the business planning process. The company's detailed assessment has identified over 150 potential impacts (or climate 'hazards') including general impacts such as working conditions for employees, facilities management and transport. An important part of its strategy is to maintain and adapt current water management assets to cope with climate change effects. Ultimately, this strategy increases asset robustness, a key factor in dealing with uncertainties posed by the changing climate.

Beyond water

The company's approach is founded on building capability and capacity to adapt to climate change, starting by improving knowledge and understanding. Severn Trent is committed to exploiting the benefits of its environmental expertise across the group and in 2005 will use its water business' learning on climate change adaptation to assist Biffa's planning in this area. Biffa's operations will be affected by climate change and the company is beginning to assess possible impacts such as changes in rainfall patterns and temperature affecting the rate of degradation of waste and the production of landfill gas. The effective management of potential climate change impacts across the group helps minimise the risks and costs both to the business and the environment.

Outside the firm

Allied to the strategy of building internal capacity is a comprehensive approach to raising awareness outside the firm of the need to adapt to climate change. Severn Trent has worked with the United Kingdom Climate Impacts Programme (UKCIP) and other partners on the regional climate change impact scoping studies within its area.

The company's increasing credibility and expertise has been recognized by the UK Government and led to invitations to attend the COP7 Conference in Morocco and to join an independent advisory body providing guidance to Ministers on the impact of climate change for business. It was also nominated by the UK Government to the International Panel on Climate Change (IPCC) as an author and reviewer for the fourth assessment report of the IPCC.

Severn Trent has provided technical advice and guidance to the Caribbean states on the development of their own climate change adaptation programme. In addition, the company is working with the Institutional Investors Group on Climate Change (IIGCC) to develop a methodology for investors to assess the vulnerability of business to climate change. As a result of its work, Severn Trent has gained increasing international recognition, helping build the company's credibility and profile.