



Our Commitment

We will continue to mitigate our greenhouse gas emissions to the atmosphere, and to increase our energy efficiency in the production process, through innovation and adoption of relevant technologies.

Production of Scotch Whisky and its co-products requires energy and the associated carbon dioxide (CO₂) emissions must be mitigated as far as possible. Improved energy efficiency is a priority.

The Scotch Whisky Association manages the spirits industry's climate change agreement (CCA) with the UK Government on behalf of the whole industry via the **Spirits Energy Efficiency Company (SEEC)**. The Government sets challenging energy efficiency targets for the sector to achieve. All of Scotland's grain distillers, and more than half of malt distillers, are SEEC members, together with the gin and vodka sectors. Since the scheme was set up in 1999, the energy used to produce a litre of pure alcohol has been reduced by 18% at a time when production has increased by 22%. This follows significant investment in new technology and facility upgrading.

At Chivas' large **Strathclyde grain distillery** a sustained improvement programme, including energy efficiency and heat recovery investments, as well as process control and management developments, has delivered results. Between 2005-2008, annual energy consumption and CO₂ emissions fell by 7%, saving 36,000 tonnes of CO₂. Over the same period, Chivas increased production by 24%.

Glen Grant distillery in Rothes recently invested nearly £400,000 on energy efficiency measures, replacing steam traps to save energy on pumping and installing multi-pass condensers to raise the water discharge temperature from the cooling system to heat up the still charges. Spirit production has increased by 4%, but an equivalent of 700

tonnes of CO₂ a year saved. Gas savings have reduced costs by over £80,000 a year.

A £250,000 investment at **Glenmorangie distillery** aims to recover latent heat from new wash stills to heat other process waters. 175 tonnes a year of CO₂ will be saved, with a payback period of under one year.

Diageo's new Roseisle distillery also has built-in heat recovery systems which allow heat from distillery cooling systems to be utilised at an adjacent maltings, meaning that the maltings have significantly less fossil fuel requirements.

Ian Macleod Distillers' Glengoyne distillery is working with The Carbon Trust to install an economiser on the boiler, and an improved heat recovery system. This has resulted in a 5% less gas usage, and an 80 tonnes a year CO₂ saving. The Glenglassaugh Distillery Company has recently re-opened the distillery at Portsoy and is examining the potential for micro generation from solar power.

The North British Distillery - a joint venture between Diageo and The Edrington Group - has installed a heat exchange system that will use 1.5MW of the heat currently rejected to atmosphere by air blast coolers to heat a local High School. The system will be commissioned in 2010. A similar example is Bowmore Distillery on Islay which supplies heat to the island's leisure centre.

Bottling, Packaging & Transport

Diageo's Leven Bottling and Packaging Plant was, in May 2009, awarded the Carbon Trust's Energy Efficiency in Manufacturing Award 2009. Now in its fourth year, the award aims to publicise energy efficiency projects that have made a significant and lasting impact on an organisation's ongoing business performance.

The award has been achieved in recognition of a variety of measures at the site including installation of thermostatic temperature controls in the dispatch area and bottle storage warehouses. Two high-speed doors were also installed between warehouses to retain heat, whilst allowing forklift truck movement. Leven's sixteen bottling lines have had new controls installed to automatically shut down compressed air and electricity supplies when the lines are not in use. Energy saving measures have resulted in annual savings of around 750 tonnes of CO₂, reducing costs by £150,000 a year.

John Stocks, Manager of The Carbon Trust, said *'Environmental improvement in Diageo is driven right from the top of the company. Senior management commitment, coupled with real enthusiasm from staff at all levels, supported by clear and regular reporting has led to a fantastic result for both the environment and Diageo.'*

Where possible distillers use rail or sea transport for bulk shipments.



Swimming pool, Bowmore