SUBMISSION FROM THE SCOTCH WHISKY ASSOCIATION

Introduction

The Scotch Whisky Association is the trade body representing over 90% of the Scotch Whisky industry. Members are distillers, blenders, bottlers and those engaged in the wholesale and export trade in Scotch Whisky. Scotch Whisky exports represent 80% of Scotland's food and drink exports and in 2010 contributed £3.45bn to the UK’s balance of payments. 2011 looks set to surpass the previous year’s record as exports for the first three quarters were 23% greater than the same period in 2010: exports of Scotch Whisky generate about £125 every second to the UK balance of trade.

We welcome this opportunity to provide a submission to the Committee. The vast majority of the Scotch Whisky industry’s energy requirements are associated with the generation of heat, largely steam for the distillation process. In 2008, natural gas accounted for 58% of the industry’s energy inputs and heavy fuel oil 21%. Electricity accounts for around 20% of the industry’s primary energy requirements. Electrical energy is largely used in our bottling facilities and offices.

Since 2009, the Scotch Whisky industry has committed to an ambitious Environmental Strategy that sets out a number of targets that include reducing emissions and moving away from fossil fuel usage.

Recently, the Scotch Whisky industry has invested heavily in renewable energy. Our comments below set out some of the challenges faced by members in achieving our own Environmental Strategy ambitions. We appreciate that some of the incentive schemes and policy measures we refer to are administered at UK-level, although it is important that the Committee appreciates some of the challenges faced by Scottish-based businesses and how those challenges interact with Scotland’s renewable energy ambitions. As one of Scotland's key production industries, these challenges could hold Scotland back from achieving its renewable energy ambitions.

The Scotch Whisky Industry’s Environmental Performance and Ambitions

The Scotch Whisky industry has a proven track record in taking active steps to mitigate climate change. Through their participation in the spirit drink sector’s Climate Change Agreement, distillers have improved energy efficiency by 25% since 1999. Over the same period CO₂ emissions have reduced by 13% despite production increasing by 16%.

In 2009 the industry launched a wide-reaching, and award-winning Environmental Strategy. Among the strategy’s various targets is a commitment to source 20% of primary energy from non-fossil fuels by 2020, rising to 80% by 2050. Although the industry has a long history in taking active steps to improve energy efficiency, the strategy established a formal starting point in the journey to reach the 2020 and 2050 targets. Our progress report¹ of December 2010 on the Environmental Strategy indicates that in 2008, 3% of the industry’s primary energy was from non-fossil fuel.

The next progress report is due to be published towards the summer of this year and we expect that report to show progress has been made due to the large investments in renewables that have been made by the industry.

To deliver our non-fossil fuel targets, the industry is investing significant sums in renewable energy. A number of these projects seek to generate renewable energy from distillery by-products. Since 2008, over £160m has been invested at five sites alone in renewable energy schemes such as large-scale anaerobic digestion (AD), biomass and renewable combined heat and power (CHP). We are confident that those projects and other investments will help us to meet our 2020 target.

**Challenges**

The challenges faced by the industry in realising its energy ambitions are wide-ranging. Some challenges are internal and are faced by all industries, such as ensuring sufficient understanding of technical and environmental matters within finance departments and senior management teams. The Scotch Whisky industry is one with a long-term view. This has made discussions around challenging traditional financial return on investment models more straightforward in Scotch than perhaps in other industries with shorter planning cycles.

Other challenges are external; planning, access to finance, incentives, access to proven technologies and a complex and burdensome policy framework are all cited by our members as barriers to progress.

(i) **Technology**

The Scotch Whisky industry’s primary activity and focus is to produce Scotch for our 200 (plus) export markets. Whilst energy is a critical input to making Scotch, it is our view that Whisky companies are likely to continue to rely on external expertise and tested technologies for energy projects rather than grow expertise or develop new technologies in-house. There is an opportunity here for industries to share experiences of adopting various (successful and less successful) technologies and techniques so that others might learn what works. It would also make visible technologies that aren’t yet used in distilling but could be adapted to work in a distilling environment.

Anaerobic digestion (AD) is a technology for biogas production which is established in a number of process industries, though it is best proved in continuous processes. New make spirit that will eventually mature to become Scotch, is either distilled in a malt distillery in a batch process, or in a grain distillery, which runs on a continuous cycle at a larger scale. To give an idea of size, one grain distillery could produce more new make grain spirit in one month than most malt distilleries produce in a year. AD is being adopted by distillers on an industrial scale and our industry is one of the first to invest in the technology to produce biogas for energy and high quality biofertilisers for use in agriculture.

Although the physics and chemistry of AD is predictable, the biology will prove challenging to batch processing such as in malt distilleries – even at those sites with
the dedicated resource to devote to such schemes. It will also be challenging to scale down existing technologies to fit a malt distilling model.

Distillers recover and re-use heat as much as possible. There will always however remain a quantity of low-grade rejected heat that might be of use to third-parties and where synergies exist with neighbouring businesses or facilities, Scotch Whisky distilleries have successfully offered that heat to their neighbours. This is the case at Bowmore Distillery on Islay whose low grade heat warms the local swimming pool or at the case of the North British Distillery that heats Tynecastle High School. Diageo's new malt distillery at Roseisle in Moray has also successfully overcome challenges posed by its remote location; as it is in sight of an existing maltings which now takes excess heat to assist in the drying of its malted barley. Such co-location is not practical for most companies however and setting up non-core activities to resolve energy challenges might not be of immediate interest to most distillers focused on spirit production first.

Many distilleries are located in remote parts of the country, away from the gas grid and rely on heavy fuel oil for their fuel supplies. Distillers might in future be able to access alternative fuels such as recycled or waste oils to fire their boilers. In order for this to become a long-term reality, supply chain issues such as certainty of supply will need to be resolved. There remains potential for technological development in the area of alternative renewable fuel supplies and we are aware of a number of initiatives aimed at offering new fuel types. We watch the development of these with interest and try to assist such initiatives wherever possible.

(ii) Supply Chain and Infrastructure

We have concerns about where Scotland’s energy will come from when existing coal, gas and nuclear power generating stations reach the end of their working life. Although there has been significant investment by the traditional power providers and from other industries in renewable energy generation in recent years, there will need to be some form of base-load back-up to ensure a constant and reliable supply. We agree that de-centralised renewable electricity generation will play its part in helping Scotland meet its targets, although there needs to be significant investment in the grid to ensure that renewable power generated in remote rural areas can be fully utilised. Whilst plans to improve the transmission of energy from the north of Scotland to the south are advanced, the wider grid still requires upgrading to enable de-centralised generation to contribute to the supply. We must also not lose sight that despite improvements in energy efficiency, demand for electricity is likely to increase through, for example, electrification of transport (i.e. road and rail).

Although renewable electricity generation (as a proportion of gross consumption) has doubled since 2000, official statistics\(^2\) show that in 2010 around one quarter of Scotland’s gross electricity consumption came from renewable sources. At current energy use levels there will need to be a three fold increase in renewable generation by 2020 if the target is to be met. Alternatives to biomass do exist but they suffer the disadvantage of intermittent supply. Wind power is greatly influenced by day-to-day climatic conditions, although other renewables, such as hydro suffer similar

fluctuations. In its high-level summary on renewable energy of 22 December 2011, the Scottish Government acknowledges that the “drop in renewable electricity generation in 2010 was a result of a fall in hydro generation due to very low rainfall”\(^3\). Scotland therefore faces a significant challenge in achieving its renewable electricity ambitions.

The Scotch Whisky industry wishes to play its part in Scotland meeting its electrical energy ambitions. If source switching to renewables is to become a real option for the whole of the Scotch Whisky industry, some serious structural and geographical challenges remain to be overcome.

The vast majority of the industry bio-energy projects that have been commissioned to date are situated in the central belt of Scotland and connected to the gas grid. Many malt distilleries are located in remote areas and tend to be much smaller in size than grain distilleries so their potential to harness the energy embodied in distillery by-products is considerably reduced. Inability to access the electricity grid in some areas reduces the incentive to generate electricity from renewables. Whilst UK Government incentives exist for renewable energy generation, access to them for distillers remains infeasible because the practicalities of the technologies required are so complex and expensive for distillers, incentives remain out of reach.

(iii) Access to Finance

Our members often cite access to finance as a real challenge to renewables projects. The current short-term financial squeeze is also of concern. Increasingly, risk-averse lenders are more focussed on guaranteed returns than ever. Demonstrating long-term payback from environmentally driven projects is straightforward, particularly when growth in Scotch Whisky has been historically so strong. But the short-term is harder. Banks and lending institutions are now so risk averse that it is commonly cited as the biggest barrier to progressing environmental investment projects.

This is why strong, clear financial incentives to encourage investment in renewables is encouraged is critical for Scotch Whisky. Lenders are far more likely to invest if a particular scheme is seen to have Government backing in principle.

(iv) Energy Market Reform and the Subsidy Regime

Schemes producing energy for in-house use will improve Scotland’s renewable energy capacity as well as reducing demand from the grid. As mentioned previously, the industry has invested significant sums in renewable energy, much of this in large CHP at the grain distilling sites and in AD. In those projects, spent cereal grains are dried and combusted as a biomass fuel to generate heat energy and electrical power. Some support is currently available for distillers under the Renewable Obligation (Scotland), Feed-in-Tariff Scheme, or Renewable Heat Incentive (RHI) for these projects but incentives are by no means easy to access and some sites, by virtue of their nature or geography have limited access to some incentives.

Renewables Obligation Scotland (ROS): In its recent consultation on the Renewables Obligation (Scotland), the Scottish Government proposed removing support for large scale biomass because of concerns on the supply of wood fuel. It should be noted that the term “biomass” includes fuels other than wood. Scotch Whisky distillers are increasingly looking to use the energy embedded in spent cereal biomass by using spent grains as a fuel source in renewable CHP plants or biomass burning. Because of the high capital costs in constructing those plants, we are concerned that support might be reduced and this may jeopardise future schemes which in turn will impact on renewable energy generation. We look for assurance that the use of non-wood fuel biomass fuel will continue to be supported under the Renewables Obligation (Scotland) particularly at a time when the production of Scotch Whisky is increasing and higher volumes of by-products are available.

We are concerned with proposals to reduce support for electricity generated by AD. The proposed financial model from the Department of Energy and Climate Change (DECC) (a model that the Scottish Government has flagged its intention to follow) is based on an assumption that the operator of the AD receives a gate fee of £10 per MWh. This is not the case for distillers as distillers operating AD effectively forfeit the sale of by-products to the animal feeds market in order to extract the energy embedded in them and no gate fees are involved.

With regard to AD, the technology is not yet proven to work in the malt distilling sector. This is characterised by a different feedstock (pot ale) to grain distilling (where large-scale AD has been implemented), and also operates on a much smaller scale and to a batch process. There are issues in scaling down the technology and problems have been encountered in getting the technology to work effectively in the malt distilling sector. Some distillers may have also based their green energy ambitions on using AD to produce biogas and have planned their current plant with capacity increase in mind. Such forward-thinking companies would be penalised if the financial model changes as they may be forced to abandon future AD expansion.

As background, some in the farming community have criticised the use of by-products for renewable energy generation instead of for animal feed. However, the Scotch Whisky industry has reassured the Scottish Government and the farming community that it remains committed to supplying high quality animal feed to the farmers. Becoming more self-reliant in energy terms is critical to secure the long-term sustainability of our industry. Distillers will wish to ensure that they have a range of outlets available in the long-term for by-products – and the supply of high quality animal feed is important to us.

Renewable Heat Incentive (RHI): We had hoped that the Renewable Heat Incentive (RHI) scheme, opened by DECC in November 2011, would incentivise distillers to use their potential to generate biomethane by AD to substitute or complement natural gas as fuel on-site to generate heat. This is the most efficient and environmentally sound use of biogas. However because of a low threshold within the scheme, distillers are incentivised to follow less environmentally sound options such as injecting biomethane into the gas grid to receive RHI support or generating electricity and supplying it to the grid to receive RO support. We have long-called for this anomaly to be corrected in order that the most efficient use of biogas is
achieved, this is particularly important if support for AD under the Renewables Obligation (Scotland) is reduced.

We have recently become aware of a significant financial challenge for Scotch Whisky distillers wishing to develop renewable energy projects in Scotland. The rules in relation to business rate valuations are complex. We understand however that there are a number of methods for assessing business rates valuations for non-domestic properties that differ depending on whether the business is a utility company, sells power direct to the National Grid or if sites produce renewable energy mainly or wholly for in-house use.

It appears that this system in Scotland discriminates against renewable energy facilities that produce energy for use in-house rather than exporting the energy generated to the grid and SWA members will face much higher rates bills (potentially more than twice as high) than anticipated for new renewable energy projects aimed at reducing fossil fuel use. This is an emerging matter that has only recently come to light as new biomass energy schemes in Scotch Whisky are being commissioned but one that we believe may act as a disincentive to the future development of in-house bio-energy plant.

(v) Policy landscape

A major challenge to the Scotch Whisky industry in terms of energy management is that we face a complex, costly, confusing, and at times, contradictory, climate change policy landscape, including:

- UK Climate Change Agreements (CCAs)
- The EU Emissions Trading System (EU ETS)
- The UK Carbon Reduction Commitment Energy Efficiency Scheme (CRC)
- And the various financial incentive schemes.
It is not unusual, even in relatively small Scotch Whisky companies, that a full time equivalent staff member is employed solely to administer the various complexities of the schemes. Additionally, external consultancy advice is frequently sought by participants in the various schemes, all at a cost to the business. This management and financial spend would be better used directly in reducing energy use on site rather than in administering the complex plethora of energy schemes. The Scotch Whisky Association itself requires a full time equivalent staff member to administer the CCAs on behalf of the sector and monitor and manage policy developments in the various UK and EU energy schemes. There is a pressing need for simplification and reduction of overlap of the various schemes.

Removal of red tape and bureaucracy around energy schemes could significantly free up company resource (finances and people) to focus more sharply on real energy improvements.

In our recent submission to the UK Government’s Energy Red Tape Challenge, we flagged up a long-standing concern on the eligibility CCA criteria and potential consequences for the Scotch Whisky industry of a proposed removal of the CCA exemptions for the CRC Scheme. The rules currently prevent large-scale packaging (bottling) plants from participating in the CCA scheme. Depending on company structures some (not all) bottling halls fall into the CRC scheme. We have long-called for bottling halls to be eligible for inclusion in our CCA scheme.

One may imagine five bottles on the shelf of the local supermarket: one of ketchup, one of beer, one of spirits from an integrated distillery/bottling plant, one of fizzy soft drink and one of Scotch Whisky from a distillery with no integrated bottling. It is illogical and inequitable that of these, only the last one will not have qualified for CCL relief on its bottling process and will have suffered a competitive disadvantage as a result – even though the contents of the bottle are probably the most energy-intensive overall to produce, and whisky is the most exposed to international competition.

We believe that widening the eligibility criteria will increase the scope of emissions covered by a climate change policy measure as those bottling halls which fall outside of the scope of the CRC would likely participate in the CCA scheme. This proposal, which we hope that DECC will progress would reduce the number of schemes the industry is exposed to whilst having an environmental benefit.

**Conclusion**

The Scotch Whisky industry is well placed to play its part in helping Scotland meet its ambitious renewables targets. There are a number of barriers that remain in place hampering the industry to reach its full renewables potential. The industry is successfully moving forward despite these but we would call for better tailored incentives and conditions to foster investments in innovative alternative renewable supplies.

The Scotch Whisky Association
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