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Energy Efficiency & Microgeneration
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Dear Sir or Madam

**ENERGY EFFICIENCY AND MICROGENERATION: ACHIEVING A LOW CARBON
FUTURE: A STRATEGY FOR SCOTLAND**

Scottish Water welcomes the opportunity to comment on the aforementioned consultation paper.

In light of the range and complexity of issues covered by the consultation Scottish Water's response is detailed in the attached document.

Yours faithfully

Rob Crusher
Head of Energy Management

Energy Efficiency and Microgeneration: Achieving a Low Carbon Future: A Strategy for Scotland

Scottish Water, and the water industry in general, should be regarded as an energy intensive sector as energy represents a significant proportion of operational cost. Scottish Water accounts for around 2% of the electricity consumed in Scotland and energy demand is rising owing to investment to meet improved treatment quality standards. As such we face significant challenges in reducing dependency on carbon.

Scottish Water endorses the Scottish Executive's aim to improve energy efficiency and stimulate micro generation and would wish to be part of the consultation for future strategy development.

Scottish Water, together with the UK water industry, has responded to the Climate Change Bill consultation and we view the current consultation as one part of our overall mitigation response to reduce energy consumption.

In the absence of specific targets for the industry in general, and Scottish Water in particular, it would be difficult to establish what could be achieved to contribute to the Executive's stretch target.

While the Carbon Reduction Commitment amongst other market mechanisms are being discussed Scottish Water has a regulatory contract which requires the organisation to deliver specific outputs driven by quality and standards.

Notwithstanding this, Scottish Water believes it could make a contribution to CO₂ reduction by adopting energy efficient technologies throughout the business and developing micro generation especially in rural locations.

General Comments

- With reference to the consultation document Scottish Water would agree with the three principles of improving billing data, raising awareness of energy efficient products and services and working with manufacturers to develop new standards and specifications. We would welcome participating in discussions on the introduction of mandatory efficiency standards for mechanical and electrical plant and equipment.
- While it is recognised that building standards will go a long way to improve the energy efficiency of public buildings, Scottish Water expends 2% of the national demand largely pumping fluids and through energy intensive treatment processes. In the absence of a national minimum standard for pumping systems, efforts to improve energy efficiency are driven primarily by financial cost benefit analysis which does not currently value carbon.
- Scottish Water supports the view that planning restrictions and network access are paramount to the success of micro generation, but are concerned that continual readjustment of the renewable obligation does not improve confidence in the Order for existing schemes.

- The CEEF provision has been taken up by Scottish Water for projects which fall within the rules. The success of CEEF relies on the ability to measure the benefit of each project before and after delivery. Scottish Water welcomes the changes to CEEF which support AMR.
- The consultation clarifies the position regarding the balance of 'value for money' and 'whole life costs'. Scottish Water recognises the need to measure the benefit of energy efficiency investment over the lifetime of an asset which potentially limits the current scope of CEEF.
- Scottish Water supports the development of decentralised energy sources including the increased use of micro generation, CHP, biomass boilers, solar thermal panels, geothermal energy and heat pumps. The technologies offer opportunities for both suppliers and users of heat especially where the alternative is a reliance on imported fossil fuels.
- The initiatives to support renewable heat from technologies including energy from waste and anaerobic digestion are areas that would interest Scottish Water. However it is essential that renewable heat will be supported (e.g. through a thermal ROC) to maintain demand and at same time not increase fuel prices for traditional sources.
- Scottish Water has signed up to a carbon management programme operated by the Carbon Trust and funded by the Scottish Executive. It is interesting to note the claims for such schemes highlight savings between 10-15% in carbon dioxide emissions. The water industry is energy intensive and would require significant investment to achieve this level of savings.
- Scottish Water believe there is a need for further explanation on the assumptions and calculations for the targets and benefits of future Loan Action Scotland funding.
- The review of the effectiveness of energy efficiency advice is welcome. There is potentially a need for a standard to govern the provision of advice and endorsement of products and services. This study should benefit from the national survey being carried out on behalf of HM Treasury into barriers to penetration of energy efficiency into organisations.
- We believe the targets set for CEEF savings of 20% energy consumption within 5years are unrealistic within the Scottish Water context. Energy within the industry is largely used for pumping and pumping systems. The capital costs involved to realise that level of benefit far outweigh the current allocation provided through CEEF. Without the development of new gravity sources of water or the adoption of waste water treatment processes that are land -intensive it is unlikely that a figure of 20% could be achieved over the medium term. Waste minimisation, micro generation and renewable generation could offset consumption through development of existing assets, which could be achieved through a co-ordinated approach to regulation, planning and investment, and a review of the minimum payback requirements.

Specific Comments

Q1	<i>Do you agree with the overall approach taken in this draft strategy for improving energy efficiency and encouraging greater uptake of microgeneration? If not, why not?</i>
<p>Scottish Water agrees with the overall approach taken within the draft strategy.</p> <p>Scottish Water agrees with the initiative to streamline support and make it easier and clearer for businesses to take action.</p>	
Q2	<i>Do you have any views on the key actions covered in the draft strategy summarised in Chapter 8 – Conclusions and Next Steps?</i>
<p>Scottish Water agrees with the objective to set NDPB targets for environmental performance insofar as they are achievable and financed within the regulatory contract.</p> <p>The objective to promote energy efficiency and micro generation through public procurement needs to consider whole life costing as one measure to gauge Value for Money.</p>	
Q3	<p><i>The draft Strategy states that we will consider targets to be included in the final Strategy and Action Plan:</i></p> <p><i>a) Do you have any views on specific targets referred to within the draft?</i></p> <p><i>b) Are there any other targets which you believe should be considered?</i></p>
<p>Scottish Water agrees with target setting and that targets for the water industry should be considered around Key Performance Indicators which account for energy growth from quality and standards while managing unit consumption.</p>	
Q4	<i>Are there any other comments you would like to offer on this strategy in relation to the promotion of energy efficiency and microgeneration in Scotland?</i>
<p>Scottish Water would support an objective to promote energy efficiency and micro generation with an integrated approach to climate change both for adaptation and mitigation.</p>	
Q5	<i>If you are responding on behalf of an organisation, how do you think your organisation will/can contribute to the success of the strategy?</i>
<p>Scottish Water believes it can contribute to the success of the strategy</p>	