

## Policy Position Statement

# Climate Change

### Purpose

The purpose of this Policy Position Statement (PPS) is to set out the position of CIWEM in relation to Climate Change, in the context of both international action and policy and also in relation to UK activities. It does not discuss in detail the wealth of evidence concerning the causes or effects of Climate Change, which can be researched thoroughly via a host of peer-reviewed literature and other sources. This PPS starts from the position that the evidence for anthropogenic climate change is now so extensive and robust that attention and debate must focus squarely on mitigation and adaptation strategies, and is presented in this context.

### CIWEM calls for:

#### Stronger international agreements

- To ensure that international agreements on climate change require all major emitters to reduce their emissions
- To develop equitable means of reducing emissions
- To provide leadership and assistance to developing countries, particularly on adaptation
- To develop programmes to discourage the destruction of, and encourage the creation of, internationally-important carbon sinks

#### Policies on mitigation

- To make the emissions reduction targets in the Climate Change Act the cornerstone of UK policy and a roadmap to 2050
- All policies and plans to be assessed to establish their carbon impact
- To use the Energy Hierarchy and prioritise Energy Saving measures
- To focus policy on transport, electricity generation and housing
- To drive forward the retrofit of older building stock with modern insulation and energy technologies
- To set a clear policy on the research, development and uptake of low-carbon technologies
- To use a balanced portfolio of financial instruments to discourage the most polluting activities and encourage the reduction of emissions

## Policies on adaptation

- To ensure adherence to the adaptation measures in the Climate Change Act
- To be assessed to establish their impact on climate change resilience
- To develop training and clear guidelines for those who have to plan for adaptation
- To work to improve provision of better quality climate change data for areas outside the UK
- To ensure better integration of water-related issues within climate change policy

## Action on science and education

- To improve the communication of information about the consequences of climate change, especially to the general public and in schools
- To educate people about the benefits of carbon sinks and the impact of land-use change
- To develop recognised standards and training to foster good practice in the renewable energy industry
- CIWEM and other professional bodies to pool their expertise to improve the sharing of information and to promote the effectiveness of measures to tackle climate change

**CIWEM is the leading independent Chartered professional body for water and environmental professionals, promoting excellence within the sector.**

## Overview

Scientific evidence for anthropogenically induced climate change which has occurred over the past 50 to 100 years is powerful. The extent of the impacts of this change is subject to greater uncertainty, particularly as they will be dependent upon changes to atmospheric carbon emissions in the future, as well as regional variance in terms of the geographical distribution of impacts. CIWEM considers that despite ongoing media and political debate over the likely cause, extent and impact of climate change, the level of evidence-based, scientific consensus is such that the focus for society must now switch to urgently mitigating climate change and adapting to its impacts.

Ongoing international negotiations are focused predominantly on forging agreement on how to deliver reductions in emissions of greenhouse gases; particularly in relation to carbon dioxide (CO<sub>2</sub>). To date they have demonstrated a broad willingness to come together and negotiate and have resulted in agreements such as the Kyoto Protocol which seek to place agreed emissions reduction targets on individual signatory nations. Yet in comparison to the scale of emissions reductions required to keep concentrations of atmospheric CO<sub>2</sub> at levels which will ensure a reasonable chance of avoiding climate change that could have profound negative impacts on humanity and the Earth's other species, international action has been minimal.

On the understanding that increased concentrations of atmospheric CO<sub>2</sub> since the start of the Industrial Revolution have already resulted in clearly observable climatic change, and that there is an inertia of around 30 years between CO<sub>2</sub> emissions occurring and their observable effects, there is a need to focus more concertedly on how society can adapt to climate change. The balance is currently skewed heavily in favour of mitigation measures, but a pragmatic approach is required which recognises that even dramatic and highly successful mitigation measures will not prevent appreciable climate change over coming decades, which will need to be adapted to.

## Stronger international agreements

To ensure that international agreements on climate change require all major emitters to reduce their emissions

The United Nations Framework Convention on Climate Change is currently the main international treaty dedicated to reducing greenhouse gas emissions, with the aim of mitigating global climate change. The Kyoto Protocol to the UNFCCC, signed in December 1997, entered into force in February 2005 and has roughly 187 signatories to date.

The Kyoto Protocol placed the emphasis upon developed nations to reduce their emissions and help transition economies to reduce theirs. Whilst this represents a politically acceptable start point for international cooperation in reducing emissions, certain developing nations such as China, India and Brazil, who regionally (if not on a per capita basis) make significant contributions to global emissions were not required to make reductions.

The December 2009 Conference of the Parties of the UNFCCC in Copenhagen (COP15) aimed to put in place the foundations of a successor to the Kyoto Protocol and pave the way for an ambitious global climate change treaty that would bring about deeper, more widespread emissions reductions, bringing into an agreement the highest possible number of countries and providing support structures for less developed countries to improve their economies without utilising highly emitting technologies.

An agreement was not reached although a “political accord” was agreed by many of the large emitters including the USA and China. This recognised the scale of the challenge and set out some clear messages including: That the average global temperature increase must not exceed 2 degrees centigrade; that nations should cooperate to ensure that emissions peak as soon as possible and then reduce; that developed nations should begin work immediately on reaching their mid-term emissions reductions targets; that deforestation should be avoided with substantial finance being provided to achieve this, and that developed nations should provide new and additional resources to aid the whole process, ranging from an additional \$30 billion between 2010-2012 to \$100 billion per year from 2020.

This accord was not a binding agreement and only limited further commitment was achieved at the following COP16 meeting in Cancun, Mexico in December 2010. Here, all major economies did pledge to cut their greenhouse gas emissions by 2020 although detail including the scale of reductions and any deadlines, will have to be agreed at future meetings and again, the agreement is not legally binding. Incentives to reduce rates of deforestation were strengthened, with formal support provided for the UN’s REDD programme, a climate adaptation fund for industrialising countries and arrangements for the monitoring and

inspection of emissions reductions were also agreed. Progress at such international meetings is frustratingly slow, but does appear to be bringing all emitters on board.

#### To develop equitable means of reducing emissions

The Kyoto Protocol placed the emphasis on developed countries to reduce their emissions. Given their high levels of emissions both now and in the past, this is regarded as a fair approach and the principle was taken forward into negotiations in Copenhagen in 2009 and Cancun in 2010 where developed nations committed significant funds to help developing nations reduce their own emissions.

The principle of Contraction and Convergence, developed by the Global Commons Institute<sup>ii</sup> has been cited as a model for equity in reducing greenhouse gas emissions. The contraction aspect requires annual ceilings to be set for global emissions, which would progressively decrease with time, to a fraction of present levels. The convergence aspect requires governments to accept that every person on the planet should have an equal right to pollute. This means that developed nations will have to reduce their per capita emissions far more than will developing countries.

Such approaches are typically popular with developing countries, such as the Group of African Nations, China and India. They are more controversial in developed countries, which recognise that the onus falls almost entirely on them. However, the principles of the fairness of equal per capita emissions are generally accepted.

#### To provide leadership and assistance to developing countries, particularly on adaptation

Developing countries face multiple challenges with regards to climate change. The UK, with large cumulative historical emissions, has a moral obligation to take a leadership role with respect to the mitigation of climate change. Countries seeking to develop infrastructure and higher standards of living generally increase their emissions, but the role of new technologies can help reduce the carbon intensity of such development. Pressure for land can also deplete natural resources that are important carbon stores and the value of these should be fully recognised in the price of exported goods. Developing countries also face significant challenges related to adaptation as they are often vulnerable to natural hazards including those related to the climate. A particular challenge is in rapidly urbanising areas, where vulnerabilities are concentrated and where the demand for basic services and infrastructure will increase dramatically. Here there are opportunities to develop climate resilient infrastructure systems as well as measures to reduce the risk of climate-related disasters such as floods. International assistance will help provide a better future.

#### To develop programmes to discourage the destruction of, and encourage the creation of, internationally-important carbon sinks

The importance of forests, peat bogs and other natural habitats which take carbon out of the atmosphere and store it is increasingly recognised. Levels of atmospheric carbon are kept in a relative state of balance (the present increase in concentrations notwithstanding) because of the ability of a large number of carbon 'sinks' to absorb carbon from the atmosphere. In producing organic matter, plants absorb CO<sub>2</sub> and respire oxygen. They retain carbon within their structures.

Thus, the world's forests (and large rainforests in particular) constitute a very significant carbon sink (storing approximately 500 Gigatonnes of carbon – 60% of which resides in the Amazoniii). Deforestation is reducing vital absorption capacity whilst releasing carbon into the atmosphere, accelerating climate change. A failure to act on deforestation could double the cost of avoiding dangerous climate change to 2030iv; failure to halt deforestation will lead to greenhouse gas concentrations in the atmosphere exceeding safe levels, even if industrial emissions are reduced to zero.

Other important carbon sinks include soils (whose sequestration ability can be improved by sensitive agricultural practice, where such soils are farmed, including no-till farming and residue mulching) and oceans (currently the largest carbon sink, though warmer oceans can absorb less CO<sub>2</sub> and increasing levels of dissolved CO<sub>2</sub>, which make oceans more acidic, are already having negative impacts on calcifying organisms such as corals). There is an urgent need to establish measures which will effectively protect such sinks. The most likely mechanism to achieve this will be the attachment of an economic value to them which makes them more valuable in their functioning state than as a resource such as timber or land for building or agriculture. Such measures were discussed at COP16 in Cancun, but must be developed further and implemented at an international level, in a manner which at the same time recognises that people also use these resources to survive, thus provides a reasonable level of support for livelihoods based on sustainable management practices.

## Policies on mitigation

To make the emissions reduction targets in the Climate Change Act the cornerstone of UK policy and a roadmap to 2050

The Climate Change Act 2008 established legally binding targets to reduce emissions of the six greenhouse gases prioritised under the Kyoto Protocol by at least 80% on the 1990 baseline levels, by 2050. This was the first legislation of its kind in the world and by necessity moves climate change to the forefront of politics in the UK. Progress against delivery of the targets in the Climate Change Act is monitored by the independent Committee on Climate Change (established under the Act), using 5-year 'carbon budgets'.

There will have to be wholesale changes to all elements of society in order to achieve these reductions, from the de-carbonisation of electricity generation to transport, buildings and product supply chains. Certain elements of our behaviour that we currently take for granted are also likely to have to change. For this reason, CIWEM considers that all key policies put forward by governments will need to be assessed against their climate change implications.

Regulatory certainty is important for businesses on all levels to plan their investments. In order to bring about a transition from an economy based heavily on fossil fuels and emitting high levels of CO<sub>2</sub>, to one which is energy and resource efficient, producing 80 percent less CO<sub>2</sub> than in 1990, detailed planning will be required. Given the scale of the changes required, policy will have to provide sufficient time to allow all parties to adjust to new regulatory and policy landscapes. Uncertainty will only jeopardise the likelihood of meeting the emissions reductions targets set out under the Climate Change Act.

### All policies and plans to be assessed to establish their carbon impact

Central to demonstrating that the UK is moving effectively towards the emissions reduction targets set out under the Climate Change Act, should be the publication of a carbon impact assessment of all policy, legislation and regulation, alongside or as part of currently produced regulatory impact assessments. Preferably the results should be expressed as a per annum figure in tonnes. The results of such assessment should become a leading consideration in deciding whether to take an initiative forward and would demonstrate how damaging or beneficial it would be to emissions reduction targets. In order to build a low carbon society, greater appreciation of the carbon impacts of policy decisions is essential in highlighting priorities for action. For such a system to have credibility, it should be vetted independently by a body such as the Committee on Climate Change – indeed such assessments would assist the Committee in its work.

To effectively tackle climate change and reduce carbon emissions, effective and robust techniques must be developed to assess the carbon impact of any given plan, project or activity. Without such measurement techniques, it will not be possible to reflect in monetary terms the negative environmental impacts inherent in any given carbon emissions. There are many such assessment methodologies being developed and used at present. Important components of them should be a consideration of the carbon impacts of an activity through its entire lifetime.

### To use the Energy Hierarchy and prioritise energy saving measures

The Energy Hierarchy places energy conservation and energy efficiency at the top of the priority list, above the use of renewable resources, then non-sustainable resources with emissions reduction technologies, before use of conventional energy sources. This hierarchy must be embodied by UK energy policy. Energy conservation relies more on behavioural change, with people encouraged to change use patterns to reduce their energy consumption. The introduction of smart meters, real-time energy monitors, environmental management systems and other methods to develop people's awareness of their energy use patterns and encourage them to eliminate wasteful practice is important.

### To focus policy on transport, electricity generation and housing

Significant carbon savings can be delivered relatively easily in relation to decarbonisation of electricity generation and improvements to thermal efficiency of housing stock. Transport represents more of a challenge in terms of carbon savings. According to the House of Commons Environmental Audit Committee, "transport is the only sector of the UK economy in which carbon emissions were higher in 2004 than the baseline year of 1990, and the only sector in which emissions are projected to be higher in 2020 than in 1990" and the expectation is that if anything, projections are likely to have to be revised upwards.

There is a need for a modal shift in transport use away from air and car journeys to lower carbon forms of transport (55% of all UK transport emissions are emitted by cars). This will require significant incentivisation in order to improve the affordability and quality of service of many public transport options and overcome the association of private transport with personal freedom. To meet the carbon budgets set in the UK under the Climate Change Act by the Committee on Climate Change, significant cuts in transport emissions will be required by the

2020's but currently there is little action on this front. The Committee on Climate Change recommends that efforts should focus on improving the efficiency of vehicles, dramatically increasing the use of electric cars and improving public transport and transport planning.

In addition to transport, a major focus must be (and is) the decarbonisation of the electricity generation industry. This is a relatively low cost operation compared to dramatically reducing the carbon intensity of many other sectors and would make a major contribution to targets, with electricity generation forming roughly 37 percent of UK CO<sub>2</sub> emissions. In other, more difficult to tackle sectors, emissions reductions may be more readily deliverable in the short to medium term through the employment of conservation and efficiency measures, for example in existing building stock. New buildings are increasingly required to deliver high levels of thermal efficiency, with this being driven forward by the Building Regulations and the Code for Sustainable Homes, although the UK Government took a retrograde step in 2010, withdrawing its target for all new homes to be zero-carbon by 2016, following pressure from the construction industry.

#### To drive forward the retrofit of older building stock with modern insulation and energy technologies

Whilst the UK Government is making progress in delivering improved standards of energy efficiency in new buildings through the Building Regulations and initiatives such as the Code for Sustainable Homes, the focus of these initiatives remains on new buildings. There remains a huge stock of poorly insulated existing buildings which utilise inefficient heating equipment. This includes 27 million existing houses in the UK. The Committee on Climate Change considers there to be significant scope for efficiency improvements to existing buildings, which are low, nil or negative net cost (i.e. where payback periods are very short) and there is technical potential to save up to 40 million tonnes of CO<sub>2</sub> per annum in the residential sector alone. Domestic water heating remains a significant contributor to household energy use and some simple water efficiency measures, implemented widely, could reduce typical household carbon emissions by around 30 percent. CIWEM considers that there is an urgent need for the Government to drive forward programmes which will help householders to retrofit their homes with improved insulation and more efficient appliances.

#### To set a clear policy on the research, development and uptake of low-carbon technologies

Whilst the energy hierarchy emphasises the importance of conservation and efficiency, there is no doubt that new and developing low-carbon technologies will be essential for climate change mitigation. The ability of such technologies to deliver significant carbon savings as soon as possible will be important, but often their development requires financial assistance (and in particular if their development curves are to be steepened).

There must be a clear policy from Government to support the development of low-carbon technologies. The UK has a strong engineering skills base and there is scope for effective technology to be exported globally, to the benefit of the UK economy, as well as improving domestic energy security.

## To use a balanced portfolio of financial instruments to discourage the most polluting activities and encourage the reduction of emissions

The tax system is currently employed to discourage more polluting activities, with the Climate Change Levy perhaps the most visible scheme to be set up as a means to help tackle climate change. The duty charged on hydrocarbon fuels represents the single most significant environmental tax in effect in the UK, delivering around £30 billion annually. Other major environmental taxes include Vehicle Excise Duty, Passenger Air Duty and the Climate Change Levy (which applies to industrial and commercial supplies of products used for heating, lighting and power, with the proceeds directly recycled back into energy efficiency schemes).

The extent to which such taxes make a tangible impact on behaviour of the consumer such that they deliberately seek to reduce their exposure to tax and thus their climate change impact, is debatable at the rates they are presently applied. Increasing the rate at which they are charged will be politically unpopular (the Fuel Duty Escalator was ended in 2000 following the fuel protests of that year). It is important to apply taxes at far higher levels to scenarios where consumers have a clear choice in products. Vehicle Excise Duty is often discussed as an area where vehicles with more polluting engines – which are generally perceived as a luxury rather than a necessity – are taxed at far higher rates than those with smaller motors. This principle can be applied to a range of possible scenarios but in order to make it publicly acceptable, the target would always be a small but polluting group.

The importance of recycling environmental tax revenues into incentive schemes or projects, which provide alternative options to the activity that is being penalised, is also commonly emphasised, though presently in the UK the extent to which they are recycled in this way is very limited. Despite this, the government appears keen to be seen to offer incentives to consumers to improve their environmental performance. Much of this relates to energy efficiency of buildings and generation of electricity using renewable energy technologies. Initiatives such as the Clean Energy Cash Back (feed-in tariff for low carbon electricity) and the Renewable Heat Initiative are welcome, and have played a key role in delivering improved uptake of renewable across Europe. The CRC Energy Efficiency Scheme is another high profile scheme, which is mandatory, and requires large public and private sector organisations that are not already covered by Climate Change Agreements (CCAs) or the EU Emissions Trading System (EU ETS) to deliver energy efficiency gains, by putting a price on carbon emissions. These organisations (e.g. supermarkets, banks and local authorities) account for around 10% of UK emissions.

Emissions Trading Schemes are intended to incentivise emissions reductions in an efficient manner. The first and largest of such schemes is the EU Emissions Trading Scheme which has been running since January 2005. The effectiveness of emissions trading schemes depends on the right level of allocation of emissions allowances. It is commonly regarded that in the first phase, there was widespread over-allocation of permits to the majority of emitters taking part in the EU scheme, even resulting in significant windfall profits for some energy companies. Also, some major sources of emissions, such as aviation, were not included in the scheme initially, though aviation will be covered by the scheme from 2012.

## Policies on adaptation

### To ensure adherence to the adaptation measures in the Climate Change Act

The Climate Change Act 2008 is most widely associated with the establishment of legally binding carbon budgets to help drive down the UK's carbon emissions. However, Part 4 of the Act establishes a duty on the Secretary of State to report on the likely impact of climate change on the UK, at first in 2011 and at least every 5 years thereafter, underlining the important role for the Act in driving forward progress on adaptation. In doing so it gives the Secretary of State the power ('Reporting Power') to require authorities with a public role and/or statutory undertakers to prepare reports on the impacts of climate change on their organisation and their proposals for adaptation. Programmes must be set out establishing the Government's priorities in the UK in relation to climate change, its policies and appropriate timescales for meeting these. Progress will be assessed by the Committee on Climate Change in the second year after the production of the latest report. The Adaptation Sub-Committee (ASC) was established under the Act to provide advice to the UK Government and Devolved Administrations on adaptation priorities.

The first report of the ASC, 'How well prepared is the UK for climate change?' was published in September 2010<sup>vi</sup>. This emphasises the need for early action on adaptation, pointing out that this will minimise costs and damages associated with future climate change impacts, and provide business opportunities for a range of sectors. Five priority areas for action are set out: land use planning; national infrastructure; designing and renovating buildings; managing natural resources, and emergency planning. The ASC reports on growing awareness of climate change risks and appropriate response in the UK, particularly amongst public sector organisations, and notes that progress in the UK compares favourably with overseas. At the same time, requirements for further action are highlighted in a number of areas, including the removal of barriers and provision of stronger measures to enable action, as well as improved definitions, capacity building, delivery mechanisms, clarity of responsibility and the establishment of adaptation priorities within forthcoming policy reforms.

CIWEM considers that the priorities set out by the ASC reflect the greatest areas of need in terms of climate change adaptation for the UK at present, and likewise supports the proposed areas for improvement which have been set out. It is essential that the Government establishes quickly and clearly how these areas for improvement can be delivered through its Big Society model for local delivery, whilst establishing appropriate policies centrally to ensure that adaptation targets can be met.

### All policy decisions to be assessed to establish their impact on climate change resilience

Alongside any initiative to reduce the carbon emissions impact of policies, CIWEM considers that all future policy decisions should be assessed to establish their impact on future climate change resilience. The breadth of scope of policy decisions that could have such implications is significant, relating to issues from biodiversity through energy security, flood risk management and public health to name just a few. The impacts of climate change on society could be profound, and future policies should not hamper society's ability to adapt to changes that may be experienced over a number of decades. Decisions over where to site housing developments for example are beginning to consider the impacts of climate change. However, the majority of policy decisions completely ignore this issue as a consideration and it is

important to recognise that intelligent policy development now will help to prevent urgent and large-scale changes in direction in the future.

#### To develop training and clear guidelines for those who have to plan for adaptation

In order to assist countries in planning effective adaptation strategies, there is a need for clear and readily understandable guidelines on how best this can be undertaken. The UK Climate Impacts Programme was established in 1997 and has become recognised internationally as a model for the production of assistance to organisations on how to adapt to inevitable climate change. It works in sectors across the whole economy, considering impacts on, for example, demand for goods and services, impacts on health, construction, working practice as well as the natural environment. It provides outputs of varying complexity for a range of different stakeholders. This range of outputs must be developed so that internationally there is a level of appreciation of the importance of climate change adaptation as in the UK, and should be supported by accessible training programmes to improve awareness.

#### To work to improve provision of better quality climate change data for areas outside the UK

In order for organisations to understand the consequences and probability of future climate change impacts, alongside improved guidelines for better adaptation planning there is also a need for improved climate change-related data, particularly outside the UK.

There is a lack of high quality, usable, interpretable data available in many parts of the world, for example hydrological modelling data. CIWEM considers that the importance of such information cannot be underestimated in the coming decades and must be a priority for organisations such as the United Nations to develop and improve as a means to inform organisations on appropriate adaptation strategies.

#### To ensure better integration of water-related issues within climate change policy

Climate Change is likely to affect water like no other resource. Analysis of hydrometeorological records shows the impact of past climate variance on water resources in particular. Future climate projections predict different hydrometeorological scenarios regionally. In the UK, the broad pattern is likely to be hotter, drier summers and warmer, wetter winters, with increased probability of both droughts and floods. In other regions, impacts will include salination, soil erosion, ecosystem damage, depletion of glacier and snow cover resources (crucial in parts of Asia and South America) and direct impacts on human health. A further dimension is added by the fact that effective water management requires international cooperation to overcome the existence of a large number of river basins that transcend political boundaries. Whilst under current relatively benign climate conditions, neighbouring states have often cooperated well regarding shared water resources, pressures applied by changing climate, together with growing populations and increased resource consumption patterns may well make such agreements more difficult to achieve or maintain.

It is essential therefore, that water is specifically considered within climate change policies at all levels in relation to adaptation. Current legislation may not be framed appropriately to facilitate effective adaptation. In particular, current frameworks may not afford the flexibility to enable sufficient response to climatic change that is either unforeseen or rapid in its impacts. There is a need to ensure that this flexibility is built into arrangements that operate from local

levels right up to transboundary international agreements. It is important that there is consistency between such levels, with clear understanding of roles and responsibilities, delivered at the same time ensuring that stakeholders have been effectively consulted, with transparent access to evidence and supporting information.

### Action on science and education

#### To improve the communication of information about the consequences of climate change, especially to the public and in schools

Action on both climate change mitigation and adaptation is likely to require behavioural change to some degree or other. It is likely to be impossible to deliver the changes required to avoid dangerous climate change through engineered solutions alone. Effectively communicating climate change to politicians, decision makers and the public is a major challenge. For many, climate change remains an amorphous, impenetrable and unquantifiable threat that they have no control over at a personal level. There is a need to improve the communication of information relating to climate change so that it is presented in a clear, simple and understandable form that people can relate to, and which highlights realistic changes that can be made which have a genuine positive impact on reducing climate change. There are debates over the pros and cons of positive versus negative messages. In practice it is likely that both will have a role, depending on the specific nature of the issue being confronted. Some organizations<sup>vii</sup> and companies are specializing in the development of climate change messaging techniques but the challenge of developing widespread appreciation of a threat which requires urgent action now, but whose effects will not become fully apparent for many decades, remains huge.

#### To educate people about the benefits of carbon sinks and the impact of land-use change

Land use change is resulting in the destruction of virtually all of the Earth's carbon sinks. In general, if they are destroyed (often, in the case of rainforest, to make way for agricultural land) there is a double effect, of both releasing carbon back into the atmosphere, e.g. through burning, together with the resulting loss of absorption capacity. The importance of accurately valuing, in economic terms, the services these carbon sinks provide is paramount. This would help to inform and educate people about their value and begin to prevent their large scale destruction. Protection and conservation measures can only go so far, as such are the scale and importance of the world's essential carbon sinks, only when their value is properly recognized is their security likely to be better preserved.

#### To develop recognised standards and training to foster good practice in the renewable energy industry

In the ten years that there could be considered to be a renewable energy sector in the UK, early entrants have in some cases developed in-house standards or have adopted elements used in more mature markets overseas (which may not always be readily applicable to the UK). By their very nature, in-house standards are developed in isolation and with a degree of protectionism to promote a brand. As the market grows, new and inexperienced companies from wide ranging backgrounds continually enter the market. This can (and has) lead to a

fragmented, and in some cases substandard, approach to design and installation of some renewable energy systems.

In order to promote confidence and growth within the market there is a requirement for 'one voice' to distil standards and training methods from current best practice. This function is best performed by technology-specific professional bodies or trade associations in full and open consultation with the industry and regulators. These trade associations must ensure they are independent of any one company and are seen to represent the interests of the sector as a whole. This process is starting to take place but there is urgent need for co-ordinated action to ensure public and commercial confidence is maintained and to avoid development of different standards or best practice guidance by different bodies.

### CIWEM and other professional bodies to pool their expertise to improve the sharing of information and to promote the effectiveness of measures to tackle climate change

Independent, professional bodies such as CIWEM have an important role to play in helping to facilitate a balanced and appropriate response to climate change, based on sound evidence and uncompromised by politics. CIWEM works with a number of organizations from government departments and regulators, to other professional bodies and non-governmental organizations in order to help develop policy and action that is effective and appropriate to the climate change threats faced. CIWEM and similar organizations have a clear role to play in ensuring that their members are aware of good practice and that they share and promote experience gained through involvement in successful climate change mitigation and adaptation policies.

CIWEM's Climate Change Network will work to increase information sharing and the access of policy and decision-makers to highly qualified and motivated professionals.

### February 2011

*Note: CIWEM Policy Position Statements (PPS) represents the Institution's views on issues at a particular point in time. It is accepted that situations change as research provides new evidence. It should be understood, therefore, that CIWEM PPS's are under constant review, that previously held views may alter and lead to revised PPS's. PPSs are produced as a consensus report and do not represent the view of individual members of CIWEM.*

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- i [www.un-redd.org](http://www.un-redd.org)
  - ii Meyer, A. GCI Briefing: Contraction and Convergence [www.gci.org.uk/briefings/ICE.pdf](http://www.gci.org.uk/briefings/ICE.pdf)
  - iii Feedback Dynamics and the Acceleration of Climate Change – Westminster Briefing, Apollo-Gaia Project 2007
  - iv Reducing greenhouse gas emissions from deforestation: No hope without forests, HoC Environmental Audit Committee 2009
  - v House of Commons Environmental Audit Committee: Reducing Carbon Emissions from Transport, Vol. 1. August 2006
  - vi Adaptation Sub Committee: How well prepared is the UK for climate change?. September 2010
  - vii Futerra: New Rules: New Game. Communications tactics for climate change [http://www.futerra.co.uk/downloads/NewRules\\_NewGame.pdf](http://www.futerra.co.uk/downloads/NewRules_NewGame.pdf)