

Consultation QuestionsTargets

1. Should a Scottish target be based on carbon dioxide only or the basket of six greenhouse gases?

Changeworks advocates accounting for all six greenhouse gases, basing targets on CO₂e, while continuing to report on CO₂. A target based on carbon dioxide equivalents should be adopted as it will allow the comparative cost of reducing different gases to be directly compared taking into account the differing green house affect of the cases. The most cost effective option should therefore be adopted. Changeworks recognises that there is more difficulty in estimating some gases rather than others, but it is likely that the accuracy will improve with time. Considering the much greater impact that some gases have compared to others we believe it is vital that these gases are included from the start. Moreover, a CO₂e target will facilitate monitoring to

	<p>ensure that efforts to reduce CO2 emissions do not allow increased emissions from other harmful gases. It is also important to include all the gases as the Scottish Government has a greater opportunity to directly influence certain areas, e.g. emissions such as methane from landfill, and methane and nitrous oxide from agriculture could be influenced by how farm subsidies are implemented.</p> <p>Changeworks believe CO2e targets are the most effective route to reducing Scotland's impact on climate change, and as an example to other countries.</p>
<p><i>2. Should the Bill contain provisions to alter which gases are included, for example if the reliability of data for a particular gas improves or if science changes in the future about which gases cause climate change?</i></p>	<p>Changeworks would support provisions that allow amendments in response to scientific advances and so agrees that the Bills should have the flexibility to include other gases, and by expressing these as CO2e they could be easily accommodated.</p>
<p>3. The Scottish Government wishes to ensure that the Bill gives sufficient incentives to invest in energy efficiency and renewable electricity. Should the targets be based on source emissions; an end-user inventory, or on individual targets for energy efficiency and renewable electricity? Do you have any other suggestions?</p>	<p>Changeworks would support the creation of targets based on an end user inventory. Our reasons for this are detailed below.</p> <p>3.1 End user inventory Changeworks believes that the setting of the targets by the Scottish Government based on end-user inventory would be more closely aligned to the devolved responsibilities and powers of the Scottish Government, than source emission targets. An end-user inventory would ensure that action taken to reduce demand, improve energy efficiency and increase production of electricity from renewable sources is recognised. Changeworks believe that public action through behaviour change will play an essential role in emission reduction.</p> <p>Motivation of the general public, and the public, voluntary and private sectors, would be facilitated if their carbon generation is being monitored rather than the distanced responsibility of emissions reduction placed on producers. Changeworks further supports an end-user inventory as it would prevent the exporting of production of carbon dioxide to other countries whilst still consuming the same quantity. However, an end user inventory would only present Scotland as a good example to other exporting countries if Scotland included the embodied energy from</p>

	<p>imports within its emissions. This would also place Scotland positively in anticipation of a global regulatory framework for industry in relation to climate change emissions. Scotland creates wealth and employment from its export industries and therefore should have the consequences of that accounted for within Scotland. 3.2 Source emissions Changeworks believes that the Scottish Government would be unable to exert sufficient control on source emissions. This may result in significant under-performance against targets due to electricity production and so could undermine other action taken. If the targets are set on the source emissions it will be vital that individual targets are also set for energy efficiency and renewable energy. The introduction of energy efficiency measures is one of the most cost effective methods for reducing emissions and often gives a positive financial return as well as emissions reductions. It is therefore unlikely that targets set for energy efficiency would provide the wrong incentives. It does though have to be recognised that the implementation of energy efficiency measures should cover all buildings, although there are a number of constraints in terms of both regulation and behaviour which will have to be overcome.</p>
<p><i>4. Do you agree that the Bill should allow the means of measuring the target to be changed through secondary legislation to reflect international developments or unforeseen consequences of the Bill?</i></p>	
<p>5. Should the emissions reduction target take account of the abatement effort made by companies under emissions trading schemes? If so, how?</p>	
<p><i>6. Do you agree that international credits should be counted towards Scottish targets? Should there be limits on credits counted towards Scottish targets?</i></p>	<p>While Changeworks recognises that Scottish industry could have a positive impact on international emissions, we do not support the inclusion of international credits towards Scottish targets. We would however support the adoption of an additional (additional to the 80% saving by 2050) international target to support Scottish consumers continued</p>

	<p>purchase of products from other countries and requiring lower carbon output in that production. Changeworks urges the Government not to include carbon offsetting in calculating emissions reductions as this merely delays efforts to actually reduce emissions.</p>
<p>7. Should the Bill allow the level of the 2050 target to be changed through secondary legislation? If so, should this only be allowed on the basis of independent, expert advice, to reflect international developments or unforeseen consequences of the Bill? Should any changes to the target be limited to an increase in the target?</p>	<p>Changeworks acknowledges that current evidence suggests that the rate of climate change is likely to get accelerate, rather than stabilise or reverse. On this basis, changing targets must be an option, but only to increase the proposed targets, and only when supported by independent evidence endorsed by the UK/Scottish Committee on Climate Change. Increasing aspects of the targets could also help drive technological advance should market forces not achieve sufficient development of costs and emission reduction technologies.</p>

Supporting Framework

<p>8. What factors should be taken into account when setting the level of budgets?</p>	
<p>9. How long should interim budget periods be?</p>	<p>Although Changeworks believes there would be merit in aligning the interim budget periods with Local Authority terms (3 years), as they will be the main drivers of implementation, we recognise that the information essential to planning how to progress will most likely not be available to match such a short period. Changeworks suggests that interim budget periods be coterminous with other reporting or target dates of related legislation e.g. fuel poverty statements, housing quality targets. Changeworks also notes that targets within budget periods may need to be loaded towards the end of the period in order to incorporate start up action towards emission reductions.</p>
<p>10. How many years in advance should emissions budget periods be set in order to provide sufficient time to develop</p>	

infrastructure?	
11. What should be the limit (in terms of absolute quantity or as a percentage of the budget period) on the amount of emissions which the Government can borrow from a following budget period?	While this is beyond Changeworks' area of expertise, we suggest that lessons are learned from the power supply industry's Energy Efficiency Commitment carry forward agreements. The timescales for agreement of 'borrowed' achievements has negatively impacted on installers and suppliers, requiring repeated redevelopment of expertise and supply systems.
12. Should the Bill include an interim point target? If so, what year (or years) should it be for (2020, 2025, 2030 etc)? How should the level be chosen?	

Reporting Scrutiny and Framework

13. Should the Scottish Ministers be required to report on any other issues related to climate change in addition to the requirements already set out. If so, what and how often?	
14. Is a process of Parliamentary scrutiny the appropriate way of holding the Scottish Government to account if targets or budgets are not met?	
15. What should be the primary source of advice to the Scottish Government for setting emissions targets or budgets and why? Options include: the proposed UK Committee on Climate Change, a new Scottish Committee on Climate Change, an existing public body in Scotland, or the Scottish Government itself.	
16. If it were to be an existing Scottish public body, which public body is most suited to carrying out this task and why?	
17. Which organisation should be tasked with monitoring the progress of the Scottish Government on reducing emissions and why? Options include: the proposed UK Committee on Climate Change, a new Scottish Committee on Climate Change, an	Changeworks agrees with the Governments' proposal to use the UK Committee on Climate Change and measure it's quality and suitability for Scotland over the first three years. This would minimise duplication and enable use of available expertise.

existing public body in Scotland, or the Scottish Government itself.	
18. If it were to be an existing Scottish public body, which public body is most suited to carrying out this task and why?	
19. Should additional independent mechanisms for scrutinising the effectiveness of the Scottish Government's policies in reducing emissions be created by the Bill (in addition to any scrutiny already provided by the Scottish Parliament)?	
20. If so, which organisation is best placed to carry out this function and why? Options include a new Scottish Committee on Climate Change or an existing public body in Scotland.	
21. If it were to be an existing Scottish public body, which public body is most suited to carrying out this task and why?	
22. Are there any other functions related to climate change, existing or new, which should be carried out at arms length from the Scottish Government and why?	

Supporting Measures

23. Should the Bill contain enabling powers to introduce a duty on certain parts of the public sector (i.e. local authorities and large public bodies) to take specified actions on climate change or other specified environmental issues? Why?	<p>Changeworks supports the Bill's inclusion of enabling powers for the public sector. Local Authorities and other public bodies are likely to be central to the delivery of emission reduction within their areas. In order to ensure sufficient progress, the Scottish Government must give these public agencies the powers and resources as well as the responsibility of achieving emissions reduction. In this respect lessons need to be learnt from the Home Energy Conservation Act (1995) where local authorities were given duties without significant resources and powers which lead to weak and patchy implementation of the legislation. Similarly the implementation of SPP6, giving local authorities the option to place a renewables obligation on certain developments has been</p>
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	<p>largely ignored, and the Bill must ensure this is not an option when tackling climate change.</p>
<p>24. What should such a duty (or duties) include?</p>	<p>Duties should include the requirement to reduce emissions across the existing and planned built environment in their local authority area and the power to require this through the appropriate planning and other processes. Duties should also include public bodies' requirement of bodies under their jurisdiction to achieve set emissions reductions.</p>
<p>25. Should the Bill contain enabling powers to introduce statutory guidance for certain public sector bodies (i.e. local authorities and large public bodies) on specified climate change or other environmental measures? Why? Are there gaps in any existing guidance?</p>	
<p>26. What should this guidance include?</p>	<p>Changeworks supports the establishment of enabling powers (and supportive resources) in relation to climate change and related environmental measures. While much guidance exists on measures that could contribute to climate change mitigation, there is a lack of obligation to apply that guidance. For example, a requirement could be introduced for housing stock of all tenures to achieve set energy efficiency targets that could contribute to emission reduction targets, fuel poverty targets, and other related policies. While the Scottish Housing Quality Standard includes an energy efficiency standard, this is lacking in two ways: it is wholly insufficient to minimise emissions reduction or to tackle fuel poverty; it is not applied to all tenures. Emissions reduction related to existing housing stock therefore must be required through the establishment of powers and enabled through resource provision. Changeworks would also support statutory guidance provision to national and local agencies and organisations and local authority planning departments on the need for energy efficiency and renewable energy installations to be given a high priority when considering planning applications. A positive</p>

	<p>example of the improvements that can be achieved in historic and traditional homes can be seen in Changeworks' Energy Heritage Project .</p>
<p>27. Should the Bill contain enabling powers to create a requirement for certain public sector bodies (i.e. local authorities and large public bodies) to make regular reports on specific measures they are taking to tackle climate change (whether mitigation or adaptation) or other environmental issues? Why? What should be included in such reports?</p>	<p>Changeworks asserts that the Bill must contain enabling powers to create a requirement for public sector bodies to report on measures to tackle climate change. The Government's achievement of the end target of an 80% reduction in emissions by 2050, and the achievement of all interim targets will rely on the efforts of these bodies, and therefore the Government must have information to illustrate the national levels of achievement. Such reports on measures could also be used to develop broader programmes of implementation, to improve progress in some areas or to reduce the use of some measures. At a basic level, reports should be made on the measures implemented directly by the public bodies, and the impact of those measures. Changeworks suggests that such reports include a summary of the value and impact of resources attributed to public sector delivery agents, such as the voluntary sector and private industry, in order to achieve the targets set. Such reports should also include details of how public sector bodies are reducing their own emissions, for instance through use of renewable sources of energy.</p>
<p><i>28. As a potential non-legislative measure, should current Best Value guidance be amended to take specific account of climate change mitigation and adaptation? If so, how should Best Value guidance be amended?</i></p>	
<p>29. Are there any amendments to existing legislation or any enabling powers needed to allow for variable charging (for example by local authorities) to incentivise action or eliminate perverse incentives?</p>	<p>Changeworks feels strongly that there is much that could be done to further achieve emissions reductions in a number of our areas of operation, and these are set out below.</p> <p>29.1 Domestic energy efficiency Changeworks welcomes the proposals by the Scottish Building Standards Agency (SBSA) to publish the future energy efficiency standards on an advance three year cycle, and to waive the requirement for a building warrant fee for building warrant applications</p>

that meet or exceed those aspirational longer term Standards. 70% of housing stock that will exist in 2050 is already built, and it is therefore imperative that the Government requires, enables and resources significant improvements to existing housing stock to improve it to meet the longer term Standards. The 1995 Home Energy Conservation Act (HECA) made local authorities Energy Conservation Authorities and required them to report on improvements in domestic energy efficiency every two years until 2008. The Climate Change Bill could incorporate the post-HECA provisions to ensure that the interest, expertise and progress accumulated by local authorities under HECA are not lost. Moreover, Changeworks would support the provision of greater requirements, powers and resources to ensure that post 2007 HECA efforts are more consistent throughout Scotland, that action and reporting is required across all tenures, and that targets and timescales contribute to related targets such as the eradication of fuel poverty, as well as the climate change targets. The Scottish Housing Quality energy efficiency standard to be achieved by 2015 is currently so low as to make it ineffective, both in relation to tackling fuel poverty as well as meeting longer term energy reduction targets. The current target level of NHER 5 (or 6 depending on fuel use) is insufficient to contribute to the Scottish Fuel Poverty Statement target to eradicate fuel poverty by 2016. Moreover, by excluding private tenures of housing, the Government is in danger of contributing to an under-class of housing. Changeworks therefore suggests an increase in the energy efficiency standard of the Scottish Housing Quality Standard. While we recognise that Registered Social Landlords have already developed and are working to achieve the existing standard, Changeworks believes that an increase in the standard to be achieved by 2015 would save the cost of future retrofitting of energy efficiency measures. Changeworks also urges the Government to apply similar standards to private rented accommodation. Changeworks

encourages the Government to extend the SBSA standards to existing buildings. This could be reinforced by minimum pass or fail standards under Energy Performance Certificates (EPCs) in a direct parallel with vehicle MOTs. Since EPCs, according to the RICS, will in the long-term impact on property values, the Government may consider building emissions as part of the calculation for Council Tax bandings and the equivalent non-domestic rates. However, Changeworks highlights though that the establishment of a polluter-pays basis of charges could unfairly penalise low-income households who do not have the resources to improve their property, or move to a higher standard of property, unless sufficient safeguards were in place. Changeworks suggests that the Tolerable Standard should be specific in terms of the energy efficiency standard to be achieved, and this should aim to achieve closer to new build standards in order to avoid a sub-class of existing housing where practicable. An increase in housing through new build, will increase the level of emissions, from the energy used in order to live in these homes, their energy embodied energy and the infrastructures they require. Changeworks suggests that this increase in energy demand by adding to the housing stock through new build houses, should be compensated for by installing energy efficiency or renewables measures into existing housing stock. Moreover, Changeworks urges the Government to develop monitoring that considers embodied energy of, e.g. new build on a life cycle basis as compared to the continued energy use of existing housing that is to undergo refurbishment. This could be developed on a basis similar to Environmental Impact Statements produced as part of relevant planning permission processes. 29.2

Renewable sources of energy The lack of clarity over the guaranteed sell-on tariff applied to any surplus power generated by micro-renewables can act as a disincentive to investment. Changeworks therefore encourages the Climate Change Bill's

	<p>inclusion of the Scottish Government’s contribution to negotiating sufficient tariff structures to encourage investment from householders, businesses and other bodies, as well as technological development, of micro renewables. 29.3 Industry development Changeworks is aware of serious industry concerns regarding their ability to meet very stringent building standards such as maximum air leakage standards. Changeworks therefore suggests that a ‘route map’ to the standard of energy efficiency, water use and waste prevention, that will be necessary to meet 2050 standards of housing, and other building types, is published as a guidance to industry. This will facilitate technological developments, industry and training evolution and business planning to ensure smooth progress to the achievement of climate change mitigation and adaptation. Changeworks further suggests substantially increased levels of post construction building standards to ensure that actual construction meets that specified for compliance purposes. 29.4 Sustainable travel Organisations over a certain size should be required to develop travel plans with their employees and explore opportunities to reduce their carbon footprint through their daily commute 29.5 Other sustainability issues Local authorities should be given land management powers to ensure river catchments for example are not developed, or are managed in a way that would make flooding more likely. In addition urban areas should have regulations related to the porosity of materials used for car parks/ drives etc., and the use of Sustainable Urban Drainage schemes should be encouraged. All new developments, domestic, public and commercial should be built with grey water collection systems and surface water storage.</p>
<p><i>30. Are there any provisions to help Scotland adapt to the impacts of climate change which should be included in the Scottish Climate Change Bill?</i></p>	<p>Changeworks encourages the Scottish Climate Change Bill’s inclusion of measures to land management to ensure river catchments, for example, are not developed or managed in a way that will increase the probability of flooding. In urban areas, Changeworks encourages the regulation of</p>

	the porosity of materials used for car parks, drives and similar paved areas, and the use of Sustainable Urban Drainage schemes should be encouraged.
31. Should provisions within the Environmental Assessment (Scotland) Act 2005, be amended in order to provide clearer links with emissions reduction? If so, how should this be done?	
32. What are the equalities implications of the measures in the proposals for the Scottish Climate Change Bill?	Any requirement placed on householders by Government or it's agencies to reduce emissions will disadvantage low-income households. Low-income households, regardless of tenure will often live in poorer quality homes, which will therefore produce higher levels of emissions, costing them more for energy costs, but also leaving them less able to prioritise spending on climate change mitigation. Indeed many householders would prefer to spend disposable income on decorative or leisure materials than on home maintenance or non-cosmetic improvements. This will clearly be a particular disadvantage for fuel poor households. Even where emission reduction requirements are accompanied by incentives, Changeworks' experience has found that households can need incentives in excess of 70% of the whole cost to successfully motivate them to take action. Should fuel prices begin to rise (beyond the trend over recent years) due to the costs of producing 'cleaner' forms of energy, then households in and at risk of fuel poverty will continue to increase.
33. Is there any existing legislation within the competence of the Scottish Parliament (devolved) which needs to be amended so that appropriate action can be taken on climate change by sectors in society?	

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