**Draft Energy Strategy and Just Transition Plan Consultation May 2023**

**Quakers in Scotland**

Quakers are a faith group committed to trying to live by, and work for, **peace, equality, truth, simplicity and sustainability, our five Quaker “testimonies”**. We promote these values across Scotland through practical action and advocacy, and they underpin our response to this consultation. Quakers have as a guide a handbook, “Quaker faith & practice” which includes “Advices & queries” (A&Q) to help us check our own lives against the values we hold. Examples are referenced in the following explanation of our approach to the consultation.

As Quakers we believe that humans “*do not own the World and its riches are not ours to dispose of at will” (A&Q 42).* In the face of overwhelming evidence of rapidly increasing destruction of the life systems of the Earth we are called to work for an equitable way of life, driven by justice rather than greed, so that human life on earth is sustainable and fulfils the best of human potential. Decisions about energy sourcing and usage are absolutely key, as is a just transition which for us has a global meaning, incorporating international climate justice.

**Peace** Our commitment to peace convinces us that ‘energy security’ has to mean sourcing energy in a way that does not risk leading to conflict within our own society or internationally, over access to the world’s resources. Our energy must be genuinely renewable - not only energy for home consumption but also energy for export, so that our energy policy overall is in every aspect contributing to a peaceful transition away from fossil fuels.

*(A&Q 31) ‘Search out whatever in your own way of life may contain the seeds of war’.*

**Simplicity** Demand reduction should be a foremost part of the energy and just transition strategy. But not as a negative ‘deprivation’ but as a vision of a healthier more equitable world: improvement, not loss, of quality of life. The health benefits of ending our dependence on fossil fuels do not receive enough emphasis. The document is not clear on current needs nor does it explain and prioritise how we can reduce our energy use and live within planetary limits; on the contrary, it seems to assume that we should generate as much energy as possible, which is not a sustainable model.

*(A&Q 41) ‘Try to live simply. A simple lifestyle freely chosen is a source of strength. Do not be persuaded into buying what you do not need or cannot afford. Do you keep yourself informed about the effects your style of living is having on the global economy and environment?’*

**Equality** Our commitment to equality leads us to see the concept of just transition applying not only across our own society but across international boundaries too. We are fully behind the Scottish government’s commitment to Loss and Damage finance, for example. It is vital that we wealthier nations cut emissions rapidly and limit climate collapse as much as we can, since we have caused and continue to cause this damage and are already responsible for extensive suffering.

Within our own society, we feel the strategy could be more openly progressive in proposing redistributive measures to make the transition feasible and affordable to all. We would like to see clear timetable of radical steps to achieve significant demand reduction (which we’d prefer to frame as ‘need reduction’) through expedited efficiency/retrofitting in buildings, and through radical policy on publicly owned electrified public transport. This would demonstrate how the just transition is also for communities *beyond* the oil and gas employment sector.

**Truth and Integrity** Our commitment to truth and integrity convinces us that the Energy Strategy and Just Transition Plan needs to be open, honest and clear.

**The major example of where we would like to see greater integrity is in the references to maximum economic recovery from oil and gas.** In the Cabinet Secretary’s Ministerial Statement, at the launch of the DESJTP, he said: *“Our previous policy position of maximum economic recovery is no longer appropriate.”* and *“This means that domestic production will effectively end within the next 20 years if we do nothing. The draft Strategy is consulting on whether we should act faster than this”.*

But the draft strategy itself includes no statement that this is no longer appropriate. We were glad to see the wording that: *“The Scottish Government is clear that unlimited extraction of fossil fuels is not consistent with our climate obligations. It is also clear that unlimited extraction, even if the North Sea was not a declining resource as outlined above, is not the right solution to the energy price crisis that people across Scotland are facing or to meeting our energy security needs.”*

But for the strategy to have integrity this should be made explicit in **a clear statement that maximum economic recovery is no longer the policy of the Scottish Government**.

We believe the text also shows a lack of integrity when, in several instances, it appears to conflate ‘low carbon and renewable’ hydrogen (only in the glossary are the separate meanings acknowledged). The text falls far short of explaining that there is a massive difference between low carbon (‘blue’) and renewable (‘green’) hydrogen in their appropriateness as part of an Energy Strategy aimed at lower carbon emissions. Hydrogen is simply not ‘low carbon’ unless green, and its efficiency is not great even when green; moreover, green/renewable hydrogen cannot be made at massive scale without removing renewable energy potential from other needs. (More detail and source references are provided in our answers to the relevant consultation questions.) The section on hydrogen is a stark example of the draft strategy being less than direct in its message, and we hope this can be re-thought. Similarly, we are concerned about the lack of truthfulness about CCUS. It is not tried and tested, and this should be made clearer; in addition, the strategy should put the onus of proof of efficacy onto the private sector who are taking a lead in developing CCUS and aim to profit from it.

Another worrying conflation is between community energy and shared ownership.

(*A&Q 37) ‘Are you honest and truthful in all you say and do? Do you maintain strict integrity in business transactions and in your dealings with individuals and organisations?’ (A&Q 38) ‘If pressure is brought upon you to lower your standard of integrity, are you prepared to resist it?*’

**Sustainability** This clearly applies across the strategy. Points made above indicate some of the ways in which we feel the strategy could be genuinely sustainable, by avoiding false solutions and expediting truly sustainable ones in a fearlessly equitable way. It’s also so vital to bring people with you. Please consider building more of an educational element into the strategy so that it draws people in and helps them believe in it for their children’s future and wellbeing as members of our workforce and society.

We are concerned about the prevalence of ‘net zero’ as the aim. The use of this term places a strong emphasis on carbon removal and offsetting, while offering no guide to the extent of their contribution towards the goal. This leaves a large loophole for the continuation of “business as usual” based on the assumption that carbon emissions emitted into the atmosphere now will be removed at some future date by the yet-to-be-proven technologies of CCUS, and carbon offsetting projects. The primary emphasis must be to reduce the pumping of carbon emissions into the air by as much as possible, as fast as possible.

Scotland’s energy strategy can in the end only have a small effect on global carbon emissions and the future of life on earth. But it is looked to as an example, and has acted admirably in many ways, the commitment to Loss and Damage finance being one, and ambitious emission reduction targets being another. But it should also be an example in terms of the truthfulness and the sustainability of its policy.

*‘Be patterns, be examples in all countries, places, islands, nations, wherever you may come, that your carriage and life may preach among all sorts of people, and to them; then you will come to walk cheerfully over the world, answering that of God in everyone.’ [A+Q, quotation from George Fox, founder of the Religious Society of Friends (i.e. Quakers), 1656.*

**Consultation questions**

**Chapter 1 – Introduction and Vision**

1. What are your views on the vision set out for 2030 and 2045? Are there any changes you think should be made?

*See introductory note.*

**Chapter 2 – Preparing for a Just Energy Transition**

2. What more can be done to deliver benefits from the transition to net zero for households and businesses across Scotland?

*Ensure that transition decisions are made based on criteria of equality and justice. Expedite measures to help those least able to choose transition for themselves: for example, renewable heating (including district heating) energy efficiency and retrofitting in rented homes. Increase the percentage of new housing that is affordable and regulate for renewable energy and high standards of efficiency to be compulsory in all such new homes, thinking in terms of need reduction more than demand reduction. Planning reform needs to be more radically in favour of energy efficiency in new build but also retrofitting in existing housing stock (for example, significantly reducing constraints such as Conservation Area obstacles to installing solar.)*

 *It is necessary to acknowledge that our society is in a current state of injustice, so a truly just transition would be a transition to greater justice, not simply a transition that does not exacerbate injustice. We know that this is possible, as the co-benefits of sustainable patterns of production, distribution and consumption are considerable. It means, however, that we should not be aiming at outcomes which distribute the benefits of transition equally among households and businesses, but those which specifically and actively seek to benefit those households which are currently most disadvantaged and those businesses whose structures (community owned, co-operative etc.) bring the maximum benefits to such households. Corporations with high levels of capital, histories of high profits and access to finance, information and expertise will be in a position to benefit from the energy transition with or without financial support from the Scottish Government. Their privileged position should not lead to their receiving support which is more critical for the very existence of community, cooperative and small and medium sized enterprises.*

3. How can we ensure our approach to supporting community energy is inclusive and that the benefits flow to communities across Scotland?

*Our response to this question draws upon the points made in our response to question 2. In particular, it is important to recognise that many communities may not have the information, experience, expertise or capacity easily to access opportunities for support. It will therefore be vital for government initiatives to be proactive, seeking out communities who might benefit from energy schemes and providing practical, financial and capacity-building support in advance, utilising sufficiently generous timescales. Government should recognise the inequalities inherent in schemes whereby communities must bid against one another for funding, and ensure that such competition does not play a part in community energy support.*

4. What barriers, if any, do you/your organisation experience in accessing finance to deliver net zero compatible investments?

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5. What barriers, if any, can you foresee that would prevent you/your business/organisation from making the changes set out in this Strategy?

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6. Where do you see the greatest market and supply chain opportunities from the energy transition, both domestically and on an international scale, and how can the Scottish Government best support these?

*We would suggest that the government should be clear about the outcomes for which it is aiming, and how these relate to the overall objective of helping communities to achieve sustainability, justice, equality and wellbeing. Resources, including direct funding, advice and assistance, should be targeted at those businesses and sectors which will contribute most appropriately to this objective and which do not have sufficient resources or capacity to do so without such assistance. Scarce resources (under the current devolution settlement) should not be used at scale for speculative projects. Where the creation of jobs is a major aim, consideration should be given to achieving this through the public, third sector, community owned and social enterprise sectors, rather than subsidising successful private corporations. Issues of fair work, justice and human rights must be prioritised, especially in relation to exports.*

7. What more can be done to support the development of sustainable, high quality and local jobs opportunities across the breadth of Scotland as part of the energy transition?

*We welcome the forthcoming publication this year of the long-awaited Emergency Skills Action Plan. We urge the government to expedite new qualifications and parity of qualifications, and retraining, for skills in renewable energy generation and installation, and efficiency/retrofit applications. We would hope for an early introduction of clear quality of work guarantees to encourage take-up and address the widespread scepticism and lack of understanding about ‘green’ heating tech and installation. We would also like to see a clear programme of public education to help replace fear and scepticism with hope and confidence.*

 *It is important to recognise that a just transition to a genuinely sustainable society requires jobs, livelihoods and voluntary activities which are not limited to the energy sector, but include all the ways in which people within communities will support one another to live healthier, happier and more interdependent lives. Relevant opportunities will therefore include those in the creative, care, reuse and repurposing, local food production, ecological, educational and leisure sectors.*

8. What further advice or support is required to help individuals of all ages and, in particular, individuals who are currently under-represented in the industry enter into or progress in green energy jobs?

*As per Question 7 but also outreach to the education sector, for example weighting of funding to colleges for training in renewable trades. Tax incentives for those entering (and staying in) green energy jobs.*

 *Businesses which are seeking government support for energy transition activities should be required to provide comprehensive training and support to existing employees and to adhere to fair work principles and practice.*

**Chapter 3 – Energy supply**

**Scaling up renewable energy**

9. Should the Scottish Government set an increased ambition for offshore wind deployment in Scotland by 2030? If so, what level should the ambition be set at? Please explain your views.

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10. Should the Scottish Government set an ambition for offshore wind deployment in Scotland by 2045? If so, what level should the ambition be set at? Please explain your views.

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11. Should the Scottish Government set an ambition for marine energy and, if so, what would be an appropriate ambition? Please explain your views.

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12. What should be the priority actions for the Scottish Government and its agencies to build on the achievements to date of Scotland’s wave and tidal energy sector?

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13. Do you agree the Scottish Government should set an ambition for solar deployment in Scotland? If so, what form should the ambition take, and what level should it be set at? Please explain your views.

*Extend the scope of ‘permitted development’ to make solar installation easier. Use progressive measures such as tax levers or means-tested support to make it more equitably available. In the rented sector, use fiscal or regulatory measures with built-in accountability (granting or removing licences) to achieve maximum take-up by landlords in the rented sector. Re-introduce compulsory solar energy for all new build. Adjust planning regulation more radically than in NPF4 to remove or reduce barriers to solar for Conservation Areas and listed buildings.*

14. In line with the growth ambitions set out in this Strategy, how can all the renewable energy sectors above maximise the economic and social benefits flowing to local communities?

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15. Our ambition for at least 5 GW of hydrogen production by 2030 and 25 GW by 2045 in Scotland demonstrates the potential for this market. Given the rapid evolution of this sector, what steps should be taken to maximise delivery of this ambition?

*We would draw your attention to the vital work of the Hydrogen Science Coalition (HSC)*

[*https://h2sciencecoalition.com/*](https://h2sciencecoalition.com/) *and in particular to their data and resources*

[*https://h2sciencecoalition.com/data-resources/*](https://h2sciencecoalition.com/data-resources/) *Our responses to Questions 15 and 16 draw on HSC findings.*

***Maximising delivery should apply to ‘green’ i.e. renewable hydrogen only.*** *The phrase ‘low carbon and renewable hydrogen’ appears several times in the DESJTP and, intentionally or not, appears to imply they are comparable, or at least similarly desirable. Although there are also many references just to ‘renewable’ hydrogen, only in the glossary is the distinction clear and the more familiar terms ‘green’ and ‘blue’ referenced. The earlier parts of the strategy could be more openly truthful about this distinction, though we were glad to see later analysis of hydrogen’s appropriate usage within a low-carbon energy mix. We’re also very glad to see the affirmation that ‘the Scottish Government does not support new hydrogen production where CO2 is unabated.’ This should entail clearer presumption against ‘Blue’/’low carbon’ which is dependent upon a discredited fossil fuel source (methane) and on an unproven technology to mitigate its emissions (CCUS).* ***Even with CCUS (not functioning at scale in the foreseeable future) ‘blue’ hydrogen cannot be honestly described as ‘low carbon’*** *- it would still generate high fugitive methane emissions, making it up to 50% as carbon-emitting as ‘grey’ hydrogen (almost all our current hydrogen is ‘grey’ i.e. generated using natural gas and coal as fuel but with no CCUS to ‘remove’/store emissions). Scotland should be avoiding blue hydrogen and urging the UK government to do the same, not considering it at all until CCUS has proved its validity.* ***‘Green’ hydrogen is not only the sole ‘renewable’ hydrogen, it is the sole low-carbon form of hydrogen****, made via electrolysis with power from offshore wind, but it remains a worryingly inefficient form of energy and therefore a very demanding and wasteful use of renewable energy in many contexts.*

*The ambition for ‘at least 5 GW of hydrogen production by 2030 and 25 GW by 2045’ is largely related to export of hydrogen. The concerns we have expressed above apply to exported hydrogen as well as that for domestic use, in other words only truly renewable hydrogen should be considered for export. In any case, growing understanding of the non low-carbon nature, and CCUS dependency, of ‘blue’ hydrogen may mean that export markets will be very limited (e.g. by EU regulation on defining ‘renewable’ hydrogen), and rightly so.*

*(See* [*https://ec.europa.eu/commission/presscorner/detail/en/ip\_23\_594*](https://ec.europa.eu/commission/presscorner/detail/en/ip_23_594)*)*

16. What further government action is needed to drive the pace of renewable hydrogen

development in Scotland?

*Closing down or rapid decarbonisation of ‘grey’ hydrogen and deferral of any commitment to blue hydrogen until CCUS is operable reliably and at scale. That is, removing ‘false solution’ rivals to green hydrogen which should be the only contender. (See response to Question 15.)*

17. Do you think there are any actions required from Scottish Government to support or steer the appropriate development of bioenergy?

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18. What are the key areas for consideration that the Scottish Government should take into account in the development of a Bioenergy Action Plan?

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19. How can we identify and sustainably secure the materials required to build the necessary infrastructure to deliver the energy strategy?

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**North Sea Oil and Gas**

20. Should a rigorous Climate Compatibility Checkpoint (CCC) test be used as part of the process to determine whether or not to allow new oil and gas production?

*No, because we feel the concept of a ‘Climate Compatibility Test’ for new oil and gas is a dishonest one. It is also a deviation from facing and acting upon the hard truth that all efforts should be directed at accelerating the reduction of our carbon emissions as much as possible, not looking for reasons to continue them.*

*The IPCC has indicated that production from already licensed oil and gas fields will release carbon emissions well beyond what is consistent with limiting global warming to 1.5°C.*

*We are also concerned about the vagueness of ‘production’ in this question. Does it mean ‘new oil and gas exploration and development’? Or does it mean ‘new production from already-licensed reserves’? It is very important to have integrity and clarity on such important questions. However, under either interpretation, we do not believe the process of determining whether or not to allow ‘new production’ should include a Climate Compatibility Checkpoint.*

21. If you do think a CCC test should be applied to new production, should that test be applied both to exploration and to fields already consented but not yet in production, as proposed in the strategy?

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22. If you do not think a CCC test should be applied to new production, is this because your view is that:

• Further production should be allowed without any restrictions from a CCC test;

• No further production should be allowed [please set out why];

• Other reasons [please provide views].

*In his press conference launching the IPCC Synthesis Report on 20 March 2023, UN Secretary General Antonio Guterres described the necessity for an Acceleration Agenda, including:* ***“Ceasing all licensing or funding of new oil and gas – consistent with the findings the International Energy Agency” and “Stopping any expansion of existing oil and gas reserves” as well as “Shifting subsidies from fossil fuels to a just energy transition. “ See*** [text of the Secretary General’s speech.](https://www.un.org/sg/en/content/sg/statement/2023-03-20/secretary-generals-video-message-for-press-conference-launch-the-synthesis-report-of-the-intergovernmental-panel-climate-change)

*Fossil fuel production has already gone beyond a safe point. Government messaging and action needs to acknowledge this core fact as the context of every aspect of its energy policy. The question is not ‘how much more can we burn?’ but ‘how can we close down this harm-causing activity?’*

*No CCC test can be devised that can truthfully show that new oil and gas development is compatible with a low-carbon energy mix. Burning all the reserves already in production would make the Paris Agreement targets unreachable. It is clear that no further exploration and development should be allowed, as was stated by the International Energy Agency in their report almost two years ago* [*https://www.iea.org/reports/net-zero-by-2050*](https://www.iea.org/reports/net-zero-by-2050) *which said that* ***exploitation and development of new oil and gas fields must stop this year [2021]****. Fatih Birol, the IEA’s executive director and one of the world’s foremost energy economists, said: “If governments are serious about the climate crisis, there can be no new investments in oil, gas and coal, from now – from this year.” (*[*https://www.theguardian.com/environment/2021/may/18/no-new-investment-in-fossil-fuels-demands-top-energy-economist*](https://www.theguardian.com/environment/2021/may/18/no-new-investment-in-fossil-fuels-demands-top-energy-economist)*)*

23. If there is to be a rigorous CCC test, what criteria would you use within such a test? In particular [but please also write in any further proposed criteria or wider considerations]

• In the context of understanding the impact of oil and gas production in the *Scottish North Sea* specifically on the *global* goals of the Paris Agreement, should a CCC test reflect –

A) the emissions impact from the production side of oil and gas activity only;

B) the emissions impact associated with both the production and consumption aspects of oil and gas activity (i.e. also cover the global emissions associated with the use of oil and gas, even if the fossil fuel is produced in the Scottish North Sea but exported so that use occurs in another country) – as proposed in the Strategy;

C) some other position [please describe].

* Should a CCC test take account of energy security of the rest of the UK or European partners as well as Scotland? If so, what factors
* would you include in the assessment, for example should this include the cost of alternative energy supplies?
* Should a CCC test assess the proposed project’s innovation and decarbonisation plans to encourage a reduction in emissions from the extraction and production of oil and gas?
* In carrying out a CCC test, should oil be assessed separately to gas?

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24. As part of decisions on any new production, do you think that an assessment should be made on whether a project demonstrates clear economic and social benefit to Scotland? If so, how should economic and social benefit be determined?

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25. Should there be a presumption against new exploration for oil and gas?

*Yes. See answer to Question 22. There should also be clarity on how this would operate.*

26. If you do think there should be a presumption against new exploration, are there any exceptional circumstances under which you consider that exploration could be permitted?

*No. See answer to Question 22.*

**Chapter 4 Energy demand**

**Heat in Buildings**

27. What further government action is needed to drive energy efficiency and zero emissions heat deployment across Scotland?

*A sustained public education campaign (reaching beyond online) with simplicity and truthfulness as its keystones. We need clarity and confidence about which new tech is really low-carbon (and which is not); what governments at UK, national and local level will do to make the transition not only possible but beneficial in many ways, an obvious example being that reduction of air pollution brings significant health benefits. Individual behavioural change is vital but it can only flow from effective knowledge and trust.*

*Public ownership of energy has been adopted as government policy in Wales and we would like to see this explored for Scotland, in the hope that it could increase the likelihood of renewable-related jobs remaining in Scotland, whether construction-related, renewable energy generation, or in domestic heating/efficiency installation.*

*Surplus energy from waste plants can fuel a* ***local*** *district heating system (for example, Garioch District Heating* [*https://gariochdistrictheat.net/*](https://gariochdistrictheat.net/)

*Onshore wind should be a source of* ***local*** *funding for sustainable community regeneration projects, as in the case of Huntly Development Trust.*

*Solar generation and efficiency measures such as triple glazing, for local buildings, especially community buildings, is hampered by Conservation Area/Listed building constraints. Adaptation to climate change should mean a new understanding of ‘Conservation’ – already, Conservation Area planning restrictions in reality inhibit conservation by making it impossible or prohibitively expensive. To support the targeted transformation of how we heat our buildings, the criteria for planning permissions needs a conceptual overhaul, much more radical and future-focused than NPF4. As NPF4 is only recently published, guidance is urgently needed to help planners minimise barriers to measures that are effectively climate adaptation.*

*An additional helpful government action would be direct funding from one public source (e.g. Scottish National Investment Bank), rather than numerous small/short-term grants; applying for multiple grants is a huge time-consumer for people running community initiatives, often on a voluntary basis.*

**Energy for transport**

28. What changes to the energy system, if any, will be required to decarbonise transport?

*We need a more reliable, more extensive EV charging infrastructure. The unreliability and sparseness of the existing network is building high levels of scepticism which will not help to raise EV purchase rates in Scotland (already lower than in the UK as a whole, though there are arguably good geographic reasons for this). There are around 2,800 public EV charge points across Scotland, with around 600 installed in the last year (according to the Climate Change Committee’s report ‘Progress in reducing emissions in Scotland’ published in December 2022). The report also points out that the Scottish Government’s 2022/23 Programme for Government set an ambition to increase this to at least 6,000 over the next four years but that looks high in the context of 600 in the preceding year. There is the equally demotivating problem that the charging points are not reliable and often out of service, which undermines confidence in the EV market. Regulation could require all petrol stations to install and maintain ‘fast’ EV chargers so that the availability of electric refuelling is as reliable as that of petrol/diesel refuelling.*

 *We also note that it will not be possible to replace all current petrol/diesel private cars with electric cars and it is therefore imperative to ensure that sustainable, accessible, affordable, safe and comfortable public transport is available, especially to those least able to use active forms of travel and/or to use a private electric car (as a result of affordability, mobility or other factors).*

29. If further investment in the energy system is required to make the changes needed to support decarbonising the transport system in Scotland, how should this be paid for?

*There needs to be much more radical commitment to sustainable travel. In particular, investment in electric train and coach travel as low-carbon alternatives to aviation; we would have liked to see plans for fiscal levers to encourage a move away from aviation and towards sustainable travel.*

*Our commitment to equality would point to a redistributive approach such as a tax on fossil fuel sector being diverted directly to funding electric public transport on a scale tailored to local need (for example, electric minibuses in rural areas). We commend the ‘Polluter Pays’ principle and ‘fiscal levers’ recommendations of* Stop Climate Chaos’s October 2022 report *Making Polluters Pay and Delivering Climate Justice* [*Making Polluters Pay and Delivering Climate Justice*](https://www.stopclimatechaos.scot/wp-content/uploads/2022/09/FinancingClimateJustice_Briefing_ONLINE.pdf) .

30. What can the Scottish Government do to increase the sustainable domestic production and use of low carbon fuels across all modes of transport?

*See response to Question 28; make it clear that Scottish government policy is against the use of hydrogen in cars and light vehicles.*

31. What changes, if any, do you think should be made to the current regulations and processes to help make it easier for organisations to install charging Infrastructure and hydrogen/low carbon fuel refuelling infrastructure?

*Expedite the necessary upgrades to the grid. Hydrogen refuelling infrastructure should be in the context of HGVs only, not domestic/light vehicles.*

32. What action can the Scottish Government take to ensure that the transition to a net zero transport system supports those least able to pay?

*See response to Question 29*

33. What role, if any, is there for communities and community energy in contributing to the delivery of the transport transition to net zero and, what action can the Scottish Government take to support this activity?

*Where hydrogen is to be used for a hydrogen hub for HGVs, it should be made* ***locally****, in order to minimise fugitive waste but also to provide local jobs and contribute to the linking of the low-carbon transition with local flourishing. Safety issues are major with hydrogen, however, so high standards needed.*

*Onshore wind should be a source of* ***local*** *funding for sustainable community regeneration projects, as in the case of Huntly Development Trust. Such local energy generation could be used, for example (as in Huntly), to fund a community EV carpool, minibus or electric bike scheme, and contribute towards sustainable retrofit of community buildings.*

*As previously mentioned in the context of Heat in Buildings, a great help would be direct funding for communities and community energy, from one source, rather than numerous small grants; applying for multiple grants is a huge time-consumer for people running community initiatives, often on a voluntary basis.*

34. Electric vehicle batteries typically still have around 80% of their capacity when they need replacing and can be used for other applications, for example they can be used as a clean alternative to diesel generators. What, if anything, could be done to increase the reuse of these batteries in the energy system?

*Information at point of sale, on the lifetime carbon footprint of EVs and the recycling/re-use of EV batteries, should be required from dealers.*

*Rural poverty and fossil-fuel dependence could be alleviated by a scheme that makes it attractive for off-gas home-owners to replace a generator with a recycled battery.*

**Energy for agriculture**

35. What are the key actions you would like to see the Scottish Government take in the next 5 years to support the agricultural sector to decarbonise energy use?

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**Energy for Industry**

36. What are the key actions you would like to see the Scottish Government take in the next 5 years to support the development of CCUS in Scotland?

*We were glad to see in the Draft Strategy’s Executive Summary the statement ‘We are opposed to the continued use of unabated fossil fuels to generate electricity. The deployment of CCUS for the Scottish Cluster must demonstrate decarbonisation at pace and cannot be used to justify unsustainable levels of fossil fuel extraction or impede Scotland’s just transition to net zero.’ But this must be clearer and applied rigorously: ‘at pace’ is vague, as is ‘unsustainable levels.’*

*The Climate Change Committee has for some time been critical of UK and Scottish carbon emission reduction targets being too dependent on CCUS when it should be* ***a last resort****.*

***The illusion of CCUS as a near-future ‘solution’ encourages the false belief that continued emissions are acceptable because they will at some future point be dealt with.***

*For example, allowing a gas-fired power station at Peterhead gives a green light to fossil fuel dependence continuing over the decades it will take for CCUS to reach an effective scale (if it ever does). This is the reverse of what we need to do: end new development of fossil-fuel-powered energy generation, and cut emissions. There is a high risk that a gas power station proposed at Peterhead, premised on the unproven ability of long-term-future CCUS mitigating its carbon emissions, will create a high-emitting stranded asset. It is worth comparing this context with the Drax power station plans which were eventually shelved due to recognition of exactly this scenario (see bold highlight in the following text).*

*“*Even the world’s most advanced carbon capture and storage projects remain relatively inefficient, and extremely expensive. The world’s first commercially used CCS project at Boundary Dam in Canada, has recently only managed to store around 60-70% of the carbon emissions it processes. There is a history of [repeated failures](https://ieefa.org/ieefa-u-s-mothballing-of-petra-nova-carbon-capture-project-shows-likely-fate-of-other-coal-fired-ccs-initiatives/) to scale-up CCS, and plans for economically viable CCS are so far [wishful thinking](https://energyflux.substack.com/p/no-more-gaslighting-lets-get-real) . In 2010, carbon capture facilities planned to capture a total of around 130 million tonnes of CO2 were under development globally. However, plans did not come to fruition and capture capacity remains tiny – ten years later in 2020 the entire operational global capacity of CCS did not quite stretch to 40 million tonnes of CO2 per year. …ClientEarth took the UK government to court over approvals granted for Drax’s plans to build what would be Europe’s largest fossil gas power plant in North Yorkshire. As the UK’s Planning Inspectorate found, the approval risked locking in significant greenhouse gas emissions for decades to come, at odds with the roll out of rapid decarbonisation. In January 2021, the Court of Appeal upheld the approval but set an important climate planning precedent, confirming that the UK government can refuse planning permission on climate and carbon lock-in grounds under the applicable planning policy.

**In February 2021, Drax then** [**announced**](https://www.clientearth.org/latest/press-office/press/clientearth-responds-drax-gas-mega-plant-in-doubt/) **that it was shelving plans for the massive gas plant as it would not fit with their climate strategy.** The CEO said "[t]he future of gas power generation fuel is getting shorter all the time". Recent [data](https://ember-climate.org/commentary/2020/12/17/uk-gas-to-5-year-low/) shows that demand for gas in the UK continues to be displaced by renewables, and Carbon Tracker has [assessed](https://carbontracker.org/reports/foot-off-the-gas/) that new UK gas power plants would be expensive stranded assets in the making compared to clean energy, posing lock-in risks to the UK’s net-zero target.” [*https://www.clientearth.org/projects/the-greenwashing-files/drax*](https://www.clientearth.org/projects/the-greenwashing-files/drax)

***CCUS should only be admissible if it is no longer possible to reach our targets and keep the planet liveable by cutting emissions. This has perhaps already become impossible – in which case the truth should be told. The primary focus must be on cutting, as fast as possible, the volume of carbon being pumped into the atmosphere.***

***We would hope to see more independence on the part of the government in terms of resilience to corporate lobbying for CCUS support, and UK government policy, when it comes to telling the truth about CCUS****.*

*The onus of proving that CCUS is long-term safe, efficient, and effective at scale, should be on the private companies who are looking to profit from it. We would look to the government to be more honest about the lack of reliability/scale of CCUS for the foreseeable future and set out realistic dates and volumes for its anticipated capacity.*

*Subsidy for CCUS would draw vital public investment away from proven carbon-cutting and renewable measures. Public funding should be focused instead on proven technology such as wind and solar, but also on* ***steps to reduce energy demand/need****: retrofitting of our ageing housing stock; expedited regulation on new builds; a clear publicity campaign (not just online) to inform the public about what financial support is available and how, to help with energy-saving measures; expedited major swing of the training and employment sectors away from fossil fuels and towards future-focused career security.*

*Our belief in equality convinces us that policy should focus on rapid job creation in safe technologies that exist here and now, and on funding that benefits local community schemes and reduces fuel poverty, not on subsidising large profitable corporations to carry out research and development which they can fund themselves.*

*The onus should also be on the companies proposing to develop CCUS, to* ***prove its long-term safety and guaranteed protection of the marine environment****. We have seen that Marine Protected Areas have been only patchily protected in the past; accountability on the ‘polluter pays’ principle needs to be more strongly implemented in the CCUS context.*

37. How can the Scottish Government and industry best work together to remove emissions from industry in Scotland?

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38. What are the opportunities and challenges to CCUS deployment in Scotland?

*See response to Question 36.*

39. Given Scotland’s key CCUS resources, Scotland has the potential to work towards being at the centre of a European hub for the importation and storage of CO2 from Europe. What are your views on this?

*See response to Question 36.*

**Chapter 5: Creating the conditions for a net zero energy system**

40. What additional action could the Scottish Government or UK Government take to support security of supply in a net zero energy system?

*Scottish government: expedite the upgrading and long-term resilience/reliability of the electricity grid to support the large-scale installation of heat pumps and EV infrastructure.*

*UK government: decouple renewable energy pricing from fossil fuel pricing. We welcome the support expressed for this, but would like to see detail on how this demand will be backed up by negotiation and by suggested strategies.*

*Take radical steps towards a circular economy to reduce energy demand/need, not only for security but to help us live within planetary limits which is a* ***global security*** *issue.*

41. What other actions should the Scottish Government (or others) undertake to ensure our energy system is resilient to the impacts of climate change?

*Explain and expedite the use of ex-EV batteries as a back-up energy supply for rural properties.*

*Work with local government and energy companies to build storm resilience and flood resilience into our energy infrastructure. For example, overhead electric cables’ vulnerability to storm conditions is increasingly clear.*

**Chapter 6: Route map to 2045**

42. Are there any changes you would make to the approach set out in this route map?

*Remove references to ‘low-carbon’ hydrogen (see responses to Questions 15 and 16).*

43. What, if any, additional action could be taken to deliver the vision and ensure Scotland captures maximum social, economic and environmental benefits from the transition?

*A clear campaign of public education based on a truthful approach to the options and choices, and emphasising the benefits of the right choices, e.g. better health, less inequality, protecting a liveable future by slowing down climate collapse while there is time. There is a slippage of hope, which urgently needs to be addressed; if public cynicism and helplessness continues to grow it will become increasingly difficult to implement the necessary measures. Likewise the message needs to be expressed that climate adaptation is not a privilege for those who can afford it, but an emergency rescue for our society as a whole.*

*We were sorry to see no reference to the findings and recommendations of the Scottish Citizens Climate Assembly. Its value and seriousness as a public consultation and education exercise are implicitly disregarded. Clarity on how the Assembly’s work has been taken into account in energy policy formation would help to create a much-needed sense of trust and engagement in the transition project. The main policy output from the final Scottish Climate Assembly session in February 2020, was a Statement of Response from members assessing the* [*Government’s own response*](https://www.gov.scot/publications/scottish-government-response-scotlands-climate-assembly-recommendations-action/) *to the Assembly’s recommendations. It said (see pdf supplied with this response):*

**<<We believe, from the Scottish Government's response to our recommendations for action, that Government needs to think less about what they can't do and instead demonstrate a positive attitude, thinking hard about how they can make things happen.**

**Members of the Assembly overall are disappointed with the Government's response to many areas of our recommendations, as it does not appear to recognise the urgency behind the Assembly's recommendations for action.**

**Throughout the Government's response there are many pledges using words like 'consider' and 'explore'. We would like to see a clearer roadmap, with more ambitious targets. We want the Government to commit to more specific actions, targets and timescales and to report back to us as a matter of urgency, so that we are able to hold them to account for delivery. >>**

*As far as we understand it the reports and findings of the Climate Assembly, and its website, are no longer easily accessible online, which is regrettable (their final full report is available as archived material at* [*https://webarchive.nrscotland.gov.uk/20220321134004/https:/www.climateassembly.scot/full-report*](https://webarchive.nrscotland.gov.uk/20220321134004/https%3A/www.climateassembly.scot/full-report)*)*

 *But, as pointed out by Sustainable Scotland Network, the Assembly’s concluding report included the following asks:*

“The Assembly also challenged the Scottish Government to commit to annual check-ins, and outlined a scorecard system with 10 key performance indicators that could increase accountability around climate targets in Scotland and secure a legacy for the Assembly’s recommendations beyond its initial formal process.

Scotland’s Climate Assembly have called for the Scottish Government to go further with actions across a range of areas such as:

* **low carbon procurement** for public sector catering
* **education** on sustainable diets
* **carbon labelling** of products
* **increasing public control** of land
* retrofitting of homes to **prevent fuel poverty**
* **higher taxes** for frequent fliers
* **banning** single use plastics
* **supporting people** with low incomes in accessing public transportation.”

[*https://sustainablescotlandnetwork.org/news/scotland-s-climate-assembly-final-session*](https://sustainablescotlandnetwork.org/news/scotland-s-climate-assembly-final-session)

**Impact assessment questions**

44. Could any of the proposals set out in this strategy unfairly discriminate against any person in Scotland who shares a protected characteristic? These include: age, disability, sex, gender reassignment, pregnancy and maternity, race, sexual orientation, religion or belief.

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45. Could any of the proposals set out in this strategy have an adverse impact on children’s rights and wellbeing?

*Yes. Reliance on false solutions or solutions that are uncertain/not yet available. Young people clearly see the absolute falsity of concepts such as a ‘climate compatibility check’ for new fossil fuel development/production. Their trust of and engagement with government, as well as their wellbeing, is at risk unless we are courageous and truthful on the difficult issues. We would have liked to see references to the Wellbeing Economy in a prominent position in the document.*

46. Is there any further action that we, or other organisations (please specify), can take to protect those on lower incomes or at risk of fuel poverty from any negative cost impact as a result of the net zero transition?

*See response to Question 2.*

47. Is there further action we can take to ensure the strategy best supports the development of more opportunities for young people?

*See responses to Questions 7, 8, 45.*

**Just Transition energy outcomes**

48. What are your views on the approach we have set out to monitor and evaluate the Strategy and Plan?

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49. What are your views on the draft Just Transition outcomes for the Energy Strategy and Just Transition Plan?

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50. Do you have any views on appropriate indicators and relevant data sources to measure progress towards, and success of, these outcomes?

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