

Appendix 1

Draft Energy Strategy and Just Transition Plan Consultation Questions and Aberdeenshire Council Response:

Responses in black = Environment and Sustainability

Responses in blue = Planning and Economy

Responses in red = Chair, Vice Chair and Opposition Spokespersons from Infrastructure Services Committee and Sustainability Committee

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?

Both visions are clear and concise as visions should be, however a few points to consider below:

2030 – maximum community and economic benefits – it needs to be clearer what this actually means and how this will look across the whole country. It will be incredibly challenging to achieve this over the next 7 years.

2045 - A climate friendly energy system needs defining.

It is good to see the recognition that achieving the vision as set out will require a collective effort from government and agencies at local and national levels, industry, the research and innovation sector, our communities and civil society. However, for this to be realised in the timescale will require very strong leadership.

There should be at least one more additional date with interim targets between 2030 and 2045. The last part of reducing energy use, increasing renewables and ensuring we are on target for Net Zero in 2045 will be harder than what has been achieved to date. There is also a lot to be achieved between the targets set for 2030 and 2045. For example, the difference between targets/reductions for 2030 and 2045 are huge in some areas – 5GW Hydrogen (2030) to 25GW Hydrogen (2045), Oil & Gas production down from 35% (2030) to 3% (2045). An interim target would be more indicative of how to bridge the gap and at what rate.

What is the definition of secure and affordable energy and what is the definition of Net Zero – the question arises if these are achievable. There will still be a demand for oil and gas derived fuels and products unless there is a total commitment to change and as such, oil and gas needs to still be further developed. Significant reserves remain untapped and existing good reserves are yet to be fully utilised.

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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?

Proactively sharing and delivering what is available in grants, interest free loans etc. to the public and business. There is still a lack of awareness as to what is available and to whom. Timelines need to be increased also – not just annual budgets but long-term funding over multiple years so people can do work in stages if required to save for further improvements themselves. In addition to this, the reintroduce of funding/match funding for investment such as solar which would lead to less demand on the grid.

Another option could be match funding up to a certain amount for homeowners who invest in decarbonising or improving energy efficiency of their homes (beyond what is currently available to those who qualify for support).

There also needs to be better investment in training, signposting and support for Small to Medium Enterprises (SMEs) who do not have the same knowledge, time or resource as larger organisations to maximise these benefits.

There should also be a strong focus on incentivising landlords to upgrade properties to ensure those who live in rental properties receive the same benefits (suggested above) as regular homeowners.

The benefits have to be more precisely communicated and costs must be transparent – if Government(s) are funding this then everyone needs to be contributing proportionately and fairly.

More consideration on open source technologies that could both speed the transition at community and small business level should be given. Whilst financial rewards from either community benefit or joint ownership of developments is welcome, the financial risk and gain will largely benefit corporate bodies developing leading technologies. Whilst the newest technologies need to be protected to allow this risk to be taken, consideration should be given to how an open source approach could help empower communities and smaller businesses to benefit should be given. Evidence from previous open source activities suggests that this is also a meaningful way to develop research and development in addition to distributing the benefits.

Creating confidence in what is being offered is very important. People need to be given the capacity to understand all the products available, costs and benefits, trust in businesses to correctly install and maintain technologies etc. so that they support the investment required to be a part of net zero delivery. How all this information is gathered and supported will be key. We are increasingly told to beware of scams so how information about initiatives, funding sources and deadlines matter because we are told scammers use the pressure of deadlines as a strategy to not give people time to check and reflect. Confusion benefits scammers as well. Therefore, there needs to be a kitemark or a go to place for information that people can trust.

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

Government needs to ensure that those communities trickier to engage with or those without active groups already set up, are given strong continual support to be able to consider community energy opportunities and lead on their development.

Existing community resources who are already embedded and engaged with communities such as third sector interfaces and regional climate change hubs should be utilised for this. Climate Hubs are to be set up across Scotland and so should be utilised to ensure an inclusive approach across the regions they are set up to represent.

Extra funding for Local Authorities to have support in place to encourage engagement in harder to reach communities and even support to replicate successful projects occurring in more invested communities could also ensure the approach to supporting community energy is inclusive and that the benefits flow to communities across Scotland.

However, consideration should be wider than just means testing and areas of deprivation by looking at other factors such as population demographics, housing types, geographical location and logistics of installing and maintaining energy infrastructure in certain areas, etc.

It is important to also think about how young people could be included in this process. Considering the targets are up to 2045 their involvement from an early stage is crucial. This could include delivering education and exploring use of innovative methods of engagement to illustrate current/future benefits to 2030 and 2045 (e.g. visioning exercises and/or serious gaming).

Experience from Aberdeenshire Councils Regeneration Strategy dictates that those communities that experience the worst Scottish Indices of Multiple Deprivation are less likely to reach out to programmes and schemes run to benefit them. This was backed up by the recent Just Transition fund, in particular the Participatory budget element where the vast majority of projects supported were out with those communities who perhaps needed it most. Where most success is achieved in these communities is where the programmes and schemes are specifically place identifiable, with much more intensive ground up work required before the community is ready to consider the opportunities from such schemes. People and skills capacity need to be invested where the organisational capacity of the communities is lower and this needs to be funded from sources not currently available. This support should be given regardless of whether there is constituted body in a community with the purposes of improving the organisational and aspirational capacity of communities.

Long term core funding needs to be made available. There are too many limitations for communities under the current short term funding models which do not encourage the engagement that is required by communities for this to be successful. Some current schemes mean communities take on all the risks involved in a project. This is very discouraging and is slowing any progress towards targets.

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

The Scottish Parliament's Net Zero Energy and Transport Committee report on 'The role of local government and its cross-sectoral partners in financing and delivering a net-zero Scotland' which was published on 23 January 2023 states the challenge on accessing finance for the public sector well.

We would encourage those analysing this consultation to consider the Committee's report in addition to the responses received through this process. The Committee's 'call for evidence' identifies so many challenges and puts forward recommendations to address them and this Strategy and Plan should take that report into consideration also.

Access to funds is not available or easy to obtain.

Long term core funding needs to be made available. There are too many limitations under the current short term funding models which do not encourage the engagement that is required to deliver net zero. Too much resource is having to go into chasing and bidding for funding which means the outcomes of those bids is not certain. Funds are not flexible enough and the timelines for spend too tight. To deliver net zero, the necessary funding needs to be part of the core grant so that councils can plan properly for the work that needs to be done, confident that the resource needed is there.

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

Resource capability and capacity is the biggest barrier we have. Short term funding also prevents long term confidence in acting on the required changes. Timing as well as foresight of funding is needed to allow organisations to be proactive rather than reactive.

Having appropriate frameworks set up on Scotland Excel prior to requirements being levied on organisations would help precipitate the process of procuring external support too.

Remove any barriers to funding access.

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?

Need to make sure that the supply chain and the capability and capacity to do this work remains in the United Kingdom. This is already in place in particular through the oil and gas sector and is an opportunity that the Scottish Government should work hard to retain. The longer it takes for this to become established the more risk there is that businesses move this elsewhere. There needs to be visibility and

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assurance over the pipeline of work for business to maintain confidence in the country. If there is a lag in progress, business will move on and the UK could end up in a position where we need to import the expertise and supply chain from elsewhere.

There needs to be investment to ensure this remains within the UK from an economic (employment and income/savings) and environmental perspective (reduce import from abroad).

This investment should include re-training and training to ensure there is sufficient expertise in heat pump technologies that would encourage more uptake. There are a growing number of installers who can competently fit systems but when there are issues, there is less proficiency to address these and ensure energy and cost-efficient running of the systems.

There needs to be more dialogue between Government and Local Authorities and Institutes of higher education/those who deliver apprenticeships etc to ensure appropriate courses and training begins now so we have fully trained specialist in time to deliver on these targets. This also ties in with engaging with young people as early as possible and supporting them to progress to higher education/apprenticeships in the relevant fields.

All opportunities have to be agreed by all governments and international leaders. What is done collectively is what will really matter on a global scale.

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?

Upskilling existing workforce is mentioned however there is a lack of detail on plans to attract new people into this area of work. What can be done to support early engagement in schools and colleges, for example Science, Technology, Engineering and Maths (STEM) focused Hubs which can support practical hands-on learning and encourage our young people with an exciting new prospect for a variety of career opportunities that are required for Net Zero to be realised in Scotland by 2045. This needs to happen now. More focus on green jobs at career fairs, visits to schools by professionals, etc. Emphasis should be that there are jobs at all levels with different ways to access them, for example, you do not need an engineering degree, there are apprenticeships, on the job training, utilisation of existing transferable skills and experience etc.

There also needs to be a strong focus on retention. This may be more specific to the north east of Scotland with its relatively high cost of living meaning after training and gaining experience, many may leave the area for opportunities elsewhere.

The breadth of jobs across the transition agenda is substantial and more so within a full labour market and ageing population. Local job opportunities can be a challenge when, for example the offshore opportunities are largely driven by international companies. Local training institutions should be given support to develop and

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accredit more courses which are relevant to energy transition. The speed at which new courses are developed, launched and populated needs to improve across Scotland as a key part of the skills infrastructure. Given the pace that we need to transition, consideration should be given to our whole education system. An example is the project based learning approach successfully deployed by Banff Academy. This is aligning young peoples skills and talents with local real world experiences. It is rooting the curriculum in skills development which reflects the needs of local employers. This type of approach could lead the way for local skills to be much more sharply aligned and attuned with the needs and pace of the transition journey.

Further education establishments require the necessary resource to support the development and uptake of high-quality courses which lead to sustainable local job opportunities across the breadth of Scotland as part of the energy transition.

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 mentioned in question 7 – some targeted STEM/Net Zero Hubs in regions that are connected to schools and Colleges/Universities. Those under-represented are in this place because the reach in their communities must not be there.

It is important to reemphasise the different routes at all levels to ensure these jobs are inclusive and attainable to anyone, including those under-represented in the industry.

Ensure these opportunities are also available to those over the age of 30, as this is often a forgotten age group when it comes to new job opportunities, despite their experience and transferrable skills. These groups may also need additional support due to financial and family responsibilities which younger people still living at home may not have.

All jobs should be focusing on green energy or transition to this. We cannot switch right away that is for certain and accepting that there will be a time lag to change certain industries needs to be accepted.

The entire “Transition” will take time and the targets may be unachievable in terms of dates until all countries agree this is the way forward otherwise there will always be under representation in green energy jobs.

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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.

If the renewable hydrogen production noted is to be powered by wind, this will mean there is a lot less of a surplus of energy for export due to the energy intensity of producing hydrogen. Thus, the potential financial benefits that Scotland would have gained will be diminished (from electricity export). In this case it would be prudent for Scotland to increase the offshore wind deployment targets.

Any increase should not be at the expense of industry – the likes of fishing or marine farming for example, as competition is becoming too severe already. Currently 37% of Scottish waters cannot be accessed to fish in and this figure is looking to be increased by at least 10% by the introduction of Highly Protected Marine Areas. There is considerable risk of the sustainable “blue protein” source which is derived from the sea being affected and putting further strain on land based protein production to meet the ever growing population food requirements.

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.

Similar to the response to Q9, if much of the electricity produced offshore is being utilised for hydrogen production then there could be a market for increasing renewable electricity generation in Scotland for export. It would be wise not to overinvest then have to curtail the electricity production though as this already gives a bad image to the general public when they see stationary wind turbines on windy days. There needs to be some thought into how to store this energy that does not involve lithium and other precious metal extraction.

Scottish (and UK) Governments are already leasing/giving away Scottish and UK opportunities to foreign investors and countries to develop offshore energy production and as such we are not seeing the commercial returns and this subsequent economic benefit here. There should be the ambition to develop the offshore energy industry to the benefit of the UK to a greater degree.

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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subsequent economic benefit here. There should be the ambition to develop the offshore energy industry to the benefit of the UK to a greater degree.

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?

Wave and tidal energy could be very valuable for electricity production in Scotland. Wave power is much more consistent than solar or wind, this is particularly significant in winter when demand is higher. We have a vast coastline and it does not make sense not to utilise this additional potential for energy production.

Need to ensure sufficient resources are provided to support the development of Regional Marine Planning around Scotland's coast. In this context, especially to the Scottish Marine Regions that are considered to have the greatest wave and tidal energy potential.

Keep supporting further progression and international development especially for UK based companies.

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.

Solar (photovoltaic) has its place in Scotland and should be encouraged where appropriate.

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?

By having local benefits available for a radius where the power is produced/where the power comes onshore, similar to the funds that communities near landfill sites could apply for to improve resources in the local area.

Unit price for energy generated being made to be as cost neutral as possible will benefit all. The ownership of energy generating companies being outwith UK hands means we do not see the value benefits of generating more sustainable power for our increasing requirements.

There is established mechanism for wind projects in particular to consider Community Benefits. These are very much transactional and come in flushes dependent on the development stage with limited rigour around legacy. Whilst helpful, there needs to be a much more systemised way of doing this. Every local authority has signed up to the Place Principle of the Scottish Government and Aberdeenshire is embarking on a Place Strategy. Part of this will be about

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establishing Place Plans for our key places, led by local evidence, partners, assets and future vision of the community. It would make sense in terms of addressing longer term objectives, that community benefits were aligned to our key settlement Place Plans, thereby ensuring they are addressing the future success of our communities. This could be done via combining community benefit funds into a Community Wealth Fund or separately, with collaboration around the Place Plans.

Longer term planning and understanding of places by developers will also result in more long term benefits being achieved. Engaging with regions and places in advance of major developments to understand the economic and social landscape and how it can be advanced by the development would benefit. Procurement terms for example could encourage social enterprise development within ancillary works. The transitory nature of some of the development works could leave legacy developments, for example by partnering in the provision of local accommodation through developing vacant and derelict buildings with partnership agreements for future use depending on local circumstances.

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?

Funding should be available to those producing hydrogen without the use of fossil fuels to ensure that hydrogen production is a low carbon energy. Further funding once technology has been proven to replicate methods across the country would ensure we become the energy leaders that we aspire to be.

An alternative to a variety of energy generating forms is important in terms of how it is produced so develop each and every sector in the most appropriate way depending on “where” - in and around the UK.

16. What further government action is needed to drive the pace of renewable hydrogen development in Scotland?

Funding as mentioned in previous responses.

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

Food security and maximising the potential of suitable agricultural land (and seas) should be a priority and alternative energy sources needs to be encouraged before necessarily bioenergy. Food security and the need to reduce imports of key foods which can be produced here in the UK needs to be more of a focus and utilising available and appropriate land for this and not necessarily for bioenergy production should be further considered.

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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?

Ideally develop and manufacture them in UK.

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?

Yes, but efforts to reduce carbon emissions should focus on the demand side. There is little point replacing UK oil and gas with imported oil and gas.

Keep looking at efficient ways to extract and use oil and gas reserves to their maximum though in as "green" a way as possible. Must be a proven and safe efficient way of oil and gas abstraction and use as there will be a continued demand for products and not just for energy.

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?

Keep looking at efficient ways to extract and use oil and gas reserves to their maximum though in as "green" a way as possible. Must be a proven and safe efficient way of oil and gas abstraction and use as there will be a continued demand for products and not just for energy.

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;

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- **No further production should be allowed [please set out why];**
- **Other reasons [please provide views].**

The CCC test should account for both the carbon emissions associated with production and the product itself. It should account for the varying emissions associated with differing products – e.g. oil or gas, sulphur content and other quality measures.

Energy security must remain a factor to protect the vulnerable from sudden price rises.

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?**

B) All emissions for production and consumption should be taken into account.

Keep looking at efficient ways to extract and use oil and gas reserves to their maximum though in as “green” a way as possible. Must be a proven and safe efficient way of oil and gas abstraction and use as there will be a continued demand for products and not just for energy.

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Energy security must remain a factor to protect the vulnerable from sudden price rises.

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?

Yes, but there must be strong focus on these being long-term economic and social benefits.

This seems reasonable, based on the expectation for offshore wind licensing, and significant experience that exists within the wind industry on how these should be determined.

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

Yes, but the timing should be assessed against reducing levels of demand and the likelihood of requiring imports. Oil and gas is needed for the transition phase.

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?

Full carbon capture and storage at least equivalent to the resulting emissions from production and use of the oil/gas. Also, on top of considerable proven social and economic benefits.

Oil and gas is needed for the transition phase for current use and economic stability. Saying that it will need to be done environmentally efficiently and safely.

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?

The requirement for all Local Authorities to produce Local Heat and Energy Efficiency Strategy (LHEES) could be utilised to determine exactly how far we are as

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a nation from the targets and also what support will be required in which areas to ensure that we manage as a nation to reduce the carbon impact from heating. As it stands, there is a requirement for the documents to be produced but not for them to be submitted to Scottish Government nor for Scottish Government to assess and use the information.

Government funding and assistance to every building that is used to bring them to acceptable standard and rigorous new design policies that need to be followed (or they should not be allowed to be built) – in other words, strict regulations.

Regulating energy efficient and zero direct emission heat in Scotland's homes and buildings will require that development is delivered of a high build quality standard. Tight building regulatory control is needed to ensure new development is designed of a high quality to ensure energy efficiency performance is actually achieved and is built to last. Building performance monitoring, including post-occupancy evaluation, should feature in Scotland's wider monitoring to ensure that quality and liveability is not being compromised in the drive to achieve net zero.

Energy for transport

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

Ensuring that infrastructure is widespread for new fuels and not forgetting rural areas.

The transport section under represents the maritime industry including the sub sectors in maritime operations (e.g. support vessels, fishing, service vessels for oil and gas, cargo). These will all need alternative fuels too.

All transport to be switched to clean electric (at present this is unachievable and will not be met within the timescale and nor will it be worldwide. Reduce certain vehicle types (cars, vans) is possible but we cannot remove them unless totally committed to an entire greener transport network which includes lorries, planes, boats and trains.

More rapid chargers are required on the network too.

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?

Penalties for excess emissions from vehicle manufactures similar the EU scheme. Penalties for non-compliant vehicles which use Low Emission Zones (and an increase in these zones). Making ports and harbours Low Emission Zones with penalties for high emission ferries, cruise ships etc like some European countries. This will generate income and encourage a move to lower emission vehicles to help achieve targets. If penalties from Low Emission Zones are to be a source of

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investment, cities will need stricter rules on prohibited vehicles and accelerate full implementation of current/prospective Low Emission Zones.

If this is what is wanted by the UK people and therefore the UK Government, then we have to be able and prepared to pay for this.

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

Ensure that the electricity network providers can upgrade the infrastructure at pace to keep up with the electrification of heating as well as the likelihood of people installing electric car chargers. In Aberdeenshire there are too many constrained areas which will impact on the ability to progress with either ambition.

Invest and commit through taxation and spend and do this in line as a UK Government not as a Scottish one on its own.

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?

Invest and commit through taxation and spend and do this in line as a UK Government not as a Scottish one on its own.

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?

The Scrappage Scheme and used Electric Vehicle loan will help and assistance for households to install EV chargers in their homes.

However, there needs to be a dialogue with public transport organisations and vehicle manufacturers to reduce the cost of travelling sustainably and make it more accessible e.g., increase in reliable bus and train routes with means tested discounts and means tested low emissions vehicle payment scheme provided by car manufacturers. Some of the responsibility for encouraging/enabling those least able to pay needs to sit with the private sector not just the Scottish Government, local authorities, and the public.

If Net Zero cannot be paid for by all then it cannot expect to benefit all.

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?

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There is a role for this, and communities are best placed to let you know what would suit them best. There are example of communities trying to set up schemes to reduce their travel emissions, but many have been unsuccessful due to national and local governance and the tight criterion of funding.

The Scottish Government can support communities by using a place-based approach with community engagement rather than a 'one size fits all' approach. Working with them to understand what suits them best and what is sustainable long-term and providing communities with knowledge, signposting and support regarding governance and funding to enable them to contribute to the delivery of a transport transition to net zero.

Would be good to utilise existing community resources who are already embedded and engaged with communities such as third sector interfaces and regional climate change hubs. If funding is made available to local authorities for engagement, then these postholders need to work with these organisations and other community engagement officers within each local authority.

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?

Ensuring that there is a producer takeback scheme in place for electric vehicle batteries. Manufacturers/producers are best placed to ensure that their products are responsibly disposed of and where there is a secondary use possible, they would then be able to supply the used batteries for that after having checked them for damage.

Offer at a reduced rate to homeowners with renewable energy sources (solar panels, small wind turbines etc.) to increase the energy storage potential onsite at individual houses. Equivalent new batteries can cost around £3000 each.

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?

Subsidised conversion to enable low carbon fuel use for large machinery that is likely to be in use for years to come. Machinery such as combine harvesters are utilised for short periods throughout the farming season and likely to last longer than tractors and other machinery in daily use.

Incentivise farming practices that advocate enhanced carbon sequestration and biodiversity net gain (healthier soils, plants, water courses, and habitats).

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Agriculture is looking (as are all industries and sectors) to reduce their carbon use and where appropriate this should be encouraged. If the desire of the Government is to strive towards Net Zero then incentives should not always be necessary as it should also be the desire of all in the country (countries around the world).

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?

Support the Acorn project to remove carbon for St Fergus gas terminal.

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

Legislate against emissions otherwise it will not be achieved at the pace required.

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

Where Carbon Capture Utilisation and Storage (CCUS) is proposed in marine areas, this may conflict with competing interests such as fishing, offshore wind developments, Marine Protected Areas (and other conservation designations). This provides an opportunity for Marine Spatial Planning and increased partnership working between stakeholders through Regional Marine Planning Partnerships.

There is a danger that large scale CCUS is seen as a green light for business as usual. It is, however, an opportunity to solve carbon emissions for heavy industry in a relatively short time scale.

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?

The carbon costs of transporting any CO2 for CCUS should also be taken into account if this is to be done remotely from the site of production. Solutions should be sought as close to site of production as possible to avoid further carbon production.

We are supportive of the opportunities available via CCUS and encourage the Scottish Government to continue to advance this agenda.

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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?

Encourage more micro generation and community energy schemes. Open source and much more effective community knowledge transfer will be required to achieve this.

Have UK based companies and investors operating and controlling the energy industry.

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

Micro generation and battery storage.

Ensure mobile masts and key communication infrastructure is not reliant on a mains connection.

Compulsory strategic land management to alleviate flooding. Upland tree planting, planned flood plains, manage ecosystems.

Ensuring resilience of our energy system to extreme weather and ensuring community resilience should not be mutually exclusive endeavours: separation distances between energy infrastructure and residential areas, notably in relation to the trend for significantly taller wind turbines, requires scrutiny and potential regulation. There are also associated compatibility issues e.g. expansion or introduction of battery storage facilities of scale do not provide a good 'neighbour' to residential areas when in close proximity.

Chapter 6: Route map to 2045

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

There is a lack of detail between 2030 and 2045 – this is a huge timeframe over which much can change. Interim targets and plans need to be inserted here. Possibilities such as a minimum amount of carbon captured and stored in Scotland by 2031 for example would be a good start.

Need a better breakdown of steps by year between 2030 and 2045 to show how we are getting to 2045 targets and also to help monitor and report on progress and if any changes, improvements, etc need to be made.

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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?

Keep engaging and consulting with the people. Net Zero will not happen without full engagement of society.

Needs to be a UK and world vision too.

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.

A place-based approach working with communities and persons with protected characteristics in any action planning would be beneficial. I note that Annex C – Engagement shows Public Bodies, Local Authorities and Community Groups were involved in engagement events to support the development of the strategy and plan which is good.

Also good to see that those living in rural areas has been considered despite not being a protected group. This will be particularly appreciated by those in more remote island locations as well as rural mainland.

The equality around the necessary behaviour change that is required for a Net Zero society is needed to be assessed and monitored closely. The affordability at an individual level is very mixed and depends on so many circumstances.

Any consultation or engagement with NHS boards and/or health and social care partnerships is not clear? This is essential due to their knowledge of the above groups but also as the biggest employers in Scotland and the emissions of these sectors including their fleet and energy usage.

The links with NHS and social care partnerships are extremely important, especially for the transport sector. To avoid unfair discrimination the strategy should also help support better coordination between transport, health care, and social care providers (e.g. via Health and Transport Action Plans).

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

Consultation with Local Authorities and Scottish Youth Parliament was had but further engagement with children's services and education facilities in any action planning would be beneficial.

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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?

Third Sector Interfaces, related charities and non-profits and specific local authority departments should be consulted to provide further information on this.

There is an opportunity to consider how different elements of the energy strategy could be tied to create more of an ecosystem approach to transition. An example could be the Emissions Trading Scheme (ETS), and heat in buildings. The ETS (run by the UK government) is an effective mechanism at driving a carbon price and penalising emitters. If a percentage of the funds generated through the ETS were to be invested directly by the emitters on other activities to lower emissions, and reducing local fuel poverty by providing for example insulation or contributing towards heat pumps, it would quicken the wider community buy in to net zero, whilst accelerating transition from the ground up and would be adjusted to local circumstances.

In the absence of systemic incentives, financial incentives will be required. Support for community district heating systems and retrofitting buildings requires up front funding but could be in the form of loans with cost savings recouped and returned to the funders.

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

As above, continued dialogue with young people themselves through the Youth Parliament, schools, sports clubs, youth activity groups, etc would be beneficial. Ensuring collaboration with institutions of higher education and those who provide on the job training and apprenticeships for young people is essential.

Just Transition energy outcomes

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

A bit more clarity on 'how' these outcomes will be measured with tangible targets and figures would be helpful. Suggest that a breakdown of targets and measurements annually between 2030 and 2045 would be beneficial to monitor progress and give time to put in place any required changes or improvements in time to meet the 2045 targets. There needs to be smaller more achievable steps put in place to manage the process to Net Zero.

Regulating energy efficient and zero direct emission heat in Scotland's homes and buildings will require that development is delivered of a high build quality standard. Tight building regulatory control is needed to ensure new development is designed of

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a high quality to ensure energy efficiency performance is actually achieved and is built to last. Building performance monitoring, including post-occupancy evaluation, should feature in Scotland's wider monitoring to ensure that quality and liveability is not being compromised in the drive to achieve net zero.

How the strategy and plan are monitored is critical because in the absence of steady and reliable funding streams for the work this agenda requires, the likelihood is that targets will be missed. Therefore, clear and defined targets are important.

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

Views are generally positive. However, it is a large document and many would struggle to comprehend and digest the material easily. Some of the content is a bit disjointed, for example, trying to see the correlation between 4 different route maps. It may already be planned but a simplified synopsis with one combined route map for easier reading for the public would be helpful. If available some case studies would be good.

A communication plan on how engagement will be done on the release of the final plan would be good to be shared for input also. Many in the private, public and third sector could support the messaging if a communication plan and set of materials is produced alongside it.

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

It is likely that reporting and monitoring of reports by regulators such as SEPA or Scottish Government will be required to ensure we are on track to meet the 2045 targets. Reviewing and modifying targets to make sure we can achieve them will be required. Air quality data is taken by Local Authorities already, use of this data to show the effect of low emission zones for example will encourage those making sacrifices.