

Sprint One Summary Report

Scottish Government Energy Strategy and Just Transition Plan Stakeholder Engagement Programme – Summer 2022

Overview

Later this year, the Scottish Government will publish a new Energy Strategy and Just Transition Plan (ESJTP) for consultation. This will provide a whole-system vision and route map for Scotland's future energy system, looking at how individual parts of the energy system - energy generation, distribution and demands - fit together and interact with one another. As this changing system will impact all parts of our lives, the Scottish Government wants to engage widely with those likely to be most impacted to help identify what needs to be done.

As one part of this engagement programme, a series of nine workshops were held over the course of two weeks in locations across Scotland. Speaking with representatives from a wide range of organisations, each session focused on one of Scottish Government's eight Just Transition Outcomes.

A common structure was used for each workshop: a pre-event survey gathered attendees' views on key opportunities, risks and priorities. During the event, attendees were given an overview of the energy system and the changes likely to be seen as we transition net zero; this was followed by a facilitated discussion on potential opportunities, risks, dependencies and priorities associated with the particular outcome and the energy transition. Breakout groups were then asked to identify what they felt were priority actions.

This first engagement 'Sprint' involved over 120 stakeholders and these high quality discussions provided a wealth of information that will be taken forwards in the development of the Energy Strategy and Just Transition Plan in coordination with wider engagement activity. Further details of this wider engagement activity can be found at the website: Just Transition - Scottish Government - Citizen Space (consult.gov.scot).

The following document provides an summary of this first 'Sprint'. This includes:

- An overview of the events in Sprint 1
- An outline of how the findings from Sprint 1 will support the development of the ESJTP
- A summary of the discussion at each event workshop
- A table collating all the actions proposed by participants at the workshop events

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Events

There were nine events in total, each focussing on a particular Just Transition Outcome:

1. Mon 4 July, Inverness: Adaptation & Resilience of the energy system in a changing climate

Identifying key risks from climate change for our energy infrastructure, targeting future investment, and understanding regional distributional impacts.

2. Tues 5 July, Aberdeen: Scotland as Global Leader

Learning what the private sector needs to support and drive a just energy transition and identifying where Scotland can take advantage of opportunities of scale and be a first mover

- 3. Weds 6 July, Aberdeen: Future of Jobs and Skills Identifying where Scotland can take advantage of opportunities to drive good green jobs and how can business support a just energy transition?
- 4. Thurs 7 July, Stirling: Environmental Impacts & the changing energy system: Identifying the domestic and overseas impacts associated with the energy transition on green spaces and the natural landscape
- 5. Mon 11 July, Edinburgh: Decarbonisation: energy & a net zero, climate resilient economy

Driving an energy transition that delivers more resource efficient economic models

6. Tues 12 July, Galashiels: Engaging with Business:

Supporting SMEs through the energy transition and identifying key interventions

7. Weds 13 July, Inverclyde: Who pays?

Models for financing whole energy system transition, the opportunities for leveraging private sector finance and ensuring a transition that is fair and affordable for all

- 8. Thurs 14 July, Glasgow: An energy system that tackles existing inequalities Delivering an energy transition that tackles existing inequalities and prevents new ones
- 9. Friday 15 July, Ayrshire: Place, Participation & the Energy Transition Opportunities and barriers to a joined up, place-based approach to a whole energy system transition, incorporating heat, transport, and planning with communities at the heart of the process.















Findings and Next Steps

As described above, the workshops generated a large number of outline proposals and actions that participants felt should be taken to help deliver the energy transition. A full list of these is provided in the table at the end of this document.

All proposals gathered across the nine sessions were collated and analysed. They were grouped, in order to identify key themes and common issues, and also cross-referenced with the narrative summaries of the broader discussions during events. In addition, they were also considered in the context of existing Scottish Government policy positions and devolved powers and direct relevance to the scope of the Energy Strategy and Just Transition Plan.

The full list of comments and proposals were fed to the Energy Strategy and Just Transition Plan drafting team and onto relevant policy teams. Scottish Government worked with the event facilitator to identify a group of actions that would benefit most from being revisited in a follow up Sprint event. This refined group of proposals would be taken forward for further focused and in-depth discussions. A second sprint event will concentrate on surfacing potential detailed solutions with the view to developing them further into concrete proposals with a clear route on implementation.

A final Sprint will take place at this end of August. The aim of this final session will be to further refine these outputs, and reach a number of detailed, shared positions on actions necessary for the energy transition.

This series of events is just one of a number of important strands of engagement intended to inform the development of the Energy Strategy and Just Transition Plan. Its purpose is to engage with a wide range of stakeholders, representing a very wide range of interests, groups and experiences, taking just transition outcomes. Its outputs will join those of other strands of engagement, for example incorporating community/place focused events, with energy sector stakeholders, and individual engagement events with particular interest groups or sources of expertise.













Sprint 1 - Event Summaries

An overview of the key discussion points from the nine workshops in Sprint 1:

JTO5 – Adaptation and resilience

Decentralising the current energy systems in favour of community-owned local energy systems would increase resilience, in terms of energy security, as well as providing a source of community income generation.

Much needs to be done to ensure that Scotland has the necessary infrastructure in place to allow delivery of the energy system of the future. Investment in the grid network, at scale and pace, is needed to ensure adequate resilience as the population becomes increasingly dependent on electricity for heat and transport.

The deployment of smart network systems will enable households to reduce demand (and save money) through better management of electricity usage. This will be complemented by a rapid transition to alternative fuels, such as hydrogen, particularly for heavy transport.

Resilience requires a holistic view of risk. The perception is that the energy system is not being developed with current and future climate risks in mind. Scotland's adaptation gap the gap between the level of risk and investment to address those risks – is growing.

Increases in severe weather events, accelerated coastal erosion, increased flooding and landslides and warmer temperatures are going to increase disruption across the energy system – with remote rural communities clearly at risk (for example, the power supply chaos caused by Storm Arwen). Climate change will increase the severity and intensity of these events and disruptions posing significant risks.

Uncoordinated responses to adaptation risks may have unintended consequences. For example, installation of refrigeration to adapt to higher temperatures brings an increased energy, and possibly carbon, cost.

Other risks in resilience and adaptation category that must be addressed by clear policy interventions, funding and action plans include: the potential loss of biodiversity and environmental degradation (through extreme weather, rising sea levels and our own actions to decarbonise electricity); land use conflicts (for example, windfarm development versus peatland restoration); and growing inequalities in relation to the costs of living (such as the up-front expense of insulation against the longer-term savings achieved (through reduced electricity bills).

These exclusion risks must be addressed and enforced effectively by government to ensure that all communities and individuals can benefit, not just those willing and able to invest in, understand and use new technologies.















This process can be supported by developing a regional approach to community benefits, equitable access, understanding climate risk and developing local lead responses – making sense of it to stakeholders. Embedding the cost and value of carbon in policy development, as well as community, could transform resilience and adaptation.

It is necessary to define what can be addressed at national level versus regional level, including funding. There is a deep residual problem of communities being unhappy about paying more for electricity even though they might live right next to the windfarms (reserved matter).

This is a function of the current network charging system with transmission management being very London-centric. More flexibility and transparency is required in how electricity is traded with a clear case to be made for grid access and charging to be done at a local level.

JTO4 (1) – Business and the economy: Scotland as a global leader

Scotland does not lack opportunities to position itself as a leading player in renewable and green energy and to achieve energy security.

There is potential for its existing strengths in oil and gas, as well as renewable electricity, to be exploited to achieve global competitive advantage in floating offshore wind, green hydrogen, CCUS.

However, transforming this potential into reality will depend on several factors: establishing a leading position in world class research and development; devising a model to facilitate more effective collaboration between business and academia; solving the scaling up challenge for Scottish-developed technologies; developing the necessary accredited skills base; and investing at pace and scale in fossil fuel alternatives.

But progress is being impeded by lack of clarity on regulatory obligations and a lack of coherence in policy and planning right across the public sector. This is evident in the way that more socially and environmentally minded companies are usually priced out of the market by those who continue with cheaper but much more damaging in the race to the bottom.

There is a danger of incentivising bad behaviour internationally by opting or cheapest offshore competition rather than building domestic supply chain or infrastructure. Moreover, there is insufficient access to capital at all stages of the supply chain and a consequent lack of investment in productivity and innovation.

The current infrastructure – from grid capacity to EV charge points – is insufficient to optimise power production and capitalise on renewable energy opportunities. There are also concerns over the lack of recognition of cross-sector energy skills and the failure to anchor vital supply chain companies in Scotland with local content opportunity missed.















There is widespread concern about constantly shifting, or simple absent, goalposts in current strategies. This lack of stability and transparency is undermining trust and confidence.

Business requires clear measurable targets in just transition plans – protecting jobs, driving decarbonisation, and enforcing equalities. It also urgently needs clear definitions and criteria regarding what constitutes local content along with the standardisation of green metrics for business. The current situation is overly complex and confusing.

In addition, the grant awarding process is seen as too predicated on year-by-year operations rather than on the overall benefits that a project delivers. Standard terms of public procurement contracts are often incompatible with private sector collaboration (simply not allowed). This must be rectified as part of an overhaul and modernisation of frameworks.

JTO2 - Jobs, skills, and education

Developing a country-wide energy-educated and skilled population will support the energy system changes in a just way. However, the strategy is insufficient on its own without a detailed plan for implementing it. The government must be clearer in its asks.

Investment by both employers and the public sector is required to create demandresponsive, work-based pathways into areas of employment growth, with an emphasis on secure and well-paid work, particularly for groups disadvantaged in the labour market.

This will involve co-creating and delivering an offer to workers based on reskilling, providing clear career trajectories with career transition support, and redeploying the current oil and gas workforce in the green economy.

Government must play a greater role in setting specific and measurable targets for decarbonisation, job creation and inclusion objectives to overcome the current piecemeal, casualised and fragmented approach to careers in renewable energy. This will involve scoping the areas that need to reskill and determining how best this can be done by understanding the demand and timelines of future job requirements.

Ensuring fair and decent pay structures is vital. Oil and gas workers will not transition to the renewables sector if it means accepting lower pay and poorer terms and conditions. The elative security of green jobs compared with the volatility and uncertainty of oil and gas jobs should be emphasised in communications.

Hydrocarbon workers with transferable skills must not be penalised and disincentivised by being needlessly required to spend thousands of pounds for separate courses and new licences out of their own pocket.

There is great potential to create substantial numbers of jobs and to achieve energy demand reduction in the areas of residential decarbonisation, electrification of the entire transport hierarchy from rail to last-mile freight (including storage and system management), and in













design and manufacturing capabilities in offshore and onshore wind, exploiting the potential of our heavy industry infrastructure.

Improving flexibility and pace in the education system will be paramount with an immediate need to build net zero careers planning and modules into school curriculums (including primary). Aligning industrial training with the skills delivery plan will be needed to offer different ways of reaching competencies needed, such as apprenticeships, learning on the job, and place-based learning.

Funding of energy transition projects should have hard-wired commitments to local content and local job generation, overcoming the failure of supply chain job creation in the past. A new Scottish Government industrial strategy, the first since 2013, would be instrumental in providing much-need clarity on which jobs are being targeted and who has the responsibility for creating those jobs.

Given the current sector deal commitment is 50%, a clear definition of what 50% local content looks like is urgently needed, otherwise it is meaningless. Government must use its regulatory powers to drive solutions, resolve conflicts in the market, and rigorously police delivery of targets.

JTO6 - Environmental protection and legislation

It will be impossible to retrofit nature if the cumulative impact of piecemeal development degrades landscapes and habitats.

Currently the industry is entirely focused on energy issues, but this must be balanced by a greater awareness of the importance of restoring nature. There is a willingness among major networks like SSEN and Scottish Power to protect the environment, but it is vital to set clear expectations and targets for nature.

Several major risks must be anticipated and mitigated. These include the unintended consequences associated with developing infrastructure (such as site and landscape damage due to inappropriate biomass planting/production or increased emissions of fluorinated greenhouse gas arising from widespread adoption of heat pumps).

Beyond that is the potential over-development of renewable energy generation based on inaccurate demand forecasts and also failures to connect policy levers. In the case of the latter this could result in, for example, planning and development of offshore wind without consideration of onshore infrastructure needs.

Such challenges underline the need for green infrastructure and greenspace considerations to be incorporated into energy generation, through either innovative use of technologies or creative use of space in urban areas. It is necessary to look beyond mere mitigation to include climate adaptation in energy generation strategies.













This can be achieved by measure such as integrating windfarm development with forestry strategy to enhance habitat networks and delivering a system of energy partnerships/ effective land use environmental impact assessments at local and regional scale.

Moreover, there is a strong case to be made for adopting financial models for funding energy transition that support wider environmental objectives including climate resilience and nature restoration. For example, portfolios of adaptation and mitigation projects within financing structures such as municipal green bonds.

The government must also assess the impact of carbon and energy-related projects at a systems wide scale and ensure that the perceived value of nature and wildlife is not reduced to oversimplified measures of worth such as carbon footprint. At the same time it is important to eschew so-called nature-based solutions, such as carbon credits, and other strategies that prioritise the economy over communities and environment.

The government should also champion greater understanding of habitats and protection through surveys, research, and monitoring as part of a strategic approach to energy transformation. This will deliver on biodiversity, climate and wellbeing ambitions as long as there are clearly defined and enforced measures of success.

JTO7 – Decarbonisation and efficiencies

Substantially reducing emissions, increasing wellbeing, and tackling fuel poverty through a sustained and significant investment in retrofit insulation of homes and other buildings (with support and fuel poverty alleviation schemes available for least well-off). This should be delivered in tandem with an accelerated deployment of heat pumps and local heat networks that offer very high efficiencies.

At the same time there should be a concerted drive to reduce demand for transport through modal shifts – especially from aviation to rail, and from car to public transport/active travel. The shift away from cars towards active travel in cities can be stimulated through the creation green corridors along cycling and walking routes to enhance ecological connectivity.

Demand reduction should be complemented by full electrification of the heat and transport systems – fully exploiting Scotland's abundant and ever-cheaper renewables.

As electrification only takes the country so far, it will also be necessary to promote large blue and green hydrogen production projects to jump-start Scotland's hydrogen economy and develop its potential as an exporter of surplus power.

The planning system should insist on smarter energy systems in new developments and integrate smart energy into all new development proposals, such as city expansions, new towns, large scale housing or industrial developments.

Energy efficiency cannot be left to market forces since the vulnerable and less well-off will be further excluded and disadvantaged, resulting in failure to embrace green energy.















It will also be necessary to address the major, hard-to-reach land use and rural issues otherwise net zero and 2030 targets will be missed.

Effective decarbonisation requires better financial strategies around net zero. Projects must be made investable. There should be a domestic offsetting scheme instead of offsetting abroad. Provision of underwriting and green bonds should be made available to fund energy efficiency schemes.

Cross government coordination will be vital. Much of the current planning legislation and framework is out of date and out of kilter with the goals of sustainable, net zero housing. Land reform is required. Government should make full use of all available policy and fiscal levers such as pegging business rates to carbon offsets and providing carbon credits for retrofit schemes. For example, 40% of emissions come from the top 1% of emitters so that can be addressed fiscally.

Developing and introducing much more effective accounting approaches and metrics for carbon management will be required. This will encourage a shift from a pure technology focus on decarbonisation to a wider set of social and governance issues.

Scottish Government has limited tools in energy, but it does control transport policy procurement. It can therefore set out exactly what they will and will not buy and under what terms and conditions, avoiding the paradox of driving net zero by building lots of carbonintensive infrastructure or relying on a version of business-as-usual by simply exporting emissions.

JTO4 (2) – SME perspective on business and the economy

There is a disconnect between SMEs and the climate change agenda. It's not a priority for many of them. Just over a third think it's important while nearly half feel it is not an issue. Most are concentrating on recovery from the pandemic.

Energy costs are among the top three issues that SMEs face. For a cashmere business, more than half of its total overhead spend is on energy. They are looking for advice but there is a serious bottleneck on the advisory side in agencies like the Energy Savings Trust.

The distribution networks could be adapted to allow local businesses to access and feed into the local energy system. Connection charges are hammering communities when it comes to supplying to the grid. Ofgem needs to change the regulations, to ensure equality of access to energy/power and to avoid lower socio-economic groups and SMEs being priced out of sustainability.

There is a case for providing expert carbon advisers for SMEs who would fulfil much the same role as agronomists do for farmers. They would provide consistent, reliable advice.

Facilitating effective networking and collaboration among Scottish SMEs to deliver their future needs would be advantageous. Good practice exists within individual SMEs or















pockets of SMEs but is not replicated or coordinated at scale to deliver industry-wide or system-level change.

They would benefit from developing locally manufactured solutions for local energy requirements along with support and funding to transition to cleaner energy sources. This would include storage solutions to address the serious issue of intermittency with renewable energy sources. Using the supply chain to support a more circular economy within and across Scotland's energy system would help tackle resource security and material scarcity.

SMEs agreed that Scotland does not properly engage its own SME supply chain. There is a need to ensure pipeline visibility – to keep targets and policy objectives consistent over the long term to give the supply chain the confidence to invest and de-risk decision-making.

Otherwise, there is a risk of reinforcing business-as-usual – traditional linear approaches to manufacturing and services continue to be the default as established businesses can be risk averse.

SMEs would welcome the development of essential net zero infrastructure at pace: for example, accessible EV charging points and H2 fuel cell vehicles.

They also advocate a unified and coordinated public sector response to the transition, informed by industry. This would develop and share best practice based on localised comparisons rather than on centralised assumptions. There was strong consensus on the need for a clear strategic narrative around regional, domestic, and international opportunities.

JTO3 - Fair distribution of costs and benefits

Fairness means putting people, not profit, at the centre of the net zero carbon energy system. The goal of improved community health should be factored into considerations of any future energy project. prioritise the most vulnerable in.

At the heart of this approach is reducing CO2 emissions within communities, along with reducing the percentage of households in fuel poverty. This can be achieved with the creation of a more resilient, efficient, and decentralised zero carbon energy system minimising susceptibility to global fuel crises and exposure to volatility in energy prices.

There is a danger of prioritising industry demands for technology risks of transition to be socialised, but for the benefits to be privatised. This risk can be mitigated by moving costs from a regressive to a progressive, green-focused tax system, while addressing locational and other structural inequalities. The current system of fixed standing charges on energy bills penalises lower energy use which is cruel and perverse.

There is also a risk of creating, or sustaining, a two-tier society in which people with houses and driveways get charge points but people in high rises don't have any access to charging. This is compounded by low emission zones which are affordable only to middle class people.















Government should invest to support the rapid growth of renewable generation coupled with a retrofit programme led by local authorities (heating systems and efficiencies). It should implement higher and clearer targets for community and local authority ownership of energy and heating systems to retain benefits locally. Any energy efficiency or retrofit strategy must ensure that the most vulnerable are prioritised for support.

Equally, the provision of green alternatives which alleviate existing inequalities - for example, better public and active travel to reduce air pollution, improve accessibility and connect areas. Lifting the rates burden on district heating will enable it to be classed as utility.

At the same time, a combination of policy and communication strategies is needed to address the current unrealistic expectations that households will invest in the energy system/energy efficiency.

Early adopters of energy efficiency technologies are higher income households rather than those for whom the benefits of new efficiencies are greatest. The introduction of strong consumer protections in this area will build and maintain trust.

Public sector equity can be used to participate in both risk and reward. (For example, Scottish Government should get equity stake in the £300 million biomass plant at Grangemouth in return for its investment in the plant. That allows the government to continue to recycle investment money for public good.)

Finally, the Introduction of rigorous health, social and economic impact assessments for energy projects and net zero technologies will ensure that the benefits and risks are well understood by government. These should take account of factors as diverse as air quality and community transport availability.

JTO8 – Equality and human rights; tackling existing inequalities

There is a widespread impression that most people feel the energy transition is being done to them, rather than by them and with them (it is imposed versus people-led) which could increase opposition. It is therefore vital to engage with people in a positive way to let them define a just transition, in terms of what the transitioning is away from (wider than carbon) and what a good future looks like.

Several issues must be prioritised to ensure that inequalities are tackled. These include: the alleviation of fuel poverty and a wellbeing economy focused approach for energy reform; support for heat conservation ahead of heat generation; better connection of clean public transport and infrastructure to excluded and poorly served areas.

Mandating that all Just Transition plans have measurable targets for equality of outcomes will be invaluable in delivering equality. So, too, will defining a clear role for the Just Transition Commission in giving support with implementation of such equalities policies.















Funding could be sourced through the introduction of progressive taxation and/or 'polluter pays' legislation. It will also be important to mandate substantive community benefit in all future large-scale renewable projects, with priority for funding Just Transition initiatives.

These plans should include targeting the roll-out of home energy efficiency programmes, combined with universally available energy savings advice, to reduce rates of fuel poverty among low income and vulnerable households, such as older households. Such households should be given preference in retrofit or heat schemes, or any low-carbon energy scheme for that matter.

The creation of new, sustainable jobs will be an integral part of equality and the right to work. There is a need for improved employment prospects for young people in deprived areas and the creation of employment in areas impacted by earlier phases of deindustrialisation or by oil and gas job losses.

This must be accompanied by a commitment to delivering fair work for women within priority green sectors, enabling women to enter and remain in higher paid priority green sectors. Upskilling and reskilling policy, alongside interventions designed to support the just transition, must meet women's needs, and address occupational segregation.

At a more structural level, strengthening models of public or alternative ownership will reduce energy bills and energy cost volatility for low- and middle-income households.

This will contribute to the creation of a fairer energy market and distribution of profits as will the development of a social tariff in the energy retail market, including market reform to allow lower cost of renewables to pass through to electricity consumers.

JTO1 - Citizens, communities, and places

There is a need to increase community empowerment and involvement in decision-making. Achieving this will require close partnership working between businesses, local authorities, key agencies, and communities to deliver energy projects in the right places.

It will include the effective investment of community benefit funding to create legacy projects including localised energy networks – that will provide positive long-term impacts and create jobs.

Success will require defining the parameters for community benefit investment and improved data collection, analytics, and metrics to underpin the monitoring and evaluation of such benefits.

Capturing and sharing best practice from community energy projects will accelerate and enhance transition. It will also necessitate better engagement with communities to overcome digital exclusion, inequality of access to information and activist bias.















Community transition to net zero will require investment in essential infrastructure, which is currently not available - such as 3-phase power supplies and e-vehicle charging points along with investment to ensure much more rapid and agile connection to the grid for community energy projects than is currently achieved.

Frameworks must be improved so that solar farms, for example, can input their surplus energy to the grid. This is not permitted under the current framework.

Communities and citizens will also benefit by changing infrastructure procurement rules to mandate greater support for local jobs in the supply chain. The efficacy of current wellintentioned but underperforming schemes such as Local Authority Energy Partnerships and Local Heat and Energy Efficiency Strategies will be greatly improved by identifying responsible local people in each community to develop and manage these projects. Paying communities is required rather than relying on volunteers.

Bringing forward the date for new housing to require low/zero carbon heating will avoid the cost and burden of retrofitting homes being transferred from large developers to homeowners.











Collated Action Table

Adaptation and resilience [Inverness on Monday 4 July]

- 1. Develop a regional approach to community benefits, equitable access. understanding climate risk, developing local lead responses – making sense of it to stakeholders. Define what can be addressed at national level versus regional level, including funding.
- 2. The grid charging and access at a local level. Need for transparency and challenging charging at national level.
- 3. Embed the cost and value of carbon in policy development, as well as community.
- 4. Foster cross sector collaboration to address climate risk. For example, energy sector engaging with water and transport sectors to understand risks.
- 5. Creating the market environment to ensure local investment understand supply chain benefits.
- 6. Provide financial support for community energy income projects. For example, reintroducing the community feed-in tariff.
- 7. Develop clear guidance on climate change language and decision-making (e.g. carbon accounting) to enable effective conversations.
- 8. Communicate climate change messages to prompt action (signpost to local expertise).
- 9. Policy position to prevent locked-in 2045 incompatible investments.
- 10. Government agencies work together to deliver decarbonisation/carbon capture adaptation. Need clarity on landscape and responsibilities.
- 11. Increase communities' capacity through training programmes. For example, community development courses/apprenticeships and support to employ local development officers with energy skills.

Business and the Economy: Scotland as a Global Leader; [Aberdeen on Tuesday 5 July]

- 1. Public sector should act as parent / central lead / catalyst for creating partnerships and driving collaboration.
- 2. Clear measurable targets in just transition plans protecting jobs, driving decarbonisation and equalities.
- 3. Provide clear definitions and criteria regarding what constitutes local content.
- 4. Raise public understanding (energy literacy) and support for transition.
- 5. Build capacity and resilience: in the short term provide job opportunities and skills to transfer; in the longer term, close attainment gap with education reform.
- 6. Agree specific targets for energy efficiency and demand management.
- 7. Align industrial training and skills delivery plan.
- 8. Deliver innovative capital funding solutions to support the supply chain to transition which recognises the lead times and complexities involved.
- 9. Address grid connectivity challenges and develop a comprehensive strategy/action plan for floating wind.













- 10. Engage with business by setting out a long-term plan for grants/funding and taxation.
- 11. Standardise processes around planning, development and connection proportionate to size of development.
- 12. Link diverse stakeholders to maximise benefits across communities.
- 13. Implement a robust regulatory framework that will ensure a level playing field that is clear to all stakeholders.
- 14. Provide sufficient guidance so that businesses clearly understand their obligations.
- 15. Ensure regulators have sufficient resources to produce guidance.
- 16. Mandate that the public have the right to accurate retrofitting advice from technical specialists and access to low-cost loans or grants, together with trained retrofit experts to retrofit our building stock.
- 17. Invest in smart energy infrastructure and a range of storage and distribution methods that will ensure a reliable energy supply.

Jobs, Skills and Education [Aberdeen on Wednesday 6 July]

- 1. Set specific and measurable targets for decarbonisation, job creation and inclusion objectives. Work with disadvantaged communities and equalities organisations to achieve them.
- 2. Develop core capacity in industries where Scotland can compete sector leading, world-class workforce.
- 3. Agree specific targets for energy efficiency and demand management.
- 4. Align industrial training and skills delivery plan.
- 5. Public sector acting as parent / central lead / catalyst for creating partnerships and driving collaboration.
- 6. Offer different ways of reaching competencies needed, such as apprenticeships, learning on the job, and place-based learning.
- 7. Invest heavily in skills development to enable tradespeople to offer net zero solutions
 - Build net zero careers planning and modules into school curriculums (including primary) now.
- 8. Develop pathways into green jobs and support individuals in transition from carbon intensive sectors. Communicate the opportunities clearly.
- 9. Scope the areas that need to reskill and determine how best this can be done. Understand demand and timelines of future job requirements.
- 10. Ensure access to reskilling for all levels of the workforce (from manual to highly skilled) and that qualifications are attainable by all (free- education).
- 11. Ensure that the pay structure is fair and that a decent wage is awarded for all different types of work.
- 12. Develop or leverage existing job market reviews and forecasts to identify pathways and required jobs of the future.













- 13. Create and implement robust Just Transition Plans which secure sufficient investment, create good jobs in the right parts of Scotland and involve the workforce in shaping the future.
- 14. Ensure that the views of the fossil fuel do not dominate at all strategic decision groups and government advisory roles (including the regulator).
- 15. Create a system plan based around emissions sectors, not industry sectors, using standard "begin with the end in mind" processes, and using wide-ranging expertise as required in the final decarbonised world.
- 16. Approach climate change as an emergency. Run it like a decarbonisation project, not an accounting exercise. It requires a new integrated, non-businessas-usual approach.
- 17. Devise and launch a coordinated communication campaign to inform wider public about how much our energy system needs to change to enable a just transition, meet our net zero targets and capture the opportunities that will be created.
- 18. Funding of energy transition projects should have hard-wired commitments to local content and local job generation.

Environmental Protection and Legislation [Stirling on Thursday 7 July]

- 1. Champion greater understanding of habitats and protection through surveys, research and monitoring.
- 2. Provide funding and support for SMEs and landscape-scale projects to deliver access to energy.
- 3. Assess the impact of carbon and energy-related projects at a systems wide
- 4. Provide access to funding in renewables development for hard-to-decarbonise businesses.
- 5. Build a strategic approach to energy transformation, fit to deliver on biodiversity, climate and wellbeing ambitions, with clear measures of success.
- 6. Base energy-related decisions on ecological understanding and evidence instead of relying on unrealistic technology-focused quick fixes.
- 7. Avoid so-called nature-based solutions, such as carbon credits, and other strategies that prioritise the economy over communities and environment.

Decarbonisation and Efficiencies [Edinburgh on Monday 11 July]

- 1. Better financial strategy around net zero. Projects must be made investable. There should be a domestic offsetting scheme instead of offsetting abroad. Provide underwriting and green bonds to fund energy efficiency schemes.
- 2. Adaptation screening: avoid locking-in projects and schemes that will need to be changed later. Screen projects to maximise synergies and ensure there are no conflicts in future. Role of regulation in supporting decarbonisation can inform these decisions.











- 3. Cross government coordination and updated planning legislation that aligns with goals of sustainable, net zero housing. Land reform is required.
- 4. Community organising: Encourage and stimulate real local democracy. Mechanisms for enabling community stakes and community ownership will drive long-term investment in community infrastructure.
- 5. Take a holistic approach that embraces future skills requirements, demandside solutions and whole-system thinking around transport, housing and resource efficiency.
- 6. Facilitate genuine citizen participation: Bodies like the Citizens' Assembly and Climate Board should be ongoing and influential.
- 7. Reform gas pricing mechanisms (as part of wider UK energy policy) as the price of gas kills other energy projects.
- 8. Pull available financial levers to fund the transition: For example, peg business rates to carbon offsets and provide carbon credits for retrofit
- 9. Take a global perspective on decision-making that holistically takes account of scope 3 emissions, import and export effects and offset strategies.
- Use targeted and proportionate regulation to secure private investment in key areas such as retrofit building energy efficiency, reducing city centre vehicle traffic, and new building standards; this will enable limited public funds to be targeted at the most vulnerable.
- 11. Accelerate connection of onshore/offshore wind power in Scotland.
- 12. Increased investment in energy research and development. For example, green hydrogen, battery technology, electricity-based space heating.
- 13. Increased investment in renewable transport infrastructure.
- 14. Capacity and capability building for use and scrutiny of different carbon accounting approaches, encouraging a wider shift from a pure technology focus to a wider set of social and governance issues.
- 15. Support and scale up training opportunities for new entrants as well as retraining opportunities for current workforce. Skills needed to retrofit buildings, install heat pumps etc at scale.
- Reformed agriculture/forestry support, and associated support for rural communities/businesses, to address emissions and energy use.
- 17. Immediately increase funding and scale of fuel poverty alleviation schemes, to improve adoption of energy efficiency and heat pumps.

SME Perspective on Business and the Economy [Galashiels on Tuesday 12 July]

- 1. Provide expert carbon advisers for SMEs who fulfil much the same role as agronomists do for farmers. They would provide consistent, reliable advice.
- 2. Ensure equality of access to energy/power and avoid lower socio-economic groups being priced out of sustainability.
- 3. Consistency of advice – provide the same standard advisory service across all local authority areas. Also provide consistent legal and financial support across all areas. A Public Energy Agency could deliver this.













- Raise market awareness of new skills roles and develop curriculum to meet current and future needs. Change learning methods to improve climate literacy.
- 5. Ensure pipeline visibility – keep targets and policy objectives consistent over the long term to give the supply chain the confidence to invest and de-risk decision-making.
- 6. Increase the supply and quality of advisory services to offer specialist, nongeneric guidance.
- 7. Develop essential infrastructure at pace: for EV charging and H2 fuel cell vehicles.
- 8. Instigate a collaborative approach between public and private sector and develop best practice based on localised comparison rather than on centralised assumptions.
- 9. Increase funding to SMES for purchasing/installing new technologies such as electric vehicles. Provide additional support to enable students to work with SMEs in areas of mutual interest/expertise.
- 10. Provide a unified and coordinated public sector response informed by industry. There is a need for a clear strategy narrative around regional, domestic and international opportunities.
- 11. Embed a commitment to net zero into Scottish Government's strategies and operational plans.

Fair Distribution of Costs and Benefits [Greenock on Wednesday 13 July]

- 1. Lift the rates burden on district heating enabling it to be classed as utility.
- Public engagement needs to be open, honest about consequences both 2. positive and negative, and multi-layered in targeting individual citizens, businesses and communities.
- 3. Review regulations to ensure just transition outcomes are clear and, perhaps, compulsory.
- 4. Engage on new models for the energy system with UK government and private sector. Look to international examples of best practice.
- 5. Review existing powers to create progressive, green-focused tax system. Consider green levy.
- Use public sector equity to participate in both risk and reward. 6.
- Refine existing regulations and introduce new ones that promote investment 7. to meet net zero targets.
- 8. Launch a decade of staged communication that raises and maintains public awareness of what is coming and what is expected in terms of net zero.
- 9. Consolidate existing landscape of various mechanisms into a single place (for example, a National Public Energy Agency).
- 10. Scottish Government to seek mechanisms for return on early-stage investments that reduce market risk. Address private investor risks so that private finance can be unlocked at the end of the 2020s.
- 11. Develop appropriate models of taxation and funding for the new energy system (not via bills).
- Introduce strong consumer protections to build and maintain trust.













- 13. Prioritise regulation to give certainty of demand for supply chain, investors, and financiers.
- 14. Work closely with DNOs to plan the future of the energy system requirements and socialise the cost of grid enhancement as early as possible.
- 15. Establish clear plans and pathways for making the transition to meet target of net zero.
- 16. Invest to support the rapid growth of renewable generation coupled with a retrofit programme led by local authorities (heating systems and efficiencies).
- 17. Implement higher and clearer targets for community and local authority ownership of energy and heating systems to retain benefits locally and ensure most vulnerable are prioritised for support.
- 18. Introduce social and economic impact assessments of new technologies to ensure that benefits are well understood by government, not just taken from the press releases of companies developing them.

Equality and Human Rights [Glasgow on Thursday 14 July]

- Engage with people in a positive way to let them define a just transition, what it's transitioning away from (wider than carbon) and what a good future looks like.
- 2. Prioritise the alleviation of fuel poverty and a wellbeing economy focused approach for energy reform, ensuring solutions are fit for purpose with strong staff resources for associated support.
- 3. Require robust equality impact assessments of all net zero projects – independently assessed. Practically, ensuring impact assessments are completed, and intersections of poverty/fuel poverty/vulnerability and rurality are considered.
- 4. Prioritise support for heat conservation over heat generation.
- 5. Prioritise low-income households in efficiency drives but with no penalty clauses.
- Introduce progressive taxation and/or 'polluter pays' legislation. 6.
- Ensure that Just Transition plans have measurable targets for equality of 7. outcomes.
- 8. Define a role for the Just Transition Commission in giving support with implementation of equalities policies.
- 9. Offer price guarantees for low-carbon heating – cheaper than business as usual.
- 10. Actively develop an engagement process that creatively and effectively reaches people most likely to be adversely affected – using their own experiences, circumstances and languages.
- 11. Initiate industrial planning to ensure necessary jobs are created while providing an adequate social safety net.
- 12. Increase and decentralise community stakes in the energy system mandate minimum spend on fuel poverty and net zero projects.
- 13. Embed and enforce equality, diversity and inclusion requirements in public procurement.













- 14. Fair assessment and distribution of investment in retrofit, prioritising the vulnerable, marginalised and those with high levels of deprivation.
- 15. Use targeted regulation on energy efficiency standards in PRS and social housing to encourage low carbon heating systems.
- 16. Provide transitional protection measures covering wages, conditions, and fuel bills along with certainty of future work pipeline.
- 17. Fund strategic examples of low carbon heat / demand reduction.
- 18. Mapping funding and financing to different buildings and tenures.
- 19. Align fuel poverty programmes with decarbonisation.
- 20. Ensure adequate consumer protection for those most at risk of harm as a result of the transition.
- 21. Use government guarantees to underwrite risks across the portfolio.
- 22. Ensure the legal obligation for gender mainstreaming is met within green policymaking. Put fair work for women at the heart of efforts to grow green sectors, including within sectoral just transition plans.
- 23. Mandate substantive community benefit in all future large-scale renewable projects (more than just a recommendation), with priority for funding Just Transition initiatives.
- 24. Strengthen frameworks for local content and support for upscaling technologies such as tidal.
- 25. Adopt a whole energy systems approach that prioritises reducing energy costs and use for consumers.
- 26. Use public ownership of the energy system and planning agreements to reduce the net costs of energy to low-income houses (through a combination of demand reduction and price controls).
- 27. Ensure supply chain plans to capture local supply chain jobs.

Citizens, Communities and Places [Kilmarnock on Friday 15 July]

- 1. Agile grid investment to give the supply chain confidence.
- Local authority engagement and resourcing linking in with grid support to develop understanding of local needs.
- 3. Funding of local authorities to deliver low-carbon heat.
- 4. Procurement rules to be changed to mandate greater support for local jobs in the supply chain.
- 5. Identify responsible local people in each community to develop and manage Local Authority Energy Partnerships and Local Heat and Energy Efficiency Strategies. These are good ideas, but they are not working properly at present.
- 6. Transparency of funding to give clarity on what investment is available. Clear guidance is needed on how policy becomes action.
- 7. Be aware of, and account for, unintended consequences. Avoid offshoring and negative impact where possible.
- 8. Drive cultural change to support net zero and transition. Normalise the concept of green.
- 9. Put communities at the heart of net zero; ensure ongoing community buy-in and increase community benefit.















- 10. Increase municipal involvement in net zero activities such as retrofitting, energy efficiency, energy supply and district heating schemes. Develop and deliver a municipal heat and retrofitting company.
- Provide clear roadmaps to net zero for technological development and workforce planning with a focus on the long-term rather than quick fixes.
- Take a holistic approach to creating skills, jobs and resources. Look beyond heat pumps and retrofit to the need for advice, community energy schemes and energy efficiency.
- 13. Capture and share best practice from community energy projects. Develop understanding of local and regional needs and share this including exploration of data.
- 14. Scottish Government should bring forward the date for new housing to require low/zero carbon heating to avoid the cost and burden of retrofitting homes being transferred from large developers to homeowners.







