

## JUST TRANSITION COMMISSION INTERIM REPORT: A RESPONSE TO SCOTTISH GOVERNMENT

# Summary

A move towards a net-zero economy presents both economic opportunities and challenges.

Scotland has a wealth of expertise in offshore oil and gas extraction that could be reoriented towards decarbonisation activities. There are additional gains to be won through the continued pursuit of a circular economy and by focusing Scotland's considerable research capacity on green innovations and fast routes to implementation. A just transition could also be the catalyst for a move towards a wellbeing economy and a more participatory democracy.

Establishing a less centralised and more participatory system of governance will require a reconfiguration of power, which could prove to be a challenge. Trade unions might also be reticent to support decarbonisation measures which they believe could threaten their industries.

COVID-19 has resulted in significant economic disruption which must be remedied before Scotland can meaningfully enact more ambitious just transition initiatives such as a Citizens Assembly. With some planning, this economic recovery could occur in tandem with progress towards a net-zero society.

Achieving a just transition could reduce social inequalities by addressing disparities in democratic engagement. Developing a wellbeing economy would yield similar benefits in terms of facilitating citizen empowerment. A net-zero economy could promote better health through the growth of greenspaces and the embrace of active travel.

Certain behaviours that were necessary to combat COVID-19 could be continued indefinitely to support decarbonisation goals, such as remote working.

A just and managed transition away from carbon-intensive industries needs to show sensitivity to not only its potential effects on employment and income, but also people's communities, social relations, and lived environments.

A successful net-zero economy will manifest differently across sectors and communities, including energy and academia.

The above opportunities and challenges can be managed by enabling citizens and their communities to devise solutions that are sensitive to the local context, such as in the design of more compact and navigable urban centres. Research has also revealed a critical need for more detail and quantitative evidence on the nature of the jobs that will be produced in the transition to a net-zero society, and how these jobs relate to the current workforce in carbon-intensive industries. Establishing a circular economy for Scotland should be a priority.

Certain groups could experience significant and sustained disadvantages in the move towards a net-zero future. These disadvantages could be compounded by the enduring effects of COVID-19. Those working in the oil and gas sector, rural communities, and people on the margins of society could be most at risk. It will be crucial to ensure these groups can exert influence over the decisions that will impact them directly.

## Introduction

1 The Royal Society of Edinburgh (RSE), Scotland's National Academy, welcomes the opportunity to respond to Scottish Government's call for evidence on its Just Transition Commission interim report. The RSE previously explored the topic of a just transition within the context of its 2018 roundtable on *Moving Towards a Low-Carbon Economy*,<sup>1</sup> which was submitted as evidence to the UNFCCC's Talanoa Dialogue<sup>2</sup> as well as used to inform its own inquiry into *Scotland's Energy Future*.<sup>3</sup> A working group primarily drawn from the RSE Fellowship and Young Academy of Scotland prepared this response, comprising a diverse range of expertise and experience in advocacy, climate change adaptation, economics, equalities, industrial biotechnology, law, psychology, public health, and renewable energy. Our comments are organised according to the questions presented in the consultation document. We would be pleased to meet with Scottish Government and the Just Transition Commissioners to discuss this response should they consider this helpful.

**Question 1: What do you see as the main economic opportunities and challenges associated with meeting Scotland's climate change targets?**

## Opportunities

- 2 A just transition could be the catalyst for a move towards a wellbeing economy and a more participatory democracy. A wellbeing approach reflects and upholds many of the principles of a just transition, including the integration of social, environmental, democratic, and economic outcomes. It could also be a chance to more deeply embed the concept of wellbeing within Scotland's national policy.
- 3 Scotland's carbon-intensive industries possess a heritage of innovation and problem solving, both of which could be harnessed to develop creative and workable solutions to the net-zero challenge.

This is particularly true of the North Sea oil and gas industry. However, it will be important to strike a balance between supporting the industry in adapting to a just transition and maintaining an emphasis on the importance of decarbonisation.

- 4 There remain significant emissions reductions to be won through the development of a circular economy.<sup>4</sup> This presents a major opportunity for Scotland, such as in using the expertise of the agricultural, aquaculture, forestry, and emerging biotechnology sectors to invent novel sustainable materials.
- 5 Scotland has a strong tertiary education sector to engage in research-led innovation and developing fast routes to implementation, working in conjunction with the private sector. This could be particularly helpful to the agricultural and tourism sectors where green innovations are most needed.

## Challenges

- 6 The impacts of a just transition on Scotland's economy will not be uniform. The economic landscape will need to be monitored to identify which sectors are under pressure and which are benefitting. The sectoral transition plans mentioned by the interim report should include a holistic consideration of the impact of proposals not just on the sector itself but on adjacent and distant sectors as well.
- 7 The pursuit of economic resilience will require an ambitious programme to tackle political inequalities and inefficiencies through democratic renewal. Establishing a less centralised and more participatory system of governance will require a reconfiguration of power that affords people and their communities greater autonomy and the chance for self-determination.
- 8 Research indicates some trade unions still believe climate change action will inevitably spell job losses.<sup>5</sup> Counteracting this will require presenting a more welcoming narrative, depicting such action as a significant and inclusive economic opportunity. These arguments should specify and give evidence of the nature and quality of net-zero carbon jobs.

1 Royal Society of Edinburgh (October 2018) *Moving Towards a Low-Carbon Economy – A Royal Society of Edinburgh Roundtable Discussion 2018* [online] Available at: <http://www.rse.org.uk/wp-content/uploads/2019/02/Moving-Towards-a-Low-Carbon-Economy.pdf>

2 UNFCCC (2018) 2018 Talanoa Dialogue Platform [online]

Available at: <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement/2018-talanoa-dialogue-platform>

3 Royal Society of Edinburgh (June 2019) *Scotland's Energy Future* [online]

Available at: <http://www.rse.org.uk/wp-content/uploads/2019/06/Energy-Report-for-Web-2.pdf>

4 According to Zero Waste Scotland, a circular economy could result in an 11 million tonne reduction in terrestrial carbon dioxide emissions every year by 2050.

Zero Waste Scotland (2015) *The Carbon Impacts of the Circular Economy – Summary Report* [online] Available at:

<https://www.zerowastescotland.org.uk/sites/default/files/CloCE%20Summary%20Report%20-%20FINAL%20-%202015.06.15.pdf>

5 Swennenhuis, F., Mabon, L., Flach, T., and de Coninck, H. (2020) What role for CCS in delivering Just Transitions? An evaluation in the North Sea Region.

*International Journal of Greenhouse Gas Control* DOI: 10.1016/j.ijggc.2019.102903

## COVID-19

- 9** The pandemic has potentially exacerbated deprivation as well as placing a massive strain on the economy, the full extent of which remains to be seen.<sup>6</sup> Successfully navigating COVID-19 recovery and a just transition must recognise that these objectives are not mutually exclusive. Tackling increased disadvantage on a sustainable basis must be a priority for UK Government, through measures such as welfare reform and taxation. Their business relief packages have been welcome and should be followed by active encouragement of private and public investment for resilience, by making the most of low-cost borrowing. Doing so will help devastated industries and provide for people who have suffered significant financial hardships.
- 10** At the same time, Scotland should be laying the groundwork for various citizen engagement mechanisms to address the crisis, ensuring the necessary systems are in place and ready to be utilised, leading to more challenging agendas such as a Citizens Assembly.

***Question 2: What do you think are the wider social (health, community, etc.) opportunities and challenges associated with meeting Scotland's climate change targets?***

### Opportunities

- 11** A just transition could allow new forms of solidarity and collective action to flourish through the creativity and innovation generated by participatory and deliberative processes. This in turn can improve the lives of both individuals and communities, as social inequalities are often rooted in inequalities in power and influence, resulting from disengagement from democratic processes.
- 12** The wellbeing approach to a just transition can give rise to wider social benefits, by, for example, providing information on inequalities and facilitating citizen empowerment by giving people an opportunity to express their priorities.
- 13** Certain aspects of a net-zero society, such as reduced air pollution and increased uptake of active travel, are naturally conducive to improved health outcomes for individuals and communities.

Maximising these benefits will require coordinated planning between sectors, such as in the design of more smart and sustainable urban spaces.

## COVID-19

- 14** The pandemic has demonstrated that modifying behaviours such as travel is not only possible, but in some cases easier than people may have expected. In some instances, people might have appreciated significant secondary benefits from these lifestyle changes such as a slower pace of life, better work-life balance, and improved health, and so may be keen to sustain these behaviours even after the pandemic has subsided. Government could look to capitalise on this mindset shift precipitated by COVID-19 to encourage the continuation of behaviours that align with a low-carbon future. Some of these changes could be expanded upon and repurposed to support wider objectives, such as promoting more home consumption of local and sustainably produced food and drink.

## Challenges

- 15** A just and managed transition away from carbon-intensive industries needs to show sensitivity to not only its potential effects on employment and income, but also people's communities, social relations, and lived environments.
- 16** The salaries, working patterns, and forms of cultural organisation which are shaped by carbon-intensive industries are deeply embedded in people's daily lives in locations such as Aberdeen. Specific examples of this include the effects of shift working on family life, and an urban landscape designed to support consumption.
- 17** There are currently very few retraining opportunities that are genuinely accessible to those who have been working in oil and gas for most of their careers. The main retraining routes are degrees or Higher National Diplomas (HNDs). However, this assumes that individuals can afford the cost and time of enrolling in these programmes, particularly full-time. Therefore, industry, colleges, and universities need to collaborate to ensure any retraining and qualifications programmes can accommodate different economic circumstances and working patterns.

<sup>6</sup> Fraser of Allender Institute (April 2020) Coronavirus: quantifying the impact on the Scottish Economy [online] Available at: <https://fraserofallender.org/scottish-economy/coronavirus-quantifying-the-impact-on-the-scottish-economy/>

**18** It is important to acknowledge the gendered nature of employment and how a transition towards a net-zero society might inadvertently perpetuate inequalities. For example, the just transition movement has often focused on the future of male employees of the oil and gas industry. Initiatives geared at facilitating their transition into new employment could result in exacerbating occupational segregation, by converting one male-dominated industry into another.

**Question 3:** *What would a successful transition to net-zero emissions look like for your sector/community?*

**19** The contributors to this working group represent multiple sectors and communities, which are specified below:

**Community: Carbon-intensive regions**

**20** A successful transition to net-zero emissions in carbon-intensive regions (e.g. North Sea communities) might be evidenced by the following outcomes:

- strong linkages between local universities and research institutions and the community, producing knowledge, evidence, and educational opportunities to equip local society with the capacity to take ownership of the net-zero transition;
- strong leadership from local government in setting out a vision for net-zero that is appropriate to the locality; and
- integrating consideration of the climate change mitigation aspects of a net-zero society with the challenges of adapting to further climate change impacts (e.g. coastal flooding) that communities are likely to face in the coming years.

**Sector: Energy**

**21** A successful transition to net-zero emissions in carbon-intensive regions (e.g. North Sea communities) might be evidenced by the following outcomes:

- continued improvements in energy efficiency, particularly with respect to home heating;

- the proliferation of community generation projects (e.g. those created as Energy Service Companies (ESCOs)) that promote energy self-sufficiency, resilience, and prosperity by helping employment and profits to remain in the community; and
- exploring the use of emerging floating wind turbine technologies to support continued decarbonisation of offshore oil and gas platforms, with appropriate grid connections to allow the energy generated to also be rerouted to serve and decarbonise other markets as oilfield production declines.

**Sector: Academia**

**22** For academia, the move to net-zero will involve all aspects of institutional operations and the management of estates, including:

- a shift away from the use of natural gas;
- a reduction in electricity use across all activities, as well as the adoption of more sustainable sources of energy, including on-site microgeneration;
- a reduction in business travel (especially by air), and increased uptake of active commuting;
- continued adoption of circular economy solutions (e.g. replacing single-use plastics in research with suitable alternatives); and
- the continuation and further expansion of remote working practices, both for the environmental benefits but also as a way of improving diversity and inclusion across the sector and stimulating the growth of Scotland's digital sector.

**Question 4:** *What actions do you think Scottish Government should take to manage the opportunities and challenges referenced above?*

- 23** Scottish Government should support local authorities and communities to implement measures that make it easy for citizens to adopt low-carbon lifestyles. For these to be most effective, they must be devised at local level and in response to local conditions. For example, some cities have already marked out additional cycle lanes<sup>7</sup> and increased pedestrianisation.<sup>8</sup> The concept of ‘15-minute cities’<sup>9</sup> could be considered, whereby major amenities are located within a 15-minute radius to reduce the need for urban car travel. There should also be strategic planning to provide transport connectivity between population centres. A place-based approach that is sensitive to the needs and identity of the local context will be essential to both the recovery from COVID-19 and to achieving a just transition.
- 24** Research has revealed a critical need for more detail and quantitative evidence on the nature of the jobs that will be produced in the transition to a net-zero society, and how these jobs relate to the current workforce in carbon-intensive industries.<sup>10</sup> Scottish Government should conduct further research into the skills, salaries, locations, and working patterns that will characterise net-zero jobs (for example, those in renewable energy, sustainable forestry, and manufacturing) and assess these against the characteristics of the current workforce in oil and gas, petrochemicals, cement, and other carbon-intensive industries. This will help ensure retraining schemes are fit for purpose.
- 25** Scottish Government should consider extending the remit of Zero Waste Scotland to maintain momentum towards establishing a circular economy. Both consumers and industries should be incentivised, if not required, by government to

make more sustainable choices. Such incentivisation could include increasing landfill costs, changing waste regulations to give a competitive advantage to companies making use of waste, as well as offering tax breaks to companies that can demonstrate circularity. In the context of renewable energy, this is particularly relevant for end-of-life solar panels and wind turbines.

- 26** There should be clear pathways to a net-zero carbon economy developed at regional and city level to ensure ambitious national plans are translated into feasible solutions at ground level.
- 27** Online deliberation tools such as vTaiwan,<sup>11</sup> pol.is,<sup>12</sup> and ConsiderIt<sup>13</sup> have been successfully used to broaden the reach of public consultations. Scottish Government could consider how these and other tools might be applied to increase the capacity and legitimacy of national conversations around climate action.

**Question 5:** *Are there specific groups or communities that may be, or feel they may be, adversely affected by a transition to a net-zero economy?*

- 28** Based on the requirements of achieving a net-zero carbon economy (i.e. the scaling-down of carbon-intensive industries) and the distribution of existing inequalities, it is likely that those working in the oil and gas sector, rural communities, and people on the margins of society will be most vulnerable to adverse impacts. It is expected that any proposed policy interventions will be subject to a robust equalities assessment.
- 29** It is important to ensure individuals are empowered to participate in decision-making about their own future. Elevating local voices through public dialogue and other means is a foundational element of a successful just transition. The Citizens Assembly could provide a powerful platform for this purpose.

<sup>7</sup> Union Cycliste Internationale (February 2019) Seville’s ambitious bike network plan: a success and growing [online] Available at: <https://www.uci.org/news/2019/seville%27s-ambitious-bike-network-plan-a-success-and-growing>

<sup>8</sup> A notable example is Pontevedra, Spain, which pedestrianised its 300,000 square metre city centre in 1999. Madrid, Spain and Helsinki, Finland are introducing similar schemes. Rapid Transition Alliance (December 2018) Reclaiming the streets: the increasing trend of pedestrianisation around the world [online] Available at: <https://www.rapidtransition.org/stories/reclaiming-the-streets-the-increasing-trend-of-pedestrianisation-around-the-world/>

<sup>9</sup> Tomorrow.Mag (May 2020) Paris wants to become a “15-minute city” [online] Available at: <https://www.smartcitylab.com/blog/governance-finance/paris-15-minute-city/>

<sup>10</sup> Swennenhuis, F., Mabon, L., Flach, T., and de Coninck, H. (2020) What role for CCS in delivering Just Transitions? An evaluation in the North Sea Region. *International Journal of Greenhouse Gas Control* DOI: 10.1016/j.ijggc.2019.102903

<sup>11</sup> MIT Technology Review (August 2018) The simple but ingenious system Taiwan uses to crowdsource its laws [online] Available at: <https://www.technologyreview.com/2018/08/21/240284/the-simple-but-ingenious-system-taiwan-uses-to-crowdsource-its-laws/>

<sup>12</sup> pol.is (undated) Democracy, meet AI [online] Available at: <https://pol.is/gov>

<sup>13</sup> Participedia (undated) ConsiderIt [online] Available at: <https://participedia.net/method/540>

- 30** Safeguarding groups against further disadvantage involves more than just providing them with employment. For the transition to be just, the quality of the jobs created is just as important as the absolute number. Specifically, it will be vital to ensure that jobs abide by the principles of “fair work”, as laid out in Scotland’s Fair Work Framework.<sup>14</sup> Fair work describes employment which offers its employees job security; decent pay; skills development; agency; purpose; progression; mental health; peer support; employee involvement and engagement; and work-life balance. Embedding fair work considerations in job creation from the outset will not only protect against further disadvantage but could also offer the prospect of social mobility.
- 31** It is important to recognise that the oil and gas industry is not a homogenous entity. Some workers have skills that can more readily be adapted or transferred to accommodate career shifts into related sectors such as offshore renewable energy. However, others are employed in more peripheral capacities, such as hospitality or public relations. These individuals may find their jobs simply disappear, with no clear alternative industries for them to enter. They should receive targeted support as part of wider retraining programmes to ensure they are not left behind. Training and qualification programmes must also take account of potential barriers such as cost and time to ensure they are accessible to all.
- 32** Sustainable transport is one of the cornerstones of a low-carbon society and it will be crucial to ensure that the promotion of active travel and public transport does not introduce barriers to access. For example, disabled people (including those with minor disabilities who are not registered as such), those with caring responsibilities, and rural residents may be disproportionately affected by changes in transport provision, leaving them prone to isolation, decreased independence, and detrimental impacts on mental wellbeing. This highlights the need to take an inclusive approach to designing public services and

policy interventions in the context of a low-carbon future. Scotland’s National Transport Strategy, with its commitment to reducing inequalities and taking climate action whilst also supporting economic growth, will be instrumental in achieving this.<sup>15</sup>

- 33** The impacts of COVID-19 and a just transition could combine to inordinately disadvantage certain segments of the population, such as industrial centres that have been heavily affected by both the pandemic and a steady decline in manufacturing and other carbon-intensive jobs. A just transition should strive not only to avoid introducing new inequalities, but to alleviate those that already exist.
- 34** In general, more work is needed to clarify the different pathways that could be taken in achieving a just transition. In particular, it would be helpful to delineate the process and the laws and regulations that will underpin it. This will help to ground the principles of a just transition into a more tangible framework that is easier to translate into concrete action.

**Question 6:** *Please provide here any other information, evidence, or research you consider relevant to the work of the Commission.*

- 35** The below sources are sorted according to topic.

### Citizen engagement

- 36** Three useful books:

- On the ideas and practices of a ‘wellbeing economy’: Trebeck, K. & Williams, J. (2019) *The Economics of Arrival: Ideas of a grown up economy*. Policy Press.
- On the use of democratic practices to address the climate crisis: Fischer, F. (2017) *Climate Crisis and the Democratic Prospect: Participatory Governance in Sustainable Communities*. Oxford University Press.
- On innovations in democratic governance around the world: Elstob, S. & Escobar, O. (2019) *Handbook of Democratic Innovation and Governance*.<sup>16</sup>

<sup>14</sup> Fair Work Convention (2016) Fair Work Framework 2016 [online] Available at: <https://www.fairworkconvention.scot/wp-content/uploads/2018/12/Fair-Work-Convention-Framework-PDF-Full-Version.pdf>

<sup>15</sup> Transport Scotland (February 2020) National Transport Strategy: Protecting Our Climate and Improving Lives [online] Available at: <https://www.transport.gov.scot/media/47052/national-transport-strategy.pdf>

<sup>16</sup> Available at: <https://www.elgaronline.com/view/edcoll/9781786433855/9781786433855.00007.xml> (open access introductory overview)

- 37** More specific to Scotland is the range of studies conducted by What Works Scotland on public service reform,<sup>17</sup> and its range of resources relating to participatory governance, community empowerment, and other relevant topics.<sup>18</sup>

## Energy

- 38** In 2019, the RSE published *Scotland's Energy Future*,<sup>19</sup> a major inquiry into the issues and options that will shape Scotland's energy sector in the coming years. It considered a wide range of energy sources and concluded that any energy policy will need to take account of the 'energy quadrilemma': climate change; affordability; energy security; and satisfying public expectations of economic sustainability and justness. Achieving a just transition will also involve adequately reconciling competing interests, as the Commission's interim report notes on page 25. These include employment, cost to the consumer, geography, health, housing, and energy efficiency, among others. Delineating the types of trade-offs that will accompany different transition proposals is something the Commission might wish to consider for the sake of transparency.

- 39** The think tank Sustainability First is well regarded for its policy thinking and research in the fields of fairness and equality, vulnerability, and sustainability. Currently, its major Fair for the Future Project is helping energy (retail and network, gas, and electricity) and water companies better address the politics of fairness and the environment. It has recently published a meta-analysis by Dr Duncan Edmondson of Sussex University of the research landscape of areas central to net-zero decarbonising strategies titled "Social and distributional impacts of decarbonisation and climate adaptation in the UK."<sup>20</sup> It has also launched a work programme titled "Bridging Corona to a Sustainable Future" to help organisations regain momentum in pursuing sustainability following the COVID-19 pandemic.<sup>21</sup>

## Carbon-intensive communities

- 40** Below are two peer-reviewed research papers relating to the North Sea and a just transition in Scotland that the Commission may find useful (full texts available on request):

- Swennenhuis, F., Mabon, L., Flach, T., and de Coninck, H. (2020) What role for CCS in delivering Just Transitions? An evaluation in the North Sea Region. *International Journal of Greenhouse Gas Control* DOI: 10.1016/j.ijggc.2019.102903
- Mabon, L. & Littlecott, C. (2016) Stakeholder and public perceptions of CO<sub>2</sub>-EOR in the context of CCS – results from UK focus groups and implications for policy. *International Journal of Greenhouse Gas Control* 49:128-137

- 41** Further, the recently launched HyStorPor project (<https://blogs.ed.ac.uk/hystorpor/>) provides greater insights into the utilisation of geological formations for seasonal hydrogen storage.

## COVID-19

- 42** As mentioned, it will be nearly impossible to extricate plans for a just transition from the sweeping disruptions and societal changes stemming from COVID-19. The below websites, which are updated regularly, have collated studies of the emerging impacts of COVID-19, some of which have a sustainability angle:

- European Economic Association: <https://www.eeassoc.org/index.php?site=JEEA&page=298&trsz=299>
- Institute of Labor Economics: <https://covid-19.iza.org/publications/>
- National Bureau of Economic Research: [https://www.nber.org/wp\\_covid19.html](https://www.nber.org/wp_covid19.html)

**17** What Works Scotland (May 2019) Key Messages About Public Service Reform in Scotland [online] Available at: <http://whatworksscotland.ac.uk/wp-content/uploads/2019/05/WWSKeyMessagesAboutPSRInScotland.pdf>

**18** What Works Scotland (undated) Publications and resources [online] Available at: <http://whatworksscotland.ac.uk/publications/>

**19** Royal Society of Edinburgh (June 2019) Scotland's Energy Future [online] Available at: <http://www.rse.org.uk/wp-content/uploads/2019/06/Energy-Report-for-Web-2.pdf>

**20** Sustainability First (May 2020) Briefing – Social and Distributional Impacts of Decarbonisation and Climate Adaptation in the UK [online] Available at: [https://www.sustainabilityfirst.org.uk/images/publications/other/Social\\_Distributional\\_Impacts\\_SF\\_Briefing\\_May\\_2020\\_FINAL.pdf](https://www.sustainabilityfirst.org.uk/images/publications/other/Social_Distributional_Impacts_SF_Briefing_May_2020_FINAL.pdf)

**21** Sustainability First (2020) Bridging Corona to a Sustainable Future [online] Available at: <https://www.sustainabilityfirst.org.uk/bridging-corona>

### *Additional Information*

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