Energy System and Just Transition – Independent Analysis

March 2023

Scottish Government
Riaghaltas na h-Alba

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Publication of the outputs from a programme of work to better understand our energy requirements as we transition to net zero

The Bute House Agreement contained a commitment for "the Scottish Government to undertake a programme of work and analysis to better understand our energy requirements as we transition to net zero, and how this aligns with our climate change targets and the goal of the Paris agreement to limit global warming to well below 2 – preferably to 1.5 degrees Celsius – compared to pre-industrial levels. This work will supplement a wide range of evidence that will be considered to take an informed policy decision on the contribution of North Sea production to the global climate emergency and to Scotland's economy, security and wellbeing".

Following a procurement process, Ernst & Young (EY) was contracted by the Scottish Government to provide this independent analysis and evidence base. EY delivered its findings across October 2022 to December 2023, at a core cost of £958,820 for the report and its constituent chapters – excluding additional supporting advice (EY has also attended meetings with the independent panel and provided advice to support engagement sessions with stakeholders and government in relation to this work).

An **independent academic panel** was established to provide impartial challenge and advise Scottish Government officials on the work, imparting quality assurance and providing credibility review for their respective areas of interest. Members have globally recognised expertise across the oil & gas industry, climate science, the energy sector and Scotland's economy. Whilst they provided feedback on the outputs and reports throughout their preparation, the panel has remained entirely objective and these reports do not in any way represent the views of the respective panel members themselves, or of their institutions.

- **Laura Cozzi**: Chief Energy Modeller, International Energy Agency
- **Professor Gabi Hegerl**: Chair - Climate System Science, University of Edinburgh
- **Professor Paul de Leeuw**: Director of the Energy Transition Institute, Robert Gordon University
- **Professor Mairi Spowage**: Professor of Practice and Director of the Fraser of Allander Institute.

The findings of this work have now been published in full. You can find links to the report (published 03 March 2023) and supporting databooks (published 03 April 2023) below.

- Summary Report
- Summary Report – Portrait Version
- Chapter 1 – Oil and Gas Baseline
- Chapter 2 – Demand
- Chapter 3 – Just Transition Analysis
- Annex – CCC
- Accompanying Databook – Summary Report
- Accompanying Databook – Chapter 1
- Accompanying Databook – Chapter 2
- Accompanying Databook – Chapter 3

The report provides an important analytical evidence base which has been used in developing elements of the draft Energy Strategy and Just Transition Plan. Alongside evidence considered in response to the consultation for the Strategy and Plan, this independent report will help inform the Scottish Government's policy position on oil & gas and its work to ensure a just transition.

The analysis looks at the transition through a focussed lens of energy production and generation. It does not therefore consider the wider indirect impact of the transition on the broader economy, for example jobs created through a programme of retrofitting homes to improve energy efficiency or any co-benefits, for example health and wellbeing improvements from a switch from petrol cars to active travel. Much of the data presented has been arrived at by modelling scenarios. These are therefore neither forecasts nor targets, but provide an informative tool to understand the energy transition and identify areas where intervention can encourage the most favourable outcomes.

This extensive report reveals the significant progress of the energy transition already underway in Scotland, highlighting too the scale of the opportunity and challenge this transition brings. Scotland remains overwhelmingly a net exporter of energy, but production of oil and gas – extracted from a mature basin – is in decline and the evidence presented in the report puts into sharp focus the urgency of ensuring the people, businesses and communities that have relied on the sector are able to take advantage of new and promising opportunities. While this presents a challenge, for workers, businesses and policy makers, the message from the data is that there are significant opportunities in the low carbon sectors and with the right support, the energy transition can provide more energy production jobs than we have now. Capturing those opportunities requires investment and planning, to stimulate growth and ensure Scotland's successful supply chain continues to thrive. The models show a GVA gap caused by oil and gas decline. Understanding where and when this will emerge provides valuable insight to guide interventions that can protect all communities through the transition.

The results also expose the challenge of reducing demand for oil and gas, which still fulfils so much of our energy needs. There is no single solution, either technological or societal, and business models will need to evolve to ensure that the new energy

sectors of wind, hydrogen and carbon capture and the systems and structures that deliver them, are able to generate maximum value for Scotland.
The report illustrates that while a transition is inevitable, there are many routes to net zero emissions and for Scotland to play our part in delivering on the global goals of the Paris Agreement. The report shows that by actively managing the transition, with significant early investment supporting the growth of the low carbon sector and policy intervention, Scotland's energy transition can underpin a new era of global excellence in the energy sector. The prize is an energy sector that continues to support security and economic wellbeing while providing solutions to the climate change crisis. The choices that policy makers take, such as to support supply chains, to develop robust skills interventions, and to actively facilitate private sector investment, will be critical in realising those opportunities.

EY separately considered the design of a set of potential tests that could form the basis of a climate compatibility checkpoint to help ensure oil & gas production is consistent with the global climate goals set out in the Paris Agreement. EY's potential tests were based on the existing UK Government climate compatibility checkpoint. Their report includes an assessment of the BEIS publication, as well as highlighting the legal and investor implications of a Scottish checkpoint. In this respect, it is different to the remainder of the evidence base in the main report and has not been reviewed by the Independent Panel. It is included as an annex.

The Scottish Government has established, through its draft Energy Strategy & Just Transition Plan, a framework for energy policy in which we can achieve Scotland's ambitious net zero targets. We are, however, also seeking your views and would encourage consultation responses and help shape Scotland's future and ensure a just transition. We are inviting responses to this consultation by 5pm on Tuesday 02 May 2023. Please respond to this consultation using the Scottish Government's consultation platform.

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This publication is available at **www.gov.scot**

Any enquiries regarding this publication should be sent to us at

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