The National Decommissioning Centre
Innovation through Partnership

NDA

Economic and Social Impacts of Nuclear Decommissioning in Scotland

Introduction

The Nuclear Decommissioning Authority (NDA) is charged, on behalf of Government, to clean-up the UK's earliest nuclear sites in a safe, secure and cost-effective manner. Doing this with care for people, communities and the environment is at the heart of the NDA's mission. The NDA is committed to overcoming the challenges of nuclear clean-up and decommissioning, leaving the 17 nuclear sites ready for their next use.

Current plans indicate it will take more than 100 years to complete the NDA's core mission of nuclear clean-up, decommissioning and waste management.

The NDA aims to decommission **17** nuclear sites in the **UK**

It will do this safely, securely and cost-effectively with care for people and environment.

There are three sites in Scotland that are in the decommissioning phase: Dounreay in Caithness; Hunterston A in Ayrshire and Chapelcross in Dumfries and Galloway. All managed by Nuclear Restoration Services.

Hunterston B is currently being defuelled in preparation for decommissioning.

Going forward, two further nuclear sites will enter the decommissioning phase; Torness in East Lothian and Vulcan in Caithness.

2,000
jobs at Dounreay

This figure will shrink until the site closes in the 2070s.

300
jobs at Chapelcross

Opening in 1959, Chapelcross was Scotland's first nuclear power station.

300
jobs at Hunterston A

Hunterston A opened in 1969 and generated electricity for 20 years.

17
nuclear sites across the UK

17,000+
employees across the group

950
hectares of designated land on nuclear licensed sites

800+
buildings to be demolished

Existing NDA group sites

1. LLW Repository
2. Sellafield
3. Hunterston A
4. Chapelcross
5. Wylfa
6. Trawsfynydd
7. Berkeley
8. Oldbury
9. HinkleyPoint A
10. Dungeness A
11. Bradwell
12. SizewellA
13. Harwell
14. Winfrith
15. Dounreay
16. Capenhurst
17. Springfields

Sites Expected to transfer to the NDA group in the future

18. Hunterston B
19. Torness
20. Hartlepool
21. Dungeness B
22. Hinkley Point B
23. Heysham1, Heysham 2
24. Vulcan

Although decommissioning will go on for 90+ years, the bulk of the decommissioning activity is expected to be completed within 30 years.

- £25bn – total spend required by UK Government to safely decommission the Chapelcross, Dounreay, Vulcan, Torness and Hunterston A and B nuclear power plants.
- £875m average spend per year.

Economic Impact of nuclear decommissioning in Scotland[1]

- Scottish GDP will expand on average by £580m each year[2] between 2023 – 2053[3].
- Increased economy wide activity helps sustain on average 11,500 FTE jobs[4] in same period.
- Wage increase, boosts household consumption.
- Export opportunity of skills and expertise internationally.
- Positive economic impact on local communities.

Favourable to Government Budget

- More employment and activity in the economy.
- More consumption and tax revenue for the government.
- Additional revenue can be used by the government for other purposes.

Key Nuclear Decommissioning Challenges

- Skilled labour force required.
- Timely skills and labour plan critical.
- Skills shortages may require global import.
- Activities span multiple generations.
- Long term training vital.
- Not all sectors benefit.
- Bias in employment opportunities.
- Higher consumption prices.
- Disinvestment in the electricity sector could result in negative economic impact.
- Electricity price increase.
- Replacement of generating capacity.

[1] The analysis in this report was conducted using a multi-sector economy wide computable general equilibrium (CGE) model for Scotland. The results have been obtained using a bargained real wage scenario as opposed to fixed real wage scenario.

[2] Compared to 2022 base line values (not accumulative).

[3] When most decommissioning activity takes place.

[4] Includes direct and indirect jobs.

SOCIAL IMPACTS OF NUCLEAR DECOMMISSIONING AT DOUNREAY

Achieving a Just Transition in Caithness and North Sutherland

Policy Report

- Just Transition Policy Framework in Scotland
- Relevant actors activites in Caithness and North Sutherland

Interviews

- 17 key information interviews, July - October 2024
- Focus on understanding and priorities for a Just Transition

Final Report

- Interview data analysis
- Set of themes and indicators for a Just Transition in Caithness and North Sutherland

Although nuclear decommissioning is not a decarbonisation activity, there are **significant impacts of winding down the anchor institution central to high-skilled and high-income employment in the region**. Additionally, there is a **rapid expansion of renewable energy and electricity infrastructure in Caithness and North Sutherland**.

Despite this, **the Scottish Government Just Transition Planning Framework does not currently appear to consider the impacts of nuclear decommissioning** with no mention in the Draft Energy and Just Transition Strategy and very limited engagement activities to date.

JUST TRANSITION POLICY FRAMEWORK IN SCOTLAND

LEGISLATION

The Just Transition principles
Climate Change (Scotland) Act sec. 35

PLANNING FRAMEWORK

- Eight Just Transition

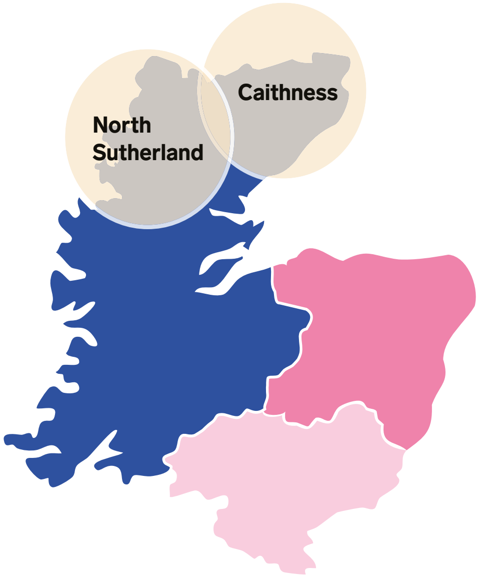
Outcomes

- Sectoral Plans
- Site-specific and regional plans

JUST TRANSITION COMMISSION

- Scrutiny and advice to the Scottish Government
- Meaningful engagement
- Advice on monitoring and evaluation

After reviewing the **relevant policies and mapping the current stakeholders and activities** for Just Transition planning in Caithness and N. Sutherland, we conducted **17 interviews** between July and October 2024. We spoke to a diverse set of key informants across different sectors in the region, focusing on the meaning and priorities for a Just Transition.



Based on the previous research and interview data, we developed a **set of 4 themes and 9 indicators of a Just Transition for Caithness and N.Sutherland** in light of nuclear decommissioning in Dounreay.

Labour Market and Population

- Jobs
- Skills
- Population

Health, Social Infrastructure, and Transport

- Health and social infrastructure
- Transport and rurality

Economic Diversification and Renewables

- Renewable energy infrastructure and jobs
- Distribution of burden and benefits

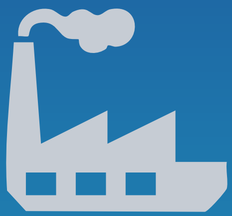
Governance and Participation

- Just Transition planning
- Local participation

JUST TRANSITION INDICATORS

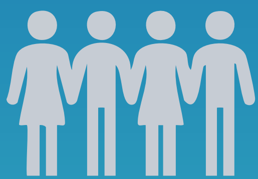
Main Findings

The regional economy is changing and a public infrastructure is in decline. Dounreay has been a stable employer over time but with nuclear decommissioning, there is uncertainty about the future. There is a need for a Just Transition in the region but lack of clarity on who and how will plan for it.



Labour market and population - concerns over jobs and skills at a time of an aging population were common. Indicators suggest variability in job growth and a reduction in the skills base combined with a significant increase in the over 50s.

Health, social infrastructure and transport - concerns over the decline of infrastructure, services and health provision were common across most respondents. Unreliable transport links, poor road maintenance, lack of new housing, and access to services and amenities were common.



Economic diversification and renewable energy sector. New developments in renewable energy present opportunities for regional economic growth, but coordinated planning is needed to maximise job creation. Community benefits need reform to support structural challenges.

Governance and participation. Governance in the region is perceived as fragmented and remote. A regional Just Transition plan is required as a matter of priority, supported with clear accountability, funding, and collaboration. This must build on the strong networks already established by Focus North to ensure local participation and alignment with regional priorities.