

Just Transition



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Introduction

We are transitioning to a net zero emissions Scotland for the benefit of our environment, our people, and our prosperity. We also need to adapt and build resilience to the impacts of climate change alongside our actions to reduce emissions. Scotland's ambitious climate change legislation sets a target date for net zero emissions of all greenhouse gases by 2045. Our contribution to climate change will end, definitively, within one generation.

The Scottish Government has an obligation to deliver its statutory target of achieving net zero by 2045, and to do so by seizing the economic opportunities this ambition presents, in a manner in keeping with our commitment to realise a just transition for all of Scotland. A just transition, to the Scottish Government and its agencies, refers both to the outcome of this change – defined as a 'fairer, greener future for all' – and, importantly, a process undertaken in partnership with those impacted; be that individuals, communities, regions, or businesses. Doing so helps ensure that this change maximises economic opportunity and is fair and equitable.

Scottish industry, with sufficient investment, planning and support, has much to gain from the transition. Significant opportunities in renewable energy, the hydrogen economy, high-value manufacturing and industrial biotechnology, as set out in the National Strategy for Economic Transformation (NSET)¹ could present Scotland's manufacturing base with new export, investment and market opportunities, sustaining and creating jobs and wealth across Scotland. The Scottish Government's strategic policies

to promote the decarbonisation of industry and support its transition – as well as identifying areas where further UK Government support is required – are set out across the Climate Change Plan Update, NSET and the draft Energy Strategy & Just Transition Plan. Associated funding initiatives to support their implementation and delivery are set out in the Scottish Budget 2023-24.²

Grangemouth is central to Scotland's industrial sector – both in terms of its geography and infrastructure – and, as cluster of industrial activity, Grangemouth could influence the wider transition in deploying the highly skilled workforce, significant assets, and engineering heritage in the locality. Recognition of this potential can be found in Grangemouth's status as an Industrial Green Transition Zone and more recently, Grangemouth port, together with other sites in the Forth area, being awarded Green Freeport designation.

A targeted, place-based approach has been adopted to focus the Scottish Government, Scottish Enterprise (SE) and partners' policies, resources and support around Grangemouth and the industrial epicentre concentrated there. Securing this just transition for the Grangemouth region, as the leading manufacturing cluster in Scotland, requires a coordinated and united approach from the public sector, working closely with the industries and businesses invested in Grangemouth to respond to their needs, and with the active participation of the community and interested stakeholders: an objective to which the Grangemouth Future Industry Board (GFIB), and its constituent organisations are committed.

1 [Delivering Economic Prosperity \(www.gov.scot\)](https://www.gov.scot/publications/nset-2023-24/pages/introduction/)

2 [Scottish Budget: 2023-24 \(www.gov.scot\)](https://www.gov.scot/publications/scottish-budget-2023-24/pages/introduction/)

Purpose of this document

Scottish government and GFIB partners have announced their ambition to deliver a Just Transition Plan for the Grangemouth industrial cluster.

This will involve a series of **engagements and workshops during the autumn of 2023** with diverse stakeholders across industry, community, the Grangemouth workforce and others. Working together, it is our ambition that this will support the delivery of a **co-designed vision** for the Grangemouth industrial cluster at 2045.

Ahead of these engagements, we have produced this document to propose an outline approach to this work, as well as an indicative expression of our ambitions for the future of the Grangemouth industrial cluster.

In doing so and in line with the Just Transition principles of co-design and co-ownership, this document should be treated as **a supportive tool** to help initiate conversations ahead of an extended engagement period, and should not be considered definitive.

Developing Just Transition Plans

An overview of Just Transition:

What is Just Transition?

Scotland has ambitious plans to reduce our emissions to net-zero by 2045. Our vision for a Fairer, Greener 2045³ sets out what we could expect our economy and society to look like in the future.

With so much possibility for change, it is vital that we ensure a Just Transition to Net Zero, ensuring that the benefits, costs and risks are shared and managed fairly, so that no one is left behind.

A just transition is both the outcome – a fairer, greener future for all – and the process that must be undertaken in partnership with those impacted by the transition to net zero. Just transition is how we get to a net zero and climate resilient economy, in a way that delivers fairness and tackles inequality and injustice.

For the Scottish Government, Just Transition, at its core, is about carefully managing major shifts in our economy as we move to net-zero; using evidence to identify the risks and benefits of decarbonisation, and finding ways to share them equitably through collective action.

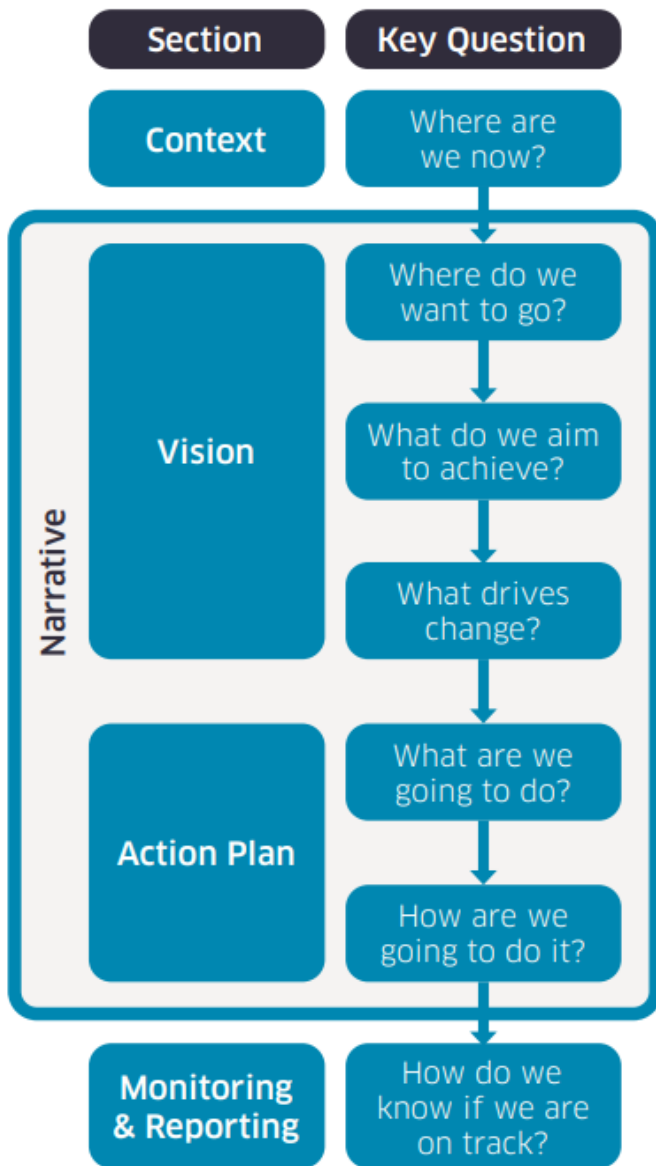
Just Transition Planning

To realise its ambitious net zero goals, secure the opportunities presented by progress towards these, and manage the change in an equitable way, the Scottish Government has committed to lead the production of key, sectoral and regional just transition plans. This means producing these plans in a manner which is co-designed and co-delivered by communities, including youth voices, businesses, unions and workers.

Co-design ensures that a wide range of groups can be directly involved in what will inevitably be a more robust and creative process of planning. This active planning is critical to avoid the mistakes of previous economic change in Scotland, and to accomplish a just transition – meaning:

- Skills, training and education that helps to secure good, high value jobs in green industries like low-carbon manufacturing, renewables, and tech.
- Job security for those in industries that will play the biggest part in the transition – at every level – from those working in petrol stations to those on oil platforms.
- Homes that are energy efficient and help to reduce fuel poverty.
- Building infrastructure, transport and communities that support our efforts to decarbonise, to enhance biodiversity and which are resilient in the face of the impact of climate change that we are already feeling.
- Making sure the costs do not burden those least able to pay and the benefits of our transition are felt regardless of where you live, who you are and what you do.

3 [National Just Transition Planning Framework – Just Transition – A Fairer, Greener Scotland: Scottish Government response – gov.scot \(www.gov.scot\)](https://www.gov.scot/resources/information/national-just-transition-planning-framework-just-transition-a-fairer-greener-scotland-scottish-government-response/)



Grangemouth and Just Transition

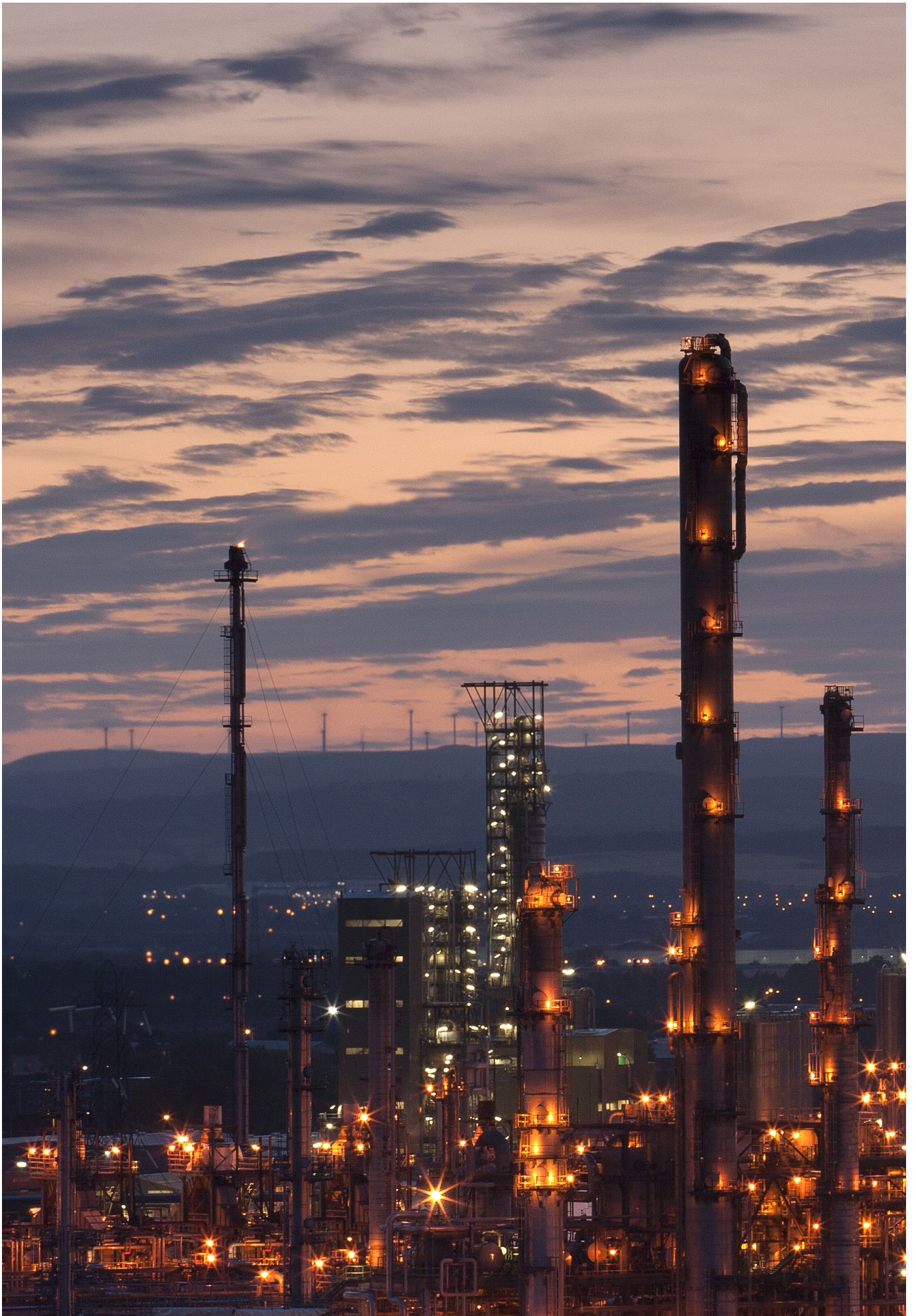
The Scottish Government’s Programme for Government 2022 to 2023 committed to develop a Just Transition Plan for the Grangemouth Industrial Cluster, reflecting the fact that the site represents one such area that we can expect to undergo major structural shifts to 2045. Partners across the Grangemouth Future Industry Board are leading the process to deliver this targeted plan and initial work is already underway.

The business case for a Grangemouth Just Transition Plan is clear. The region is central to Scotland’s industrial sector and has a significant role in our Energy network. Many of the industrial assets there are well placed to transition to provide products and services that will be vital in a net-zero economy. In terms of its geography and infrastructure – and, as a region, Grangemouth could influence Scotland’s wider transition in deploying the highly-skilled workforce, significant assets, and engineering heritage in the locality.

More broadly, the industrial region has an historic and interwoven relationship with the surrounding community and local workforce. It is vital then that any changes to the industrial complex pay due attention to the impacts this could have on these critical partners, working with them to identify a shared future that puts collective benefit first.

Scotland has also committed to a Just Transition Planning Framework, setting out a consistent, ambitious approach to guide just transition planning. This includes setting the expectation that planning activities contribute to the achievement of a set of National Just Transition Outcomes will be evidence-based and co-designed.

The Framework stipulates that certain regions and groups in society, particularly areas where there is a high concentration of carbon-intensive industries (such as Grangemouth) that will be undergoing intensive, often rapid change, will experience the transition to net zero more acutely than others, and that this disparity would need to be reflected in the level of engagement.



Context – Where Are We Now?

Overview of Grangemouth

The Grangemouth industrial cluster is home to a concentration of strategic infrastructure assets and high-value employment. There are estimated to be over 2,000 full-time equivalent (FTE) jobs present in the immediate industrial cluster,⁴ with thousands more individuals employed in operators' supply chains. However, the area [Grangemouth] – due to its productive and energy intensive manufacturing processes was responsible for around 6% of Scotland's net greenhouse gas emissions in 2021.⁵ Given the critical role of Grangemouth to Scotland's economic and climate imperatives, it is the ambition of the Scottish Government and public sector partners to see the site remain not only a key manufacturing base for the future, but also one that is significantly decarbonised, and that it realises its potential to support broader carbon reduction across Scotland. This has been highlighted by the UK's Committee on Climate Change, recommending that a specific focus on the Grangemouth cluster is key to Scotland's industrial decarbonisation and the accomplishment of Scotland's targets.⁶

As well as Scotland's largest container port,⁷ the cluster comprises several operating assets in the downstream oil, gas and petrochemicals sectors, manufacturing products and outputs that are of significant value to Scotland's exports, and to resilient domestic energy supplies. These downstream assets and

the wider petrochemical complex are the principal employers and industry in the Grangemouth and Falkirk area. The manufacture of petroleum and chemical products was the second largest industry for Scotland's international exports in 2019, accounting for 11% of all exports outside of the rest of the United Kingdom, and an industry valued at £3.8 billion in 2019.⁸ Grangemouth is central to this. The cluster is also a key location for oil and gas infrastructure of national significance, home to the terminus of the North Sea Forties Pipeline system, Scotland's sole refinery, and largest petrochemicals works.

The cluster now has the opportunity to build on the industrial heritage, knowledge, skills and experience already located there. For example, the production and handling of hydrogen requires a depth of chemicals expertise which can already be found at Grangemouth, and supporting activity which is also highly compatible with bio-based manufacturing opportunities. The downstream sector, including businesses responsible for processing oil and gas, utilising extensive resources to decarbonise processes and products, can help other sectors decarbonise, becoming a primary influencer in the future supply of lower carbon energy. Hydrogen is a major opportunity area: This gas is a critical component in attaining net zero (and in Scotland's future energy system in particular) and, as the largest producer of hydrogen in the world, the downstream

4 Aggregated from industry data shared with SE spanning operators including INEOS Chemicals Grangemouth Ltd; INEOS Forties Pipeline System (FPS) Ltd; Petroineos Manufacturing (Scotland) Ltd; Calachem Ltd; Piramal Healthcare UK Ltd; Syngenta Ltd; Versalis UK Ltd; Fujifilm Imaging Colourants Ltd; Suez Industrial Water; Forth Ports Ltd; Celtic Renewables.

5 For the purposes of this emissions calculation, the petrochemical cluster has been defined as the sum of '1A1b Petroleum_ = Refining' and '2B8g Petrochemical and carbon black production: Other' categories from the 2021 Scottish Greenhouse Gas inventory.'

6 [Committee on Climate Change](#), December 2020

7 [Grangemouth | Forth Ports](#)

8 [Export Statistics Scotland 2019](#), A National Statistics Publication for Scotland

sector could maintain and grow its role in producing and delivering zero-carbon emitting hydrogen to consumers – across industry, and potentially to transport and domestic sectors.⁹

This existing knowledge base also has the potential to attract new and innovative industries, via co-location, to become an anchor point for low-carbon supply chains – aligning with the National Strategy for Economic Transformation¹⁰ where developing strong regional economic strategies is highlighted as a key driver for increasing productivity.

Grangemouth is linked to a network of oil and gas pipelines and infrastructure to onshore and offshore assets in the North East. This access to existing and legacy infrastructure connecting the regions, alongside well characterised CO₂ storage capacity in the North Sea, offers the potential for carbon evacuation from Grangemouth and its permanent and safe

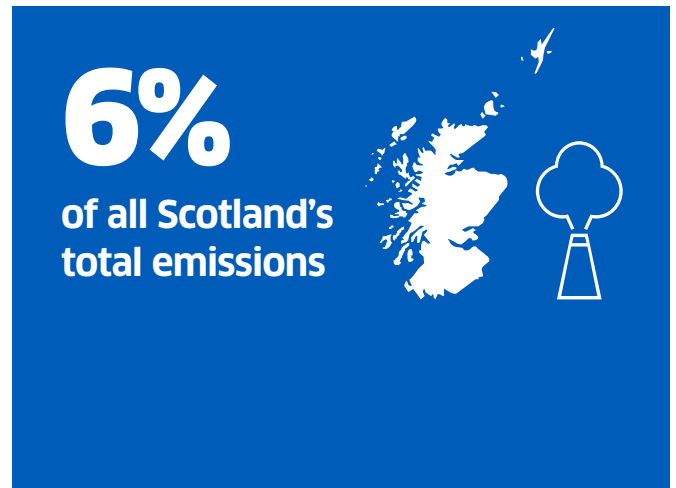
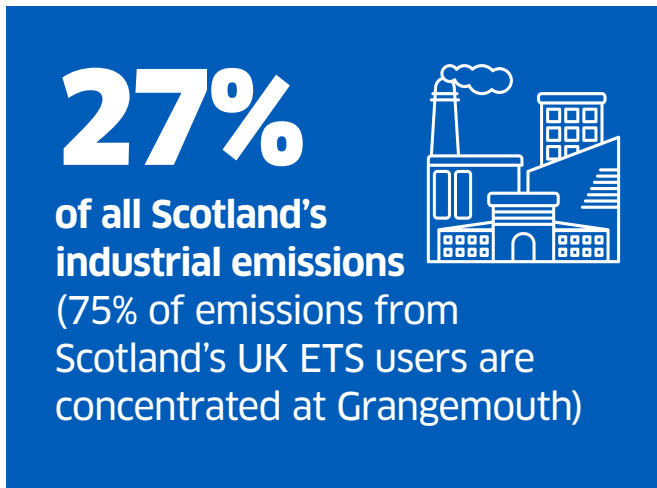
storage. Grangemouth's source emissions, infrastructure and carbon capture utilisation and storage (CCUS) potential makes the site a key component of the Scottish Cluster and the Acorn Project.¹¹ And, in turn, CCUS is central to the future sustainability and competitiveness of the Grangemouth complex.

This infrastructural opportunity could also provide the backbone to deeply decarbonise wider Central Belt industry, offering the potential for competitive advantage in a carbon constrained world. The longstanding experience in oil and gas at the site provides a centre of much expertise and transferable skills to kick-start what could become a whole new industry for Scotland. However, realising this opportunity requires urgent action from the UK Government and clarity on its cluster sequencing process.

9 See [A Transition, Transformation, and Innovation towards Net-Zero in UK downstream](#), 2020dd

10 [Scotland's National Strategy for Economic Transformation – gov.scot \(www.gov.scot\)](#)

11 [About Acorn | A Joint Decarbonisation Venture \(theacornproject.uk\)](#)



Existing Experience

- Utilising existing expertise in producing and handling of hydrogen with opportunities to become a hydrogen production hub of the future

Carbon Emissions

- Pooling collective carbon emissions to prop up early stage carbon capture projects

Scale

- Clustering to scale up and produce a compelling case for future UK Government decarbonisation/ industrial funding

Chemical Knowledge

- Harnessing the depth of chemicals knowledge that is highly compatible with bio-based manufacturing

New Industries

- Attracting new and innovative industries that will be necessary for the transition to net zero

Academic Institutions

- Leverage nearby academic institutions and world-leading expertise

12 Scottish Greenhouse Gas Statistics 2021 <https://www.gov.scot/news/scottish-greenhouse-gas-statistics-2021/>. "For the purposes of this emissions calculation, the petrochemical cluster has been defined as the sum of '1A1b_Petroleum_Refining' and '2B8g_Petrochemical_and_carbon_black_production:Other' categories from the 2021 Scottish Greenhouse Gas inventory".

Investment in Grangemouth

Substantial and transformative investment has been committed to the cluster. Private sector investment, such as INEOS's **£1 billion**¹³ investment intentions for a world-scale low-carbon hydrogen plant at Grangemouth supports this thinking, and lies at the heart of the INEOS Grangemouth Net Zero route map – a major operator in the Grangemouth cluster who has committed to deliver emissions savings of more than 60% across the site by 2030, building on already significant emissions reduction achievements. In addition to reducing emissions, investing in locally produced hydrogen will also benefit other assets at the Grangemouth site, fuelling the existing Combined Heat and Power Plant operations, and other adjacent energy-producing assets. This project complements other INEOS investment announced at Grangemouth in recent years, including a new **£350m**¹⁴ energy plant, and a **£500m** infrastructure upgrade programme to the Forties Pipeline System.¹⁵

Significant investment has also been announced for the wider cluster, including Piramal's commitment to the construction of a new multipurpose state-of-the-art antibody-drug conjugate (ADC) manufacturing and aseptic facility in Grangemouth (as part of a broader **£55m** investment package)¹⁶ and with Celtic Renewables' bio-refining facility.

This tangible private sector investment at scale accompanies a range of public sector investment initiatives, including the **£80m** Growth Deal. The Scottish Government is investing up to **£40 million** in the Falkirk Growth Deal, matching the investment made by the UK Government – including an additional **£10 million**

specifically for green recovery projects related to the Greener Grangemouth programme. Falkirk Council and Scottish Canals have also pledged **£45 million** and **£5 million** respectively, bringing the total potential investment of the Falkirk Growth Deal to **£140 million**. This funding contributes to the Deal's two themes, Innovate Industry and Great Places, each containing a series of interlinked projects. Together, these projects and underpinning government support will target initiatives to transform Grangemouth's chemicals and manufacturing industries into an internationally competitive low carbon proposition while enabling place-making and a just transition to net zero. This includes projects such as:

- the Carbon Dioxide Utilisation (CDU) Centre; to be the UK centre for advanced CDU technology testing which shares its learning with industry to ensure an effective transition to sustainable product manufacturing.
- the Bioeconomy Accelerator Pilot Plant; to test and develop technologies and feedstocks to enable the chemical industry to transition from reliance on traditional fossil fuels, including through renewable resources or waste streams from other processes.
- Strategic Innovation Sites; to accommodate future sector opportunities within advanced manufacturing; including chemical sciences, industrial biotechnology, CO2 Utilisation and zero-emission heavy duty vehicles.
- the Greener Grangemouth Programme; to help local people to prosper from the jobs and wealth creation in the surrounding area.
- the Skills Transition Centre.

¹³ [INEOS & Hydrogen \(ineoshydrogen.com\)](https://www.ineoshydrogen.com)

¹⁴ See [INEOS is investing £350m in a new state of the art, energy efficient power plant at its Grangemouth site](#), 2019

¹⁵ See [INEOS to invest £500 Million into The Forties Pipeline System](#), 2019

¹⁶ Scottish Enterprise, [Piramal Pharma Solutions strengthens UK presence with the expansion and upgrade of its Grangemouth and Morpeth facilities](#), 2022

Wider Context

As evidenced in the [2020 Grangemouth settlement profile](#), Grangemouth is a town of around c.16,000 people. It has communities that are in both the top and bottom segments of the Scottish Index of Multiple Deprivation. This suggests high degree of inequality in the local economy. It is possible that changes in scope of operations at the industrial cluster could affect households of different deprivation levels in different ways.

Evidence from the Grangemouth Community Action Plan provides an insight into some of the ambitions and concerns held by local community members including:

- That there are possibilities for good, well paid employment and that this is evident for younger people.
- There is a high presence of industrial activity, skilled and well-paid work but it is not necessarily accessible to the people of Grangemouth.
- There is an industrial presence; however, unemployment is high and the town centre is run down.
- It is difficult to access information about employment and training opportunities.

Previous community engagement by Falkirk Council has also highlighted a strong desire to re-establish local and national pride in the industrial strength of Grangemouth, focusing on how the cluster can provide enhanced life opportunities and positive destinations.

The cross-cutting impacts of transport in Grangemouth should not be ignored. As the location of our primary fuel production, the vision for the Grangemouth Industrial Cluster must take into account the future requirements of the transport sector.

Furthermore, Grangemouth also acts as a major logistics hub in Central Scotland, increasing the volume of through-traffic on the area, in addition to traffic generated by a lack of public transport from Falkirk High and Polmont Stations. These factors are likely to cause a range of impacts that are not yet fully understood, however the work to develop a Just Transition Plan for the Grangemouth Industrial Cluster must compliment that of the [Transport Just Transition Plan](#), currently being developed.

The Forth Estuary provides the key spatial setting for the port of Grangemouth and the extensive area of industrial development around it. The Forth Estuary has lost nearly half of its valuable intertidal areas to historical land claim for agriculture, ports and other industrial activities. Despite this loss, the remaining large mudflats and associated saltmarshes of the inner Forth Estuary, including those adjacent to Grangemouth, have been accorded the highest level of legal conservation protection under both international and national conservation legislation. The intertidal areas are designated as a European Special Protection Area for the hundreds of thousands of resident and migratory wading birds and waterfowl that they support throughout the year. They are also part of a Ramsar designation for Wetlands of International Importance, and also receive legal protection through their national designation as a Site of Special Scientific Interest. As well as birds, these habitats also provide a home for huge populations of fish and invertebrates. The shallow, sheltered waters of the inner Forth Estuary provide a nursery area for the young of many commercially important sea fish species.

Critical Evidence Gaps

Whilst there is a certain degree of accessible data relating to Grangemouth's emissions, economic contribution, investment and decarbonisation options the Scottish Government and partners across the Grangemouth Future Industry Board acknowledge that, to support meaningful planning for a Just Transition, we must enhance our knowledge base to understand the current state of play and critically, the impacts that future changes may have. This will include:

- More detail on the **economic contribution** of the full Grangemouth industrial cluster and the role/impact of the Forth Green Free Port.
- Current and projected **employment figures** as well as the **jobs and skills makeup** of the industrial cluster required to support current and future operations and outputs.
- a detailed overview of **industrial production** including: products made and exported from the cluster, economic and financial metrics, current investments and scale of employment, including associated distribution supply chains, supported by production.
- More granularity in **Scope 1, 2 and 3 greenhouse gas emissions**.
- An Assessment of the **existing decarbonisation/sustainability strategies** of the Grangemouth operators including focus areas of these plans, as well as common threads across operators.
- An outline of the relationship between the existing industrial cluster and the surrounding community, environment and business network, in line with the 8 Just Transition outcomes.

Proposed Action: The Grangemouth Future Industry Board has commissioned a baselining exercise to enhance evidence and understandings of activity in Grangemouth today. This will allow for greater understanding of the expected decarbonisation journey for Grangemouth, existing impacts across the cluster and surrounding community, focus and inform conversations around what actions must be undertaken, and provide a reference point for monitoring efforts, providing early headline monitoring metrics.

The Key Methods to Tackle the Emissions from Scotland's Industries

In general, energy-intensive industries have the opportunity to reduce emissions to much lower levels by a combination of three principal means: making industrial processes more efficient; switching to lower carbon fuels, or capturing carbon emissions.

UK ETS enables carbon markets to play a key role in driving a smooth decarbonisation for industry. It remains the main mechanism for decarbonising energy intensive industries.

In addition to Emissions Trading Scheme, and in light of the reporting of the Committee on Climate Change, we are developing a hierarchy of industrial decarbonisation policy to:

- Focus on energy demand, optimisation or industrial energy and/or material efficiency, including advanced digitisation.
- Electrify industrial processes where feasible or enable switching to low-carbon fuels.
- Incentivise investment in carbon capture and storage.

Current Scottish Government Funding Offers

We continue to devote significant funding to support the energy transition all across Scotland, and this includes: our £500m Just Transition fund – which is already delivering projects – the £75m made available through our Energy Transition Fund; £300m via our Heat Network Fund; and up to £100m capital funding programme through our Hydrogen Action Plan.

In Grangemouth we are seeing investment deployment, through a combination of major public and private investment initiatives, including the Growth Deal at £140m.

Beyond this, during this Parliament, we are investing up to £60 million to support industrial decarbonisation:

- Through the Low Carbon Manufacturing Challenge Fund. With Scottish Enterprise, we fund a CivTech Challenge to help manufacturers decarbonise, build resilience, strengthen competitive advantage and support low-carbon markets.
- Through the Scottish Industrial Energy Transformation Fund (SIETF) which co-invests with a diverse range of Scottish manufacturers to reduce energy costs and emissions through increased energy efficiency and deep decarbonisation.

The 2022 Programme for Government committed us to continue SIETF which leverages over £100m of total investment to directly reduce emissions from industrial processes. The fund in its current form should cut manufacturing sector industries emissions by c. 0.15Mt CO₂e.

Our SIETF programme continues to receive significant applications from a wide range of industrial manufacturing sectors across the country. By enhancing energy efficiency it cuts energy costs, in particular for Scotland's diverse food and drink sector.

Up to 2022, over 20 projects have been offered grants totalling £12m with many more to be offered during 2023. The programme will be reviewed prior to further invitations to apply.

Draft Just Transition Outcomes for the Grangemouth Industrial Cluster

The National Just Transition Planning Framework sets out eight National Just Transition Outcomes, which have been distilled into the below four areas to support the coherence of these Just Transition Plans.

Jobs, Skills and Economic Opportunities – Scotland has a thriving net-zero economy, enabling businesses to set up and grow sustainably. People are equipped with the skills and opportunities to access good, green jobs in a net-zero economy. This economy delivers a liveable world for people and planet, ensuring a thriving, biodiverse environment and fair work and full lives for people. (JT national outcomes 2 & 4.)

Communities and Places – Should be accessible places for people to grow, investing in their environment and economy. Communities should be empowered to reach net zero in a way that meets their needs, and builds on their unique local strengths, in an equitable fashion as part of a just transition. (JT national outcomes 1 & 7.)

People & Equity – People are able to enjoy basic rights, freedoms and quality of life and have access to necessities such as heat, food, housing, employment, childcare and wider wellbeing. They are healthier, happier and treated with respect and have access to full, varied opportunities that add value to their lives. Opportunities, wealth and power are spread more equally; costs primarily fall to those who can bear them. (JT national outcomes 3 & 8.)

Environment, Biodiversity and adaptation – Our environment must meet the needs of those living in and depending on it. This includes both our natural and built environment. Our spaces must be resilient to the impacts of climate change and restore our biodiversity. Spaces must provide those living or dependent on them with everything they need to live full and healthy lives as they support the transition. (JT national outcomes 5 & 6.)

These outcomes reflect what the Scottish Government has identified as the main areas that just transition activity should cover – this reflects the integral elements of Just Transition; effective reskilling and new economic opportunities, as well as engaging communities and putting fairness and a person-centred approach at the centre of policy making.

Within that, the People and Equity theme reads across to the Scottish Government's climate justice focus, building on the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019's climate justice principle, which is 'the importance of taking action to reduce global emissions of greenhouse gases and to adapt to the effects of climate change in ways which–

- a. support the people who are most affected by climate change but who have done the least to cause it and are the least equipped to adapt to its effects, and
- b. help to address inequality.'

Finally, it is important that just transition activity supports Scottish Government ambitions on tackling the nature crisis and protecting our environment, as well as supporting enhanced resilience to climate change. The 'Environment, Biodiversity and Adaptation' outcome will have more weight across the different Just Transition Plans and is included as a baseline to ensure just transition action contributes positively in this space.

These outcomes have been carefully considered in relation to the National planning Framework (NPF 4) which prioritises Grangemouth as an Industrial Green Transition Zone. GFIB's work to develop this plan acknowledges that the industrial cluster does not operate in isolation, and whilst the focus our efforts will be on the just transition of the industrial cluster, this will have inherent linkages to Grangemouth as a place, with an aim of supporting sustainable, liveable and productive places.

A **proposed** set of **first draft** outcomes that articulate the national [JT Planning Framework](#) for the Grangemouth Industrial Cluster are set out **below**. These have been designed and agreed across the Scottish Public Sector, and as such should not be considered final.

These draft outcomes are subject to discussion with stakeholders throughout the first phases of the engagement process. We would appreciate feedback on:

- Whether these outcomes look proportionate and relevant for the change required?
- If there are any additional factors that need to be included into the outcomes?
- What opportunities and/or barriers exist within the industrial cluster to support or prevent delivery against these outcomes?

Jobs, Skills and Economic Opportunities – Scotland has a thriving net zero economy, enabling businesses to set up and grow sustainably. People are equipped with the skills and opportunities to access good, green jobs in a net zero economy. This economy delivers a liveable world for people and planet, ensuring a thriving, biodiverse environment and fair work and full lives for people. (JT national outcomes 2 & 4.)

- 1: Grangemouth continues to be a thriving manufacturing hub for the Scottish economy, increasing the scale and pace of innovation and acts as an anchor point for new and emerging industries of the future by driving research in new climate compatible manufacturing.
- 2: Grangemouth's transition to net zero supports new and existing fair and well-paid jobs across its operations and supply chain in Scotland and, the Grangemouth workforce is diverse and advances equality of opportunity for all.
- 3: A decarbonised Grangemouth serves a range of domestic and global net-zero markets, has better leveraged public and private investment, identifying areas where it can support the reduction of regional inequality, supporting a strong, dynamic and productive economy which creates equitable wealth and high-quality employment.
- 4: Grangemouth retains and develops its role as an integral part of the energy supply chain, enabling wider decarbonisation of e.g. the transport and industrial sectors, through production of climate compatible fuels.

Communities and Places – should be accessible places for people to grow, investing in their environment and economy. Communities should be empowered to reach net zero in a way that meets their needs, and builds on their unique local strengths, in an equitable fashion as part of a just transition. (JT national outcomes 1 & 7.)

- 1: Where a clear connection exists, industry/industrial decarbonation supports the development of clean, safe, green, accessible and improved public and private spaces that are fit for purpose, build resilience and provide wider benefits for people, health and wellbeing, and biodiversity, in a balanced way.
- 2: Grangemouth has improved coordination of structural levers needed to support the transition in Grangemouth (planning; electricity supply; infrastructure) and the impacts of these developments on wider stakeholders are known and addressed.
- 3: Grangemouth has an enhanced relationship between community and industry, as well as other actors, with greater presence and visibility of industry activity and developments in typically non-industrial spaces. Grangemouth has an enhanced sense of pride in its industrial strength.
- 4: Communities are empowered. Strong community links ensure that a wide representative demographic are represented and meaningfully engaged and their views have been considered at each of the decision-making process regarding the long-term future of the industrial cluster and its impact on the wider place of Grangemouth.

People and Equity – People are able to enjoy basic rights, freedoms and quality of life and have access to necessities such as heat, food, housing, employment, childcare and wider wellbeing. They are healthier, happier and treated with respect and have access to full, varied opportunities that add value to their lives. Opportunities, wealth and power are spread more equally; costs primarily fall to those who can bear them. (JT national outcomes 3 & 8.)

- 1: Health, wealth and wellbeing of the residents of Grangemouth has increased, proportionally, alongside the economic and sustainable growth of the future industrial cluster.
- 2: Costs of industrial decarbonisation are shared fairly on the basis of ability to pay.
- 3: Opportunities to leverage the industrial clusters large energy demands in support of reducing local fuel poverty are fully explored and where opportunities are identified, all responsible actors across the public and private sector are obliged to maximise the success of specific projects.
- 4: Local residents have improved access to job opportunities existing or future stemming from the industrial cluster and are not disadvantaged by e.g long travelling distances to gain access to required education.

Environment, Biodiversity and adaptation

– Our environment must meet the needs of those living in and depending on it now and in the future. This includes both our natural and built environment. Our spaces must be resilient to the impacts of climate change and restore our biodiversity. Spaces must provide those living or dependent on them with everything they need to live full and healthy lives as they support the transition. (JT national outcomes 5 & 6.)

- 1: Environmental regulation supports innovation and the transition to achieving net zero and a circular economy whilst maintaining high standards and levels of protection for communities and the environment.
- 2: The exposure of residents and workers in Grangemouth, but particularly the oldest, youngest and those with pre-existing medical conditions, to poor air quality is minimised.
- 3: Existing and future infrastructure is designed and embedded in a way that improves and restores habitats and ecosystems, and increases resilience to a changing climate, to meet the objectives of Scotland's Biodiversity Strategy.
- 4: As an asset of national importance, innovative and appropriate options are identified and adopted for protecting and adapting the cluster and surrounding area from the impacts of climate change.

Proposed Action: Vision for the future of the cluster, co-designed through a workshop approach that brings together stakeholders from industry (including unions and employees), academia and the community.

- This will include potential decarbonisation adaptations for existing industries, new and innovative industries that can support a net-zero economy, product diversification, and a high-level assessment of how this might impact on the surrounding region.
- A draft of a Just Transition Memorandum of Understanding which involved industry bodies could sign in 2023.

Areas of Interest for the Scottish Government and GFIB Partners

The following questions should be treated as initial lines of inquiry, designed to initiate conversations that can help us to understand whether the outcomes listed above are fit for purpose, and some of the actions we might wish to take forward in helping achieve them. Again, these should not be treated as exhaustive and are examples, provided in the interest of kick-starting the co-design process.

1.1 Decarbonisation, Jobs, Skills and Economic Opportunities

Potential areas of focus:

- What would encourage new business growth and investment in the area, and what are the blockers?
- In what ways can Government support a more streamlined approach innovation funding that maximises VFM and wider impact?
- How can we ensure wider UK Government involvement in Grangemouth?
- What more can be done to unlock business models that support scale up of low-carbon technologies?
- How can we increase Grangemouth's standing as an attractive place for foreign direct investment and new, innovative industries?
- How can the international markets help unlock Grangemouth's journey to net zero?
- What is the role of the Forth Green Freeport in the future of the cluster?
- What might the role of transition finance be in supporting the diversification and transformation of the Grangemouth industrial cluster?

- What actions can help to accelerate the adoption of net zero plans and practices among the businesses in and around Grangemouth?
- What are the gaps in skills needed to deliver net-zero industries of the future?
- How can government support industry in attracting, retaining and upskilling / retraining talent?
- What work needs to be done to ensure young people are aware of the types of job opportunities are available to them at Grangemouth and how can they be made more accessible?
- What is the future skills demand, based on proposed operations? How can we retain and reshape existing skills strengths?

1.2 Communities and Place

Potential areas of focus:

- What are the touchpoints between the industrial cluster and the community?
- What would success look like for the wider community in Grangemouth? What realistic improvements would the community like to see in relation to the Industrial Cluster? What changes would have the biggest impact?
- How are communities connected? What could improve this connectivity, and specifically what can industry do to support this?
- How can we ensure that the surrounding community is taken along with the industrial cluster as it develops and decarbonises?
- What support, including capacity and capability building, is required to enable communities to thrive?;

- How can policy interventions be designed by communities to meet their needs?
- How can we better structure discussions to consider effective planning and consenting, how does it impact on other actors in the area, and how might we re-approach this in a way that benefits all? Specifically, how can strategic land use planning have a positive impact?
- What role might effectively integrated datasets play in supporting development of the Grangemouth Just Transition Plan?

1.3 People and Equity

Potential areas of focus:

- How can we design and deliver improved access to job opportunities?
- What policy and regulatory interventions can help to improve a sense of safety and health for those living close to the industrial cluster?
- In what ways do decisions made at the industrial cluster positively or negatively impact the lives of those living close by, and how can these be given further attention when major decisions are made?
- How can people be better sighted on these decisions and have a say in them where there will be known impacts?
- How can support schemes be developed to improve this way of working together?

1.4 Adaptation, Environment and Biodiversity

Potential areas of focus:

- In what ways could the Grangemouth Just Transition Plan help improve the environment both within the industrial cluster itself, and in the surrounding area?
- How can the way we regulate support industry to innovate?
- How can environmental considerations strengthen business USP in support of international trade and investment?
- How can we better embed environmental consideration into significant development projects/ investments?
- How can decisions on existing and future infrastructure be taken in a way that improves habitats, ecosystems and increase resilience to a changing climate?
- How can circular economy principles and waste reduction methods be applied in the development of this Just Transition Plan?
- What are the priority actions that can be addressed just now to improve environmental quality, reduce nature loss, adapt to a changing climate and adopt circular business processes?
- How can decisions on existing and future infrastructure be taken in a way that improves and restores habitats and ecosystems, and increases resilience to a changing climate, to meet the objectives of Scotland's Biodiversity Strategy?

Grangemouth Future Industry Board and Just Transition Approach

We have proposed that the Grangemouth Future Industry Board will be the main delivery vehicle for the Grangemouth Industrial Just Transition Plan, working in partnership with other vested interest groups, including industry, workforce, trade unions and the community of Grangemouth. GFIB is currently in the process of considering options for its future organisation and engagement with wider stakeholders. Recent recommendations provided by the Economy and Fair Work Committee's inquiry into a Just Transition at Grangemouth will be welcomed and will assist in this process.

The establishment of GFIB provides a focus and coordination to bring together all of the initiatives needed to enable this transition. A primary purpose of GFIB is to facilitate collaboration across the entire Scottish public sector, to streamline actions and decisions in pursuit of long-term sustainable economic success, and future-proof the complex.

- The distinction in purpose, however, is that GFIB's scope is focused on the core industrial cluster where the most emissions, infrastructure and economic value is concentrated.
- GFIB's workstreams have an overarching ambition to advance a net-zero Grangemouth by leading on engagement with business and community partners to plan, prioritise and coordinate cross cutting decarbonisation opportunities and projects at the cluster.

- GFIB is complementary to the work of partners in implementing the Falkirk Growth Deal and Investment Zone, and to wider economic development initiatives in the region delivered with the local authority, Falkirk Council.

GFIB's Just Transition workstream, led by the Scottish Government, commits the partnership to delivering a Just Transition Plan for the Grangemouth industrial cluster. Delivery of this involves the attainment of four key priorities:

1. preserve and enhance the economic contribution of the manufacturing cluster;
2. reduce emissions towards net zero;
3. capture and amplify existing assets such as skills and knowledge to progress the transition, and;
4. ensure that the transition is fair for all.

In line with the Scottish Government's approach to Just Transition, partners across GFIB consider that this can be best delivered through a co-ordinated approach that is co-designed alongside industry, workers and other stakeholders with a vested interest, including those in the surrounding town of Grangemouth to embed equity and fairness into decision making.

Outline Approach to Developing the Plan: Coordination and Scope

GFIB has approved proposals for work that will deliver a Just Transition Plan, informed by related Scottish Government policy, with a scope that focuses specifically on the industrial cluster at Grangemouth. The plan will outline a shared view of what the industrial cluster could look like by 2045, and the ways in which this transition can maximise socio-economic benefit for the surrounding area. In doing so the plan will focus on Just transition of the Falkirk/Grangemouth area as it relates to the decarbonisation of the industrial cluster. The plan will follow the process outlined in the Scottish Government's National Just Transition Planning Framework.

Design stage activity has highlighted that it is difficult to define a clear scope for a Just Transition Plan that focuses on a specific region of industrial activity because the principles of just transition themselves focus on maximising or balancing socio-economic benefit for all whilst moving to net zero. By mapping the activity of the industrial cluster and its impact on the surrounding area - categorised by the eight National Just Transition Outcomes - GFIB is confident that it can appropriately identify areas where industrial decarbonisation crosses over with the activities of those surrounding communities.

GFIB recognises there are parallel initiatives, including the delivery of the Falkirk Growth Deal, the emerging Forth Valley Regional Economic Partnership and the Forth Green Freeport. The Board continues to liaise with partners to ensure that its work informs and dovetails with, but does not duplicate, efforts focusing on socio-economic development in Falkirk and the wider Forth Valley region. Ultimately, GFIB co-ordinates public sector activity for the industrial cluster and will ensure that efforts to deliver a Just Transition Plan do not complicate the landscape of development initiatives for the area.

2023-24 Just Transition Plan Work Programme

Phase 1 delivery is now the primary focus for 2023, with work already underway that will develop a baseline (mapping existing activity of the cluster and touchpoints with the surrounding community) as well as a co-created vision for the future Grangemouth Industrial Cluster by Autumn of this year. This will be a first-of-its-kind document that will take into consideration a wide range of views on what the future of the industrial cluster should look like - and it is GFIB's hope that all the main industrial operators would endorse this vision.

The baseline will:

- Provide an updated assessment of the economic contribution of the Grangemouth industrial cluster;
- Isolate and present the current jobs/skills makeup of the industrial cluster;
- Provide a detailed overview of industrial production;
- Quantify more granular emissions levels;
- Develop a wider outline of the relationship between the existing industrial cluster and the surrounding community, environment and business network, in line with the 8 Just Transition outcomes.

The vision will:

- Outline a well-presented articulation of the vision for the future industrial cluster at 2045;
- Provide an indicative summary of key elements, including scale of investment required, illustrative number and type of jobs required, for example.

Approach and Next Steps

It is GFIB's intention that this is best achieved through a workshop-based approach, where a wide range of stakeholders are invited to targeted sessions that will be designed to maximise and capture meaningful input. It is the ambition of GFIB to sign a Just Transition Agreement or Memorandum of Understanding with industry following the publication of the Vision, committing all parties to work collaboratively towards this. The endorsement of this agreement could yield a powerful outcome demonstrating the shared commitment of government, local authority, wider public sector and industry to the region's transition.

Following delivery of the vision, GFIB will commence Phase 2 Delivery that will focus attention on identifying the actions required to support the vision's realisation – actions from the Scottish Government, UK Government, Regulators, industry and others which will be necessary for successful delivery.

Taken together, the baseline and vision products should allow for cross-comparison, acting as a spring-board for further analysis that can consider in detail the impacts, risks, opportunities and interdependencies for the industrial cluster (such as workforce, skills and infrastructure requirements, supply chain implications and anticipated impacts on communities and consumers). This will assist in identifying the primary points of action by GFIB partners and other stakeholders to support delivery of the full Just Transition plan.

This phase of work will also include a Theory of Change approach, which will involve a further series of extensive stakeholder workshops. It will help scrutinise the sufficiency of the Just Transition Plan. It centres around determining a set of outcomes or end goal – for example, the vision, and breaking this down into the steps needed to meet them.

Developing the Co-Design Process

Grangemouth has a long-standing legacy as one of Scotland's foremost manufacturing hubs, situated closely to the town of Grangemouth and the wider Falkirk area. There is an intrinsic and complex link between the operations and activity of industrial cluster, industrial workers, and the surrounding communities who have been affected and stand to be further affected by change in the economic and social fabric of the area as it transitions to net zero.

As outlined in our National Just Planning Framework, the Scottish Government recognises a strong partnership between business, unions, workforce and local communities will be vital for the success of any Just Transition Plan. The active engagement and involvement of these groups is therefore essential to planning a Just Transition for Grangemouth.

As such, and in line with Scottish Government's Just Transition policy, this work will seek to identify and involve a wide range of stakeholders who stand to be affected by the proposed developments in the decisions and actions that this plan will outline.

Definition of Co-design:

The overarching goal of just transition planning is to ensure that the transition to a net-zero economy promotes fairness and equity for Scotland. Our approach is designed to ensure that the costs, benefits and risks of moving to net zero are better understood, so that decisions and policy making can respond accordingly.

We will inform the process of achieving a fairer and more equitable net-zero economy by identifying and working with those who will be most impacted by large structural changes.

'Co-design' means working with those who have a lived experience of a specific topic and who will experienced impacts resulting from implementing change, providing those groups or individuals with a space to shape the decision-making process and taking into consideration a wider range of perspectives and aspirations for the future in a net-zero world. Working together, we will develop a Just Transition Plan.

Developing the Co-Design Process

Building the right conditions for co-design to succeed will take time – as the process involves a wider range of stakeholders, it follows that some parties will not be used to working together, whilst some may hold more knowledge than others on specific aspects of the process.

This will involve a series of steps including:

Building capacity – We are already working with a range of local stakeholders on the Grangemouth Just Transition process, as part of early engagement to promote the work and encourage involvement. This includes representatives across the Scottish public sector, industry, trade unions and the Grangemouth community.

We are also in the process of funding a Community Just Transition Participation Officer. The focus of that role will be to widen and co-ordinate community involvement in the plan, supporting a strengthening of the local social infrastructure and collaboration – and maximising Just Transition opportunities for the local community by assisting alignment of programmes, resources and partnership opportunities. As such a key

function of that posting should be to extend community participation through facilitated community engagement sessions and supporting us to work with harder to reach demographics.

Creating engagement channels – The development of our baseline, vision and action plan will be key points where co-design, and lived experience input becomes vital to informing this work. We have identified a workshop based approach to be the most effective format to maximise participation and shared decision making. During the process of this work, we will host a series of place-based engagements in Grangemouth, mixing in-person and online events covering a mix of topics and involving a wide range of stakeholders who have specific interests in the transition of the industrial cluster.

Assessing our approach – We will create review points to assess the experience of participants and whether are we reaching those we need to. There are review points and feedback loops built into the programme to ensure that the input we are receiving is used to shape our policies and strategies and further engagement. For example, to assess which voices are missing and how to tailor additional engagement to help refine the co-design approach.

Providing Feedback – We will share feedback with participants and publishing engagement reports. These will outline the activities undertaken, an overview of the input received and how this has been reflected in the plans as they develop.

Recognition – Following input into this detailed work, it is our ambition that all stakeholders can work towards agreement through a shared Memorandum of Understanding, underlining the ambition of our agreement to the future vision of the industrial cluster at 2045. This agreement should recognise the work of those inputting to the Just Transition Plan.



Monitoring and Evaluation

Ensuring that Just Transition plans are adaptable and iterative is an essential aspect of this process. Doing so will ensure a degree of flexibility for long-term economic planning, where not every development can be predicted, and will enable the plan to respond to changes in technology, costs, global markets, policy and the environment. Not knowing every intervention required between now and 2045 should not be a barrier to starting the transition.

A suitable monitoring process will be adopted for this plan and capacity for wide ranging input into possible changes should be maintained through a comprehensive framework.

Central to our monitoring and evaluation approach is identifying and developing appropriate quantitative indicators that we can use to track our progress towards our regional outcomes for Grangemouth and wider national outcomes. These indicators will be tracked alongside tailored evaluations of flagship policies and continuous monitoring of key delivery metrics. Measuring the fairness of the transition to a net-zero society needs to capture a wide range of dimensions.

Our baseline research and vision will provide further evidence to establish a robust overview assessment of the Grangemouth Industrial Cluster and tangible targets, identifying current impacts. The outputs from this research will provide an important baseline against which to track progress in addressing inequalities.

GFIB will establish the correct links with wider programmes of work such as NSET, and sectoral Just Transition Plans, ensuring the Grangemouth Industrial Cluster is connected with the wider monitoring of Scotland's Just Transition to net zero, and will develop a series of its own KPIs to inform progress of the plan against the vision for 2045.

Finally, it is important to note that Just Transition planning is a new approach to policy development and decision making. Following completion of the plan, a full evaluation of the process will be conducted alongside relevant impacts assessments. It was proposed that GFIB would work with industry, the workforce, and local communities to understand the best way to develop sectoral Just Transition plans, sharing learning that could inform the approach taken at other large industrial sites; a comprehensive evaluation will allow for this knowledge transfer to take place.



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