Planning for Scotland in 2050
National Planning Framework 4

National Developments – Response Form

Please use the table below to let us know about projects you think may be suitable for national development status. You can also tell us your views on the existing national developments in National Planning Framework 3, referencing their name and number, and providing reasons as to why they should maintain their status. Please use a separate table for each project or development. **Please fill in a Respondent Information Form and return it with this form to scotplan@gov.scot.**

Name of proposed national development	LNG Power Plant with associated hydrogen and carbon capture capabilities
Brief description of proposed national development	Construction of a gas power plant and liquid gas distribution facility, hydrogen production plant and carbon capture initiatives within the Port of Grangemouth. Anchorage on Firth of Forth for ship handling and onward handling of product via pipeline or lightening process. This would involve a Floating Storage Regasification Unit (FSGU) receiving and transferring cargo in the Forth.
Location of proposed national development (information in a GIS format is welcome if available)	The land required for development is yet to be finalised but could consist of land located within the north east of the Port Estate comprising Plots B and C on the attached plan, with Plot A likely to be required for a contractors village as part of the construction work. The FSGU would be located on the Forth.
What part or parts of the development requires planning permission or other consent?	The detail of the components of the proposed development will be confirmed following the completion of a project engineering study, which is ongoing at the time of submission. It is anticipated that project will comprise construction of a gas power plant (2.4 gigawatt generating capacity) and ancillary associated infrastructure; gas distribution facility; hydrogen production plant; floating storage regasification unit; pipeline connections; new and/or replacement road infrastructure including bridge(s); new and/or replacement utility infrastructure including grid connection; and development new business, industrial and storage and distribution premises. **Other consents:** Consent under Section 36 of the Electricity Act 1989 (including deemed planning permission under Section 57 of the Town and

	Country Planning (Scotland) Act 1997), Harbour Revision Order, Marine licences, CAR licence and potentially European Species Licences.
When would the development be complete or operational?	A project engineering study is ongoing at the date of this submission. It is anticipated that following completion of the study, preparation for all necessary applications and consents will take place with formal applications and the determination process taking place thereafter. Construction is expected to take place over a three year period with the development becoming operational between 2025 and 2030.
Is the development already formally recognised – for example identified in a development plan, has planning permission, in receipt of funding etc.	NPF3 identifies 'Carbon Capture and Storage Network and Thermal Generation' as a National Development, identifying Grangemouth, alongside other locations within Scotland for development, where, identified "classes of development are needed to support the delivery of a carbon capture and storage network to establish Scotland as a centre of expertise in this technology." In addition, NPF3 identifies the majority of the Port estate as lying within the 'Grangemouth Investment Zone' National Development where, identified "classes of development are needed for development to support the key infrastructure and industry at Grangemouth Investment Zone, strengthening its nationally important role in freight handling, providing energy-related infrastructure and facilitating wider economic activity." The Falkirk LDP (2015) identifies the majority of the Port as a core business area (Policy BUS02) where employment uses within Classes 4, 5 and 6 will be supported alongside other employment uses which are compatible with the character of the area. Proposal ED15 identifies areas of the Port as locations for port related industry/storage and distribution/logistics/renewable energy development. The proposed Falkirk LDP 2 continues to support employment use, with the majority of the Port designated as a Core Business Area (JE02) with some areas of the port identified as Proposal BUS15 Grangemouth Docks West where port related industry/storage and distribution/logistics/renewable energy development is supported. The remaining land which lies in the north east of the Port estate is within the settlement boundary and Policy JE04 Business Development outwith Designated

	Business Areas would apply to the determination of applications. Development is expected to take place in areas in the north east of the Port estate.

Contribution of proposed national development to the national development criteria (maximum 500 words):

The proposal responds to the Falkirk Regional Growth Deal bid which seeks to develop Falkirk's ambitions for inclusive economic growth, including the opportunities unlocked from Grangemouth's national significance as Scotland's largest industrial site.[1]
Government support for the development including Carbon Capture Utilisation and Storage (CCUS) and hydrogen opportunities is an established strand of the climate change and energy strategy.[2]

Climate Change –

The Scottish Government states that, "Emissions reduction and security of [electricity] supply will be ensured through diverse generation technologies including gas generation technologies…" and identify CCS a key technology required to meet long-term emissions targets.[3] CCS, "represents the only viable technology capable of mitigation industrial scale C02 emissions in some of the world's most carbon intensive industrial processes. CCS may also help to unlock the potential for large scale hydrogen production. The near-term demonstration of small-scale CCS projects, along with the development of C02 Utilisation (CCU) applications, will be critical for the cost-effective decarbonisation of heat, power and industry."[4]
Hydrogen has a key role to play in the reduction of emissions and can be used in heat, transport and industrial processes. As it produces no harmful emissions at point of use it can help to improve air quality.[5]

People –

The proposals contribute towards a 'just transition' to a carbon neutral future[6], creating jobs in new sustainable carbon capture and hydrogen industries. They will utilise expertise in the established Scottish energy industries, including oil and gas[7], contribute to a reduction in emissions and improved air quality.

Inclusive Growth –

The proposals will support economic growth, jobs, and further education and training opportunities. The proposals are presently the subject of ongoing studies, and it has been estimated that between 400 - 750 jobs can be created. The proposals are aligned with the carbon capture and Feeder10 pipeline connection projects contained within the Falkirk Regional Growth Deal Submission.[8]

Place –

[1] Falkirk Council, 2019, Falkirk Grangemouth Investment Zone Deal Submission, pages 7, 11,13, https://www.falkirk.gov.uk/coins/calendar.asp, Executive Committee, 10 October 2019 agenda item 9
[2] Scottish Government, 2017, Scottish Energy Strategy; Scottish Government, 2018, Climate Change Plan: third report on proposals and policies 2018-2032; Scottish Government, 2019, Annual Energy Statement, 2019; Department for Business, Energy & Industrial Strategy, 2018, The UK carbon capture, usage and storage (CCUS) deployment pathway: an action plan
[3] Scottish Government, 2018, Climate Change Plan: third report on proposals and policies 2018-2032, page 24
[4] Scottish Government, 2018, Climate Change Plan: third report on proposals and policies 2018-2032, page 68
[5] Scottish Government, 2017, Scottish Energy Strategy, page 64
[6] Scottish Government, Annual Energy Statement, 2019, page 8
[7] Scottish Government, 2019, Annual Energy Statement, page 18
[8] Falkirk Council, 2019, Falkirk Grangemouth Investment Zone Deal Submission, pages 7, 11,13, https://www.falkirk.gov.uk/coins/calendar.asp, Executive Committee, 10 October 2019 agenda item 9

The proposals for carbon capture will utilise Scotland's existing assets, supporting the established Feeder 10 pipeline network and the carbon capture potential which exists within the North Sea. Development will take place on brownfield and reclaimed land, utilising established Port infrastructure at the Port of Grangemouth.[9]

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For more information and other resources

 http://www.transformingplanning.scot

 https://blogs.gov.scot/planning-architecture/

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[9] https://www.forthports.co.uk/our-ports/grangemouth/