



St Fergus EJP Summary

Version: 1.0

Issue: Final

December 2024

Click here to view the [Main Business Plan](#)

Click here to view the [published document list](#)

Project Overview

We are requesting £204.8m for the improvement and maintenance of our St Fergus site in RIIO-GT3.

This RIIO-GT3 investment proposal has been submitted in line with the Terminal's future operating strategy which Ofgem approved through accepting our preferred option in the St Fergus Final Option Selection Report (FOSR). The preferred option recommended the construction of 3 new gas generator compressor trains and a 500-hour limited life derogation of an SGT-A20.

A proactive and risk-based asset management approach was used to develop the proposed asset health investment at St Fergus Gas Terminal. The St Fergus asset health portfolio funding request comprises of six Engineering Justification Papers (EJPs) and a comprehensive Cost Benefit Analysis (CBA).

The CBA has been assessed with the inclusion of the Medium Combustion Plant Directive (MCPD) emissions compliance spend forecast in RIIO-GT3. The spend proposed in the EJPs will be assessed through the Network Asset Risk Metrics (NARMs).

St Fergus is one of a few natural gas entry points that can support UK's seasonal gas demand and is a critical supply point during peak gas demand periods driven by cold weather fronts.

St Fergus Terminal has been in operation since 1974 and recognised as an ageing plant since majority of the assets are operating beyond their design life. The proposed strategic asset health investments in RIIO-GT3 are critical towards ensuring reliable gas compression through the Terminal to 2050 and operational safety through compliance with various legislation.

Failure to carry out timely asset health investments will lead to increased numbers of operational defects which will impact on normal operation of the Terminal leading to security of supply risks and a breach of statutory obligations.

We have not published these investment papers due to the commercial sensitive and site-specific detail that is contained in the investment needs case and justification. Instead, we have summarised the EJPs below.

EJP Executive Summary

Rotating Machinery

Our Rotating Machinery assets include Compressor machinery train (CMT) assets, Centrifugal compressors, Vent system and Compressor fleet investments. We have opted for 24 intervention volumes which contribute to attaining stable risk across the St Fergus Terminal asset base during RIIO-GT3.

The primary driver for this investment is to maintain asset reliability and compliance with various legislation, including Industrial Emissions Directive (IED), Dangerous Substances and Explosive Atmospheres (DSEAR). This investment is also impacted by Asset Deterioration, Defects, Health & Safety and Operational drivers.

Electrical Assets

Our Electrical assets include high (HV) and low (LV) voltage switchgears, distribution boards (DB), standby generators, uninterruptible power supplies (UPS), site lighting and Miscellaneous Electrical assets. We opted for 54 intervention volumes which contribute to attaining stable risk across the St Fergus Terminal asset base during RIIO-GT3.

The primary driver for this investment is to maintain asset reliability and compliance with various legislation, including HSE, EAWR (Electricity at Work Regulations), DSEAR (Dangerous Substances and Explosive Atmosphere Regulations) through addressing asset deterioration and obsolescence issues faced by Electrical assets at the Terminal.

Valves and Actuators

Our Valve and Actuator assets include, Remote and Locally actuated Valves, Flow Control Valves (FCVs), Pressure Control Valves (PCVs) and Non-Return Valves (NRVs). We opted for 100 intervention volumes which contribute to attaining stable risk across the St Fergus Terminal asset base during RIIO-GT3.

The primary driver for this investment is to maintain compliance with various legislation, including PSSR (Pressure System Safety Regulations), GSMR (Gas Safety Management Regulations), PSR (Pipeline Safety Regulations), DSEAR (Dangerous Substances and Explosive Atmosphere Regulations) and IEC61508 Functional Safety Standards. This investment is also impacted by Asset Deterioration, Health & Safety and Operational drivers.

Pressure Vessels

Our Pressure Vessels assets include Pipeline Inspection Gauge (PIG) Traps and Condensate Tank assets. We opted for 9 intervention volumes which contribute to attaining stable risk across the St Fergus Terminal asset base during RIIO-GT3 and ensure NGT comply with a HSE action legal.

The primary driver for this investment is to maintain compliance with various legislation, including PSSR (Pressure System Safety Regulations and Pipeline Safety Regulations (PSR). This investment is also impacted by Asset Deterioration, Health & Safety and Operational drivers.

Site Assets

Our Site assets include Site Pipework, Aftercoolers, Filters, and Fire water ring main assets. We have opted for 48 intervention volumes which contribute to attaining stable risk across the St Fergus Terminal asset base during RIIOGT3.

The primary driver for this investment is to maintain compliance with various legislation including Pressure System Safety Regulation (PSSR) and Pipeline Safety Regulations (PSR). This investment is also impacted by Asset Deterioration, Defects, Health & Safety and Operational drivers.

Civils

Our Civil and Cabs infrastructure assets include Compressor Cabs infrastructure (Cabs), Access and Buildings, Ducting, Drainage, and Tanks. For ease of readability this combination of assets will be referred to as 'Civils' assets. We opted for 12 intervention volumes which contribute to attaining stable risk across the St Fergus Terminal asset base during RIIO-GT3.

The primary drivers for investment are management of asset deterioration and compliance with various legislations including the Health and Safety at Work Act and the Environment Act 2021. This investment is also impacted by Asset Deterioration, Defects, Health & Safety and Operational drivers.