AD GTPAP Additional Reporting Requirements

Condition	Requirement	Comment
Supplementary PCD Reporting Requirements for Hatton - Compressor emissions Re-opener and Price Control Deliverable (CEPt)	A commissioning or operational acceptance report for the new compressor unit from the National Grid Gas System Operator team with an expectation that the unit is continuously available for operation for at least 12 months or a period of time in line with current TO to SO equipment handover process	The demonstration of availability should be removed from the reporting requirements as: • The PCD report has to be submitted within the 12 month period following operational acceptance and therefore by definition the unit won't have been operating for more than 12 months. • In any standard year this would be difficult to achieve due to regular maintenance and emissions testing, there will be small periods throughout a 12-month period where units will be unavailable for use by the SO; It is not appropriate to demonstrate that any unit has been 'continuously available' for 12 months. Notwithstanding this, In the 12-24 month period post-commissioning there would be a period of "snagging" (during the 2 year warranty period). We ask that Ofgem recognise this in the guidance and remove this requirement. In place of this, availability would be set out in RRP and we propose including an enhanced narrative on this in the PCD report
Supplementary Re-opener Reporting Requirements – Final Option Selection Report	Paragraph 3 states "*The FOSR should incorporate learning taken from the RIIO-2 process".*	This requirement is imprecise and therefore open to interpretation. As the licensee is required to prepare its re-opener applications in accordance with the Re-Opener Guidance and Application Requirements Document this requirement should be clarified Please can Ofgem indicate if there is any specific learning that it has in mind here and which can be referred to expressly in the additional reporting requirements so as to remove this ambiguity.
Common Compressor Emissions Requirements -SpC 3.11 Compressor emissions Re-opener and Price Control Deliverable (CEPt)	Options to retrofit a modern engine to the non-compliant units;	Whilst we agree this should be considered, any retrofit options would require environmental regulator approval. We ask Ofgem to acknowledge this within the text.
Common Compressor Emissions Requirements -SpC 3.11 Compressor emissions Re-opener and Price Control Deliverable (CEPt)	variations on de-rating and/or applying abatement on the existing non-compliant units	Whilst we agree this should be considered, any abatement options would require environmental regulator approval We ask Ofgem to acknowledge this within the text.
Common Compressor Emissions Requirements -SpC	Consider variations on spend for options that derogate the non-compliant units to 500hrs/yr with the	The minimal capex spend may not always correspond with the maximised CBA value. Ofgem should set out explicitly which of those should take precedence.

3.11 Compressor emissions Re-opener and Price Control Deliverable (CEPt)	aim of minimising overall capex spend and maximising CBA value	
Common Compressor Emissions Requirements -SpC 3.11 Compressor emissions Re-opener and Price Control Deliverable (CEPt)	Consider options that look to boost the availability of the compliant units at or linked to the site to minimise the number of hours the non-compliant unit would have to operate. Improving the availability of the machines at the site may reduce the requirement for the non-compliant units to run and allow derogations to be put in place. This approach could avoid significant new build projects for compressors that would operate close to the derogation limit of 500 hrs.	We do not disagree with the principle that Ofgem is setting out here. However, it is worth noting that these options may lead to significant additional cost and may therefore be discounted on the basis that it may not lead to the most cost-efficient outcome for the consumer. For example, one unpredictable failure on a lead unit could take a unit out for years, so this is about resilience not general availability. At unit level and site level we can and do exceed a year outage due to planned work or breakdown. Some long lead items alone can take longer than a year to source. We would need to be able to respond to any issues with the lead unit within the 500 hours derogation for the backup. Providing increased spares, proactive maintenance and support would likely to come at a high and ongoing cost that would need funding to cover known failures. There is also potential for unpredictable failures, obsolescence issues or skillset availability and ability (this is outsourced), which we can't control.
Common Compressor Emissions Requirements -SpC 3.11 Compressor emissions Re-opener and Price Control Deliverable (CEPt)	Provide a detailed site availability model for each proposed option that can be audited by a third party to ensure that the assumptions built into this key metric are in line with accepted values for Gas Transportation and wider Industrial users of Gas Turbine Compressor units. The availability model should be based on run hour predictions taken from the Network Capability Model."	• Please clarify and define what Ofgem is expecting by the reference to "*accepted values for Gas Transportation and wider Industrial users of Gas Turbine Compressor units".* • We use our compressors very differently from industrial users who tend to operate them continuously rather than intermittently therefore comparison is unlikely to be appropriate. The average age of the fleet is also significant and any comparisons should be across fleets of a similar age and condition. Availability may also be impacted by other site and pipeline outages. • Please change the end of the last sentence to "run hour predictions ~~taken from~~ <u>based on</u> the Network Capability Model".
Common Compressor Emissions Requirements -SpC 3.11 Compressor emissions Re-opener and Price Control Deliverable (CEPt)	Provide core engineering documents used to build the Capex estimates for the options considered at the site. A document detailing the cost estimating method alongside the input data, "norms" and calculations must also be supplied to allow the estimates to be scrutinised.	• Please clarify and define what is expected to be provided under *"Core engineering documents"* • Typos on bullets in page 2 "consider variations" and "in line".
Common Compressor Emissions Requirements -SpC 3.11 Compressor	CBA development: Use the most recently published FES and Network Capability modelled flows in the CBAs. This must include	• It may not always be practicable to use the latest FES, for example if a submission is due within a short time frame of FES publication. Suggest change wording to *"Use the most recently published FES and Network Capability modelled flows <u>at the time of CBA development</u>"*

emissions Re-opener and Price Control Deliverable (CEPt)	localised flow predictions for each site as well as information on the wider system impacts.	• Whilst Network Capability is an annual requirement and would have to be updated based on the latest FES, FES and Network Capability are published at different times (11 months apart) so the “and” could be problematic here. Wording proposed in bullet above should clarify.
SpC 3.11 Compressor emissions Re-opener and Price Control Deliverable (CEPt)	CBA development: Compare and justify the frequency magnitude, and cost of constraints reported for each option for RIIO-2 to RIIO-1 outturn data.	• Looking at the wording this only seems to require us to compare/justify the constraints predicted for RIIO-2, in most cases that would be zero. Please can Ofgem confirm our expectation that the constraints used to justify the investment are broader than RIIO-2.
St Fergus Specific Requirements-SpC 3.11 Compressor emissions Re-opener and Price Control Deliverable (CEPt)	A detailed statement setting out the steps taken by NGGT to ensure a fair outcome for current and future consumers in terms of the impact of the proposed investment on charges, including any modifications to the UNC charging provisions put forward and progressed by NGGT.	• We will include this statement within the FOSR. As Ofgem is aware from bilateral discussions, NGGT will seek to progress and move forward this issue. With regards to any modifications on UNC charging provisions, whilst NGGT will endeavour to move things forward this is a process subject to industry open governance and not within our direct control. However, in the statement we will explicitly set out the steps we have taken to progress the issue.
St Fergus Specific Requirements-SpC 3.11 Compressor emissions Re-opener and Price Control Deliverable (CEPt)	A re-worked constraints model that gives realistic levels of Section I costs incurred when compared with the historical operation of the site. This must use the Network Capability Model as the basis to build a view on Section I costs and follow a common method used across the network.	• Please remove “realistic” as this is unnecessary. The Network Capability model will be used to build the basis of the Section I costs whether they are consider “realistic” or not. If Ofgem disagrees please can it clarify why this is the case..
St Fergus Specific Requirements-SpC 3.11 Compressor emissions Re-opener and Price Control Deliverable (CEPt)	Provide the core engineering documents (e.g. layout drawings, Process Flow Diagrams (PFDs), Material Take Offs (MTO), etc) used to build the Capex estimates for the options considered at the site. A document detailing the cost estimating method alongside the input data, “norms” and calculations must also be supplied to allow the estimates to be scrutinised.	• Please clarify and define what is expected to be provided under *“Core engineering documents”*
St Fergus Specific Requirements-SpC 3.11 Compressor emissions Re-opener and Price	A review of the potential upper concentration limits for Hydrogen in Methane if no changes to metallurgy or equipment are made and	• Whilst we will provide the information we can at this stage, we will not be able to put full information and costs in the FOSR. We will include a specific Hydrogen option in the FEED study as a secondary requirement, but costs and solution will be indicative only.

Control Deliverable (CEPt)	the terminal is specified for Methane only service. And para below "the potential cost implications….."	• Where new plant is proposed, the upper limit of hydrogen blending can be stated based on manufacturer specification, for a methane only design. This upper limit of concentration will be limited to the new sections of new equipment. • National Grid's Future Grid project will be building and testing existing NTS assets for their suitability for use in 2%, 20% and 100% Hydrogen blend. The project will not be completed until March 2023. There will then be a corresponding time period for any technical and legislative updates before the findings can be applied to live assets such as St Fergus. Where possible we will provide the best available forecast for Hydrogen concentration limits.
Bacton FOSR Specific Guidance– SpC 3.10 Bacton terminal site redevelopment Re-opener and Price Control Deliverable (BTRt)	Investigate options that minimise the number of valve interventions for all asset health options in line with predicted UKCS decommissioning dates. This work must demonstrate that all of the equipment retained, refurbished or replaced is required to meet the predicted flows from the upstream supplying terminals. This work should be submitted at a "per incomer" level to ensure that all incomer connections are required to meet the predicted flows and should demonstrate the value in retaining the current number of incomers to the site. Use updated FES and Network Capability modelled flows in the CBA	• Any design for the incomers will reflect the future flow requirement and capacity obligations of the terminal and any capacity retention or reduction will be valued and described. • Please see our comments made in previous sections regarding FES and Network Capability models and using those most recently available – please can Ofgem make sure any final wording is consistent in all sections of GTPAP. • For Bacton, the most recently available FES 2020 will be used for the FEED feasibility and Final Options Selection PCD Submission in February 2022. This would be calibrated with FES 2021 – sensitivity CBA.
Bacton FOSR Specific Guidance– SpC 3.10 Bacton terminal site redevelopment Re-opener and Price Control Deliverable (BTRt	Principles set out in para "it is recognised that….."	• Bacton is a methane hub and will provide methane to the National Transmission System, Interconnectors and or supply methane to any future local Blue Hydrogen production. • We note Ofgem's intention is not to change the design intent of the methane terminal. The purpose is to demonstrate where assets and equipment (rather than the terminal design) can be made suitable for potential hydrogen blends, 100% hydrogen or CO2 and the cost associated with this suitability.
Bacton FOSR Specific Guidance– SpC 3.10 Bacton terminal site redevelopment Re-opener and Price Control Deliverable (BTRt)	A review of the potential upper concentration limits for Hydrogen in Methane if no changes to metallurgy or equipment are made and the terminal is specified for Methane only service.	• Whilst we will provide the information we can at this stage, we will not be able to put full information and costs in the FOSR. • Where new plant is proposed, the upper limit of hydrogen blending can be stated based on manufacturer specification, for a methane only design. This upper limit of concentration will be limited to the new sections of new equipment. • National Grid's Future Grid project will be building and testing existing NTS assets for their suitability for use in 2%,

	And para below "the potential cost implications….."	20% and 100% Hydrogen blend. The project will not be completed until March 2023. There will then be a corresponding time period for any technical and legislative updates before the findings can be applied to live assets such as Bacton.
Bacton FOSR Specific Guidance–SpC 3.10 Bacton terminal site redevelopment Re-opener and Price Control Deliverable (BTRt)	The issues that would arise if the terminal is designed for methane service only and subsequently re-purposed to transport CO2.	• Please see response above relating to cost information. • Do Ofgem intend for the sentence to also refer to hydrogen rather than CO2 alone?
3.10 Bacton terminal site redevelopment Re-opener and Price Control Deliverable (BTRt)	The issues that would arise if the terminal is designed for methane service only and subsequently re-purposed to transport CO2.	• CO2 containment of the methane design solution could be described for the equipment, but we do not consider at this stage that the terminal would be repurposed for Carbon transportation. Bacton terminal is a methane hub and should CCUS be required in the area, it is likely to be an additional functionality which would sit alongside the methane terminal (as the methane terminal would be providing the methane for the Blue hydrogen production which results in the generation of CO2).
3.10 Bacton terminal site redevelopment Re-opener and Price Control Deliverable (BTRt)	A summary of any other potential options identified to allow the equipment onsite to be repurposed post COP. This work should be a "light touch" review of the proposed options given the unknown future usage case for the site and this activity should not lead to any significant cost increases or schedule challenges for the project. A decision on the project direction and spend associated with equipment changes to support future re-use of the site will be made as part of the options selection review process by Ofgem.	We welcome Ofgem's openness to consider the potential future evolution of the terminal. The Bacton methane only terminal can be designed to best accommodate future (as yet undefined) evolution of the methane/hydrogen requirements through 2 key aspects: • Designing in spaces for future capability connection flexibility. Examples of this could be (but not limited to) utilising above ground skids which provide greater ability for modification in the future or leaving physical space on site and installing blank flanges to enable connection of future functionality at key strategic locations. • Specifying new equipment to be rated for a defined hydrogen concentration (as described in above sections). Ofgem should make clear that design considerations such as these would be in scope of these requirements within GTPAP.
King's Lynn Subsidence FOSR Guidance–SpC 3.12 King's Lynn subsidence Re-opener and Price Control Deliverable (KLSt)	Quantify the rate of deterioration and the probability of failure to demonstrate the need for a major investment rather than mere ongoing monitoring	We would welcome further discussion with Ofgem around how such a rate of deterioration could be quantified.