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Dear Stakeholders

This letter is published by National Grid LNG Storage following our consultation on ceasing operations at Avonmouth. It is intended to outline our initial position ahead of any final decisions being made and published by March 2015. In the attached appendices, we specifically answer the matters raised by respondents.

Connecting people to their energy safely and reliably is at the heart of everything we do at National Grid, and the engagement LNG Storage have held with stakeholders for many years, along with our recent proposal to cease Avonmouth operations in 2016 is entirely consistent with this.

In light of the burden falling on Great Britain's gas consumers were they to directly fund reinvestment in LNG Storage, over the last 10 years we have sought to enter into long term commercial arrangements with Gas shippers, LNG retailers and Network Operators to underpin reinvestment and extension of the plant's operational life. In absence of any meaningful market interest, closure of the LNG sites was inevitable to avoid unplanned failure and inherent risks associated with cryogenic gas processing and storage assets. To date out of the 5 original sites 1 converted to an LNG importation terminal and 3 have been closed, sold or converted to other use.

In the interim years we have clearly highlighted resilience risks, as demonstrated at Glenmavis LNG Storage in Scotland which necessitated GB consumers funding significant reinvestment in a refrigerant plant subsequently made redundant by multiple plant failure issues. The immediate single point of failure risk of the Avonmouth LNG site was acknowledged by all parties including Scotland Gas Networks who noting the Avonmouth failure in early autumn 2011 proposed to remove 75% of the SIUs dependency by April 2013[1].

As such National Grids' ongoing operation of Avonmouth remained an aspiration and entirely subject to plant performance and underlying deterioration in resilience risks. Funding arrangements from our regulator, Ofgem, through their review of transporters' business plans, and their subsequent review of our regulated prices from 2013 was entirely consistent with this.

Given the backdrop of outages at Avonmouth over the last 7 years, the significant failure of key assets in the last 2 years including April, May, June and December 2014, and the effects this has had in depleting strategic spares that cannot readily be replaced, we too share the overriding Security of Supply concern of respondents.

[1] Source: *Scotland Gas Networks RIIO-GD1 Price Control Review Business Plan Submission, November 2011* SGN's proposed £13.59m solution to design, build and operate a Compressed Natural Gas (CNG) solution for the supply to the four mainland SIUs. This was subsequently discounted along with other options including conversion to LPG, power, and the use of heat networks]

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Our initial view, following consultation, is that rapid acceleration of alternative arrangements remains the only credible option to ensure security of supply to consumers who depend on re-gasified LNG. We remain committed to supporting our customers and fellow gas transporters in delivering this rapid acceleration common objective and intend to publish our final decisions by March 2015.

Yours sincerely

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Appendix 1: Respondents

Responses were received from:

Scotland Gas Networks (SGN)
SGN own and operate the independent gas distribution systems in Scotland serving the four communities of Campeltown, Oban, Thurso and Wick (Statutory Independent Networks (SIUs)). These gas distribution networks are not connected to the GB gas transportation networks. SGN supply the SIU's c7,500 consumers with LNG transported by road tanker to local storage tanks then regassified according to demands on the network. SGN historically transferred LNG by road tanker from National Grid's Glenmavis LNG liquefaction and storage facility near Glasgow. Following its unplanned failure and subsequent closure SGN have utilised Avonmouth LNG storage services. Supplies to consumers connected to the independent networks are provided by licensed Gas Shippers / Suppliers.

National Grid Gas plc use Avonmouth LNG Storage for the purpose of storing LNG which can be regassified as 'Operating Margins (OM)' supplied into the National Transmission System. Ordinarily they book OM specifically to provide cover to the South West that hasn't been met more economically by competing providers of storage or demand side services. In addition they can use Avonmouth to store OM gas with no locational specific requirement.

NGG are also able to provide additional National Transmission Capacity by declaring a constraint on LNG stocks booked for a winter period. This is known as Transmission Support Services and is provided by Gas Shippers booking and holding stocks for the duration of the winter period. All 5 LNG Storage sites historically provided such services with the need to declare constraints falling as transmission capacity developed and alternative demand management and NTS exit arrangements were implemented.

No formal responses were received from Avonmouth LNG Storage's 5 other customers but through discussions directly with the parties we understand that they have alternative arrangements in place to access imported LNG from NW European continental terminals that would permit early closure by 2016, or cover unplanned failure beforehand.

SSE, **RWE** and **Centrica** responded as licenced gas shippers who are able to access gas transporters networks and supply consumers through the industries' Uniform Network Code arrangements.

The Rt Hon John Thurso MP responded as the Member of Parliament for Caithness, Sutherland and Easter Ross which constituency houses two (Wick and Thurso) of the four SIUs.

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Appendix 2: Summary of Respondents view

The following is a summary of matters raised by the 6 respondents

Centrica Energy Ltd raised a concern that bringing forward the closure date might cause problems for certain parties, particularly with downstream assets e.g. SGN. They requested reassurance that the proposal would not lead to disruption resulting in costs that could ultimately be borne by consumers. Their preference being that an impact assessment is undertaken such that the costs / benefits of accelerated closure can be measured.

SSE raised 2 concerns being Security of Supply for consumers connected to the Scottish Independent Networks which are supplied with GS(M)R specification gas, and the impacts on Transmission Support Services for the NG plc National Transmission System business and their ability to meet South West area demands.

RWE Supply and Trading agreed that it was appropriate to cease operational activities subject to confirmation that the April 2016 timescale will not adversely impact parties implementing alternative enduring arrangements or security of supply or resilience and safety of the networks

The Rt. Hon. John Thurso, MP stated that the April 2016 closure leaves insufficient time for ballasting to be developed across the four sites, and that Scottish Gas Networks (SGN) cannot commit to delivering a reliable ballasting solution before Avonmouth closes. He also noted that 'Opening up the Gas Market project in Oban' requires a short-term exemption from GS(M)R to test a wider specification of gas. He urged that until SGN has a clearer indication of which option could offer a secure future energy supply for the SIU's, that there be no precipitate action to close Avonmouth before April 2018.

Scotland Gas Networks (SGN) plc stated a concern that proposed early closure will create Security of Supply issues for SIU consumers and the importance of recognising that all scenarios and assumptions to date have asserted that Avonmouth will remain operational until 2018. In concluding that an LNG solution is the least cost and only realistic technical option in the medium term (RIIO-GD1 and possibly beyond) and recognising Avonmouth as the only source of liquefied GS(M)R compliant gas, SGN state that substitution of other LNG requires investment in new ballasting facilities and ensuring their reliable operation which cannot be delivered in the timeframe.

SGN asked what steps we National Grid LNG Storage are able to take to facilitate continued security of supplies for the SIU's following closure, suggesting it was critical that we National Grid LNG Storage extend the operation of Avonmouth to 2018. They considered that the Terms and Conditions of the Tanker Filling Agreement must be honoured and adhered to at all time. They summarised that early closure presents Security of Supply risks to consumers and has the potential to become a major political concern, requesting earliest possible notification of any decisions and asking LNG Storage to make clear the steps it intends to take to mitigate the security of supply issues the decision may have for SGN's customers.

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Appendix 3: National Grid LNG Storage's response to respondents view

This is National Grid LNG Storage's initial response to stakeholders views ahead of any final decisions being published by March 2015.

Security of Supply
A number of respondents questioned the impact of our proposals on security of supply to those consumers who depend on regassified LNG, particularly the SIU consumers connected to Scotland Gas Networks distributed pipeline systems.

Security of supply to consumers is the ultimate priority for all transporters of energy. Connecting people to their energy safely and reliably is at the heart of everything we do at National Grid. Recognition of the security of supply risk to consumers has been a key priority of LNG Storage over the last 10 years in which it has sought both regulated and commercial funding for reinvestment in LNG Storage to remove resilience risks. Given the reinvestment in liquefaction in Glenmavis around 2005, and the subsequent failure of assets leading to its closure, through its RIIO-GD1 stakeholder engagement SGN proposed to remove 75% of its reliance on Avonmouth by April 2013. Over the last 10 years LNG Storage have repeatedly highlighted the risks associated with Avonmouth and that assurances around resilience cannot be made beyond April 2013.

LNG is natural gas liquefied from pipeline in small scale such as the case at LNG Storage sites, or in large scale upstream at the point of production. As LNG it can be transported by sea tanker as an economic means of connecting huge reserves to global markets. Given its widespread availability there is enormous security of supply benefits from imported LNG. Intuitively the costs of large scale liquefaction, and the environmental benefits should also be lower than re-liquefying pipeline gas that may have previously been imported.

As such LNG Storage believe that security of supply and potentially costs for consumers depending on LNG can only be improved by removing any remaining dependency on Avonmouth LNG Storage at the earliest possible opportunity. We are only proposing to cease operations by National Grid who have no control over substitution strategies and timescales of third parties. Should migration within our proposed timescales be out of scope, the option to take direct control of operations and resources at the Avonmouth facility remains a viable alternative.

Gas Safety Management Regulations (GS(M)R) – Content and Characteristics of gas
GS(M)R regulations requires that gas conveyed in a network must conform with specified content and characteristics.[2] These are typically associated with processed natural gas sourced from the UK continental shelf that enabled the conversion of appliances and substitution of town gas in the decade following 1967. Other gas markets' specifications generally reflect their own indigenous reserves or arrangements for importing gas.

Beyond the UKCS there are many potential sources of gas which have a higher Wobbe limit than the prevailing GS(M)R limit. To achieve compliance LNG importation terminals and gas interconnectors process or blend supplies typically by adding nitrogen, an inert gas.

As modern appliances are typically manufactured to serve a range of European and International markets, burner technology has developed to safely accommodate a broader range of natural gas specifications. The replacement of appliances that require GS(M)R spec is inevitable as they reach the end of their technical life or are replaced by more energy efficient models.

[2] http://www.legislation.gov.uk/uksi/1996/551/regulation/8/made

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Our proposed cessation of services on 30th April 2016 is scheduled 3 years after the award of a 2 year Network Innovation Competition Trial in which SGN are testing the safe combustion of regassified LNG at its distributed pipeline network in Oban.

Their trial should enable SGN to obtain exemption from the current regulations and deliver a robust, safe, secure and more economic source of supplies for SIU consumers.

Equally the introduction of a small scale nitrogen ballasting facility at the existing sites has also been feasible.

In addition to the SIU consumers, there are a very significant number of GB consumers who have previously depended on pipeline gas being liquefied at LNGS sites. Supplied by LNG retailers who book services at Avonmouth, these are typically 'off-grid' industrial and commercial consumers of gas or operators of dual or single fuelled fleets of Heavy Goods Vehicles.

Although not bound by GS(M)R obligations and thereby having greater flexibility, none of Avonmouth's 5 customers supplying these markets expressed any concerns over our proposals or any impacts on their consumers. LNGS understand from them that arrangements for importing LNG supplies have been deployed for some time to substitute or supplement stocks from Avonmouth.

Transmission Support Services to the South West area demands

LNGS sites were originally designed and located to provide transmission support services at the then extremities of the National Transmission System. Over time investment in the depth and breadth of the network has developed to meet peak day demands and the introduction of new supplies. As such the use of LNG Storage plant to meet this 'peak shaving function' and the declaration of 'constrained requirements' has declined along with Shippers' bookings of 'Constrained LNG' services.

In its consultation response National Grid Gas outlined how they have assessed and published their view of how future energy demands and supplies drives development of the Gas Transmission Network stating there is no immediate need to start construction of pipelines to mitigate the loss of services from Avonmouth.