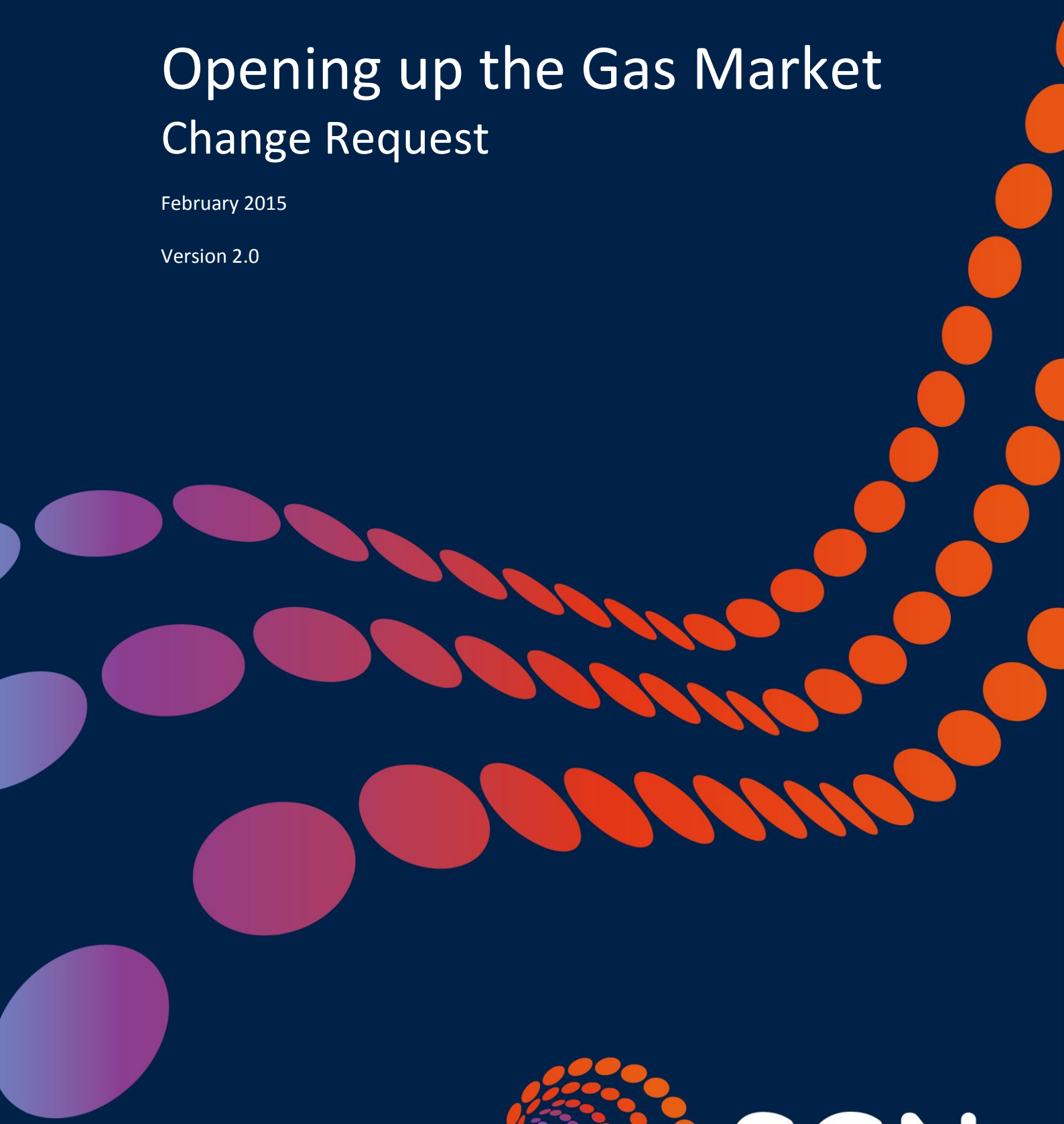
Opening up the Gas Market

Change Request

February 2015

Version 2.0



SGN

Your gas. Our network.


SGN
OPENING UP
THE GAS MARKET

Project number	**SGNGN02**	
Report number	OGM_CR_03	
Title	OPENING UP THE GAS MARKET CHANGE REQUEST	
Author	Richard Mason	
Revision	2	
Date	06/02/2015	
Revision History:	Reviewer/Approver:	Date:
Initial Submission	Project Director	11/07/2014
Questions from Ofgem	Project Director	28/10/2014
Questions from Ofgem 2	Project Director	04/11/2014
Resubmission	Project Director	06/02/2015
Final Distribution:		

Rhianne Ogilvie;
rhianne.ogilvie@ofgem.gov.uk

Networks Innovation;
networks.innovation@ofgem.gov.uk

Angus McIntosh;
angus.mcintosh@sgn.co.uk

Beverley Grubb;
beverley.grubb@sse.com

Jenny Rogers
jenny.1.rogers@sse.com

Jamie McAinsh;
jamie.mcainsh@sgn.co.uk

Scotia Gas Networks Limited
Registered Office: St Lawrence House, Station Approach, Horley, Surrey RH6 9HJ Registered in England & Wales No. 04958135

Contents

1. Glossary of Terms

Abbreviation	Term
CEP	Customer Engagement Plan
DECC	Department of Energy and Climate Change
EASEE	European Association for the Streamlining of Energy Exchange
F2F	Face to Face
GB	Great Britain
GDN	Gas Distribution Network
GIGG	Gas Innovation Governance Group
GS(M)R	Gas Safety (Management) Regulations
HHIC	Heating & Hotwater Industry Council
HSE	Health & Safety Executive
IGEM	Institution of Gas Engineers and Managers
LDZ	Local Distribution Zone
LNG	Liquefied Natural Gas
MD	Managing Director
NIC	Network Innovation Competition
NBP	National Balancing Point (GB)
OGM	Opening up the Gas Market
PPR	Project Progress Report
SDRC	Successful Delivery Reward Criteria
SGN	Scotia Gas Networks
SIU	Scottish Independent Undertaking
SMP	System Marginal Price
WI	Wobbe Index
ZEE	Zeebrugge (Belgium)

2. Executive Summary

The purpose of this document is to request a change to the Opening up the Gas Market (OGM) project following a material change in circumstance. The change requested seeks permission for SGN to fund the cost of the LNG shipping contract until such time that the trial (Stage 3 of the project) is complete. Upon successful completion, SGN would then be able to recover these funds from the Project Bank Account. No change to the overall project budget is required. This document follows a series of exchanges with Ofgem via meetings, teleconferences and submitted Q&As.

This is required to facilitate procurement of the LNG shipping contract. Following a detailed procurement process, the overall cost of the shipping contract is now known to be significantly higher than the amount allowed for within the 'Payments to Users' cost category, where this part of the project currently sits.

It is proposed that SGN will cover the cost of the shipping contract, estimated at £260,000 until such time that the non-GS(M)R specification gas has been injected into the Oban network for a period of one year, and that following this the full amount would be recoverable from the Project Bank Account. SGN accept this would mean conceding up to two SDRCs, SDRC 9.1 and perhaps SDRC 9.4, reducing the potential reward available under the Successful Delivery Reward mechanism.

This change request has been proposed and discussed with Ofgem via meetings and correspondence already, and is in the best interests of customers as it allows the project to progress and deliver benefits despite the change in circumstances. This document explains the background to the request, and shows the detail of the change requested and provides evidence to show the change is in the best interests of customers.

3. Background

The project formally notifies Ofgem that it wishes to seek approval to complete the following:

1. An amendment to funding arrangements set out in the Project Direction, meaning that SGN would fund the cost of the LNG shipping contract (c.£260,000) until SGN have injected non-GS(M)R specification gas into the Oban network for a period of one year. Then once this is achieved, the cost of the LNG shipping contract would be recovered from the Project Bank Account.

A key part of the Opening up the Gas Market project is to contract with a shipper to secure the transfer of LNG, which is purposely non-compliant with GS(M)R, from Europe to the network in Oban for a period of one year.

The total budget for the project is £2,122,000 (Project Direction Annex 1). This budget has been split across varying categories within which SGN anticipated the costs would land, at the time of writing the final version of the Full Submission. The table below[1] shows the breakdown of this budget by categories:

[1] Table taken from Annex 1 of the Project Direction

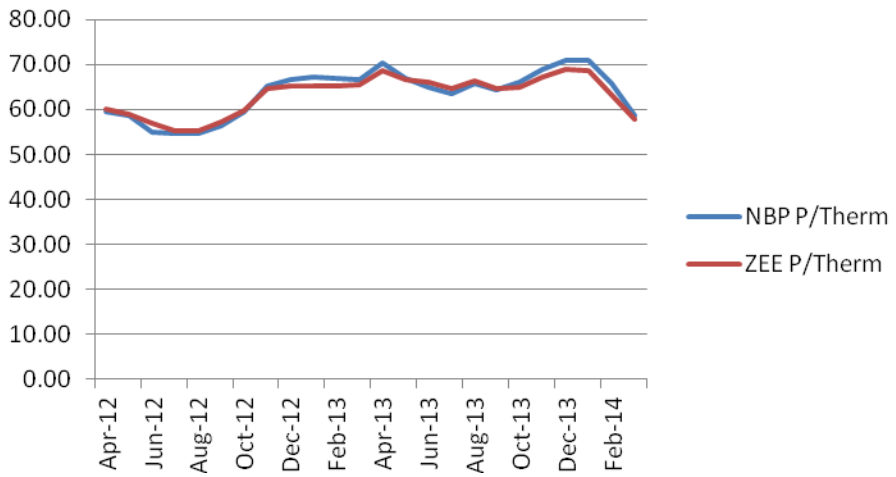
FIG 1

Cost Category	Cost (£)
Labour	£266,000
Equipment	£1,123,000
Contractors	£471,000
IT	£0
IPR	£0
Travel & Expenses	£12,000
Payments to Users	£15,000
Contingency	£0
Decommissioning	£0
Other	£235,000
Total	**£2,122,000**

Following agreement of the Project Direction, SGN issued an Expression of Interest to invite bids to acquire the contract for the LNG. Five positive responses were received, and Heads of Terms were sent to detail the intricacies of the proposed contract. Following this, three shippers were unable to meet the terms, leaving two to negotiate with.

During negotiations, it became clear that the cost of the LNG was to be higher than the initial £15,000 budgeted for in the Project Budget. The breakdown of the overall cost of this purchase is formed by a management fee and a balancing fee. In the full submission, SGN accounted for the balancing fee only, this figure being made up of the potential worst case difference between ZEE and NBP figures across 2,000 tonnes of LNG for one year. The SDRC-1 document provides detailed information on how this original figure was calculated, however in summary - the difference between NBP and ZEE hub was on average ± 2p/therm (see figure 2 below), In order to supply Oban for one year and balance the risk to the shipper of NBP price falling below ZEE, this equates to circa £15,000. There was no accurate way of predicting the management fee without reaching an advanced stage of contract negotiations with the potential shippers.

FIG 2



In the bid submission, the possibility of such potential increases in the LNG shipper contract cost was highlighted in the Risk Register[2] and the Options for Shipping Arrangements[3] as well as in the Q&A process with Ofgem[4]. Due to the innovative and unique nature of this project, SGN was not able to base cost estimates on historic data to allow for a detailed analysis into the likely costs at the submission stage. The Risk Register highlights at reference 11 that the commercial arrangements at Zeebrugge are unknown and would become clear at the tendering stage with the shippers. SGN have been firming up such costs which has highlighted the potential need for change. The detail of this work was explained in the SDRC-1 document submitted by SGN, including the sourcing of appropriate European terminals, reviewing historic NBP and ZEE prices, measuring average gas usage in Oban and establishing the arrangements for the nomination into the network. Since SDRC-1 was submitted, SGN has attended meetings and negotiated with two shippers to get the best value for money contract available. Two options were provided, and SGN consulted a trading expert to risk assess which of these provided the best option and the best value for money, and more details can be found on this in Appendices 1 – 3.

As a result of work completed to date, SGN have now calculated that the cost of the LNG contract is £260,000, considerably exceeding the original budget estimate of £15,000 (this cost is allocated to the Payments to Users category in Table 1).

This amount is significantly over the £15,000 in the budget, and therefore an amendment was requested as required under the terms of Clause 7 of the Project Direction, which states that *"SGN must not spend more than 110% of any category total without Ofgem's prior consent. Such consent is not to be unreasonably withheld"*

It was initially proposed that SGN would be able to fund the shortfall in this cost category via a funds transfer between categories, with the additional funds coming from the 'Equipment' category. The cost of appliance replacements is covered by the 'Equipment' cost category, with £575,000 allocated within the category for this. During Stage 1 of the project, which included a survey of 100 properties and 169 appliances in Oban, it was identified that only 8 appliances needed replacement/repairs, due to being faulty, immediately dangerous or unsuitable for the purposes of the trial. SGN's budget of £575,000 was based on the assumption that up to 40% of all appliances may need replacing. This meant that it was likely that the full amount in this cost category would not be needed.

However, as the Full Submission originally stated that any funding for appliance replacement that was unspent would be returned to customers, it is deemed appropriate that SGN, rather than customers, fund the additional cost of the contract at risk until the project has demonstrated successful completion of the one year injection of non-GS(M)R specification gas.

Achieving Best Value

The two shippers SGN negotiated with had differing structures to their costing Shipper A based their costs on indices tracking the difference between ZEE/NBP and the SMP sell rate, meaning that there is no set value for the purchase, rather it will vary based on the difference in the two measures. Shipper B's cost was linked to the Brent Crude Oil index,

[2] Risk Register is contained at Appendix T in the NIC Submission Pro-forma
[3] Options for Shipping Arrangements are contained at Appendix AA in the NIC Submission Pro-forma
[4] Contained in response to Q30 – *"Estimated costs for the haulage and Terminal costs for LNG services from Zeebrugge are based on initial commercial discussions with the third party and can change."*

but was deemed too risky due to its volatility, as evidenced in the graph at Appendix 1[5]. SGN considered hedging[6] the contract to ensure that should the difference between NBP and ZEE become so great that it is no longer commercially viable, SGN could claim the difference. However, the risk assessment declared the chances of this to be too slim to justify the added cost.

The procurement of LNG was to be paid from the 'Payments to Users' cost category, and £15,000 was allocated to the category to account for this. The amount required for the purchase of the LNG is now estimated at £260,000[7] At this stage, the cost can only be estimated using historic ZEE and NBP prices as well as the usage of gas in Oban and calculating usage for the length of the trial. The value of £260,000 was calculated based on the last two years' calculations and taking an average of the likely cost in 2015/16 based on that, as per Appendix 3.

4. Change Requested

SGN proposes to self-fund the £260,000 cost of the LNG shipping contract until such time that the trial (Stage 3 of the project) is complete. Upon successful completion, SGN would then be able to recover these funds from the Project Bank Account.

SGN accept this option would mean conceding that two SDRCS (SDRC 9.1 and SDRC 9.4) have not been met, reducing the potential reward available under the Successful Delivery Reward mechanism.

5. Why is the change in the best interest of customers?

Without approving this Change Request, SGN are unable to execute the contract for the LNG required for Stage 3 of the project – the injection into the network.

The self-funding of the LNG shipping contract is in the best interests of consumers, primarily because it will allow the project to proceed as planned and deliver the expected learning, there is no overall increase in the cost of the project and the objectives of the project are at risk should the request not be approved. The change is in the best interests of customers because:

- SGN is evidencing its commitment to the project by funding the cost of the LNG shipping contract at risk until the one year trial is completed, thus reducing the risk to the GB gas consumer.

- There is no increase in the total cost of the project, the GB cost benefit case is unchanged and the micro cost benefit case remains positive (£956,616 per annum). SGN have negotiated a contract which is the best value for money to customers as possible, without compromising the project as a whole. Costs have been minimised where possible and SGN maintains that the change does not impact the value afforded to the customer.

[5] Appendix 1 – Indices Tracking
[6] Appendix 2 – Hedging Natural Gas Price risk
[7] Appendix 3 – Cost Breakdown of LNG Purchase

- It allows the project to remain on plan and on schedule. At present the project is meeting its timescales. Were the change not to be approved, the project would be delayed indefinitely, thus slowing down the potential benefits the project aims to achieve for GB consumers.

- The primary objective of the project is to inject the LNG and assess the results, and without approval of the change request, SGN cannot purchase the LNG, due to the Project Direction restriction on spend in excess of 110% of any cost category.

- It will ensure the progress made to date has not been in vain. The appliance survey and appliance testing to date has shown that the requirement for appliance replacement is low, which bodes well for the project's aim of proving that a widening of the WI is possible without causing a wide ranging replacement of appliances across GB. This means the gas market could be opened up for GB, potentially bringing significant benefits to the GB customer.

- The transfer causes no detrimental impact to the benefits identified in the bid submission, as detailed in the table below:

- Since the original change request was submitted, National Grid has taken decisions relating to their Avonmouth plant which affect security of supply to the SIUs in the near term. Consequently availability of results from the one year trial in 2016 may lead to improved security of supply and reduced costs by informing the case for wider roll out of the solution in the other mainland SIUs, as well as Oban. This is a further reason why the change is in the best interests of customers.

FIG 3

Security Benefits	Low-carbon Benefits	Low-cost Benefits
Increases sources of gases which can be distributed and utilised in UK.	Widens scope for accepting varying green gas specifications.	Increases market competition through introducing new gas suppliers.
Increases security of supply.	Increases the likelihood of hydrogen injection.	Eliminates requirement for gas processing, leading to reduced cost for the consumer.
Supports energy diversity.	Negates requirement for out-of-specification gas flaring in UK.	
Strengthens the case for a harmonised European gas quality.	Reduces requirement for manufactured gases.	

Furthermore, the change request allows SGN to deliver its overall objectives for this project:

- To demonstrate that gas which meets EASEE gas specification but sits outside GS(M)R can be conveyed safely and efficiently in the GB gas network.

- To demonstrate that all GAD compliant gas appliances are capable of safely and efficiently burning gas which meets EASEE Gas specifications but sits outside GS(M)R.

- To demonstrate through the sample population what is required to ensure GB's appliance population is capable of operating safely and efficiently over a wider range of gas quality.

- To capture and record all project learning to assist in a future full GB roll out.

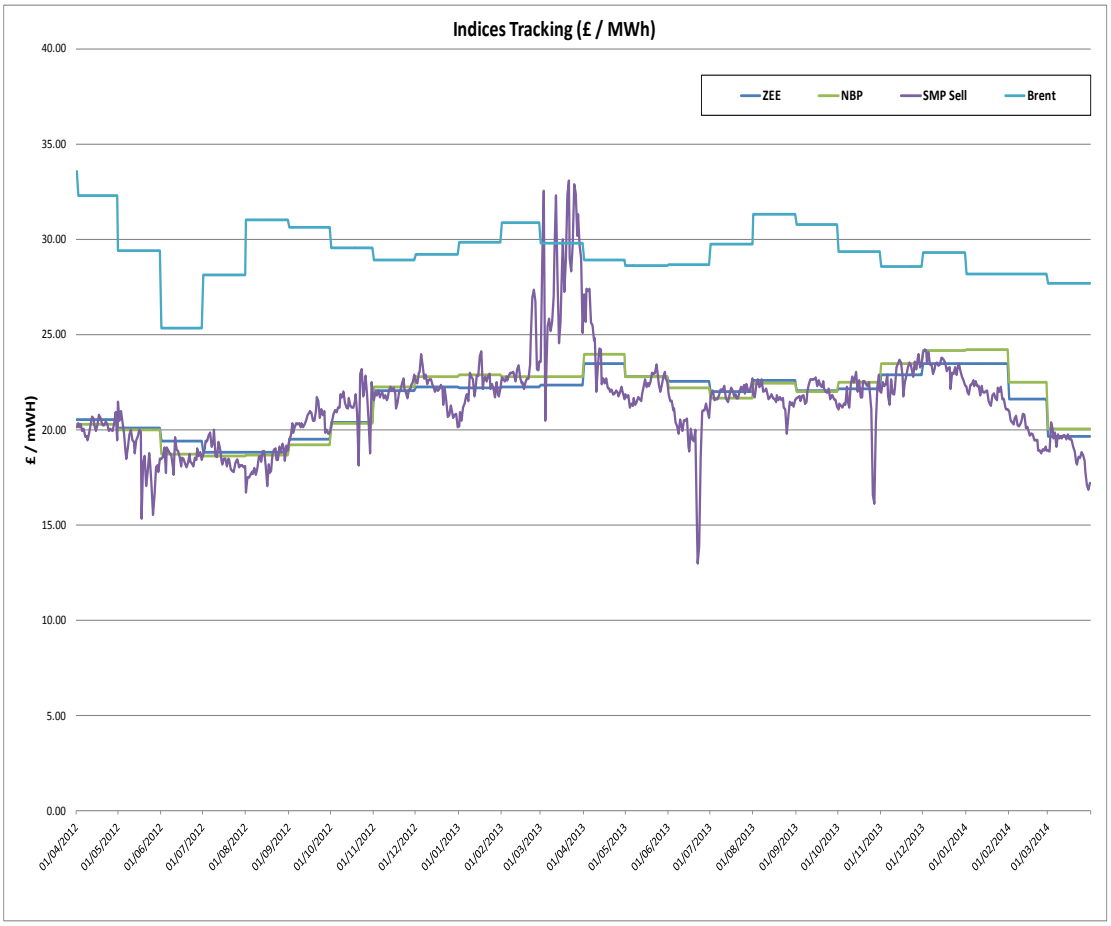
6. Conclusion

The approval of this change request is in the best interests of the project, Ofgem and GB gas consumers as it will allow the project to proceed as planned and deliver the expected learning as detailed in the Full Submission. There is no detrimental impact to customers since there is no increase in the overall cost of the project.

Approval would allow SGN to execute the necessary contracts for the project to continue towards its goals.

7. Appendices

Appendix 1 – Indices Tracking



Appendix 2 – Hedging Natural Gas Price risk

The true cost of the LNG shipping contract will be dependent on three main variables:

- Future Oban Gas Demand;
- Future Zeebrugge Hub Gas Price; and
- Future NBP System Marginal Sell Price.

SGN have estimated each variable based on market trends and analysis. Nevertheless, despite best endeavors to estimate an accurate cost this cannot be taken as price certain mainly due to gas market price volatility. Therefore, an option for a fixed cost contract was discussed with the potential shippers but soon after dismissed on the grounds cost increase with little value.

However, further analysis was carried out by SGN to identify other alternative options to limit the potential fallout from future price spikes. Hedging was considered as a potential option. There are a number of different financial tools which can be used for hedging gas price, each with its own pros and cons.

The various hedging strategies were considered and analysed by an energy trading expert. The recommendation was made not to hedge the LNG shipping contract based on the following:

- The relatively low volume of gas which will be procured
- ZEE and NBP hub closely track each other
- The purchase order for the LNG can be split into quarterly orders

It was concluded that the risk of ZEE price rising significantly above NBP SMPS for an extended period of time is low. This risk could be further mitigated by splitting purchase orders for the LNG into quarterly orders therefore reducing risk of prolonged exposure to high costs.

Appendix 3 – Cost Breakdown of LNG Purchase (COMMERCIALLY SENSITIVE AND NOT FOR PUBLICATION

	A	b	c	d = a - b - c	e	f = c + d + e
	Shipper Cost @ Terminal	Shipper Sale @ NBP SMP Sell	8 Euro Uplift	Spread	Consign ment Fee	Invoice
Jan	£58,476	£0	£16,294	£42,182	£2,957	£61,433
Feb	£107,256	£85,079	£29,727	-£7,551	£5,394	£27,570
Mar	£101,607	£97,338	£27,772	-£23,502	£5,039	£9,309
Apr	£81,500	£63,767	£21,489	-£3,756	£3,899	£21,633
May	£63,545	£47,623	£17,186	-£1,264	£3,119	£19,041
Jun	£42,425	£28,621	£11,557	£2,247	£2,097	£15,901
Jul	£38,019	£28,957	£10,544	-£1,482	£1,913	£10,975
Aug	£40,788	£29,933	£11,057	-£202	£2,006	£12,862
Sep	£50,992	£38,949	£14,126	-£2,083	£2,563	£14,606
Oct	£75,582	£56,364	£20,946	-£1,728	£3,801	£23,019
Nov	£97,207	£74,831	£26,168	-£3,793	£4,748	£27,124
Dec	£135,000	£104,641	£35,865	-£5,506	£6,508	£36,867
Jan	£68,977	£95,456	£18,542	-£45,021	£3,365	-£23,114
Feb	£0	£1,334	0	-£1,334	£0	-£1,334
	£961,374	£752,891	£261,273	-£52,791	£47,408	£255,891

The table above shows a breakdown of LNG cost based on the split between NBP and ZEE prices for 2013/2014. What this means is that had SGN ran the trial in that time period, it would have cost £255,891. This figure may increase or decrease dependent upon weather and likely usage. The same analysis was carried out for 2012/2013 which worked out at £238,032. This shows the variance in possible cost, with a differential of over £17,000. The amount SGN requests for the trial is a conservative figure of £260,000, to ensure sufficient funding should Oban experience a cold winter.

Appendix 4 – Q&A correspondence between SGN & Ofgem

OPENING UP THE GAS MARKET
OFGEM QUESTIONS ON INITIAL CHANGE REQUEST 1 (27.10.2014)
SGN RESPONSE (30.10.2014)

1. In your change request you suggest that the additional money required for the LNG contract can be offset by a reduction in appliance replacement costs. However any reduction in appliance replacement costs was originally planned to be returned to customers. In Section 6.11 of the project Full Submission document it states that "The substantial costs for the project arise from the appliance testing and replacement…..If we need to replace less appliances than what we have budgeted for, and then SGN will return to Ofgem the difference in monies requested." Please explain how this change is still in the best interests of customers although they won't see the savings from the appliance replacement.

We are committed to returning the difference in monies for appliance testing equipment and replacements that is unspent, and maintain that based on the initial appliance survey and laboratory testing results that there is likely to still be a significant sum returned to Ofgem irrespective of the LNG contract costs.
The potential cost benefit for the successful roll out of a change to GSMR is unchanged as is the project budget overall. Therefore the transfer of funds is certainly in customers' best interests as it allows the project to continue progress. At present we are unable to complete with the shipper as the funds to cover the contract costs are not available until this change request is authorised. Without the funds we cannot complete, meaning we cannot ship the gas and thus cannot begin the live injection of gas required under the trial.

2. Can you please explain what the management fee is? In the change request you explain that SGN did not account for the management fee in the full submission. Please explain why the management fee was not accounted for.

The management fee is made up of two parts. The first is the fee per individual Consignment Request representing ENI's (the gas shipper) reasonable costs per load of gas withdrawn at the LNG Terminal (this cost is not for purchase of gas but for loading). The second part is the cost differential between the purchase cost of the gas (c. ZEE hub price + 8€ /Mw) and the realised value at the SMSP (System Marginal Sale Price). A Consignment Request is the request by SGN for LNG to be made available at the Tanker Loading Facility in Zeebrugge.

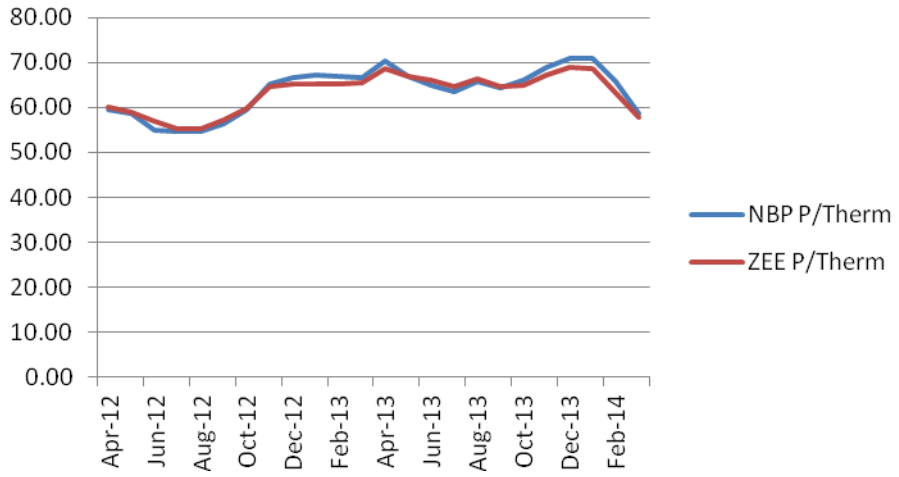
The nature of this contract is unique, and has not been utilised before by SGN (or to our knowledge any other GDN). During SGN's negotiations and discussions with the shippers in preparation for the bid, the management fee was not mentioned until the initial responses were received through the procurement process. Respondents were consistent in their inclusion of this fee in some form or other. SGN had no way of knowing about this management fee at the bid stage, which explains why it was not originally accounted for in the initial budget. In the bid submission, the possibility of such potential increases in the LNG shipper contract cost was highlighted in the Risk Register[8] and the Options for Shipping Arrangements[9] as well as in the Q&A process with

[8] Risk Register is contained at Appendix T in the NIC Submission Pro-forma
[9] Options for Shipping Arrangements are contained at Appendix AA in the NIC Submission Pro-forma

Ofgem[10]. Due to the innovative and unique nature of this project, SGN was not able to base cost estimates on historic data to allow for a detailed analysis into the likely costs at the submission stage. The Risk Register highlights at reference 11 that the commercial arrangements at Zeebrugge are unknown and would become clear at the tendering stage with the shippers.

3. Can you explain why there was no contingency allocated for this portion of the project, as the potential increase in the LNG shipper contract costs was a known risk (as documented in the project risk register)?

Whilst the risk was recognised and registered, due to the unique arrangements there was no benchmark available to support estimation, therefore the costs were based on reasonable estimates and not unquantified figures. The original estimate for the cost of the contract was £15,000 accounting for a balancing fee only, this figure being made up of the potential worst case difference between ZEE and NBP figures across 2,000 tonnes of LNG for one year. The SDRC-1 document provides detailed information on how this original figure was calculated, however in summary - the difference between NBP and ZEE hub was on average ± 2p/therm (see diagram below). In order to supply Oban for one year and balance the risk to the shipper of NBP price falling below ZEE, this equates to circa £15,000. As stated, there was no accurate way of predicting the management fee without reaching an advanced stage of contract negotiations with the potential shippers.



4. Can you please confirm the volume of gas you will be purchasing? And can you please explain how, given the drop in the wholesale price of gas, the cost of purchasing this gas is significantly more than you anticipated?

SGN estimates that circa 2000 tonnes of LNG will require to be purchased, though this figure may vary dependent on the weather conditions. It is important to clarify that SGN will not at any stage own title to the gas. The project is paying the shipper to purchase the LNG and nominate the gas into the network. The cost to the project will be the difference between the price the shipper would pay for the LNG by purchasing the commodity in Zeebrugge from a LNG supplier (c. ZEE price + 8€ /Mw) and the price they achieve at NBP once the gas is nominated into the GB system + a fee. The increase in

[10] Contained in response to Q30 – *"Estimated costs for the haulage and Terminal costs for LNG services from Zeebrugge are based on initial commercial discussions with the third party and can change."*

our anticipated budget is not due to SGN underestimating the cost of gas; it is because SGN did not anticipate a management fee for the shipment, meaning the wholesale price of gas is largely insignificant to the overall cost in this project.

5. Can you explain the difference between what would normally happen with the payment flows (including for customers) for gas entering the system and this situation, given that the gas you buy for the trial will be displacing gas that would have been purchased for the SIUs anyway?

The existing Avonmouth process utilises gas already within the GB gas system owned by GB gas shippers. The supply point exit requirements of gas shippers with registered supply points on the Oban network would be balanced against their national position. If a shipper operating on the Oban network did not have any gas in the GB system they would be balanced 'short' at the end of the gas day and would pay the relevant amount in balancing fees to National Grid. If a shipper had sufficient gas in the GB system regardless of where the gas was physically entered, they would be balanced and meet their Oban requirement.

The Zeebrugge process utilises gas from outside of the GB system with a single gas shipper entering the gas into the GB system. Once this gas is entered into the GB system this shipper's national position would increase by the amount they entered. As with the Avonmouth process, if a shipper operating on the Oban network had sufficient gas in the GB system (wherever it was physically entered) they would be balanced.

Introducing a new source of gas into the GB system does not change the obligation on gas shippers to ensure their exit requirements are met. The additional physical volume of gas in the system from Zeebrugge only changes the manner in which National Grid will manage the system in their system operator role. The gas physically displaced by the Zeebrugge gas remains within the GB system and will meet other exit requirements in a different location. Ultimately shippers may respond to new sources of gas entering the GB system by reducing their gas entry at traditional entry locations.

6. Which shipper has been selected to purchase the gas? We are disappointed that a shipper is not participating as a project partner because if this is successful the GB roll out of the solution could surely benefit shippers. Could you explain why a shipper has not participated as a project partner?

The shipper selected to provide the gas for the project is 'Eni'. Unfortunately, any shipper would be reluctant to participate as a Project Partner as the cost/benefit to them is minimal. Shippers achieve more income from selling their services to a private LNG buyer than from the contract SGN have agreed with them. The considerable time and resource that Eni require to complete the contract with SGN, compared to that of a private buyer, is considerably more, meaning that were SGN to request that the shipper become a Project Partner (and thus provide time and resource, as well as LNG) then they would likely be reluctant to participate at all. It is worth noting on this point that of the 238 shippers to whom SGN submitted an Expression of Interest, only 5 declared an interest, and of those 5, only 2 were willing to accept the conditions in our Heads of Terms.

Appendix 5 – Second Q&A correspondence between SGN & Ofgem

OPENING UP THE GAS MARKET
OFGEM QUESTIONS ON CHANGE REQUEST 1 (19.11.2014)
SGN RESPONSE (15.12.2014)

1. An explanation of the 8€ per MWh uplift charge, and what it covers.

The 8€ per MWh charge is a fee levied by the gas supplier at the LNG terminal in Zeebrugge in order to generate a profit on the sale of LNG from its terminal and to cover the cost of providing a road tanker facility, in terms of running costs, storage and ballasting. The 8€ per MWh charge is in addition to the Zeebrugge hub price for the actual LNG commodity. In relation to the Oban project, the terminal operator in Zeebrugge will charge SGN's gas shipper (ENI) the Zeebrugge hub price + the 8€ uplift. When ENI enter gas into the UK gas system they will achieve a price based on the UK National Balancing Point (NPB) hub price, which has historically been in line with the Zeebrugge hub price. Therefore, ENI would not recoup the 8€ per MWh cost without recharging this amount to SGN.

2. Can you elaborate on the cost benefit analysis case and how the increased costs of procuring non-GS(M)R gas have impacted the CBA?

SGN will not be procuring LNG at any stage during this project. The shipper (ENI) will retain title to the gas throughout the entire process. The costs SGN are funding include haulage, a management fee covering the cost for each individual tanker loading at the Zeebrugge terminal, and a balancing fee which covers the differential between the LNG purchase cost by ENI and the LNG sale value of an equivalent energy content when the LNG is delivered into the Oban network, plus the 8€/MW fee applied by the terminal operator.

The overall saving to Oban customer as a result of this change request has reduced, as a result of the increased cost of the LNG contract. However, there is still a project saving of over £900,000. SGN has provided a separate slide pack to explain the cost flow, however this is summarised below:

- ENI purchases the gas at ZEE hub market price.
- SGN will collect and transport the gas to Oban and pay haulage costs.
- ENI will be paid the SMSP (system marginal sell price) by the market (GB NBP) after the LNG has been regasified and physically flows into Oban network.
- SGN will pay ENI the difference in what they paid for the gas at the ZEE market to what they achieve at GB NBP, plus the 8€/MW charge.
- SGN will pay ENI a management fee for carrying out the nominations process at the Zeebrugge terminal.

The overall saving to GB customers is unaffected by the change request. That is because this saving is based on the removal of LNG ballasting upon arrival in GB to bring the gas within GS(M)R. By removing this cost, the saving per year is projected to be £60m.

Appendix 6 – Email Correspondence between Ofgem & SGN – confirmation of Change Request approach

From: Rhianne Ogilvie [mailto:Rhianne.Ogilvie@ofgem.gov.uk]
Sent: 03 February 2015 17:56
To: Rogers, Jenny; Mcintosh, Angus; McAinsh, Jamie
Cc: Tim Aldridge; Arun Pontin; Dora Guzeleva
Subject: RE: Opening up the gas markets - supporting evidence

Hi Gus,

I just wanted to follow up on our call from last week with a short email.

Thank you for your letter explaining the options you understand could allow the Opening Up the Gas Market project to progress. We have discussed the options and our preference would be for the first option, for SGN to fund the LNG shipping contract until you have injected non-GS(M)R specification gas into the Oban network for a period of one year as proposed. Then once you have achieved this, the cost of the LNG shipping contract would be recovered from the Project Bank Account. If you progress with this option then we expect that you would agree that SDRC 9.1 and SDRC 9.4 have not been met.

Please can you submit your updated change request document and we will review it?

Regards,
Rhianne

Appendix 7 – Written Correspondence between SGN & Ofgem with proposed options for Change Request

11 March 2015

Dear Dora,

Following our call on Thursday 22nd January 2015 regarding the Opening up the Gas Market change request we understand there are two possible options to allow the project to progress:

1. SGN to fund the LNG shipping contract until we have injected non-GS(M)R specification gas into the Oban network for a period of one year as proposed. Once we have achieved this, the cost of the LNG shipping contract would be recovered from the Project Bank Account. We accept this option would mean we concede up to two SDRCs, SDRC 9.1 and perhaps SDRC 9.4, have not been met, reducing the potential reward available under the Successful Delivery Reward mechanism.

2. SGN to contribute a further 5% of the Approved Amount to the cost of the project, £93,290. Permission would be granted for SGN to exceed the Payments to Users budget category total by the balance of the cost of the shipping contract.. This option would mean that the full SDRC reward would still be available, subject to the NIC governance.

I would like to confirm that SGN's preference would be for option 2, but we are satisfied with either option and keen to progress. We need to give sufficient notice to the shipper to procure the gas to allow the project to proceed to the current plan. Assuming we can achieve a way forward within the next week (at least in principle), we can achieve this.

As discussed too, it is important to highlight the significance of the project and the immediate benefits to customers it may now have in light of the recent announcement of the closure of Avonmouth. Following recent discussions with HSE regarding the security of supply to the SIUs, SGN confirmed that a ballasting solution across all four sites will not be achievable in time for the proposed closure of Avonmouth in April 2016 (this is still under consultation). Therefore closure of Avonmouth will likely necessitate the declaration of a gas supply emergency unless we can agree a GS(M)R exemption. It was confirmed with the HSE that the evidence for such an exemption would be based largely on the data produced under the Opening up the Gas Market Project. Availability of results from the one year trial in 2016 may lead to improved security of supply and reduced costs by informing the case for wider roll out of the solution in the other mainland SIUs, as well as Oban.

In summary, the Opening up the Gas Market project has now reached a position where it has gathered the most statistically significant data ever produced in favour of widening the gas quality parameters in GB or indeed Europe. It was agreed with the HSE that if any exemption was to be agreed for all other SIUs, the case would need to build on the evidence already produced in Oban. The Opening up the Gas Market NIC project is now also playing a critical part in determining whether or not an exemption for all the SIUs could be achieved and whether or not it would be in time for the Avonmouth closure. I attached a letter from SGN to the HSE confirming this following our meeting on the 8th of January.

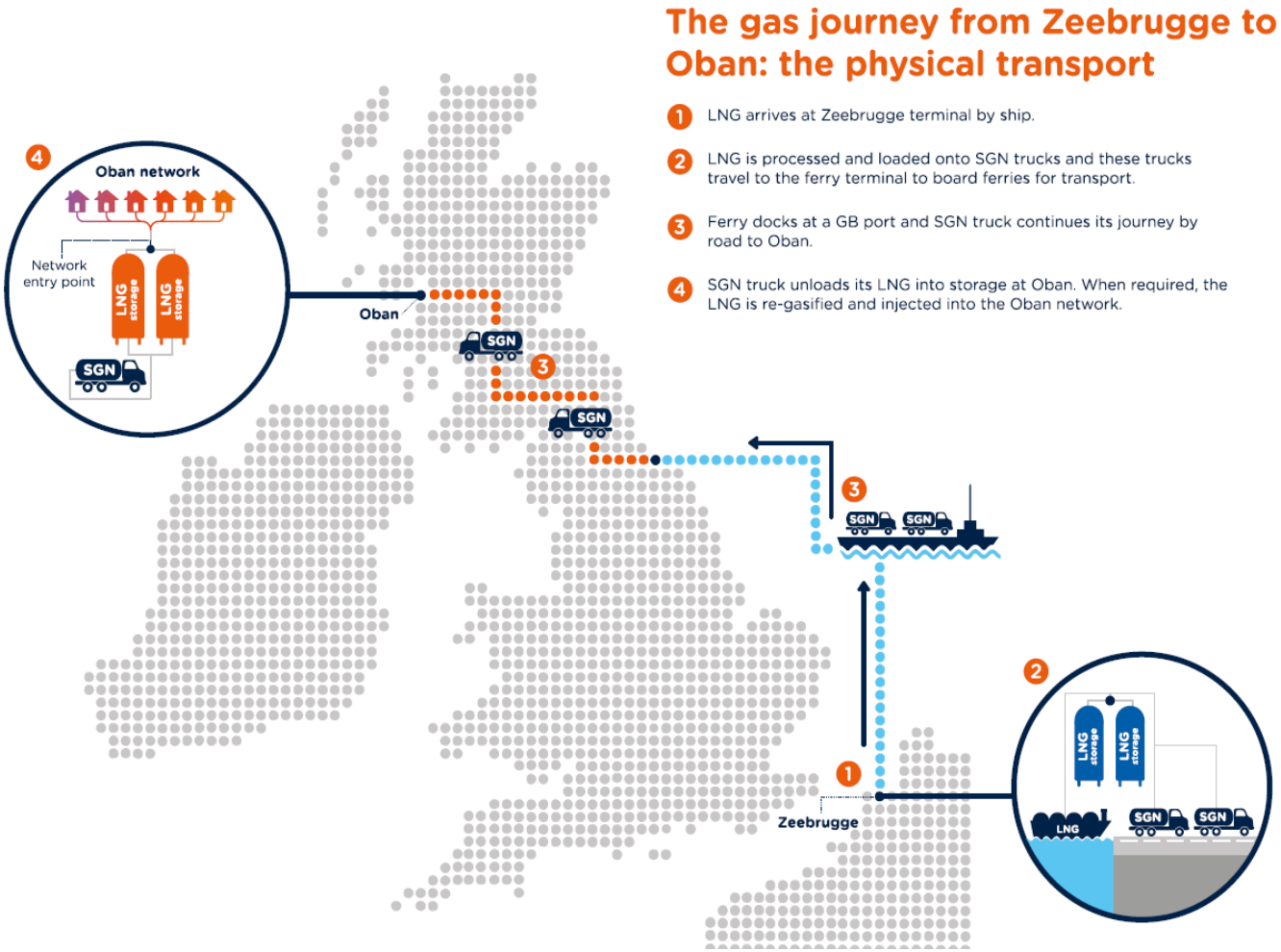
I look forward to your response and agreement of a solution that allows this exciting project to proceed.

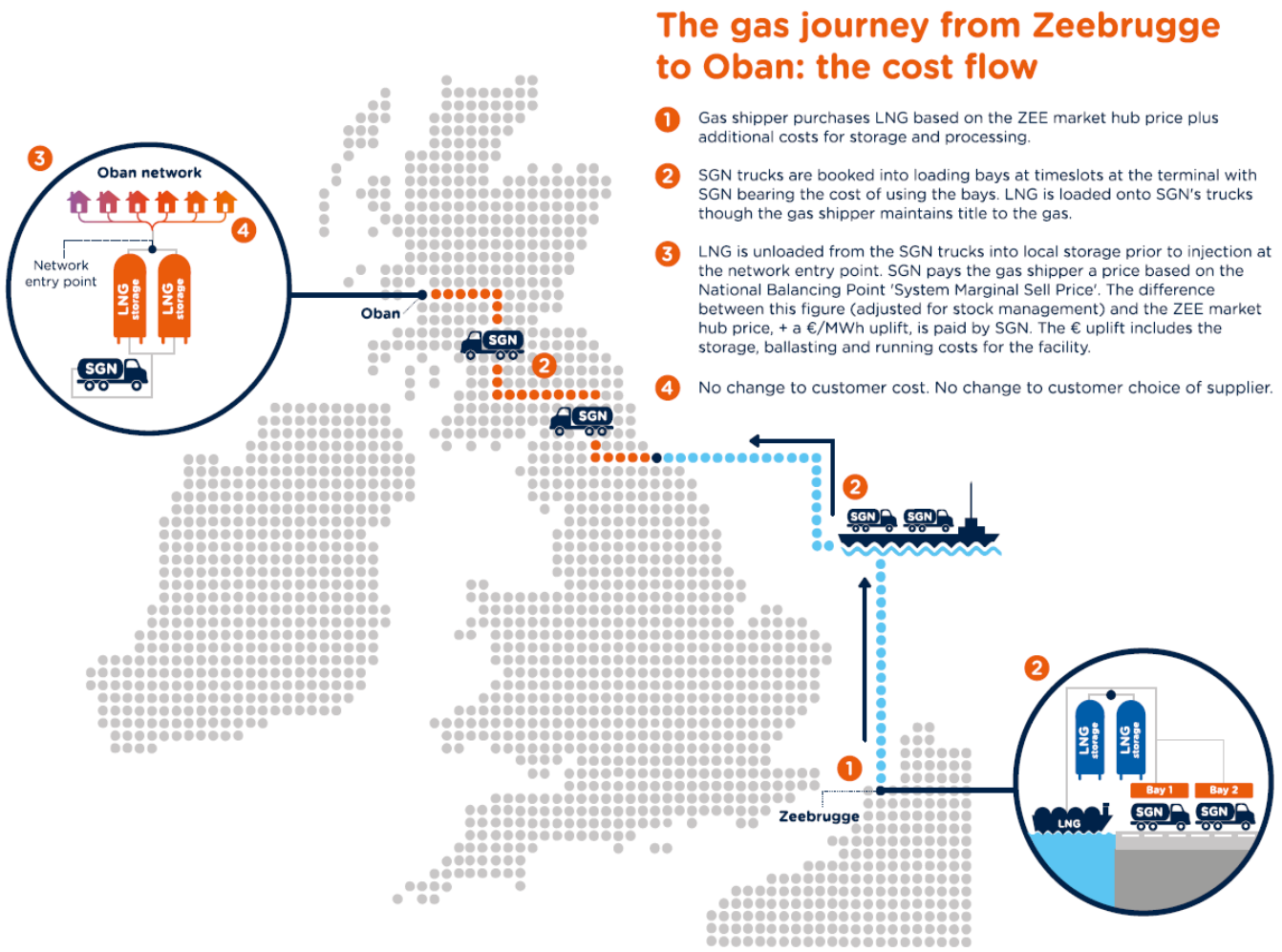
Yours sincerely,

Angus McIntosh

Innovation & New Technology Manager
SGN
01314691823
07966105362

Appendix 8 – Diagrams to represent Physical Transport of LNG and Cost Flow in Stage 3




The gas journey from Zeebrugge to Oban: the cost flow
1 Gas shipper purchases LNG based on the ZEE market hub price plus additional costs for storage and processing.
2 SGN trucks are booked into loading bays at timeslots at the terminal with SGN bearing the cost of using the bays. LNG is loaded onto SGN's trucks though the gas shipper maintains title to the gas.
3 LNG is unloaded from the SGN trucks into local storage prior to injection at the network entry point. SGN pays the gas shipper a price based on the National Balancing Point 'System Marginal Sell Price'. The difference between this figure (adjusted for stock management) and the ZEE market hub price, + a €/MWh uplift, is paid by SGN. The € uplift includes the storage, ballasting and running costs for the facility.
4 No change to customer cost. No change to customer choice of supplier.
Oban network
Network entry point
LNG storage
LNG storage
SGN
Oban
Zeebrugge
Bay 1
Bay 2
LNG

Appendix 9 - Proposed amendment to Project Direction Annex 1: Project Budget

ANNEX 1: PROJECT BUDGET

Cost Category	Cost (£)
Labour	266,000
Equipment	878,000
Contractors	471,000
IT	0.000
IPR Costs	0.000
Travel & Expenses	12,000
Payments to users	260,000
Contingency	0.000
Decommissioning	0.000
Other	235,000
Total	2,122.000