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Dear colleague,

Decision on the ex-post efficiency review of National Grid Gas Transmission's Milford Haven pipeline project

This letter sets out our decision on the ex-post efficiency review ("the review") of National Grid Gas Transmission (NGGT)'s Milford Haven pipeline project.

In July we consulted on the ex-post efficiency review of the Milford Haven pipeline project seeking the views of interested parties in relation to our proposals to not make any adjustment to allowed revenues. The consultation closed on 18 September 2015 and we received one response, which is published on our website[1].

Our decision

Having carefully considered the response to our consultation, the Transmission Price Control Review 4 ("TPCR4") Final Proposals ("FPs"), Special Condition 5A of NGGT's licence and given the particular circumstances[2] of this project, we have decided to maintain our funding arrangements as stated in our TPCR4 FPs. This entails:

a. Maintaining the project's allowance[3] of £908m[4], which comprises the £822m of ex ante allowances and the £86m of 'logged up costs, as set in our TPCR4 FPs. This means that the £86m are excluded from the project's overspend and the operation of the capital expenditure (capex) incentive regime set at TPCR4[5]. Hence, they are included in the Regulatory Asset Value (RAV)[6] from 1 April 2012;

b. Applying the capex incentive regime to the overspend above £908m. Hence, NGGT's project revenues are reduced by £71m[7];

Furthermore, NGGT's RAV is increased by £4.5m to reflect critical national infrastructure ("CNI") costs related to the Milford Haven pipeline project[8] logged up by NGGT.

Background

[1] https://www.ofgem.gov.uk/publications-and-updates/consultation-ex-post-efficiency-review-nggt-s-milford-haven-pipeline-project
[2] At the time of construction, the project was seen as critical to maintaining gas security of supply and NGGT was under pressure to deliver the project against tight timescale.
[3] As said at TPCR4 FPs we reserved the option to disallow costs from entering the RAV if they were demonstrably inefficient or unnecessary.
[4] Unless stated differently, all figures are reported in 2009/10 prices.
[5] This means that NGGT bears 25% of any overspend and the remaining 75% is borne by consumers.
[6] This includes also an allowance for financing costs and depreciation incurred during the period of logging-up.
[7] This reduction was made in the TPCR4 Rollover in 2012/13.
[8] Please refer to NGGT's response published in our site.

The Milford Haven pipeline project is the UK's largest new high-pressure gas pipeline and its construction has spanned over a number of years. The works involved installing significant assets including:

- 320km of new 1200mm diameter pipeline;
- A new compressor station (at Felindre) and new units plus modifications at two existing compressor stations (at Wormington and Churchover);
- Two major Pressure Reduction Installations (PRI) at Cilfrew and Tirley; and
- A smaller PRI in one of the pipeline sections.

TPCR4 FPs

In 2006, ahead of the TPCR4 FPs[9], NGGT submitted a revised cost forecast for the Milford Haven pipeline project. This forecast represented an increase of £86m against the previous projection of £822m. Due to the late provision of the information, it was not possible to interrogate these revised cost estimates in an appropriate manner.

Hence, in our TPCR4 FPs we indicated that we would rely on ex-post efficiency reviews to determine what should be counted as efficient and economic spend[10]. More specifically, we set the project's allowance at £908m. This comprised the £822m of ex ante allowances and £86m of 'logged up costs' and we proposed to:

a. Ring-fence the additional logged up costs of £86m and, subject to an efficiency assessment, ignore the implied overspend from the operation of the capital expenditure (capex) incentive and include it in the Regulatory Asset Value (RAV) from 1 April 2012[11];
b. Apply the capex incentive regime to any expenditure above the £908m, which means that NGGT would bear 25% of any overspend, whereas the remaining 75% is borne by the consumer; and
c. Place significant emphasis on our ex-post efficiency review of costs and volumes to determine efficient and economic spend.

Project's financial status

The project was subject to delays and was finally completed in 2012/13. The total project costs reached £1.15bn[12], exceeding the TPCR4 allowed costs by £241m[13].

In line with our TPCR4 Final Proposals, we decided in our TPCR4 Rollover[14] Final Proposals in 2011 to provisionally include the £86m in NGGT's TO RAV in 2012-13. The TPCR4 overspend was included in the RAV following the application of the TPCR4 capex incentive mechanism[15]. As a result:

- NGGT has received full funding for return and depreciation for these two elements of the project's costs;

[9] For more information please refer to our TPCR4 Final Proposals (https://www.ofgem.gov.uk/ofgem-publications/56158/16342-20061201tpcr-final-proposalsinv71-6-final.pdf)
[10] Please refer to paragraphs 7.20-7.25 of our TPCR4 Final Proposals (https://www.ofgem.gov.uk/ofgem-publications/56158/16342-20061201tpcr-final-proposalsinv71-6-final.pdf).
[11] This included an allowance for financing costs and depreciation incurred during the period of logging-up.
[12] In RIIO-T1 NGGT was allowed a further £6m for the pipeline's ongoing environmental monitoring and aftercare until 2019 to meet environmental requirements. This amount is not included in the overspend.
[13] The £241m total overspend on Milford Haven was notified to us by NGGT through the annual reporting process and consisted of £21m overspend in TPCR3 and £225m overspend in TPCR4.
[14] The TPCR4 Rollover was a one year extension of the TPCR4 period prior to the implementation of the RIIO-T1 framework in April 2013.
[15] The calculations are explained in more detail within Chapter 11 of the GT1 Price Control Financial Handbook (https://www.ofgem.gov.uk/sites/default/files/docs/2014/11/gt1_handbook_-_v1.3_final_without_mark_up_0.pdf)

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- NGGT's allowances are reduced by £71m[16] by the application of the capex incentive mechanism to the TPCR4 overspend.

Our assessment of the Milford Haven pipeline project

In the past 2 years we engaged with NGGT to undertake the ex post efficiency review. This involved appointing Financial auditors and Engineering consultants to review relevant project evidence and help inform our review.

Initial Findings of our review

Our review identified that NGGT utilised resources in order to deliver the project in a timely manner. This related primarily to the attention paid to delivery of the capacity obligations. This meant that NGGT made decisions such as including additional tenders, accelerating works and utilising a mix of cost reimbursable and target cost contracts[17] to deliver the works.

However, not all decisions appeared to be accompanied by comprehensive justification and NGGT did not utilise all of the contractors at their disposal, as it considered that those already employed could deliver the project.

External factors, such as wet weather, protestor action and difficulties in getting the relevant consents from local authorities for the project works influenced the delivery of the project by increasing project costs and causing delays.

A potentially different route on one of the pipeline sections could have resulted in lower costs.

Impact of findings

The consequences of these findings in our view, suggested that project costs increased above NGGT's own initial sanctioned values in all areas of works, including the three pipeline sections and the compressor station works.

Also, the contracting strategy meant that NGGT's ability to control the escalation of costs[18] was limited, especially in the cost reimbursable contracts[19]. The reason is that some risks[20] and their impact were not acknowledged adequately. As a result, the contracts in place could not sufficiently mitigate the impact of the risks on the costs. Hence, the escalation of project costs was more prevalent in those contracts, once risks materialised.

Additionally, employing a higher number of contractors would have reduced the strain on the resources of those already involved in the works. Hence, if the workload was spread more widely and delivered by more contractors, then costs may have been lower. The financial impact of this was higher in the contracts that lacked financial incentives for the contractors.

Furthermore, the information submitted showed that some decisions made during the project's execution, e.g. related to contracting strategy, would have been different in hindsight.

[16] The £71m capex incentive deduction is calculated as per Special Condition C8B of NGGT's licence as it then was.
[17] Other options could have been target cost and lump sum contracts.
[18] The escalation is measured by comparing the final project cost to the estimated value by NGGT for the individual contracts.
[19] For more information please refer to our Engineering Consultants' report published on our website (https://www.ofgem.gov.uk/publications-and-updates/consultation-ex-post-efficiency-review-nggt-s-milford-haven-pipeline-project)
[20] Such as the level of rainfall and events causing delays.

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Overall, our review indicated that project costs of up to £200m could have been avoided in hindsight. However, any further certainty of avoided costs wasn't considered possible for reasons including that the overspend was spread across all contracts. Also, different factors contributed to the overspend across the various contracts. Moreover, the cost reimbursable contracts did not allow us to determine specific savings and estimations are made using benchmarks from other contracts.

Our consultation

Our minded to consultation was in accordance with the funding arrangements for the Milford Haven pipeline project as stated in our TPCR4 Final Proposals and in light of the above findings. Hence, we consulted to:

- Make no adjustments to the £86m of logged up costs and they will be maintained in the RAV;
- Re-affirm the application of the capex incentive mechanism to the TPCR4 overspend.

Applying the capex incentive mechanism achieves the benefit of protecting consumers from high levels of overspend, while incentivising the efficient delivery of high capex projects. Also, applying the mechanism in the way set in TPCR4 preserves regulatory certainty.

Also, it would not be appropriate to increase NGGT's allowed revenues, given the findings of our review that there was some scope for NGGT to have delivered the project more cheaply. Equally, given the particular circumstances at the project and the difficulty in judging these issues with hindsight, we haven't identified costs that were demonstrably inefficient or unnecessary that would warrant disallowing either the 'logged up costs' or TPCR4 overspend.

Summary of NGGT's consultation response

We received one response from NGGT to our consultation[21]. In their response NGGT welcomed the fact that Ofgem had not identified demonstrably inefficient or unnecessary costs. They disagreed that £200m could have been avoided in hindsight, focussing in particular on the points in the consultants' report around the choice of route and contracting strategy. They suggested that it would be appropriate to further increase the project's efficient expenditure allowances because of the project's exceptionally challenging circumstances, i.e. weather, protestors and onerous consenting. They also provided additional information in relation to reclassified costs and their treatment through the capex incentive mechanism.

More specifically, in response to our suggestion that £200m of project costs could have been avoided, NGGT stated that the route selection process was thorough and had explored various options and considered technical, economical and environmental aspects. They added that the route was discussed at length at the time with relevant stakeholders, including Ofgem. Hence, NGGT considered our consultants' approach to be simplistic and questioned whether the different route would have delivered capacity in the time required.

Also, NGGT stated that their contracting strategy was a robust one. Furthermore, NGGT reiterated the point that the higher costs were attributable to the:

- difficult landscape, especially for sections of the pipeline;

[21] NGGT's response is published on our website (https://www.ofgem.gov.uk/publications-and-updates/consultation-ex-post-efficiency-review-nggt-s-milford-haven-pipeline-project)

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- extreme wet weather which impacted the programme of works;
- protestor action which required specific mitigation measures.

To support this, NGGT made reference to a report that engineering consultants[22] provided to Ofgem in 2005 relating to the MH pipeline project costs. NGGT's response included elements from this report to support their arguments.

Reasons for our decision

We considered NGGT's response and we acknowledge that some of the points made have merit, eg on the practicalities of identifying an alternative routing by our consultants and the reclassified costs.

However, NGGT has not provided us with sufficient evidence to support their view that project costs couldn't have been lower. We reiterate that our aim in highlighting the issues identified in our review was not to suggest that there were demonstrable inefficient costs. These issues were cited, because there were questions about the efficiency of particular aspects. In order to increase NGGT's allowances retrospectively and to depart from the TPCR4 framework we would have needed robust evidence that the additional costs incurred were efficient.

In our view NGGT's response does not provide evidence to support that the choice of contracts was optimal for the execution of the works, or the criteria used for the contract types chosen to deliver the works.

Also, the response in relation to the contracting strategy contradicts NGGT'S own previous assessments of how the structure of contracts impacts on project costs, especially for "cost reimbursable" contracts. Similarly, the impact of events, such as wet weather and protestors, on the project's costs was not quantified. Additionally, the response failed to address other points in the consultation report eg on missing paperwork.

In terms of the response on reclassified costs, we acknowledge that:

a. NGGT's RAV should be increased by £4.5m. This reflects CNI costs that were logged up by NGGT. As these were driven by a requirement placed on NGGT during the project's execution, these are not part of the overspend;
b. Other reclassified costs were treated through the capex incentive in the TPCR4 Roll-over. Hence, no further treatment through the capex incentive is required.

Therefore, we do not intend to depart from our minded to position and maintain the reduction of £71m undertaken in the TPCR4 Rollover Final Proposals in 2012/13.

This decision concludes an issue that has been pending since RIIO-T1 and provides regulatory certainty over NGGT's business. It also marks the completion of a major energy infrastructure investment and protects consumers from high levels of overspend.

Yours sincerely,

Paul Branston
Associate Partner, Gas Networks

[22] Ofgem employed Penspen to provide it with a report on the Milford Haven project costs in 2005. Please refer to https://www.ofgem.gov.uk/ofgem-publications/56365/13517-6306b.pdf