

ROUGH GAS STORAGE UNDERTAKINGS REVIEW

Summary of hearing with Centrica Storage Limited (CSL) on 19 January 2016

Background to the current MAASP issue

1. CSL explained the background to the current reduction in the maximum operating pressure at Rough to 3,000psi.
2. CSL said that in 2009 it had decided to raise the pressure of Rough to 3,500psi in order to increase Incremental Capacity. To ensure that Rough could operate at these pressures, CSL had invested in improving the platform pipework (top-sides) and wells.
3. CSL explained that sometime in the mid- to late-2000s, the well integrity specialism was growing, and that the main concern these experts had identified in well integrity was the need to ensure a consistent approach to safety throughout the wells' lifetimes. Certain experts in the specialism had begun to identify that best practice was to ensure that a well's secondary envelope (or A-annuli) was rated to above the pressures that were being operated in the well's production tubing. This approach would ensure that each well had two full barriers to any escape of oil and gas.
4. CSL told us that over time, this view became a growing consensus – with companies adopting the approach at different times. CSL said that it was not aware that the view had been adopted in any guidelines but that it had just become the status quo amongst offshore operators.¹ CSL had also adopted this view in March 2015 when it received the Well Integrity Review, which raised a concern that the A-annuli MAASPs were rated to below the levels operated in the Rough wells. On receipt of this report, CSL took the decision to reduce Rough's operating pressure to 3,000psi and test the A-annuli MAASPs.
5. CSL provided some explanation as to why CSL had not adopted this view between 2009 and 2015. It explained that from the early 2000s to September

¹ CSL told us that the legislation that regulates the safe operation of offshore installations is the Health & Safety Executive's (HSE) 1996 Design and Construction Regulations. Additionally there is an HSE Guideline, the Well Construction Standards, which to an extent interprets the Regulations.

2009, it had used an internal engineer and consultants to maintain the Rough wells. In 2009 Centrica had bought a company which included an in-house well maintenance team, while the internal engineer and consultants continued to provide ongoing advice as well as the yearly independent Well Integrity Review. CSL indicated that prior to its appointment of a new Wells Examiner there was a focus on day-to-day issues with the wells, and so the broader issue of the Rough well MAASPs being rated below the Rough operating pressure, was not highlighted. CSL had hired the new examiner for a number of contractual and practical reasons, as well as the fact that he was renowned in the industry. Whilst the previous examiner had recognised isolated issues with the MAASP ratings, the new examiner was the first to identify the more fundamental risk that led to the reduction in pressure in 2015.

Current well testing

6. CSL gave an update on the current annuli testing. [✂]
7. [✂]
8. CSL said that it aimed to finish testing before the start of the production season (autumn 2016), but that the progress of testing would be partly contingent on external factors (e.g. weather conditions).
9. CSL did not think that operating Rough at 3,500psi between 2009 and 2015 had led substantially to the depreciation of the asset. CSL said that it could be argued that the top-sides were in a better condition than they would have been had the pressure been kept at the pre-2009 level, because of the investment made in 2009 to improve the piping.

Rough's future capacity

10. CSL explained that it was conducting feasibility studies to gauge the possibility of increasing Rough's capacity to above historic levels. [✂]

Ageing and Rough's likelihood to become more unpredictable as it ages

11. CSL said that Rough was an ageing asset, which had outlasted its original design life. Rough's wells were up to 40 years old, while the design life was originally specified as 25 years. CSL said that the process of ageing increased the operational risks of the asset due to certain uncontrollable processes such as the effects of corrosion.

12. CSL said that Rough was ageing relatively quickly, due to the harmful effects of the aggressive marine environment, and Rough's annual operating pressure cycle. CSL explained that given these factors, the reliability of Rough was likely to get worse.
13. CSL offered some specific evidence of Rough's likelihood to become more unpredictable as it ages.
 - (a) CSL said that the number of REMIT events which affected capacity had been increasing. It said that this indicated an increase in the number of unplanned capacity outages. This resulted in it needing to buy gas from the market more often, in order to meet customer nominations and an increase in the capacity CSL had to buy back from customers. CSL clarified that its contracts allowed it to nominate a number of cancellation days each year, but that it had to give the market a day's notice prior to calling a cancellation day. CSL said that the number of cancellation days it calls impacts on the value of its products.
 - (b) CSL provided data which showed a trend of cancellation days increasing over time.
 - (c) CSL explained that preventative maintenance could not always protect against the increasing frequency of unexpected issues. It gave the example of painting pipework, which is a form of preventative maintenance and deals with gradual ageing, but which would not protect against isolated corrosion spots.
 - (d) CSL said that routine maintenance and unexpected maintenance were rising.
 - (e) CSL said it had recently suspended production on its 8A platform. [REDACTED]. It explained that the 8A platform was 10 years older than the larger 3B platform, and so it would be a reasonable assumption that in ten years' time, 3B could be in a similar condition and in need of maintenance that could affect Rough's capacity.
14. CSL explained that in 2014 the reliability at Rough was 96%² which meant that on 96% of days, CSL could meet customer contracts. CSL said that they could meet customer entitlements under their contracts, through Rough's capacity (i.e. without going into the gas market to meet customer nominations) around [REDACTED] of the time.

² In Centrica's 2014 Annual Report and Accounts.

Investment and Maintenance

15. Since 2003, CSL had invested heavily in Rough and these investments had increased Rough's capacity. The average maintenance spend had been in the region of [redacted] to [redacted] per annum and CSL expected to spend an average of [redacted] per year over the following three years.
16. CSL said it expected Rough's risk profile to increase, and that it would face increasing costs of repairing and investing in Rough, in order to maintain the asset and to maintain operations at the obliged levels.
17. CSL said that when Rough was purchased in 2003, it acknowledged that the facility was already relatively old, but that the amount of maintenance which had been carried out since 2003 far exceeded its maintenance expectations in 2003. CSL was conducting ongoing full programmes of maintenance and was aware of the need to assure the long-term asset integrity given its intention to keep Rough operational until [redacted].
18. CSL would always carry out maintenance that was essential for safety and maintenance in order to be legally compliant. CSL said that additional expenditure on discretionary maintenance could be sacrificed if there were budgetary constraints.
19. CSL explained that it was constrained by non-financial factors as regards the amount of maintenance it could carry out each year.
 - (a) Unfavourable weather conditions limited maintenance opportunities, regardless of how much capital could be invested.
 - (b) Rough only had accommodation for a limited number of maintenance workers at any one time.
 - (c) Some maintenance would require CSL to take the platforms at Rough offline which would reduce the capacity available. CSL said it is constrained in its ability to do this by its obligations in the undertakings and its delivery obligations.

Case for varying the undertakings

20. CSL told us that when it accepted the undertaking to offer the Obligated Capacity in 2003, the Obligated Capacity was not fully physically backed by Rough. At the time CSL had accepted that it would need to participate in the wholesale gas market in order to satisfy its capacity obligations.

21. CSL explained that when it acquired Rough in 2003, there was a mismatch between what the previous owners, Dynegy, offered for sale and the physical capabilities of Rough. At the time Centrica did not feel there was any justification in suggesting that Rough should operate a different manner. The assumption was that Centrica should be able to operate in the same way as Dynegy had operated the facility.
22. CSL said that whilst it could go into the market to comply with the existing undertakings, the financial commercial risk profile associated with operating Rough had changed greatly since 2003. CSL said that in addition to the increased costs associated with Rough's rising risk profile, CSL's financial exposure has increased significantly in recent years due to challenging market conditions.
23. CSL said that in the light of these factors, the risks associated with complying with the obligation to offer a fixed volume of capacity have increased, and were no longer appropriate.
24. CSL said that, for this reason, a variation to the undertakings was needed and proposed an adjustment mechanism for the undertakings, which would allow CSL's obligations to be aligned to the reality of the physical capabilities of Rough as well as the economic environment.

The operation of CSL's proposed adjustment mechanism

25. CSL explained that it had asked the CMA to agree a mechanism such that the allocation of the Obligated Capacity between SBUs and Additional Space matched the changed physical capabilities of Rough.
26. CSL said that if Obligated Capacity was altered it may be appropriate for the Specified Capacity, to be altered proportionately.
27. CSL said that to maintain an incentive for CSL to invest in increasing Rough's capacity, Centrica Group should be restricted in its ability to purchase capacity up to a historical level. It considered this historic baseline should be set such that investment was incentivised.
28. CSL said that it intended for the mechanism to be triggered in response to an actual physical change. CSL envisaged that either CSL or the CMA would be able to trigger the mechanism.
29. CSL said that the mechanism it had proposed was designed to be triggered in response to events that affected capacity in the next storage year. Events that affected capacity during the storage year, would be managed by CSL through contractual mechanisms and market mechanisms.

30. CSL said it envisaged the mechanism being triggered by a “substantial” change in Rough’s physical capabilities. It explained that a change would be deemed substantial, if it meant that the undertakings were no longer capable of being fulfilled using Rough's physical capabilities. This could be a change in Rough’s physical space, withdrawal, and/or injection capabilities.
31. CSL did not rule out the possibility that it may wish to voluntarily offer for sale capacity above Rough’s capabilities, but said it did not want to be forced to take on that risk and exposure, which had been the situation with the current inflexible undertakings.
32. CSL explained that whilst Rough’s ageing would increase the likelihood of events occurring that reduced Rough’s capabilities, triggering the adjustment mechanism should not be restricted to events caused by ageing. CSL said that an event unrelated to ageing, that affected Rough’s ability to comply with the undertakings would be grounds for triggering the mechanism. CSL gave an example of a recent risk, where a large cargo vessel had lost power during a severe storm and was dragging an anchor towards Rough’s pipeline. CSL explained that if the anchor had damaged the pipeline, Rough could have been put offline for six to seven months, with impacts across more than the current Storage Year.
33. CSL said that the current MAASP issue, was indicative of the type of change in circumstance that should trigger the adjustment mechanism.
34. CSL said that the physical capabilities of Rough were objectively verifiable. In order to demonstrate the level of capacity in any given year, CSL would include an assurance as to Rough's physical capabilities in the preceding twelve months as part of the annual undertakings compliance report. CSL said that if there was a change in Rough's physical capabilities, it would be in CSL's interests to alert the CMA as soon as possible.
35. CSL appreciated that, in light of a hypothetical event that affected capacity, there may be uncertainty over how long that effect would persist. It said that it could get an independent third party to verify the expected magnitude, cause and duration of the event. CSL would also fully cooperate should the CMA require verification that CSL’s work programme developed to fix that issue was reasonable. CSL also said that if Rough returned to capacity earlier than expected, it would inform the CMA directly, and the market through its REMIT requirements.
36. CSL would, if deemed necessary, submit third-party verified evidence as to the nature, cause and extent of any change, and how that change could be reflected in the allocation between SBUs and Additional Space. On this

evidence, CSL would ask the CMA to either implement a change of undertakings or reject the evidence.

37. On triggering the adjustment mechanism, CSL proposed publishing a non-confidential summary of the reasons for the application, which would enable the CMA to run a market consultation.
38. CSL said that the adjustment mechanism it proposed would respect the principles underpinning the undertakings, including CSL's general obligation to make all technically available capacity available to the market on a non-discriminatory basis. Additionally CSL were fully committed to the obligation to maximise the capacity of Rough available to the market.

Annual and multi-year contracts

39. [✂]
40. CSL said that there might be an issue where it would not be able to sell 20% of its contracts on annual contracts in years where the Obligated Capacity is varied down. CSL did not feel that this necessarily affected negatively its smaller customers, who were more likely to buy on annual contracts, because CSL could package up any Additional Space, injection and withdrawal in such a way that it is attractive to all market participants.
41. [✂]

Contract changes

42. CSL acknowledged that contract variation had a part to play in better matching the physical capabilities of Rough to the products that CSL sells. However it was initially preferable to apply for a variation of the undertakings, due to the difficulty of amending the contracts of long-term customers and the need to develop new IT systems to handle new contracts. CSL said that it would take around two years to bring new products to market.
43. CSL said that prior to the MAASP issue arising, it had been designing new products, but that it had put the process on hold, when it was made aware of the MAASP issue.
44. CSL said that varying the products and/or contracts, would not necessarily address the issue that an SBU does not match Rough's physical capabilities, because the format of the SBU was defined in the undertakings.

Compliance and monitoring

45. CSL agreed to submit proposals for streamlining the monitoring and compliance requirements in the undertakings.